

THE CAMBRIDGE
HISTORY OF

WAR
VOLUME II
War and the Medieval World

EDITED BY
ANNE CURRY AND
DAVID A. GRAFF

THE CAMBRIDGE HISTORY OF WAR

Volume II of *The Cambridge History of War* covers what in Europe is commonly called “the Middle Ages.” It includes all of the well-known themes of European warfare, from the migrations of the Germanic peoples and the Vikings through the Reconquista, the Crusades and the age of chivalry, to the development of state-controlled gunpowder-using armies and the urban militias of the later Middle Ages; yet its scope is world-wide, ranging across Eurasia and the Americas to trace the interregional connections formed by the great Arab conquests and the expansion of Islam, the migrations of horse nomads such as the Avars and the Turks, the formation of the vast Mongol empire, and the spread of new technologies – including gunpowder and the earliest firearms – by land and sea.

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HISTORY OF WAR

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Contents

List of illustrations page viii

List of Maps x

Notes on contributors xi

Introduction to volume II 1

ANNE CURRY AND DAVID A. GRAFF

PART I

FOUNDATIONS, c.600–1000 CE 15

1. The early Islamic empire and the introduction of military slavery 17

MATTHEW S. GORDON

2. The Western European kingdoms, 600–1000 50

GUY HALSALL

3. The Scandinavian world 83

ANTHONY PERRON

4. Byzantium to the twelfth century 107

JOHN HALDON

5. The Slavs, Avars, and Hungarians 133

MARTYN RADY

6. The Turks and the other peoples of the Eurasian steppes to 1175 151

ÉTIENNE DE LA VAISSIÈRE

Contents

7. China: the Tang, 600–900 181

DAVID A. GRAFF

8. Japan to 1200 211

KARL FRIDAY

PART II

INTERACTIONS, c.1000–1300 CE 241

9. Europe, 1000–1300 243

DAVID CROUCH

10. Crusaders and settlers in the East, 1096–1291: Christian attack,
Muslim response 266

JOHN FRANCE

11. The Mongol empire 297

ROMAN HAUTALA

12. China, 900–1400 322

PETER LORGE

PART III

NATIONS AND FORMATIONS, c.1300–1500 CE 347

13. Western Europe, 1300–1500 349

ANNE CURRY

14. Warfare and Italian states, 1300–1500 389

WILLIAM CAFERRO

15. The reconquest and the Spanish monarchies 409

DONALD J. KAGAY

16. The Byzantine empire and the Balkans, 1204–1453 429

MARK C. BARTUSIS

Contents

17. Ottoman expansion and military power, 1300–1453 449

GÁBOR ÁGOSTON

18. India, c.1200–c.1500 470

PHILLIP B. WAGONER

19. Southeast Asia, 1300–1540 507

MICHAEL W. CHARNEY

20. Japan, 1200–1550 523

THOMAS D. CONLAN

21. The Americas 554

RUBÉN G. MENDOZA

PART IV

COMPARISONS: CROSS-CULTURAL ANALYSIS 613

22. Justifications, theories, and customs of war 615

STEPHEN MORILLO

23. Land technologies 640

KELLY DEVRIES

24. Maritime technologies 662

JOHN H. PRYOR

Select bibliography 683

Index 720

Illustrations

1. Folio 1 recto of the *Hungarian Illuminated Chronicle* (*Képes Krónika*).
National Library of Hungary (National Széchenyi Library)
MSS Clmae 404. page 150
2. The Courtrai chest. Image courtesy of the Warden
and Scholars of New College, Oxford/Bridgeman Images. 368
3. Khmer army on the march, depicted on Bayon, Angkor Wat.
Photograph © 2012 Michael Charney. 513
4. Khmer army in battle, depicted on Bayon, Angkor Wat.
Photograph © 2012 Michael Charney. 516
5. A three-barreled “fire arrow” (*hiya*) from Okinawa.
Photograph used by permission of the Okinawa Prefectural
Museum and Art Museum. 546
6. Depiction of the abandoned ninth-century Classic Maya
acropolis complex of *Yax Mutal* or Tikal, Guatemala.
Photograph © 2008 Rubén G. Mendoza. 559
7. Monumental depictions of slain war captives from the Middle
Formative site of Monte Albán, Oaxaca, Mexico. Photograph
© 2014 Rubén G. Mendoza. 567
8. Reproduction of the principal battle scene from the Late Classic
seventh-century Maya murals of Bonampak, Chiapas, Mexico.
Photograph © 2017 Rubén G. Mendoza. 571
9. Shock weapons of the Americas. Illustrations courtesy Madeline
Rapella, 2018. 573
10. Mexica Aztec warriors. After Kurt Ross, *Codex Mendoza:
Aztec Manuscript* (Barcelona, Miller Graphics, 1978), pp. 104–5,
with revisions by Madeline Rapella, 2018. 574
11. Tlaxcallan warriors. Photograph © 2017 Rubén G. Mendoza. 578

12. Middle Horizon Moche battlefield scene. After Donna McClelland, DOAKS, Moche Archive, Drawing 116, by Madeline Rapella, 2018. 588
13. Peruvian sling weapons; Mexica Aztec *atlatl* dart thrower; and obsidian-edged *tepoztōpilli* wooden polearm. Illustrations courtesy of Madeline Rapella, 2018. 590
14. Inca war litter. The Royal Danish Library, GKS 2232 kvart: Felipe Guaman Poma de Ayala, *Nueva corónica y buen gobierno* (1615), Dibujo 131. Las andas del Ynga de color rojo, *pillku rampa*, para la Guerra 333 [335]. 593
15. Inca siege of *pucara* or fortress. The Royal Danish Library, GKS 2232 kvart: Felipe Guaman Poma de Ayala, *Nueva corónica y buen gobierno* (1615), Dibujo 57. El séptimo capitán, Maytac Ynga 155 [157]. 596
16. Cliff Palace, an Ancestral Pueblo settlement. Photograph © 2017 Rubén G. Mendoza. 604
17. Gokstad ship, Viking Ship Museum, Oslo. Omar Marques/Anadolu Agency via Getty Images. 665
18. Buss with warriors. MS Marlay Add 1 folio 86r. Illuminated manuscript image. © The Fitzwilliam Museum, Cambridge. 668
19. Reconstruction of a bireme *dromōn* of the tenth century. © 2006 John H. Pryor. 672
20. Bireme *galea*. Burgerbibliothek Bern, Cod. 120, f. 119r. Photograph: Codices Electronici AG, www.e-codices.ch. 673
21. Venetian trireme light galley *alla sensile*. Hulton Fine Art Collection. Leemage/UIG via Getty Images. 675
22. The fleet of Thomas the Slav destroyed by Greek Fire. From the Madrid Skylitzes manuscript, collection of the Biblioteca Nacional, Madrid. Hulton Archive/Stringer via Getty Images. 680

Maps

1. The expansion of Islam in the east	<i>page</i> 33
2. The expansion of Islam in the west	34
3. The ‘Abbāsid empire in c.800	44
4. The Byzantine world c.1025	117
5. <i>Themata</i> and ducates c.1050	129
6. Central and Eastern Europe in the early ninth century	143
7. Central and Eastern Europe in the eleventh and twelfth centuries	148
8. Friends and enemies in the Middle East	288
9. The Mongol empire c.1280	302
10. The expansion of Burgundy	354
11. Italy c.1400	400
12. The realms of medieval Spain	412
13. Southeast Asian states and empires, c.1300 to c.1500	509
14. Northern Kyushu and Hakata Bay, site of the Mongol landings in 1274 and 1281	531
15A & B. Culture areas of the American hemisphere	556

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Introduction to volume II

ANNE CURRY AND DAVID A. GRAFF

It would not be very much of an overstatement to say that modern academic writing about medieval warfare – in English, at least – began with Sir Charles Oman, whose first essay on the subject was written in 1884 and later expanded into his *History of the Art of War in the Middle Ages*, which went through two editions (1898 and 1924). Oman's brisk narrative weaving together weaponry, military institutions, and exemplary battles is typical of the pioneering generation of literature on the subject – and not just in English, as attested by such works as Hans Delbrück's *Geschichte der Kriegskunst im Rahmen der politischen Geschichte* (three editions between 1900 and 1920) and Ferdinand Lot's *L'Art militaire et les armées au Moyen Age en Europe et dans le Proche Orient* (1946). Another characteristic shared by all of these early surveys is their lack of interest in the world beyond Europe, except to the extent that Europeans came into contact with that world through encounters such as the Crusades (as suggested by the wording of Lot's title). Although not entirely neglected, the military history of non-Western societies received much more scattershot treatment from Western specialists in quite narrowly focused works, often dealing primarily with weapons and armor.¹ Broader studies, such as Quaritch Wales's *Ancient South-East Asian Warfare* (1952), were extremely rare and did not attempt to draw comparisons with medieval Europe or locate their subjects within a global context.²

1 For examples of this genre, see Hugo Theodor Horwitz, "Die Armbrust in Ostasien," *Zeitschrift für historische Waffenkunde* 7 (1915–17), 155–83; E. T. C. Werner, *Chinese Weapons* (Shanghai, North China Branch of the Royal Asiatic Society, 1932); Ralph Payne-Gallwey, *A Treatise on the Construction, Power and Management of Turkish and Other Oriental Bows of Mediaeval and Later Times* (London, Longmans, Green and Co., 1907); and Alfred von Pawlikowski-Cholewa, *Heeren des Morgenlandes* (Berlin, W. de Gruyter and Co., 1940).

2 H. G. Quaritch Wales, *Ancient South-East Asian Warfare* (London, Bernard Quaritch, 1952).

Studies of medieval European warfare, meanwhile, were becoming not only ever more numerous, but also richer and more varied in their contents from about the middle of the twentieth century. An early example is J. F. Verbruggen's *De Krijgskunst in West-Europa in de Middeleeuwen (IXe tot begin XIVe eeuw)*, first published in Belgium in 1954, which gave medieval armies more credit for organization and strategy than earlier authors had allowed.³ Other works reflected the rising influence of social history (and by the 1970s, the emergence of a "new military history" emphasizing "war and society" rather than battles and leaders). To pick only one prominent example, Philippe Contamine's *La Guerre au Moyen Age*, published in France in 1980 and in English translation in 1984, covers much of the same ground as the earliest surveys but also includes more quantitative data and has chapters dealing with "War, Government, and Society," "Juridical, Ethical, and Religious Aspects of War," and even the history of courage itself.⁴ There has also been a proliferation of specialized studies on a vast range of topics covering every European country and region, including specific wars and battles, Crusading warfare, naval warfare, siege warfare, finance and logistics, knighthood and chivalry, the role of religion, the influence of ancient military authors such as Vegetius, and the military institutions of almost every time and place, from early Anglo-Saxon England to fourteenth-century Byzantium. In addition to social history, these works have come to be informed by many other disciplines and perspectives, with archaeology, anthropology, and even "history and memory" studies prominent among them.⁵

The study of warfare in the "medieval" world beyond Europe saw significant advances during the same period, especially from the mid 1970s onward, as the military history of non-Western societies began to attract serious scholarly attention. A comprehensive survey of all of the major works would be beyond the scope of this brief introduction, but a few prominent examples should be mentioned. In 1974 the publication of *Chinese Ways in Warfare*, a conference volume edited by Frank A. Kierman, Jr. and John King Fairbank, established a new baseline for English-language scholarship on the

3 A partial English translation was published in 1977, and an enlarged edition twenty years later: *The Art of Warfare in Western Europe in the Middle Ages*, trans. Sumner Willard and Mrs R. W. Southern (Woodbridge, The Boydell Press, 1997).

4 Philippe Contamine, *War in the Middle Ages*, trans. Michael Jones (Oxford, Basil Blackwell, 1984).

5 This aspect looms large, for example, in Georges Duby, *The Legend of Bouvines: War, Religion and Culture in the Middle Ages*, trans. Catherine Tihanyi (Berkeley and Los Angeles, University of California Press, 1990).

military history of premodern China, and was followed in due course by book-length studies of particular periods by Ch'i-ch'ing Hsiao, Edward L. Dreyer, and a coterie of younger historians including Peter Lorge and David Graff.⁶ The military exploits of the Mongols, once the domain of fabulists (such as Harold Lamb) and enthusiasts (such as Basil Liddell Hart), has received attention from linguistically competent professional historians such as John Masson Smith, Jr., David Morgan, and Timothy May.⁷ Setting aside the numerous books by Stephen Turnbull that were aimed at a popular audience, serious studies of medieval Japanese warfare date only from the 1990s, with the field dominated by the work of just three scholars: Karl Friday, Thomas Conlan, and William Wayne Farris.⁸ Michael Charney's survey of Southeast Asian warfare, the first to appear since Quaritch Wales's, was published in 2004.⁹ General surveys of South Asian warfare have been available since at least the 1940s, but there have been important recent contributions to the genre by Pradeep Barua (2005) and Kaushik Roy (2015).¹⁰ In addition, particular aspects of the military history of medieval northern India (the Delhi sultanate) have received monographic treatment by scholars such as Peter Jackson and Iqtidar Alam Khan.¹¹ Because of its

6 Frank A. Kierman, Jr. and John King Fairbank (eds.), *Chinese Ways in Warfare* (Cambridge, MA, Harvard University Press, 1974); Ch'i-ch'ing Hsiao, *The Military Establishment of the Yüan Dynasty* (Cambridge, MA, Council on East Asian Studies, Harvard University, 1978); Edward L. Dreyer, *Early Ming China: A Political History, 1355–1435* (Stanford, Stanford University Press, 1982). Lorge's first book, *War, Politics and Society in Early Modern China, 900–1795*, was published by Routledge in 2005, three years after the same publisher issued Graff's *Medieval Chinese Warfare, 300–900*.

7 John Masson Smith, Jr., "Ayn Jälüt: Mamlūk Success or Mongol Failure?" *Harvard Journal of Asiatic Studies* 44.2 (December 1984), 307–45; David Morgan, *The Mongols* (Oxford, Blackwell, 2007); Timothy May, *The Mongol Art of War* (Barnsley, UK, Pen & Sword, 2007).

8 William Wayne Farris, *Heavenly Warriors: The Evolution of Japan's Military, 500–1300* (Cambridge, MA, Council on East Asian Studies, Harvard University, 1992); Karl F. Friday, *Hired Swords: The Rise of Private Warrior Power in Early Japan* (Stanford, Stanford University Press, 1992); and *Samurai, Warfare and the State in Early Medieval Japan* (London and New York, Routledge, 2004); Thomas D. Conlan, *State of War: The Violent Order of Fourteenth-Century Japan* (Ann Arbor, Center for Japanese Studies, University of Michigan, 2003).

9 Michael W. Charney, *Southeast Asian Warfare, 1300–1900* (Leiden, Brill, 2004).

10 Pradeep Barua, *The State at War in South Asia* (Lincoln, University of Nebraska Press, 2005); Kaushik Roy, *Warfare in Pre-British India, 1500 BCE to 1740 CE* (London and New York, Routledge, 2015). An example of the earlier literature is Jandunath Sarkar, *Military History of India* (1960; rpt. New Delhi, Orient Longman Ltd., 1970).

11 Peter Jackson, *The Delhi Sultanate: A Political and Military History* (Cambridge, Cambridge University Press, 1999); Iqtidar Alam Khan, *Gunpowder and Firearms: Warfare in Medieval India* (New Delhi, Oxford University Press, 2004). An earlier monograph worth mentioning is Simon Digby, *War-Horse and Elephant in the Delhi Sultanate: A Study of Military Supplies* (Karachi, Oxford University Press, 1971).

geographical and historical proximity to Europe, there was less ground to be made up in the military history of the Near East, but some notable new contributions were added to the literature, such as Hugh Kennedy's *The Armies of the Caliphs: Military and Society in the Early Islamic State* in 2001.¹² For obvious reasons having to do with availability of sources, relatively little has been written about warfare in sub-Saharan Africa in precolonial times (with the emphasis on the early modern period and zones of European contact), though recent general surveys by Richard Reid (2012) and Timothy Stapleton (2013) deal in passing with the timespan corresponding to Europe's Middle Ages.¹³ Leaping across the Atlantic to the Americas, Ross Hassig's now classic study of Aztec warfare was published in 1988, and there have since been other contributions by R. Brian Ferguson (with Neil L. Whitehead), Jonathan Haas, and Rubén Mendoza (with Richard Chacon) that range more widely through the Western Hemisphere.¹⁴

Despite the very considerable efforts of these scholars, the English-language literature on medieval warfare beyond Europe has yet to attain the same depth and sophistication as that written by European medievalists. This is due in part to formidable language barriers, in part to the rather small number of historians specializing in non-Western military history, and in part to the relative immaturity of medieval non-Western warfare as a serious field of scholarly investigation. Those working in this field have sometimes had the feeling of being engaged in the same sort of project that occupied Sir Charles Oman more than a century ago, weaving together battle narratives with discussions of weapons, tactics, and military institutions at a rather superficial level. This work was, however, essential in order to establish a baseline for deeper and more focused studies. Another shortcoming of the scholarly literature on medieval warfare, both Western and non-Western, is that, with the exception of a handful of military history textbooks, there has been very little effort to adopt either comparative or global perspectives; for

¹² Published by Routledge.

¹³ Richard J. Reid, *Warfare in African History* (Cambridge and New York, Cambridge University Press, 2012); Timothy J. Stapleton, *A Military History of Africa* (Santa Barbara, CA, Praeger, 2013). For the early modern period, see John K. Thornton, *Warfare in Atlantic Africa, 1500–1800* (London and New York, Routledge, 1999).

¹⁴ Ross Hassig, *Aztec Warfare: Imperial Expansion and Political Control* (Norman, University of Oklahoma Press, 1988); R. Brian Ferguson and Neil L. Whitehead (eds.), *War in the Tribal Zone: Expanding States and Indigenous Warfare* (Santa Fe, School of American Research Press, 1992); Jonathan Haas, *Stress and Warfare among the Kayenta Anasazi of the Thirteenth Century A.D.* (Chicago, Field Museum of Natural History, 1993); Richard J. Chacon and Rubén G. Mendoza (eds.), *Latin American Indigenous Warfare and Ritual Violence* (Tucson, University of Arizona Press, 2007); and *North American Indigenous Warfare and Ritual Violence* (Tucson, University of Arizona Press, 2007).

the most part, medieval military history remains a set of isolated compartments. This legacy is visible in most of the individual chapters that make up this volume. Although a few chapters, such as the one by Stephen Morillo dealing with “Justifications, Theories, and Customs of War,” adopt a universal and comprehensive approach, the great majority of them are regionally specific. They are, however, firmly grounded in specific bodies of scholarly literature, primary source materials, and the linguistic skills and cultural understanding needed to make sense of them. Bringing all of these stories together in one volume covering most of the medieval world is a significant undertaking inasmuch as it facilitates the identification of universal processes, local differences and variations, hitherto unsuspected connections between developments in far-flung geographic regions, and perhaps even helps to inspire the creation of new master narratives for understanding war in the global “Middle Ages.”

Especially when projected onto a global stage, the Middle Ages is a concept that requires definition. The chronological boundaries adopted by this second volume of the *Cambridge History of War* do not depart very much from the traditional scheme, memorized by generations of schoolchildren, that took the removal of the last Western Roman emperor in 476 to mark the beginning of the medieval period and the fall of the Eastern Roman capital of Constantinople to the Ottoman Turks in 1453 to mark its end. From today’s perspective, the shortcomings of this time-honored convention are both many and obvious. In addition to being arbitrary, as such schemes of periodization almost always are, it is also quite blatantly Eurocentric in its choice of significant, world-historical events. By pushing the starting point of this volume forward a century or more to around the beginning of the seventh century of the Common Era, we hope to achieve a somewhat better fit with patterns of change more widely distributed across the Afro-Eurasian landmass. These include the break-up of the Gupta empire in India, the emergence of a new and lasting imperial formation in China represented by the Sui and Tang dynasties, and the rise and rapid spread of Islam which brought to an end both the Sasanian empire in Persia and the extended era of Late Antiquity in the Mediterranean world. At a more fundamental level, however, the very notion of a tripartite division of the past into ancient, medieval, and modern eras carries a great deal of baggage from the European past, where thinkers from the sixteenth century onward sought to differentiate the perceived advances and improvements of their own

times from the preceding “Dark Ages” that separated them from the splendors of the more ancient past.¹⁵

The long-prevalent perception of the Early Middle Ages (especially the sixth through tenth centuries) as a “dark” age of barbarism and superstition no longer finds much favor among medievalists, including the authors of the chapters that make up this volume. Although some parts of the world, Western Europe among them, did see a temporary decline of commerce and contraction of urban populations during this period, this was by no means a universal phenomenon. Some regions to the east, such as today’s Iraq, Syria, and Egypt, thrived under the rule of the Umayyad and ‘Abbāsīd caliphates, while in China the Tang dynasty (618–907) is still considered to have been a golden age. Various “barbarian” invaders, from the Norsemen to the Mongols, rampage their way through several of the chapters in this volume, but for the most part the emphasis is on the creative and constructive aspect of the age rather than its destructive side, as new military techniques, technologies, and institutions afforded at least temporary or partial solutions to a range of security problems and (in some cases) began to lay the groundwork for the gradual emergence of more “modern” militaries in the centuries that followed.

Moreover, despite the European origin of the concept of the “Middle Ages” and of the specific dates usually assigned to that period, a case can be made that the notion of a medieval period within approximately the same chronological framework makes sense in more than just a European context – if not a fully global framework. Its characteristic features do not all appear everywhere and, where they do appear, they are not always present together at the same time, but they nevertheless help to distinguish this age from those that preceded and followed it. Some of these features are specifically military, and others are of a more general nature.

To begin with the more general, the early medieval period was a post-imperial age. This is not to suggest that there were no empires during the Middle Ages. On the contrary, Western Europe saw the aggressive empire building of the Carolingian Franks under Charlemagne’s leadership, followed by the efforts of the Ottonian Saxons. In the eastern Mediterranean the Byzantine empire remained a major power for more than five hundred years and lingered on until 1453. The Middle East gave rise to the Umayyad

15 Cf. Gibbon’s “triumph of barbarism and religion.” *The History of the Decline and Fall of the Roman Empire* (Philadelphia, The John C. Winston Co., 1845), ch. LXXI, p. 548. The tripartite scheme is of course intimately bound up with the concepts of “Renaissance” and “Enlightenment.”

and ‘Abbāsid caliphates and their various successor states; China was reunited under the Sui, Tang, and Song dynasties; the Indian subcontinent was nearly united by the Delhi sultanate for a brief time around 1300; Southeast Asia witnessed the imperialism of the Khmers on the mainland and Sri Vijaya on the island of Sumatra; and in West Africa the Niger river and the Sahel region provided the backdrop for the successive rise and fall of the empires of Ghana and Mali. The Mongol conquerors who exploded out of the steppe heartland of the Eurasian landmass during the thirteenth century built an empire so vast that in the annals of world history it is rivaled only by the British and Russian empires of c.1900. Nevertheless, the medieval scene was a far cry from the ancient world of just a few centuries earlier when it is estimated that half the humans then alive were subjects of one or the other of two massive imperial formations, the Roman Empire and Han China. The empires that existed in the medieval period tended to be smaller (compare the Roman Empire at its height with the diminished Byzantine realm described in the chapters by John Haldon and Mark Bartusis), more ephemeral (as suggested by Phillip Wagoner’s discussion of the Delhi sultanate), and also very much in the shadow of their earlier imperial forebears. This last point comes across, for example in both Guy Halsall’s chapter, which describes the efforts of Germanic rulers in post-Roman Europe to claim the mantle of the Caesars, and David Graff’s chapter, where we see the concern of the Sui and early Tang emperors to recover all of the territories that had been ruled by the Han dynasty. Empires of the Middle Ages were less stable and more precarious, and they were often prey to a sort of inferiority complex with regard to the glorious past.

This period has also been characterized as an “age of faith.” More precisely, it was a time when several major salvation religions with new promises of otherworldly rewards spread very widely across the Afro-Eurasian landmass. Through missionary activity, diplomacy, and armed conquest, Christianity expanded from its original base in the territories that had been the Roman Empire into Northern and Central Europe (in its Latin form) as well as Eastern Europe and Russia (mainly in its Greek form). During the seventh and eighth centuries Islam spread explosively through the great Arab conquests to dominate, and then gradually convert, peoples from Syria and Egypt across North Africa to Spain, and from Iran into Central Asia. Later waves of armed expansion by Muslim Turks carried Islam into South Asia and Southeastern Europe, but the religion’s spread into Southeast Asia and sub-Saharan Africa owed more to peaceful trading contacts than force of arms. Buddhism, a religion of South Asian origin, meanwhile spread

eastward along both the overland and maritime trade routes to take firm root in China, Korea, Japan, and much of Southeast Asia. (Although less obvious than the expansion of these three religions, the rise of devotional Hinduism in India and its spread to some parts of Southeast Asia also fit into the pattern of the times.) For untold tens of millions who lived between 600 and 1500 religion was the central element of identity, and it created bonds and communities that transcended the more traditional boundaries of language, tribe, ethnicity, and polity. By the same token, the frontiers dividing religious communities were frequently the loci of armed conflict, as we see in the chapters by Matthew Gordon (on the armed expansion of Islam), John France (on the Crusades), Donald J. Kagay (on the Iberian Reconquista), and Gábor Ágoston (on the rise of the Ottoman Turks). Yet shared belief was no guarantee of peace. As Stephen Morillo points out in his chapter, groups perceived as deviant or heretical could be subjected to forcible suppression, as in the Albigenian Crusade of the early thirteenth century or any number of Sunni-Shi'a conflicts within the house of Islam.

Although the new salvationist religions – especially Islam and Buddhism – would eventually have an enormous influence over the nomadic peoples of the Eurasian heartland, this was an age in which influences flowed very strongly in the opposite direction as well. Steppe elites had learned important lessons from the older centers of sedentary civilization, and now tended to be better organized, more likely to be capable of written communication in their own languages, and much more effective in exerting pressure upon the sedentary world than in ancient times. In the old centers their influence was greater and more disruptive than ever before, as witnessed by the domination, at various times, of China, India, the Middle East, and vast expanses of Russia and Eastern Europe by rulers of steppe origin. This pattern is most obvious in the chapters by Étienne de la Vaissière on the early Turks and Roman Hautala on the Mongols, but it can also be glimpsed in Peter Lorge's chapter on Song China and its rivals and successors, Phillip Wagoner's chapter on India, John Haldon's chapter on Byzantium, and Martyn Rady's chapter on Eastern Europe. Its culmination was the creation in the thirteenth century of a Mongol world empire stretching from Korea to Russia and Iraq, and embracing the old civilized centers of China and Iran.

Due in part to Mongol imperialism and in part to the spread of the salvation religions, which created new, geographically extensive networks of co-religionists, the older Eurasian centers were gradually drawn closer together. Along both the overland trade routes (of which the famous Silk Road through the heart of Asia is the best known) and the maritime routes

that connected East and Southeast Asia with the Indian Ocean littoral and, ultimately, the Mediterranean world, Northwestern Europe, and West Africa, commercial links became denser and more robust.¹⁶ Along these routes moved not just trade commodities such as silk and spices, but also ideas, technology, pathogens, and people. The Mongol empire has been implicated in the pandemic spread of the Black Death as well as the diffusion of military technologies (with gunpowder moving from East to West, and the counterweighted trebuchet traveling in the opposite direction); its rulers employed Persians, Arabs, and Italians in its service in China, at the same time that it was bringing Chinese to Persia and Iraq. Yet far-ranging travel was also possible in areas of the late medieval world that were never reached by the Mongols. Witness the travels of Ibn Battuta, a native of Tangier in Morocco, who ventured as far afield as sub-Saharan East and West Africa, India, and Southeast Asia (as well as North Africa, Central Asia, and China) during the fourteenth century. And when the early fifteenth-century Ming voyages led by the eunuch admiral Zheng He descended from China into the Indian Ocean, they were following existing trade routes that were already well known to private traders and seafarers.¹⁷

The Afro-Eurasian network was not only becoming tighter in this period, but it was also growing larger. The Middle Ages was a time of secondary state formation, as hitherto relatively unorganized peripheral areas learned the arts of civilization from older centers and were brought within their cultural and religious (if not political) orbit. In the mid seventh century, the Yamato rulers of Japan embarked upon an ambitious program of self-strengthening by imitating the political and military institutions of Tang China, a development examined in Karl Friday's chapter. After the predatory expeditions and adventures of the Viking era, newly consolidated Scandinavian monarchies embraced the Latin version of Christianity and were incorporated into Western European Christendom, a transformation that figures prominently in Anthony Perron's chapter on the Scandinavian world. Eastern Europe, meanwhile, saw the emergence of a string of new Christian kingdoms, a phenomenon detailed in the chapters by Martyn Rady and Mark Bartusis; some, such as Poland, Bohemia, and Hungary, looked to Rome, while others (Serbia, Bulgaria, and Kievan Rus') took their religious and cultural cues from

16 See Janet L. Abu-Lughod, *Before European Hegemony: The World System A.D. 1250–1350* (Oxford and New York, Oxford University Press, 1989).

17 This point emerges especially clearly from Edward L. Dreyer, *China and the Oceans in the Early Ming Dynasty, 1405–1433* (New York, Pearson Longman, 2007).

Constantinople. The emergence of new states in sub-Saharan Africa such as Ghana and Mali under the influence of trade and Islam may be seen as an additional example of the same general pattern. And in his chapter on Southeast Asia, Michael Charney reminds us that that region was subject to waves of outside influence from China (felt mainly in Vietnam), India, and the Islamic world.

In addition to these general characteristics, there are also several more specifically military features that have often been taken to distinguish the period between 600 and 1500. Although each was prominent across a number of societies, none of them was universal – and even a single society could manifest considerable variation over such an extensive time span. Nevertheless, they are significant themes that recur in many of the chapters that make up this volume.

One of these themes is the extent to which social status and class identity were linked to violence and the bearing of arms. This phenomenon was perhaps most obviously on display in Western Europe; in their chapters both Guy Halsall and David Crouch note that on one memorable occasion in the mid ninth century Frankish warriors massacred their lower-status compatriots who had the temerity to take up arms against the Viking invaders. A similar attitude was found in distant Japan, where for several centuries warfare was largely monopolized by the *bushi* or warrior class (described in the chapters by Karl Friday and Thomas Conlan). Warfare as a caste or class-based activity took other forms elsewhere. Some states such as Tang China and the Byzantine empire placed considerable reliance on foreign contingents. In the Tang case these consisted mainly of mounted archers recruited from the nomadic peoples of the steppe, while the Byzantines at various times made use of Hunnish horse-archers, Varangian Guards of Norse and Anglo-Saxon origin, and the Catalan “Grand Company.” From the ninth century onward, the ‘Abbāsid caliphate and many other Muslim regimes relied very heavily on Turkish horsemen recruited from the grasslands of Central Asia and converted to Islam. Although Matthew Gordon’s chapter questions the widely held notion that these warriors were actually slaves, there can be no doubt that they started out in a subordinate role and then managed to leverage their martial prowess and dominance of the military into positions of privilege and power. Thus, military specialization does not appear simply as a marker of inherited class status, but in some societies could instead provide a path of upward mobility (as with the Ottoman janissaries discussed by Gábor Ágoston). This pattern comes out especially clearly in Wagoner’s chapter, which notes that some of the ruling groups in southern

India originated in the lower reaches of the caste structure and rose to power through military service.

Another prominent military theme of the medieval period was the extent to which warfare in many parts of the world revolved around the control of fortified towns and lesser strongholds (known in Europe as castles), which served as bases from which the ruling elites controlled transportation routes and dominated the surrounding countryside. The advantage in siege warfare usually lay with the defenders of fortifications, in part because of the state of poliorcetic technology (described in the chapter by Kelly DeVries) and in part because a region's accumulated agricultural surpluses were often stored within its walled strongpoints; as mentioned in several chapters, it was not uncommon for besieging armies to run out of supplies before the defenders did. Under these circumstances, much warfare of the time revolved less around major battles in the open field than around raiding expeditions or sieges of fortified positions. Battle avoidance rather than battle-seeking was often the order of day, a mode of warfare that has been characterized as both "Sunzian" and "Vegetian."¹⁸ There were, of course, all sorts of local variations. Halsall observes that the Early Middle Ages in Western Europe saw a surprising amount of battle-seeking, while in Kagay's chapter on Iberian warfare we see strongholds serving not only defensive purposes, but also functioning as bases for extension of control over new territories. Conlan notes that castles played an important role in fourteenth-century Japanese warfare, but the "castles" in question were hastily built, temporary wooden stockades rather than massive stone-based structures familiar from Japan's early modern period (beginning in the sixteenth century).

More likely than not, the fortifications of the period would have served as bases for power projection by mounted warriors. During the Middle Ages cavalry came to play a larger and more dominant role on the battlefield than before or after. This was partly due to the pervasive influence of horse nomads that was felt across much of Eurasia and even as far afield as North Africa; if there was a dominant military paradigm during these centuries, its representative was the highly mobile horse-archer of the steppes rather than the mounted European knight or foot soldiers of any sort. Social factors also played a part, as elites in Europe and elsewhere usually preferred to fight from horseback rather than on foot; this was true not only of the Western knights discussed by Crouch, but also of their counterparts in Japan, where to

¹⁸ Clifford J. Rogers, "The Vegetian 'Science of Warfare' in the Middle Ages," and Stephen Morillo, "Battle Seeking: The Contexts and Limits of Vegetian Strategy," both in *Journal of Medieval Military History* 1 (2002).

be a warrior was to follow the “way of horse and bow.” It also owed something to technology, which included improved saddle designs and, most obviously, the invention of the stirrup, which was known in China’s northern borderlands in the fourth century CE and had spread to the Byzantine world (probably via the Avars) by the late sixth century, and to the fact that few medieval states were well enough organized (and financed) to field substantial numbers of effective infantry. As one historian (Morillo) has pointed out, this was less an age of superb cavalry than one of “bad infantry” – a cavalry age by default.¹⁹ Some of the greatest battles of the age, such as ‘Ayn Jālūt between the Mongols and Mamlūks in 1260, were entirely contests between cavalry forces, and even armies (such as that of Tang China) that did include large numbers of reasonably well-trained infantry still regarded the cavalry as their main offensive strike force. As always, though, there were plenty of local exceptions. Both the Arab conquerors and the Viking raiders of the Early Middle Ages were happy to use horses for mobility, but preferred to give battle on foot. And in Southeast Asia, as Charney stresses, the elephant had a much more central place in warfare than the horse.

In keeping with the collapse of the ancient empires and the temporary decline of commercial activity, especially in the Early Middle Ages, relatively decentralized forms of military organization appeared in many societies. Weak states with severely limited revenues and administrative resources found it necessary to delegate military command and recruiting to magnates, and had to sustain fighting men with grants of land (or tax revenue, or offices and/or streams of revenue associated with landholdings) rather than by means of direct monetary compensation from the state treasury. In Western Europe this took the form of benefices in the form of land (discussed by both Halsall and Crouch); in the late medieval Byzantine realm, fighting men received *pronoia* or grants of state land and tax-exempt peasants (described by Bartusis). In Japan, victorious warriors were rewarded with revenue-generating offices (such as that of *jitō*, or land steward) on the *shōen* (private estates) that became the dominant form of landholding from the tenth century onward (as mentioned by Friday and Conlan). One of the trends of the late medieval period was the revival of direct pay of soldiers by the state, a development that figures prominently in Anne Curry’s discussion of military institutions in England, France, and Burgundy. In some parts of

19 Stephen Morillo, “The ‘Age of Cavalry’ Revisited,” in Donald J. Kagay and L. J. Andrew Villalon (eds.), *The Circle of War in the Middle Ages: Essays on Medieval Military and Naval History* (Woodbridge, Suffolk, The Boydell Press, 1999), pp. 45–58.

Europe this often took the form of payments from governments to mercenary bands (as we see in William Caferro's chapter on late medieval Italy), while in Japan local warlords (*daimyō*) sought to bring their retainers into stipendiary relationships. The situation in China, where imperial governments were for the most part able to feed, clothe, and pay their own soldiers throughout the period covered by this volume, stands out as very much the exception.

As this brief discussion of military compensation suggests, the medieval period cannot be characterized as static or unchanging. In addition to institutional and administrative adjustments, there were also numerous technological improvements; these included the transmission of the stirrup westward across Eurasia to the Middle East and Europe, the emergence of the hand-held crossbow as a significant weapon in Western Eurasia (in China, it had been in continuous use since at least the fourth century BCE), the invention and occasional use of naphtha-based incendiaries ("Greek Fire") by both Byzantines and Arabs, the transmission of the traction trebuchet from East Asia to the West, and the later movement of the counterweighted trebuchet in the opposite direction. There were also significant improvements in shipbuilding and naval architecture; as we see in John Pryor's chapter, the marriage of Mediterranean and Northern European shipbuilding traditions gave birth to the carrack, the workhorse of Europe's age of exploration and the basis for subsequent generations of European warships before the advent of steel and steam. Yet despite all of this technological ingenuity, warfare was still dominated by essentially muscle-powered weapons – such as the galleys that still predominated in Mediterranean naval warfare. Gunpowder appeared in China from about the ninth century and was soon weaponized in various ways (as detailed in Lorge's chapter), but truly effective handguns and cannon did not really begin to alter the shape of warfare, east or west, until nearly the end of this period. Indeed, they are an important new development helping to define its end point.

Another development that defines the end of the Middle Ages is the formation of sea links between Europe and hitherto remote or isolated world regions as a consequence of the voyages of exploration around 1500. This brought Europe into much closer contact with West Africa, the Indian Ocean littoral, Southeast Asia, China, and Japan, and for the first time established strong and lasting links between the Americas and the rest of the world. Up until the sixteenth century the Western Hemisphere had remained a world apart, displaying few if any of the defining features of the "medieval world" detailed above, military or otherwise. To mention just one

very obvious example, the central place of mounted warriors in so much of Eurasian warfare during this period had no parallel in the Americas where the horse, having been hunted to extinction thousands of years earlier, was unknown until it was reintroduced as a consequence of European contact. Yet some of the broadest general themes also appear in the American context; religious motivations and beliefs loomed large not just for the Muslim and Christian warriors of the Old World, but also for Inca and Aztec empire builders in the New. The distinctive characteristics of war in the major regions of the Western Hemisphere, including Mesoamerica, North America, and the highlands of South America, are presented in an expansive chapter by Rubén Mendoza that carries the story forward to the early years of European contact and the collision of radically different ways of war.

The full integration of the Americas, Africa, and Eurasia into increasingly dense global networks and the spread of worldwide trends characteristic of the modern era do not belong to this volume, but are addressed in volumes III and IV of the *Cambridge History of War*, dealing with the periods from 1500 to 1850 and 1850 to present, respectively.

PART I

★

FOUNDATIONS, c.600–1000 CE

The early Islamic empire and the introduction of military slavery

MATTHEW S. GORDON

Introduction

The inhabitants of seventh-century Arabia mobilized for warfare in a manner new to that region of the Near East: the effort fell, albeit gradually, under central authority.¹ Arabia had long been a highly variegated cultural zone, encompassing the Syrian Desert, southern Mesopotamia, and the Arabian Peninsula. Acting in tandem, largely nomadic tribal forces accepted the leadership of sedentary townsmen, the great number of whom belonged to the Quraysh, an influential tribe of two towns of the Hejaz region, Mecca and Medina. If Yemen and south Arabia had long known the rule of kings, and, hence, more formal military organization, only now did the central and northern stretches of the Peninsula and southern Syria experience what can thereby be considered as early state formation. The effort was driven by an equally untested set of ethical and spiritual teachings. A charismatic figure, Muḥammad ibn ‘Abdallāh (570–632), preached a strict monotheism; these teachings served as the seedbed of what would soon be known as Islam.

Inspired, at least in part, by the new teachings, Arabian military forces embarked on conquest. The Arabian/Islamic campaigns, as we will call them here, were remarkable in scope and effect, resulting as they did in the destruction of one longstanding empire (Sasanid Iran) and the humiliation of a second (Eastern Rome/Byzantium). Following a string of defeats, Byzantium withdrew from North Africa, Egypt, and Syria. The outcome, by the early eighth century, was a new imperial polity stretching eventually

1 Robert Hoyland's *Arabia and the Arabs* (London, Routledge, 2001) is a fine introduction to pre-Islamic Arab society. Surveys of the military history of the early Islamic Near East include Patricia Crone, "The Early Islamic World," in Kurt Raaflaub and Nathan Rosenstein (eds.), *War and Society in the Ancient and Medieval Worlds* (Washington, DC, Center for Hellenic Studies, 1999), pp. 309–32; and Hugh Kennedy, *The Armies of the Caliphs* (London and New York, Routledge, 2001).

from the northern Iberian Peninsula across North Africa and the Near East into Central Asia.² It would be governed by the caliphate, a new-style office that joined claims of religious and legal authority to political hegemony. The office-holders, the caliphs (from the Arabic *khalīfa*, “representative”), stood as “agents of God,” wielding spiritual and worldly authority.

Muḥammad, as head of the nascent Islamic *umma* (“community”), is held by the Islamic tradition to have initiated the conquests on the eve of his death in the form of short raids against Byzantine forces in southern Syria. His four immediate successors, known to later Islamic tradition as the Rashidun (“Rightly Guided”) Caliphs, continued the effort from Medina for a brief period (632–61) that ended in civil war and a change of regime. The new Umayyad dynasty (661–750) transferred the caliphate from the largely parochial environment of the Peninsula to Damascus, a busy Late Antique hub. The Umayyads, in turn, were overthrown in the mid eighth century by forces led from eastern Iran by partisans of the ‘Abbāsīd house. The ‘Abbāsīds, another branch of the Quraysh, would reign for an extended period (750–1258) although their significant decision-making powers waned by the mid tenth century. The reduction of caliphal authority occurred alongside the collapse of the unitary empire.

The Arabian/Islamic conquests set in motion the closely integrated patterns of Arabization and Islamization and thus a transformation of both Arabia and the wider Late Antique world.³ The present chapter treats the military history of the early Arab/Islamic period against the backdrop of these sweeping changes of society, faith, culture, and politics. A first section considers the pre-Islamic Near East, with comments on Arabian society, the Byzantine and Sasanid imperial presence, and relations between the two Near Eastern powers and the peoples that were in due course to be known as the Arabs. It then turns to the Arabian/Islamic conquests and the early Umayyad period. Specific comments treat the reforms of the mid-Umayyad period, a turning point in Arab/Islamic military history. A subsequent section treats the ‘Abbāsīd Revolution (748–52) and the armies of the early ‘Abbāsīd period. It concludes with a brief discussion of a new-style institution, the slave military, introduced into the Islamic Near East by the early ninth-century ‘Abbāsīd state.

2 For an overview of Islamic history in the early centuries, see Hugh Kennedy, *The Prophet and the Age of the Caliphates*, 2nd ed. (London, Pearson Longman, 2004); and Matthew Gordon, *The Rise of Islam* (Westport, CT, Greenwood Press, 2005). Marshall G. S. Hodgson’s magisterial three-volume *The Venture of Islam* (Chicago, University of Chicago Press, 1974) remains an invaluable if challenging source.

3 For an introduction to Late Antiquity, see the many entries in G. W. Bowersock et al. (eds.), *Late Antiquity: A Guide to the Postclassical World* (Cambridge, MA, Harvard University Press, 1999).

Study of early Arabian/Islamic military history relies heavily on Arabic-language sources, the earliest of which dates to the ninth century.⁴ The most valuable of these works are the *Futūḥ al-buldān* of Aḥmad ibn Yaḥyā al-Balādhurī (d.892) and the *Taʾrīkh al-rusul waʾl-mulūk* of Muḥammad ibn Jarīr al-Ṭabarī (d.923).⁵ Synthetic in nature, these works draw on oral and written Arabic-language narratives produced in stages from the early eighth century on.⁶ Other, often secondary, information occurs in numerous other works of Arabic/Islamic historiography. These are to be read alongside writings produced by non-Muslims – Jews, Christians, and Zoroastrians – in languages other than Arabic.⁷ These latter writings often take a dim view of the arrival of the Arab/Muslims across the Near East.⁸ The frequent bias notwithstanding, such writings typically provide a useful check on the Arabic sources.⁹

The Arabic works present their own problems, including that of dating: the chronicles and other extant works were produced well after the founding of the early empire. Despite their extensive use of earlier, even contemporary writings, the question arises as to the accuracy of transmission.¹⁰ A second problem concerns military history specifically: few of the sources treat military developments in their own right.¹¹ Legal and doctrinal works contain, for example, extended discussions of *jihād* and its merits (see below); chronicles describe battles, uprisings, and sieges;¹² and, at a later point,

4 Crone, “Early Islamic World,” pp. 309–10; and Kennedy, *Armies*, pp. xi–xvi.

5 Both works are available in translation. On the significance of al-Ṭabarī’s *Taʾrīkh (History)*, see Tarif Khalidī, *Arabic Historical Thought in the Classical Period* (Cambridge, Cambridge University Press, 1994), esp. pp. 73–82; and Chase F. Robinson, *Islamic Historiography* (Cambridge, Cambridge University Press, 2003), pp. 35–6 and *passim*.

6 See Robinson, *Islamic Historiography*, pp. 34–6.

7 See Robert Hoyland, *Seeing Islam as Others Saw It: A Survey and Evaluation of Christian, Jewish and Zoroastrian Writings on Early Islam* (Princeton, Darwin Press, 1997).

8 *Ibid.*, pp. 523–44.

9 See Hugh Kennedy, *The Great Arab Conquests* (Philadelphia, Da Capo Press, 2007), *passim*, on John of Nikiū’s account of the Arab/Muslim conquest of Egypt.

10 Most such information is contained in short to extended “reports” known as *akhbār* (sing. *khbar*). For an introduction to the form and its treatment in modern scholarship, see Fred M. Donner, *Narratives of Islamic Origins* (Princeton, Darwin Press, 1998), pp. 255–71; and Stefan Leder, “The Literary Use of the *Khbar*: A Basic Form of Historical Writing,” in Averil Cameron and Lawrence I. Conrad (eds.), *The Byzantine and Early Islamic Near East*, vol. 1: *Problems in the Literary Source Material* (Princeton, Darwin Press, 1992), pp. 277–315.

11 See Kennedy, *Armies*, pp. 2, 14.

12 See, for example, al-Ṭabarī’s extended account of the Umayyad attack on the small force led by the Prophet’s grandson, al-Ḥusayn ibn ‘Alī, in 680, during a first round of civil conflict; I. K. A. Howard (trans.), *The History of al-Ṭabarī*, vol. 19: *The Caliphate of Yazīd b. Mu‘āwīyah* (Albany, State University of New York Press, 1990), pp. 16–183. The account, in passing, provides valuable details on the weaponry and tactics of early Arabian/Islamic warfare.

military manuals appear.¹³ But writings preoccupied with military matters per se, if in fact produced, have not survived. Written sources alongside a growing body of physical evidence, provided by coins, inscriptions, and other physical remains, must be combed for indications as to the structure, tactics, and command of armies; the kinds and uses of weapons plied by the Arabian/Muslim fighters; and the means by which these forces were paid, supplied, fed, and housed.¹⁴ Given these challenges to a proper reconstruction of the conquest period, modern scholars debate the direction and manner of early Arabian/Islamic military history. The present chapter touches as well on the main disagreements.

The pre-Islamic setting

Conditions of pre-Islamic Arabian society lent themselves to military preparedness.¹⁵ (The same can be said of societies across the ancient world.) Hunting was typical, as was the husbandry of camels, horses, donkeys, and mules.¹⁶ Animals worked hard: the camel carried men and supplies, the horse and mule bore warriors into battle, sometimes in chariots.¹⁷ Circumstances determined whether riders remained mounted or battled on foot as fighting ensued. Long poems performed in the pre-Islamic and early Islamic periods indicate that the horse, acquired often at great expense, was cherished for show, companionship, and support in battle.¹⁸ The same poetry

13 Crone, "Early Islamic World," pp. 309–11. For a description of an 'Abbāsid-era work (mentioned by Crone), see Kennedy, *Armies*, pp. 111–14.

14 On weaponry, mounts and so on, see David Nicolle, "Arms of the Umayyad Era: Military Technology in a Time of Change," in Yaacov Lev (ed.), *War and Society in the Eastern Mediterranean, 7th to 15th Centuries* (Leiden, E. J. Brill, 1997), pp. 9–100. Also see Kennedy, *Armies*, p. xv, for references to third/ninth-century episodes.

15 Kennedy, *Armies*, p. 1.

16 On the use of mules and other mounts in the postal system (*barīd*) of the emergent Arab/Islamic state, see Adam J. Silverstein, *Postal Systems in the Pre-modern Islamic World* (Cambridge, Cambridge University Press, 2007), pp. 24–5, 67–70, 111–13.

17 See, variously, Michael Lecker, *The Banū Sulaym: A Contribution to the Study of Early Islam* (Jerusalem, The Hebrew University of Jerusalem, 1989), p. 141; D. R. Hill, "The Role of the Camel and the Horse in the Early Arab Conquests," in V. J. Parry and M. E. Yapp (eds.), *War, Technology, and Society in the Middle East* (Oxford, Oxford University Press, 1975), pp. 32–43; and M. C. A. Macdonald, "Hunting, Fighting and Raiding: The Horse in Pre-Islamic Arabia," in David Alexander (ed.), *Furusiyya*, vol. 1: *The Horse in the Art of the Near East* (Riyadh, Maktabat al-Malik 'Abd al-Azīz al-'Amma, 1996), pp. 73–83.

18 See the description of the horse in a well-known *qaṣīda* (elegiac poem) of Imru' al-Qays; a standard translation is A. J. Arberry, *The Seven Odes: The First Chapter in Arabic Literature* (London, G. Allen & Unwin, 1957), pp. 64–5. For many examples of similar passages in other early Arabic verse, see Michael Sells (trans.), *Desert Tracings: Six Classic Arabian Odes by 'Alqama, Shānfara, Labīd, 'Antara, Al-A'sha, and Dhu al-Rūmma*

celebrates a widely held chivalric ethos, on the one hand, and, on the other, a close knowledge of the environment, a particular characteristic of nomadic Arab society.¹⁹ Skills and attitudes honed in “civilian” life were useful to herdsman and fighter alike.

The tribe – the foundation of Arabian social organization – provided identity, kinship relations, livelihood, and protection.²⁰ Again, state formation, per se, was not yet a feature of Arabian society beyond Yemen and south Arabia; institutions specializing in the execution of law and the exercise of force were at best rudimentary.²¹ Conflict, from feuds and raids to outright warfare, was similarly a pursuit of the tribe, and all males were expected to take part.²² The likelihood, of course, is that typically specialists wielded weapons; others fought only when pressed. It appears, as well, that pre-Islamic Arabian society knew a practice of “substitution” whereby an individual could recruit another person to fight in his stead in exchange for payment.²³

Historians refer to a spectrum of ecological, sociopolitical, and religious patterns across pre-Islamic Arabia. Certain Arabian tribes were fully nomadic (“camel pastoralists”), reliant on the one-humped camel for transportation, meat, and hides; a far greater number turned to various combinations of pastoralism, agrarian production, and commerce.²⁴ A majority is likely to have resided, for at least much of the year, in permanent settlements reliant on trade and agriculture. Nomads, semi-nomads, and settled tribes were interdependent, both in social and economic terms. Stability, coexistence, and a sense of order were preserved through “intermarriage, mediation, communal ceremonies and festivals, a strong code of hospitality, reciprocal gift giving.”²⁵ The extent and variety of trade remains to be fully understood. Modern scholarship is divided, for example, on the *ilāf* (agreements on

(Middletown, CT, Wesleyan University Press, 1989). More generally, see P. Bearman et al. (eds.), *Encyclopaedia of Islam, Second Volume* (Leiden, Brill, 1960–2009) [hereafter *El2*], s.v. *Faras* (F. Viré).

19 Jibrail S. Jabbur, *Bedouins and the Desert: Aspects of Nomadic Life in the Arab East*, trans. Lawrence I. Conrad (Albany, State University of New York Press, 1995), p. 453.

20 Hoyland, *Arabia and the Arabs*, p. 114.

21 Fred M. Donner, *The Early Islamic Conquests* (Princeton, Princeton University Press, 1981), pp. 37–42, contrasts south Arabia with the northern and central regions of the Peninsula.

22 Hoyland, *Arabia and the Arabs*, pp. 113–14. On the feud in Arab society, see Donner, *Early Islamic Conquests*, pp. 39–40.

23 See Michael Bonner, *Aristocratic Violence and Holy War: Studies in the Jihad and the Arab-Byzantine Frontier* (New Haven, CT, American Oriental Society, 1996), ch. 1, esp. pp. 11–16.

24 Donner, *Early Islamic Conquests*, pp. 14–18; Hoyland, *Arabia and the Arabs*, pp. 89–91.

25 Hoyland, *Arabia and the Arabs*, p. 114; and see Donner, *Early Islamic Conquests*, pp. 26–7.

security and profit-sharing) reached ostensibly between merchants and pastoralists.²⁶ Raids, a perennial source of tension, produced spoils, including slaves, and were thus as much an economic as military activity.²⁷

These and other intra-communal patterns of Arabian violence persisted, driven variously by economic necessity, rapacity, and political ambition.²⁸ Organized violence helps explain additional features of pre-Islamic Arabian society. Such cities as were built, most in south Arabia, were typically fortified, as were higher-end residential compounds of towns and oases.²⁹ Surviving examples indicate a wide availability of weapons – daggers, swords, lances and spears, the bow and quiver – and, again, it is likely that young males acquired skill in their use on a routine basis.³⁰ Additional if controversial evidence occurs in the battle narratives preserved in Arabic historiography (the *ayyām al-‘arab*).³¹ Narrative accounts and poetry suggest the presence of a ready labor pool in the occurrence of full-scale conflict.³²

Authority, particularly where larger-scale fighting was concerned, often accrued to chiefs of elite nomadic tribes, for whose noble reputation claims to military exploits were paramount.³³ Displays of military prowess mattered: such displays conferred prestige (*sharaf*) and the opportunity to forge extra-tribal authority at the head of confederations. Cooperative in nature and,

26 See Patricia Crone, *Meccan Trade and the Rise of Islam* (Princeton, Princeton University Press, 1987) – on the *ilāf*, see Index – and M. J. Kister, “Mecca and Tamīm,” *Journal of the Economic and Social History of the Orient* 8 (1965), esp. 116–21.

27 Donner, *Early Islamic Conquests*, pp. 26–8. On raiding, slavery, and contemporary views of Arabian peoples, see Noel Lenski, “Captivity and Slavery among the Saracens in Late Antiquity (ca. 250–630 CE),” *Antiquité Tardive* 19 (2011), 237–66.

28 On nomad–sedentary relations, see Hoyland, *Arabia and the Arabs*, pp. 96–102. On the variety of forms of fighting, see Ella Landau-Tasseron, “Features of the Pre-Conquest Muslim Army in the Time of Muḥammad,” in Averil Cameron (ed.), *The Byzantine and Early Islamic Near East*, vol. 3: *States, Resources and Armies* (Princeton, The Darwin Press, 1995), pp. 303–16.

29 See Donner, *Early Islamic Conquests*, p. 29; Hoyland, *Arabia and the Arabs*, pp. 169–71; and Landau-Tasseron, “Pre-Conquest Muslim Army,” pp. 309–10.

30 Hoyland, *Arabia and the Arabs*, pp. 188–92.

31 For an example of their use, see Lecker, *Banū Sulaym*, esp. ch. 7. For a revisionist comment on the *ayyām* literature, with sources, see Lawrence I. Conrad, “The Conquest of Arwād: A Source-Critical Study in the Historiography of the Medieval Near East,” in Averil Cameron and Lawrence I. Conrad (eds.), *The Byzantine and Early Islamic Near East*, vol. 1: *Problems in the Literary Source Material* (Princeton, The Darwin Press, 1992), p. 387, n. 192. For shorter comments, see Lawrence I. Conrad, “Abraha and Muḥammad: Some Observations Apropos of Chronology and Literary Topoi in the Early Arabic Historical Tradition,” *Bulletin of the School of Oriental and African Studies* 50 (1987), 228–9; Jabbur, *Bedouins and the Desert*, p. 479; Robinson, *Islamic Historiography*, p. 44.

32 On poetry, with examples, see Kennedy, *Great Arab Conquests*, pp. 40–2.

33 Donner, *Early Islamic Conquests*, pp. 28–34; and Hodgson, *Venture of Islam*, vol. 1, pp. 147–51.

therefore, subject to the wear of internecine division, the confederations played a vital role in the perennial petty wars of Peninsula history and in confronting shared external threats. Such threats took the form of expansion by the neighboring powers of Byzantium, the Sasanid state, and the kingdom of Himyar (south Arabia) in the seventh century. Such incursions were episodic: Arabian society, as often as not, existed on the periphery of all three states.

The Byzantine and Sasanid empires and, to a lesser extent, powers in south Arabia long sought influence over Peninsular affairs nonetheless. Imperial incursion was closely related to the post-fourth-century transformation of Byzantium and Sasanid Iran into more tightly centralized and expansionist states. Interaction accelerated between Arabia and the two empires, each ever vigilant of activity by the other, its major rival.³⁴ Imperial relations with Arabia intensified particularly in the sixth century. It was typically a matter of client relations. Thus, the Himyarites in Yemen made allies of key southern Arabian confederations.³⁵ Similarly, the Kinda, preeminent in north Arabia, exerted authority across much of the Peninsula and, shortly before the rise of the Arab/Islamic state, allied itself with the Byzantines. More significant still were the alliances of Byzantium and the Ghassānids, on the one side, the Sasanids and Lakhmids, on the other. The two north Arabian powers – the Banū Ghassān, along the frontier of north Arabia and Syria, and the Lakhmids, centered in southern Iraq – stood to gain subsidies, weaponry, and prestige from these alliances. As imperial clients, the Ghassānids served Byzantine interests, often in checking lesser Peninsular forces; the Lakhmids functioned similarly on behalf of the Sasanids.³⁶

Neither alliance, however, survived the sixth century: in each case, Byzantine and Sasanid monarchs severed relations with their local allies. The collapse of the political status quo likely produced a power vacuum in the northern Peninsula. It occurred as the two great empires, heirs to long-established

34 See Lawrence I. Conrad, "The Arabs," in Averil Cameron et al. (eds.), *The Cambridge Ancient History*, vol. 14: *Late Antiquity: Empire and Successors*, A.D. 425–600 (Cambridge, Cambridge University Press, 2000), p. 689; Donner, *Early Islamic Conquests*, pp. 42–9; and Hoyland, *Seeing Islam*, pp. 556–7. Garth Fowden, *Empire to Commonwealth: Consequences of Monotheism in Late Antiquity* (Princeton, Princeton University Press, 1993), p. 34, cited by Conrad, observes: "[from] Constantine to Heraclius, recurrent and at times almost constant military confrontation between Christian Rome and Mazdean Iran sharpened each side's cultural identity and conviction of superiority."

35 Conrad, "The Arabs," p. 692; Donner, *Early Islamic Conquests*, pp. 42–3; and Hoyland, *Arabia and the Arabs*, pp. 49–57. Cf. Suliman Bashear, *Arabs and Others in Early Islam* (Princeton, Darwin Press, 1997), pp. 24–5.

36 Donner, *Early Islamic Conquests*, pp. 37–49.

Roman–Iranian rivalry, turned on each other with particular violence at the turn of the seventh century. Historians argue whether this final confrontation shaped conditions for the Arabian/Islamic conquests. In response to a Sasanid invasion of Syria, Egypt, and Palestine, followed by a roughly two-decades-long Iranian occupation, the emperor Heraclius (r.610–41) led his Byzantine forces, with nomadic Turkic forces providing significant support, in a full-scale attack on the Sasanid heartland.³⁷ Again, the question lies in the extent to which invasion/counter-invasion offered opportunity: did “a generation of savage warfare between the Byzantines and the Sasanians” undercut their ability to withstand the Arab/Islamic attacks?³⁸

The Qur’an, the Prophet, and warfare

Arabian society was to be shaped indelibly by the empire building of the Umayyads and ‘Abbāsids alike and the near-simultaneous articulation of the Islamic tradition. These developments sprang from the events of the Prophet’s career and the shaping of early Muslim society.³⁹ Again, most information pertaining to the first Arabian/Islamic period derives from much later Arabic sources (supplemented by non-Arabic works and the various forms of material evidence). Debate in modern scholarship underscores the difficulty – to some, the impossibility – of using such sources to reconstruct the early period, whether for military or any other form of history.⁴⁰ The sources, each with its problems, include the Qur’an and

37 Beate Dignas and Engelbert Winter, *Rome and Persia in Late Antiquity, Neighbours and Rivals* (Cambridge, Cambridge University Press, 2007), pp. 44–9; and Kennedy, *Great Arab Conquests*, pp. 68–70. For background, see Dignas and Winter, *Rome and Persia*, pp. 18–44; and James Howard-Johnston, “The Two Great Powers in Late Antiquity: A Comparison,” in Averil Cameron (ed.), *The Byzantine and Early Islamic Near East*, vol. 3: *States, Resources and Armies* (Princeton, The Darwin Press, 1995), pp. 162–5. Parvaneh Pourshariati, *Decline and Fall of the Sasanian Empire: The Sasanian-Parthian Confederacy and the Arab Conquest of Iran* (London, I. B. Tauris, 2008), esp. pp. 140–60, contains broad arguments on Late Antique Iran and the Arab conquests.

38 Kennedy, *Age of the Caliphates*, p. 27.

39 A fine introduction to the traditional account of the Prophet’s life and the first community is F. E. Peters, *Muhammad and the Origins of Islam* (Albany, State University of New York Press, 1994). Peters hews deliberately to the Arabic/Islamic tradition, relying notably on the works of al-Ṭabarī and Ibn Ishāq. The latter work, like that of al-Ṭabarī (see earlier note), is available in good English translation: Alfred Guillaume, *The Life of Muhammad* (London, Oxford University Press, 1955). For a sharply contrasting approach, see Michael Cook, *Muhammad* (Oxford, Oxford University Press, 1983).

40 A fine introduction is Robinson, *Islamic Historiography*. See, for example, his telling comments, pp. 50–4. For a “revisionist” assessment of the early Arabic/Islamic sources, see Patricia Crone, *Slaves on Horses: The Evolution of Islamic Polity* (Cambridge,

ḥadīth (the record of the Prophet's teachings) alongside biographies of the Prophet (the *sīra*/*maghāzī* tradition).⁴¹

Much has been written on the hazards of mining the Qur'an for evidence. It refers, for example, to locations at which Muḥammad engaged in fighting (e.g. Badr, 'Uḥud, and Mecca); external but much later sources indicate that his opponents were Jewish tribes of the Hijaz and pagan Arab forces headed by the Quraysh (Mecca). The Qur'anic references, however, occur only in passing and with great ambiguity. To make sense of such ostensible references and, indeed, the wider patterns of the Prophet's life, the Arabic/Islamic exegetical tradition (*tafsīr*) produced biographies of the Prophet; the exercise constituted just that, exegesis, as the many divergent readings of the Arabic sources make clear.⁴² Two major extant biographical works are those of al-Wāqidi (d.823) and Ibn Ishāq (d.767); the latter work survives in the recension of Ibn Hishām (d.834). As difficult as it is to reconstruct the Prophet's career, there is little question but that warfare remained a preoccupation throughout.⁴³ The Islamic tradition generally understands Muḥammad's military activity as having been consistent with his mission: he behaved as prophets had before him, if in more perfect form. It fell to him to not only defend the faith and his following but also to model such conduct for posterity.

The Qur'an, for its part, makes much of fighting and its effects.⁴⁴ Many references occur to fighting in general, typically with some derivative of the verb *q-t-l* (e.g. *qitāl*, "combat, battle").⁴⁵ Believers are encouraged to take up arms, usually against those who stand outside or resist the community of faith. But nearly all such verses hold that fighting is to be carried out on a defensive basis; an apparent exception is that of the "sword verse."⁴⁶ Rewards, here and in the hereafter, await the believer/participant, whereas

Cambridge University Press, 1980), pp. 3–17. On the chronology of the conquest of Iran, see Pourshariati, *Decline and Fall*, pp. 281–2.

41 On modern debate over the reliability of the Arabic sources, see Jonathan Berkey, *The Formation of Islam: Religion and Society in the Near East, 600–1800* (Cambridge, Cambridge University Press, 2003), pp. 57–60 and Kennedy, *Age of the Caliphates*, pp. 346–58.

42 See Jane Dammen McAuliffe (ed.), *Encyclopaedia of the Qur'ān* (Leiden, Brill, 2001–6) [hereafter EQ], s.v. "Expeditions and Battles" (Faizer).

43 See Donner, *Early Islamic Conquests*, pp. 51–82; Hodgson, *Venture of Islam*, vol. 1, pp. 167–95; Kennedy, *Age of the Caliphates*, pp. 33–48; and Peters, *Muhammad*, pp. 192–4, 198–210, 211–33.

44 For a good introduction, see two articles in EQ, "War" (Crone); and "Expeditions and Battles" (Faizer). Cf. Khalid Yahya Blankinship, *The End of the Jihād State: The Reign of Hishām ibn 'Abd al-Malik and the Collapse of the Umayyads* (Albany, State University of New York Press, 1994), pp. 12–13.

45 EQ, s.v. "Expeditions and Battles" (Faizer), esp. the second paragraph.

46 EQ, s.v. "War" (Crone), esp. section titled "The moral status of war."

those who opt out (without proper cause) are chastised. The purpose of war, if not always made explicit, was to be understood as religious (see below on *jihād*).⁴⁷ Further verses deal with spoils, prisoners of war, and the appropriate times and places for wielding arms.

The “sword verse” (9:5 – “kill the idolaters wherever you find them, lay hold of them, besiege them, lay in wait for them”) is often read as a call to offensive warfare. But it is likely to have been conditional (dealing only with oath-breakers and the like); activity of this kind was to cease when the opponent lay down weapons and/or repented.⁴⁸ The “*jizya* verse” (9:29 – “fight those of the People of the Book [Jews and Christians] who do not believe in God and the Last Day . . . until they pay the poll tax [*jizya*] from their wealth submissively”) was a puzzle for medieval exegetes as it is for their modern counterparts: discussion in the commentaries confounds efforts to discern its original meaning. The indications are that the *jizya* was some manner of tax levied on Arabian tribes that balked at converting to Islam. In this sense, it was fiscal as well as confessional in intent.⁴⁹

Qitāl, the term, has a fairly straightforward meaning as “fighting”;⁵⁰ by contrast, the term *jihād*, as it occurs in the Qurʾān, appears far more nuanced.⁵¹ Like other derivatives of *j-h-d* (generally, “to strive or exert effort”), it appears in a variety of contexts, only some of which are to be “unequivocally interpreted as signifying warfare.”⁵² In nearly every case, again, the thrust is religious: the believer is to fight “in the path of God” (*fī sabīl Allāh*); the challenge is a divine test of worthiness; the effort is most often against those who would reject God; participation is proof of commitment; and, properly achieved, it earns divine reward.⁵³ From an early point, it appears, *jihād* bore a dual aspect: the first, “internal,” was the individual’s effort to hew to a righteous lifestyle; the second,

47 See EQ, s.v. “Conquest” (Robinson).

48 Muhammad Asad, *The Message of the Qurʾān* (Gibraltar, Dar al-Andalus, 1980), p. 256, n. 9 and EQ, s.v. “War” (Crone), see the fourth paragraph.

49 EQ, s.v. “Poll Tax” (Heck). 50 EQ, s.v. “Fighting” (Firestone).

51 For an introduction, see Michael Bonner, *Jihād in Islamic History: Doctrines and Practice* (Princeton, Princeton University Press, 2006); and EQ, s.v. “Jihād” (Landau-Tasseron). A thorough discussion is Alfred Morabia, *Le Gihad dans l’Islam medieval* (Paris, Albin Michel, 1993). A recent translation by Yasir S. Ibrahim of al-Ṭabarī’s *Kitāb al-Jihād* (Lewiston, NY, Edwin Mellen Press, 2007) offers one representative discussion from the early ‘Abbāsīd period. On *jihād* in its late antique context, see Thomas Sizgorich, *Violence and Belief in Late Antiquity: Militant Devotion in Christianity and Islam* (Philadelphia, University of Pennsylvania Press, 2009).

52 Bonner, *Jihād*, pp. 25–31 and EQ, s.v. “Jihād” (Landau-Tasseron). The quoted phrase occurs in the latter text (third paragraph).

53 See Blankinship, *Jihad State*, pp. 12–13; and EQ, s.v. “Jihād” (Landau-Tasseron).

“external,” consisted, in large measure, of armed combat.⁵⁴ But this is to impose too great a consistency upon the Qur’anic references: generations of exegetes would labor over contradictions in the verses that treat fighting. More to the present point is that *jihād* constituted the ideological wellspring of the Arabian/Islamic conquests.⁵⁵

The Prophetic teachings (*ḥadīth*) evince the centrality of military activity in early Arabian/Islamic society as well. Much has been written about the origins and authenticity of *ḥadīth*.⁵⁶ Just as they do most other topics, these texts likely often reflect debate, in this case regarding war and diplomacy, within urban scholarly circles of the eighth and ninth centuries. Many references to warfare/fighting and, in particular, *jihād*, generally follow the lead of Qur’anic material although in more explicit fashion.⁵⁷ So, for example, a chapter of the *Ṣaḥīḥ* of Muḥammad ibn Ismā’īl al-Bukhārī (d.870), the compiler of this major *ḥadīth* collection in the Sunni tradition, deals with topics related to “fighting on the path of God.” These same reports refer to episodes of the Prophet’s life, including those in which Muḥammad took up arms directly, and, without exception, these are framed in normative and spiritual terms.⁵⁸

The earliest efforts at recounting the Prophet’s life directly may have been known as *maghāzī* (rather than *sīra*), a term normally translated as “campaigns,” and, more particularly, the campaigns organized by the Prophet against his Meccan opponents.⁵⁹ Leading to the conflict with Mecca, among other developments, was the so-called second Pledge of al-Aqaba (a site near Mecca). The first Pledge led to agreement between Muḥammad and twelve

54 Bonner, *Jihād*, pp. 13–14, 22.

55 See Blankinship, *Jihād State*, pp. 11ff.; and Kennedy, *Great Arab Conquests*, pp. 48–51.

56 Modern scholarship on *ḥadīth* is extensive. See, as a starting point, Khalidī, *Arabic Historical Thought*, pp. 17–28; and Christopher Melchert, *Aḥmad ibn Hanbal* (Oxford, Oneworld Publications, 2006), pp. 19–57. A fuller discussion is G. H. A. Juynboll, *Muslim Tradition: Studies in Chronology, Provenance, and Authorship of Early Ḥadīth* (Cambridge, Cambridge University Press, 1983).

57 See Bonner, *Aristocratic Violence*, pp. 24–38, on warfare in early Arab/Islamic society as reflected in *ḥadīth*.

58 For a modern translation of al-Bukhārī, see Muhsin Khan, *Saḥīḥ al-Bukhārī*, 9 vols. (Riyadh, Darussalam Publishers, 1997); on *jihād*, see 4:44–199 = Book 56: nos. 2782–3090. A French translation is O. Houdas and W. Marçais, *Les Traditions islamiques*, 4 vols. (Paris, E. Leroux, 1903–14). The standard scholarly edition is that of L. Krehl and T. W. Juynboll, *Le Recueil des traditions mahométanes*, 4 vols. (Leiden, E. J. Brill, 1908).

59 For an excellent introduction, see Martin Hinds, “*Maghāzī* and *Sīra* in Early Islamic Scholarship,” in Toufic Fahd (ed.), *La Vie du Prophète Mahomet* (Paris, Presses Universitaires de France, 1983), pp. 57–66, repr. in Martin Hinds, *Studies in Early Islamic History*, ed. Jere Bacharach et al. (Princeton, The Darwin Press, 1996), pp. 188–98; and EQ, s.v. “Expeditions and Battles” (Faizer).

close associates (*Anṣār*) from Medina that set the stage for the *Hijra* and subsequent tensions between Muḥammad and his Quraysh opponents.⁶⁰ The exegetical tradition typically links the second Pledge, that of concern here, to *Sūrat al-Ḥajj* (22:39–41).⁶¹ Ibn Ishāq, on whom many later Muslim writers relied, explains it as a further agreement between Muḥammad and the Medinans but with a significant twist: the Prophet now enjoyed divine mandate to take up arms. This appears to explain how later Muslim commentators understood the Qur'anic reference, "Those who fight are granted permission because they have been wronged, for God will surely champion them, those who have been driven from their homes only for having declared 'God is our Lord.'"⁶² The revelation, one is told, was soon followed by a Quraysh decision to assassinate the Prophet. Muḥammad, forewarned, slipped away to Medina, an event known as the *Hijra*.

Muḥammad, now ensconced in Medina, faced myriad challenges. The need to unify a disparate following would seem the obvious explanation for a remarkable document (or set of documents), generally held to be authentic but in its details the subject of argument. The so-called "Constitution of Medina" is principally of interest here for what it reveals of Muḥammad's efforts to consolidate a newly won authority, organize for warfare, and assure the security of his following.⁶³ These are among the obvious elements holding the document together. In addition, the "Constitution" would seem to evince a trajectory in Muḥammad's interaction with the Medinan Jews. In the case of two of the Jewish tribes – the Naḍir and Qaynuqa – the end result was expulsion, and, for a third, the Qurayza, destruction.⁶⁴

The Prophet's conflict with the Quraysh turned on the latter's hostile response to his (monotheistic) challenge to local pagan tradition and their preeminent role in Meccan society. The Arabic/Islamic accounts generally

60 Peters, *Muhammad*, pp. 179–89, esp. pp. 182–5. 61 See Asad, *Message*, p. 512, n. 57.

62 22:39 (*Sūrat al-Ḥajj*). See Peters, *Muhammad*, p. 184.

63 For discussion and references to the considerable literature, see Robert Hoyland, "Sebeos, the Jews and the Rise of Islam," in Ronald L. Nettle (ed.), *Medieval and Modern Perspectives on Muslim-Jewish Relations* (Luxembourg, Harwood Academic Publishers, 1995), pp. 93–6; R. Stephen Humphreys, *Islamic History: A Framework for Inquiry*, rev. ed. (Princeton, Princeton University Press, 1991), pp. 92–8; and Michael Lecker, *The "Constitution of Medina": Muhammad's First Legal Document* (Princeton, The Darwin Press, 1994). The latter sees it a "unified document" (see his Appendix B).

64 See Donner, *Early Islamic Conquests*, p. 62; M. J. Kister, "The Massacre of the Banū Qurayza: A Re-Examination of a Tradition," *Jerusalem Studies in Arabic and Islam* 8 (1986), 61–96; Gordon Darnell Newby, *A History of the Jews of Arabia: From Ancient Times to Their Eclipse under Islam* (Columbia, University of South Carolina Press, 1988), pp. 78–96, esp. pp. 90–4; and Norman A. Stillman, *Jews of Arab Lands: A History and Source Book* (Philadelphia, The Jewish Publication Society of America, 1979), pp. 13–17, 137–44.

depict Muḥammad's triumph over the Quraysh (and thus Mecca) as inevitable despite notable setbacks. A recent study brings together much of the available evidence on military developments of the first decade of Islamic history, including what might be called the command structure of the first Arabian/Muslim armies. It suggests that Muḥammad's forces enjoyed greater success in raiding than in formal battle, and that as much if not more was achieved, insofar as territorial expansion by Medina was concerned, through diplomacy and other non-military means.⁶⁵ But, in the case of conflict with the Quraysh/Meccan forces, the Arabic/Islamic tradition does make much of pitched battles.

The earliest sources treat a raid on a Meccan caravan (at Nakhla) as the onset of fighting; it is held as the first occasion in which spoils of war were divided, the Prophet, as leader, receiving one-fifth (to do with what he deemed correct). The attack was initially controversial since it took place in a sacred month; the offense was subsequently excused (Qur'an, 2:217). The confrontation at Badr (624), a pitched fight, was a triumph for Muḥammad and his followers. The Islamic tradition, following the Qur'an, connects the victory to the appearance of angels;⁶⁶ the Prophet's decision to institute ritual fasting (Ramadan); and a strengthening of the Prophet's hand, both within Medina and against his foes.⁶⁷ Subsequent clashes, at 'Uḥud (625) and then at the so-called Battle of the Trench (627) – outside the walls of Medina – yielded little resolution although events, in general, worked to the Prophet's favor. The fighting itself is described as having involved the use of archers and much close-quarter lance and sword-work. A period of truce, achieved at al-Ḥudaybiya (628), led finally to Mecca's fall. The Quraysh leadership, having capitulated, was subsequently welcomed – though not without much controversy – into the Prophet's top circles.⁶⁸

The Arabic/Islamic tradition, in general, attaches significance to these events less on political and military grounds than as indication of divine guidance of the believers, the nature of Muḥammad's authority, the weight of his teachings as a source of instruction, and the merits of precedence (see below). Here it suffices to relate the events of Muḥammad's last years to the "hegemony" of Medina and the onset of the conquests.⁶⁹

65 Landau-Tasseron, "Pre-Conquest Muslim Army," p. 316.

66 The Qur'an (3:13) alludes to "twice the actual number" seen by the Meccans at Muḥammad's side.

67 Peters, *Muhammad*, pp. 213–18. Also Donner, *Early Islamic Conquests*, pp. 62–3; and Kennedy, *Age of the Caliphates*, p. 36.

68 Donner, *Early Islamic Conquests*, pp. 77–82. 69 Ibid., p. 69.

The Arabian/Islamic conquests

The indications are that Muḥammad, combining diplomacy and arms, extended the reach of his nascent polity across the Peninsula and into southern Syria.⁷⁰ Events included a victory over the Banū Thaqīf at Ḥunayn (630), the seizure of Ṭā'if, and the Prophet's incorporation of the Thaqīf leadership into the ranks of the believers. Much is also made of the arrival in Medina of delegations (*wufūd*) from across the Peninsula. The arrangements reached with a series of tribes varied, from "non-aggression pacts" to outright embrace of the Prophet's leadership.⁷¹ His death (632) triggered conflict on this front and in regards to succession; the latter step was resolved – despite the resistance of given circles of Muslims – with the selection of Abū Bakr (d.634).⁷² He is remembered for having sustained two of the Prophet's initiatives: consolidation over the Peninsula and the first Syria campaigns. The effort to secure the Peninsula is known as the *Ridda* wars; the term refers to the "repudiation" of Islamic hegemony by Medina's ostensible allies.⁷³ Notable were the claims of "false prophets," e.g. Maslama (or Musaylima) ibn Ḥabīb, whose challenge, in other words, was ideological.⁷⁴ The second effort, against Byzantine-held Syria, is held to have followed on the heels of the *Ridda* wars. Again, the sources typically assign the Prophet responsibility for initial incursions. If these first raids produced mixed results,⁷⁵ what followed no doubt exceeded the expectations of all concerned.

A full reconstruction of the history of the Arabian/Islamic conquests is, as noted earlier, beyond our reach.⁷⁶ Many references to specific events are apocryphal, and even the earliest accounts post-date the conquests by many

⁷⁰ Ibid., pp. 62–75; and Kennedy, *Age of the Caliphates*, pp. 44–8.

⁷¹ Donner, *Early Islamic Conquests*, pp. 108–9.

⁷² For an introduction to the succession's far-reaching consequences, see Berkey, *Formation*, pp. 87–90; and Kennedy, *Age of the Caliphates*, pp. 50–4. For an extended discussion, see Wilferd Madelung, *The Succession to Muḥammad: A Study of the Early Caliphate* (Cambridge, Cambridge University Press, 1997); and on the Shi'ite tradition, Moojan Momen, *An Introduction to Shi'i Islam: The History and Doctrines of Twelver Shi'ism* (New Haven, Yale University Press, 1985).

⁷³ The standard modern source is Elias Shoufani, *Al-Riddah and the Muslim Conquest of Arabia* (Toronto, University of Toronto Press, 1973). See also Donner, *Early Islamic Conquests*, pp. 82–90 and passim; and Kennedy, *Age of the Caliphates*, pp. 50–7. Pourshariati, *Decline and Fall*, pp. 281–5, raises questions of this long-held reading of events.

⁷⁴ See EQ, s.v. "Musaylima" (M. J. Kister); and M. J. Kister, "The Struggle against Musaylima and the Conquest of Yamama," *Jerusalem Studies in Arabic and Islam* 27 (2002), 1–56.

⁷⁵ Peters, *Muhammad*, pp. 230–3. ⁷⁶ Kennedy, *Age of the Caliphates*, pp. 59–60.

decades and are colored deeply by literary convention.⁷⁷ They also reflect post-conquest considerations: evidence regarding northern Mesopotamia, for example, seems to reflect early 'Abbāsid administrative and confessional disputes.⁷⁸ Evidence from archaeology is partial, although one preliminary conclusion concerning Syria and Palestine is that the Arab/Islamic campaigns exacted only a moderate toll on economic and social organization.⁷⁹ The non-Arabic sources, as suggested earlier, are often in line with the Arabic works but normally provide fragmentary evidence colored in many cases by a hostile reception to Arabian/Islamic rule.⁸⁰

The initial and most extensive phase of conquest (630–52) was largely managed centrally from Medina;⁸¹ rudimentary communication, however,

77 A straightforward introduction to the problems is Kennedy, *Great Arab Conquests*, pp. 12–33, which includes comments on the limitations of archaeological evidence. For an extended, skeptical assessment, see Conrad, "The Conquest of Arwād," and the much-cited Albrecht Noth and Lawrence I. Conrad, *Early Arabic Historical Tradition: A Source-Critical Study* (Princeton, Darwin Press, 1994), *passim* (see *Futūḥ*).

78 Chase F. Robinson, *Empire and Elites after the Muslim Conquest: The Transformation of Northern Mesopotamia* (Cambridge, Cambridge University Press, 2000), pp. 1–32. On other regions, see Martin Hinds, "The First Arab Conquests in Fārs," *Iran: Journal of Persian Studies* 22 (1984), 39–53, repr. in Martin Hinds, *Studies in Early Islamic History*, ed. Jere Bacharach et al. (Princeton, The Darwin Press, 1996), pp. 199–231; Michael Morony, "The Effects of the Muslim Conquest on the Persian Population of Iraq," *Iran* 14 (1976), 41–59; Chase F. Robinson, "The Conquest of Khūzistān: A Historiographical Reassessment," *Bulletin of the School of Oriental and African Studies* 67.1 (2004), esp. 30–9. An older study is H. A. R. Gibb, *The Arab Conquests in Central Asia* (London, The Royal Asiatic Society, 1923). On the conquest of Egypt, see Hoyland, *Seeing Islam*, pp. 574–90; Walter E. Kaegi, "Egypt on the Eve of the Muslim Conquest," in Carl F. Petry (ed.), *The Cambridge History of Egypt*, vol. 1: *Islamic Egypt, 640–1517* (Cambridge, Cambridge University Press, 1998), pp. 34–61; and Hugh Kennedy, "Egypt as a Province in the Islamic Caliphate, 641–868," in Petry, *The Cambridge History of Egypt*, vol. 1, pp. 62–85.

79 On Syria, see Clive Foss, "Syria in Transition, A.D. 550–750: An Archaeological Approach," *Dumbarton Oaks Papers* 51 (1997), 189–269; and Alan Walmsley, *Early Islamic Syria: An Archaeological Assessment* (London, Duckworth Publishers, 2007). On the value of papyri, particularly in relation to early Islamic Egypt, see Petra M. Sijpesteijn, "The Arab Conquest of Egypt and the Beginning of Muslim Rule," in Roger S. Bagnall (ed.), *Egypt in the Byzantine World, 300–700* (Cambridge, Cambridge University Press, 2007), pp. 437–59.

80 Two works of particular value in this regard are available in translation: John of Nikiu, *The Chronicle of John (c.690 AD) Coptic Bishop of Nikiu*, trans. Robert Henry Charles (London, Williams & Norgate, 1916) for Egypt and Sebeos, *The Armenian History Attributed to Sebeos*, trans. R. W. Thomson with historical commentary by J. Howard-Johnston with Tim Greenwood, 2 vols. (Liverpool, Liverpool University Press, 1999) for Armenia. On the initial reaction to the Arabian/Islamic conquests, see Berkey, *Formation*, pp. 73–5 and, for a more detailed assessment, Hoyland, *Seeing Islam*, *passim*.

81 See Donner, *Early Islamic Conquests*; Walter E. Kaegi, *Byzantium and the Early Islamic Conquests* (Cambridge, Cambridge University Press, 1992); and Kennedy, *Great Arab Conquests*. Also, more generally, Blankinship, *Jihad State*. Further reading in the collected articles in Fred M. Donner (ed.), *The Expansion of the Early Islamic State* (Aldershot, Ashgate Publishing, 2008). On Iran, see Michael Morony, *Iraq after the*

can only mean that much ad hoc decision-making in the field occurred.⁸² 'Umar I (r.634–44), the second of the Prophet's successors, emerges in the Arabic sources as an exacting figure of impeccable religious credentials, much preoccupied with military and administrative detail.⁸³ The accounts of his reign treat the delicate politics surrounding his relations with field commanders, such (larger-than-life) figures as Khālīd ibn al-Walīd (d.642), 'Amr ibn al-Āṣ (d.663), and Abū 'Ubayda ibn al-Jarrāḥ (d.639).

The campaigns followed directly on the *Ridda* wars. The Arabian/Muslim forces moved against Byzantine forces in Syria; in three battles (634–7), at Ajnadayn, Fihl, and at the Yarmūk river (south of Damascus), the smaller, lightly equipped Arab forces bested imperial armies and their local (Arab) allies. Damascus fell, as did cities in northern Syria including Aleppo and Caesarea (the latter case perhaps a rare example of pillage by Arab/Muslim forces⁸⁴). Arab units soon occupied Jerusalem; shortly thereafter the Byzantine presence in the region collapsed. Having overrun Palestine, Arab forces led by 'Amr ibn al-Āṣ turned south to Alexandria (642). Egypt, a rich prize, took on additional value as a springboard for campaigns to the west.⁸⁵ In Iraq, after some initial difficulty, Arab armies overran their Sasanid opponents. Led by Khālīd ibn al-Walīd and, later, Sa'd ibn Abī Waqqāṣ (d. c.675), Arab forces routed a larger Iranian army at al-Qādisiyya. The Sasanid capital at Ctesiphon (al-Madā'in) fell thereafter, leaving open the coveted alluvial plains of central Iraq (the *Sawād*).

The political map of the Mediterranean was now to be redrawn.⁸⁶ Subsequent Arabian/Muslim expansion, across North Africa into Spain and from Iran into Central Asia, occurred under the Umayyad aegis.⁸⁷ The Umayyads, centered in Damascus, remained on nearly permanent war footing, with much effort directed at Byzantium. Elaborate campaigns to take

Muslim Conquest (Princeton, Princeton University Press, 1984); and Pourshariati, *Decline and Fall*, pp. 161–285.

82 Again, see Silverstein, *Postal Systems*, pp. 7–51, esp. pp. 42–51. Cf. Kennedy's comment in *Armies of the Caliphs*, p. 4; and Pourshariati, *Decline and Fall*, pp. 144–5.

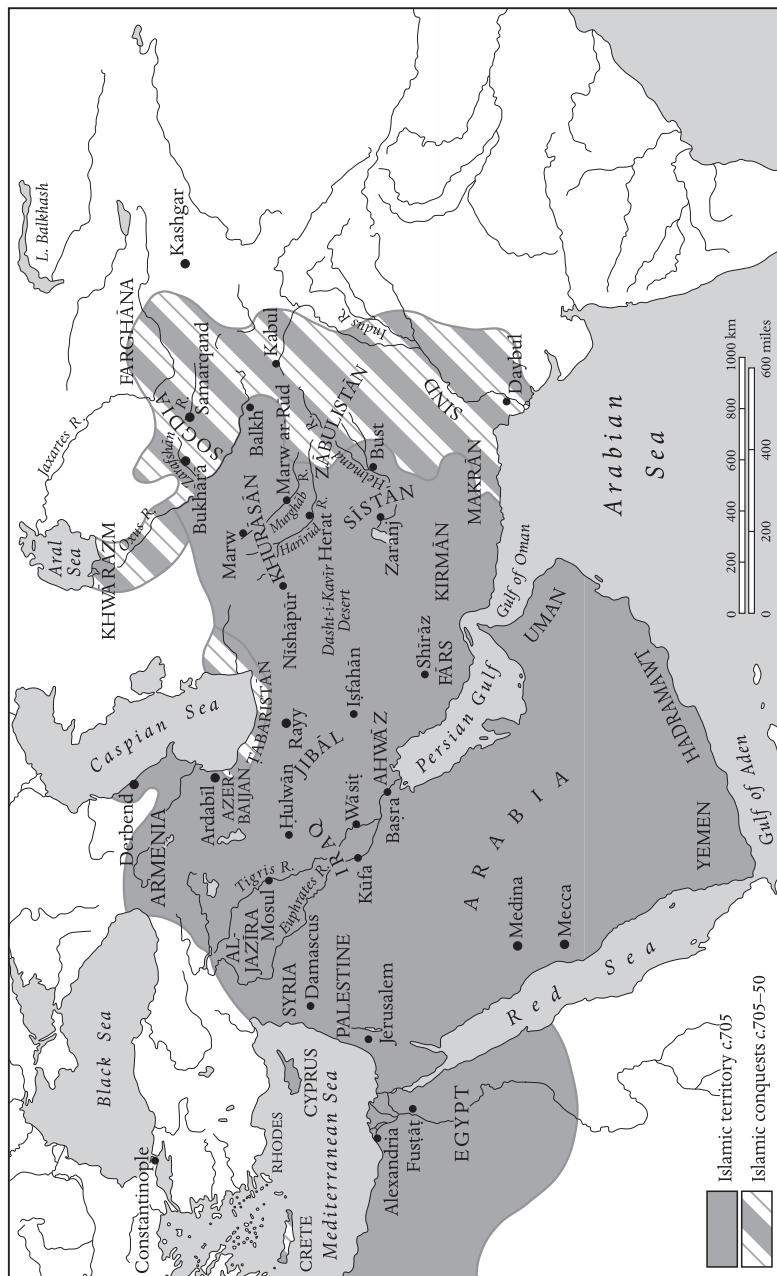
83 For an introduction, see *EL2*, s.v. "'Umar (I) b. al-Khattāb" (Levi Della Vida/Bonner).

84 R. Stephen Humphreys, *Mu'awiya ibn Abi Sufyan: From Arabia to Empire* (Oxford, Oneworld Publications, 2005), pp. 44–5. Cf. Kenneth G. Holum, "Archaeological Evidence for the Fall of Byzantine Caesarea," *Bulletin of the American Schools of Oriental Research* 286 (1992), 73–85.

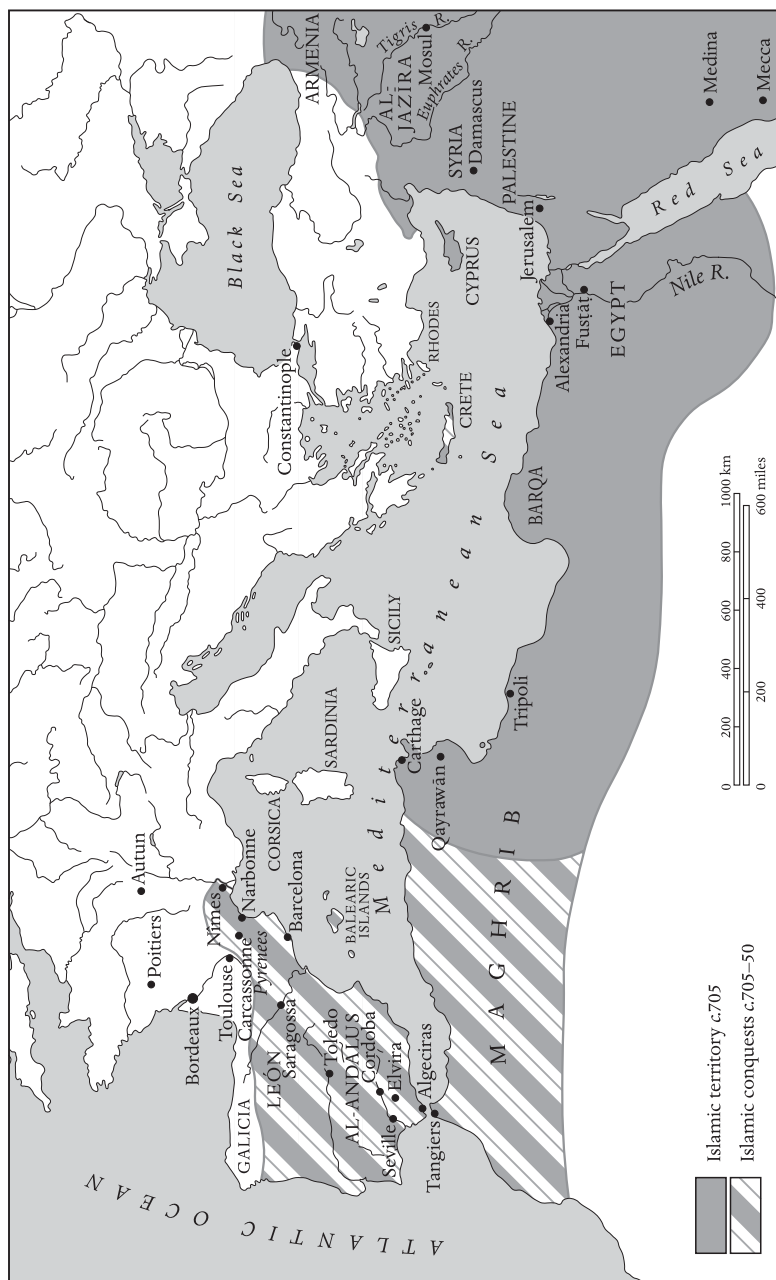
85 For a discussion of Byzantine attempts to restrain the Arab forces through tribute, see Hoyland, *Seeing Islam*, pp. 574–90.

86 For maps of the early Islamic empire, see Hugh Kennedy, *An Historical Atlas of Islam*, rev. ed. (Leiden, E. J. Brill, 2002), pp. 6–10; and Malise Ruthven, *Historical Atlas of Islam* (Cambridge, MA, Harvard University Press, 2004), pp. 24–33.

87 For one account of the phases of conquest, see Blankinship, *Jihad State*, pp. 11–35.



MAP I. The expansion of Islam in the east



MAP 2. The expansion of Islam in the west

Constantinople, however, fell short.⁸⁸ Unsurprisingly, contemporary observers sought to come to terms with these sweeping developments. Arabic/Islamic sources reflect a view of the conquests as the fulfillment of divine promise for the faithful discharge of duty and faith. Non-Muslim opinion varied: if significant Christian and Zoroastrian reaction viewed the conquests as cataclysmic, Jewish voices seem more ambivalent.⁸⁹ Modern scholarship has debated the Arab/Islamic conquests and the reasons for their success. On the question of causes, one long-held but now controversial view has the Quraysh and its allies, long involved in region-wide commerce, seize the opportunity to expand control over “trans-Arabian” routes and markets.⁹⁰

And what of the startling results of the conquests? Not only were political boundaries redrawn but in due course Arabization and Islamization would permanently alter the sociocultural landscape of Iberia, North Africa, the Near East, and Central Asia. At issue are at least two factors: the state of seventh-century Byzantine and Sasanid defenses and, secondly, the nature and motivation of the Arabian/Islamic campaigns. Neither topic is likely to remain free of debate.⁹¹ As noted earlier, much has been made of the early seventh-century Byzantine–Sasanid confrontation: invasion/counter-invasion left the empires too frail to withstand the Arab whirlwind.⁹² But, as Hugh Kennedy has observed, the argument rests on too simple a view of military conditions on both sides of the Arabian–imperial confrontation. It overlooks significant advantages on the Arabian/Islamic side, such as greater mobility on the part of the Arabian units relative to the slower-moving

88 G. R. Hawting, *The First Dynasty of Islam: the Umayyad Caliphate AD 661–750* (Carbondale, Southern Illinois University Press, 1987), pp. 72–3; the last major Umayyad expedition against the Byzantine capital occurred under Sulaymān (r.715–17).

89 See Hoyland, *Seeing Islam*, pp. 69–73, 524–6; Hoyland, “Sebeos,” pp. 90–2; and Kennedy, *Great Arab Conquests*, pp. 344–62. The verse quoted by Hoyland, *Seeing Islam*, pp. 531–2, is provided with discussion by François de Blois, “A Persian Poem Lamenting the Arab Conquest,” in Carole Hillenbrand (ed.), *Studies in Honour of Clifford Edmund Bosworth*, vol. 2: *The Sultan’s Turret: Studies in Persian and Turkish Culture* (Leiden, E. J. Brill, 2000), pp. 82–95.

90 This view is closely associated with W. Montgomery Watt’s many writings on the Prophet’s life and the early Medinan community. See Crone, *Meccan Trade*, esp. pp. 231–7, where the argument is dismissed. Also see Donner, *Early Islamic Conquests*, pp. 270–1, where trade as a factor is suggested and, now, the related comments in Pourshariati, *Decline and Fall*, pp. 226–32.

91 See Kennedy’s closing comments, *Armies*, p. 14. The question runs through several of the fine articles in Cameron (ed.), *The Byzantine and Early Islamic Near East*, vol. 3. Also see Hugh Kennedy, “The Last Century of Byzantine Syria: A Reinterpretation,” *Byzantinische Forschungen* 10 (1985), 141–83, repr. in Hugh Kennedy, *The Byzantine and Early Islamic Near East* (Aldershot, Ashgate Publishing, 2006).

92 See the much-cited discussion in Marius Canard, “L’Expansion arabe: le problème militaire,” *L’Occident e l’Islam nell’Alto Medioevo* 1 (1965), 37–63.

imperial armies.⁹³ And there is the power of Muḥammad's preaching. The notion of *jihād* – the bearing of arms “on God's path” with promise of both immediate and eternal rewards – is quite plausibly seen as having focused the energies of Arabian tribal society.⁹⁴ To discount the inspiration of Qur'an and Prophetic example alike, in any case, may be to miss the point entirely.

The first Arabian/Islamic armies retained a tribal structure, with fighters usually serving under and alongside kinsmen. A reorganization of the conquest armies likely occurred at a steady pace, however, as tribal-style raid turned to war of conquest; the effect on tribal – that is, Arabian sociocultural – organization was probably early and sweeping.⁹⁵ This (likely) scenario presupposes the creation of at least a fledgling state, the formation of which is much debated.⁹⁶ The point, regarding early Muslim society, is that military activity subsumed all others.⁹⁷

If most fighters (*muqātila*) were still of Arabian stock, non-Arabian combatants took on greater prominence through the Umayyad period. The typical fighter was expected to provide his own mounts and weapons (sword, lance, shield, bow, quiver, helmet, and armor).⁹⁸ Fighting was conducted on horseback but more often, it appears, on foot with troops dismounting or, as infantry, assembling for combat, often in formation.⁹⁹ It appears, from innumerable “reports” (*akhbār*, sing. *khbar*), that individual displays of

93 Repeated episodes of plague likely played a part as well. See Michael W. Dols, “Plague in Early Islamic History,” *Journal of the American Oriental Society* 94.3 (1974), 371–83; and Kennedy, *Great Arab Conquests*, pp. 68–9.

94 See Blankinship, *Jihad State*, *passim*; Crone, *Meccan Trade*, pp. 238–45; Donner, *Early Islamic Conquests*, pp. 267–71; and Kennedy, *Great Arab Conquests*, pp. 366–76.

95 See Patricia Crone, “Were the Qays and Yemen of the Umayyad Period Political Parties?” *Der Islam* 71.1 (1994), 42–9; Fred M. Donner, “The Growth of Military Institutions in the Early Caliphate and Their Relation to Civilian Authority,” *Al-Qantara* 14.2 (1993), esp. 311–14; and Landau-Tasseron, “Pre-Conquest Muslim Army,” with comments on historiographic issues (pp. 299–303).

96 Compare the views of Fred M. Donner, “The Formation of the Islamic State,” *Journal of the American Oriental Society* 106.2 (1986) and Robert Hoyland, “New Documentary Texts and the Early Islamic State,” *Bulletin of the School of Oriental and African Studies* 69.3 (2006), esp. 398–403, with Jeremy Johns, “Archaeology and the History of Early Islam: The First Seventy Years,” *Journal of the Economic and Social History of the Orient* 46.4 (2003), 418, 422 and Chase F. Robinson, *ʿAbd al-Malik* (Oxford, Oneworld Publications, 2005), *passim* but see pp. 119–21.

97 See Donner, “Growth,” pp. 322–3: “this fundamental militarization of the early Islamic state.”

98 Crone, “Early Islamic World,” pp. 312–13; Kennedy, *Armies*, pp. 168–78; and David Nicolle, *The Armies of Islam, 7th–11th Centuries* (London, Osprey Publishing, 1982) and “Arms of the Umayyad Era.” Cf. the description of a “properly armed [Sasanid] cavalryman” in Mohsen Zakeri, *Sasanid Soldiers in Early Muslim Society: The Origins of ʿAyyārān and Futuwwa* (Wiesbaden, Harrassowitz Verlag, 1995), p. 50.

99 See Kennedy, *Armies*, pp. 9–11, 23–30.

martial skill remained an ingredient of combat as well. Much remains to be understood of the spread of military technology in conjunction with the conquests; there seems little question but that the *muqātila* came to know unfamiliar weaponry, modes of combat and outfitting, field tactics, and so on. Of particular interest, for example, is the adoption by Arabian/Muslim armies of the iron stirrup; no less significant was a new facility with siegecraft. The Umayyad period would see the creation of new navies as well.

Remuneration for military service, a complex topic, was principally in the form of cash payments and, secondarily, lands or properties. Evidence that “the army directly depended on the state for its subsistence” comes in part from accounts of many incidents of military unrest triggered by late or failed payment.¹⁰⁰ Military administration was the responsibility of the *dīwān*, a registration system of fighters and dependents. Its origins remain to be fully explained; the Arabic sources attribute its creation to ‘Umar I but hint broadly at borrowing from Late Antique practice (Byzantine and/or Sasanid).¹⁰¹ One innovation may have been payment as a reward for (faith and) service, often framed as an earned share of conquest spoils. Revenues generated from the conquered lands (*fāy’*) were held to be the collective property of the Muslim community. Those enrolled in the *dīwān* were entitled to a monthly *rizq* (“ration”) and *‘atā’* (an annual “stipend”); at an early point, rates were determined by “precedence” (*sābiqa*); that is, the earlier the fighter’s commitment to the struggle and, thus, enrollment, the greater the payment.¹⁰² The original *dīwān* system evolved differently from one province to the next. It is held to have been phased out later by the ‘Abbāsīd caliph al-Mu‘taṣim (r.833–42) in a decision to remove Arab fighters from rosters in Egypt.¹⁰³

¹⁰⁰ Kennedy, *Armies*, pp. 59–88. On such an uprising in the ‘Abbāsīd period, see Matthew S. Gordon, *The Breaking of a Thousand Swords: A History of the Turkish Military of Samarra (AH 200–275/815–889 CE)* (Albany, State University of New York Press, 2001), pp. 118–29.

¹⁰¹ On Byzantine precedent, for example, see al-Balādhurī, *Futūḥ al-buldān*, in Philip Hitti and Francis Murgotten (trans.), *The Origins of the Islamic State*, 2 vols. (New York, Columbia University Press, 1916–24), vol. 1, pp. 241, 251. Also see Crone, “Early Islamic World,” p. 313, n. 17. On the Sasanid background, see Morony, *Iraq*, pp. 55–64.

¹⁰² See Crone, “Early Islamic World,” pp. 312–14; Donner, *Early Islamic Conquests*, *passim*; and Kennedy, *Armies*, pp. 59–88. The standard work is G.-R. Puin, *Der Dīwān von ‘Umar ibn al-Ḥaṭṭāb* (Bonn, Rheinische Friedrich-Wilhelms-Universität, 1970). Arrangements were also made on a case-by-case basis: see Crone, “Qays and Yemen,” p. 44.

¹⁰³ On Egypt, see Maged S. A. Mikhail, “Notes on the *Ahl al-Dīwān*: The Arab-Egyptian Army of the Seventh through the Ninth Centuries C.E.,” *Journal of the American Oriental Society* 128.2 (2008), 273–84; and Kosei Morimoto, “The Dīwāns as Registers of the Arab Stipendiaries in Early Islamic Egypt,” *Res Orientales - Itinéraires d’Orient*

ʿUmar I also is credited with the creation of garrison towns (*miṣr*, pl. *amṣār*), perhaps a means to retain fighting units on a permanent footing. The *amṣār* included Mosul, Kūfa, and Baṣra in Iraq; Fustāt in Egypt; and Qayrawān in modern-day Tunisia.¹⁰⁴ Syria was different: conquest forces, attached typically to established towns, were assigned to military districts (*jund*, pl. *ajnād*).¹⁰⁵ The venue of considerable commercial and cultural activity, the *amṣār* served a vital role in the shaping of early Arab/Islamic society, an essential element of which was the integration of non-Arabs, many of whom arrived as captives (mostly prisoners of war). Many were adopted as clients (*mawlā*, pl. *mawālī*) of Arab tribes, often upon conversion and manumission.¹⁰⁶ The *mawālī* entered Arab/Islamic society in steady numbers, filling, within a generation or two, coveted offices across imperial society and leaving, as a result, a lasting imprint on early Islamic culture, administration, and scholarship. Non-Arabs were recruited into the armies, including whole regiments drawn, in particular, from former Sasanid lands.¹⁰⁷

Territorial expansion and Arab settlement gave rise to new problems. Sectarianism spread in Arabian/Arab ranks, as did resentment dividing rank-and-file and tribal leaders (*sharīf*, pl. *ashrāf*).¹⁰⁸ A new-style tribal factionalism, in Syria and other major provinces, took root as well. And more banal patterns played their part: many Arab/Muslim fighters assimilated into

Hommages à Claude Cahen 6 (1994), 353–66. On al-Muʿtaṣim, see Gordon, *Thousand Swords*, pp. 39–40 and Mikhail, “Ahl al-Dīwān,” pp. 283–4.

¹⁰⁴ Khalil ʿAthamina, “Arab Settlement during the Umayyad Caliphate,” *Jerusalem Studies in Arabic and Islam* 8 (1986), 185–207; Donner, *Early Islamic Conquests*, pp. 226–37; and Kennedy, *Armies*, p. 7 (a good list of further sources). Later Arab sources include sites in Iran and Transoxiana (Rayy, Marw, Balkh, Nishāpūr, and Samarqand). See *El2*, s.v. *Misr* (C. E. Bosworth).

¹⁰⁵ Crone, “Early Islamic World,” p. 311; John Haldon, “Seventh-Century Continuities: The *Ajnād* and the “Thematic Myth,” in Averil Cameron (ed.), *The Byzantine and Early Islamic Near East*, vol. 3: *States, Resources and Armies* (Princeton, The Darwin Press, 1995), pp. 379–424; and Kennedy, *Armies*, p. 31. On an apparent first effort to establish *amṣār* in Syria, see Donner, *Early Islamic Conquests*, pp. 245–50; Hoyland, *Seeing Islam*, p. 564; and Kennedy, *Armies*, p. 7.

¹⁰⁶ For a thorough introduction, see *El2*, s.v. *Mawlā* (Crone). Cf. Crone, “Qays and Yemen,” *passim*; and *Slaves on Horses*, pp. 49–57. Also see the many first-rate essays in Monique Bernards and John Nawas (eds.), *Patronate and Patronage in Early and Classical Islam* (Leiden, E. J. Brill, 2005).

¹⁰⁷ Khalil ʿAthamina, “Non-Arab Regiments and Private Militias during the Umayyād Period,” *Arabica* 45.3 (1998), 347–78; Crone, “Early Islamic World,” p. 314, and “Qays and Yemen,” pp. 12–17; Isaac Hasson, “Les *Mawālī* dans l’armée musulmane sous les premiers Umayyādes,” *Jerusalem Studies in Arabic and Islam* 14 (1991), 176–213; Kennedy, *Armies*, pp. 4–5, 36; Pourshariati, *Decline and Fall*, pp. 238–41; and Zakeri, *Sāsānīd Soldiers*, pp. 112–28.

¹⁰⁸ See Crone, “Early Islamic World,” pp. 315–16; Hawting, *First Dynasty*, pp. 66–71; and Kennedy, *Armies*, pp. 35–47.

local, non-Arab society, with many turning to non-military occupations (e.g. farming and trade).¹⁰⁹ There is also evidence of new resistance to military service, perhaps a sign of general fatigue.¹¹⁰ As a result, “the tribes . . . [driven] by their internal conflicts and bitter resentment of the caliphal regime . . . ceased to be an effective, reliable and coherent military force.”¹¹¹ The many factors led in rapid order to change in the composition and standing of the Arab/Islamic military.

The imperial armies and Umayyad reform

The main result became clear by the turn of the eighth century: a steady transformation of the citizen/tribal armies into a professional military force.¹¹² The process was connected to complex political and social reconfiguration as well as initiatives in Umayyad state formation, notably on the part of the caliph ‘Abd al-Malik ibn Marwān (r.692–705) and his successors.¹¹³ Three rounds of civil war (*fitna*) gave particular shape to this history.¹¹⁴ The first such conflict (656–61) resulted in the accession of Mu‘āwiya I (r.661–80) and the consolidation of Umayyad control over the caliphate;¹¹⁵ the second (682–92) culminated in the rise of ‘Abd al-Malik (and the Marwānid house);¹¹⁶ the third (744–50) in the ouster of the Umayyads and the onset of the ‘Abbāsīd reign.

Mu‘āwiya I is generally described as a successful ruler.¹¹⁷ Information is scarce regarding his approach to military affairs: the evidence suggests here, as in other areas, a cautious hand. He likely depended on the system of local, non-professional armies (Iraq, Egypt, Syria) shaped in the first conquest period,¹¹⁸ and, for assurance of stability, a network of *ashrāf* and regional governors.¹¹⁹ He is credited with the creation of the *shurṭa* (internal security

109 Crone, “Early Islamic World,” pp. 315–18; and *Slaves on Horses*, p. 51.

110 See, for the late Umayyad period, Blankinship, *Jihad State*, pp. 224–5, 230.

111 Humphreys, *Mu‘āwiya*, p. 63.

112 Crone, “Early Islamic World,” p. 317; and see Kennedy, *Armies*, pp. 77–8.

113 See Robinson, ‘*Abd al-Malik*, pp. 66–80.

114 For a useful summary of each of the three civil wars, see Hodgson, *Venture*, vol. 1, pp. 215, 220, and 277. Also see Julius Wellhausen, *Die arabische Reich und sein Sturz*, trans. Margaret Graham Weir as *The Arab Kingdom and its Fall*, repr. (London, Curzon Press, 1973), now dated but still full of insights.

115 See *El2*, s.v. “Mu‘āwiya I b. Abi Sufyān” (M. Hinds); and Humphreys, *Mu‘āwiya*. For an overview of the civil war (656–61 CE), see Kennedy, *Age of the Caliphates*, pp. 69–90.

116 On the second civil war, see Gernot Rotter, *Die Umayyaden und der zweite Bürgerkrieg (680–692)* (Wiesbaden, Kommissionsverlag Steiner, 1982).

117 See Humphreys, *Mu‘āwiya* and Robinson, ‘*Abd al-Malik*, p. 24.

118 Kennedy, *Armies*, p. 12. 119 Crone, *Slaves on Horses*, pp. 31–2, 93–123.

forces) and *ḥaras* (elite guard); the two institutions combined military functions and policing.¹²⁰ He appears to have also created the first navies of the Islamic period, an effort tied to the war with Byzantium.¹²¹ Syrian and Jazīran forces provided his principal support: through marriage and patronage he cultivated ties to the Kalb and allied tribes, including the Tanūkh, all of whom had long resided on the Syrian steppes.¹²²

These Syrian armies, following the second civil war, became the mainstay of the Umayyad state. A complex affair, the war turned in good part on two developments: a recasting of Arab tribal alignments¹²³ and a confrontation over the caliphate. Marwān ibn al-Ḥakam (r.684–5)¹²⁴ followed by his son, ‘Abd al-Malik, represented Umayyad claims against those of their principal (anti-Umayyad) opponents, ‘Abd Allāh ibn al-Zubayr (d.692) and his brother Muṣ‘ab (d.691). Tribal politics and civil war informed one another; much of the Qays confederation (predominant in north Syria and the Jazīra) championed the Zubayrids, as did most tribal units in Iraq. ‘Abd al-Malik, following a hard-fought triumph, instituted a program of reform the end result of which was a more centralized, indeed imperial, regime.¹²⁵ The professionalization of the Arab/Islamic military was a specific outcome.

Other measures dealt with the *dīwān*: not only did the regime introduce new incentives¹²⁶ but, to the great distress of many, particularly in Iraq, also redefined the terms of inclusion on military rosters. Payment was now to reflect actual military service (rather than claims to a hereditary pension).¹²⁷ ‘Abd al-Malik’s well-known reform of the empire’s coinage may have been related, the suggestion being that he introduced minting to Syria in order to facilitate the payment of salaries.¹²⁸ In addition he began a replacement of tribal chiefs with (well-paid) commanders; provincial appointments of well-placed military men, principally Syrians, became standard practice.¹²⁹ ‘Abd al-Malik put his Syrian forces to regular use, at first against Byzantine defenses, particularly in Armenia; his successors relied on them as their principal field

120 *El2*, s.v. “Shurṭa” (J. S. Nielsen); and Kennedy, *Armies*, pp. 13–14.

121 Aly Mohamed Fahmy, *Muslim Naval Organisation in the Eastern Mediterranean from the Seventh to the Tenth Century A.D.*, 2nd ed. (Cairo, National Publication and Printing House, 1966), pp. 51–2, 104–5; Humphreys, *Mu‘awiya*, pp. 53–8; and Kennedy, *Great Arab Conquests*, ch. 10, esp. pp. 324–9.

122 Crone, “Qays and Yemen,” p. 44; and Humphreys, *Mu‘awiya*, pp. 61–2.

123 Crone, “Qays and Yemen,” pp. 44–9. Cf. comments by Donner, “Military Institutions,” pp. 320–1.

124 Hence the name “Marwānid” for this branch of the Umayyad house.

125 Robinson, *‘Abd al-Malik*, pp. 59–80. 126 *Ibid.*, p. 68.

127 Kennedy, *Armies*, pp. 76–8.

128 *Ibid.*, p. 69; and Robinson, *‘Abd al-Malik*, pp. 73–5. 129 Crone, “Qays,” pp. 50ff.

armies.¹³⁰ Syrian forces also were called on to instill internal order across the provinces.¹³¹ A turning point was the decision to station Syrian units in Iraq; the Iraqi governor, al-Ḥajjāj ibn Yūsuf (d.714), established a garrison at Wāsiṭ with the twin purposes in mind.¹³² A growing number of Umayyad detractors, especially in Iraq, decried the reliance on Syrian arms.¹³³

If now the Umayyad state was better defended, these measures bore bitter seeds. The shift to a centrally administered military is held to be the source of a new “tribal” factionalism that divided the Syrian armies into the “Yemen” and “Qays/Muḍar” blocs. The terminology is misleading; these were more likely political formations using tribal labels.¹³⁴ The rivalry grew from new patronage networks: governors cemented provincial control – access to revenue and privilege – by dispensing offices to loyal followers. To the 740s, the factionalism was confined to the provinces, chiefly Khurāsān and Iraq; the third civil war witnessed its appearance in Syria with a successful bid for the caliphate by Marwān II (r.744–50), the governor of Armenia and Azerbaijan. His support derived from a new-style army, drawn from the Jazīra and frontier districts, and intended as a substitute for the Syrian forces. Nearly all belonged to the Qays.¹³⁵

The Umayyad caliphate in Syria disappeared three years later; a turning point was the rout of Marwān’s armies by pro-‘Abbāsīd troops on the banks of the Zāb river in early 750.¹³⁶ If the explanation cannot be laid entirely at the door of factional military politics and the corrosive effect of endless campaigning by the Syrian armies, these factors certainly played their part.¹³⁷

The early ‘Abbāsīd period and the recruitment of the “slave military”

The armies that destroyed the Syrian Umayyad state originated in Khurāsān; they carried out the so-called ‘Abbāsīd Revolution.¹³⁸ These developments

130 Robinson, *‘Abd al-Malik*, p. 69. 131 Kennedy, *Armies*, pp. 33–4.

132 See *EL*2, s.v. “al-Ḥajjāj b. Yūsuf” (A. Dietrich); and Kennedy, *Age of Caliphates*, pp. 100–5.

133 Crone, “Early Islamic World,” pp. 317–18; and *Slaves on Horses*, p. 39.

134 Crone, *Slaves on Horses*, pp. 42–3; and Robinson, *‘Abd al-Malik*, p. 70.

135 Hawting, *First Dynasty*, pp. 96–103; Kennedy, *Armies*, pp. 49–50; and *Age of the Caliphates*, pp. 112–16.

136 Hawting, *First Dynasty*, pp. 115–18; and Kennedy, *Early Abbasid Caliphate*, pp. 46–8.

137 Crone, *Slaves on Horses*, pp. 46–8; and Kennedy, *Age of the Caliphates*, pp. 116–22. On Syrian military fatigue, see Blankinship, *Jihad State*, pp. 199–236. If Crone and others stress factional and religious factors, Blankinship sees much in purely military developments.

138 See Elton Daniel, “The ‘Ahl al-Taḡādum’ and the Problem of the Constituency of the Abbasid Revolution in the Merv Oasis,” *Journal of Islamic Studies* 7.2 (1996), esp. 150–6;

are difficult to reconstruct: the revolutionary movement was for long clandestine and, even with the unfurling of the iconic ‘Abbāsid black banners, sorting out simultaneous military and political organization remains daunting.¹³⁹ All the more so given the myriad questions that surround the sociopolitical conditions of late Umayyad Khurāsān and Transoxiana: much remains to be understood of the topographical and “social-structural characteristics of Khurāsān in the late antique period.”¹⁴⁰ At issue, for present concerns, is, first, the post-conquest Arabian settlement of the two regions and, secondly, the organization of the Revolution itself.¹⁴¹ Specific debate surrounds the ethnic and social composition of the revolutionary armies; the origins and leadership of Abū Muslim al-Khurāsāni, a central figure of the Revolution; and the ideological thrust of the movement.

The question of composition goes to the extent to which non-Arabs (the inhabitants of eastern Iran and Central Asia, elites and villagers alike) supported the anti-Umayyad movement. One view sees a significant role for non-Arab commanders and troops,¹⁴² another argues for “the essentially Arab nature of the ‘Abbāsid movement.”¹⁴³ A reasonable view is to see the revolutionary forces as culturally and ethnically complex – the early Arab settlers, for example, having assimilated into local Khurāsāni society – and joined politically by a good deal more than shared origins.¹⁴⁴ As regards Abū Muslim’s background and his rise to leadership of the ‘Abbāsid *da’wa*,¹⁴⁵ the

and Kate Fleet et al. (eds.), *Encyclopedia of Islam, Three* (Leiden, Brill, 2007–), s.v. “‘Abbāsid Revolution” (Daniel). Also Humphreys, *Islamic History*, pp. 104–27; and Berkey, *Formation*, pp. 102–9.

¹³⁹ See Humphreys, *Islamic History*, p. 108. ¹⁴⁰ Pourshariati, *Decline and Fall*, p. 417.

¹⁴¹ On the vital question of the post-conquest Arab settlement patterns in Iran, especially Khurāsān, see E. L. Daniel, “‘ARAB iii. Arab settlements in Iran,” *Encyclopaedia Iranica*, II/2, pp. 210–14, available at www.iranicaonline.org/articles/arab-iii; and Parvaneh Pourshariati, “Local Histories of Khurāsān and the Pattern of Arab Settlement,” *Studia Iranica* 27 (1998).

¹⁴² See Patricia Crone, “The ‘Abbāsid Abnā’ and Sāsānid cavalymen,” *Journal of the Royal Asiatic Society*, Series 3, 8.1 (1998), esp. 11–16; and Daniel, “‘Ahl al-Taḡādum,” esp. pp. 178–9.

¹⁴³ See Daniel, “‘Ahl al-Taḡādum,” pp. 151–2 (n. 4). For a closely argued statement of the “Arabist” view, see Amikam Elad, “Aspects of the transition from the Umayyad to the ‘Abbāsid Caliphate,” *Jerusalem Studies in Arabic and Islam* 19 (1995), 89–132; and “The Ethnic Composition of the ‘Abbāsid Revolution: A Reevaluation of Some Recent Research,” *Jerusalem Studies in Arabic and Islam* 24 (2000), 246–326. Also see Jacob Lassner, *The Shaping of ‘Abbāsid Rule* (Princeton, Princeton University Press, 1980), pp. 122–5.

¹⁴⁴ See Crone, “‘Abbāsid Abnā’,” p. 11; and Lassner, *Shaping*, p. 122.

¹⁴⁵ Roughly translated, “appeal,” “call,” or “mission,” of either a political or ideological nature.

sources are contradictory.¹⁴⁶ The picture is clearer regarding his role in the movement's transition to armed revolt, his achievements on the battlefield against Umayyad forces, and, it would appear, the decision to shift to a pro-ʿAbbāsīd stance *per se*.¹⁴⁷

All indications are that Abū Muslim's armies relied on established tactics, weaponry, and fiscal organization.¹⁴⁸ A central outcome of the Revolution, however, was the sidelining, though by no means disappearance, of the Syrian regiments. From this point, and for some fifty years, the empire was defended principally by Khurāsāni forces.¹⁴⁹ The leadership of the new armies, in turn, rose quickly to positions of influence.¹⁵⁰ The age of conquest having ended, the principal task of the new armies lay in assuring stability from within; only on the Byzantine frontier did significant warfare take place.¹⁵¹ Al-Manṣūr (r.754–75), the second ʿAbbāsīd caliph and founder of Baghdad, had repeated occasion to turn to his Khurāsāni troops, many of whom he settled in the new city.¹⁵²

The descendants of the first-generation Khurāsāni fighters remained a significant element of imperial society. Scholars differ on their self-identification; the Arabic sources seem to refer to them as the *Abnāʾ* (lit. "sons of") – that is, as a distinct group: the offspring of the original revolutionary troops ("the sons of the [ʿAbbāsīd] movement"). The preeminence of the first Khurāsānis/*Abnāʾ* in the early ʿAbbāsīd period is clear despite uncertainty over the term's emergence and, hence, proper use.¹⁵³ Their

¹⁴⁶ On Abū Muslim, see Elton Daniel, *The Political and Social History of Khurasan under Abbasid Rule, 747–820* (Minneapolis, Bibliotheca Islamica, 1979), pp. 100–24 (ch. 3); Jacob Lassner, *Islamic Revolution and Historical Memory: An Inquiry in the Art of ʿAbbāsīd Apologetics* (New Haven, CT, American Oriental Society, 1986), pp. 99–133 (ch. 4); and Moshe Sharon, *Black Banners from the East: The Establishment of the ʿAbbāsīd State – Incubation of a Revolt* (Jerusalem, The Magnes Press, 1983), pp. 201–26.

¹⁴⁷ See Kennedy, *Early Abbasid Caliphate*, pp. 42–5; and, on the shift in the movement's message, Patricia Crone, "On the Meaning of the ʿAbbasid Call to *al-Riḍā*," in C. E. Bosworth et al. (eds.), *The Islamic World from Classical to Modern Times: Essays in Honor of Bernard Lewis* (Princeton, The Darwin Press, 1989), pp. 95–111.

¹⁴⁸ Kennedy, *Armies*, p. 114.

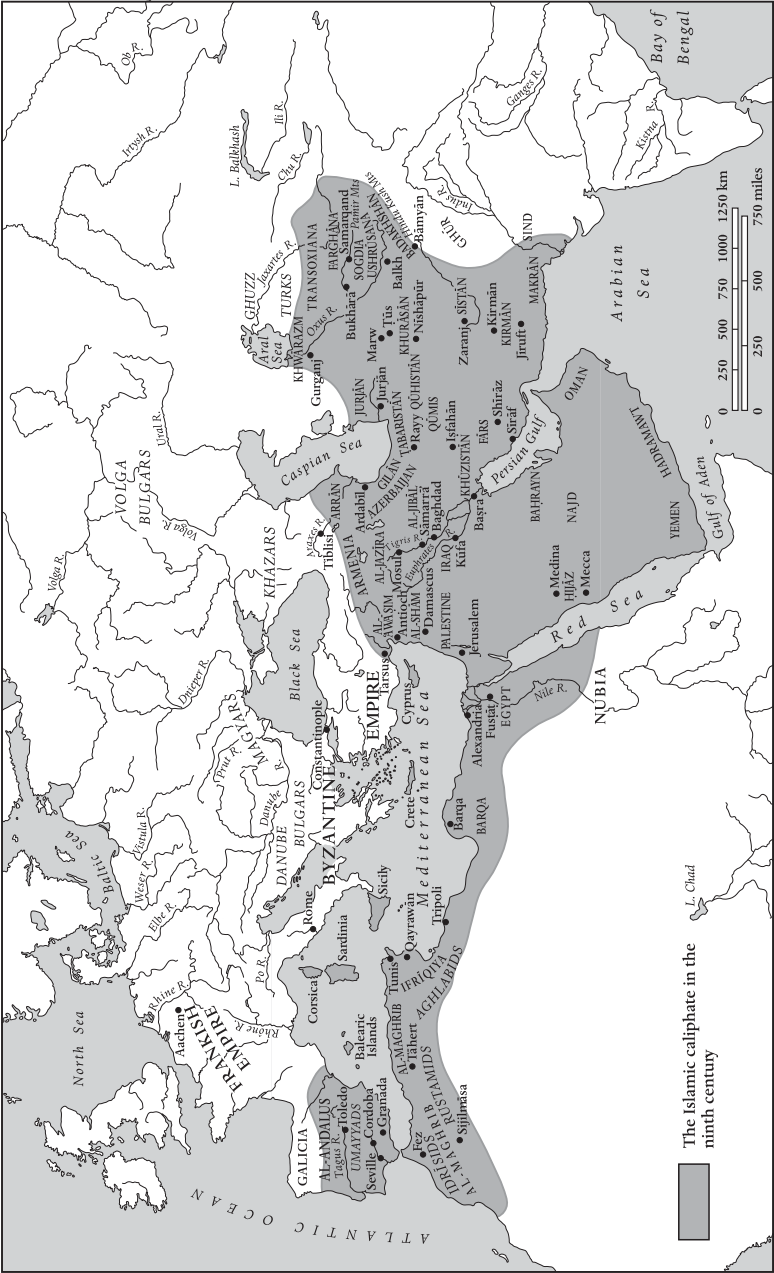
¹⁴⁹ Kennedy, *Early Abbasid Caliphate*, pp. 76–82; and *Armies*, pp. 96–105.

¹⁵⁰ See Kennedy, *Armies*, pp. 100–3, on the career of Khāzīm ibn Khuzayma. On the Khurāsāni notables, more broadly, see Crone, *Slaves on Horses*, pp. 173–89.

¹⁵¹ Kennedy, *Armies*, pp. 105–7; and, for further detail and readings, Bonner, *Aristocratic Violence*, pp. 43–106.

¹⁵² See Kennedy, *Age of the Caliphates*, pp. 127–32; and Hugh Kennedy, *When Baghdad Ruled the Muslim World* (Cambridge, MA, Da Capo Press, 2004), pp. 44–6. A longer discussion is Lassner, *Shaping of ʿAbbāsīd Rule*, pp. 139–58, 208–23.

¹⁵³ Lassner, *Shaping of ʿAbbāsīd Rule*, pp. 129–36, esp. 134; John P. Turner, "The *Abnāʾ* al-dawla: The Definition and Legitimation of Identity in Response to the Fourth Fitna," *Journal of the American Oriental Society* 124.1 (2004), 1–22; and Crone, "ʿAbbāsīd *Abnāʾ*."



MAP 3. The 'Abbāsīd empire in c.800

fortunes collapsed, however, with the onset of the fourth civil war of the early Islamic period. The conflict (c.811–33) turned at first on rival claims to the caliphate.¹⁵⁴ An initial phase culminated in the triumph of ‘Abd Allāh al-Ma’mūn, then governor of Khurāsān, over his brother, the sitting caliph, Muḥammad al-Amīn (r.809–13); the latter perished at the hands of his brother’s forces in Baghdad.¹⁵⁵ The *Abnā’*, as al-Amīn’s principal defenders, suffered a sharp drop in influence.¹⁵⁶ Accounts of the war, notably on al-Ṭabarī’s part, offer details on weaponry, siegecraft, and the like.¹⁵⁷ Much is said as well of the activity of irregular forces within the city. Described as riff-raff wielding crude weaponry, they held off the attackers in a series of clashes.¹⁵⁸ (Urban irregulars and militias populate Near Eastern urban history from this point forward.¹⁵⁹) A subsequent phase of the war witnessed the near fragmentation of the empire; al-Ma’mūn, once in office, would devote much effort to reinstating central rule. The civil conflict, and a set of new reforms, ushered in yet another transformation of the imperial military.

The Arabic/Islamic sources offer limited information regarding the composition and size of al-Ma’mūn’s armies.¹⁶⁰ Indications are that a turn occurred in the early ‘Abbāsīd period to a new-style professional officer corps (*qā’id*, pl. *quwwād*).¹⁶¹ It is also the case that the civil war repopulated the imperial high command. The chief beneficiaries were Ṭāhir ibn al-Ḥusayn (d.822) and members of his family. They would lead the effort to reunify the empire under al-Ma’mūn (r.813–33) and later serve as governors of

154 For one view, see Kennedy, *Age of the Caliphates*, pp. 147–55.

155 Hugh Kennedy, *The Early Abbasid Caliphate: A Political History* (Totowa, NJ, Barnes & Noble, 1981), pp. 145–8.

156 Crone, *Slaves on Horses*, p. 76. 157 See Kennedy, *Armies*, pp. 108–11.

158 For brief descriptions, see Michael Cooperson, *Al-Ma’mūn* (Oxford, Oneworld Publications, 2005), pp. 52–3; and Kennedy, *When Baghdad Ruled*, pp. 103–4. Key accounts are in al-Ṭabarī, see *The War between Brothers*, trans. Michael Fishbein (Albany, State University of New York Press, 1992), esp. pp. 134–72; and *The Reunification of the ‘Abbāsīd Caliphate*, trans. C. E. Bosworth (Albany, State University of New York Press, 1987), esp. pp. 55–60.

159 For discussion and references, see Michael Bonner, “Definitions of Poverty and the Rise of the Muslim Urban Poor,” *Journal of the Royal Asiatic Society*, Series 3, 6.3 (1996), 335–6; and D. G. Tor, *Violent Order: Religious Warfare, Chivalry, and the ‘Ayyār Phenomenon in the Medieval Islamic World* (Würzburg, Ergon Verlag, 2007), pp. 78–81.

160 These comments draw on, but reach different conclusions than those of Amikam Elad, “*Mawālī* in the Composition of al-Ma’mūn’s Army: A Non-Arab Takeover?” in Monique Bernards and John Nawas (eds.), *Patronate and Patronage in Early and Classical Islam* (Leiden, Brill, 2005), esp. pp. 317–20. Elad’s wider argument sees a far greater Arab than Iranian influence on ‘Abbāsīd culture, state, and politics; see his “Aspects of the Transition.”

161 Kennedy, *Armies*, pp. 99–104.

Baghdad.¹⁶² The key development, however, was a new reliance upon forces drawn, in greatest part, from the empire's eastern frontiers.¹⁶³

The sources – al-Tabarī and al-Ya'qūbī chief among them – indicate clear continuity of military planning from the reign of al-Ma'mūn to that of his younger brother and successor, Abū Ishāq al-Mu'taṣim (r.833–42).¹⁶⁴ Significant references lie in al-Ya'qūbī's description of the founding of Samarra, the second 'Abbāsid capital (c.838–92), built by al-Mu'taṣim and inhabited by the late 830s.¹⁶⁵ His description dates to a number of decades on but the indications are clear regarding a complexity of composition on the part of the military: in addition to units of the *Abnā'*¹⁶⁶ and the Maghāriba (an Arab/Egyptian force of conscripted if not enslaved peasants¹⁶⁷), the armies included a set of regiments recruited in eastern Iran and Transoxiana. At the head of these units, in significant cases, were their own princes. Prominent among them were the Farāghina (men of Ferghana) and the Ushrūsaniya, led by Khaydar ibn Kāwus al-Afshīn.¹⁶⁸ The sources also refer to the *jund* and *Shākiriyya*, two units often mentioned together and enrolled in the same *ḍiwān*.¹⁶⁹ The various regiments would take part in the campaigns of the Samarra period, as well as the internecine fighting that erupted following the assassination of a later Samarra caliph, al-Mutawakkil (r.847–61), and which resulted in a sharp erosion of caliphal authority.¹⁷⁰

But the forces with the greatest impact on the military and political history of the period were those referred to by the Arabic sources as the "Turks";

162 See Gordon, *Thousand Swords*, pp. 28–35; and Kennedy, *Age of the Caliphates*, pp. 148–55. Debate surrounds the family's origins: cf. Elad, "Mawālī," pp. 317–20; and Elz, s.v., "Ṭāhir b. al-Husayn" (C. E. Bosworth). The family would govern Khurāsān for a period as well.

163 See Crone, *Slaves on Horses*, pp. 78–9; and Kennedy, *Age of the Caliphates*, pp. 156–8.

164 Gordon, *Thousand Swords*, pp. 26–34. Kennedy, *Age of the Caliphates*, pp. 156–9, suggests a sharper break in policy between the two reigns.

165 On Samarra (and its extensive military populace), see Alastair Northedge, *The Historical Topography of Samarra* (London, The British School of Archaeology in Iraq, 2005).

166 Though it is unlikely they were known as such. See Crone, "'Abbāsid Abnā'," pp. 9–11.

167 Gordon, *Thousand Swords*, pp. 37–40; and Kennedy, *Armies*, pp. 125–6.

168 The Ferghana Valley, located in modern day Uzbekistan and Tajikistan, and the neighboring region of Ushrūsana fell reluctantly under imperial rule roughly at this point. See Gordon, *Thousand Swords*, p. 37; and Kennedy, *Armies*, pp. 124–5.

169 See *ibid.*, pp. 40–2; and Kennedy, *Armies*, pp. 126, 199–204. For further discussion of *shākīr/chāqar*, a term of either Persian or Sogdian origin, see Peter B. Golden, "Khazar Turkic Ghulāms in Caliphal Service," *Journal Asiatique* 292.1–2 (2004), 285–92; and Étienne de la Vaissière, *Samarqand et Samarra: Élités d'Asie Centrale dans l'Empire Abbasside* (Paris, Association pour l'avancement des études Iraniennes; Leuven, Peeters Press, 2007), esp. pp. 59–88.

170 See Gordon, *Thousand Swords*, pp. 90–104; and Kennedy, *Age of the Caliphates*, pp. 169–73.

these regiments bore greatest responsibility for the political upheaval of the later Samarra period.¹⁷¹ The term “Turks” is likely to be indiscriminate: if these forces originated, in general, from predominantly Turkic regions, they were of a variety of specific ethnic and cultural backgrounds, including the Khazar region of the Caucasus.¹⁷² The Arabic sources indicate an effort, initially by al-Ma’mūn then, in more concerted fashion, al-Mu‘taṣim, to acquire Turks as recruits; the latter ruler also purchased Turks from elite Baghdadi households.¹⁷³ The indication, then, is that in many cases the recruits entered imperial service as, legally speaking, slaves and freedmen. One current of modern scholarship views this as the onset of a new-style form of recruitment and service – that is, military slavery.¹⁷⁴ On at least two grounds, the argument for slavery is ambiguous: first, that al-Ṭabarī, a chief source, refers to the Turks consistently as *Mawālī* – that is, “clients” (of the caliphate) – suggesting an occurrence of manumission,¹⁷⁵ and, secondly, that the Turkish regiments were salaried forces (they certainly did not provide free labor), and in the case of Turkish (and non-Turkish) commanders, were provided a variety of perquisites, including land grants and high-level appointments.¹⁷⁶

The history of the ‘Abbāsīd Turkish military forces spanned a twenty-year period in Baghdad, and a second, longer period in Samarra that included a significant provincial role, particularly in Egypt. The evidence, written and physical,¹⁷⁷ is skewed towards the latter period: the sources provide few

171 See Kennedy, *Armies*, pp. 134–42.

172 On, especially, Khazar-Arab/Islamic contacts, see Golden, “Khazar Turkic Ghulāms.”

173 See, for references and further reading, Gordon, *Thousand Swords*, pp. 21–6; and Kennedy, *Armies*, pp. 120–4. Important articles are now collected in C. E. Bosworth (ed.), *The Turks in the Early Islamic World* (Aldershot, Ashgate Publishing, 2007).

174 On this scholarship, see references in Gordon, *Thousand Swords*, esp. pp. 6–8; and Kennedy, *Armies*. The work of David Ayalon informs two subsequent studies, Crone, *Slaves on Horses*; and Daniel Pipes, *Slave Soldiers and Islam: The Genesis of a Military System* (New Haven, Yale University Press, 1981). Crone, whose arguments regarding the institution are far more ambitious and subtle, has restated and, on some issues, sharpened her views in a more recent essay (“Early Islamic World,” pp. 319–27). On dissenting views to the idea of military slavery, see the summary comments and references in Kennedy, *Armies*, pp. 121–2; and, now, de la Vaissière, *Samarqand et Samarra* (whose chief argument is to see the introduction of military slavery as falling later in the ‘Abbāsīd period).

175 No direct evidence exists, however, for such a step. The legal standing of the Turks remains unresolved. Crone, *Slaves on Horses*, p. 78, refers to the Turks as “unfree clients” (and to al-Mu‘taṣim’s forces as a “peculiar mixture of princes and slaves”).

176 On the two points, see Kennedy, *Armies*, p. 122. On the question of payment and “property grants,” see Gordon, *Thousand Swords*, pp. 42–3, 118–29; and Kennedy, *Armies*, pp. 128–31.

177 The ruin fields of ‘Abbāsīd Samarra, among the world’s largest archaeological sites, have been excavated at several points over the twentieth century (Northedge, *Historical Topography*). They are easily observed with Google Earth.

details on the Baghdad period. Over the Samarra period, a half-century of 'Abbāsid rule, the interests of the imperial dynasty collided with those of the Turkish command. The latter's emergence occurred incrementally; the accession of al-Mu'taṣim and his decision to build Samarra were steps in the integration of the Turkish elite into the highest circles of imperial decision-making. The process involved, as well, appointments to key posts, military and civilian alike, in Samarra and across the provinces, among these the office of chamberlain (*hājib*), the head of internal security (*shurṭa*), the imperial postal and intelligence-gathering office (*barīd*), and a set of governorships. The most valued of these appointments, it seems, was to Egypt: the 'Abbāsid court, following the fourth civil war, assigned the province to a series of highly placed Iranian, Central Asian, and Turkish figures. As for military assignments, these included command positions in Samarra – Turkish officers were assigned entire cantonments – as well as field duties. Turkish officers played a highly visible role in several campaigns, notably the attack on the Byzantine city of Amorion (Ar. Ammuriya) in 223/837–8.

In their likely initial capacity as an imperial guard, the Turks were, in world historical terms, unexceptional.¹⁷⁸ Also, recruitment of the Turks fell in line, in good part, with a longstanding practice in the early Islamic period of arming clients and captives.¹⁷⁹ And, finally, the recruitment of the "Turks" is most usefully considered against the backdrop of consolidation of, on the one hand, an imperial hold over Transoxiana (although, in fairly short order, local dynasts would largely override 'Abbāsid regional authority) and, on the other, an Islamic socio-religious presence across much of that same region.¹⁸⁰ The Turks and the cohort of Transoxianan units stood at the time on a social periphery, it is true, but the reality that eastern Iran and Transoxiana stood on the "edge," as it were, was soon to fall away. The central point, as far as the service and standing of the Turkish and Transoxianan units in the Samarra period is concerned, is rather that

178 See Crone, "Early Islamic World," p. 320. On the Turks serving initially as al-Mu'taṣim's personal guard, see Gordon, *Thousand Swords*, pp. 44–6.

179 See 'Athamina, "Non-Arab Regiments"; Hasson, "Mawālī"; and Kennedy, *Armies*, pp. 120–4 (with comments on the Turks as mounted archers).

180 See David Ayalon, "The Military Reforms of Caliph al-Mu'taṣim," in *Islam and the Abode of War: Military Slaves and Islamic Adversaries* (Aldershot, Ashgate Publishing, 1994), esp. pp. 26–7. On the rooting of Islamic devotion and practice in Iran in general, see Richard W. Bulliet, *Islam: The View from the Edge* (New York, Columbia University Press, 1994).

a process that began in the Umayyad period – one tied closely to ‘Abd al-Malik’s reforms, as seen earlier – assumed a new and particular weight. The armies of the empire, populated by professional, foreign soldiers and fully state-supported, stood in tenuous relation with Near Eastern/Islamic society at large.¹⁸¹

181 Crone, “Early Islamic World,” pp. 321–7; and Kennedy, *Armies*, p. 148.

The Western European kingdoms, 600–1000

GUY HALSALL *

Part I: c.600–800

Change around 600 CE: a military revolution?

Before c.600, Western European military forces were recognisably descended from the last western Roman armies, as can quickly be demonstrated. Late Roman troops had sometimes been paid via the delegation of fiscal revenues and, as earlier, received allotments of land on retirement.¹ Their hereditary service,² furthermore, exempted them from certain taxes. In the fourth and fifth centuries a series of military identities evolved, based around oppositions to traditional civic Roman ideals. These turned on ideas of barbarism, enhanced by possibly increased recruitment beyond the frontiers and greater opportunities for non-Roman soldiers to rise to higher command.³ As the territory effectively governed from Ravenna, the imperial capital, shrank during the fifth century, and with it the available taxation and recruiting

* I am grateful to the Leverhulme Foundation for the award of a Major Research Fellowship, which allowed me to work on this chapter. Much of this chapter, especially the sections on recruitment and organisation, is based upon Guy Halsall, *Warfare and Society in the Barbarian West* (London, UCL Press, 2003), which contains most of the relevant bibliography. Further reference to this work and its bibliography is avoided. The notes will refer to primary sources and supplementary material.

1 Hugh Elton, *Warfare in Roman Europe, 350–425* (Oxford, Oxford University Press, 1996); Douglas Lee, 'The Army', in Avril Cameron and Peter Garnsey (eds.), *The Cambridge Ancient History*, vol. 13: *The Late Empire, A.D. 337–425* (Cambridge, Cambridge University Press, 1998), pp. 211–37; Douglas Lee, *War in Late Antiquity: A Social History* (Oxford, Oxford University Press, 2002); Pat Southern and Karen Dixon, *The Late Roman Army* (London, Batsford, 1996); R. S. O. Tomlin, 'The Army of the Late Empire', in John Wacher (ed.) *The Roman World* (London, Routledge, 1987), pp. 107–23.

2 See, for example, Sulpicius Severus, *Life of Martin*, 2, Frederick Hoare (trans.), 'Sulpicius Severus: The Life of Saint Martin of Tours', in Thomas Noble and Thomas Head (eds.) *Soldiers of Christ: Saints and Saints' Lives from Late Antiquity and the Early Middle Ages* (Pennsylvania, Pennsylvania State University Press, 1995), pp. 1–29.

3 Guy Halsall, *Barbarian Migrations and the Roman West, 376–568* (Cambridge, Cambridge University Press, 2007), pp. 101–10, and references.

bases, the enlistment, and political pre-eminence, of warriors from outside the empire grew further.⁴

Similarly, post-imperial armies were frequently raised from people claiming a non-Roman identity: Franks in the north and Burgundians in the south-east of Gaul, Goths in Spain and Italy. Such warriors seem to have been paid, partly at least, by the delegation of taxation levied on the civic 'Roman' population.⁵ Their lands were tax-exempt and their military responsibilities, linked to their ethnic identity, seem to have been hereditary. Service was structured around the life-cycle with young men serving as *pueri* in the households of older warriors, royal officers, or the kings themselves. Successful service led to marriage and the establishment of their own households. At this age, apparently, ethnic identity was formally acquired. Older warriors would then serve when summoned, alongside any of their own young apprentices. Some held posts within the royal administration and others doubtless continued at the palace, training younger *pueri regis*. In some areas, like Aquitaine and possibly southern Italy, military service was apparently based differently, on land-ownership rather than ethnic identity. Quite how this related to taxation is unclear.

Before c.600 warriors were raised according to kingdom-wide principles of service, levied by administrative district, commanded by royal officers. The holding of the relevant offices was generally in the king's gift, rather than hereditary. Because, in most regions, the aristocracy relied upon royal favour or patronage, either for its local pre-eminence or position within the 'pecking orders' of the class, a king could raise the army to impose his will within the realm. This is very clear from Merovingian Gaul, but the point appears more generally applicable. Although later fifth- and sixth-century armies were by no means regular forces of the old Roman type, they evidently still functioned as independent coercive forces. Thus, it remains perfectly justified to see these realms as states.

Nevertheless, this situation contained the seeds of change. One was the common ethnic nature of military service. Ethnicity was not fixed and seems frequently to have been acquired at the age where a male established a household. It appears, furthermore, to have been gendered: ethnic identities are ascribed overwhelmingly to men. However, the social and legal

4 Ibid., pp. 242–83 passim.

5 Walter Goffart, *Barbarians and Romans AD 418–585: The Techniques of Accommodation* (Princeton, Princeton University Press, 1980); Walter Goffart, *Barbarian Tides: The Migration Age and the Later Roman Empire* (Philadelphia, University of Pennsylvania Press, 2006); Halsall, *Barbarian Migrations*, pp. 422–47.

attractions of non-Roman ethnicity meant that it became steadily more common and, by 600, more or less universal among the aristocracy and free landholding classes in most areas of the West. Simultaneously, it appears to have been more universally assigned (to children and women as well as adult males). Given the frequent tax-exemption of people subject to military service, this development surely meant the spread of liability for military duty, and presumably a concomitant inclusion within their ranks of freemen less able to bear the costs of such service. It probably reduced the amount of land subject to royal taxation and, through the inheritance of 'military lands' by women of non-Roman ethnicity, led to its tenure by people considered incapable of performing military service. These points alone would probably have produced significant change in the raising of armies but they constituted only one group of factors among many, making the decades around 600 a period of intense transformation in Western European society and economy. Another key development in many regions was a growth in aristocratic power, vis-à-vis royal, and thus, during the seventh century, we can detect significant changes in the nature of armies and their levying.

By the mid seventh century it is difficult to see any trace of the post-imperial means of raising armies. Mention of the 'men of Mainz' and the *pagenses* of Saintes in a 639 campaign may be the last allusions to old-style levies based on administrative districts (*civitates* and *pagi*).⁶ Instead, references to armies take us in two complementary directions. We begin to encounter 'select' levies – *scarae*. Cognate with the English 'shear' and 'share', the word implies a band, cut (or sheared) off from the mass.⁷ The presumed spread of ethnically based liability for military service would make a levy of the free population entirely impractical. In the early medieval social and economic context, armies larger than a few thousand men were unfeasible. The term 'select' is unfortunate, though. The immediately post-imperial 'ethnic' military landowners presumably represented (initially at least) an equally select body and one imagines that during the sixth century, royal officers – counts, dukes, and *centenarii* – had to choose those best suited to serve from steadily increasing numbers of theoretically eligible men. What changed was not

6 *Fredegar IV.87: The Fourth Book of the Chronicle of Fredegar, with its Continuations*, trans. J. Michael Wallace-Hadrill (London, Greenwood Press, 1960).

7 This sense is crystal clear in its earliest appearance – Fredegar's *Chronicle*, IV.74 (dealing with Dagobert I's 631 Thuringian campaign) – where the Frankish force is described as 'the army of the kingdom of the Austrasians', plus *scarae de electis viris* (*scarae* of chosen men) from Neustria and Burgundy, under counts and dukes.

whether or not warriors were drawn from a select group but the means of selecting them.

How this 'shearing' was carried out is suggested by the other prevailing aspect of seventh-century military organisation: the aristocratic retinue. Military households existed in the sixth century but they seem to have dominated seventh-century army composition. Their precise nature apparently also changed. Seventh-century sources widely acknowledge the existence of freemen dependent upon more powerful fellows, and a class of aristocrats whose power was fundamentally independent of royal service. Evidence of more secure tenure of large estates is more easily found; these lands were used to reward followers. This seems to have meant that, whereas in the sixth century older warriors performed military service according to general systems of obligation, in the seventh, even after leaving the age-group of the *pueri*, the warrior still served in his lord's retinue. Across Western Europe such nobles interposed themselves between the king and the remainder of the free population. Around 600 the last vestiges of Roman taxation disappeared, largely because these imposts had passed to estate owners. Legislation appears concerning the frequent intrusion of magnates into the operation of royal justice, protecting their 'satellites' from sentencing by judges. Simultaneously, aristocratic dynasties become more visible, frequently monopolising administrative offices. We are some way from hereditary counties or duchies but the detectable sequences of counts from the same families in particular areas strongly suggest that, although such titles had little value without the legitimisation of royal appointment, these kin-groups clearly expected that the king would appoint one of their number to a vacancy.

During the seventh century, therefore, the magnates were seemingly able to insert themselves into the means of levying the army. When military forces were required, even if legitimised by royal summons and nominally employing old ideas of military liability, in practice the local counts would select or 'shear off', from all those theoretically liable for military service, the most politically and socially important landholders, their allies, and dependents. As the army was a kingdom's most important political assembly, the choice of whom to summon and whom to leave behind was a significant source of power and patronage. What happened in the seventh-century West might, then, not unreasonably be termed a 'privatisation' of the army. I have distinguished the different means of levying an army by the terms 'horizontal' (levied according to a kingdom-wide 'flat rate' by royal agents working within specific royal administrative districts: the sixth-century model) and

'vertical' (raised down chains of dependence within aristocratic estates and dependencies as in the seventh century); this may yet suffice as a short-hand.

This is very significant in determining how we classify polities in this period. After c.600, the mustering of armies was increasingly (with temporal and geographical exceptions) a matter of negotiation between the royal court and local or regional aristocracies. This in turn made it correspondingly difficult for a monarch to summon an army to resolve internal difficulties such as recalcitrant or rebellious noblemen. The army ceased to be an independent governmental coercive force, profoundly affecting kings' ability to harness the surplus of their realms beyond their own private estates. This emphatically does not imply that these polities were not cohesive or that kings did not wield considerable authority. Dynastic legitimacy and other ideological strategies could maintain the royal court as the essential focus of politics. Nevertheless, without the ability to raise armed forces independently of regional and local magnates in order to impose their will upon the diverse localities of their realms, it is unhelpful (against recent historiographical fashion) to call these kingdoms states.

A significant change in armament occurred at this time. The practice of burying weapons in graves provides, by early medieval standards, an enormous sample (many thousands of items) of contemporary weaponry, although unevenly distributed geographically and temporally. Between c.575 and c.625, several hitherto common items disappear from this record. In *Francia* especially, these include the throwing axe (*francisca*) and the heavy, iron-shafted barbed javelin (*ango*). One-handed battle axes and, in England, certain types of javelin cease to be found. Simultaneously, a change in defensive weaponry occurs. Fifth- and sixth-century shields were quite small, their bosses frequently ending in a disc, probably used for catching an opponent's blade in a 'fencing' style of warfare. In the seventh century these 'bucklers' are replaced by larger shields with longer, heavier bosses, perhaps more suited simply to shoving or punching. The one-edged dagger (*scramasax*) becomes longer, broader, and weightier, resembling a machete. This perhaps parallels developments in spearheads, which likewise become larger and heavier. It is risky to deduce a tactical shift from a change in weaponry but the transformation of armament between c.575 and c.625 seems to point in one general direction: from possibly faster, more open, fighting towards combat centred on close-packed hand-to-hand fighting. Larger, heavier shields and spears seem adapted to this type of warfare as does the broad, chopping, single-edged *scramasax*. Indeed, the *scramasax* combines the best features of the sword and battle axe, the latter of which disappears from

the record until the Viking era. Surviving evidence unfortunately provides no real clues as to whether defensive armour became more common, as one might expect. Helmets and armour are proportionately more frequent in the seventh century than the sixth but the interment of armour was geographically very restricted, in a way that cannot reflect its actual frequency, and thus probably more affected by ritual demands than the burial of other items. Furthermore, outside southern Germany most examples come from entirely untypical burials (such as the ship burials at Sutton Hoo in East Anglia and at Vendel and Valsgärde in Sweden).⁸

Relating developments in armament and the putative tactical change deduced from them to the transformation in the raising of armies is difficult. Some weaponry which dropped out of use – especially the *francisca* – required specialist training to use effectively, whereas one might wonder whether close-fighting ‘shield-wall’ tactics were more suitable to larger, comparatively less well-trained forces. However, as noted, seventh-century armies were not necessarily more select than sixth-century. Further, and perhaps crucially, close-fighting techniques probably required more expensive protection, notably helmets and body armour, which could have restricted participation in it to those with the economic wherewithal to so furnish themselves and their followers. This would tally with a growth in aristocratic power. The coherent employment of close-fighting techniques possibly required the elements of a ‘shield-wall’ to have more frequent training as a body. This might be more feasible within an aristocratic retinue than in an irregularly assembled conglomeration of landowners. Without more evidence, however, this can only remain a suggestion.

In much of North-Western Europe, the period after c.600 was one of economic expansion, possibly enabling slightly larger armies to be mobilised, at least for large-scale conflict. Economic growth and local aristocrats’ increased private resources might have made it more feasible for aristocrats to equip larger followings with metal armour and probably the most expensive item of a warrior’s equipment, his horse. However likely this might seem, and although there are some indications of this in the data, a rise in the proportion of mounted troops is as impossible to confirm from our evidence as a growth in the frequency of armour and helmets. As with the other

8 Vendel and Valsgärde: *Statens Historiska Museum, Studies 2: Vendel Period*, ed. Jan Lamm and H. A. Nordstrom (Stockholm, Museum of National Antiquities, 1983). Sutton Hoo: Martin Carver, *Sutton Hoo: Burial Ground of Kings?* (London, British Museum Press, 1998).

suggestions linking social and military developments after c.600, it might nevertheless be retained as a working hypothesis.

*The evolution of systems of military service and the rise
of the Carolingians (c.650–c.800)*

Just as sixth-century military forces can be seen as the last, shadowy, incarnations of a Roman type of army, seventh-century armed forces might be seen as the first manifestations of a type of army familiar for most of the remainder of the 'medieval millennium'. The methods of raising armies during the remainder of the period covered by this chapter, and beyond, might be viewed as developments of the seventh-century 'template'. The late seventh and early eighth centuries saw further important developments making armies even more recognisable to students of the central Middle Ages.

In traditional accounts, the early eighth century saw the introduction of 'feudalism': military service performed to a lord in return for land, confirmed by the swearing of oaths of allegiance or 'fealty'. Service was performed as armoured cavalry, the increased cost of which required the warrior to be given the estates necessary to support himself and bear the cost of his weaponry. This allegedly involved Frankish rulers, in particular, confiscating Church lands to support their horse-borne warriors, but sweetening the pill by having the soldier only 'hold' the land, renting it from the relevant church. Thus, we have the tenure of estates, whose ownership remained ultimately in the hands of a greater lord, secular or ecclesiastical, in return for rent or the performance of usually military service, the arrangement being solidified by oath-swearing. Thus were established the principal elements of the 'feudal system'.⁹

Recent scholarship has called into doubt almost all of this reading.¹⁰ Nevertheless, even if its precise details are incorrect, in its general outlines there may yet be something to be said for the old interpretation. Something important happened around 700, something indeed related to landholding, the relationships between warriors and their lords, and those between powerful aristocrats and the king. The major early seventh-century changes described above centred on the creation of a powerful aristocratic stratum

9 The best traditional view of 'the feudal system' is François-Louis Ganshof, *Feudalism*, 3rd edn (London, Harper, 1964). Marc Bloch, *Feudal Society*, 2 vols. (London, Routledge, 1962), more subtle than most of his contemporaries' and successors' discussions of 'feudalism', is not really concerned with 'system' at all.

10 Susan Reynolds, *Fiefs and Vassals: The Medieval Evidence Reinterpreted* (Oxford, Oxford University Press, 1994); Paul Fouracre, *The Age of Charles Martel* (Manchester, Manchester University Press, 2000).

with other freemen dependent upon them. However, from the surviving evidence, outright gifts of land or other resources seemingly remained the aristocratic means of rewarding followers. Although ties of dependence or allegiance doubtless persisted, such gifts had the effect of reducing an aristocrat's resources. Partible inheritance, requiring all sons (at least) to be bequeathed more-or-less equal shares of the patrimony, the requirements of land-grants for dower and dowry, and other gifts further meant the repeated break-up of aristocratic estates.

This was probably one important reason why politics remained focused on the royal courts in spite of, in *Francia*, the usual minority of the Merovingian kings and, in Visigothic Spain, serious dynastic instability. Aristocrats had to return to court to acquire new lands to replace those bestowed upon followers and to have titles, the other key support of local and regional pre-eminence, confirmed and legitimised. Aristocratic families tried many means of combating this situation. Testamentary disposition (by will) was one way by which a greater share of the estate could be left in the hands of one son. Other documents begin to survive or be alluded to, through which customary law could be circumvented. Across Europe, aristocratic rural 'family monasteries' begin to be attested more frequently. By bestowing lands upon a monastic foundation, over which control was retained, resources could also be kept intact. Monastic lands were not subject to partible inheritance but could be loaned, by the abbot (usually a family member or protégé), to one member of the dynasty.

However, in factional politics, such as dominated Spain and, from the middle of the century, *Francia*, the situation described above spelled serious problems for aristocrats excluded from the royal court. Such individuals found themselves unable to receive royal grants to replace lands given to followers and barred from the essential royal legitimisation of titles. Most means of circumventing partible inheritance and other aspects of customary law were of only limited utility. In factional civil war, moreover, the winners showed themselves only too ready to depose the abbots of family monasteries and replace them with their own adherents, thus acquiring the institution's lands. It is therefore probably not surprising that aristocratic families evolved new means of dealing with the dangers of this situation. These evolved from the previous state of affairs.

Precaria and *beneficium* are both encountered in Roman law to describe situations where a gift was not regarded as necessarily permanent, and could be revoked later. In early medieval terms, there appears to have been little real difference between lands held as *precaria* or *beneficium*, the distinction

simply relating, on the one hand, to the way in which the gift had been obtained (through a plea or *precaria*) and, on the other, to the nature of the grant (as a benefit, or *beneficium*). In the post-imperial world, *precaria* were means of giving ecclesiastical servants land as a stipend, lending it to them, as *precaria*. As Church lands grew and became too large to manage directly, similar *precaria* were granted to laymen, in return for rent.¹¹

From c.700 – crucially – these types of grant were seemingly extended to secular estates. References begin to lands held by lesser freemen from more powerful secular aristocrats, as *precaria* or *beneficium*.¹² This importantly meant that noble families could reward followers while not actually diminishing their patrimony, the land ultimately remaining (theoretically) under the grantor's control. Such aristocrats' power could thus be independent of the royal court. No longer was access to court patronage necessary to maintain the extent of their landholdings. Even the loss of control over bishoprics and monasteries might be survived without implying a diminution in the ability to reward or maintain followers. This was decisive in the relationships between central, royal government and local or regional power. The Merovingian royal house became obsolete from this point. Regions like Aquitaine and Provence drifted away into effective semi-detachment. Thus, the traditional view of the creation of 'feudalism' had correctly identified a vital period of change but its understanding and explanation of those transformations were flawed. The aristocratic retinue's importance was further underlined and the links that bound such followings were reinforced.

As Charles Martel secured control over *Francia*, the use of Church lands to reward followers became more widespread. By the middle of the eighth century something like a regulated system was introduced, setting out rents and some checks and balances to avoid abuse. This earned Charles Martel ecclesiastical opprobrium but provided solid support for his well-equipped and successful armies.

From the early eighth century, the term *vassus* ('vassal') was frequently used to describe warriors in the service of a lord.¹³ It appears to have been old,

11 *Precaria*: Ian Wood, 'Tetsind, Witlaic and the History of Merovingian *Precaria*', in Wendy Davies and Paul Fouracre (eds.), *Property and Power in the Early Middle Ages* (Cambridge, Cambridge University Press, 1995), pp. 31–52; Fouracre, *Age of Charles Martel*, pp. 137–45.

12 For example, two charters of the Abbey of Wissembourg, Alsace, issued in 735/6 and 739: *Traditiones Wizenburgenses: Die Urkunden des Klosters Weissenburg, 661–864*, ed. Karl Glöckner and Anton Doll (Darmstadt, Arbieten der Hessischen Historischen Kommission, 1979), nos. 9–10.

13 Elisabeth Magnou-Nortier, *Foi et fidélité: recherches sur l'évolution des liens personnels chez les Francs du VIIe au IXe siècle* (Toulouse, Publications de l'Université de Toulouse-le-Mirail, 1976).

possibly of Celtic origin, but its pre-eminence may have stemmed from a need for new terminology in a novel political situation. Former words for these sorts of links, such as *antrustio*, had too many connections with the Merovingian dynasty so a replacement was needed. It must, however, be stressed that as yet these relationships by no means represented any sort of 'system'. Precarial estate-ownership, existed, as did oaths of vassalage but the extent to which the one was *directly* linked to the other is unclear. There is even less evidence of the specification of the type or amount of service expected.

The Franks' successful eighth-century wars of aggression were based on this type of army. These campaigns' frequency produced a class of very experienced warriors; with experience grew military competence and the increased chance of battlefield success and survival. This in turn gave rise to ever greater confidence and high morale. In these circumstances it is unsurprising that the various Frankish aristocratic factions gradually lost out to the victorious Carolingians as warriors joined Charles Martel, or that, under Martel, his sons, and grandsons, the Franks' opponents so rarely put up effective battlefield opposition.

Spain and England

The pattern of developments sketched above is based squarely upon evidence from Gaul, or *Francia* as it came to be called. Nevertheless, the general outlines pertain to most of Western Europe, even if the precise explanations must differ. Visigothic Spain witnessed a similar overall shift from a royal army raised from administrative units and commanded by the king's officials towards one centred around aristocratic personal followings. Kings legislated to reserve the control of these retinues to themselves. Some dynamics of this change might have been analogous to those in *Francia*. A distinctive Visigothic feature, however, was the military service of *servi* (slaves). The slaves that landlord-warriors were ordered to bring to the army were possibly intended to serve as baggage attendants and guards rather than fulfil a formal battlefield function. However, Egica called up all former slaves freed by the king on pain of their return to servility. This was possibly an attempt to create a force directly dependent upon the kings, as might Egica's predecessor Ervig's summoning of *servi fiscals* (fiscal slaves).¹⁴ Troops raised from royal

¹⁴ Visigothic Laws, 9.2.8–9: *Monumenta Germaniae Historica Legum Sectio I*, vol. 1: *Leges Visigothorum*, ed. Karl Zeumer (Hanover, 1902). S. P. Scott's early twentieth-century translation is online at <http://libro.uca.edu/vcode/visigoths.htm>; the numbering of clauses sometimes differs from that in the MGH edition.

estates might form the nucleus of an independent royal coercive force. Indeed there seems to be something of an early medieval Iberian tradition of slave-soldiers, beginning with the sixth-century king Theudis's levying of a force of 2,000 slaves from his Hispano-Roman wife's estates through to the use of slave-soldiers by the tenth-century caliphs of Cordoba.¹⁵ However, the 'problem' of Visigothic 'slave soldiers' may be more apparent than real; more recent studies have suggested that Spanish *servi* were tenants of aristocratic estates rather than slaves.¹⁶

Even Anglo-Saxon England, so often considered in isolation from the European mainland, reveals the same general outlines. Fifth- and sixth-century archaeological burial data suggest that military service, as elsewhere, might have been linked to ethnicity. When written records begin to survive, although their scarcity permits alternative readings, a development can nevertheless be proposed that would be recognisable from the Frankish account. Earlier in the seventh century it seems that lands were granted to warriors who had successfully served an apprenticeship in a retinue. They were granted in perpetuity but subject to partible inheritance and other customary demands, leading to the fragmentation of estates each generation. During that century, therefore, we can detect the same strategies employed to circumvent this situation as we encountered in *Francia*: the creation of aristocratic religious foundations and so on. Around 700, as in Visigothic Spain, kings legislated to ensure that retinues based around lines of dependence were still ultimately under royal command.¹⁷ Such laws are often assumed to reflect long-standing traditions but it is surely more plausible that they were active attempts to *create* norms in periods of change. Kings began to specify, when they granted land to their nobles, that they were still expected to perform military service and this might reflect lesser aristocratic concerns to clarify what ultimately remained their property in gifts to their followers. In the raising of armies, the Anglo-Saxon kingdoms do not seem dramatically different from those of the Franks.

15 Procopius, Wars 5.12.50–4: *Procopius: History of the Wars and Buildings*, vol. 3, *History of the Wars*, ed. and trans. Henry Dewing (London, Heinemann, 1919); Cordoban slave soldiers: Richard Fletcher, *Moorish Spain* (Berkeley, University of California Press, 1993), p. 61; Hugh Kennedy, *Muslim Spain and Portugal: A Political History of al-Andalus* (London, Longman, 1996), pp. 85–7.

16 Christopher Wickham, *Framing the Early Middle Ages: Europe and the Mediterranean, 400–800* (Oxford, Oxford University Press, 2005; rev. edn, 2006), p. 231.

17 Ine's Laws 5, 51: *English Historical Documents*, vol. 1: c.500–1042, ed. and trans. Dorothy Whitelock, 2nd edn (London, Eyre Methuen, 1979), document 32.

The Lombard exception

The principal exception to the general pattern just established, of the gradual evolution of armies from royally controlled coercive forces into conglomerates of aristocratic retinues, whose service was not entirely reliably assured by the monarchs, comes not from England but from Italy. Evidence about military service from seventh-century Lombard Italy is not very forthcoming. Historians have often assumed that the picture of the Lombard kingdom in the eighth century is applicable in the seventh but this is a shaky assumption. If anything, the archaeological and other data from the seventh century might suggest a weaker central authority and greater power held by the regional dukes. What little information one can glean about the seventh-century army suggests one not very different from its contemporaries in *Francia*, Spain, and Britain, based around aristocratic retinues.

This, however, appears to change in the eighth century when, especially in the long reign of Liutprand (712–44), royal power grew significantly, alongside military expansion and the absorption of hitherto independent territories. The eighth-century Lombard army shows some similarities with those of the sixth century in other kingdoms. Through various mechanisms, the king established a link with the lesser free landholder, making sociopolitical advancement dependent upon royal patronage.¹⁸ In this he may have been helped by the fact that Lombard nobles were apparently not as wealthy and powerful as their Frankish counterparts.¹⁹ Free status became commensurate with the title of *exercitalis* or *arimannus* (army-man), a social group that, by the eighth century appears to have included Romans and Lombards, and the king instituted annual Marchfields at which laws were promulgated and other political business enacted.²⁰ A general oath of loyalty was sworn by the *arimanni* to the king and the slightly later legal requirements that lesser landowners serve in the army might be an attempt to maintain direct links between the king and this social stratum, ensuring that the army did not become an agglomeration of aristocratic retinues. As in sixth-century *Francia*, the army seemingly served as an independent royal coercive force. The eighth-century Lombard royal army was successful within Italy, absorbing

18 Christopher Wickham, 'Aristocratic Power in Eighth-century Lombard Italy', in Alexander Callander Murray (ed.), *After Rome's Fall: Narrators and Sources of Early Medieval History: Essays Presented to Walter Goffart* (Toronto, University of Toronto Press, 1998), pp. 153–70.

19 Wickham, *Framing the Early Middle Ages*, pp. 203–19.

20 All fourteen dated legal pronouncements of Liutprand are dated 1 March, as are the laws of Ratchis and both codes of Ratchis' brother Aistulf. *The Lombard Laws*, trans. Katherine Drew (Philadelphia, University of Pennsylvania Press, 1973).

most of the remaining East Roman (Byzantine) and independent Lombard enclaves. This success of course posed a threat to the pope who, when the inability of the Eastern emperor to provide effective military support became clear, turned to the Franks for help. The latter eventually conquered the Lombard realm in 774.²¹

The period after Liutprand's death saw internal dissension within the Lombard kingdom and, unsurprisingly, almost all of the legislation referring to military service comes from this period of usurpation. Often assumed to represent age-old, traditional military organisation, it is better viewed in context, as attempts by insecure rulers to ensure the service of their aristocrats and maintain links with more humble *arimanni*. The Lombards were unable to put up very serious resistance to the Frankish invasions under Pippin I or his son Charlemagne, which has sometimes been seen as symptomatic of various structural weaknesses. A crisis in morale has been proposed on the basis of the fact that some Lombards made their wills before setting out to join the army, but this seems a little hasty.²² One of the will-makers was a bishop (Walprand of Lucca) and wills or similar arrangements for inheritance are known to have been made in armies across the early medieval West, including Charlemagne's at the height of his success. Wickham suggests more interestingly that Lombard military weakness derived from the relative poverty of the aristocracy.²³ Yet, the law codes (like the seventh-century cemetery evidence) suggest that the wealthier rungs of the *arimanni* were as well equipped as their Frankish opponents. It is possible that they were outnumbered by their Frankish opposite numbers, and that they were less able to raise large, well-equipped retinues, but the principle reason for their military failures would seem to be a difference in military experience. The Frankish armies were involved in annual, successful campaigning since the second decade of the century ensuring a continuous stream of battle-hardened warriors through the ranks, training their juniors. By contrast, the last decades of the Lombard realm, especially in Desiderius's reign, were generally peaceful. The comparatively inexperienced Lombard army eventually collapsed before the attack of a well-equipped, battle-hardened force

21 Royal Frankish Annals, s.a. 773–4; Revised Annals, s.a. 773–4. *Charlemagne: Translated Sources*, trans. Preston King (Lancaster, P. D. King, 1986).

22 Christopher Wickham, *Early Medieval Italy: Local Society and Central Power, 400–1000* (London, Macmillan, 1981), p. 46; *Codice Diplomatico Longobardo*, ed. L. Schiaparelli, 2 vols., *Fonti per la Storia d'Italia* 62–3 (Rome, Istituto Italiano per il Medio Evo, 1929, 1933), nos. 114 (Lucca, July 754) and 117 (August 755).

23 Wickham, *Framing the Early Middle Ages*, p. 218.

commanded by one of the most strategically adept commanders of the Middle Ages.

Part 2: Intermission: early medieval warfare, politics, and identity in theory and practice

War and kingship

Kingship remained intimately bound up with military success.²⁴ This was nothing new. Roman emperors, particularly in the later imperial period, had had to be successful soldiers. What seems to have changed around 600, as part of the general readjustment discussed above, was how martial rulership was discussed. Even if the ideals remained, there seems to have been a shift of emphasis away from classical towards Old Testament exemplars.²⁵ The reasons for the shift might stem from a combination of increasing self-confidence on the part of the kings of Western Europe and a growing unease in proclaiming Roman-ness after Emperor Justinian's attempts to reconquer the Roman Empire's western territories. This military effort, which destroyed two kingdoms and helped plunge a third into crisis, was associated with an ideological offensive, propagating the idea that the western kingdoms were ruled not by legitimate kings who (as they had tended to claim in the fifth century) represented the old empire under new management, but by barbarians who had conquered these territories. In this climate, even if the fundamental ideals of good rulership (piety, justice, generosity, and military prowess) remained the same, new touchstones were needed. Thus, Solomon and David began to edge out Trajan, Marcus Aurelius, and even Constantine as model kings.

Nor was it only a question of ideas. The penalties for military failure were high. Indeed, a mark of the Merovingian kings' success is that they retained the throne in spite of rarely taking the field after the earlier seventh century. The powerful kings of the dynasty had not often participated in military campaigns in the third quarter of the sixth century but from the 590s, possibly as a response to the changes discussed earlier, the Merovingians returned to leading their armies in person up until the 630s. Nevertheless, Sigibert III's

24 Michael McCormick, *Eternal Victory: Triumphal Rulership in Late Antiquity, Byzantium and the Early Medieval West*, paperback edn (Cambridge, Cambridge University Press, 1990). J. Michael Wallace-Hadrill, *Early Germanic Kingship in England and on the Continent* (Oxford, Oxford University Press, 1971); Janet Nelson, *Politics and Ritual in Early Medieval Europe* (London, Hambledon Press, 1986).

25 Yitzhak Hen, 'The Uses of the Bible and the Perception of Kingship in Merovingian Gaul', *Early Medieval Europe* 7 (1998), 277–89, and references.

defeat by Radulf, *dux* of the Thuringians resulted in the Franks losing their earlier hegemony over the peoples east of the Rhine. A defeat at the hands of the West Saxons at Burford (752) may have caused crisis in Mercia. Its king, Æthelbald, briefly lost his hegemony over southern England and a few years later was done to death by his own bodyguard. Towards the end of our period, the downfall of Emperor Charles III 'the Fat' resulted in no small part from his enemies' ability to exploit perceived military failures against the Vikings. Examples can be multiplied from across the early medieval West of kings whose regimes were called into crisis by their failure to perform the role of military leader with adequate success. Not surprisingly, therefore, leading a campaign was one of the first tasks of any new king.

Concomitant with military kingship was the army's dominance of politics. Early Frankish Gaul and eighth-century Lombard Italy held annual military gatherings on 1 March (the 'Marchfield'). In eighth-century *Francia* this muster was pushed back to 1 May to ensure better availability of fodder for the warriors' horses. This was not the only time that armies were mustered; campaigns took place through much of the year. Nevertheless, these were politically important gatherings. In the last decade of the sixth century, Childebert II of Austrasia (575–96) held three such Marchfields at which he promulgated edicts.²⁶ The many edicts of the Lombard king Liutprand and his successors are all dated to 1 March.²⁷ Thus, between the seventh and tenth centuries the army, as a gathering of the powerful, remained the principal political assembly, at which a ruler established and underlined the (however fictive) consensus within his kingdom. Laws are often said to have been issued with the approval of the army. Royal charters, too, are found being issued while the king was on campaign.²⁸ In the sixth century, gatherings of the army were important fora at which the king subjected the army to his ideology, rewarded warriors who had done well, and punished those who had not. Even in the Carolingian empire, when the nature of the army and its precise relationship to the king had changed considerably, these assemblies remained enormously important in establishing dynastic legitimacy.

26 *Childebert II's Decrees: The Laws of the Salian Franks*, trans. Katherine Drew (Philadelphia, University of Pennsylvania Press, 1991), pp. 156–9.

27 See above, n. 20.

28 For example, the charter issued by King Ecgberht of Wessex on 19 August 825, when the king 'moved against the Britons' (whom he defeated at the battle of Galford): *Cartularium Saxonicum*, ed. Walter de Gray Birch, 3 vols. (London, Whiting & Co., 1885–93), no. 389. See *Anglo-Saxon Chronicle*, s.a. 825: *English Historical Documents*, vol. 1, doc. no. 1.

War and masculinity

Closely related to the army's political dominance is another constant of early medieval Western European history: the linkage between warfare and masculinity. Throughout the Roman period, a civic model of masculinity had managed to hold sway even when loyal service to the state in its armies was a component of that ideal. At the end of the imperial era, however, a rival martial model began to appear, its existence being one means by which the inhabitants of Roman Europe were able to negotiate the end of the empire.²⁹ By c.600, this model had become completely dominant. The last traces of a secular civic model of masculinity disappeared during the sixth century. What had earlier been parallel career patterns and lifestyles – even if the civic model was coming to be valued less – had evolved into a situation where the martial model was the only one available within free, secular life; the other had sunk to equivalence with unfree status. The Church offered the only alternative form of masculinity and repeated ecclesiastical concern with banning clergy from carrying arms illustrates how, even among churchmen, this removal from the usual construction of manliness could create serious anxieties. The association of masculinity with warfare can be seen in a wide array of evidence. Archaeologically, throughout much of seventh-century Europe, weapons remained the masculine grave-goods *par excellence*. This seems to have continued in parts of Scandinavia and elsewhere through the Viking Age. That these weapons do not simply symbolise a right to participate in violence can be argued from the changing, but nevertheless comparatively restricted, distribution of these items, whereas the written sources suggest that legitimate participation in low-level violence was not limited to particular ethnic identities or classes, or either sex, or even necessarily restricted to the free. Involvement in warfare was, however, a much more regulated matter. Partly this was because raising the army was a formal, even ritualised business. The army's political importance served to limit participation further. Thus weaponry, I suggest, represents the right to participate in that more limited form of violence. Such rights could be jealously guarded; in 859 the Frankish aristocracy took up arms and cut down peasants and other lowly folk who had presumed to form armed associations to defend their regions from Viking depredations (something the 'elite' was signally failing to do).³⁰ Charles II 'the Bald' even legislated to ensure that poorer freemen,

29 Guy Halsall, 'Gender and the End of Empire', *Journal of Medieval and Early Modern Studies* 34.1 (2004), 17–39.

30 *Annals of St-Bertin*, s.a. 859: *The Annals of St-Bertin: Ninth-Century Histories*, trans. Janet Nelson, 2 vols. (Manchester, Manchester University Press, 1991), vol. 1.

whom he encouraged to join the army, could do so without fear of attack by their betters.³¹

The practice of war

It is often thought that the early medieval era was a 'heroic age'.³² It is difficult to see this in the period's more prosaic records, although seventh- to tenth-century sources are hardly rich in strategic and tactical detail. What is noticeable is how frequently depictions of heroic warfare relate to eras before the composition of the, usually poetic, sources. For example, the early Welsh poetry purporting to describe the northern British kings' wars against 'Saxon' invaders³³ includes characters and events supposedly belonging to the period around 600 CE, but these poems were composed long afterwards. The earliest recently proposed dating of this corpus of material sees them as mid-seventh-century products.³⁴ This has not commanded consent but even were the date accepted it is significant that we would nevertheless have to see these poems as being divided from the events described by the 'military revolution' around 600. It was suggested that this 'revolution' made warfare more of a close-packed, shield-wall 'slogging match', with little scope for heroic individuals. Perhaps the poets were creating a 'golden age', one which had conceivably never existed. The same could be true *a fortiori* for the warfare described in the Irish sagas' accounts of the conflicts between the long-gone realms of Leinster and Ulster, and Carolingian epics about the warriors of the migration period, such as *Waltharius*.³⁵ Nor is it impossible, given the location of these works' composition and transmission and the sometimes absurd feats described, that they represent monkish satire on secular martial boasting. To suggest that post-imperial Europeans held martial valour or heroism in little regard is clearly erroneous, but epic or poetic depictions of heroic warfare do not seem to have much of a basis in reality.

31 *Edict of Pitres* (25 June 864), ch. 26: *Monumenta Germaniae Historica: Legum Sectio 2: Capitularia Regum Francorum* 1–2, ed. Alfredus Boretius and Victor Krause, 2 vols. (Hanover, Berolini, 1883, 1895–7), no. 273.

32 Henry Chadwick, *The Heroic Age* (Cambridge, Cambridge University Press, 1912).

33 *The Gododdin: Text and Context from Dark-Age North Britain*, ed. and trans. John Koch (Cardiff, University of Wales Press, 1997). *The Taliesin Poems: New Translations*, ed. and trans. Meirion Pennar (Llanerch, 1988).

34 *The Gododdin*.

35 *Walthari: A Verse Translation of the Medieval Latin Waltharius*, trans. Brian Murdoch (Glasgow, Scottish Papers in Germanic Studies, 1989); *The Tain*, trans. Thomas Kinsella (Oxford, Oxford University Press, 1969).

Leaving aside this ‘heroic’ notion, what can be said about the practice of early medieval warfare? We must note that in scale it varied not only through time and place but also according to its type; there seems to have been a gradation of scales of warfare. Most appears to have been comparatively small-scale, reasonably described as endemic and even, given its apparent government by norms, as ritual. Given the dominance in early medieval Western society and politics of identities closely bound up with participation in military activities, this should not be surprising. A reasonably frequent summoning of the army was necessary to underpin these identities. Yet such warfare could not be carried out with such regularity on a large scale without risking the fatal undermining of the social, political, and economic system. Thus, particular norms and codes, enshrined by repeated observation rather than through any actual codification, apparently restricted the scale of conflict. The frequency of small-scale warfare can be seen in areas such as eighth-century *Francia*, where we have unusually detailed narrative sources (which nevertheless do not record all military campaigns!) and also in the concern of some legislation, seemingly drawn up as part of a peace-making process, to limit cross-border raiding.³⁶

However, frequent small-scale endemic fighting could cause tensions to build up. If military supremacy was established, raids could turn into simple tribute takings and the domination of weaker realms. This situation might be challenged by an outbreak of more serious war in which the usual norms were ignored. This dual pattern – a background of small-scale conflict punctuated by periodic outbursts of major warfare – can be observed in several areas. In Anglo-Saxon England, many sources make clear that war was endemic and vital to social structure. Yet the great, if limited, narrative sources for the ‘middle Saxon’ period (c.600–c.800) only record wars between the island’s major kingdoms about once per generation. Given that these narratives tend to be written later, it seems clear that only the major outbursts of warfare have been remembered. The usual small-scale raiding and counter-raiding, though its existence is acknowledged by these narratives, has simply not been recorded. Although the sources are much fuller, making the different types of conflict more difficult to distinguish, Frankish warfare seemingly followed similar patterns. The eighth-century campaigns in

36 The frequency of later eighth-century Frankish Warfare: *The Royal Frankish Annals* and *The Revised Annals*. A sample from an earlier period: Halsall, *Warfare and Society in the Barbarian West*, Appendix, pp. 231–3. Peace treaties between the Frankish rulers of Italy and the Doges of Venice: *Capitularia Regum Francorum* 1–2, nos. 233–4 (840), 235 (856), 237 (883), 238 (888) and 239 (891).

Aquitaine, for instance, were composed largely of raids or the insertion of garrisons into strategic points, with only a few major, set-piece encounters. An analogous pattern can be observed in Charlemagne's Saxon campaigns. Around the start of the era covered by this chapter, the stylised, limited warfare conducted between rival members of the Merovingian dynasty led to a build-up of tensions that resulted in two very serious outbreaks of 'no holds barred' warfare, in 574–5 and 612–13. Other such crises were averted in 587–8 and 625–6 by the intervention of bishops and the creation of peace treaties and new law codes.

This conclusion permits us to circumnavigate some controversies about early medieval warfare. One such debate has concerned the size and composition of armies and has frequently been characterised by the participants' desire to see their interpretation apply 'across the board'. Some sources suggest that armies could be quite small, numbered in hundreds (the extreme 'thirty-six-man army' point of view cannot be maintained); yet others seem reliably to discuss armies numbering several thousand men. Equally, while some evidence apparently attests to participation in the army being tightly restricted to the powerful, other data seem to show involvement by poorer freemen. Another debate concerns whether warfare was conducted primarily on foot or on horseback. In Anglo-Saxon military history these debates have often been marred by the selection of sources from diverse points in time, regardless of context. However, if we accept that war occurred on different scales, we can resolve many of these evident contradictions. Low-level warfare could have been conducted with small armies of noblemen, fighting on horseback and perhaps using particular tactics. By contrast, major conflicts would see the recruitment of larger forces, including warriors from further down the social scale. In addition to the possibility that such inclusive forces would not be composed entirely of horsemen and that the 'rank and file' might (as is attested) need stiffening by front ranks of dismounted aristocrats, the fact that such warfare aimed to produce decisive results might further plead for the conduct of such 'set pieces' on foot.

Warfare's scale was also determined by time and place. In the immediately post-imperial period, with economic contraction and decline, it is unlikely that armies ever numbered more than 4,000–5,000 men even in major outbursts. However, as noted, the opening of our period saw an important economic change leading to the revival of North-Western Europe (northern Gaul, Anglo-Saxon England, and other territories bordering the North Sea), even as more southerly, Mediterranean (and, in Britain, western) areas stagnated. This may have been important in enabling the

general military pre-eminence of those areas throughout the centuries that concern us. Further, steady economic growth took place during the period, surely permitting concomitant increases in warfare's scale. In particular the ninth and, especially, the tenth centuries witnessed significant economic expansion and a growth in the size of settlements. This might well have changed the nature of campaigning; it also meant that whereas between c.600 and c.800 large armies were probably usually numbered in the region of 5,000 men, perhaps more on occasion, after 800 armies of 10,000 and, by the end of our period, more were feasible (at least occasionally and for short periods). These statements, however, relate principally to the major Western realms. In areas such as Ireland, the north of Great Britain, Scandinavia, and the Breton and Basque edges of the Frankish world, armies could rarely if ever be of this magnitude. Even when the socio-political sophistication of such areas is rightly acknowledged, the economic (or even ecological) bases for warfare would be unlikely to enable warfare involving more than a few thousand men, even when conducted on a major scale at the end of our period.

Unsurprisingly, campaign objectives varied with the nature of warfare. Endemic war, perhaps surprisingly, seems generally to have been aimed at maintaining the status quo. Participation in the activities of the army was the underpinning of much of the period's social and political structures, reinforced by small-scale warfare. Loot from raids was redistributed to followers, reaffirming ties of dependence; warriors had the opportunity to impress their superiors and receive other forms of patronage, promotion, or titles. When, as was often the case, the other side retaliated by launching a counter-raid, the same factors would apply. Material recently taken as booty would be taken back, in its turn reinforcing social and political ties and identities within *that* kingdom. The complete destruction of the enemy would, in this type of war, be counter-productive.

Early medieval Western European strategy seems to have been quite distinctive, differing in important ways from that in other parts of the Middle Ages. Battle appears to have been an object of campaigns to a much greater degree than it was to be after c.1000. Most campaigns appear to have focused upon looting enemy territory, which, while important in oiling the cogs of politics within the realm, simultaneously hit the opposing ruler's claim to be a good lord, war-leader, and protector of his people. Raids could be, and were, bought off or ignored from behind the shelter of walls until the attackers went home or succumbed to disease, but a failure actively to confront invaders or, at the very least, conduct a successful punitive raid

produced internal tensions. Even kings who successfully faced down invaders from within fortified centres were overthrown by disgruntled nobles.³⁷

Thus, set-piece encounters (even if small) were comparatively frequent. Battles, furthermore, were risky so that even minor engagements could have serious political results, when leading political figures were slain; many early medieval kings, princes, and high nobles died in battle. Why forces should have been committed to battle so readily, when the outcome, as contemporaries well knew, was so uncertain might be understood by reference to the importance of warfare in underpinning of social and political identities in an era when social hierarchies were potentially quite fluid. This, it can be suggested, led to a need for frequent battle. The comparative regularity of battlefield engagement might also be explained by consideration of the economy and settlement pattern. As mentioned, even if the centuries between 600 and 1000 saw steady economic growth, for most of the period towns were small, with inhabitants, even late in the period, numbering only a few thousand. Estimates of the populations of major seventh- to ninth-century trading centres have placed them only in the region of 1,000 souls. These sites were not sources of enormous wealth until quite late within our period. Simultaneously, wealthy high-status fortified settlements, such as would later be represented by castles, were absent. The principal exceptions to this general rule were monasteries – one reason for their frequent targeting by Viking attacks and for the outrage this produced. Furthermore, fortification and siege warfare were fairly rudimentary. Thus, high-ranking secular noblemen tended to carry their wealth with them, including when on campaign. For this reason, in warfare significant economic benefits were most likely to accrue from defeating the enemy in the field and plundering their baggage, rather than through besieging settlements. This began to change by the tenth century, however, and by 1000 we have entered the world of knights and castles, with different strategic practices.

Nevertheless, we must not overemphasise booty's importance in early medieval warfare. It has frequently been argued that the acquisition of loot was the principal motor for campaigning, with the inability to continue to take rich pickings producing stress within realms.³⁸ However, although booty

37 For example, the Slavic *dux* Liudewit: *Royal Frankish Annals*, s.a. 822.

38 Timothy Reuter, 'Plunder and Tribute in the Carolingian Empire', *Transactions of the Royal Historical Society*, Series 5, 35 (1985), 75–94; Timothy Reuter, 'The End of Carolingian Military Expansion', in *Charlemagne's Heir: New Perspectives on the Reign of Louis the Pious*, ed. Peter Godman and Roger Collins (Oxford, Oxford University Press, 1990), pp. 391–405.

was important, it was not the overriding object of warfare. Given that this was, comparatively, not a period of great economic prosperity this should not surprise us. Warfare yielded other, possibly more important benefits, many of quite intangible form. War offered opportunities for warriors to come to their superiors' attention and receive their patronage as a result. Lands, titles, involvement at the heart of politics, and the management of a patronage network of one's own might ensue. Even if one did not move far up the social ladder, the backing of an important noble or royal figure could be enormously important within local politics. Sometimes, booty taken on campaign was passed on to more powerful figures, precisely to obtain these forms of backing and promotion. In sum, warfare was vital to the machinery of early medieval politics in many ways; the acquisition of loot was only one, and probably not the most important.

The evidence for early medieval tactics is notoriously thin. In the first part of this period, as discussed, we are largely reduced to using the forms of weaponry to suggest how battles were conducted, with all the inherent methodological risks. One problem is a simple shortage of actual descriptions of battles; another is the enormously stylised nature of those that do survive. From most accounts we cannot definitively conclude even whether the participants fought on foot or on horseback. The evidential filter is so capricious that we cannot know what weight to place on those snippets of information that *do* make it down to us. Some tentative suggestions can be made nevertheless. Perhaps the most important is that tactics do not appear to have differed much whether the opposing armies were mounted or dismounted. The two sides seem to have formed large, close-packed blocks, which advanced slowly, paying careful attention to order and cohesion. Contact was preceded by volleys of missiles and rear ranks continued to shoot or lob missiles over the heads of the forward ranks into the enemy rear.³⁹ Usually, one side would eventually break and be pursued and cut down; these were the stages of battle that produced most casualties. Alternatively, it appears that the two sides would, if neither side broke, draw apart, and a lull would ensue while the armies tended wounds and attempted to recover sufficient energy and nerve to rejoin battle. Battles could, therefore, be long, bloody, and indecisive. On the fringes of Western Europe there were exceptions. Breton, Basque, and Irish warfare might have

³⁹ Note the similarity between *Waltharius's* account of a battle between two mounted forces and Anglo-Saxon poetic accounts of the conflicts between shield-walls. Note also, however, that Anglo-Saxon armies are very rarely actually specified as being entirely dismounted.

involved a more open, skirmishing kind of fighting more suited to the local terrain. Frankish accounts of the defeat at Roncesvalles bemoan the fact that the Basques 'unfairly' refused to stand and engage in the usual slogging match.

Part 3: c.800–c.1000

The end of Carolingian expansion

That little legislation about military service survives from eighth-century *Francia* is in many ways unsurprising. The Carolingians' successful campaigns brought enormous wealth to their warriors, making participation in warfare attractive to the land-owning classes. Ensuring that people performed their military service rarely if ever concerned the early Carolingians. By contrast, after Charlemagne's imperial coronation in 800 considerably more legislation was issued on the subject than during the whole eighth century. This clearly indicates change and illustrates graphically the problems caused by the end of Frankish expansion. Indeed, the increase in royal or imperial pronouncements about military service – by whom, in what form, and with what equipment – is matched by a contemporary rise in the number of legal enactments about people *failing* to carry out such obligations.

The dominant explanation for this shift has been provided by two important articles by the late Timothy Reuter, arguing that the end of the opportunity to take booty produced stress within the Frankish empire.⁴⁰ This was possibly associated with a shift from offensive warfare to defensive campaigns against invaders like the Vikings. Although Reuter's explanation is preferable to earlier analyses, it is not entirely satisfactory. Crucial are the empire's size and the lack of royal or imperial foci for campaigning as Charlemagne grew old and two of his three sons (all of whom were apparently able commanders) predeceased him. Warfare was important for political advancement and the acquisition of patronage. With the imperial court, the focus of politics, remaining at the geographical core of the kingdom there was little incentive to campaign on the frontiers. Charlemagne's legislation reveals that offensive campaigns were as difficult to recruit for as defensive ones, a decisive objection to complete acceptance of Reuter's thesis. Ever more distant from the Frankish imperial heartlands, the frontiers were more costly to reach, reducing the profit margin even of successful warfare. More importantly, perhaps, if the army were not accompanied by the emperor or one of his sons, campaigning on the frontier

⁴⁰ Above, n. 38

represented removal from the political centre, a sort of exile. The first crisis of the reign of Charlemagne's heir, Louis I 'the Pious', was indeed produced by his despatch to the Spanish march of two important noblemen from one palace faction, focused on Louis's troublesome eldest son, Lothar, while he brought their rival, Bernard of Septimania, from that frontier to the court. The opportunities to take part in aggressive warfare had not ceased but did not determine willing participation in military activity.

The appearance of Vikings, a new wave of Muslim raiders, and, later, Magyar (or Hungarian) attackers, meant that defensive warfare became more of a concern of ninth-century rulers. These attacks were also qualitatively different. Defensive wars were less popular amongst the military elite, presenting far less opportunity for rewards in loot, political advancement, or prestige. For these and other reasons, then, the ninth century saw, across Christian Europe, a constant concern with military obligation.

The raising of armies apparently differed between defensive wars and other conflicts, such as the warfare between the various Frankish kingdoms. In the latter, as in the offensive wars that continued to take place on the eastern frontier of the empire at least, the basic seventh- and eighth-century template remained; armies were raised from the retinues of those of social classes generally held liable for military service. The precise choice of who served and who remained at home could be moderated by specific local social relationships and patronage networks but it should be remembered that general notions of wealth- or status-based liability for military service persisted. Ninth-century legislation and exemptions from military service make that abundantly clear.

The Carolingians' ultimate reliance upon their nobles' military followings presented a major problem. It posed a real threat to effective royal government in the localities and increased the extent to which royal action was circumscribed by the need for negotiation with the magnates. Many of the upper aristocratic stratum had relatives, and often held lands and honours in more than one kingdom, frequently making it simple to transfer allegiance from one king to another. Haemorrhages of political authority, with dramatic results, were not unknown. In the winter of 858 Charles 'the Bald' of West Francia was driven out of his realm when his nobles sided with his half-brother Louis 'the German'.⁴¹ Charles's father, Louis 'the Pious', had once been deposed when his men deserted him for his sons, Lothar, Pippin, and Louis.⁴² The various

⁴¹ *Annals of St-Bertin*, s.a. 858.

⁴² *Ibid.*, s.a. 833; Thegan, 'Life of Louis the Pious', *Carolingian Civilization: A Reader*, trans. Paul Dutton (Peterborough, Ontario, 1996), pp. 141–55; The 'Astronomer', 'Life of

Carolingians therefore attempted to create armies which they could use as coercive forces without having to rely on their nobles' good-will. Probably the most effective method was the continuing use of Church land. Churches and monasteries held large estates and, by the appointment of abbots or bishops, kings could ensure that warriors supported by benefices on ecclesiastical lands were available to royal armies. During his 866 Lotharingian campaign, Charles the Bald's army was described as 'mostly composed of the bishops' contingents'.⁴³ Through the ninth century, few churches were exempted from the military obligations (Charles the Bald apparently granted only one such immunity; his nephew Louis II of Italy none; the much-maligned Charles III 'the Fat' even altered the privileges of the great abbey of Korvei so that it furnished troops in cases of emergency).

The ninth-century Carolingians also attempted to ensure that troops were available for defensive wars through a system first established by Charlemagne, called the *adiutorium* (a system of 'assistance'). This envisaged a 'flat rate' whereby each unit of land of a particular size (or, possibly, estimate of productivity) furnished one warrior. Charlemagne initially envisaged this unit as three *mansi* (roughly, farms) but soon adopted a lighter obligation of one warrior from four *mansi* (context is provided by the fact that Charlemagne only expected a holder of twelve *mansi* to serve in full mail). Each owner of four *mansi* was required to provide a warrior (holders of multiples of this figure would provide one for each group of four). Those owning less land were grouped together to provide one warrior. Charlemagne and his successors legislated to ensure that those not serving in person provided supplies and other logistical equipment (such as carts) for those who were. Large monastic foundations were crucial. Fines were regularly (and the death penalty occasionally) envisaged for failure to attend the muster.⁴⁴ Whether all this legislation was especially effective is doubtful; descriptive accounts of campaigns still stress the usual type of army, raised from royal and aristocratic retinues. Nevertheless, these attempts to impose general 'cadastral' systems of military obligation are important.

Otherwise the Frankish rulers seem, pragmatically, to have focused their efforts upon ensuring that aristocratic retinues were available when armies

Louis', in *Son of Charlemagne: A Contemporary Life of Louis the Pious*, trans. Allen Cabaniss (Syracuse, NY, Syracuse University Press, 1961).

⁴³ *Annals of St-Bertin*, s.a. 866.

⁴⁴ Italian Capitulary of 801, ch. 2, 3; Capitulary on Mobilisation for the use of the *missi* (808), ch. 2; Aachen Capitulary (810), ch. 12, 13; *Capitularia Regum Francorum*, nos. 98, 50, 64.

were needed, whether for defensive or offensive operations. This was especially the case in Italy, where, by 866 at least, it was envisaged that anyone with less than half of the wherewithal to provide a warrior (the *bharigild* as it was called) was left behind.⁴⁵ Although Louis II of Italy never exempted any churches from military service, he did exempt individual laymen.⁴⁶ The Italian Carolingians seem to have lost interest in a general levy in favour of an army based around the greater royal vassals and churches. At the end of his reign, Charles II ‘the Bald’, having apparently failed to create a royal army by other means, fell back on the same sort of system. The king ordered all great landlords to draw up lists of their own *honores* and vassals, and how many *mansi* they held. These retinues, thus declared, were envisaged to be at royal disposal.⁴⁷

The army’s core was provided by the royal bodyguard and, as throughout the Early Middle Ages, made up of two groups: young warriors serving full-time in the palace guard and older warriors who had received their lands as a reward for service and who now attended the guard more intermittently or as the officers and trainers of younger warriors. The different grades of guard are described in the later ninth century in Hincmar of Reims’s *On the Governance of the Palace*.⁴⁸

The developments in the Frankish realms (now, of course, including Germany and Italy as well as much of the Christian territory in Spain) can be paralleled in England. Anglo-Saxon kings also began to establish a cadastral system of military service. The vague indications are that the rate was envisaged as one man from five (or possibly six) *hides* (a unit of land or productivity similar to the *mansus*). The one-man-to-five-hides rate seems to have been of general application by the time of *Domesday Book*. Around the mid ninth century, the West Saxon king Æthelwulf was apparently concerned to provide lands for the upkeep of his warriors (*thegns*) from royal estates and made a generous donation of one-tenth of his lands to the Church which, some claimed, was exempt from all, including military, duties. No self-respecting Carolingian would have done this.

Responses to the Vikings

The stimulus for much of the development in the ninth-century systems of raising armies was provided by attacks on Christian Europe by Scandinavian, Muslim, and Magyar raiders. Viking armies themselves are dealt with

45 *Capitularia Regum Francorum*, no. 218.

46 *Ludovici II Diplomata*, ed. Konrad Wanner (Rome, MGH, 1994), nos. 20, 47, and 35.

47 *Annals of St-Bertin*, s.a., 869. 48 *Carolingian Civilization*, pp. 485–99.

elsewhere in this volume. In many important regards, the Vikings were no different from any other early medieval Western military forces. Yet, there does seem to have been something qualitatively different about them. Religious differences meant that they and their Christian enemies frequently had different understandings and expectations of the conduct of warfare. Without shared beliefs, oaths were difficult to underpin with shared supernatural sanctions. While Christian armies were certainly not above attacking ecclesiastical establishments, accepted norms of behaviour regarding such churches and monasteries did not apply to the Vikings. Other features made the Vikings 'difficult'. Their armies campaigned all year round (even in winter) and employed surprise and the exploitation of the Christian calendar. A further novel and disturbing feature of Viking warfare was its commodification. Between the fifth century and the ninth, mercenaries are generally conspicuous by their absence in Western Europe. This is unsurprising in a largely non-monetary economy where soldiers were rewarded in land. In these circumstances, the true mercenary, serving for monetary payment for a defined period and with no necessary ties with his employer after the termination of the contract, simply could not exist. Alongside ninth-century economic expansion (in which Viking armies may have played a part) and the concomitant growth in the use of money, the Scandinavians seem to have been happy to sell their loyalty and their services to the highest bidder. This must have shocked Christian contemporaries.

These dangerous, mobile, and unorthodox foes required specific responses, which we can see on both sides of the Channel. Although the popular image of the Vikings is of coastal raiders, the great Viking armies very often travelled, frequently mounted, overland. If not left at the coast, their accompanying fleets plied the great European river systems. One important anti-Viking strategy, therefore, was to limit this mobility and this was especially effectively done by fortifying river-crossings. These not only barred the rivers to Viking fleets (as barriers, these river crossings are best envisaged as pontoon bridges), they also denied crossing points to Viking armies travelling overland. Charles the Bald tried, with mixed success, to create fortified bridges barring the Loire and the Seine. After finally defeating the Great Army in 878–9, Alfred of Wessex put into operation a more extensive and more effective defensive scheme, a network of forts or *burhs*. Stationed so that no one in his kingdom lived more than a day's journey from such a fort, they were sited to control the nodes of riverine and road communication networks. When the Viking Great Army returned from *Francia* in the 890s, following a defeat by King Arnulf of East Francia, these

forts proved their worth. The Danes were rapidly compelled to leave Alfred's kingdom, hounded by the West Saxon field army.

The other component of Alfred's defensive scheme was indeed to create a permanent armed force, using the cadastral system of raising the army that, as we have seen, was emerging in the ninth century. In England that scheme seems to have been one warrior from every five *hides* of land. Alfred arranged his levy so that they served in two, or perhaps more probably three, rotations. One contingent would serve with the king, while another stayed at home. It seems that the third contingent manned the *burhs*. This scheme makes sense as a demand on the time of the land-owning classes. After their time on their estates, they would man the forts, remaining close to their lands and able to manage them if necessary, before leaving the *burh* and marching as a contingent to the royal army when the next contingent arrived to relieve them. After their spell in the field force, they were stood down for a third of the year, as the next rotation arrived from the *burhs* to replace them. This armed force was the basis for the tenth-century West Saxon conquest of the midlands and the north of England. The successful aggressive warfare added to the rotating, cadastral basis of military service, bringing all sorts of landholders – not just the most powerful – into the king's presence and offering them chances to earn rewards in land, office, and patronage, in making the late ninth- and tenth-century English army the type of royal coercive force not seen in Western Europe since the sixth century. The *burh* system was expanded as the realm grew, these forts being visible marks of royal government on the local landscape and foci for the performance of the military obligations that underpinned it.

Across the Channel, analogous attempts to strengthen royal power through responses to the Viking threat were less successful. Charles the Bald's fortified bridges were left incomplete and soon abandoned. Charles also attempted to use cadastral military obligation to create a royal army.⁴⁹ Poorer landholders were encouraged to attend the muster and their more powerful fellows prevented from molesting them when they did so. Yet these efforts too failed and by the end of his reign Charles had adopted the solution of his Italian nephew Louis II and acted simply to ensure that aristocratic and ecclesiastical armed followings were ultimately at his disposal. In another imaginative attempt to bolster his rule, Charles tried to employ one of the Viking armies themselves. He would take the fiscal levy raised from across the realm to pay off the Danes (such as would be known in England as

49 *The Edict of Pitres* (above, n. 31).

Danegeld) but pay it to the Vikings, not to go away but to act in his service, creating a mercenary force independent of Frankish aristocratic involvement. Other magnates, Frankish and Breton, had already enlisted the support of Viking contingents.⁵⁰ Unfortunately for Charles, the Viking leader he selected, Weland, was killed by one of his fellow commanders in a personal duel not long afterwards⁵¹ and the plan fizzled out, to be replaced first by his Edict of Pitres (Charles's most elaborate attempt to employ a cadastral system) and eventually by his move to control military followings.

Tenth-century change

The novel features of Viking warfare and the late ninth-century Christian responses to it point the way towards developments during the tenth century: the employment of foreign mercenaries, the greater use of fortifications and attempts at cadastrally organised military service. The principal outlines of tenth-century English military service have already been mentioned. One important document is the *Burghal Hidage* of c.918, which sets down a possibly more systematised version of the reforms established by Alfred in Wessex. This document tells us that there were 27,000 *hides* assessed for military service and the maintenance of the *burhs*. It envisages one man from each such *hide* for service in the fortresses (upkeep and repair and probably defence in times of attack). The usual ratio of one man per five *hides* suggests that this kingdom could furnish a standing army of about 5,500 men. Up until the 950s the English army, like that of the eighth-century Carolingians was repeatedly in action in successful expansionist warfare, which made it a difficult foe to beat, as shown by an almost unbroken record of success. Thereafter, prolonged peace, broken only by smaller-scale punitive raids, appears (as with the later eighth-century Lombards) to have meant a decline in the army's quality and possibly even a tendency to abandon body armour. These had drastic effects when the kingdom was attacked by the new royal Danish armies of Swein and Cnut.

As far as the more ambitious attempts to employ external threats as a basis for increasing royal power was concerned, the baton was taken up by the new rulers of the East Frankish kingdom, the Ottonians (who revived the Western Empire when Otto I was crowned emperor in 962). The principal strategy of the Ottonians, like that of the later ninth-century Carolingians, was to ensure their control of armed retainers. A document, the *indculus loricatorum* of 981, represents the Ottonians' attempt to register the greater

50 See, for example, *Annals of St-Bertin*, s.a., 862. 51 *Ibid.*, s.a. 863.

landholdings of the realm and how many armoured horsemen (*loricati*) they could furnish. This shows that the German rulers could, in theory, call upon about 20,000 men. It is extremely unlikely for logistical reasons that this sort of number was ever raised – indeed throughout the Middle Ages these sorts of lists have a tendency to give inflated views of the numbers of troops available to royal rulers. Nevertheless, it suggests that when the need arose the Ottonians ought to have had little difficulty – even if the constraints of logistics and ‘consensual politics’ cut the numbers to a quarter of all those theoretically available – in levying a force of armoured horsemen that at least matched the maximum size of the West Saxon field army envisaged in the *Burghal Hidage*. That said, one story suggests that East Frankish armies were not large. When, in 955, a contingent of fifty horsemen was slaughtered by the Slavs it was felt that the army had suffered a colossal setback.⁵²

Earlier in the century, the Ottonians had attempted to parallel the Alfredian response to Viking attack (although the East Franks were much more concerned with the raids of the Magyars). Henry I ‘the Fowler’ had tried to create border fortifications in newly cleared lands. Farmers attached to these works were divided into groups of ten, one of whom was always present in its garrison.⁵³

However, although the Ottonian kings fought numerous successful foreign wars (and some not so successful, such as Otto II’s catastrophic defeat by the Italian Saracens at Cap Colonne in Italy, in 982), proportionately most of their military activity during the century was concerned with internal revolt, by rivals in Franconia, Bavaria, or Lotharingia or by disgruntled members of their own family (such as Otto I’s brothers Thankmar and Henry, or his son Liudolf).⁵⁴ When Otto I’s brother Henry became Duke of Bavaria, the two problems combined! As elsewhere, in this sort of fighting, royal decrees about military service were of little value and armies were composed of the retinues of different factions, in the old way. Another strategy of the Ottonians, therefore, parallels earlier Carolingian efforts and that is the much-debated imperial ‘church system’, whereby members of the ruling dynasty were appointed to particularly powerful bishoprics. Whether this was really a ‘system’ has rightly been doubted; it could only be an ad hoc response and it was far from universally successful. Nevertheless, the aim was clear

52 Karl Leyser, ‘The Battle at the Lech, 955: A Study in Tenth Century Warfare’, *History* 50 (1965), 58.

53 Timothy Reuter, *Germany in the Early Middle Ages, 800–1056* (London, Longman, 1991), p. 143.

54 *Ibid.*, pp. 70–180.

enough. In controlling the great bishoprics (and eventually archbishoprics) the kings would have access to powerful contingents of warriors maintained from ecclesiastical estates.

What one might term the Alfredian model – the combination of royal fortress and permanent army – was probably most successfully emulated at the very end of our period in the newly reunified kingdom of Denmark. Here King Swein and his son Cnut constructed a series of famous circular, geometric fortresses which housed permanent garrisons (including women and children). These are to be found outside the political heartlands of the dynasty and serve a similar purpose to the English *burhs* as visible marks of royal presence. Attempts to create a cadastrally organised army are also visible, which eventually culminated in the *Leidang* or levy. On another fringe of Christian Europe, the north of Spain, one can also trace attempts to impose general military obligations, all the more necessary in the context of almost perpetual warfare against the amirate, now caliphate, of Cordoba (in the ninety-two years between 791 and 883, for example, forty wars are recorded). In the Kingdom of the Asturias this obligation was called *fosato* or *fonsado*. Yet, like the Carolingians, the Asturian kings still granted exemptions to certain churches, forbidding their military officials – who continued to be known by the old Gothic term *saiones* – from entering such estates to levy troops.

Tenth-century France witnessed no such attempts. Although the once sharp and teleological outlines of the story have been much nuanced in recent decades, the history of western *Francia* in this period can nevertheless still be characterised by dynastic conflict, especially but by no means exclusively between the Robertians (later the Capetians) and the last Carolingians, and a steady weakening of effective royal control throughout the kingdom. At the same time took place the growth of what Dhondt called the territorial principalities (such as Anjou, Aquitaine, and Normandy) under their own ruling dynasties.⁵⁵ The last Western Carolingians were no ciphers and the story of gradual fragmentation of political power was far from inevitable. Nevertheless, however one explains them, the outlines of that tale remain the same with the effective political fragmentation first of the West Frankish kingdom and then of the territorial principalities themselves. The resulting 'Feudal Revolution' of the decades around 1000 has been endlessly debated and its very existence called into question but, fortunately for us, we can

55 Jean Dunbabin, *France in the Making, 843–1180* (Oxford, Oxford University Press, 1985).

skirt these tricky issues to some extent by looking at the nature of armies and warfare, and indeed these can quickly be sketched. The general unit of military analysis remained, perhaps more than ever before, the aristocratic retinue, composed of armoured mounted warriors. Fortifications were also important but in different ways from those in England and Denmark. Whatever their origins in defence against marauders, ‘small forts’ (*castella* in Latin, whence – obviously – our word castle) fairly quickly became in practice hereditary, in much the same way as the *honores* of which they were the physical foci had become understood as familial possessions, even if originating in, and sometimes still legitimised by, royally bestowed titles. These made the negotiation between local military elites and central authorities (royal or ducal), so necessary for the summoning of armies even in the earlier era, that bit more difficult still. Without doubt, just as the Carolingians had (in many ways very effectively) countered these issues through the employment of royal ritual and ideology, the fluidity of these relations was countered by the growing social and cultural (if not legal) concentration on oaths of vassalage and concepts of fealty. Here we are fully in the world of knights and castles that characterises the central Middle Ages.

Conclusion

This survey of warfare and military service across four centuries of Western European history has necessarily had to exclude much, and with it a great deal of the nuance and variety (I have said nothing of the distinctive warfare in the so-called ‘Celtic fringe’, for example). Nevertheless, it can still be seen that this period was neither one of simple continuity from Rome, nor of the triumph of (probably mythical) ‘Germanic’ warrior cultures. Nor can it be seen as a half-hearted precursor to the ‘fully formed’ feudalism of the central Middle Ages. There is a dynamic to be seen in the development of armed forces between c.600 and c.1000, one which lies in the relationships between central powers and local, increasingly militarised, elites. The use of military service to explore this dynamic contributes greatly to the understanding of early medieval politics. But just as this suggests how military history has an important place in the comprehension of early medieval politics, this chapter illustrates clearly, too, how warfare and armies can only be understood in the broader context of contemporary social and economic

structures. The warfare of this period also has its own distinctive characteristics, with a greater emphasis on battle and (at least before the tenth century) less attention to sieges than in later eras. These characteristics can only really be explained by study of the economy and settlement pattern of the period and of the central place – indeed one that almost excluded alternatives – of military activity in early medieval society.

The Scandinavian world

ANTHONY PERRON

The history of war in the Scandinavian world is inseparable from the history of the Vikings. The stereotype of Norse violence, still prevalent today, was fostered by contemporary writers such as Alcuin, who lamented the strike on Lindisfarne in his native Northumbria (793 CE) as a pagan contamination of Christian society. ‘The heathens’, he wrote to the monks there, ‘have stained the sanctuaries of God, poured forth the blood of the saints all around the altar, laid waste to the house of our hope, and trodden upon the bodies of the saints in the temple of God as if they were dung in the street. What can I say except to lament in spirit with you before the altar of Christ and say “spare your people, Lord, spare your people, and do not give your inheritance to the pagans lest they might say where is the God of the Christians”?’ A century later, a horrified Abbo of St Germain-des-Près recounted how so many Viking longships went down the Seine to Paris that the river itself seemed to have disappeared.¹ According to the view presented in medieval sources from the British Isles and France and replicated in modern textbooks and popular histories, Scandinavians were decidedly ‘other’ to the Europe they plundered.²

Challenging this received view, much scholarship now exists to put the Viking age in perspective. This chapter will survey the history of Scandinavian warfare from the late Roman period through the High Middle Ages. We will here avoid a narrow focus on military tactics and weaponry in order to address,

1 For the Latin text of Alcuin’s letter, see *Two Alcuin Letter-Books*, ed. Colin Chase, Toronto Medieval Latin Texts 5 (Toronto, Pontifical Institute of Mediaeval Studies, 1975), pp. 50–2, trans. in *Carolingian Civilization: A Reader*, ed. Paul Dutton, 2nd edn (Petersborough, Broadview, 2004), pp. 123–5. See also Abbo, *The Viking Attacks on Paris: The Bella Parisiacae Urbis*, ed. and trans. N. Dass, Dallas Medieval Texts and Translations 7 (Leuven, Peeters, 2007), pp. 28–9.

2 In the words of one such work, ‘the fury of the northmen’ constituted ‘nothing less than a descent of prehistoric aliens on the holy places which had inspired and informed the high peaks of western civilisation’: John Marsden, *The Fury of the Northmen: Saints, Shrines, and Sea-Raiders in the Viking Age* (New York, St Martin’s, 1993), p. 26.

above all, the broader social and political context of war in the Nordic region. In particular, this chapter will examine an internal question, the relationship of armed conflict to the structure of power within Scandinavia, and an external question, the way in which Scandinavian warfare reflected the place of the North in wider European society. The types of evidence used by historians to study the medieval Scandinavian world are various and surprisingly rich, but none are without problems. Archaeological sources are significant and suggestive, though the conclusions to be drawn from them vary greatly according to the interpretive framework of the observer. Texts, on the other hand, offer few clear answers as they either come from outside writers or, when native, are far removed in time from the phenomena they describe. In surveying warfare in the 'Scandinavian world', it should also be kept in mind how large and varied the region is, exhibiting tremendous diversity in geography, with boundaries that did not correspond to those of modern times. The familiar Scandinavian kingdoms did not begin to take shape until relatively late in the period under consideration here.³ The circumference of the Norse sphere is even greater when we take into account the diaspora that brought Scandinavians as far as what is today Canada, Morocco, and Azerbaijan. Though Nordic people shared certain broad cultural bonds, most notably through religion and language, conditions (and concerns) could be very different from Gotland to Normandy, Trøndelag to Russia, Sjælland to Orkney, Uppland to Dublin.

The rise of a martial aristocracy: Scandinavia and the Roman Empire

Despite the fact that it lay well beyond the *limes* separating 'imperium' from 'barbaricum', Scandinavia was known to the Romans. The *Res Gestae Divi Augusti* (c.14 CE) celebrated an imperial fleet, led by the future emperor Tiberius, that travelled from the Rhine to the 'borders of the Cimbri' as the inhabitants of Jylland, the western peninsula of Denmark, were called in the Mediterranean area.⁴ Already in the first century, these ancestors of the Norse were famed for their prowess. The geographer Strabo referred to them as a 'wandering and piratical folk', a reputation grounded in their catastrophic raids on the empire as far

3 See Nora Berend (ed.), *Christianization and the Rise of Christian Monarchy: Scandinavia, Central Europe, and Rus' c.900–1200* (Cambridge, Cambridge University Press, 2007).

4 *Res Gestae Divi Augusti*, vol. 5, ed. Theodor Mommsen (Berlin, Weidmann, 1883), pp. 14–15 (trans. Ronald Mellor in *Augustus and the Creation of the Roman Empire: A Brief History with Documents* (Boston, Bedford/St Martin's, 2006), pp. 59–69).

back as the late second century BCE.⁵ Archaeological finds in Scandinavia suggest a close connection between warfare in the Roman world and a developing martial aristocracy in the North. Many Roman coins have been found in bogs as part of weapon sacrifices.⁶ Excavations of a particularly rich grave found in 1920 near Hoby on the island of Lolland in southern Denmark, for instance, uncovered a remarkable Roman banqueting set of silver and bronze dating from c.14–21 CE, featuring scenes from the *Iliad*. While the site contained relatively few weapons, that the dinner set was inscribed with the name of a Roman military commander active in northern Germania suggests that the man buried in the grave was a powerful warrior who had fought either against the Romans along the troubled Rhine frontier (and thus obtained the set through plunder) or, as most scholars believe, for the Romans, in return for which service he was rewarded with a gift of extremely high quality.⁷

Soldiers of such status were in a position to form new centres of authority. From the late second century, for instance, such a centre appears to have developed in eastern Sjælland near the burial complex at Himmlingøje. In part, places like Himmlingøje, as well as Gudme/Luneborg on Fyn, functioned as nodal points for trade between the Baltic region and the Roman Empire, as evidenced by the Roman imports found there, but their economic power was also tied to military might. Indeed, the chieftains who controlled these locations may have participated as mercenaries in conflicts like the Marcomannian Wars and leveraged their connections abroad to achieve dominance at home.⁸ Weapon sacrifices, including that at Illerup in eastern Jylland, suggest a highly militarised society in Scandinavia during the Roman period. The Illerup artefacts, moreover, attest to the scope of Scandinavian warfare, as the objects appear to have belonged to soldiers from southern Norway and western Sweden. Other sacrifice sites contain equipment

5 Strabo, *Geography*, ed. and trans. Horace Jones, 8 vols. (Cambridge, MA, and London, Harvard University Press, 1924), vol. 3, bk 7, ch. 2.1.

6 Helle Horsnæs, 'The Coins in the Bogs', in Lars Jørgensen, Birger Storgaard, and Lorne Gebauer (eds.), *The Spoils of Victory: The North in the Shadow of the Roman Empire* (Copenhagen, National Museum, 2003), pp. 330–40.

7 See Birger Storgaard, 'Cosmopolitan Aristocrats', in Jørgensen, Storgaard, and Gebauer (eds.), *The Spoils of Victory*, pp. 109–12.

8 Birger Storgaard, 'Himmlingøje, Barbarian Empire or Roman Implantation?', in Birger Storgaard (ed.), *Military Aspects of the Aristocracy in Barbaricum in the Roman and Early Migration Periods*, Publications from the National Museum, Studies in Archaeology and History 5 (Copenhagen, National Museum, 2001), pp. 95–111.

from a similarly extensive hinterland.⁹ What is more, compared with earlier offerings of war booty, like that at Hjortspring Bog (near Sønderborg), the Illerup find points to a higher degree of standardisation and hierarchy among the troops, possibly as a result of influence from the empire.¹⁰ How large the armies led by military chieftains might have been must of course remain a matter for speculation, but one historian's 'conservative estimate' of the force conquered near Illerup puts the army's size at some 1,500 soldiers commanded by around 200 officers, numbers that are consistent with the scale of defensive fortifications in the region, such as the excavated fort at Priorsløkke.¹¹ How many centres of power existed in Roman-age Scandinavia is difficult to determine and hypotheses about 'state formation' reach beyond the available evidence.¹² What seems clear, however, is the emergence of a politically dominant warrior aristocracy concentrating power and resources from a wider region. The evidence is strongest in Denmark, where the presence of substantial barrages to protect strategically important waterways can best be explained by the development of a class of strong chieftains with access to manpower well beyond the immediate locality.¹³ The situation is somewhat less clear in Norway and Sweden. For Norway, efforts have been made to link centres of aristocratic wealth with complexes of boathouses of an apparently military character that could not have been built and provisioned using purely local resources. Again, the rise of a class of warrior chieftains is a plausible context, though the claims that such boathouses were inspired by Roman structures are unconvincing.¹⁴ Meanwhile in Sweden, ample

9 See Jørgen Ilkjær, 'Danish War Booty Sacrifices', in Jørgensen, Storgaard, and Gebauer (eds.), *The Spoils of Victory*, p. 50; and Ulla Lund Hansen, '150 Years of Weapon-Offering Finds, Research and Interpretations', in Jørgensen, Storgaard, and Gebauer (eds.), *The Spoils of Victory*, pp. 7–88.

10 Lars Jørgensen, 'The "Warriors, Soldiers and Conscripts" of the Anthropology in Late Roman and Migration Period Archaeology', in Storgaard (ed.), *Military Aspects of the Aristocracy*, pp. 9–19.

11 Flemming Kaul, 'Priorsløkke and Its Logistical Implications', in Anne Nørgård Jørgensen and Birthe Clausen (eds.), *Military Aspects of Scandinavian Society in a European Perspective, AD 1–1300*, Publications from the National Museum, Studies in Archaeology and History 2 (Copenhagen, National Museum, 1997), pp. 137–45.

12 As in Storgaard, 'Himlingøje'.

13 Anne Nørgård Jørgensen, 'Sea Defence in the Roman Iron Age', in Storgaard (ed.), *Military Aspects of the Aristocracy*, pp. 67–82.

14 Oliver Grimm, 'Norwegian Boathouses from the Late Roman and Migration Periods: An Analysis of Their Military Function', in Storgaard (ed.), *Military Aspects of the Aristocracy*, pp. 55–66; Grimm, 'The Military Context of Norwegian Boathouses AD 1–1500', in Anne Nørgård Jørgensen et al. (eds.), *Maritime Warfare in Northern Europe*:

discoveries of Roman coins might hint at a wealthy class of mercenaries returning home, where they contributed to a climate of conflict and the establishment of chieftaincies manifested in the construction of ring fortresses and fortified manors, the latter possibly (though by no means definitively) influenced by Mediterranean engineering and architecture.¹⁵

The origins of Viking warfare: centralisation, trade, and technology

On any given point, the evidence provided by archaeology for the military history of Scandinavia and its social and political context from the first to the seventh century can be challenged, but taken together a consistent and compelling picture emerges. Before the Viking Age, the Norse were becoming an increasingly militarised people, due in no small part to the influence of the Roman world to the south. At the same time, greater political and economic power was wielded by an ambitious warrior aristocracy in which rival chieftains were often at war with their neighbours. Still, there is little evidence that the Scandinavians were engaged in widespread raiding in foreign lands, notwithstanding Gregory of Tours's mention of a raid by King Chlochilaich of the Danes whose fleet harried Gaul in the early sixth century, famously echoed in the account of Hygelac's raid on Frisia in *Beowulf*. This would, of course, change in the late eighth century, when with apparent suddenness the Norse became seaborne assailants, known commonly today as 'Vikings'.¹⁶ As early as 787 (and before 793), Norsemen had struck near Portland in Wessex, while monasteries were targeted beginning with the attack on Lindisfarne in 793, followed two years later by Rechrú

Technology, Organisation, Logistics and Administration 500 BC–1500 AD, Publications from the National Museum, Studies in Archaeology and History 6 (Copenhagen, National Museum, 2002), pp. 105–23.

¹⁵ Ulf Näsman, 'Strategies and Tactics in Migration Period Defence: On the Art of Defence on the Basis of the Settlement Forts of Öland', in Jørgensen and Clausen (eds.), *Military Aspects of Scandinavian Society*, pp. 146–55; Michael Olausson, 'Fortified Manors during the Migration Period in Eastern Middle Sweden: A Discussion of Politics, Warfare, and Architecture', in Jørgensen and Clausen (eds.), *Military Aspects of Scandinavian Society*, pp. 157–68.

¹⁶ The term Viking is of unknown origin. It first appears in Old English (*wicing*) and later came to mean, in Old Norse (*vikingr*), one who goes out on raids; it was, at any rate, not a common word in the accounts of Scandinavian piracy, where terms such as 'Danes' or 'Northmen' (in the West) or 'Rus' and 'Varangians' (in the East) predominate. See Stefan Brink, 'Who Were the Vikings?', in Stefan Brink and Neil Price (eds.), *The Viking World* (London and New York, Routledge, 2008), pp. 5–7.

and Scí in Ireland and Scotland respectively. The first strike in Frankia apparently landed in 799 in Aquitaine.¹⁷

The reasons for the beginning of the era of Norse predation are stubbornly beguiling, though there is no shortage of theories. Overpopulation has sometimes been suggested, largely on the basis of Dudo of St-Quentin's history of the Normans, a thesis championed by the great Danish historian Johannes Steenstrup in the late nineteenth century, for instance, though generally rejected by most scholars. Cultural explanations have also been offered up. The archaeologist Johannes Brønsted once cautioned against overlooking the importance of a 'Viking spirit', a view that would seem to draw support from the pagan religion of the Norse, where gloriously martial gods from Ásgard plunder their neighbours in the Scandinavian cosmos, the giants for instance.¹⁸ Such religious predilections, however, are only known to us from literature that wholly post-dates the Viking invasions and may just as easily have developed in the era of raiding as caused it in the first place. Alternatively, there is no reason to doubt that this mentality was in existence well before the eighth century, when there were as yet no 'Vikings'.

The most convincing frameworks for understanding the Norse invasions are sociopolitical and economic. On the one hand, the expanding and aggressive might of the Carolingian empire may have posed a threat to the centralising rulers of Denmark. The eighth century saw some of the most ambitious projects of military engineering in the Danish lands up to that point, including most famously the Danevirke, a massive timber and earth rampart along the narrow base of the Jylland peninsula, begun in 737 and possibly expanded in 808.¹⁹ Shortly before the Danevirke construction began, a canal was dug across the island of Samsø to control access to Stavns Fjord, a strategically important site between Jylland, Fyn, and Sjælland and likely home to one of several naval bases that appear to have been built in Denmark

17 For Portland and Lindisfarne, see the *Anglo-Saxon Chronicle*, published as *Two of the Saxon Chronicles*, ed. Charles Plummer, 2 vols. (Oxford, Clarendon Press, 1892), vol. 1; and *The Anglo-Saxon Chronicle*, trans. Michael Swanton (New York, Routledge, 1996); on the earliest strikes in Ireland and Scotland, see *The Annals of Ulster (to A.D. 1131)*, ed. Sean Mac Airt and Gearoid Mac Niocaill (Dublin, Institute for Advanced Studies, 1983); on Aquitaine, see the discussion in Élisabeth Ridel, 'From Scotland to Normandy: The Celtic Sea Route of the Vikings', in Beverley Ballin-Smith, Simon Taylor, and Gareth Williams (eds.), *West over Sea: Studies in Scandinavian Sea-Borne Expansion and Settlement before 1300* (Leiden, Brill, 2007), pp. 84–8.

18 Johannes Brønsted, *The Vikings*, trans. K. Skov (Harmonsworth, Penguin, 1965), p. 27.

19 Else Roesdahl, 'Danevirke', in Phillip Pulsiano (ed.), *Medieval Scandinavia: An Encyclopedia* (New York, Garland, 1993), pp. 120–1.

during the early eighth century.²⁰ Such projects square well with the prominence of King Godofrid, whose power was sufficiently great to concern Charlemagne. The early history of Viking activity in Frankia at least might be connected with the effort of the Danes to resist Frankish overlordship, particularly in the wake of Charlemagne's brutal subjugation of Saxony and his alliance with the Obodrites, though convincing evidence is lacking that the Norse assaults were part of a coordinated and royally directed war against Carolingian imperialism. Such an explanation, at any rate, does little to help explain why the Scandinavian expansion also targeted the British Isles, whose Anglo-Saxon and Celtic rulers harboured no obvious ambitions toward the North.

It is, of course, tempting to link the onset of Viking raids more generally to competition within the class of Norse warrior chieftains and their retainers, though the precise dynamics of this relationship are unclear. As will be discussed below, the early phase of Viking activity aimed not at settlement but at piracy, suggesting that Norse elites were seeking foreign wealth as a means of gaining an advantage in rivalries back home. Subsequent attacks, which clearly did have the establishment of overseas lordships as their goal, lead to the conclusion that their perpetrators were the losers in the struggle for supremacy in their native lands.

Any effort to uncover the causes of the Norse attacks would seem incomplete without reference to trade.²¹ In the decades immediately around the start of the Viking expansion, market centres emerged in Scandinavia, the most famous being Birka in Sweden, but also including Kaupang in Norway and, in Denmark, Ribe and Hedeby.²² That many early raids appear to have been calculated strikes on trade towns (Portland in Wessex, for instance, and Dorestad in Frisia) points to an effort to secure control of key North Sea trading lanes through violence.²³ As for the attacks on churches, while contemporaries were apt to see these as rooted in Norse paganism, they might more simply be interpreted as opportunistic grabs for easy (that is, undefended) sources of capital.²⁴ Though modern

20 Anne Nørgård Jørgensen, 'Naval Bases in Southern Scandinavia from the Seventh to the Twelfth Century', in Anne Nørgård Jørgensen et al. (eds.), *Maritime Warfare in Northern Europe*, pp. 135–7.

21 As argued by Peter Sawyer, 'The Age of the Vikings and Before', in P. Sawyer (ed.), *Oxford Illustrated History of the Vikings* (Oxford, Oxford University Press, 1997), pp. 3–8.

22 See Søren Michael Sindbæk, 'Local and Long-distance Trade', in Brink and Price (eds.), *The Viking World*, pp. 150–8.

23 As Richard Hodges seems to suggest in *Goodbye to the Vikings: Re-reading Early Medieval Archaeology* (London, Duckworth, 2006), pp. 157–62, the Vikings may actually have been agents of economic revitalisation in the North Sea region.

24 See Sarah Foot, 'Violence against Christians? The Vikings and the Church in Ninth-century England', *Medieval History* 1 (1991), 3–16.

observers may see piracy and commerce as distinct and perhaps mutually incompatible, the close tie between raiding and trading in the Viking context finds echoes in later saga literature where the proceeds from one season's plundering might help fuel the trading ventures of another season.²⁵

If the motivations for Viking activity lie in sociopolitical and economic factors, the means of accomplishing the expansion was the development of ship technology. The Norse were understandably a nautical people from a very early period in their history; visual representations of boats go back to the Bronze Age in Scandinavia, and the Hjortspring ship dates from the fourth century B.C.E. Yet they only adopted the sail centuries after it reached the Northern Sea in Roman times. During the eighth century C.E., wind-powered vessels began to replace rowed boats in visual representations like the famous carved stones of Gotland. The development of the Norse 'longship' is not fully understood and must be culled together from archaeological evidence, the most dramatic sort being ship burials of the ninth and tenth centuries like those at Oseberg, Gokstad, Tune, and Ladby, engravings on stone and wood, and only lastly textual evidence. Some essential outlines are clear, however. The boats employed to such effect by the Norse were a product of a 'period of experimentation' in the eighth century in which older hull designs – long, narrow, and rowed – from Scandinavia were joined to sails, probably borrowed from Frankish and Frisian precedents, creating a vessel that was swift enough to reach the British Isles and Frankia quickly, but large enough to carry thirty to fifty armed warriors.²⁶ While there was no single model for the Viking ship, the new generation of boats that launched the Norse expansion were shorter and broader than their predecessors. Moreover, though several types of vessel have been identified, a basic specialisation into two categories can be seen by the later Viking Age: cargo ships, which became gradually wider, and comparatively longer personnel carriers. As a final note, it should be mentioned that Viking boats were not purely functional. They were also pieces of art, painted, decorated, and, in many cases, named.²⁷

25 See the figure of Thorolf in *Egil's Saga*, who raided in Karelia in the winter in order to obtain furs and the following summer equipped a ship to trade in England for cloth (trans. Bernard Scudder, in *Sagas of Icelanders* (New York, Penguin, 2000), ch. 17).

26 On the 'period of experimentation' see Angelo Forte, Richard Oram, and Frederik Pedersen, *Viking Empires* (Cambridge, Cambridge University Press, 2005), p. 128, an account that is otherwise highly informative as well. See also Else Roesdahl and Prebend Meulengracht Sørensen, 'Viking Culture', in Knut Helle (ed.), *Cambridge History of Scandinavia* (Cambridge, Cambridge University Press, 2003), pp. 123–6; and Jan Bill, 'Viking Ships and the Sea', in Brink and Price (eds.), *The Viking World*, pp. 170–80.

27 On changing length–breadth ratios, see Ole Crumlin-Pedersen, 'Large and Small Warships of the North', in Jørgensen and Clausen (eds.), *Military Aspects of*

The Norse raids which began in the British Isles and Frankia in the last decade or so of the eighth century were the beginning of a long and complex military involvement between Scandinavia and a wider world that included not simply North-Western Europe, but the eastern Baltic, Russia, and even the Mediterranean as well. Each sub-sphere of Viking activity has its own history, and in what follows we will only sketch some of the basic trends and patterns, leaving aside for the most part the Norse colonisation of the North Atlantic (Iceland and Greenland) since these were not militarily significant.²⁸

Norse violence: aims, organisation, methods, and response

The initial Viking attacks in the West appear to have involved relatively few warriors. The sources for this earliest stage do not provide numbers, but the *Anglo-Saxon Chronicle* refers to a 794 strike on the monastery of Jarrow in Northumbria as involving multiple ships under several 'commanders', language that suggests a loosely organised and small-scale operation, which might account for the fact that the assault was put down with relative ease. The first-round raids apparently aimed at rapid plunder of coastal sites, though the *Annals of Ulster* hint at a broader objective involving negotiated terms: Vikings landing near Inis Patrick in 798 are said to have taken 'cattle tribute' from the surrounding territories.

As the raids intensified in the ninth century, several developments can be identified. First, the attacks involved greater numbers of Norse vessels and men. Considerable scholarly controversy has raged over how big Viking armies were, with bottom estimates in the hundreds of troops and higher estimates in the low thousands.²⁹ While one should naturally be wary of accepting the precise numbers offered up in contemporary chronicles, they do not seem to have been exaggerated merely for rhetorical effect. The *Annals of Ulster* refer to a Norse attacks in the mid ninth century as involving

Scandinavian Society, pp. 184–94; and Bjørn Myhre, 'Boathouses and Naval Organization', in Jørgensen and Clausen (eds.), *Military Aspects of Scandinavian Society*, pp. 169–83. For specialization in boat types, see Bill, 'Viking Ships and the Sea', p. 177. Forte, Oram, and Pedersen, *Viking Empires*, pp. 162–8, discusses types and names.

28 As Byock argues, while Iceland did not lack violence (often politically motivated), organised warfare was generally absent in the settlements there. See Jesse Byock, *Medieval Iceland: Society, Sagas, and Power* (Berkeley, University of California Press, 1988), pp. 109–11.

29 A summary of these debates can be found in Gareth Williams, 'Raiding and Warfare', in Brink and Price (eds.), *The Viking World*, p. 195.

'eight score' and 'twelve score' ships and deem a fleet of 'three hundred or more' to be 'large'.³⁰ These numbers are consistent with the assumption in the *Anglo-Saxon Chronicle* that a force of 350 boats was notably large, while the *Annals of St Bertin* records figures of Norse ships ranging from 120 (845) into the 200s (252 in 852 and 'over 200' for 861). An enormous fleet of 600 ships on the Elbe in 845 was said to have been sent by Horik, whose designation as 'king of the Northmen' implies that few Norse naval forces were likely to have been so large in the ninth century.³¹

Secondly, while Norse bands may well have been united by a feeling of egalitarian camaraderie (Dudo memorably imagined the warriors under Hasting in Normandy claiming to be 'aequalis potestatis' – of equal power), the leadership of the Viking forces appears to have become more elite over the course of the ninth century.³² At the very least, observers seem to have become more skilled at identifying the command structure of the attackers they faced. Particular chieftains appear by name in texts from Ireland, England, and Frankia, most famously Guntram in East Anglia, but also figures such as Weland in Frankia and 'Tuirgeis' (Thorgils) in Ireland, to note but a few. However, if the leaders of various Viking bands were increasingly elite (and perhaps their military structure as a whole more hierarchical), the Norse remained a fragmented presence in North-Western Europe. Irish sources distinguish between the 'dark heathens' and the 'fair-haired foreigners' (referring to the slaughter of the latter at the hands of the former), while the Franks had to keep track of several Viking fleets at any one time typically classified according to the river valley they harried, with no necessary bond between them. The Vikings of the Somme were thus willing to attack the Vikings of the Seine at the request of, and upon payment by, Charles the Bald. Even a single Viking army was composed of retinues that could disperse and act independently, as the force under Weland did in 861 CE.³³

Thirdly, the notion that the Norse leadership was becoming more elite over the course of the ninth century, with several Viking commanders referred to as 'kings', is connected with a shift in emphasis from gathering plunder and collecting tribute to the establishment of durable lordships.

30 *Annals of Ulster*, ann. 852, 866, and 868.

31 *Annales Bertiniani*, ed. Georg Waitz, *Monumenta Germaniae Historica, Scriptores Rerum Germanicarum in Usus Scholarum* (Hanover, Hahn, 1883) trans. Janet Nelson as *The Annals of St-Bertin* (Manchester, Manchester University Press, 1991).

32 Dudo, *De Moribus et Actis Primorum Normanniae Ducum*, ed. Jules Lair (Caen, Le Blanc-Hardel, 1865), bk 2, ch. 13, trans. Eric Christiansen as Dudo of St Quentin, *History of the Normans* (Woodbridge, Boydell, 1998).

33 *Annals of Ulster*, ann. 842; *Annales Bertiniani*, ann. 860, 861.

Scholars have often noted the importance of overwintering as a first step toward Norse settlement, as for example the Danes under the command of Prince Godefrid in 853 CE on the Seine. The progression is clear from the *Anglo-Saxon Chronicle*, which records Vikings 'staying the winter' for the first time at Thanet in 851 and at Sheppey in 855, dwelling in York for a year in 869, 'dividing the land and settling' in Northumbria (876) and East Anglia (880), and building fortifications at Exeter in 876 and Rochester in 885. The nature of Scandinavian colonies was various, ranging from fortified urban encampments such as the *longphuirt* of Ireland, to trade centres with hinterlands like York, to larger territorial entities including Orkney (an earldom by around 900) and, in the early tenth century, the duchy of Normandy.

The apparent success of the Vikings naturally raises the question of how they went about their campaigns and in what ways Scandinavian warfare might have been different from the practices of other early medieval peoples. The idea that the Norse triumphed owing to their ferocity was used to great rhetorical effect even in the Viking Age itself, as in the Anglo-Saxon poem 'The Battle of Maldon' (c.1000 CE) which cast the invaders as 'bloodthirsty wolves' (*wælwulfas*).³⁴ Such images were embraced and even elaborated on by the descendants of the Viking-Age Norse who composed the sagas. The Vikings' propensity to strike at churches was understandably horrifying to ecclesiastics (Armagh was plundered three times in one month in 832), yet the actual effects on the Church are hard to determine from the often ambivalent evidence; there certainly is little basis for claims of a deliberate 'policy of profanation' designed to induce terror.³⁵ Indeed, the Norse do not appear markedly different in their mindset or tactics from those they targeted. Intending his words as flattery, Asser described Alfred the Great as fighting 'like a wolf (*lupino more*) and 'a wild boar' (*apriño more*).³⁶ Charles the Bald's

34 *The Battle of Maldon*, ed. Walter Sedgefield (Boston, W. C. Heath, 1904), v. 96, trans. Sidney Bradley in *Anglo-Saxon Poetry* (London, Everyman, 1982), pp. 518–28. Alfred Smyth argues that the Vikings' 'record of brutal atrocities', especially their 'sacrificial slayings' of Anglo-Saxon kings, 'helps to explain the particularly violent opposition offered to the invaders' and their reputation as 'conspicuously heathen': *Scandinavian Kings in the British Isles, 850–880* (Oxford, Oxford University Press, 1977), pp. 221–2.

35 On Armagh, see the *Annals of Ulster*, ann. 832; for the effects on churches, see Dawn Hadley, *The Vikings in England: Settlement, Society, and Culture* (Manchester, Manchester University Press, 2006), pp. 192–236; see Eric Christiansen, *The Norsemen in the Viking Age* (Oxford, Blackwell, 2002), pp. 179–82 for a refutation of the thesis of Viking terrorism.

36 Asser, *Life of King Alfred*, ed. William Stevenson (Oxford, Clarendon Press, 1904), chs. 36, 38, trans. Simon Keynes and Michael Lapidge as *Alfred the Great* (London, Penguin, 1983).

efforts to subdue the ever-troublesome region of Aquitaine did not spare 'the churches and altars of God' in 854, while the Irish king Domnall ua Néill in 971 'led an army against the men of Mide and plundered all their churches and forts'.³⁷

If the Norse were no more objectively brutal than their 'civilised' neighbours, contemporaries were quick to note the importance of their boats. The largely fictitious and rather late Irish epic celebrating the life of Cellachan of Cashel refers to the 'Lochlann' as men 'of the good ships' and 'of the brown fleet', while their settlement at Limerick earns the epithet 'of the ships', and the text dwells on the 'long', 'swift', and 'mighty' fleet of the Scandinavians as the chief challenge to the Irish warriors who overcame the 'foreigners'.³⁸ At the same time, the Norse developed a reputation for doggedness. Regino of Prüm noted with astonishment how the Vikings plundering the Seine in 886 'with all their strength and ingenuity carried their fleet' overland in order to bypass Frankish defences and continue upstream.³⁹ Their ability to dig fortifications in very rapid manner was similarly legendary.⁴⁰ Certain other features might also be said to have distinguished the Norse among the armies of Western Europe. Although they used horses, for example, they appear to have done so mainly for rapid land transportation, dismounting when battle came, in contrast to the heavy cavalry of the Franks.⁴¹ In other respects, however, Viking warriors do not appear to have been out of the mainstream compared with their Irish, Anglo-Saxon, and Frankish counterparts. Gareth Williams has thus placed Viking activity in the context of Timothy Reuter's framework for understanding early medieval warfare broadly as a combination of raids aiming at conquest, tribute, or plunder.⁴² Moreover, Viking weaponry was typical of the period, with many swords (particularly of the 'Ulfberht' variety) and other instruments of battle actually imported from the Carolingian empire, despite laws forbidding the trade in arms, or manufactured according to Frankish lines.⁴³

37 *Annales Bertiniani* (854); *Annals of Ulster* (971).

38 *Caithrem Cellachain Caisil: The Victorious Career of Cellachan of Cashel*, ed. and trans. Alexander Bugge (Oslo, Gundersens, 1905), pp. 62, 84, 103, 106.

39 *Reginonis abbatis prumiensis chronicon*, ed. Friderik Kurze, *Monumenta Germaniae Historica, Scriptores Rerum Germanicarum in Usum Scholarum* (Hannover, Hahn, 1890), ann. 888, trans. Simon MacLean as *History and Politics in Late Carolingian and Ottonian Europe* (Manchester, Manchester University Press, 2009).

40 Christiansen, *Norsemen in the Viking Age*, pp. 177–8. 41 *Ibid.*, p. 176.

42 Williams, 'Raiding and Warfare', p. 196.

43 Anne Pedersen, 'Viking Weaponry', in Brink and Price (eds.), *The Viking World*, pp. 204–11. On Viking swords in particular, see the catalogue compiled by Ian Peirce, *Swords of the Viking Age* (Woodbridge, Boydell, 2002), with 'Ulfberht' variants on pp. 54, 63, 95, 98, 100, and 124.

To account properly for the military success of the Vikings, we must consider the political situation in the lands where they raided and settled. It has often been observed that the Norse were opportunistic invaders who took advantage of division within the societies of North-Western Europe. Such explanations, however, often fail to emphasise sufficiently how much the Vikings were themselves participants in those internal conflicts. In Ireland, the Norse aided native forces against their neighbours as early as 842, and the *Annals of Ulster* record the regular participation of Norse (or Hiberno-Norse) forces in the bitter struggles among the Irish elites.⁴⁴ For example, though the renowned battle of Clontarf (1014) was cast as Brian Boruma's heroic defence of Ireland against the Norse (he 'released the men of Erin, and its women, from the bondage and iniquity of the foreigners'), it was in fact a struggle between Leinster and Munster with Scandinavian troops participating on both sides.⁴⁵ In the West Frankish kingdom, Pippin II of Aquitaine, grandson of Louis the Pious, enlisted 'Danish pirates' while rebelling against his uncle Charles the Bald.⁴⁶ In short, if one asks the question why more decisive efforts were not made to expel the Vikings from the shores they attacked, it is not simply that native elites were distracted by internecine conflicts, but rather that they found the Norse useful in those very domestic struggles. Broadly considered, while many people were certainly terrified and horrified by the Scandinavian invasions, some at least established a collaborative relationship with the Viking armies that aided in the success of the latter. The Norse who reached East Anglia in 866 were provided with horses by local people with whom they struck a peace.⁴⁷ Even in Ireland, where historians long accepted that the Norse remained a persistently foreign and unwelcome presence, much evidence points instead to cooperation.⁴⁸

When native authorities chose to respond to the Vikings, their approaches were various. Carolingian leaders agreed to huge ransoms in 845 CE (7,000 lbs of gold and silver), 858 (nearly 4,000 lbs of gold and silver), 860 (5,000 lbs silver), 862 (6,000 lbs silver), 866 (4,000 lbs silver), and 877 (5,000 lbs). Most of

44 See the *Annals of Ulster*, ann. 850, 856, 863, 868, for example.

45 See the *Cogadh Gaedhel re Gallaibh/The War of the Gaedhil with the Gaill*, ed. and trans. James Todd (London, Longmans, 1867), chs. 86–115 (quote above from ch. 115). Ch. 96 in particular mentions the 'foreign auxiliaries' in Brian's army.

46 *Annales Bertiniani*, ann. 857. 47 *Anglo-Saxon Chronicle*, ann. 866.

48 John Bradley, 'The Interpretation of Scandinavian Settlement in Ireland', in John Bradley (ed.), *Settlement and Society in Ireland: Studies Presented to F. X. Martin* (Kilkenny, Boethius Press, 1988), pp. 49–78.

these were raised by Charles the Bald, whose generosity was equalled or surpassed by his immediate successors; Charles the Fat paid 'several thousand' pounds of silver and gold to the Viking commanders Sigfred and Gorm in 882, while Carloman two years later delivered a remarkable 12,000 lbs of gold and silver.⁴⁹ Paying off the Northmen has been seen as typical of the Franks, at least for the ninth century, but trading money for peace was not unique to the Continent. The people of Kent also tried offering ransom in 865, though to little effect.⁵⁰ Another approach was diplomacy, often coupled with attempts at the Christianisation of Norse leaders. In 826, Louis the Pious baptised the exiled Danish king Harald, who had sought the emperor's help some years before, and his son Godfred and sent them back to their homeland in the hope that they would serve as loyal allies across the frontier. The strategy failed when Harald was driven from power by his rivals and Godfred later emerged as himself a Viking commander in the 850s.⁵¹ This diplomatic channel also drew Franks and their proxies into armed conflict along or beyond the Danish frontier. In 815, Saxons and Obodrites, acting under orders from Louis the Pious, may have ravaged as far as Fyn in support of Harald. Thirteen years later, Harald's rivals struck at Frankish garrisons on the Eider.⁵² Anglo-Saxon diplomacy did not involve direct interference in the Nordic homeland, but like Charles the Bald, Alfred the Great used religion as the basis for a treaty with the Norse in 878 when the Viking king Guntram accepted baptism from Alfred and agreed to depart from Wessex in return for treasure.⁵³

Ransoms and diplomacy were often ineffective tools in countering the Norse threat, but direct military confrontation could be very successful. However fearsome their reputation, the Vikings were frequently on the losing end of clashes with native opponents. Frankish accounts, for instance, record Viking losses between 1,000 and 9,000 for key battles in the 880s, while the *Annals of Ulster* refer to 1,600 'foreigners' losing their lives in a single confrontation in 948 and 2,000 more in a fight two years later.⁵⁴ Naturally,

49 See the table of tributes and ransoms compiled by Janet Nelson, 'The Frankish Empire', in Sawyer (ed.), *Oxford Illustrated History of the Vikings*, p. 37.

50 *Anglo-Saxon Chronicle*, ann. 865.

51 *Annales Regni Francorum*, ed. Friderik Kurze, *Monumenta Germaniae Historica, Scriptores Rerum Germanicarum in Usum Scholarum* (Hanover, Hahn, 1895), ann. 814, 815, 823, 826, 827, trans. Bernard Scholz and Barbara Rogers in *Carolingian Chronicles* (Ann Arbor, University of Michigan Press, 1970); see also *Annales Bertiniani*, ann. 852, 855.

52 *Annales Bertiniani*, ann. 815, 828.

53 *Anglo-Saxon Chronicle*, ann. 878; Asser, *Life of King Alfred*, ch. 56.

54 Janet Nelson's table of Viking ships and crews ('The Frankish Empire', p. 39), and *Annals of Ulster*, ann. 948, 950.

casualty figures in early medieval sources must be read with great scepticism, and given the presumed size of Viking armies deaths in the hundreds seem more plausible (and are more commonly reported). The Anglo-Saxon response to Scandinavian aggression was particularly active. Although large battles did occur – at Ashdown, for example – the strategy employed by the Anglo-Saxons emphasised both flexibility and local reaction; Alfred the Great, patrolled the forest with ‘gangs and mounted groups’, small enough to reach Viking armies quickly but also to retreat rapidly into defensive fortifications.⁵⁵ The human costs were high, however. The ealdorman class, upon whom local defence rested, suffered particularly heavy casualties. If direct retaliation was not the preferred method in the Frankish empire, it may well have been because kings there were unwilling to cede power to often disloyal regional elites. Indeed, quick local action, when it occurred in Frankia, was often effective. In 854, Vikings on the Loire were turned back by a force organised by the bishops of Orléans and Chartres. Fifteen years later, two counts likewise had success against the Loire Norse. The risks of such an approach were laid bare in 859 when a militia of ‘common people’ ‘fought bravely’ against the Seine Danes, only to be slain by Frankish magnates because ‘their association had been made without due consideration’.⁵⁶

The political impact of the Viking invasions differed from one region to another. In Anglo-Saxon Britain, for instance, the Norse raids and settlements laid the groundwork for the unification of the kingdom under the dynasty of Wessex, as the invaders had exiled or killed all the other leading royal houses. In Frankia, on the other hand, the Vikings contributed to the further disintegration of the Carolingian regime. In military terms, efforts to defend against the Vikings led to a number of key technological innovations in Anglo-Saxon Britain and Carolingian Frankia. Among the accomplishments of Charlemagne celebrated by Einhard was the creation of both a fleet and a coast guard to protect Frankish waters.⁵⁷ According to the *Royal Frankish Annals*, Charlemagne personally inspected the ships at Boulogne and Ghent in 811.⁵⁸ Naval measures are especially associated with the figure of Alfred the Great, whose intent was to engage in sea battles with the Norse, who themselves were accustomed to using boats only for transportation, not as

55 *Anglo-Saxon Chronicle*, ann. 894, 871, 878, 56 *Annales Bertiniani*, ann. 854, 858.

57 Einhard, *Vita Karoli Magni*, ed. G. Waitz, *Monumenta Germaniae Historica, Scriptores Rerum Germanicarum in Usus Scholarum* (Hanover, Hahn, 1911), ch. 17, trans. in Dutton (ed.), *Carolingian Civilization*, pp. 26–49.

58 *Annales Regni Francorum*, ann. 811. See also Simon Coupland, ‘The Carolingian Army and the Struggle against the Vikings’, *Viator* 35 (2004) 50–2.

fighting platforms.⁵⁹ Investment in defensive structures was another development aimed at limiting the advance of Viking armies. At a very early point in the raids on England, Offa of Mercia provided for the strengthening of fortresses and bridges.⁶⁰ In the West Frankish kingdom, Charles the Bald especially devoted his efforts to bridge fortification, at least on the Seine and Loire.⁶¹

Scandinavian warriors in the south and east

The expansion of the Scandinavians reached beyond North-Western Europe. Iberia was also a destination as early as 844. Most famously, a Viking fleet of sixty-two ships under the storied leaders Hasting and Bjørn entered the Straits of Gibraltar and struck as far as Italy before returning in 861. The Norse in the Mediterranean were equal-opportunity raiders. According to Dudo of St-Quentin, Hasting not only plundered the city of Luna/Lucca (improbably believing it to be Rome), but murdered its bishop and many other Christians as well, while in Islamic areas, where the Norse were referred to as 'majus' (meaning literally Zoroastrian fire worshippers, but more generally signifying 'pagans'), they assaulted mosques and took Muslim slaves back to Ireland (where native sources call them 'blue men').⁶²

It is possible that the expedition by Hasting and Bjørn reached the eastern Mediterranean, but Norse contact with the Byzantine empire took place in a more sustained and significant way through Russia. Indeed, Scandinavian expansion to the east formed a counterpart to the more familiar push to the west. Norse settlement around Lake Ladoga may well have begun already in the first half of the eighth century. These early colonies were apparently peaceful and agricultural in nature.⁶³ In the ninth and tenth century, however, mirroring events in the British Isles and Frankia, the Norse presence in the East became increasingly predatory. As Scandinavian chieftains, most notably the family of the legendary Riurik, established lordships based on fortified centres such as Novgorod and Kiev, they employed force of arms to

59 Asser, *Life of King Alfred*, chs. 48, 64, 67; *Anglo-Saxon Chronicle*, esp. ann. 897.

60 See discussion in Frank Stenton, *Anglo-Saxon England*, 3rd edn (Oxford, Oxford University Press, 1971), p. 289.

61 Simon Coupland, 'The Fortified Bridges of Charles the Bald', *Journal of Medieval History* 17 (1991), 1–12.

62 Dudo, *De Moribus et Actis Primorum Normanniae Ducum*, bk 1, ch. 7. See also Neil Price, 'The Vikings in Spain, North Africa, and the Mediterranean', in Brink and Price (eds.), *The Viking World*, pp. 462–9; and Jon Stefansson, 'The Vikings in Spain from Arabic (Moorish) and Spanish Sources', *Saga Book of the Viking Society* 6 (1909–10), 31–46.

63 Christiansen, *Norsemen in the Viking Age*, p. 215.

collect tribute and win advantageous terms of trade. The Rus' merchants encountered by Ibn Fadlān in the Volga region in the early tenth century were said to 'never let themselves be separated from their weapons', which included 'an axe, sword' (of the 'Frankish type'), 'and a knife'.⁶⁴ The utility of those weapons is made clearer in Byzantine sources. Constantine VII described the way in which the Rus' elite spent the winter supported by a rotation of tributary Slavic peoples, who also equipped them for their springtime trade voyage to the empire.⁶⁵ Later Russian accounts, moreover, explicitly recall how the Norse used warfare as an effective tool of commerce. When Prince Oleg harried Constantinople in 907, he forced the Greeks into an agreement whereby Rus' merchants would be given provisions, baths, and materials to repair their boats, not to mention permission to purchase goods without tax, subject to controls and supervision by imperial officials.⁶⁶ In the Byzantine empire, the Rus' earned a reputation as fearsome warriors, men who fought with ferocity and passion, loathing surrender and servitude, though using means different from the Byzantines (such as their lack of cavalry).⁶⁷ Leo the Deacon memorably depicted Prince Sviatoslav: head shaved except for a single lock on one side (as a sign of his noble birth), wearing an earring of gold and jewels, but otherwise indistinguishable from his companions, whom he exhorted to uphold the valour and might of their unvanquished ancestors.⁶⁸

Given their prowess, it is not surprising that Norsemen were enlisted in the service of the empire. As part of his treaty with the Byzantines, Sviatoslav agreed to wage war against any enemy contemplating an attack on the empire.⁶⁹ Well before that, under Emperor Michael III (840–67), Scandinavians were already present among the palace guard. In the tenth century, several hundred Norse were among the troops of Constantine VII during his campaigns in Crete (949), and perhaps as many in Bardas Phokas's defeat in Syria (955).⁷⁰ More importantly, by the late tenth century the

64 Richard Frye, *Ibn Fadlan's Journey to Russia: A Tenth-century Traveler from Baghdad to the Volga River* (Princeton, Markus Wiener, 2005), p. 63.

65 Constantine Porphyrogenitus, *De Administrando Imperio*, ed. Gyula Moravcsik and trans. Romilly Jenkins, 2 vols. (Washington, Dumbarton Oaks Center for Byzantine Studies, 1967), vol. 1, pp. 57–63.

66 Serge Zenkovsky (ed. and trans.), *Medieval Russia's Epics, Chronicles, and Tales* (New York, Dutton, 1974), pp. 52–3.

67 Leo the Deacon, *History*, trans. Alice-Mary Talbot et al. (Washington, Dumbarton Oaks Research Library and Collection, 2005), bk 9, ch. 1.

68 Leo the Deacon, *History*, bk 9, chs. 7–8, 11.

69 Zenkovsky, *Medieval Russia's Epics, Chronicles, and Tales*, p. 65.

70 Sigfús Blöndal, *The Varangians of Byzantium*, rev. and trans. Bet Benedikz (Cambridge, Cambridge University Press, 1978), p. 37.

'Varangians' (as Rus' and Scandinavians were often called by the Greeks) were organised as special units, starting with a contingent of some 6,000 soldiers originally recruited from Sweden by Vladimir of Kiev and sent to aid Emperor Basil II in 988. In return, Basil married his sister Anna to the prince, a match that marked a key step toward the Christianisation of the Rus'. Dividing the Norse into 'Varangians of the City', who served the emperor as a personal retinue, and the 'Varangians outside the City', who were employed for more typical military duties, Basil used his Scandinavians for campaigns in Bulgaria, Syria, and southern Italy. The reputation of the Byzantine empire as a place where Norse warriors could earn glory is manifest from the scattering of runestones in Scandinavia that mention individuals who travelled to, won riches in, and, in some cases, died 'in Greece'. Much less is known about Norse contact with the Muslim principalities east of the Byzantine empire.⁷¹ Viking raids reportedly took place on the Caspian Sea, referred to in Arab sources and confirmed by runic inscriptions in Scandinavia commemorating men who fell 'in Serkland'.⁷²

High-medieval developments: royal control of military power and Nordic participation in the Crusades

The Viking age came to an end in the eleventh century, which might be seen as a transition from a period in which Norse violence was directed outward to an era in which the principal developments in Scandinavian warfare were internal. Yet the last stages of Viking activity helped prepare the way for the rise of monarchical power that would, in turn, shape the military history of the region in the following generations. Indeed, many of the key figures in the advance of royal power in Denmark and Norway had gained significant experience abroad: Olaf Trygvasson, Svend Forkbeard (Sveinn I Haraldsson), and Knud the Great in the British Isles, for instance, and Harald Hardrada in Russia and the Byzantine empire. While raids in previous times appear to have been mostly the work of chieftains who found themselves on the losing end of political battles back home, by the eleventh century they were used by

⁷¹ Ibid., pp. 32–53, with runic inscriptions on pp. 223–33.

⁷² Anne Kromann and Else Roesdahl, 'The Vikings in Islamic Lands', in Kjeld von Folsach, Torben Lundbaek, and Peter Mortensen (eds.), *The Arabian Journey: Danish Connections with the Islamic World over a Thousand Years* (Århus, Prehistoric Museum Moesgård, 1996), p. 10; James Montgomery, 'Arabic Sources on the Vikings', in Brink and Price (eds.), *The Viking World*, pp. 550–61; runic inscriptions in Blöndal, *The Varangians of Byzantium*, pp. 223–33.

royal claimants themselves to increase their wealth and power. Olaf Trygvasson and Svend Forkbeard both collected tribute in the West in the form of what would come to be known as 'Danegeld' (payments that exceeded the hefty sums paid by Frankish rulers in the ninth century), while Harald was said to have won so much treasure in the East that 'no man in the Northlands had ever seen so much in the possession of one man'.⁷³

Political centralisation in Denmark had early precedents in the time of Godofrid, but most scholars would see the emergence of the Jelling dynasty and its famous king Harald Bluetooth (958–87) as the beginning of a lasting movement toward royal consolidation in the country. And just as earlier momentum toward centralisation in Denmark was connected to developments further south, the same was likely true in the later tenth century. Godofrid's power was tied to Charlemagne's, while Harald Bluetooth's rise to prominence coincides with the high point of Ottonian might in Germany. The Saxon threat was far from hypothetical; Otto II made a campaign against Denmark in 974, occupying southern Jylland for nine years.⁷⁴ As in previous eras, political consolidation was evinced by military fortification. Not only did Harald Bluetooth extend the Danevirke, doubling its total length starting around 968, he also built the remarkable bridge at Raving Enge, apparently just a few years after Otto's invasion.⁷⁵ Measuring over 5 m wide and 760 m long, it is hard to imagine the bridge's purpose as anything but the transport of troops and materiel, particularly given its proximity to both the 'Hærvej' (the main north–south trunk route along Jylland) and the royal centre at Jelling.⁷⁶ Precisely contemporaneous and more significant are the ring fortresses of the 'Trelleborg' variety, located at Fyrkat and Aggersborg in Jylland, Nonnebakken on Fyn, and Trelleborg on Sjælland (an additional site, Trelleborg in Skåne, is less clearly connected to these other structures). Built according to a standard plan, the fortresses' purpose is not wholly

73 On Danegeld, see the Herluf Nielsen, 'Danegæld', in Georg Rona (ed.), *Kulturhistorisk leksikon for nordisk middelalder*, 22 vols. (Copenhagen, Rosenkilde og Bagger, 1957), vol. 2, pp. 639–41. Snorri Sturlason, *Heimskringla*, ed. C. R. Unger, 3 vols. (Uppsala, W. Schultz, 1872), vol. 3, 'Saga Haralds harðráða', ch. 16, trans. Erling Monsen and Albert Smith as *Heimskringla or the Lives of the Norse Kings* (New York, Dover, 1990).

74 See Peter Sawyer, 'The Scandinavian Background', in Janet Cooper (ed.), *The Battle of Maldon: Fiction and Fact* (London, Hambledon Press, 1993), p. 39.

75 Roesdahl, 'Danevirke'.

76 Mogens Schou Jørgensen, 'Vikingetidsbroen i Raving Enge – nye undersøgelser', *Nationalmuseets arbejdsmark* 45 (1997), 74–86; Poul Enemark, 'Hærvejen', in Gyula Rona (ed.), *Kulturhistorisk leksikon for nordisk middelalder*, 22 vols. (Copenhagen, Rosenkilde og Bagger, 1962), vol. 7, pp. 259–63.

certain, but Roesdahl has called them 'permanent strongpoints for the king', whose authority they undoubtedly advertised.⁷⁷

The growth of monarchy under Harald Bluetooth was by no means accepted by all Danes. According to Adam of Bremen, the king's forcible Christianisation of the Danish elites led to a revolt, with opposition rallying around his son Svend Forkbeard.⁷⁸ The later *Saga of the Jomsvikings*, however, suggests that Harald's brutal consolidation of monarchical power was itself the issue. When Harald is told that he cannot be considered sole king of Denmark so long as powerful lords such as Aki Tokason of Fyn remained, Harald had Aki murdered. The association of warriors at Jomsborg, formed in reaction to Harald's jealous might, thus harked back to the supposed equality of Viking bands.⁷⁹

Despite such nostalgia and a number of setbacks, the trend toward royal centralisation continued in Denmark from the eleventh century into the thirteenth and was reflected in further military changes. Danish kings relied closely on an elite force personally tied to royal service and known as the *hird*. The *hird* was essentially a continuation of the warrior retinue, or *lið*, common to Norse chieftains of earlier times. The twelfth-century historian Svend Aggesen (c.1185) traced the development of a more disciplined and hierarchical royal guard to Knud the Great, though the institution he outlines is more appropriate for Svend's own day.⁸⁰ At the same time, a broader naval obligation emerged for defensive purposes, known as the *leding*. No convincing evidence exists that the Viking raids had involved widespread conscription. Even the mighty force under the leadership of Svend Forkbeard that invaded England in 1013 seems to have been assembled after the king persuaded his own followers to summon their respective *lið*.⁸¹ The *leding*,

77 Else Roesdahl, 'The Emergence of Denmark and the Reign of Harald Bluetooth', in Brink and Price (eds.), *The Viking World*, p. 662.

78 Adam of Bremen, *Gesta Hammaburgensis Ecclesiae Pontificum*, Monumenta Germaniae Historica, Scriptores Rerum Germanicarum in Usum Scholarum (Hanover, Hahn, 1917), bk 2, ch. 25, trans. Francis Tschan as *History of the Archbishops of Hamburg-Bremen* (New York, Columbia University Press, 2002).

79 *Jómsvíkinga Saga*, ed. C. af Petersens (Copenhagen, Berlings, 1882), ch. 8, sec. 45, and ch. 14, trans. Lee Hollander as *Saga of the Jomsvikings* (Austin, University of Texas Press, 1955), see pp. 44–6, 63–4.

80 Sven Aggesen, 'Lex Castrensis', in *Scriptores Minores Historiae Danicae*, ed. Martin Gertz, 2 vols. (Copenhagen, Selskabet for Udgivelse af Kilder til dansk Historie, 1970 [Copenhagen, Gad, 1917–18]), vol. 1, pp. 57–93, trans. Eric Christiansen in *The Works of Sven Aggesen, Twelfth-century Danish Historian* (London, Viking Society for Northern Research, 1992), pp. 31–47. See also Klaus von See, *Königtum und Staat im skandinavischen Mittelalter* (Heidelberg, C. Winter, 2002), p. 18.

81 *Encomium Emmae Reginae*, ed. and trans. Alistair Campbell, rev. edn (Cambridge, Cambridge University Press, 1998), bk 1, chs. 2–3.

first mentioned in documentary evidence from 1085, only developed fully in the late twelfth century and thirteenth centuries. As it was envisioned in its mature form, the *leding* divided the common people into districts (each known as a *skipæn*), from which a single ship was to be provided, equipped, and manned. The obligation to serve was distributed among subgroups (each called a *hafnæ*) of one to three hearths responsible for manning a bench on the boat once every four years for a sixteen-week tour of duty. The fleet was under the authority of the king, who nevertheless had to seek the consent of local elites in order to call it up.⁸²

Considerable scholarly controversy has surrounded virtually every aspect of the *leding*, including its origins and actual employment.⁸³ Perhaps its greatest importance lies in the fact that it was commuted into a payment to the king.⁸⁴ As a fiscal tool, the *leding* contributed, along with other sources of income, to the royal ability to construct fortifications, and under the dynasty of the Valdemars, a veritable boom in castle building took place under the supervision of the monarchy (including the tower on Sprogø; an extension of the Danevirke; and forts such as Søborg, Vordingborg, Nyborg, and Lilleborg).⁸⁵ Furthermore, by the thirteenth century, the core of the Danish military consisted of paid professional knights.⁸⁶ Despite the trend toward the centralisation of political and military power in the hands of the king, the Danish aristocracy remained powerful, and while the nobles gradually became a class defined less by their participation in battle than by their economic and legal privileges, they long remained associated with violence. The strength of the aristocracy was on full display in 1208 when the Danish

82 See Niels Lund, *Lið, leding og landeværn: Hær og samfund i Danmark i ældre middelalder* (Roskilde, Vikingeskibshallen, 1986); Niels Lund, 'The Armies of Swein Forkbeard and Cnut, *leding* or *lið*?', *Anglo-Saxon England* 15 (1986), 105–18; and 'Naval Power in the Viking Age and in High Medieval Denmark', in John Hattendorf and Richard Unger (eds.), *War at Sea in the Middle Ages and the Renaissance* (Woodbridge, Boydell, 2003), pp. 25–34. See also Anders Bøgh, 'Kongen og hans magt', in Per Ingesman et al. (eds.), *Middelalderens Danmark, Kultur og samfund fra trosskifte til reformation* (Copenhagen, Gads Forlag, 1999), pp. 68–9.

83 See, for instance, the very different views offered up by Neils Lund, 'Danish Military Organisation', in Cooper (ed.), *The Battle of Maldon*, pp. 109–26; Rikke Malmros, 'Leiðanger in Old Norse Court Poetry', in Jørgensen et al. (eds.), *Maritime Warfare in Northern Europe*, pp. 277–86; and Björn Varenius, 'Maritime Warfare as an Organising Principle in Scandinavian Society 1000–1300 ad', in Jørgensen et al. (eds.), *Maritime Warfare in Northern Europe*, pp. 249–56.

84 Bøgh, 'Kongen og hans magt', p. 69; see also Michael Gelting, 'Military Organization, Social Power, and State Formation in Denmark, 11th to 13th Century', in Jørgensen and Clausen (eds.), *Military Aspects of Scandinavian Society*, p. 49.

85 See Aage Roussell, *Danmarks Middelalderborge* (Copenhagen, Nyt Nordisk Forlag, 1942), pp. 40–62.

86 Gelting, 'Military Organization, Social Power, and State Formation', p. 51.

nobleman Ebbe Sunesen and his kin led their own force to Östergötland to intervene on behalf of Ebbe's son-in-law, Sverker the Younger, in the latter's effort to secure the Swedish throne.⁸⁷ The continuing military vitality of the nobility can also be seen in the increased construction of private fortresses by the fourteenth century, a result of quarrels between the nobles and the Danish monarchy.⁸⁸

Phenomena in Denmark were mirrored in various ways in Norway and, to a lesser extent, Sweden. In both places, the consolidation of Danish political and military power appears to have prompted parallel developments, especially as the Jelling kings sought to exert their might from Trondelag to Uppland.⁸⁹ In Norway, the growing strength of the crown from the time of Olaf Trygvasson (995–1000) and Olaf Haraldsson (1015–30) – kings who, like Harald Bluetooth, championed Christianisation as a component of royal policy – reached a zenith with Haakon Haakonsson (1217–63). A version of the *leding* also existed in Norway, described in the regional law codes for Frostating and Gulating, and as in Denmark the system served as a means of providing royal income through taxes (for exemption from duty) or fines (for failure to fulfil duty).⁹⁰ Some archaeological evidence also suggests that the arrangement of boathouses was reorganised more evenly along the coast as power was transferred from smaller chieftaincies with their own nodes to a central monarchy.⁹¹ Other Norwegian texts, such as the *King's Mirror* testify to the importance of the royal *hirðmenn*, who were to be prepared for a range of military situations including fighting on foot (*á fæti*), horseback (*á hesti*), or on ship (*á skipum*), in pitched battle or siege, all with 'modern' weapons, armour, and machinery.⁹²

87 Inge Skovgaard-Petersen, Aksel Christensen, and Helge Paludan (eds.), *Danmarks historie*, 14 vols. (Copenhagen, Gyldendal, 1977), vol. 1, p. 378.

88 Carsten Porskrog Rasmussen and Lennart Madsen, 'Herremænd og borge', in Ingesman et al. (eds.), *Middelalderens Danmark*, pp. 84, 92–3.

89 Peter Sawyer, 'Cnut's Scandinavian Empire', in Alexander Rumble (ed.), *The Reign of Cnut, King of England, Denmark, and Norway* (London, Leicester University Press, 1994), pp. 10–22.

90 *Ældre Gulathing-Lov*, in *Norges gamle love indtil 1387*, vol. 1, ed. Rudolf Keyser and Peter Munch (Oslo, Gröndal, 1846), chs. 295–315; *Ældre Frostathing-Lov*, in *Norges gamle love*, vol. 1, bk 7, trans. Laurence Larson, *The Earliest Norwegian Laws* (New York, Columbia University Press, 1935). See also Gareth Williams, 'Ship Levies in the Viking Age: The Methodology of Studying Military Institutions in a Semi-Historical Society', in Jørgensen et al. (eds.), *Maritime Warfare in Northern Europe*, pp. 293–300.

91 Myhre, 'Boathouses and Naval Organization', pp. 176–8; Oliver Grimm, 'The Military Context of Norwegian Boathouses ad 1–1500', in Jørgensen et al. (eds.), *Maritime Warfare in Northern Europe*, pp. 105–23.

92 *Speculum regale/Konungs-skuggsjá*, ed. Rudolf Keyser, Peter Munch, and Carl Unger (Oslo, Charles C. Werner and Co., 1848), chs. 28–9, 37–9, trans. Laurence Larson as *The King's Mirror* (New York, American-Scandinavian Foundation, 1917).

Compared with the Viking Age, the scope of warfare in the Nordic world during the High Middle Ages might be seen as limited. Even the ambitious Danish dynasty of the Valdemars attempted little more than a failed expedition to Norway in 1165, preoccupied as they were with the more immediate threats of German aggression and Slav piracy. One crucial exception to this trend was the participation of Scandinavians in holy war. Understandably, Scandinavian forces played a key role in the Baltic Crusades, where religious motives coincided with the effort to pacify the Wends in the mid to late twelfth century and, in the first quarter of the thirteenth century, with Danish and Swedish ambitions of overlordship in Estonia. In both cases, while Denmark at least won land (Rügen and Estonia), Scandinavians were outnumbered by German crusaders, who triumphed in the long run. Less reliable traditions suggest that the Swedish annexation of parts of Finland was similarly undertaken as a series of crusades in the twelfth and thirteenth century.⁹³ Norse knights also took part in crusades to the Holy Land. A legendary Prince Svend of Denmark was said (by, among others, William of Tyre) to have perished in Anatolia during the First Crusade.⁹⁴ More definitely, the Danish king Erik Ejegod died in Cyprus on the way to Palestine in 1103.⁹⁵ According to Snorri Sturluson, a few years later the Norwegian king Sigurd 'the Crusader' sailed to the eastern Mediterranean with sixty ships and campaigned with King Baldwin of Jerusalem, receiving a relic of the True Cross in return.⁹⁶

Convinced by preachers (bishops and, later, mendicant friars) holding out the promise of remission of sin, the Scandinavian aristocracy also took up the cross. The extent of noble participation in holy war is hard to determine, but a remarkable extant narrative, entitled 'De Profectione Danorum in Hierosolymam', details an ultimately failed expedition by Danish and Norwegian elites to Jerusalem during the time of the Third Crusade. And while one might interpret Scandinavia's role in the crusades as evidence that the otherness of the Viking Age was at an end and the Norse had fully entered the military history of medieval Latin Christendom, the narrative suggests that the participants in this voyage saw their campaign very much as

93 Thomas Lindkvist, 'Crusades and Crusading Ideology in the Political History of Sweden, 1140–1500', in Alan Murray (ed.), *Crusade and Conversion on the Baltic Frontier 1150–1500* (Aldershot, Ashgate, 2001), pp. 122–4.

94 John H. Lind et al., *Danske korstog: Krig og mission i Østersøen* (Copenhagen, Høst og Søn, 2006), p. 25; Jonathan Riley-Smith, *The First Crusaders 1095–1131* (Cambridge, Cambridge University Press, 1997), p. 223.

95 Lind et al., *Danske korstog*, pp. 26–8.

96 Snorri, *Heimskringla*, 'Saga Sigurðar, Eysteins, ok Ólafs', chs. 10–11.

a continuation of the glorious exploits of earlier generations. According to the text, the Danish nobleman Esbern Snare, moved by Pope Gregory VIII's call to arms, roused his compatriots by reminding them of the conquests of their ancestors: 'Let us imitate our forefathers! What realms and what country does not proclaim the glorious triumphs of the ancient Danes?'⁹⁷

97 *Scriptores Minores Historiae Danicae*, vol. 2, 465–7. See also Karen Skovgaard-Petersen, *A Journey to the Promised Land, Crusading Theology through the 'Historia de Profectione Danorum in Hierosolymam' (c.1200)* (Copenhagen, Museum Tusculanum Press, 2001), pp. 37–43.

Byzantium to the twelfth century

JOHN HALDON

Context

Consecrated as the new capital of the Roman world in the year 330 CE, Constantinople was the ancient city of Byzantion, in origin a colony of Megara in Attica, and renamed the 'city of Constantine' by the first Christian emperor of the Roman world. He made it his capital in an effort to establish a new strategic focus for the vast Roman state, as well as to distance himself from the politics of the previous centuries. By the middle of the fifth century, the western parts of the Roman Empire were already in the process of transformation which was to produce the barbarian successor kingdoms, such as those of the Franks, Visigoths and Ostrogoths, and the Burgundians, while the eastern parts remained largely unaffected by these changes. When exactly 'Byzantine' begins and 'late Roman' ends is a moot point. Some prefer to use Byzantine for the eastern part of the Roman Empire from the time of Constantine I – that is to say, from the 320s and 330s; others apply it to the Eastern Empire from the later fifth or sixth century, especially from the reign of Justinian (527–65). In either case, the term 'Byzantine' legitimately covers the period from the late Roman era on, and is used to describe the history of the politics, society, and culture of the medieval East Roman Empire until its demise at the hands of the Ottomans in the fifteenth century.

The 'Byzantines' called themselves *Romaioi* – Romans – and where they used the word Byzantium or Byzantine, it described – illustrative of the connections which learned Byzantines drew between their own culture and that of the ancient world – the capital city of their empire. The hallmarks of this culture were that it was Christian, that the language of the state and the dominant elite was Greek, and that its political ideology was founded on its identity with the Christian Roman Empire of Constantine the Great. Much more importantly from the perspective of cultural self-identity, the literate Byzantine elite from the

later eighth and ninth centuries located its roots in the late Roman world and regarded the classical inheritance in learning and literature – naturally in a suitably Christian guise – as its own. The elite used this cultural identity to differentiate itself both from foreigners, whether ‘barbarian’ or merely outsider, as well as to distinguish itself within Byzantine society from the semi-literate or illiterate masses of rural and townsfolk.

The Byzantine empire was nothing more nor less than the continuing late Roman state in the east. It was thus a relatively sophisticated state, with a complex fiscal system supporting an army, navy, and administrative bureaucracy, and in many respects was able to preserve the basic forms of the late ancient state well into the Late Middle Ages. It was also the heartland of the Orthodox Church; from the ninth century it became the centre of a far-flung Christian cultural commonwealth and of a network of imitative polities stretching from the Balkans to the Russian principalities. The empire is represented in the sources, especially the written sources and in the monuments and art it generated, through a complex political-theological system, in which the emperor was an autocratic ruler whose power derived directly from God, and whose task it was on earth to maintain order and harmony in imitation of the heavenly sphere. In consequence, ceremony and ritual were fundamental components both of court life – which itself was felt to act as an exemplar for the rest of society and the barbarian world – and of Byzantine understanding of the world. Emperors were appointed by God; but emperors could be overthrown, and a successful usurper must, it was reasoned, have the support of God (even if people were unable at first to grasp the logic of His choice!) otherwise he could not have met with success. God’s choice of a bad ruler and, by the same token, the occurrence of natural calamities and phenomena of all kinds, including defeats in battle or enemy attacks, were interpreted as signs from God, usually of His displeasure. Plagues, earthquakes, comets, wars, and other such phenomena were thus part of the relationship between the human and the divine, and were acted upon accordingly. Disasters or political calamities were frequently taken as warnings that the Chosen People – the Christian Romans – had strayed from the path of righteousness and were to be brought back to it by appropriate action, so that the search for a reason, or a scapegoat, usually followed. Such a logic underlay many important imperial initiatives, even if there were longer-term social and economic factors at work which determined the choice of a particular form of action or response.¹

¹ Good overview of Byzantine history: Jonathan Shepard (ed.), *Cambridge History of the Byzantine Empire ca. 500–1492* (Cambridge, Cambridge University Press, 2008); useful background also in Cyril Mango, *Byzantium: The Empire of the New Rome* (London,

Geopolitics

Byzantium occupied a strategically privileged and at the same time strategically awkward situation – straddling the Balkans and Asia Minor, the empire enjoyed many advantages in terms of resources as well as defence. On the other hand, there were enemies or potential enemies on virtually every front and a continual need to fight wars on more than one front at a time. In the north and west the situation was especially complex as a result of the variety of neighbouring states and political powers. From its establishment in the 680s, the Bulgar khanate rapidly grew in power, and until its extinction at the hands of the emperor Basil II, known as the ‘Bulgar-slayer’ (r.976–1025), represented a constant threat to the security of imperial territory in the Balkans. Throughout the eighth and ninth centuries and into the early tenth century, Bulgar power and influence grew, in spite of successful counterattacks under the emperor Constantine V in the 760s and 770s. The nadir of Byzantine fortunes was probably the year 811, when the khan Krum defeated and destroyed an imperial army, killing the emperor Nikephoros I. Conversion to Christianity of elements of the ruling elite in the 860s was intended to stabilise the situation in favour of Byzantium; but the gradual Byzantinisation of this elite only contributed to the growth of an imperialistic Bulgar politics which hoped to bring the two states together under a Bulgar dynasty. Bulgar successes under the Christian Tsar Symeon in the first fifteen years of the tenth century were as dangerous; while the reassertion of Bulgar imperial ideology under Tsar Samuel in the later tenth century inaugurated a conflict that led finally to the eradication of Bulgar independence and the recovery of much of the Balkans up to the Danube by the year 1018. In spite of sporadic rebellions against imperial domination thereafter, much of the central and eastern Balkans remained firmly under Byzantine control until the fourth crusade destroyed Byzantine power. The real threat to Byzantine power in the western Balkan region came from the Normans – their arrival in southern Italy in the early eleventh century eventually resulted in the loss of that region to Norman warlords, the establishment of the Norman kingdom of Sicily, and a substantial challenge to imperial power on the eastern seaboard of the Adriatic in the 1080s and 1090s, defeated only with difficulty by Alexios I. Although Norman ambitions were checked on this front, the Norman kingdom of Sicily was meanwhile evolving into one of the most

Weidenfeld and Nicholson, 1980); Michael Maas (ed.), *Companion to the Age of Justinian* (Cambridge, Cambridge University Press, 2005); John F. Haldon, *Byzantium: A History* (Stroud, The History Press, 2005).

powerful states in the central Mediterranean and presented a major threat to Byzantine interests throughout the twelfth century. Yet it was not the Normans, but rather the republic of Venice, which played the key role in diverting the fourth crusade in 1203–4 from its original targets in the Muslim east to Byzantium, and it was Venetian interests which dictated the form taken by the political fragmentation of the empire in the period immediately thereafter.

Further west, the appearance of the Lombards in Italy in 568 (pursued by the Turkic Avars, at East Roman request) soon resulted in the fragmentation of imperial possessions into a number of distinct regions under military commanders or *duces*. Imperial territory in the north-east and central regions was represented by the exarch, an officer with military and civil authority. But distance from Constantinople, local cultural differentiation, and political conditions, together with the spiritual and political power of the popes in Rome soon led to the gradual but inevitable diminution of imperial power. The extinction of the exarchate with the capture of Ravenna, its capital, at the hands of the Lombards in 751, increased papal dependence on the Franks for support against the Lombards, and increasingly autonomous and mutually competing local polities in the Italian peninsula had led to the reduction of imperial power to the regions of Calabria, Bruttium, and Sicily by the early ninth century. Other political centres such as Naples remained technically Byzantine, but were in practice quite independent. Venice, which grew in importance from the early ninth century, likewise remained nominally an imperial territory.

The coronation by the pope of Charles the Great – Charlemagne – as (Western) Roman emperor at Rome in 800 set the seal on the political and cultural separation of East Rome and the West. Cultural differences, expressed in particular through ecclesiastical politics and the struggle between Franks, Byzantines, and the papacy for dominance in the central and western Balkans, became increasingly apparent, complicated by rivalry within the eastern Church. Despite various attempts at marriage alliances between the Byzantine and various Western courts, the growing political, cultural, and military strength of the Western world precluded any serious reassertion of East Roman imperial power in the central Mediterranean basin. Byzantine influence was struck a further blow by the loss of Sicily to Islamic forces during the ninth century, and its recovery was halted by internal factionalism and the arrival of the Normans on the political scene in the period from Basil II's death in 1025. A somewhat different tone existed in relations between Byzantium and the Rus', Norse settlers from the central

Russian river belt who entered the Black Sea to trade and raid for booty, but who had soon become close trading partners with the empire (by the 920s certainly) and provided mercenary household troops for the emperors – from the 980s, the famous Varangian guard. Acceptance of Christianity under Vladimir in the 980s and a marriage alliance between the latter and Basil II inaugurated a long period of Byzantine cultural and spiritual influence on the Rus', fundamentally inflecting the evolution of Russian culture, the Church, and tsarist ideology. The enduring influence of Byzantine methods of cultural penetration in the Balkans was expressed most clearly in the structure, organisation, and ideology of the Orthodox Church of the region.

The empire's main neighbours in the north and west until the tenth century were thus the Bulgars (with the various Serb and other Slav chiefdoms and principalities in the western Balkans supporting or being directly controlled by now one side, now the other) and the Rus' beyond them, along with the various steppe peoples – Khazars from the eighth century, then during the ninth the Magyars (who went on to establish the Christianised kingdom of Hungary), the Pechenegs in the tenth and eleventh centuries, and thereafter the Cumans, relations of the Seljuqs in the east. In Italy and Western and Central Europe foreign relations were dominated by the papacy and the neighbouring Lombard kingdom and duchies in the former region until the later eighth century, and thereafter by the Frankish empire in its various forms. In particular the 'German' empire of the Ottonian dynasty dominated Central Europe and Italy from the tenth century, and its rulers had a keen interest in Eastern Europe and the Balkans. During the eleventh century the rising power of the young kingdom of Hungary introduced a new element into this equation, and by the middle of the twelfth century relations with the kingdom of Hungary were particularly strained, for Hungary played an important role on the international political stage, in particular in relation to Byzantine policy with regard to the German empire. Hungarian interest in the north-western Balkans was perceived by Constantinople as a destabilising element and a threat to imperial interests. The emperor Manuel tried to address the issue by both military and diplomatic pressure, sending frequent expeditions to threaten dissident rulers in the region to follow the imperial line, and interfering in the dynastic politics of the Hungarian court. The rise of the Italian maritime cities, especially Venice, Pisa, and Genoa with their powerful fleets and mercantile interests, was to play a key role in both the political and economic life of the empire from this time onward.

Until its extinction by the Islamic armies in the 630s and early 640s, the Sasanian state in Iran and Iraq had been the main opponent of the Roman

Empire in the East. Thereafter, the Umayyad (661–750) and then ‘Abbāsid (751–1258) caliphates posed a constant threat to the empire. But this complex history falls into several phases: 650s–720s, when Arab-Islamic invasions were a regular phenomenon aimed at the destruction of the East Roman state (and entailed the loss of North Africa also); 720s–750s, when a *modus vivendi* had been established, but in which Muslim attacks remained a constant source of economic and political dislocation; and thereafter until the middle of the eleventh century, when the collapse and fragmentation of ‘Abbāsid authority made it possible for the empire to re-establish a military and political pre-eminence in the region. The increasingly important role of Turkic slave and mercenary soldiers in the caliphate from the 840s, and the eventual arrival of the Seljuq Turks in the 1040s, was to alter this picture drastically. A combination of internal political dissension and a relatively minor military defeat at the hands of the Seljuq sultan Alp Arslan in eastern Anatolia in 1071 (the battle of Mantzikert, mod. Malazgirt) resulted in the imperial loss of central Asia Minor, which henceforth became dominated by groups of Turkic nomadic pastoralists (known as Türkmen) who presented a constant threat to all forms of sedentary occupation. The growth of a series of Turkic amirates in the region thereafter made recovery of the region impossible; and the rise of the dynasty of Osman – the Ottomans – from the later thirteenth century was eventually to prove fatal to the East Roman Empire.²

Attitudes to warfare

In spite of the reservations expressed by a number of Christian thinkers, the view that warfare – however regrettable – in a just cause was acceptable became widespread, partly, of course, because from a pragmatic standpoint the Roman state, whatever faith it professed, had to defend its territorial integrity against aggression. So some rationalisation of the need to fight was inevitable, and indeed a pragmatic compromise was reached in the first half of the fourth century by which warfare was legitimated as necessary to defend God’s kingdom on earth.³ The symbol of the Cross appeared both in imperial propaganda and, more significantly, among the insignia of the

² Mark Whittow, *The Making of Orthodox Byzantium, 600–1025* (London, Macmillan, 1996); Haldon, *Byzantium: A History* (political history); Simon Franklin and Jonathan Shepard (eds.), *Byzantine Diplomacy* (Aldershot, Ashgate, 1992) (diplomatic relations).

³ See esp. Ioannis Stouraitis, *Krieg und Frieden in der politischen und ideologischen Wahrnehmung in Byzanz (7.–11. Jahrhundert)*, *Byzantinische Geschichtsschreiber, Ergänzungsband 5* (Vienna, Austrian Academy of Sciences, 2009).

imperial armies; the Christian *labarum* and the *chi-rho* symbol – seen in a vision by Constantine himself before his victory over Galerius in 312 – were carried by the standard-bearers of the legions, as well as appearing on imperial coins and in association with images or busts of the emperors. Enemies of the empire could be portrayed as enemies of Christianity, against whom warfare was entirely justified, indeed, necessary if the True Faith were to fulfil the destiny inhering in divine providence. That this was a paradox within Christian attitudes to warfare is clear; but pragmatic considerations made a solution essential.

From the fifth century to the end of the empire there is a mass of evidence for the formal and official acceptance by both Church and court, as well as by the ordinary population, of the need to wage war, the fact of divine support for such warfare, and the need to maintain and to rely upon heavenly aid in waging war. And although the notion of ‘holy war’ in the sense understood by the Crusaders, or by non-Muslims as typical of Islam, had only a very brief life in the Byzantine world, this does not mean that the ways in which warfare on behalf of the Christian Roman state were understood did not experience a certain evolution. On the contrary, it is very clear that Byzantines were constantly aware of the need to justify their wars, and this need became the more pressing in a time of political and military expansionism such as the tenth century. As long as the defence of Roman interests, however broadly defined, was at stake, then warfare was acceptable and just. From this time on, the notion of the just war in defence of the God-granted mission and purpose of the East Roman emperors and the Chosen People was a standard aspect of imperial political propaganda, directed both externally, to the empire’s neighbours, whether hostile or not, and internally, as an element in the practice of political-ideological legitimisation of state, society, and their institutional structures.⁴ War with other Orthodox Christians was, of course, to be avoided; yet it could also be justified if the one true empire, that of the Romans, were to be attacked by the misguided rulers of such lands, a position perfectly exemplified in the letters of the patriarch Nikolaos I in the early tenth century to the Bulgar Tsar Symeon.⁵

⁴ See John F. Haldon, *Warfare, State and Society in the Byzantine World, 565–1204* (London, UCL Press, 1999), pp. 13–33; Ioannis Stouraitis, ‘Jihād and Crusade: Byzantine Positions towards the Notions of “Holy War”’, *Βυζαντινά Σύμμεικτα* 21 (2011), 11–63; Stouraitis, *Krieg und Frieden*.

⁵ See Ioannis Stouraitis, ‘Byzantine War against Christians: An *emphylios Polemos*?’, *Βυζαντινά Σύμμεικτα* 20 (2010), 85–110. On Nikolaos and Symeon, see A. Kolia-Dermitzaki, ‘Byzantium at War in Sermons and Letters of the 10th and 11th Centuries: An Ideological Approach’, in N. Oikonomidès (ed.), *To empolemo Byzantio* [Byzantium at

From defence to offence: from late Roman to middle Byzantine strategy

The defeats and territorial contraction which resulted from the expansion of Islam from the 640s in the east, on the one hand, and the arrival of the Bulgars and establishment of a permanent Bulgar khanate in the Balkans from the 680s,⁶ on the other, radically altered the political conditions of existence of the East Roman state. The resulting transformation of state administrative structures produced an army that was based almost entirely on defensive principles, for which offensive warfare became a rarity until the middle of the eighth century, and which was encouraged by the imperial government to avoid pitched battles and open confrontation with enemy forces wherever possible. The field armies of the late Roman state were transformed in effect into provincial militias, although a central core of full-time 'professional' soldiers seems always to have been maintained by each regional military commander.

By the tenth century, a strategy of guerrilla warfare had evolved, in which enemy forces were allowed to penetrate the borderlands before being cut off from their bases and harried and worried until they broke up or until they were forced to return to their own lands. Byzantine officers conducted a 'scorched earth' policy in many regions, and local populations in endangered regions were encouraged to keep lookouts posted, so that they could gather their livestock and other movable possessions and take refuge in mountain fortresses, thereby depriving enemy units of forage and booty.⁷ Although individual emperors did launch offensive expeditions in the period c.660–730, these were generally designed to forestall a major enemy attack into Roman territory in Asia Minor, or had a punitive nature, designed more

War] (Athens, National Research Foundation, 1997), pp. 213–38, at 220–4, 234–7; also Michael McCormick, *Eternal Victory: Triumphal Rulership in Late Antiquity, Byzantium, and the Early Mediaeval West* (Cambridge, Cambridge University Press, 1986), pp. 237ff.

⁶ For the Balkan situation beforehand and thereafter: Dimitri Obolensky, *The Byzantine Commonwealth: Eastern Europe 500–1453* (London, Weidenfeld and Nicholson, 1971); Florin Curta, *Southeastern Europe in the Middle Ages, 500–1250* (Cambridge, Cambridge University Press, 2006). On the situation in the seventh and eighth centuries in general, see John F. Haldon, *The Empire That Would Not Die: The Paradox of Eastern Roman Survival, 640–740* (Cambridge, MA, Harvard University Press, 2016).

⁷ See G. Dagron and H. Mihaescu, *Le Traité sur la Guérilla (De velitatione) de l'empereur Nicéphore Phocas (963–969)* (Paris, CNRS, 1986); and George T. Dennis, *Three Byzantine Military Treatises*, Corpus Fontium Historiae Byzantinae 25 = Dumbarton Oaks Texts 9 (Washington, DC, Dumbarton Oaks, 1985); John F. Haldon and Hugh Kennedy, 'The Arab-Byzantine Frontier in the Eighth and Ninth Centuries: Military Organisation and Society in the Borderlands', *Zbornik Radova Vizantološkog Instituta* 19 (1980), 79–116; Haldon, *Warfare, State and Society*, pp. 176–81.

as ideologically motivated revenge attacks on important enemy targets, and with no lasting strategic value (although they did have implications for military morale). Although a few notable successes were recorded, many of them failed and resulted in substantial defeats and loss of men and materials. The differentiation between different arms at the tactical level – between light and heavy cavalry or infantry, archers, lancers, or spearmen – appears to have lessened, surviving only in a few contexts associated with imperially maintained elite units. Byzantine armies and Arab armies looked very much the same.⁸

From the 730s on, during the reign of Leo III, an emperor from a military background who seized the throne in 717, and more particularly that of his son and successor Constantine V (741–75), a campaigning emperor who introduced a number of administrative reforms in the army and established an elite field army at Constantinople in the 760s, this situation began to change. Political stability internally, the beginnings of economic recovery in the later eighth century, and dissension among their enemies enabled the Byzantines to re-establish a certain equilibrium by the year 800. In spite of occasional major defeats (for example, the annihilation of a Byzantine force following a Bulgar surprise attack in 811, and the death in battle of the emperor Nikephoros I) and an often unfavourable international political situation, the Byzantines were able to begin a more offensive policy with regard to the Islamic power to the east and the Bulgars in the north – in the latter case, combining diplomacy and missionary activity with military threats. By the early tenth century, and as the caliphate was weakened by internal strife, the Byzantines were beginning to establish a certain advantage; and in spite of the fierce and sometimes successful opposition of local Muslim warlords (such as the amirs of Aleppo in the 940s and 950s), there followed a series of brilliant reconquests of huge swathes of territory in north Syria and Iraq, the annihilation of the second Bulgarian empire, and the beginnings of the reconquest of Sicily and southern Italy. By the death of the soldier-emperor Basil II ‘the Bulgar-slayer’ (1025) the empire was once again the paramount political and military power in the eastern Mediterranean basin, rivalled only by the Fāṭimid caliphate in Egypt and Syria.⁹

⁸ See Dagron and Mihaescu, *Le Traité*; Eric McGeer, *Sowing the Dragon's Teeth: Byzantine Warfare in the Tenth Century*, *Dumbarton Oaks Studies* 33 (Washington DC, Dumbarton Oaks, 1995).

⁹ In general for the eighth–ninth centuries: John F. Haldon and Leslie Brubaker, *Byzantium in the Iconoclast Era, 680–850: A History* (Cambridge, Cambridge University Press, 2011). Useful brief survey: Whittow, *Making of Orthodox Byzantium*. On the evolution of military structures and related topics: John F. Haldon, *A Critical*

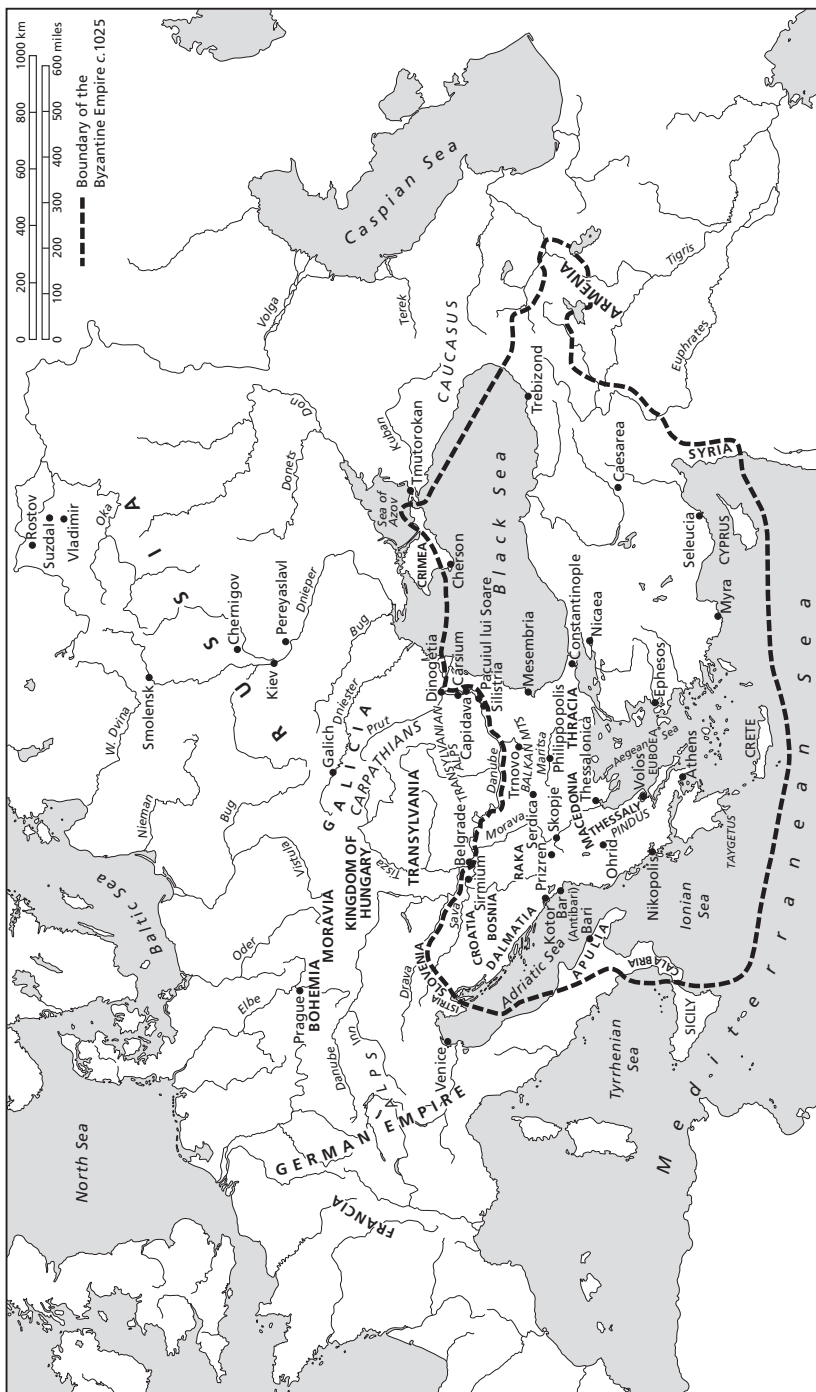
But the offensive warfare which developed from the middle of the ninth century reacted, in its turn, upon the administration and organisation of the imperial armies. The provincial militias became less and less suited to the requirements of such campaigning, tied as they had become to their localities, to what was in effect a type of guerrilla strategy, and to the seasonal campaigning dictated by Arab or Bulgar raiders. Instead, regular field armies with a more complex tactical structure, specialised fighting skills and weapons, and more offensive élan began to develop, partly under the auspices of a new social elite of military commanders who were also great landowners, partly encouraged and financed by the state. Mercenary troops played an increasingly important role as the state began to commute military service in the provincial armies for cash with which to hire professionals: by the middle of the eleventh century, a large portion of the imperial armies was made up of indigenously recruited mercenary units together with Norman, Russian, Turkic, and Frankish mercenaries, mostly cavalry, but including infantry troops (such as the famous Varangian guard).¹⁰ The successes achieved between c.900 and 1030 were thus based not only on effective organisation and better resources than in the preceding period. Morale and ideology also played a key role; and in particular the increase in the tactical complexity of Byzantine field armies played a significant part, with the various types of arms familiar from the late Roman period, which had all but vanished in the period of crisis of the seventh and eighth centuries, reappearing once more. Arab commentators remark on the effectiveness of the Byzantine heavy cavalry 'wedge', employed with, literally, crushing effect in the Byzantine wars with both Muslims and northern foes such as the Bulgars and the Rus' of Kiev.¹¹

The expansionism of the period c.940–1030 had its negative results, however. Increasing state demands clashed with greater aristocratic resistance to tax-paying; political factionalism at court, reflecting in turn the development of new social tensions within society as a whole, and in the context of weak and opportunistic imperial government, led to policy failures, the overestimation of imperial military strength, and neglect of defensive structures. The results

Commentary on the Taktika of Leo VI, Dumbarton Oaks Studies 44 (Washington, DC, Dumbarton Oaks, 2014), pp. 89–118; with Haldon and Brubaker, *Byzantium in the Iconoclast Era*, pp. 723–71.

¹⁰ Whittow, *Making of Orthodox Byzantium*, pp. 310ff. (reconquests); N. Oikonomidès, 'L'Évolution de l'organisation administrative de l'empire byzantin', *Travaux et Mémoires* 6 (1976), 125–52; Haldon, *Warfare, State and Society*, pp. 74–89 (administrative developments).

¹¹ See McGeer, *Sowing the Dragon's Teeth*; Haldon, *Warfare, State and Society*, pp. 217–25.



MAP 4. The Byzantine world c.1025, Map © John Haldon.

were to become apparent in the years following 1025.¹² Fiscalisation of military service, but more particularly internecine factionalism among the elite, led to eventual collapse following civil war after the Seljuq victory at Mantzikert in 1071.¹³ Only under Alexios I (r.1081–1118) was a degree of stability restored, and under his two successors John II (r.1118–43) and Manuel I (r.1143–80) substantial tracts of Anatolia were recovered. Manuel's ill-fated attempt to knock out the Seljuq sultanate of Rum, with its capital at Konya (Ikonion), ended with the defeat of his army at Myriokephalon in 1176. Thereafter the empire was never again able to muster the resources for such a major undertaking.¹⁴

Resources

The army and its needs represented central concerns of the state. A series of ancillary structures, in particular the public post, served both military and bureaucratic needs. As a ninth-century anonymous treatise on strategy notes: 'The financial system was set up to take care of matters of public importance that arise on occasion, such as the building of ships and of walls. But it is principally concerned with paying the soldiers. Each year most of the public revenues are spent for this purpose.'¹⁵

The methods evolved to deal with these requirements were, of course, determined to a degree by factors of a geopolitical and ecological character: conditions determining transport, terrain, and climate, all affecting the maintenance of either livestock or human populations to service the institutions of the state, the availability of materials for construction (roads, bridges, posting stations), of fodder for beasts of burden or post-horses, and of food for both imperial servants and those who maintained the system, and so on.¹⁶ In addition, the methods of payment for such services played a role: where (and when) a developed system of market-exchange operated, goods and services will have been exchanged quite easily. In contrast, when money

¹² See John F. Haldon, 'Approaches to an Alternative Military History of the Period ca. 1025–1071', in E. Chrysos (ed.), *Byzantium in the Eleventh Century* (Athens, Institute for Byzantine Research, 2003), pp. 45–74.

¹³ Jean-Claude Cheynet, 'Mantzikert: un désastre militaire?', *Byzantion* 50 (1980), 410–38; John F. Haldon, 'La Logistique de Mantzikert', in D. Barthélemy and Jean-Claude Cheynet (eds.), *Guerre et société, Byzance – Occident (VIIIe–XIIIe siècle)*, Centre de recherche d'histoire et civilisation de Byzance, Monographies 31 (Paris, CNRS, 2010), pp. 11–25.

¹⁴ J. W. Birkenmeier, *The Development of the Komnenian Army, 1081–1180* (Leiden, Brill, 2002), pp. 43–138; Haldon, *Warfare, State and Society*, pp. 85–98, and see below.

¹⁵ Dennis, *Three Byzantine Military Treatises*, p. 12, lines 18–21 (translation on p. 13).

¹⁶ Michael F. Hendy, *Studies in the Byzantine Monetary Economy, c.300–1450* (Cambridge, Cambridge University Press, 1985), pp. 21–138.

transactions were limited by the unreliability or lack of availability of coin, especially low denominations, exchange relationships will have been cumbersome, labour-intensive, and relatively inefficient.¹⁷ These conditions directly affected the forms which those institutions connected with resources took, and the ways in which they operated.

Throughout the period in question two basic methods of supplying soldiers existed, although their institutional/bureaucratic forms varied. Apart from occasional and regular cash donatives, garrison units were issued with rations, although from the later fifth century in the East these were actually commuted at locally fixed tariffs into gold, so that the regimental commissaries bought the necessary requirements at local markets or direct from the producers, before issuing them to the soldiers. In the case of mobile units, actuaries and special officers were allowed to draw supplies from the regular revenues of the provinces affected in return for receipts. The whole system was operated by the administration of the praetorian prefecture at its various administrative levels, so that the supplies demanded for the army could be taken into account when making the regular land-tax assessment. For expeditionary or moving forces, the numbers of soldiers and animals which needed provisions had to be submitted to the central and local administrations in advance, so that the necessary supplies could be deposited in storehouses or otherwise made available along the route of march.¹⁸

Equipment – clothing, mounts, weapons – was provided by a combination of taxation or levy in kind and through state manufactories. A number of arms factories were situated at towns throughout the provinces. Weapons and clothing were, by the later sixth century, bought by the soldier, either directly or through the regimental actuary, with a cash allowance issued for the purpose. Mounts were provided partly by levy, partly through purchase at fixed prices, with some provided by imperial stud-farms. At the end of the sixth century, generals were advised to establish winter quarters in areas where such supplies were available for purchase, or to make it possible for

¹⁷ See John F. Haldon, 'Some Considerations on Byzantine Society and Economy in the Seventh Century', *Byzantinische Forschungen* 10 (1985), 75–112, at 80ff. Logistics: John F. Haldon, 'The Army and Logistics', in P. Stephenson (ed.), *The Byzantine World* (London, Routledge, 2010), pp. 47–60; *Warfare, State and Society*, pp. 139–48, 158–76; John F. Haldon (ed.), *General Issues in the Study of Medieval Logistics: Sources, Problems and Methodologies* (Leiden, Brill, 2005); John F. Haldon, 'Roads and Communications in Byzantine Asia Minor: Wagons, Horses, Supplies', in John Pryor (ed.), *The Logistics of the Crusades* (Aldershot, Ashgate, 2006), pp. 1–23.

¹⁸ See A. H. M. Jones, *The Later Roman Empire, 284–602: A Social, Economic and Administrative Survey* (Oxford, Blackwell, 1964), pp. 623–30, 672–4; J. L. Teall, 'The Grain Supply of the Byzantine Empire', *Dumbarton Oaks Papers* 13 (1959), 87–139, at 93ff.

traders and others to reach the army in order to provide the required provisions and equipment. Iron-ore, charcoal, and wood were also provided by levy, sometimes remitted from the tax-burden of the area or community in question, sometimes raised through extraordinary impositions upon certain categories of taxpayer.¹⁹ Transporting military supplies was expensive. Water transport was cheapest (sea or river), but this was rarely relevant to inland campaigns, either on the eastern front or in the Balkans (although the forces on the Danube frontier were at times supported by sea through the institution of the *quaestura exercitus*).²⁰

The seventh-century economic and political crisis brought changes to these arrangements. Much of the burden of supporting the armies was transferred directly onto local populations. Cash salaries were reduced to a nominal and occasional sum, while a system of supporting troops in kind, similar to that which had operated in the fourth century, reappeared. Troops were distributed over wide areas to facilitate this, resulting in an increasing dependency on soldiers' households for provisions and even weapons. By the later eighth century many provincial soldiers were called up for only part of the year. Weapons were produced through levies on provincial craftsmen, to supplement the remaining armaments factories;²¹ military clothing and mounts and pack-animals were raised in the same way.²² One of the major

¹⁹ Horses and stud-farms: John F. Haldon, *Constantine Porphyrogenitus, Three Treatises on Imperial Military Expeditions*, Corpus Fontium Historiae Byzantinae 28 (Vienna, Austrian Academy, 1990), pp. 184–7; Haldon, *Warfare, State and Society*, pp. 141–3. Arms factories: Jones, *Later Roman Empire*, pp. 834–9. Shifts in transport: Richard W. Bulliet, *The Camel and the Wheel* (Cambridge, MA, Harvard University Press, 1975); and on prices of animals and transportation: Jean-Claude Cheynet, E. Malamut, and C. Morrisson, 'Prix et salaires à Byzance (Xe–XIe siècles)', in *Hommes et richesses dans l'empire byzantin (VIIIe–XVe siècle)* (Paris, Lethielleux, 1991), pp. 339–74; C. Morrisson and Jean-Claude Cheynet, 'Prices and Wages in the Byzantine World', in Angeliki Laiou et al., *The Economic History of Byzantium from the Seventh through the Fifteenth Century* (Washington, DC, Dumbarton Oaks, 2002), 815–78. Rates of movement: Jones, *Later Roman Empire*, pp. 830–2; J. Nesbitt, 'The Rate of March of Crusading Armies in Europe: A Study and Computation', *Traditio* 19 (1963), 167–81; Haldon, *Warfare, State and Society*, pp. 158–74; Haldon, 'Roads and Communications in Byzantine Asia Minor'. In general: Fernand Braudel, *The Mediterranean and the Mediterranean World in the Age of Philip II*, trans. S. Reynolds, 2 vols. (London, Collins, 1975), vol. 1, pp. 276ff., 355ff.; Peregrine Horden and Nicholas Purcell, *The Corrupting Sea: A Study of Mediterranean History* (Oxford, Blackwell, 2000), pp. 123–72.

²⁰ For the transport of arms and weapons see John F. Haldon, *Byzantine Praetorians* (Bonn, Habelt, 1984), p. 114 and notes.

²¹ Haldon, *Warfare, State and Society*, pp. 71–85; John F. Haldon, *Byzantium in the Seventh Century: The Transformation of a Culture* (Cambridge, Cambridge University Press, 1997), pp. 238ff.

²² John F. Haldon, 'Chapters II, 44 and 45 of the *Book of Ceremonies*: Theory and Practice in Tenth-Century Military Administration', *Travaux et Mémoires* 13 (2000), 201–352, at 285ff.;

factors in these changes must also have been a dramatic demographic decline that took place across the period from the later sixth into the eighth century, indicated by palaeoenvironmental proxy data (for example, pollen analysis), and which may have reduced populations in some regions by well over 50 per cent.²³

Yet the system operated in the ninth and tenth century for provisioning and supplying moving forces was still remarkably similar to that which pertained in the later Roman period.²⁴ In spite of what was in effect a localisation and ‘farming-out’ of the production of arms and other military equipment, and the reversion to a system of levies of provisions in kind, imperial authority remained, effected through the supervision of centrally appointed officials to the staffs of thematic commanders. Assessments of military needs were measured against the ability of the population to support such demands; demands for provisions for moving forces were carefully recorded, so that they could be balanced against the total fiscal demand for taxes for the areas in question. By the ninth century it was thus a shrunken and somewhat bastardised late Roman system which was still operating, on the same fundamental principle of centralised state authority, in which resources were directly appropriated by the state through tax and other impositions or services, but directly redistributed to those elements of the state’s apparatus where they were needed.

From the later tenth century there evolved a system of resource management which was in some ways quite different. Reflecting the offensive warfare and expansionism of the period, the number of full-time,

also Haldon, *Byzantine Praetorians*, p. 114; *Warfare, State and Society*, pp. 128–38. See also John F. Haldon, ‘Some Aspects of Early Byzantine Arms and Armour’, in David Nicolle (ed.), *Companion to Medieval Arms and Armour* (Woodbridge, Boydell and Brewer, 2002), pp. 65–87; Taxiarchis Kolias, *Byzantinische Waffen*, Byzantina Vindobonensia 17 (Vienna, Austrian Academy, 1988).

²³ The data from both paleoenvironmental studies and archaeology all support the picture, although the regional and micro-regional variations remain difficult to discern and much more research and analysis of the relevant material is required before firm conclusions can be drawn. See C. N. Roberts et al., ‘Not the End of the World? Post-Classical Decline and Recovery in Rural Anatolia’, *Human Ecology* 46.3 (2018), 305–22; M. Cassis et al., ‘Evaluating Archaeological Evidence for Demographics, Abandonment, and Recovery in Late Antique and Byzantine Anatolia’, *Human Ecology* 46 (2018), 381–98; W. J. Eastwood et al., ‘Integrating Palaeoecological and Archaeo-Historical Records: Land Use and Landscape Change in Cappadocia (Central Turkey) since Late Antiquity’, in T. Vorderstrasse and J. Roodenberg (eds.), *Archaeology of the Countryside in Medieval Anatolia* (Leiden, Nederlands Instituut voor het Nabije Oosten, 2009), pp. 45–69.

²⁴ See Haldon, *Constantine Porphyrogenitus, Three Treatises*, text (C), ll. 349 et seq., and commentary, pp. 236–7.

'professional', and mercenary soldiers, both foreign and indigenous, increased, and this induced further shifts in the ways in which the armies were maintained, in particular during non-campaigning times. Until the middle of the tenth century, a large proportion of the burden of maintaining the traditional thematic forces had come to rest upon the households of the soldiers themselves or their neighbours within the community to which the soldiers belonged. The costs of maintaining the armies were thus distributed across each province, even if a body of standing troops, which might on occasion have been substantial, had also to be maintained at central government expense. The administration of this system involved not only fairly close supervision of productive capacity, but also the direct allocation of resources to individual soldiers. And even though the costs of large-scale expeditions were met by extraordinary levies in supplies, manpower, and livestock, until the middle of the tenth century such undertakings were not frequent. But the information for the process of supplying and maintaining forces in the field to be found in mid-tenth-century documents and in the details of some eleventh-century campaigns, including the campaigns of Romanos IV in 1068 and that which led up to the battle of Mantzikert in 1071, or in the preparations made by Alexios I to deal with the passage through imperial territory in the Balkans of the Crusader armies, show that the same principles operated, the same pattern of collection, concentration, and redistribution of military provisions was maintained. And although the administrative departments responsible had evolved or changed somewhat from the period before Alexios I, the same arrangements were still in place for the campaign mounted by Manuel I which ended in defeat at Myriokephalon in 1176. The change in emphasis which took place over the tenth century and into the eleventh century – in effect, from a provincially supported and provincially raised indigenous 'militia-like' army to an increasingly professionalised mercenary army supported through direct taxation – had important consequences for relations between the state and the dominant elite.²⁵

Throughout its history the medieval Eastern Roman army disposed of relatively sophisticated siege technology, although it was often found simpler to starve an enemy fortress or town into submission. Nevertheless tension-powered ballistae and manually operated (as opposed to counterweight

²⁵ Komnenian administration: Paul Magdalino, *The Empire of Manuel I Komnenos, 1143–1180* (Cambridge, Cambridge University Press, 1993), pp. 228–30; see also essays in Jean-Claude Cheynet, *The Byzantine Aristocracy and Its Military Function* (Aldershot, Ashgate, 2006); John F. Haldon, 'Social Elites, Wealth and Power', in J. F. Haldon (ed.), *A Social History of Byzantium* (Oxford, Blackwell, 2009), pp. 168–211.

machines, a development of the twelfth century) trebuchets formed a part of the panoply and are frequently described in action. The best-known weapon is, of course the famous 'liquid fire', a form of medieval napalm consisting of crude oil mixed with pine resin, heated and projected through a double-action pump similar to those found in cities such as Constantinople for fighting fires. The 'secret' of Greek Fire lay as much in the mode of projection as in the constitution of what was projected, and once the empire lost access to the oilfields of the Caucasus and south Russian steppes in the later twelfth century the weapon disappears from the sources.²⁶

Strategic and tactical arrangements

The late Roman armies in the sixth century can be formally divided into two categories, mobile field forces (*comitatenses*) and stationary frontier units (*limitanei*), although in fact they overlapped in terms both of actual function as well as postings, so the division is in many respects somewhat artificial. The former were composed for the most part of units created during the later third and fourth centuries; the latter were composed predominantly from the older legions and associated auxiliary units which had been posted along the frontiers. The mobile forces were grouped into divisions under regional commanders or *magistri militum*, each covering a major defensive hinterland, and under each of whom the commanders of the stationary units were based. In the later sixth century there were nine such major divisions, including two based around Constantinople. Naval units for both seaborne and riverine activities were based at key Balkan and Syrian ports, maintained on the same basis as the field armies.²⁷

Soldiers were recruited partly on a voluntary basis, partly on the basis of a relationship between tax-assessments, land, and manpower, although the latter was increasingly replaced by the former as the sixth century drew on. Soldiers in the *limitanei* had the privilege of putting down their sons' names for recruitment to a more-or-less guaranteed place if they wished, a reflection of the relative security a soldier's career was seen to represent, at least in such garrison units.²⁸

²⁶ On siege warfare, techniques and technology: McGeer, *Sowing the Dragon's Teeth*; Haldon, *Warfare, State and Society*; Haldon, *A Critical Commentary on the Taktika of Leo VI*, pp. 294–309. On 'liquid fire': John F. Haldon, 'Greek Fire Revisited: Recent and Current Research', in E. Jeffreys (ed.), *Byzantine Style, Religion and Civilization: In Honour of Sir Steven Runciman* (Cambridge, Cambridge University Press, 2006), pp. 290–325.

²⁷ Jones, *Later Roman Empire*, pp. 280, 655–7, 671, 679, 834–7.

²⁸ Michael Whitby, 'Recruitment in Roman Armies from Justinian to Heraclius (ca. 565–615)', in Averil Cameron (ed.), *The Byzantine and Early Islamic Near East*, vol. 3:

The mobile field armies were complemented by more localised forces, including the *limitanei*, along and behind the frontiers, organised into commands which included also provinces in which local trouble – brigandage, for example – might be expected, and also subject to the regional field-army commander. In the 560s there were some twenty-five such commands covering the frontiers and their hinterlands.²⁹

This two-tier ‘system’ had evolved directly out of changes which took place in the third century and was premised upon a particular mode of tax-collection and assessment, and upon particular institutional arrangements for surplus redistribution.³⁰ During the seventh century, these late Roman forces evolved into more provincialised militia-like armies, each with a central core of full-time professionals supported by both Constantinopolitan and local funds. The empire’s territory came to be divided up into a number of military commands (Gk. *stratēgis*, pl. *stratēgides*), each commanded by a general, or *stratēgos*. The arrangement evolved as armies were billeted across Asia Minor in the period c.637–40. The groups of provinces occupied by each field army came collectively to be known by the name of that army. Later commands received purely geographical names. The civil administration, modified in various ways, especially in respect of fiscal administration,³¹ subsisted in an increasingly altered form until, in the early ninth century, probably, the state introduced a series of measures to up-date the military administration and recognise the nature and form of the changes which had taken place.

The single most important of these changes was the introduction by the emperor Nikephoros I (r.802–11) of a system of financing soldiers tied directly to the communities from which they were recruited and involving the permanent establishment of such units in specific fiscal districts. The military commands or armies thus recruited and financed were known thereafter as

States, Resources and Armies (Princeton, Darwin Press, 1995), pp. 61–124, for a detailed analysis.

²⁹ Haldon, *Byzantium in the Seventh Century*, pp. 209ff.

³⁰ Ramsay MacMullen, *Soldier and Civilian in the Later Roman Empire* (Cambridge, MA, Harvard University Press, 1963); Jones, *Later Roman Empire*, pp. 607–80; Jean-Michel Carrié, ‘L’esercito: trasformazioni funzionali ed economie locali’, in A. Giardina (ed.), *Società romana e impero tardoantico: Istituzioni, Ceti, Economie* (Rome, Laterza, 1986), pp. 449–88, 760–71; G. Ravegnani, *Soldati di Bisanzio in età Giustiniana*, *Materiali e Ricerche*, nuova Serie 6 (Rome, Jouvence, 1988); John F. Haldon, ‘Military Service, Military Lands and the Status of Soldiers: Current Problems and Interpretations’, *Dumbarton Oaks Papers* 47 (1993), 1–67.

³¹ See Wolfram Brandes, *Finanzverwaltung in Krisenzeiten: Untersuchungen zur byzantinischen Administration im 6.–9. Jahrhundert* (Frankfurt am Main, Löwenklau, 2002); Hendy, *Studies*, pp. 157ff., 406–29; Haldon and Brubaker, *Byzantium in the Iconoclast Era*, pp. 665–771.

themata, 'themes', from the Greek word for 'establish' or 'designate', while their commanders, the generals (*stratēgoi*) were given an increasing range of authority over civil and other aspects of the non-military affairs of their *themata*.³²

The government was hard-pressed for cash in the 630s and 640s,³³ and the way in which the soldiers were garrisoned across the provinces of Asia Minor thereafter suggests that the state reverted on an increasing scale to raising tax in kind in order to maintain the troops, rather than paying them in cash. Partial corroboration of this lies in the distribution of the late Roman field armies across Anatolia, for there is a close correlation between the size of the forces occupying a given region and the known resources of the regions concerned.³⁴ One of the results of this was the localisation of the soldiers in respect of residence and patterns of recruitment, so that a sizeable element became over the following decades little more than a local militia, demonstrating highly localised loyalties and competitiveness with the troops from other regions for rewards and imperial favour. At the same time, the means employed by the state to support and maintain its armies became more diverse. Some form of hereditary conscription was reintroduced, probably during the seventh century. Connected with a revision of fiscal registers during the later seventh and eighth centuries, soldiers with landed property were encouraged to provide a proportion of their arms, equipment, and mounts and were granted certain tax benefits in return. By the later eighth or ninth century, several categories of soldier existed, including regular and irregular professional and militia-like units, as well as full-time 'professional' regiments such as the imperial guards units at Constantinople.³⁵ Similar considerations in respect of regionalisation, provincialisation, and recruitment applied to the imperial naval forces, also radically restructured during

³² John F. Haldon, 'A Context for Two "Evil Deeds": Nikephoros I and the Origins of the Themata', in O. Delouis, S. Métivier, and P. Pagès (eds.), *Le Saint, le moine et le paysan: mélanges d'histoire byzantine offerts à Michel Kaplan*, Byzantina Sorbonensia 29 (Paris, Éditions de la Sorbonne, 2016), pp. 245–65.

³³ Hendy, *Studies*, pp. 640ff., 625ff.; C. Morrisson, J.-N. Barrandon, and J. Poirier, 'La Monnaie d'or byzantine à Constantinople. Purification et modes d'altérations (491–1354)', in Cécile Morrisson et al., *L'Or monnayé*, vol. 1: *Purification et altérations de Rome à Byzance* (Paris, CNRS, 1985), pp. 113–87, see pp. 125ff. For the implications of these developments in their wider context: Haldon, *Byzantium in the Seventh Century*; and John F. Haldon, *The Empire That Would Not Die: The Paradox of Eastern Roman Survival, 640–740* (Cambridge, MA, Harvard University Press, 2016).

³⁴ Haldon, *The Empire That Would Not Die*, pp. 215–82; Haldon, *Byzantium in the Seventh Century*, pp. 227f., 251f.

³⁵ For detailed analysis and further literature see Haldon, *Warfare, State and Society*; Haldon, *Byzantine Praetorians*.

the later seventh and eighth centuries.³⁶ This process of localisation and provincialisation had other sociopolitical results too: in particular, it led to the evolution of links of patronage and clientship, as well as economic and social dependency, between the provincial officers and their soldiers, or at least a proportion of these two groups. This had in its turn consequences for the political relations between regions and their armies and between the provinces and the centre.

But these arrangements were constantly evolving. A first stage in the process of transformation was marked by the reforms undertaken by Constantine V (mid eighth century), especially the establishment of an imperial 'guards' division, the *tagmata*, at Constantinople; then by the policies relating to the ways in which soldiers were to be supported by communal subscription introduced during the ninth century. A watershed was reached with the legislation of the tenth-century emperors, whose promulgations represented not just the rulers' concern with the welfare of the peasantry and the soldiers drawn from them, nor with the increasing threat posed by powerful persons – landowners or office-holders with resources to invest – to the resources at the state's disposal. It also reflects the last, failed efforts of the central administration to shore up a mode of recruiting and maintaining soldiers which was already obsolete because circumstances vastly different from those in which it was first made possible had evolved, as well as because of the demands of the expansive warfare and campaigning necessitated by imperial policy with regard to both the caliphate and the empire's western neighbours in the tenth century.

In responding to the threat from the victorious Islamic armies after the initial conquests, Byzantine tactics and strategy from the 640s had to adapt quickly to a new situation. The fact that those contingents from the main field armies of the second half of the seventh and the eighth century were later referred to as *kaballarika themata* – 'cavalry armies' – illustrates the fact that light cavalry now came to dominate the border warfare, skirmishing, and hit-and-run raids of the period. Infantry continued to play an important role in the battles fought against the armies of early Islam during the middle of the seventh century, if only because the Arabs were themselves mostly infantry, although their extensive use of camels and horses to improve their mobility enabled them to travel far more quickly than most of their enemies, and the highly mobile nature of the warfare thereafter gave the Arab mounted

³⁶ See the brief entry with further literature in Alexander Kazhdan et al., *The Oxford Dictionary of Byzantium* (Oxford and New York: Oxford University Press, 1991), p. 1444.

infantry an advantage over traditionally outfitted Roman infantry. While infantry continued to be needed, therefore, playing an important part in several campaigns as well as in the guerrilla warfare along the eastern frontier in the later ninth and tenth centuries, it seems that their value slowly declined, perhaps because they were drawn largely from the poorest and least well-equipped of the provincial soldiery. Hardly any of the descriptive sources for the wars against Bulgars and Arabs during the eighth and ninth centuries give any details. The increasingly seasonal campaigning and localised recruitment in the theme armies, combined with a lack of professional training, and with the physical dispersal of the soldiers and the type of warfare waged, meant that while infantry soldiers could fulfil garrison duties and irregular, skirmishing warfare in broken country, or lie in wait for hostile forces, they would not be reliable under regular battlefield conditions. The development of infantry tactics after the period of the first Islamic conquests as well as the higher profile of mounted warfare thus reflected quite closely the general strategic situation in which the empire found itself.

During the period from the later seventh to the ninth or early tenth century, the differences which once existed between *limitanei* and *comitatenses* disappeared, and most units came to have local or regional appellations; although some of the late Roman names of units did survive, applied to the later Byzantine divisions. There was also a general levelling out of the different arms, into light cavalry and infantry. Only the *tagmata* at Constantinople seem to have provided a heavy cavalry force. It seems to have been the responsibility of local officers in the provinces to establish field units and to arm them as each specific occasion required.

The provincial armies were organised into divisions called *tourmai*, *drougoi*, and *banda*: very roughly, divisions, brigades, and regiments. The first and last of these had a territorial identity, and each *tourma* had a headquarters or base, a fortified town or fortress. Each *bandon* was identified with a clearly defined locality from which it drew its soldiers. The middle level of this structure, the brigade, always remained a tactical unit without any territorial identity. Each *tourmarchês* had his base in a fortress town and was an important figure in the military administration of his theme. He was responsible for the fortresses and strongpoints in his district, as well as for the safety of the local population and their goods and chattels. He was responsible also for dealing with raids into his territory and for informing his superior of enemy movements.³⁷

³⁷ Haldon, 'Chapters II, 44 and 45 of the *Book of Ceremonies*', pp. 316–29.

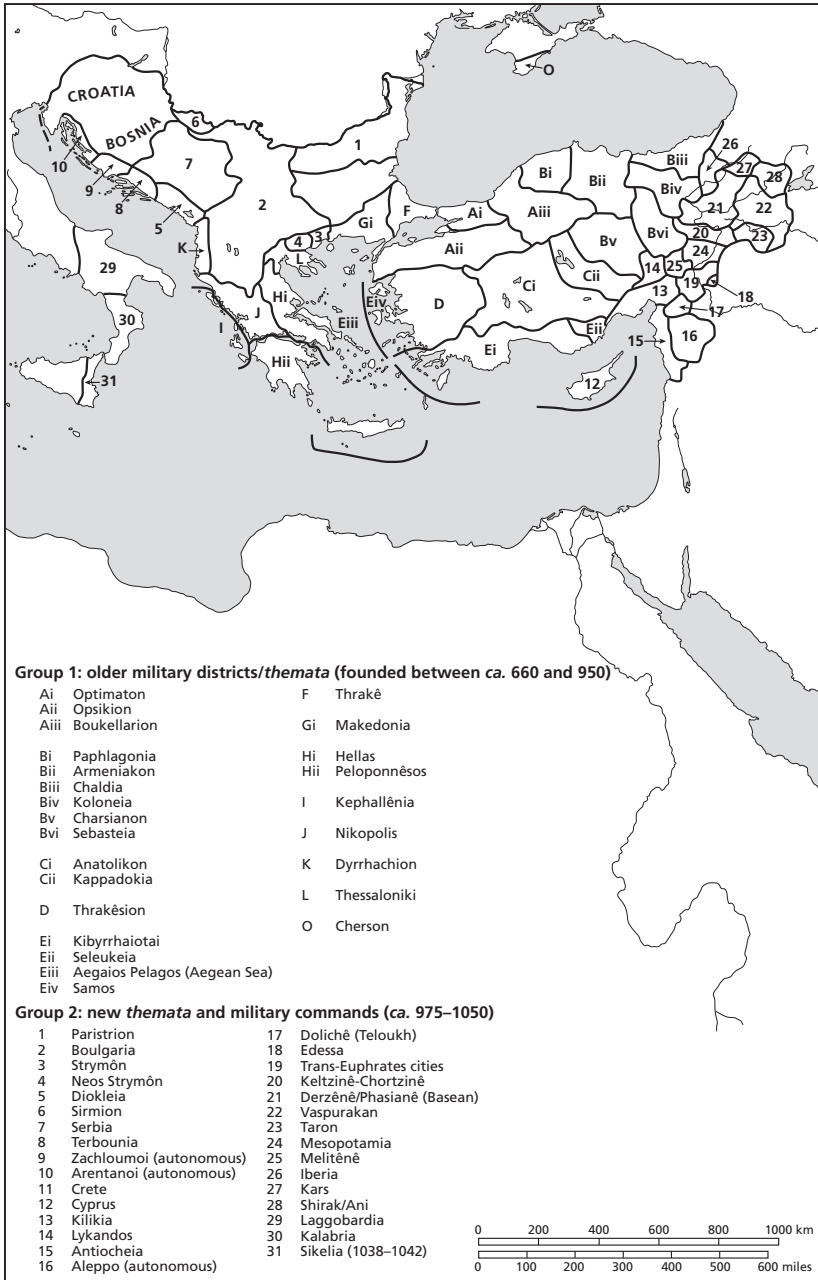
The sizes of units on the battlefield varied according to tactical need, and there was no neat equivalence between the territorial and administrative districts and the size of the units drawn from them. Several administrative *tourmai* could appear on campaign as a single large division, for example, or vice versa: the fact that a theme had two *tourmai* did not mean that they were each made up of the same number of smaller units, or indeed that they were the same size as the divisions in a neighbouring military province. Most themes had two or three divisions or *tourmai*, but this does not mean that they were the same size or could muster the same number of soldiers. The numbers in a *bandon* also varied, and figures ranging from 50 to 400 are recorded. Calculating the size of Byzantine armies from this sort of information is, in consequence, rather tricky. But large armies rarely attained more than 12,000–15,000 men; many campaigns were fought with armies of a few thousand.³⁸

The success of the expansionist strategy of the second half of the tenth century had several unforeseen consequences. The provincial forces which had evolved from the later seventh century were substantially eroded as new strategic commands known as ducates and katepanates, much smaller territorially than the traditional themes, established a protective curtain between the inner regions of the empire and the frontier zones. The logic behind the newly established strategic units was to address local threats or respond to the need to mobilise for larger expeditionary offensives, rather than major hostile incursions aimed at the heart of the empire. But although the new arrangements did represent a defence in depth of sorts, the fragmentation of command around the periphery had disadvantages when confronted by a major challenge, to deal with which only the emperor or one of the two commanders-in-chief (in east and west) had the power to assemble an appropriate force. In consequence a great deal depended on the competence of the leader in question. But well beyond the reign of Basil II (976–1025), the empire continued to field an effective and feared campaign army, and the army that fought at Mantzikert was by no means the disorganised rabble often portrayed by traditional histories of the period. And as long as it remained well-led and successful, the empire's enemies were held at bay.³⁹

³⁸ Ibid., pp. 305–34; Haldon, *Warfare, State and Society*, pp. 99–106.

³⁹ John F. Haldon, 'L'Armée au IX^e siècle: quelques problèmes et quelques questions', in Jean-Claude Cheynet and B. Flusin (eds.), *A la suite de Paul Lemerle: l'humanisme byzantin et les études sur le XI^e s. quarante ans après*, *Travaux et Mémoires* 21.2 (2017), 581–92; Haldon, 'Approaches to an Alternative Military History of the Period ca. 1025–1071'; Jean-Claude Cheynet, 'Mantzikert: un désastre militaire'

Byzantium to the twelfth century



MAP 5. *Themata* and ducates c.1050. From John Haldon, *Warfare, State and Society in the Byzantine World, 565–1204* (UCL Press, 1999), Map VIII, pp. 82–3.

By the 1040s it was felt that an effective system of alliances or buffer states and intelligent diplomacy had rendered inessential many of the expensive standing forces which had, following the successful expansion of the previous period, been established in the frontier provinces. Trade and economic and cultural influence as well as military threat kept the peace along the northern frontier on the Danube, for example, drastically reducing the costs of the forces which had been stationed in the region in the years following Basil II's reconquest of the area. Even military men, such as the soldier-emperor Isaac I Komnenos, saw that the costs of a large permanent standing force could not be borne in the long term. Emperors began actively to pursue a foreign policy which would permit them to call on vassals and the rulers of neighbouring powers for soldiers, and thus limit the demand on the empire's own resources.

During the middle years of the eleventh century the imperial defensive strategy broke down. This was largely a result of the fact that the balance between diplomacy and military strength was destroyed by civil war and provincial or military rebellion. The thematic militias had in any case long been neglected in favour of full-time, regionally recruited *tagmata* maintained on a permanent basis, and their demise cannot be blamed on the emperors of the eleventh century. But reductions in the overall military budget had induced a heavier dependence on non-Byzantine mercenaries than had been the case until the end of Basil II's reign. Foreign mercenary troops, especially of Western knights – Franks, Germans, and Normans – played an increasingly prominent role, usually under their own leaders. The defeat at Mantzikert in 1071 was not in itself such a great disaster from a purely military perspective, but the ensuing civil war and internal disruption gave the invading Turks a free hand in central Asia Minor, and produced a very different political-strategic map of the region. Emperors from Alexios I onward spent the period from the 1080s until the 1180s attempting to recover the situation, ultimately without success. The wars of the period were fought increasingly using Western tactics and panoply, but with elements of a still clearly Byzantine or East Roman tactical organisation – contemporaries continue to remark on the order, cohesion, and discipline with which the multi-ethnic and colourful Byzantine armies still fought.

Byzantine armies in the middle and later eleventh century were a mixture of regular mercenary units from the different parts of the empire, the older thematic soldiers, and foreign units. The growing political and cultural influence of the world around Byzantium, which had been held at bay for so long, meant that the empire was becoming more and more integrated into

the tactical world of the lands around it. Byzantine order and discipline remained a significant element in the empire's armies, but the latter were a polyglot and multi-ethnic mixture of Seljuq, Pecheneg, or Cuman horse-archers; Norman, German, and Frankish knights; Bulgarian and Anatolian light infantry; Georgians and Alans from the Caucasus; and imperial guards recruited from outside the empire (Varangians, for example, from the 1070s chiefly made up of Anglo-Saxons who had left recently conquered Norman England). One of the tactical innovations of the period with which Byzantine soldiers and generals had to contend was the type of heavy cavalry charge favoured by the Normans. Although they were quite familiar with Norman tactics (Norman mercenaries having served in the imperial armies in Italy and Sicily in the 1030s and 1040s), the Byzantines had only rarely had to confront it themselves – most of the fighting from the 1060s was against light-armed, highly mobile enemies such as Turks and Pechenegs.⁴⁰

Careful planning, intelligent and skilful internal policies, and a cautious strategy (including the exploitation of the first crusade in its march through Asia Minor and into Syria) enabled Alexios I to stabilise the situation between his accession and 1105. Tactics appropriate to the different enemies the empire faced, especially against Pechenegs and Turks, were refined. The Pechenegs were completely defeated and, as part of the treaty drawn up afterwards, were established within the empire, and in return had to serve in the imperial army. A strategy of avoidance, ambush, and attrition eventually resulted in the expulsion of the Normans from Epirus and Albania; the difficult situation with regard to the Turks in north-western Asia Minor was stabilised.

The collapse of the later eleventh century had brought with it a need to reorganise, and although the changes wrought by the Komnenoi produced a series of new *themata*, or military provinces, and new frontiers in Asia Minor, the basic principles of eleventh-century strategy – an in-depth defence based in fortresses and similar strongpoints supported by a single imperial field force based in and around Constantinople – were maintained. Alexios I carried through important fiscal and military administrative reforms in order to stabilise a coherent central administration. Across the twelfth century, many indigenous Byzantine units were equipped and trained in Western style, so that the result was an army hardly different from any other multi-ethnic, polyglot mercenary army of the period in its tactics and formations. The difference lay in the superior order and tactical dispositions of the

⁴⁰ Jonathan Shepard, 'The Uses of the Franks in Eleventh-century Byzantium', *Anglo-Norman Studies* 15 (1993), 275–305.

imperial troops when these were properly exploited by an able commanding officer, and this was still evident on occasion in the later years of the twelfth century. Under Alexios's son John II (r.1118–43) substantial regions of western Anatolia were recovered; under John's successor Manuel I (r.1143–80) imperial power in the Balkans was reaffirmed and strengthened, and Roman armies began gradually to extend Byzantine control into central Anatolia, in an attempt to reassert Roman rule there.

Yet while the empire faced the Hungarians on the Danube with some success, its ultimate failure in Asia Minor spelled the end of the East Roman Empire in its established territorial form. In 1176, in a strategically premature and tactically misjudged attempt to eliminate organised Turkish opposition in central Asia Minor, the imperial field army, with the emperor present, was ambushed and defeated at the battle of Myriokephalon. This expensive enterprise was thus wasted and, as a result of changes in the international situation and rebellion in the Balkans, the empire was never again in a position to go onto the offensive in Asia Minor on this scale. The 'Turkification' and Islamisation of central Asia Minor was already under way; the empire could henceforth do little to prevent its completion. The Eastern Roman Empire, which had once straddled Europe and Asia, became an increasingly European state.⁴¹

⁴¹ For the political history of the period, see Michael Angold, *The Byzantine Empire, 1025–1204: A Political History* (London, Longman, 1984); Magdalino, *The Empire of Manuel I Komnenos*; and for Myriokephalon, R.-J. Lilie, 'Die Schlacht von Myriokephalon (1176): Auswirkungen auf das byzantinische Reich im ausgehenden 12. Jahrhundert', *Revue des Études Byzantines* 35 (1977), 257–75. For brief surveys of Byzantine military history and warfare: John F. Haldon, *Byzantine Wars: Battles and Campaigns of the Byzantine Era* (New York, History Press, 2008); John F. Haldon, *Byzantium at War* (Oxford, Osprey, 2002).

The Slavs, Avars, and Hungarians

MARTYN RADY

From the late fourth century onwards, Christendom was assailed by a succession of invaders. The first wave consisted of Germanic tribes – Visigoths, Ostrogoths, and Vandals – and their irruptions brought down the West Roman Empire. During the sixth century, Slavonic groups emerged in the territory north of the Danube that the Germanic tribes had evacuated and began incursions into the South-East European lands of the Byzantine empire. In the late ninth century, the old Roman province of Pannonia together with the Hungarian Great Plain was occupied by the Magyars, a Finno-Ugrian group, originally from Siberia, that had over the preceding centuries made its home on the western steppes. The Magyar settlement destroyed several nascent Slavonic principalities and was accompanied by extensive raids into the Balkans and Western Europe.

Either in concert with these peoples or acting independently of them were the nomad horsemen of the steppe. Pressure from the nomadic Huns in the fourth century set in motion the Germanic tribes and it was under the Huns that the Ostrogoths first broke into the Roman Empire. The tribal confederation that the Huns had gathered did not, however, survive the death of their leader, Attila, in 453. The Turkic nomad allies of the Huns withdrew eastwards, periodically reassembling under a succession of names – Kutrigurs, Saragurs, Onogurs, and so on. On the western steppes, they jostled with other nomadic groups, most notably the Avars and, later on, the Pechenegs and Cumans. The Avars, who were probably Hephthalite or ‘White Huns’ from Transoxiana (present-day Uzbekistan, Tajikistan, and south-western Kazakhstan), installed themselves in the late sixth century in the lands later to be occupied by the Magyars, and it was they who organised and ‘let loose the [Slavs] who ravaged very many areas of the Roman territory’.¹ The Onogurs, breaking into several groups, some of which assumed the name

¹ *The History of Theophylact Simocatta*, ed. and trans. M. and M. Whitby (Oxford, Clarendon Press, 1986), p. 28 (1. 7. 1).

of Bulgar,² joined the Avars in Pannonia, possibly later overthrowing them. In the late seventh century, Onogur-Bulgars also assumed leadership over several Slavonic tribes in the old Roman province of Moesia on the right bank of the Lower Danube. To them they gave the name of Bulgarian. A further group of Onogurs assumed while still on the steppe leadership of the Finno-Ugrian Magyars. The role played by the Onogurs in the early history of the Magyars is recalled in the name 'Hungarian'. To tenth-century Byzantine commentators the Hungarians were, however, simply 'Turks'.³

Huns, Onogurs, Avars, and Pechenegs shared a similar military tradition. Horse breeders and pastoralists, they operated in war as mounted archers. Their horses were originally gelded steppe ponies, known for their speed, and their bows were of the reflex type, strengthened by glue and bone. These reflex, 'compound' bows had an effective range of 300 m (although they could reach up to 800 m), and a skilled archer could discharge twenty arrows a minute.⁴ The accuracy of the nomad bowmen was improved by the introduction, probably by the Avars, of the stirrup which gave the rider greater stability in the saddle. Although frequently described as 'light cavalrymen', the nomads often wore leather and scale (lamellar) armour or mail. Their horses might also be protected with felt or scale. The Pechenegs and, later, the Cumans, who first raided Kievan Russia in the twelfth century, appear to have also deployed wheeled catapults in battle as well as wagons behind which they retreated to avoid counterattacks.⁵ These impediments did not, however, affect the manoeuvrability or speed of the nomads – they could cover up to 100 km a day, living mainly off the blood of their ponies.⁶ The following account, given by the mid-tenth-century Arab geographer, Masū'dī, records an engagement between a Byzantine force and a mixed group of Pechenegs and their Göktürk (Western Turk) allies:

2 G. Moravcsik, *Byzantinoturcica*, 2 vols., 2nd edn (Berlin, Akademie Verlag, 1958), vol. 2, p. 219.

3 Thus Constantine Porphyrogenitus, *De Administrando Imperio*, ed. G. Moravcsik and trans. Romilly Jenkins, *Magyar-Görög Tanulmányok*, no 29 (Budapest, 1949), pp 170–5 (ch. 38); and Leo the Wise, *Tactica*, ch. 41, in *A magyar honfoglalás kútfoi*, ed. G. Pauler and S. Szilágyi (Budapest, 1900), p. 31.

4 W. Pohl, *Die Awaren. Ein Steppenvolk in Mitteleuropa 567–822 n. Chr.*, 2nd edn (Munich, Verlag C. H. Beck, 2002), p. 170; C. R. Bowlus, *The Battle of Lechfeld and its Aftermath, August 955* (Aldershot and Burlington, VT, Ashgate, 2006), pp. 28–9.

5 *The Alexiad of Anna Comnena*, ed. and trans. E. R. A. Sewter (Harmondsworth, Penguin, 1969), p. 232 (7. 7); *The Russian Primary Chronicle*, ed. and trans. S. H. Cross (Cambridge, MA, Harvard University Press, 1930), p. 233.

6 Bowlus, *Battle of Lechfeld*, p. 23.

When dawn had broken, the Pecheneg king ordered many cavalry units, each unit consisting of a thousand horsemen, to go on the right flank, and he did the same on the left. After the battle-lines had been ordered, the cavalry units of the right wing attacked the main body of the Byzantine army and released a hail of arrows, meanwhile crossing over to the left flank. The cavalry units on the left wing then advanced in similar fashion and released their arrows on the main body of Byzantines, proceeding to the place whence the right-wing units had started. An unrelenting stream of arrows was kept up in this way while the cavalry units circled round and round like a mill wheel . . . When the Byzantines saw how their ranks were disintegrating and how the mass of arrows constantly rained upon them, they pushed forward even though disorganised and advanced on the Turkish force that had until then not moved. Thereupon, the cavalry opened the way for them, but not without a massive storm of arrows. Thereupon, the Byzantines turned to flight.⁷

Although preferring missile power to close combat, the nomads were equipped with spears, sabres, and axes or battle hammers, but these were largely reserved, as Masū'dī goes on to describe, for harrying the enemy in flight. The nomads were also adept in the construction of siege weapons and in diplomacy. It is a mark of their organising skill and ambition that in 626 the Avars put Constantinople under siege, operating on this occasion in concert with the Persians.

The *Strategikon* of the emperor Maurice (582–602) provides a detailed discussion of the battle tactics of the nomads, and of the Avars in particular. Maurice notes the deviousness and cruelty of the Avars, but also their experience in warfare and their ability to bear hardship: 'They endure heat and cold, and the want of many necessities, since they are nomadic peoples.' The Avars would customarily bring many horses with them so that they always had a supply of fresh mounts. Their preferred tactics were fighting at a distance, using feigned retreats, encircling, and ambushing.⁸ Other accounts note how the Avars' readiness for combat was sustained by their religious beliefs and worship of their own swords. If outmanoeuvred, the Avars would regroup, for they were unwilling to tolerate defeat. Doubtless, their manoeuvring on the field was, as was the case with other nomad warriors, accomplished through howls and smoke signals. Five centuries later, the Byzantine historian, Michael Psellus, wrote similarly of the Pechenegs that, if

7 G. Györffy, *A magyarok elődeiről és a honfoglalásról. Kortársak és krónikások híradásai* (Budapest, Osiris Kladó, 2002), p. 100.

8 *Maurice's Strategikon*, ed. and trans. G. T. Dennis (Philadelphia, University of Pennsylvania Press, 1984), pp. 116–19 (II. 2–3).

worsted in combat, they would customarily 'all disperse at the same moment, but later, in some strange fashion, they meet again, one coming down from a mountain, another from some ravine, another from a river, all from different hiding places'.⁹ The efficiency of the nomads in combining manoeuvrability with surprise is demonstrated in one account preserved by the Greek chronicler, Theophanes. At the beginning of the eighth century, the Byzantine emperor, Justinian II, disembarked a force on the Black Sea coast with a view to engaging the Onogur-Bulgars. But these, seeing from their lookouts the Byzantine cavalry foraging and so temporarily disorganised, 'came together like wild beasts and made a sudden, strong attack which destroyed the Roman flock'.¹⁰

The Byzantines were at least used to dealing with the nomads. The Frankish and Slavonic principalities of the late ninth century were not and the irruption of the Hungarians caught them by surprise. As Regino of Prüm (d.915) explained, 'Their way of fighting is all the more dangerous in that other peoples are not used to it.' The unfamiliar weaponry and military techniques of the Hungarians were compounded by their apparent savagery and cultural difference, which Regino described in a manner that recalled earlier accounts of the Huns:

They do not live like humans, but like beasts. For, so it is rumoured, they eat their meat raw, drink blood, chop up the hearts of captives and swallow them bit by bit just as if they were medicine; and they are not swayed by any compassion nor moved by any stirrings of pity. They cut their hair down to the skins with their knives. They ride their horses all the time; they are accustomed to travel, halt, think and talk on them.

The one consolation that Regino offered was that in their tactics of massed attack with missiles followed by dispersal in feigned retreats, the Hungarians resembled the Bretons; they might therefore be one day defeated.¹¹

By their weaponry and skill in movement, the nomads were able to achieve 'the maximum concentration of mobility and firepower'.¹² Nevertheless, despite their military superiority, the nomad empires of

9 Michael Psellus, *Chronographia*, 7. 69, trans. E. R. A. Sewter as *Fourteen Byzantine Rulers* (Harmondsworth, Penguin, 1966), pp. 318–19.

10 *The Chronicle of Theophanes*, ed. and trans. H. Turtledove (Philadelphia, Pennsylvania University Press, 1982), p. 73 (708–9).

11 *Chronicle of Regino of Prüm*, in *History and Politics in Late Carolingian and Ottonian Europe*, ed. and trans. Simon MacLean (Manchester and New York, Manchester University Press, 2009), pp. 205–6 (2, 889).

12 Owen Lattimore, *Studies in Frontier History* (Oxford, Oxford University Press, 1962), p. 485.

Europe did not survive. Their ruling elites either rapidly fell apart or were assimilated into the larger Slavonic or Magyar populations. Indeed, an old Russian tag, 'They perished like the Avars',¹³ sums up the collective fate of nearly all of Attila's heirs.

The failure of the nomads to survive in Europe may be explained by two weaknesses discerned by the emperor Maurice in respect of the Avars. As he reports, 'They are very fickle, avaricious and, composed of so many tribes as they are, they have no sense of kinship or unity with one another. If a few begin to desert and are well received, many more will follow.' The great tribal confederations built by the Huns, Avars, and Onogurs were open and ready to accommodate newcomers, even from the ranks of their foes. In one of the ironies of history, the last Roman emperor in the west, Romulus Augustulus, was the son of Attila's Latin *notarius*, and he himself was overthrown in 476 by the German Odoacer, whose own father had also once served under Attila. Likewise, the Hungarian tribal confederation included, as we have seen, the Finno-Ugrian Magyars, as well as other Turkic groups like the Central Asian Kabars. The loyalty of these very diverse conglomerations depended, however, upon a ready supply of bullion and thus upon continued, and successful, predatory raiding. As has been remarked of the Huns' own empire, 'The whole creaky structure relied on a flow of Roman gold, extracted by war and intimidation, to lubricate its operations.'¹⁴ Any shock might accordingly have the consequence of forcing asunder the assemblages that the nomads led. Thus the defeat of the Avar Qaghan before Constantinople in 626 prompted a rebellion by the Avars' allies, the Wends, and, as reported in the chronicle of Fredegar, a major challenge to the authority of the Avar ruling house.¹⁵ Successive Frankish victories over the Avars in the late eighth and early ninth centuries prompted in turn insurrection and the murder of tribal chieftains, and shortly afterwards the complete disintegration of the Avar khanate. Likewise, the rout of the Hungarians by the Pechenegs in the 890s – the event that pushed the Hungarians off the steppe and across the Carpathians – was followed by a split in their confederation and the probable murder of their ruler.

Secondly, as Maurice noted, the nomads were easily hurt by a shortage of fodder. This, as it turned out, would be crucial. Contrary to popular belief,

¹³ *The Russian Primary Chronicle*, p. 141.

¹⁴ Peter Heather, *Empires and Barbarians: Migration, Development and the Birth of Europe* (London, Macmillan, 2009), p. 254.

¹⁵ *The Fourth Book of the Chronicle of Fredegar*, ed. and trans. John Wallace-Hadrill (London, Thomas Nelson, 1960), pp. 39–40, 60–1 (chs. 48, 72).

the Hungarian Great Plain is incapable of supporting horses in any great number. Waterlogged in winter and parched in summer, it can provide sufficient mounts for at most about 10,000 warriors. Moreover, the Great Plain is unsuitable for steppe ponies which probably explains why none feature in Hungarian horse burials. Additionally, the damp climate proved fatal for nomad archery, for their bows might come, literally, unstuck. For this reason, the nomads' adversaries would seek to engage them in the rain. In short, and as has been remarked, 'Crossing the Carpathians . . . devastated the logistic base of nomad political and military strength.'¹⁶ As it turned out, this circumstance would later benefit the Hungarians, for the Mongol chieftain, Batu khan, was unable to retain Hungary in 1241–2 on account of the insufficiency of its resources.¹⁷

The nomads' response was to adapt, forsaking their traditional modes of warfare. Although continuing to keep light cavalry units, their armies became increasingly infantry. Indeed, the forces Attila led against the Roman Empire in 451–2 may by this time have been predominantly made up of foot soldiers. Likewise, the Avars in their assaults on the Byzantine empire relied on a mainly Slavonic infantry. A similar pattern of adaptation is evident among the Hungarians. Defeated by the Franks in 955, the Hungarians adopted the weaponry, tactics, and strategy of their adversaries. Tenth-century burials show the gradual replacement of the sabre by the heavier broad sword, which is less suited to mounted combat.¹⁸ By the close of the century, the Hungarian rulers were actively recruiting German, and especially Bavarian, knights and these came to form the core of the princely (after 1000, royal) retinue. The advice of Hungary's first king, St Stephen (1000–38), to his son thus contains his admonition to recruit foreign knights schooled in different military traditions who 'might terrify the arrogance of others'.¹⁹ Over a century later, Otto of Freising remarked how, in the Hungarian king's own retinue, 'there are great numbers of foreigners [*hospites*] who are called "princes" and are ever at the ruler's side for his defence'.²⁰ The number of these foreigners was later augmented by knights belonging to the military

16 Rudi Paul Lindner, 'Nomadism, Horses and Huns', *Past and Present* 92 (1981), 1–19, at 16.

17 Denis Sinor, 'Horse and Pasture in Inner Asian History', *Oriens Extremus* 19 (1972), 171–83, at 181.

18 The sword was longer than the sabre and twice its weight. See Gyula Kristó, *Az Árpád-kor háborúi* (Budapest, Zrínyi Kiadó, 1986), pp. 224, 246–8.

19 Henrik Marczali, *A magyar történet külföldinek kézikönyve* (Budapest, Athenaeum, 1901), pp. 65–6.

20 Otto of Freising, *The Deeds of Frederick Barbarossa*, ed. and trans. Charles Mierow (New York, Columbia University Press, 1953), p. 67 (1. 32).

orders. Just as King Henry I of Germany had constructed earthen forts as a defence against the Hungarians, so now the Hungarians began a similar programme of building. Across Hungary were planted earthworks to which were attached warriors and servitors. These forts would later constitute the core of the royal county system and out of the warriors would come the class of *milites* around which the nobility would later crystallise. Along the frontier of the new kingdom were placed obstacles, and wide swathes of land were cleared. These were patrolled by newcomers, often Pechenegs and Russians. By no later than the twelfth century, the Hungarian nomads had become almost entirely sedentary. In place of their battle howls and reflex bows, they now began to practise stately tournaments and to cultivate the crossbow.²¹ Along with this went the assimilation of the leading Turkic Onogur caste into the majority Magyar population, and Christianity.

The nomads were herders of both beasts and peoples. Pre-eminent among the subject folk of the nomads were the Slavs who served variously the Avars and the Onogur-Bulgars and, from the thirteenth century, the Mongols. The original homeland of the Slavs lay, according to Jordanes in the early sixth century, between the Upper Vistula, the Lower Danube, and the Dnieper.²² Jordanes's description is more or less matched by the archaeological evidence, although it remains uncertain just how uniform the distribution of Slavonic peoples was at this time. Jordanes was, however, dismissive of the Slavs: 'They have swamps and forests for their cities.'²³ Accounts of their methods of warfare are equally contemptuous. According to the emperor Maurice, the Slavs eschewed military confrontations. As he relates, 'They live among nearly impenetrable forests, rivers, lakes and marshes, and have made the exits from their settlements branch out in many directions because of the dangers they might face.' The Slavs preferred banditry and ambushes to battles, and they were customarily armed with short javelins, unwieldy shields, and poison arrows. In combat, they were disorganised, being unable to fight in close order, and they preferred – when not hiding in the woods – to run at the enemy in a disorganised mass.²⁴ At about the same time, Procopius of Caesarea reported in similar fashion the squalid huts of the Slavs, their absence of

21 Anonymus, *Gesta Hungarorum*, chs. 46, 51, in *Anonymus and Master Roger*, ed. and trans. János M. Bak, Martyn Rady, and László Veszprémy (Budapest and New York, Central European University Press, 2010), pp. 101, 111.

22 *The Gothic History of Jordanes*, ed. and trans. Christopher Mierow (Princeton, Princeton University Press, 1915), pp. 59–60 (ch. 35).

23 Ibid. 24 *Maurice's Strategikon*, pp. 120–1 (II. 4).

armour, and their overwhelming reliance upon infantry armies.²⁵ At the beginning of the eighth century, a band of Slav adventurers in the area of Friuli defended themselves 'more with stones and axes than with arms'.²⁶

The Slavs are first reported on the Danube frontier of the Byzantine empire at the start of the sixth century. In order to curb their incursions, the emperor Justinian constructed a network of several hundred forts both along the Danube and in the interior.²⁷ Nevertheless, raiding by Slavonic groups persisted, prompting the fortification of farmsteads and a depopulation that eventually rendered the whole region a 'Scythian wilderness'.²⁸ From the last decades of the sixth century, however, the forts of the Balkans were gradually abandoned, largely on account of the diversion of military resources to the empire's eastern frontier. Occasionally in concert with the Avars (as in the sieges of Thessaloniki in 617/18 and of Constantinople in 626, and the capture of Corinth in the 580s), but more often under their own volition, Slavonic groups now entered the empire and settled deep in the interior. John of Ephesus recorded their irruptions and settlement in the 580s:

The accursed nation of the Slavs wandered through the whole of Greece, through Thessaly and Thrace, capturing many towns and forts, which they destroyed and burnt, enslaving the people and making themselves rulers of the whole country. They settled it by force and without fear as if it were their own homeland, and still today they live there and sit secure in the lands of the Romans free of fear and worry [...] and they have learnt to conduct war better than the Romans.²⁹

Although it may well be that the Slavs had learnt from earlier encounters with the Byzantines, their strength still lay in their numerical superiority. As Jordanes had observed of them, 'This people, despised in war, was strong in numbers'.³⁰ By the time the Byzantines had recovered the initiative, planting military and administrative 'themes' in the Balkans from the late seventh century onwards, the entire territory of South-Eastern Europe, running from

25 *The Wars*, 7. 14, 22–30 (Procopius, *History of the Wars*, Books 6. 16–7. 35, ed. Henry Dewing (London, Loeb, 1924), p. 271.

26 Paul the Deacon, *History of the Lombards*, trans. William Foulke, ed. Edward Peters (Philadelphia, Pennsylvania University Press, 1975), p. 269 (6. 24).

27 The most important of these are listed in Procopius, *The Buildings*, 4. 9, ed. Henry Dewey (London, Loeb, 1940), pp. 308–15.

28 Procopius, *Anecdota*, ed. Henry Dewing (London, Loeb, 1935), p. 219 (18. 21).

29 Joseph Schönfelder, *Die Kirchen-Geschichte des Johannes von Ephesus* (Munich, J. J. Lentner, 1862), p. 255 (6. 25).

30 *Gothic History of Jordanes*, p. 85 (ch. 119).

Dalmatia to the Black Sea and from Carinthia to the Peloponnese had been populated by Slavonic immigrant groups.

The movement of the Slavs into the Balkans was accompanied by their expansion into a large part of Central Europe, reaching as far west as Holstein. A similar progress northward, up the course of the Dnieper, brought the Slavs to the Upper Niemen and Oka rivers, where they encountered an older population of Balts and Finns. Where the Slavs were not incorporated within the larger structures built by the Avars and Onogurs, their political organisation tended to be weak, being based upon small territorial units led by individual chieftains. The emperor Maurice thus noted that the Slavs had 'many kings among them, always at odds with one another', a circumstance that made them open to persuasion and bribery.³¹ The description of Central and Eastern Europe compiled in the later ninth century by the anonymous 'Bavarian Geographer' lists some sixty distinct peoples occupying this region north of the Danube.³² Although a few of these were plainly not Slavs, the length of the list attests to the fragmentation of authority within the area of Slavonic settlement.

The Bavarian Geographer's list enumerates beside each people the number of *civitates* that they held: 'The Osterabrezi, among whom there are more than a hundred *civitates*. The Miloxi among whom are 67 *civitates*. The Pleznuzi have 70 *civitates*,' and so on.³³ Almost certainly, these *civitates* should not be understood as cities but as forts, although it is likely that some commercial activity flourished in their shadow. Literary and archaeological evidence suggests that these forts were mainly constructed of earth and reinforced by wooden palisades and moats. They might combine a variety of roles – centres of local administration under the control of officers of the ruler, places of refuge for the surrounding population, and defensive works guarding passes or roadways. Those in Bohemia might encompass an area of between 20 and 40 hectares, while the strongholds built by Prince Vladimir I of Kiev (980–1015), Russia's first Christian ruler, were sometimes several hundred metres across. Earthen forts might also serve as cultic centres. In the early eleventh century, Thietmar of Merseberg reported that the Polabian stronghold of Rethra (Radogoszcz) had a statue to the fertility god, Svantevit, which was surrounded by other idols dressed in 'terrible helmets and cuirasses' and accompanied by war booty. A century later, Bishop Otto of

31 *Maurice's Strategikon*, p. 123 (II. 4).

32 Bohuslav Horák and Dušan Trávníček, *Descriptio Civitatum Ad Septentrionalem Plagam Danubii* (t. zv. *Bavorský geograf*) (Prague, Československá akademie věd, 1956), pp. 2–3.

33 *Ibid.*

Bamberg found several temples in Stettin (Szczecin) dedicated to the three-headed Pomeranian god, Triglav.³⁴ Within the territory of each Slavonic group, there was usually one fort which served as the principal redoubt and main residence of the ruler: Oldenburg for the Wagrians, Ratzeburg for the Polabians, Stettin for the Pomeranians, and so on. These might in time become quite substantial towns. Otto of Bamberg thus noted that the walls of Stettin enclosed several hills and provided accommodation for 900 families.³⁵ The stronghold of Jumne, probably located near the mouth of the Oder and long contested by Danes, Norwegians, and Pomeranians, was described by Adam of Bremen in the eleventh century as 'truly the largest of all the cities in Europe', while Kiev, the principal fortress of the East Slavonic and Viking Rus', was 'the largest city of Russia [...] rival of the sceptre of Constantinople'.³⁶ By this time, Kiev had been enclosed with massive wooden ramparts reinforced with stone towers and gatehouses, a part of which survive (with heavy restoration).

These early forts might be supplemented by long stretches of earthen ramparts. In the early ninth century, the Onogur Bulgar leader, Omurtag, erected in Thrace the 'Great Fence' to protect his lands from Byzantine incursions. His slavified successors built a network of earthworks across the Dobrudja to protect themselves from attacks by the Hungarians and Pechenegs. Just south of Kiev were constructed a series of 'Dragon Walls', several hundred kilometres long, as a defence against steppe nomads. Possibly, the 'Devil's Dyke' that runs from the Danube bend eastwards to the Upper Tisza and thence southwards to rejoin the Danube – a massive construction of 550 km and of uncertain origin – was rebuilt by the Moravian Slavs, just as it had apparently been earlier by Charlemagne.³⁷ Quite whom it was intended against must, however, remain uncertain. Fortifications might also be temporarily erected to cut off an enemy. At the beginning of the ninth century, a Byzantine army

34 Peter Barford, *The Early Slavs: Culture and Society in Early Medieval Eastern Europe* (Ithaca, NY, and London, British Museum Press, 2001), p. 199.

35 Eric Christiansen, *The Northern Crusades: The Baltic and the Catholic Frontier 1100–1525* (London and Basingstoke, Macmillan, 1980), p. 29.

36 Adam of Bremen, *History of the Archbishops of Hamburg-Bremen*, ed. and trans. F. J. Tschan, 2nd edn (New York, Columbia University Press, 2002), p. 67 (2. 19).

37 The origins of the dyke are obscure, controversial and little researched, but see Márton Marjai, 'Ördögárok a debreceni Nagyerdőn', in *A Debreceni Déli Múzeum évkönyve, 1962–1964* (Debrecen, 1965), pp. 87–93; Ilona Kovrig, *The History of the Peoples of Hungary from the Palaeolithic to the Hungarian Conquest* (Budapest, n.d.), p. 66. For Charlemagne and the dyke, see Widukind of Corvey, *Res Gestae Saxonicae*, 1. 19, in *Quellen zur Geschichte der sächsischen Kaiserzeit*, ed. Paul Hirsch et al. (Darmstadt, WBG, 1971), pp. 46–7.

The Slavs, Avars, and Hungarians



MAP 6. Central and Eastern Europe in the early ninth century (shaded boundary = furthest extent of Carolingian empire)

captured and burnt down Onogur Bulgar khan's palace at Pliska. The khan forthwith sealed off the passages leading out of his land with wooden barricades. Having, quite literally, fenced his opponents in, the khan surrounded and destroyed the imperial army, slaying the emperor, Nikephoros I. The khan subsequently made a goblet of Nikephoros's skull, from which he made his Slav subjects drink.³⁸

Ramparts and barricades might be supplemented by natural defences, such as the forests which ringed much of Bohemia and were particularly dense on the borders with Poland and Bavaria. In the mid eleventh century, a whole German army was destroyed in the forest by the Czechs, who lured the

³⁸ *The Chronicle of Theophanes*, p. 171 (811).

enemy's knights forward through the wooded fastnesses until they were overcome by exhaustion.³⁹ Similarly thick woodland, including the notorious 'Bulgarian forest' (*Bulgarewalt*), impeded movement through the Balkan interior. The forest wall was often augmented with obstacles and the track ways through it prepared in such a way as to facilitate ambushes. In 1330 and 1368, Hungarian armies were caught in the woodland approaches to Wallachia and, cut off by rocks and barricades, 'attacked by numberless Romanians'.⁴⁰ Where natural defences were lacking, an unoccupied frontier zone might be deliberately cleared to provide early warning of attack. Both Hungary and Bulgaria were ringed by deserted land, although it seems that its purpose was as much to keep the native people in as the enemy out. Only a few 'gateways', the *clusae* or *portae regni*, provided access across the wasteland.

The construction of networks of forts and ramparts hastened political consolidation. During the last centuries of the first millennium, individual tribal and other groupings coalesced, founding new political entities. Among these we may count the duchies and principalities that emerged in the ninth and tenth centuries – Great Moravia and the duchy of Blatnograd, both of which were destroyed by the Hungarians, and Bohemia, Poland, Serbia, Bosnia, Croatia, and, along the southern Baltic shore, Pomerania and the dukedom of the Abodrites. Relations between these emerging principalities and with their neighbours were seldom peaceful. Indeed, between 833 and 907, the rulers of Moravia experienced no less than sixty-five 'war events'. The majority of these engagements were not territorial struggles but aimed at plunder and at 'binding the enemy to faithfulness'. Nevertheless, although their aims were limited, they clearly demanded large armies and the mobilisation of a substantial part of the population. Archaeological evidence from Great Moravia shows that in the ninth century, one-third of males were buried with fighting gear, and suggests that the Great Moravian rulers were capable of fielding armies of 20,000–30,000 men.⁴¹ A century later, Constantine Porphyrogenitus exaggeratedly reported that the Croats could field 60,000 horsemen and 100,000 infantrymen, and that they could launch 80

39 *Gesta Principum Polonorum – The Deeds of the Princes of the Poles*, ed. Paul W. Knoll and trans. Frank Schaer (Budapest and New York, Central European University Press, 2003), pp. 90–1 (1. 24); Cosmas of Prague, *The Chronicle of the Czechs*, ed. and trans. Lisa Wolverton (Washington, DC, CUA Press, 2009), pp. 125–6 (2.10).

40 Constantin Giurescu, *A History of the Romanian Forest* (Bucharest, Romanian Academy, 1980), pp. 25–6.

41 Alexander Ruttkay, 'The Organization of Troops, Warfare and Arms in the Period of the Great Moravian State', *Slovenská archeológia* 30.1 (1982), 165–98, at 166, 173.

galleys and 100 cutters.⁴² In Bohemia, the duke could order a general levy of all freemen. By the beginning of the twelfth century, the Czechs were capable of fielding an army of 20,000 men. The Hungarian army is estimated at about 16,000–22,000 warriors in the late eleventh century and at up to 25,000 in the twelfth.⁴³

At the heart of the armies mounted by the early Slavonic rulers lay the princely *družina*. This was based on the still largely itinerant court retinue but might be supplemented by the retinues of the ruler's principal officers in the countryside. The *družina* consisted of mounted warriors, equipped with spears, swords, and shields, and protected by mail or scale shirts.⁴⁴ High-ranking warriors might, as in Kiev in the early eleventh century, be quite splendidly attired, having silver or metal plates in addition to mail. The largest part of the army consisted, however, of foot soldiers, raised by levy from the peasantry. These were more rudely equipped, with swords, shields, and axes, and with, at best, leather armour. Some may have campaigned on horse. A twelfth-century Czech account thus talks of the *primates* of the realm mustering in carriages and on mounts, while the commoners usually came on foot, according to their means.⁴⁵ Armies additionally included foot archers, using both longbows and, increasingly, crossbows. The numerical relationship between horse and foot may be illustrated by the army fielded by the Polish duke, Bolesław Chrobry, at the end of the tenth century – 3,000 mailed horsemen (*loricati*) as opposed to 13,000 infantrymen with shields (*clipecti*).⁴⁶

To begin with, the cost of equipping horsemen for war was met out of booty. By the twelfth and thirteenth centuries, however, land grants became an increasingly common means of securing the services of warriors. In most cases, the land was given by the duke or king on hereditary terms and the recipient and his heirs enjoined to demonstrate continued *fidelitas* to his master, by which was normally understood the duty to serve with him on campaign. In Serbia, however, service grants were made by the ruler on condition of supplying a fixed quantity of troops. The name given to these – *pronija* – suggests

42 Constantine Porphyrogenitus, *De Administrando Imperio*, p. 151 (ch. 31).

43 András Borosy, 'Hadsereg létszámok a X–XIV. században', *Hadtörténelmi Közlemények* 105.4 (1992), 3–32, at 29.

44 Andrzej Nadolski, *Broń i strój rycerstwa polskiego w średniowieczu* (Wrocław, Ossolineum, 1979), pp. 40–1.

45 Lisa Wolverson, *Hastening towards Prague: Power and Society in the Medieval Czech Lands* (Philadelphia, University of Pennsylvania Press, 2001), p. 38.

46 Marian Kukiel, *Zarys Historii Wojskowości w Polsce* (Kraków, Krakowska Spółka Wydawnicza, 1929; 5th edn, London, 1949), p. 5.

Byzantine influence.⁴⁷ Usually, however, military obligations were not spelled out but were comprehended instead in custom. Nor generally in Central and Eastern Europe was land subinfeudated. Where it was, as in parts of Poland, the land so conveyed rapidly decoupled from military service and was converted by degrees into free tenements. The donation of land to warriors contributed to the emergence of a class of noble landowners, distinguished from the rest of the population both by their military vocation and by their possession of extensive properties. The establishment of a martial nobility led in its turn to the development of a knightly culture of tournaments and military display, and to a chivalric literature that promoted the virtues of *fidelitas*, *constantia*, *strenuitas*, *probitas*, and *bona fama*.⁴⁸

The horsemen of the *druzhina* and of the emerging noble class of landowners might be used in battle as a shock force, deployed as a wedge of mounted men known as 'the boar head' or, as the Russians called it, 'the great iron pig'.⁴⁹ Alternatively, the cavalry might be positioned on the flanks with the aim of enveloping the enemy. During his campaign in West Pomerania in 967, the Polish duke, Mieszko I (c.962–92), drew up his army with the infantry in the centre, flanked by two blocks of cavalry. His opponents, the Wielice and Wolinianie, threw their own infantry upon Mieszko's centre which then retreated. With the enemy having been enticed forward, Mieszko then launched his cavalry which charged the enemy from the side and rear, while simultaneously cutting off their retreat. Similar flanking movements were also used by Russian armies.

The rulers of the nascent East European principalities tended to shun pitched battles because the cost of defeat was too high. Their campaigns were thus marked by raiding and plundering, and they frequently culminated in sieges. Siege and counter-siege equipment stood thus at a premium, as may be illustrated by this account of the emperor Henry V's attack on the Polish castle of Głogów in 1109:

The Germans charged the castle, the Poles kept them at bay, engines on all sides hurled boulders, crossbows twanged, spears and arrows flew through the air. Shields were shattered, armour pierced, helmets smashed apart . . . The Germans cranked their crossbows, the Poles replied with engines and

47 'The Code of Stephan Dušan: Tsar and Autocrat of the Serbs and the Greeks', ed. and trans. Malcolm Burr, *Slavonic and East European Review* 28.70 (1949), 198–217, at 209, Art. 59.

48 Ágnes Kurcz, *Lovagi kultúra Magyarországon a 13–14. században* (Budapest, Akadémiai Kiadó, 1988), pp. 178–89, 238–52.

49 Viacheslav Shpakovsky and David Nicolle, *Medieval Russian Armies 1250–1500* (Oxford, Osprey Publishing, 2002, p. 7.

crossbows. The Germans fired arrows, the Poles arrows and spears as well. The Germans whirled stones from slings, the Poles hurled mill stones along with sharpened stakes. The Germans tried to approach the walls under the cover of wooden beams, but the Poles prepared them a bath of boiling water and scorching flame. The Germans brought up iron rams to the towers, but the Poles rolled down wheels bristling with steel spikes. The Germans placed ladders and tried to climb up, but the Poles gaffed them with iron hooks and left them suspended in mid-air.⁵⁰

Siege artillery could have a devastating effect on earthen and wooden forts, tearing great holes in their defences. In one siege of a Baltic fort, it took just three shots from a mangonel to put the defenders to flight. Such engines of war were not easily constructed. Henry of Livonia thus tells of how some Russians sought to build a mangonel, 'but not knowing the art of throwing rocks, they hurled them backwards and wounded many of their own men'.⁵¹ More generally, however, the Russians excelled in the art of siege warfare using large crossbows, capable of throwing 2-kg iron bolts, and beam sling trebuchets that hurled 60-kg rocks. As techniques of siege warfare became more widely known, so stone became increasingly important in building. Difficulties of construction meant, however, that stone was first used more in the way of slabs to clad existing forts than to found new castles. Only in the thirteenth and fourteenth centuries did stone castles become usual in Central Europe and Eastern Europe. Thereafter, this region witnessed the construction of some of the largest castles in all of Christendom – the German *Ordensburgen* of Marienburg (Malbork) and Königsberg (Kaliningrad) and, greatest of all, the fifteenth-century Serbian–Hungarian fortress of Smederevo, east of Belgrade.

Differentiation in arms and weaponry occurred not only in respect of the *druzina* and the levy, but also between the various Slavonic principalities, depending upon the influences to which they were exposed as well as upon the identity of their main enemies. In Bohemia and Western Poland, therefore, and among the duchies along the Baltic shore, warriors tended to adopt Frankish and German weapons and armour: broad swords, often imported from the Rhineland, round shields with a central boss, later giving way to kite-shaped shields, and, by the thirteenth century, simple plate armour or scale cuirasses, helmets that enclosed the whole head, huge two-handed swords, maces, and battle axes. Indeed, by the beginning of the fifteenth

⁵⁰ *Gesta Principum Polonorum*, pp. 237–9.

⁵¹ *The Chronicle of Henry of Livonia*, ed. and trans. James A. Brundage, 2nd edn (New York, Columbia University Press, 2003), pp. 63, 181 (3. 10. 12; 4. 23. 8).



MAP 7. Central and Eastern Europe in the eleventh and twelfth centuries (shaded area = boundary of the Holy Roman Empire, c.1050)

century, Polish and German armour was so similar that ribbons had to be worn to distinguish the sides.⁵² In Serbia and Bosnia, the influences at work were primarily Italian, filtered through Dubrovnik and Hungary. By the early

52 Andrzej Nadolski, 'Ancient Polish Arms and Armour', *Journal of the Arms and Armour Society* 4 (1962-4), 29-39, 170-86.

fourteenth century, mounted knights were equipped with mail, moulded plate armour, and bascinets, although the bulk of the Serbian army consisted of light cavalry and infantry archers. The Serbian army was augmented by mercenaries, mainly Germans, who were paid for out of the wealth of Serbia's mines.⁵³

In Russia, the earliest weaponry was influenced by Viking preferences, including broad swords (principally Rhenish imports but also manufactured in Kiev) and the use of long boats, but also by the tapering conical helmets favoured by the steppe nomads. In the thirteenth century, following the destruction of Kiev by the Mongols, the armies of the successor principalities adapted to meet the challenge of the steppe nomads, placing greater reliance on cavalry and adopting convex spiked shields, the sabre, and the compound bow. In sixteenth-century Poland, light horse-archers were deployed to combat the incursions of the Crimean Tatars. Likewise, in Hungary, following the Mongol onslaught of 1241, increased reliance was placed on large numbers of Cumans, who were settled in the country as light cavalrymen, augmenting the population by about 7–8 per cent. The *Hungarian Illuminated Chronicle* from the mid fourteenth century thus has on its title page King Louis of Hungary (1342–82) seated on his throne. To his right stand knights dressed in Western armour, but to his left are warriors clad in the oriental garb of the Cumans, and armed with reflex bows and sabres, so reflecting the dualism of Hungary's military traditions.⁵⁴ For its part, the Ottoman advance into Europe, beginning in the mid fourteenth century, compelled the Hungarians to deploy increasing parts of their cavalry as lightly armoured hussars, and the Serbs to adopt the sabre.⁵⁵

During the first millennium, the Avars, Hungarians, and other nomads had been obliged to adapt their methods of warfare to meet the changes brought about by their entry into Europe. Now, in the Later Middle Ages their heirs, the Hungarian and Slavonic rulers of Central and Eastern Europe, were themselves forced to adapt to meet the successive challenges of new powers coming out of Asia and Anatolia. The onslaught of the Mongol and, little more than a century later, the Ottoman advance into Europe compelled the armies of Central and Eastern Europe to match their adversaries in terms both of their military equipment and of the deployment of light cavalry. Thus, by the later Middle Ages, the region's armies had acquired a markedly hybrid character. These continued, on the one hand, to be schooled in

53 Gavro A. Škrinavić, *Oružje u srednjovekovnoj Srbiji, Bosni i Dubrovniku* (Belgrade, 1957), pp. 142–3, 147–8, 157.

54 See Fig. 1. 55 Škrinavić, *Oružje*, pp. 60–1.



FIGURE 1. Folio 1 recto of the *Hungarian Illuminated Chronicle* (*Képes Krónika*). National Library of Hungary (National Széchenyi Library) MSS Clmae 404.

Western traditions and weaponry but, on the other, they now also comprised forces more suited to combat in the theatres of the western steppes and on the advancing Turkish frontier. This dual aspect of the armies of Central and Eastern Europe persevered into the modern period as their most defining characteristic.

The Turks and the other peoples of the Eurasian steppes to 1175

ÉTIENNE DE LA VAISSIÈRE *

Examination of the art of war among the nomad peoples of the steppe could easily lead to archetypes. Indeed, the sustained similarities between the different descriptions that have survived, from the Xiongnu to the Mongols, are certainly very strong: the type of weapon, the tactic of the 'Parthian shot', the small horses, the decimal organisation of the army – over a long period these various elements have contributed to a unified pattern of nomadic warfare. Yet despite these undoubtedly important points of resemblance, the analysis should not be limited to them by ignoring developmental variations and interaction with different contexts and societies. One way to resolve this impasse is to identify the historically coherent periods individually within this continuum, and to restrict sources to this specific group of periods. The Turkish period is one such historical era: the expanses of the steppe were indeed unified during the second half of the sixth century, part of the framework of the trans-Asiatic Turkish empire and its tremendous prestige. At its heart, and then at the heart of the political organisations which it inspired and which succeeded it, we can imagine the existence of political and social lines of transmission which influenced military practices in this geographical zone as a whole. Sooner or later, all the later nomad empires were its descendants; the accent here will therefore fall on military life, in order to tease out the specific characteristics of the Turkish period from the archetype, without recourse to Xiongnu or Mongol sources. But elements of comparison with the Uighur empire which followed it in Mongolia, the Khazar empire which followed it in the western steppes, and finally the Khitan empire which dominated the extreme east from the tenth century, are identified.

* Translated by Helen McPhail.

Chronological reminder

The military expansion of the Turks in the middle of the sixth century was extremely swift and remarkable.¹ For the first time in history, a steppe empire pushed back the boundaries attained by the Xiongnu, seven centuries earlier, until it controlled not only the eastern steppes and the northern parts of Central Asia, but also the western steppes. Mentioned for the first time in Chinese sources in 540, the Turks succeeded in replacing the Rouran (Juan-Juan) as the dominant nomadic power in Upper Asia in 552, and in 560 seized Central Asia to the north of the river Amu Darya. Muqan qaghan (553–72), the second successor to Bumin qaghan, the founder of the empire, conquered the whole of the steppes to the north of China, while his uncle İstemi (552–75/6) brought the western steppes under his control. In 580 the empire extended from the Crimea to Manchuria.

The following half-century was more confused: the western qaghanate became politically independent in 583 and dynastic rivalries emerged, exploited on one hand by the Chinese and on the other by some of its conquered groups. To the east, under the pressure of the Sui and then the Tang, the qaghanate collapsed and disappeared after 630. To the west, the situation was more stable despite revolts, but after 630 the western qaghanate disintegrated into several nomadic confederations, the On Oq in Central Asia. After 659 Central Asia was formally under Chinese control. Other successors, the Khazars, migrated from the Altai; from the middle of the seventh century they seized the steppes to the north of the Caucasus. In the east, a second Turkic qaghanate was formed under Qutluğ (682–91), then under Qapağhan (691–716) and Bilgä (716–34). In its writings it claimed in full the inheritance of the first empire and was ruled by the same sacred clan, the Ashinas.

But after 744 this qaghanate yielded control of Mongolia and the eastern part of Central Asia to the Uighur qaghanate. The Uighurs dominated this region until 840 but were forced to dispute eastern Central Asia with the Tibetans. In western Central Asia, the Türgesh were dominant between 715 and 740, but lost first Sogdiana to Arab armies, then their own independence to China. The Chinese collapse in 755 opened the way to the Qarluqs, under the pressure of Muslim armies and raids from the south. At the end of the tenth century, their Islamicised descendants gave birth to the Qarakhanid empire.

¹ On the history of the Turks and the organisations of empires, see the synthesis in Peter Golden, *An Introduction to the History of the Turkic Peoples*, Turcologica, 9 (Wiesbaden, Harrassowitz, 1992), pp. 114–54.

In the western steppes, as far as Khwārazm in the east, the Khazars were the dominant power between the eighth and tenth centuries. They were overcome on the eastern flank under pressure from the Ghuzz between the Caspian and Aral seas and the Urals, from the Byzantines on the shores of the Black Sea, the Muslim offensives in the Caucasus, and, from the tenth century, raids by groups of merchants and Varangian mercenaries from Scandinavia – the Russians. The Pechenegs from the east infiltrated to the south of the Khazar territory and fought the Byzantines in the eleventh century, while the Khazars collapsed against the Russians in 965.²

To the east, after 850 the Uighurs were forced to flee southwards before the Kirghiz and withdrew their empire into Central Asia, although their territories in Mongolia were not occupied by the victors. The former political heart of the steppe remained without a dominant power for several centuries, while from 907 onwards the Khitan, far-eastern heirs to the Turks, extended their power from their Manchurian bases into north-east China. Chased out of China by the Jurchen in 1125, some of their troops gained control of the north of Central Asia in the name of Qara Khitai. The first attempts to unify the Mongol clans came in the middle of the twelfth century.³

Sources

The military activities of the two Turkish empires can thus legitimately be located at the root and origin of much of the steppe's military history after the sixth century. The Khazars as well as the Khitans, the Qarluqs as well as the Uighurs, all came under Turkish rule. We have a reasonably precise description of these military practices at the very beginning of this period: in the *Strategikon*, which has been conventionally attributed to the Byzantine emperor Maurice (582–602), several pages are devoted to nomad tactics, in particular those of the Turks.⁴ This source is unique in its global nature; it is also well informed, since the Byzantine armies were then facing the Turks on the shores of the Black Sea. Care should, however, be taken over the fact that

2 Golden, *Introduction*, pp. 232–43; D. M. Dunlop, *The History of the Jewish Khazars* (New York, Schocken, 1954).

3 Karl A. Wittfogel and Feng Chia-sheng, *History of Chinese Society: Liao, 907–1125* (Philadelphia, American Philosophical Society, 1949); Michal Biran, *The Empire of the Qara Khitai in Eurasian History: Between China and the Islamic World* (Cambridge, Cambridge University Press, 2005).

4 Unless otherwise noted, citations from this text come from the passage devoted specifically to the Turks and are given in the translation by George T. Dennis, *Maurice's Strategikon: Handbook of Byzantine Military Strategy* (Philadelphia, University of Pennsylvania Press, 1984), pp. 116–17.

the *Strategikon* describes the Turkic armies at their apogee, when they were under the close and unified control of their political elites – which was far from being the case for most of the period under consideration. Other relatively precise descriptions also exist, written by the historian Ṭabarī, concerning the wars between the Turks of the Türgesh qaghanate of Sulu and the Arab armies in Transoxiana in the years 720 and 730.⁵ The Muslim geographers of the tenth century described the military practices of the Khazar empire. Elsewhere, Chinese descriptions run from the origins of the Turks' empire and then their Uighur or Khitan successors. The text of the *Liaoshi* is particularly detailed on the military aspects of the Khitan empire. Finally, the qaghans of the first and second Turkish empire, and some poorly known rivals, commissioned carvings, mainly in central Mongolia (Tamir, Orkhon, and Tola valleys), in which they most notably describe their victories.⁶ As with texts, Soviet archaeology has led to the discovery in Upper Asia (Altai, Mongolia, Tuva, etc.) and Central Asia (Kazakhstan, Uzbekistan) of Turkish soldiers' graves. This source also supplies important information on their weaponry. Iconographic data, however, is much more limited, reduced to a few graffiti in Upper Asia.

Natural warriors?

One of the major elements of the archetype is the concept of the natural warrior.⁷ Because of the extremely harsh living conditions on the steppe and the economic organisation which gave primacy to horsemen and horse-breeders who were also hunters, all the sources, whether Chinese, Greek, or Arab, stress – independently of each other – that the nomad inhabitants would be better adapted than others to the occupation of soldiering. As the *Strategikon* reports:

The Scythian nations are one, so to speak, in their mode of life and in their organization, which is primitive and includes many peoples. Of these peoples only the Turks and the Avars concern themselves with military organization, and this makes them stronger than the other Scythian nations when it comes

5 All the citations from the *Ta'riḫ al-rusul wa'l-Mulūk* by Ṭabarī will be referenced in the text according to the Leiden edition: M. J. de Goeje (ed.), *Annales quos scripsit Abu Djafar Mohammed Ibn Djarir at-Ṭabarī*, 3 vols. (Leiden, Brill, 1879–1901).

6 All the citations from the Orkhon inscriptions of Kül tegin (KT), Bilgä qaghan (BK) and Tonyuquq (T) are cited in this text according to the translation of Talat Tekin, *A Grammar of Orkhon Turkic* (Bloomington, Indiana University, 1968).

7 Denis Sinor, 'The Inner Asian Warriors', *Journal of the American Oriental Society* 101.2 (1981), 133–44.

to pitched battles. The nation of the Turks is very numerous and independent . . . These nations have a monarchical form of government, and their rulers subject them to cruel punishments for their mistakes. Governed not by love but by fear, they steadfastly bear labors and hardships. They endure heat and cold, and the want of many necessities, since they are nomadic peoples.

The two strands of explanation offered here, the tyrannical form of government, which imposed unconditional obedience, and the difficulty of the nomad life, which fostered endurance, borrow directly from Greek stereotypes of barbarians; it is, however, beyond question that iron discipline was indeed confirmed among the Rouran, immediate predecessors of the Turks, just as among their Khazar successors, who put to death those who fled, according respectively to the seventh-century *Weishu* and, in 922, the Arab traveller Ibn Faḍlān.⁸ Further, the writer Jāḥiẓ, who in mid-ninth-century Iraq wrote his treatise on the *Virtues of the Turks and the Army of the Khalifate in General* in contact with Turkish troops in the service of the caliphs, insisted strongly, and repeatedly, on the horseback endurance of the Turk:

His patience for continuing in the saddle and for going on without stopping and for long night journeys and for crossing a country is most remarkable.⁹

For Jāḥiẓ, Turks represented the perfect soldier:

They occupy in war the position that the Greeks occupy in science and the Chinese in art and the Arabs in the departments we have mentioned and enumerated. And they excel in their line, as the Sasanids do in empire and politics.

There is no distinction in the Turkic languages between the meanings of ‘man’ and of ‘soldier’, both represented by the word *er*.¹⁰ The sources support each other and the physical portrait that they present of the Turks should be accepted.

Yet it is not certain that the question of the ‘natural soldier’, however anchored it may be in contemporary texts, is capable of explaining on its own

8 Peter Golden, ‘War and Warfare in the Pre-Činggisid Western Steppes’, in Nicola Di Cosmo (ed.), *Warfare in Inner Asian History (500–800)* (Leiden, Brill, 2002), p. 133. *Weishu* (Beijing, Zhonghua shuju, 1974), ch. 103, p. 2290.

9 All the citations from Jāḥiẓ are referenced according to the pagination of the translation by C. T. Harley Walker, ‘Jāḥiẓ of Basra to al-Fath ibn Khaqan on the “Exploits of the Turks and the Army of the Khalifate in General”’, *Journal of the Royal Asiatic Society* 47 (1915), 631–97. These quotations are from pp. 667 and 682.

10 Golden, ‘War and Warfare’, p. 130.

the prolonged success of the Turkish armies. Other elements, above all materials, come into the matter.

Weapons

The *Strategikon* describes the Turkish weaponry:

They are armed with mail, swords, bows, and lances. In combat most of them attack doubly armed; lances slung over their shoulders and holding bows in their hands, they make use of both as need requires.

Other texts described precisely the same equipment at the other end of the steppe. Thus the *Zhoushu* states:

They have bows, arrows, whistling arrowheads, armour, long spears and swords. They also carry daggers as belt ornaments.¹¹

The Turkish inscriptions of the Orkhon mention lances, bows, and swords. In the description of a battle in the carving of Kül tegin, we read (N5):

Prince Kül mounted the yellowish white [horse] and attacked suddenly. He stabbed six men with a lance. In hand-to-hand fighting he cut down a seventh man with a sword.

Although the weaponry of the Turks is mainly known from the texts, we also have archaeological data and some sketchy graffiti.

Archaeology confirms all the weapons mentioned by the emperor, although the sections in perishable materials have disappeared. Thus, we know of several Turkish swords and sabres in the tombs of the Altai, the Tianshan, or the Tuva, but it must be stressed that these weapons are extremely rare. No doubt too precious, they were not generally buried with the dead, but appear frequently in the iconography. The *balbal*, statues of conquered enemies placed on the graves of heroes, always have a sword or a sabre at their belts. Similarly, the Turkish soldiers in the great Samarqand painting, dating from the middle of the seventh century, are all armed with swords. It seems that in the sixth century only the sword with one or two cutting edges was used, while the sabre became widespread from the seventh century. The blade of the only double-edged sword found in a tomb is 64 cm long and 2.4 cm wide, with its hilt 15 cm long, while the three single-edged swords discovered had longer blades of 80 cm. The overall length of a sabre

¹¹ *Zhoushu* (Beijing, Zhonghua shuju, 1971), ch. 50, p. 909.

was 103 cm, the blade being 85 cm long. The presence of the daggers mentioned by the *Zhoushu* is also fully confirmed both on the *balbal* and in the Samarqand painting. Those discovered had blades of 19–20 cm long and 4 cm broad. The soldiers wore two sword-belts, one for the sword and the other for the dagger. The lances are also shown among the petroglyphs of the Altai. These lances, longer than the horse shown on the sketchy carvings, were used in charging and to carry banners. Lance-heads have been discovered, measuring 2 cm across and 17–19 cm long, with the tip 6–10 cm long and the remainder represented by the cylindrical junction shaft. *Jāhīz*, on the other hand, speaks of short and hollow lances, easy to carry on horseback. Very few battle axes have been uncovered in archaeological digs. A recent analysis of the weaponry of the tribes of the Altai up to the fifth century has confirmed that it was in the domain of weapons of contact and armour that the contrast was sharpest with the Turkish era although, when it came to bows and arrows, continuity prevailed.¹²

The latter are well represented among archaeological finds. Unlike swords and sabres, very large numbers of arrowheads have been found by Soviet and Russian archaeologists, and numerous examples are known, made of bone or iron. A collection of 220 arrowheads from the Turkish graves of the Altai, the Tuva, Mongolia, and the Minusinsk basin has been studied.¹³ The largest group were iron tips with three ribs and six faces (the point being 5 cm long and 2.5 cm wide and the tang 4 cm in length). The next largest group was similar, with five facets (5 cm-long tips, 3 cm broad, and the tang 4 cm long). In all, iron tips with three ribs represent more than half the examples discovered. The fragments of shaft preserved make it possible to reconstruct a length of 60–74 cm for the wooden portion. This was often painted, to make the arrows easier to find. Several birch-bark quivers were found, cylinders wider at the base and the top (like hourglasses), in which the arrows were carried, tip down.

The Turkish bows were composite constructions, consisting of a wooden heart section strengthened with glued horn and tendons. These can be located directly within the lineage of Hun bows, differing only in the location of the horn supports. Different models are defined by the position of these reinforcements and specific to certain groupings. The chief advantage of these strengthenings and tendons was to reduce the size of the bows to

12. Julij S. Khudjakov, 'Armaments of Nomads of the Altai Mountains (First Half of the 1st Millennium AD)', *Acta Orientalia Academiae Scientiarum Hungaricae* 58.2 (2005), 126–7.

13. Julij S. Khudjakov, *Vooruženie srednevekovyx Kočevnikov: Južnoj Sibiri i Central'noj Azii* (Novosibirsk, Nauka, 1986), pp. 143–50.

equal strength, which aided shooting from horseback. The size varied from 115 to 146 cm. The smallest enabled a more rapid rate of fire, but over a shorter distance. The main drawback of this weapon, noted by all commentators of the day, was its sensitivity to atmospheric conditions. The qaghan Xieli had to give up one of his great raids into inner China during the 620s, because, as we are told in the *Xin Tangshu*:

At this time, it was raining very hard, which made the bows and arrows impossible to use. When the bad weather was past [Xieli] brought his troops back.¹⁴

Similarly, when in the battle of Anzen in 838 the caliph's Turkish soldiers failed to capture the emperor of Byzantium, the latter was saved only by the rain, which loosened the Turkish bows and rendered them inoperative.¹⁵ Finally, Jāḥiẓ insists on the practice of the lasso, used to ensnare the rider or his horse's head.

The texts also consider the question of armour. According to the *Strategikon*, 'Not only do they wear armor themselves, but in addition the horses of their illustrious men are covered in front with iron or felt.'¹⁶ The *Zhoushu* also mentions them. But we also have texts which show beyond any doubt the presence of coats of chain mail as being in current use in the Turkish armies. Thus, when the qaghan Sulu was defeated by the Arabs in Bactria in 737, part of the booty consisted of 4,000 coats of mail, equalling the number of Turkish horsemen.¹⁷ In the Orkhon carvings, the warriors are shown in battle with many arrows sticking out of their armour. During a defeat of the Turks in 654, the *Xin Tangshu* comments that, 'The barbarians abandoned their cuirasses and weapons in such quantity that they covered the ground.'¹⁸ These coats of mail are confirmed archaeologically, although very rare, no doubt for the same reasons which explain the absence of swords. More iron lamellar armours have been found in the excavations, less costly no doubt, and in fact graffiti depict armoured horsemen and their caparisoned mounts. The constituent plates discovered are generally rectangular, around 6–10 cm long by 3–4 cm broad. The Turkish lamellar armour appears more complex and enveloping than the Rouran armour, at least if we judge by the armour of the

14 *Xin Tangshu* (Beijing, Zhonghua shuju, 1975), ch. 215, p. 6032.

15 Walter Emil Kaegi, Jr, 'The Contribution of Archery to the Turkish Conquest of Anatolia', *Speculum* 39.1 (1964), 100.

16 Dennis, *Maurice's Strategikon*, p. 116. 17 Ṭabarī, vol. 2, p. 1611.

18 *Xin Tangshu*, ch. 255, p. 6062.

Avars discovered in the West, and if the Avars are indeed the same as the Rouran.¹⁹ Other features are much less well known: helmets are shown only in graffiti, although in 729 a description of Sulu speaks of him wearing a Tibetan helmet leaving only the eyes visible,²⁰ and the regular use of helmets is confirmed by a Tang text. A circular buckler made of timber (diameter 78 cm) has been discovered.²¹ In speaking of light cavalry for the Turks, this should not be taken to mean that the horseman wore no armour: it referred to the horse having no armour, and the horseman being less well protected.

The disappearance of the second Turkish qaghanate did not lead to changes in the armaments of Upper Asia. The panoply of the Uighurs, the Kimaks, or the Qarakhanids remained the same in its general lines, although the sabre and battle axe evolved. The same weapons were cited in the Qarakhanid epoch, with the sole addition of the axe. Representations of Uighur warriors in Turfan art, like those of the Kimak soldiers, show them protected by armour consisting of small plates and drawing a complex bow, or using long lances. When the Uighur soldiers took shelter at the Chinese frontier after being chased out of their lands by the Kirghiz in 840, they demanded weapons and armour from the Chinese, and one of their leaders in his reduced condition had only seventy sets of armour for 1,500 men.²² We have a complete description of the theoretical armour of the Khitan warrior in the *Liaoshi*:

Each man had nine pieces of iron armor along with saddle-cloths, bridles, armor of leather and iron for the horses according to their strength, four bows, four hundred arrows, a long and a short spear, a club, axe, halberd, small banner, hammer, awl, knife and flint, a bucket for the horse, a peck of dried food, a bag for the dried food, a grappling hook, a (felt) umbrella, and two hundred feet of rope for tying up the horses.²³

The Turks' weapons and armour imply the supervision of craftsmen metalworkers and sources of iron, or suppliers from outside the Turkish world. We know that the Turks worked as blacksmiths for their Rouran masters. A text

19 Katalin Nagy, 'Notes on the Arms of the Avar Heavy Cavalry', *Acta Orientalia Academiae Scientiarum Hungaricae* 58.2 (2005), 135–48.

20 Ṭabarī, vol. 2, p. 1522. 21 Khudjakov, *Vooruženie Kočevnikov*, p. 159.

22 Michael R. Drompp, *Tang China and the Collapse of the Uighur Empire: A Documentary History* (Leiden, Brill, 2005), p. 314.

23 *Liaoshi* (Beijing, Zhonghua shuju, 1974), ch. 34, p. 397; Wittfogel and Feng, *History of Chinese Society: Liao*, pp. 559–60.

in 571 by Menander Protector shows the Turks setting up a display of their iron before a Byzantine embassy mission in Central Asia:

Certain Turks, who had apparently been ordered to do this, offered them iron for sale, the purpose of which, I think, was to demonstrate that they had iron mines. For it is said that amongst them iron is not easily obtained. Thus one can assume that they made this demonstration to imply that they possessed land that contained iron.²⁴

Apart from these two indications, and even if the Altai held numerous deposits of metal, we are reduced to conjecture. Both the Byzantines and the Chinese had laws prohibiting the sale of weapons to nomads (Justinian Code, or the edict of 714 for the Tang), but there were undoubtedly significant degrees of trade, in particular between China and the Turks. It is known that at the time of an offensive on the Caucasus in 630 the Turkish soldiers recovered the weapons from the dead on the battlefield. An example of tribute paid in swords is known in connection with the Khazars. Above all, the respective contribution of these different possible sources is not known.

Horses

Horses were the other material element which contributed to the successes of the Turkish army. *Jāḥiẓ* gives the most complete picture of the Turkish horseman:

The Turk is most skilled in veterinary science and knows exactly how to make his horse fit for the work he wants to get out of it by breaking it in, having bred it and reared it himself as a foal; it follows him if he calls it, and it trots behind him if he is riding. He has trained it in these respects . . . And supposing at the end of the Turk's life one were to number his days, it would be found that he had spent longer time sitting upon his beast than he had spent sitting upon the earth. The Turk rides a stallion or a mare, and goes forth on a peaceful or a warlike expedition, far in pursuit of game or for any other reason, with his mare and her colts following. If he cannot hunt human beings, he hunts wild beasts; and if he cannot get them and wants something to eat, he bleeds one of his beasts; and if he is thirsty he milks one of his mares; and if he lets one of them rest, he changes to another without dismounting. And there is no one else but is injured by a merely meat diet; and his beast in like manner is satisfied with herbs and grass and trees without being shaded from the sun or protected against the cold . . . And

24 R. C. Blockley (ed. and trans.), *The History of Menander the Guardsman* (Liverpool, Francis Cairns, 1985), pp. 118–19.

the Turk is groom and horseman, and trainer and seller of horses and veterinary surgeon and rider. And one single Turk is as good as a whole staff.²⁵

The *Strategikon* also deals with the matter of horses:

A vast herd of male and female horses follows them, both to provide nourishment and to give the impression of a huge army . . . they continuously graze their horses both summer and winter. They then take the horses they think necessary, hobbling them next to their tents, and guard them until it is time to form their battle line . . .

Unfortunately, we know very little about how the cavalry was constituted and managed in the Turkish empires. A precise report of a Tang spy concerning a Uighur raid in 762 shows that the 4,000 horsemen of the raid had 40,000 horses available.²⁶ The text of *Liaoshi* on the Khitan empire specifies that the Khitan soldiers had about three horses each, and a man in charge of forage.²⁷

This is one of the rare domains in which we can be certain that continuity prevailed. It seems, in fact that, among the nomads, from the Xiongnu to the Mongols, via the Turks, it is possible to identify the same little horse of the steppe, closely related to the tarpan and Przewalski's horses. The *Tang Huiyao*, written in 961, is the only text which describes the Turkish horses:

The Turks' horse, of unsurpassable dexterity. Good constitution. Capable of long journeys. Unrivalled for hunting. This is the horse raised by the Xiongnu, according to the *Shiji*, that is the *Taotu*.²⁸

The Turkish horse was judged against the Sogdian horse, described in the same text as very large, and the Khitan horse, which was smaller and adapted to forests. Very hardy, able to cover long distances and find grazing under the snow, the Turkish horse stood about 130 cm high at the withers. (Chinese Han documents from Juyan, in the Gobi Desert, give exact sizes, all recorded between 131 and 138 cm.) A late Muslim source describes the Khazar horses as large. An Arab text specifies explicitly that the Turks had no mules. Camels are rarely mentioned in a military context.

The use of horses implies a precise chronology for Turkish military actions, and an element of surprise when this chronology is not respected:

25 Walker, 'Jahiz of Basra to al-Fath ibn Khaqan', p. 667.

26 *Jiu Tangshu* (Beijing, Zhonghua shuju, 1975), ch. 195, p. 5202.

27 *Liaoshi*, ch. 34, p. 397.

28 Wang Pu, *Tang huiyao* (Beijing, Zhonghua shuju, 1955), ch. 72, p. 1306.

the Turkish attacks took place in the summer or autumn, when the horses had been able to graze for a long time and restore their strength. *The Strategikon* stresses that raids against the Turkish herds in winter or spring were particularly devastating and the Orkhon inscriptions carry the same message (BK E32). Elsewhere, the Turks of the eighth century managed studs in the Ordos for the Chinese armies. Immense horse-fairs were organised to supply the Chinese cavalry with the horses it needed.²⁹

Yet this continuity is misleading. The use of stirrups – a recent innovation (Chinese, Korean, or Xianbei?) – was still unknown to the Huns and spread only gradually from the fourth century CE in the steppe. This innovation, together with the introduction of the rigid saddle, changed riding conditions radically and further strengthened the significance of heavy cavalry (in East Asia, it was for the heavy cavalry that stirrups were created, whereas in the medieval West the stirrup made heavy cavalry possible).³⁰ The horse was the same, but the style of fighting changed in the fifth century. For this heavy armour, however, more complex than that of the Rouran armies, and these swords, greater supplies of iron were needed. It is tempting to see a link between all these elements and to suppose that it was thanks to their control of the iron supply that the Turks were able to seize the ascendancy over their Rouran masters. They would have been the first to understand and make full use of the connection between the stirrup, heavier armour, and close combat. Although it is archaeologically certain that the Turks had access to armour and contact weapons of better quality than the other peoples of the Altai, it is on the other hand not confirmed that one can extrapolate from this to the Rouran, since their weaponry is little known; the hypothesis must remain no more than probable.

Training

Quite separately from these significant material developments, it is also not certain that the concept of the natural warrior genuinely illuminates the battle techniques of the Turks. There are undoubtedly familial and individual elements, a military practice at the level of family and camp. In reality we

29 Edward Schafer, *The Golden Peaches of Samarkand: A Study of T'ang Exotics* (Berkeley, University of California Press, 1963), p. 61; Edwin Pulleyblank, 'A Sogdian Colony in Inner Mongolia', *T'oung Pao* 41 (1952); Étienne de la Vaissière, *Sogdian Traders: A History* (Leiden, Brill, 2005), pp. 210–15.

30 Albert E. Dien, 'The Stirrup and Its Effect on Chinese Military History', *Ars Orientalis* 16 (1986), 33–56.

know little about the education and training of the Turks. A bow of reduced size (60 cm) has been found in excavating the grave of a child in the Altai.³¹ The *Strategikon* states:

They are not versatile or skilled in most human endeavors, nor have they trained themselves for anything else except to conduct themselves bravely against their enemies . . . They give special attention to training in archery on horseback.

It is logical to think that life on the steppe hardened and educated in the equestrian arts, and it is certain that hunting played a major role at family and individual levels.³² Thus to praise a dead man, the carving of Kuli chor of the second Turkish empire states (W9): 'When there was a battle, he marshalled the troops. When hunting, he was like a hawk.'³³ But elements suggest moving away from this familial and individual framework. Thus, hunting was also and above all a privileged type of training for armies, in large-scale manoeuvres of encirclement. Ṭabarī describes a region reserved exclusively for training on the northern flank of the Tianshan among the Western Turks of the first half of the eighth century:

The Khaqan possessed a meadow and a mountain, a protected area, which no one drew near to or hunted in. The two were left as a space for (practice) warfare: what was in the meadow for three days and what was in the mountain for three days. In these, they prepared themselves, pasturing (their animals) freely and tanning the freshly flayed skins of the game animals, from which they made containers. They also stocked up bows and arrows.³⁴

The Chinese monk Xuanzang met the qaghan of the Turks in this same region a century earlier and described him on a hunting expedition accompanied by innumerable troops.³⁵ The *Irak Bitig* (*Book of Omen*) in old Turkish copied in 930 indicates the same: 'The army of the Qanate went out hunting.'³⁶ The *Jiu Tangshu* writes, of an Uighur qaghan in the seventh century, 'He occupied

31 Alisa Borsenko et al., 'Die Bewaffnung der alten Turkvölker, der Gegner Sasaniden', in M. Mode and J. Tubach (eds.), *Arms and Armour as Indicators of Cultural Transfer* (Wiesbaden, Dr. Ludwig Reichert Verlag, 2006), p. III.

32 Thomas T. Allsen, *The Royal Hunt in Eurasian History* (Philadelphia, University of Pennsylvania Press, 2006), ch. II.

33 Takao Moriyasu and Audai Ochir, *Provisional Report of Researches on Historical Sites and Inscriptions in Mongolia from 1996 to 1998* (Osaka, The Society of Central Eurasian Studies, 1999), p. 153.

34 Ṭabarī, vol. 2, p. 1594.

35 Samuel Beal, *The Life of Hiuen-Tsiang by the Shaman Hwui-Li* (London, Kegan Paul, 1911), p. 42.

36 Allsen, *The Royal Hunt*, p. 215.

himself endlessly with battles and military exercises, with archery and hunting.³⁷ Later, the Chinese texts on the Khitans are equally explicit and the second Khitan emperor, Taizong, declares: 'Our hunting is not simply a pursuit of pleasure. It is a means of practising warfare.'³⁸

In addition, Yāqūt describes a vast exercise in military manoeuvres taking place before an Arab emissary:

One day (the Qaghan) mounted (a horse) in the midst of 10 men each of them carrying a banner. And he ordered him to take me with him. We went on until he climbed up a hill which was surrounded by reeds. And as the sun rose he ordered one of them to unfold his banner and to wave [with] it. And after he did so 10,000 armed riders appeared, all of them shouting 'Jah! Jah!' until they stopped at the foot of the hill. Their commander climbed up and dropped in the dust before the king. (The Qaghan) didn't stop to order one after the other to unfold his banner and to wave it. As he did that 10,000 armed riders appeared and stopped at the foot of the hill until he had unfolded all ten banners. And at the foot of the hill were 100,000 riders armed to the teeth.³⁹

In this text we are far from the idea of the natural warrior, but firmly in line with the practices of warfare of high technicality which have little to do with familial training and daily survival in the hostile environment of the steppe. The Turkish army was clearly not an amalgam of individuals or even of groups. The change of scale between war at a local level and imperial warfare is clearly matched by a change of nature.

Battle tactics

The question of the Turkish warrior as a natural soldier received further focus in considering the problem of battle tactics. The *Strategikon* considers the question of the battle line-up:

In combat they do not, as do the Romans and Persians, form their battle line in three parts, but in several units of irregular size, all joined closely together to give the appearance of one long battle line. Separate from their main formation, they have an additional force which they can send out to ambush a careless adversary or hold in reserve to aid a hard-pressed section. They keep their spare horses close behind their main line, and their baggage train

37 *Jiu Tangshu*, ch. 195, p. 5196. 38 *Liaoshi*, ch. 4, p. 48.

39 Yāqūt al-Rūmī, *Kitāb Mu'jam al-buldān*, ed. F. Wustenfeld, 6 vols. (Göttingen, 1866–73), vol. 1, p. 839; Sören Stark, 'On Oq Bodun: The Western Turk Qaghanate and the Ashina Clan', *Archivum Eurasiae Medii Aevi* 15 (2006/7), 159–72.

to the right or left of the line about a mile or two away under a moderately sized guard. Frequently they tie the extra horses together to the rear of their battle line as a form of protection. They make the depth of their files indefinite depending on the circumstances, being inclined to make them deeper, and they make their front even and dense.

It also mentions a method of encirclement in which the two wings of the army swing in simultaneously around their enemies, a technique inspired by great *battues*, as well as ambush:

Instead of a large number of troops, some commanders draw up the smaller part of the army. When the charge is made and the lines clash, those soldiers quickly turn to flight; the enemy starts chasing them and becomes disordered. They ride past the place where the ambush is laid, and the units in ambush then charge out and strike the enemy in the rear. Those fleeing then turn around, and the enemy force is caught in the middle. The Scythian peoples do this all the time.⁴⁰

These tactics, or their combination, are confirmed, not only shortly after Maurice's reign, as in 630 during the wars on the Caucasus against the Sasanids, but also much later, in the dictionary of Turkish languages written in 1077 by the Qarakhanid author Maḥmūd Kāšgharī:

There is a battle tactic called *ülkär čärig* – the troops fall back in squadrons on all sides, then when one squadron rounds to attack, the others follow. Using this stratagem they are seldom routed.⁴¹

Maḥmūd Kāšgharī also describes the tactic of lateral attack. These texts are unfortunately the only ones to describe the battle tactics of the Turks precisely during the period under consideration, although two wings are often mentioned in the inscription of Tonyuquq (W5), the general and minister in the second Turkish empire. They are, however, remarkable in what they show of the existence of the transmission of tactical knowledge, unchanged, over a long period. There certainly exists, in addition to the bodily resistance and daily practice of equitation, expertise and skill in techniques in the Turkish imperial practices of warfare.

The *Strategikon* underlines the fluidity of movement among the Turkish cavalry:

⁴⁰ Dennis, *Maurice's Strategikon*, pp. 52–3.

⁴¹ Maḥmūd al-Kāšgharī, *Compendium of the Turkish Dialects (Diwan Lugat at-Turk)*, Part I, *Sources of Oriental Languages and Literatures*, 7, ed. and trans. Robert Dankoff and James Kelly (Cambridge, MA, Harvard University Press, 1982), p. 182.

They prefer battles fought at long range, ambushes, encircling their adversaries, simulated retreats and sudden returns, and wedge-shaped formations, that is, in scattered groups.

Similarly, in 616 the future first emperor of the Tang, Li Yuan, said:

The strength of the Turks is that they rely solely on mounted archers. When they see an advantage they advance; when they know they will encounter difficulties they retreat. They gallop like the wind and turn like lightning.⁴²

But in the Orkhon inscriptions, which reflect the manner in which the Turkish elites saw the art of making war, pitched battles play a very important part. To praise the actions of the qaghan, for example, it was described in these terms: 'He organised 47 expeditions and fought in 20 battles.' Equally with the art of ambush and evasion, pitched battles were thus at the heart of military practices. In the *Kutadgu Bilig*, a source from the Qarakhanid court of the eleventh century, we have a description of a pitched battle:

Have some of the ranks lie in ambush. Have the archers dismount, with yourself in the front line. And let many grizzled warriors be in the lead, for such are both battle-hardened and obedient. Younger men of lesser rank may be very keen for battle, but as soon as you turn your back, their ardor is extinguished. So put trusty men in the van and in the rear, and some also in the wings, both left and right. Then, as they approach the opposing force, let them meet them head on and raise a shout. They should let fly their arrows while yet at some distance; as they draw closer, attack with their spears; and when they engage in the fray, use sword and battle-axe, grab hold of the collar, fight tooth and nail! Stand firm, never show your back to the enemy. Pierce him through, or else die fighting.⁴³

The end of this text is in direct contrast with the idea that supports the description of Li Yuan and many others, of nomads turning tail at the slightest organised resistance in order to return and surprise their enemies. It may be supposed that during the battles between the different peoples of the steppe, this art of evasion, this fluidity emphasised by observers from outside the steppe, no longer took place between armies which had mastered them equally but gave way to direct attack, with spear and sword, which are in fact mentioned in the Orkhon inscriptions. In this case it was normal for

42 David A. Graff, 'Strategy and Contingency in the Tang Defeat of the Eastern Turks', in Nicola Di Cosmo (ed.), *Warfare in Inner Asian History (500–800)* (Leiden, Brill, 2002), pp. 62–3.

43 Yusuf Khass Hajib, *Wisdom of Royal Glory (Kutadgu Bilig): A Turko-Islamic Mirror for Princes*, trans. Robert Dankoff (Chicago, University of Chicago Press, 1983), p. 117.

differences to appear from the military model described by the author of the *Strategikon* and the other observers from outside the steppe. Thus it was with the infantry, little mentioned in the Byzantine, Chinese, or Arab texts on Turkish armies: if the archers of the *Kutadgu Bilig* dismount, in order to take up the position best suited to firing their bows, kneeling on the ground, the Orkhon inscriptions equally show heroes fighting on foot and a carving of the first Uighur qaghan makes explicit mention of groups of infantry, also cited in the Chinese texts on the Uighurs.⁴⁴ Similarly, torrents of arrows, although they appear to be a recurrent element in descriptions of the battles of the Xiongnu or the Mongols, are not directly supported in the Turkish sources, although Turkish soldiers in the service of the caliph had recourse to them to turn the situation during the battle of Anzen against the emperor of Byzantium in 838. There was no doubt a contrast to be established between the Turkish military practice during battles between nomads and that which they practised against other kinds of army. Here as elsewhere the use of weapons, armour, and tactics depended closely on the practices of the enemy.

Other elements, not tactical, can complement these descriptions of how the Turks fought a pitched battle. For example, war-paint for battle is attested: apart from an ambiguous reference in the *Kutadgu Bilig*, a description of Sulu warriors in 737 writes that: 'The Khaqan approached with nearly four hundred horsemen, [their faces] dyed red.'⁴⁵ Similarly, war cries are explicitly mentioned in the Orkhon inscriptions and confirm the *Kutadgu Bilig*. In the inscription of Kuli chor (E7) we read this: 'attacking with a war-cry, stabbing, routing, and his horse was crushed, he stood up'.⁴⁶ War drums played a central role in battle management: shown at the front of the Turkish panel of the Samarqand painting, they are as prominent in the descriptions left by Chinese sources as in Ṭabarī's account of the campaigns against Sulu. Ibn Rustah describes their central role among the Khazars.⁴⁷ They beat retreat and the qaghan could not think of attempting war again without new drums. They are mentioned in the scanty inventory of an Uighur leader in flight after 840.⁴⁸ The military use of rain-stone magic, so

44 Colin Mackerras, *The Uighur Empire according to the T'ang Dynastic Histories: A Study in Sino-Uighur Relations 744-840* (Columbia, University of South Carolina Press, 1972), p. 82.

45 Ṭabarī, vol. 2, p. 1610. For the *Kutadgu Bilig* reference, see Yusuf, *Wisdom of Royal Glory*, p. 118.

46 Moriyasu and Ochir, *Provisional Report*, p. 153.

47 Golden, 'War and Warfare', p. 143. Ibn Rustah, *Kitāb al-A'lāk an-Nafisa*, ed. M. J. de Goeje, *Bibliotheca Geographorum Arabicorum* 8 (Leiden, E. J. Brill, 1892), p. 140.

48 Drompp, *Tang China and the Collapse*, p. 314.

well known in the Mongol epoch to summon a storm against an enemy army, is little attested during the first two Turkish empires, with one reference to manipulation of the weather.⁴⁹ But it was more often mentioned immediately after, among the Uighurs struggling against the Tibetan armies in China in 765. In 821 the ambassador Tamīm ibn Baḥr stresses that it was the exclusive attribute of the qaghans. We know that in the ninth century the Qarluqs practised it; they used it as a meteorological weapon against Ismāʿīl Sāmānī who, in his prayers, turned the storm back against the pagan Turks. Magicians were consulted by the Uighurs before their departure on an expedition, and supported them in battles. The expeditions would not set out until the ascendant or full phases of the moon.

Turkish mobility

Texts from settled neighbouring peoples and the Turkish inscriptions agree on the importance of the practice of large raids, of which unique information is provided in the carvings where they are listed and, in some cases described. One such is the expedition against the Kirghiz cited in the Tonyuquq carving. It is a fascinating text, the only one to show with vivid clarity the core of a military raid (E6–N4):

I thought: 'If we (first) march (against the Kirgiz) . . . ' I said. When I heard that there is only one road over Kögmän, and it is (now) closed (by snow), I said: 'If we go that way, it will not be good (for us)'. Then I looked for a guide and found a man from the Az people who lived in the plain. I heard from him: '(the way) which goes to the land of the Az is (beside) the (River) Anī. It is a road wide enough only for one horse'. The man said to me that he (once) had gone by that (way). When I heard this, I said: 'A horseman is said to have gone (by this way). If we go this way, it will be possible' I said and thought. I requested my kagan, and ordered the army to march. 'Enter the water on horseback!' I ordered. After having crossed over the Ak-Tärmil (in this manner), I let (the soldiers) warm their backs. (Then) I ordered them to mount their horses and I broke through the snow. (Then) I ordered them to ascend upwards on foot, pulling the horses after them, and holding on to the trees. Having sent the vanguard forward as if kneading (the snow), we climbed over the wooded hill. We descended rolling. We went on going around the barriers (of snow) on the side (of the mountain) for ten nights. Since the guide had misled (us), he was slaughtered. Having become utterly

49 Ádám Molnár, *Weather-Magic in Inner Asia*, Indiana University Uralic and Altaic Series (Bloomington, Indiana University, 1994), p. 158; Jean-Paul Roux, *La Religion des Turcs et des Mongols* (Paris, Payot, 1984), pp. 95–8.

bored, the kagan said: 'Ride fast!' we arrived at the River Anī. We rode down along that river. In order to be fed we ordered (the soldiers) to dismount. We used to tie the horses to trees. We went on riding at a gallop by day and by night. We fell upon the Kirgiz while they were asleep. (We awakened them?) with the lances. Meanwhile their khan and army gathered together. We fought and defeated them. We killed their khan. The Kirgiz people submitted and yielded to the kagan. We came back (from the Kirgiz). Having gone around the Kögmän mountains, we came.

Two recurrent elements appear in this text, as in many others: surprise, and attack on a camp – the way in which the Chinese gained the majority of their victories over the Turkish armies. In 630 the fate of the Eastern Turks was sealed by a surprise attack on the camp of the qaghan Xieli by a single column of Chinese light horsemen, trained in Turkish style.⁵⁰ Similarly, it was through the capture of the western qaghan's camp that the Chinese put an end to the power of the Western Turks in 657.⁵¹ The same scenario was repeated with the end of the Uighurs after 840. From a strategic point of view, capturing the camp was clearly synonymous with total victory.

Byzantine and Chinese observers agreed on the pattern of army bivouacs on campaign. As the author of the *Strategikon* wrote:

They do not encamp within entrenchments, as do the Persians and the Romans, but until the day of battle, spread about according to tribes and clans . . .

Li Yuan states that:

Their camps have no fixed locations. They follow the grass and water to make their living quarters, and use sheep and horses as the army's provisions.⁵²

The limited baggage during the raids of the Turkish armies, as they moved from pasture to pasture or lived off the herds of horses following the army, and the absence of a fortified camp, was a major advantage which provided incomparable mobility. With their empires focused on a sacred mountain, the Ötükän, the Turkish empires also had no towns to defend. In the entire history of the Turkish empires, only a single mention is known of palisades defending the qaghan's camp.⁵³

50 Graff, 'Strategy and Contingency', p. 53.

51 Édouard Chavannes, *Documents sur les Tou-kiue (Turcs) occidentaux* (St Petersburg, Académie des Sciences de Saint-Pétersbourg, 1903), p. 65.

52 Graff, 'Strategy and Contingency', pp. 62–3.

53 Chavannes, *Documents sur les Tou-kiue*, p. 36.

In this, the system of the Turkish empires diverged sharply from established practice among the other nomad empires of the period. Like the Rouran or the Uighur empires, for example, at least in the tenth century the Khazar empire had a capital city, Atıl, on the Volga. The Khazars can be seen asking the Byzantines for engineers to construct a fortress, Sarkel, at the crossing of the Don in 838.⁵⁴ Numerous other fortified establishments from the ninth century, these properly Khazar, have been identified in the region of the Don and Donetz.⁵⁵ Moreover, we see the Khazar army undertaking sieges, as in the Crimea in 860. This divergence is also marked in the case of the Uighur empire. The Uighurs had a capital in Mongolia, Qarabalghasun; the Arab ambassador Tamīm ibn Baḥr described it in 821 as having twelve tall iron gates and a castle; archaeology has also shown that the boundary areas of their empire, notably in the Tuva towards the Kirghiz, were marked by widely spaced fortresses.⁵⁶ Some of them are Xiongnu, some of them Uighur. It is known that the Khazar camp was routinely fortified and that each horseman, according to Gardīzī, should have with him: 'a peg sharpened at [one] end (that is) the length of three cubits . . . These pegs are implanted [in a circle] around the army. [Then] a shield is hung from each peg.'⁵⁷ The inscription of the Uighur empire at Tariat appears to suggest a similar process. The Pecheneg also had recourse to wagons set in a circle around the camp, according to the old nomad tactic.⁵⁸

The aims of war

Several aims are assigned to these raids, covering the full range of political, economic, and even religious action. Theophylact Simocatta presents clearly the intention of the first Turkish empire to unify the world, and the qaghan proclaimed himself 'Great lord of seven races and master of seven zones of the world'.⁵⁹ The empire, in victory as in defeat, was the expression of the

54 S. A. Pletneva, *Sarkel I 'šelkovyi' put'* (Voronezh, Voronežskii Gos. U., 1996); Golden, 'War and Warfare', p. 139.

55 S. A. Pletneva, *Stepi Evrazii v epoxu srednevekov'ja*, Arxeologija SSSR (Moscow, Nauka, 1981), pp. 66–7; S. A. Pletneva, 'Pravoberežnoe Cimljaskoe gorodišče. Raskopki 1958–1959 gg', *Materialy po arxeologii, istorii i etnografii Tavrii* 4 (1995), pp. 271–396.

56 V. Minorsky, 'Tamīm ibn Baḥr's journey to the Uyghurs', *Bulletin of the School of Oriental and African Studies* 12.2 (1948), 283. S. A. Pletneva, *Stepi Evrazii*, pp. 52–3, 142.

57 Arsenio P. Martinez, 'Gardīzī's Two Chapters on the Turks', *Archivum Eurasiae Medii Aevi* 2 (1982), 154–5; Golden, 'War and Warfare', p. 138.

58 Golden, 'War and Warfare', p. 138.

59 Theophylact Simocatta, *The History of Theophylact Simocatta*, trans. M. and M. Whitby (Oxford, Oxford University Press, 1986), p. 188.

power of the Tengri, the sky-god of the steppe – although the absence of any specific divinity of war among the Turks may be noted, unlike the Xiongnu.⁶⁰ But in the fragile situation of the early second qaghanate, it was a matter rather of pre-emptive attacks launched from the heart of the qaghanate towards the periphery, to win the supplies that the Turkish people lacked, while ensuring political supremacy. The imperial element was much less clear, although all the raids claimed to ‘organise’ the defeated peoples, to integrate them politically into the empire.⁶¹ Bilgä qaghan writes (E25):

At the age of twenty I went on a campaign against the Basmil Iduq-qut, who were a people related to me, because they did not send caravans (with tribute) . . . I subjugated them and caused their tribute to be brought again.

Tonyuquq describes the booty brought back from an expedition in Sogdiana (T S3–4): ‘Now since I caused [the Turkish armies] to reach as far as these lands, they brought home the yellow gold and the white silver, girls and women, and crooked camels and silk.’ Elsewhere, herds of horses and flocks of sheep are mentioned. The booty and the tributes obtained served to feed and enrich the Turkish people (BK E38): ‘The Turkish people were hungry. I fed them and helped them by bringing herds of horses.’ Interestingly, the example of the second Turkish empire shows that there is no intended continuity between clan raids, designed to loot the wealth of other clans, and imperial policy.

In this respect the abduction of children and women appears particularly significant since it simultaneously ensured not only the necessary exogamy but also polygamy, the demographic growth of the clan, and availability of domestic labour. Adult male slaves could not be entrusted with the supervision of herds of horses, for fear of seeing them use the horses to escape into the vastness of the steppes, or challenging the military and sexual supremacy of the men of the clan: there were no slave soldiers in the Turkish world.⁶² Thus, when at the beginning of the seventh century the city of Bingzhou was attacked by 2,000 Turkish horsemen from the Chuluo qaghan, the city was looted and many women and girls were seized and taken away.⁶³ Similarly, in

60 Roux, *La Religion des Turcs*.

61 On the geopolitics of the raids see Étienne de la Vaissière, ‘Away from the Ötüken: A Geopolitical Approach to the 7th C. Eastern Türks’, in J. Bemmann and M. Schmauder (eds.), *The Complexity of Interaction along the Eurasian Steppe Zone in the First Millennium AD Empires, Cities, Nomads and Farmers*, Bonn Contributions to Asian Archaeology, 7 (Bonn, Rheinische Friedrich-Wilhelms Universität, 2015), pp. 453–61.

62 S. Kljastornyj, *Istorija Central’noj Azii I pamjatniki runničeskogo pis’ma* (St Petersburg, 2003), pp. 477–85.

63 *Xin Tangshu*, ch. 215, p. 6029.

the Bilgä inscription, the account appears (E38): 'At the age of thirty-four the Oguz fled away and surrendered to the Chinese. With regret, I went on a campaign [against the Oguz]. With anger . . . I captured their wives and children.' We find this formula several times in the Orkhon inscriptions. This aspect is common to the great imperial policy and to the raids and lesser attacks. The *Xin Tangshu* signalled that in the north of the Tianshan the Turks constantly rose against each other in the seventh and eighth centuries.⁶⁴ At the beginning of the tenth century, Ibn al-Faqīh al-Hamaḍānī similarly indicated that they raided each other and abducted women and children.⁶⁵ From the end of the century we possess an interesting account of such raids between nomads. Sebüktegin, founder of the Ghaznavid dynasty, wrote in his autobiography that:

My father . . . was renowned for snapping the bow by pulling the bow-strings, wrestling, riding, etc. His practice was to put on armour, attack the stronghold of an enemy single-handed, kill and plunder, and bring captives as slaves. It is customary with the Turks to attack one another. He had many children, and I was his third son . . . [A] tribe of the Turks called Bakhtiyān carried out a raid on our clan while my father was out a-hunting. They plundered our cottage and carried me away as a slave. I was 12 years old at that time. The land of the Bakhtiyāns was a long way off from our place and hence it was not possible for my father to come in quest of me. I was taken to the tribe of the Bakhtiyāns.⁶⁶

Along with this imperial use of Turkish military potential and large-scale offensives, we find multiple raids, abductions, and pillaging by armed bands or tribal groups, even by isolated individuals. They are frequently mentioned in the sources but with little detail. In the absence of source information on this generalised violence, a few examples can be offered: Jāḥiẓ describes how a Turk alone on the road managed to immobilise a whole armed escort, kill one of its horsemen and take the booty without being otherwise disturbed. In Ṭabarī we see a small armed group of Arabs surrounded in the desert by Turk marauders.⁶⁷ Conversely, Turks were used to escort and protect caravans on the narrative funerary reliefs of an anonymous Sogdian at the end of the sixth century. Much more often than in the high politics of the qaghans, these were

⁶⁴ Ibid., ch. 221, p. 6246.

⁶⁵ Klajstornyj, *Istorija Central'noj Azii*, p. 478, citing the Mashhad manuscript folio 171b: Ibn al-Faqīh al-Hamaḍānī, *Kitāb al-Bulḍān*, ed. Yū. al-Hādī (Beirut, 'Ālam al-Kutub, 1996), p. 643.

⁶⁶ M. Nazim, 'The Pand-Namāh of Subuktigīn', *Journal of the Royal Asiatic Society* (1933), 621.

⁶⁷ Ṭabarī, vol. 2, p. 1087.

the activities, often seasonal, that faced the nomad and settled populations of the steppes and its margins. The transhumance movements suffered occasional raids and during the winters brought nomads and settled peoples into close contact. For example, the Turks came to spend the winter not far from Paykent, in a large lake-side area near Bukhara. This justified the construction of a system of small forts manned by the settled villages around Paykent in order to resist Turkish raids.⁶⁸ The great walls surrounding the main oases at this time, at Bukhara, Samarqand, or Chach, had no purpose except to prevent or reduce the small nomad raids, not the large armies.

Military organisation

The practical organisation of the Turkish army is very poorly known. Official titles were both civil and military, in most cases inherited from other civilisations, such as the qaghan (Xianbei), the *yabghu* (Wusun), the *shad* and the *beg* (Sogdian), the *sängün* (Chinese), and the *išbara* (Sanskrit).⁶⁹ The qaghan was a war chief, shown leading expeditions in person and defeating his enemies: a large part of the Orkhon inscriptions turns on the personal courage of the qaghan and his brother. This was not always the case, however. The Khazar organisation diverged profoundly, at least in its late phase (ninth–tenth centuries) from the Turkish pattern: the qaghan no longer played any military role in it, being merely sacred, for the benefit of a beg (or shad). The troops of this beg were described thus by Ibn Rustah:

In full armament, having banners, spears and strong coats of mail. His mounted retinue [numbers] ten thousand horsemen, among them also are those who are levied on the rich.⁷⁰

Nothing is known of these modes of command, apart from the portrait of the ideal commander traced by the *Kutadgu Bilig*. But in the case of the immediate predecessors of the Turks, the Rouran, an explicit existing text from China⁷¹ mentions the military laws through which the qaghan organised the army in groups of 1,000 or 100 men, as their Xiongnu predecessors had done, and it is extremely probable, in view of the vocabulary of the Orkhon inscriptions, that this pattern was taken up by the Turks: indeed the inscriptions mention

68 Étienne de la Vaissière, 'Le Ribat d'Asie centrale', in É. de la Vaissière (ed.), *Islamisation de l'Asie centrale: processus locaux d'acculturation du VII au XI siècle*, Cahier de Studia Iranica 39 (Paris, Association pour l'avancement des études iraniennes, 2008), pp. 72–81.

69 Golden, *An Introduction*, p. 148. 70 Golden, 'War and Warfare', p. 142.

71 *Weishu*, ch. 103, p. 2290.

the *biṇa* (group of 1,000) and groups of 100 (further, the *yūzanč*, leader of a 100-strong group, is attested in relation to the Turks in a Sogdian text). Elsewhere, the text by Ibn al-Faqīh cited above shows the existence among the On Oq (Ten Arrows) of ten *tumen* (10,000 men) each, and appears to indicate that each of these *tumen* corresponded to one of the tribes of the On Oq. Counted before battle by means of notches on batons, the Turkish soldiers appear well organised in groups of 100, 1,000, or 10,000. Ibn al-Faqīh's text also echoes Chinese texts describing the birth of the On Oq:

Then his kingdom was divided between ten tribes; for each tribe there was a chief who governed it; they were called the ten *shad*. Each *shad* received a presentation arrow: this is why they were named the ten arrows; further, the ten arrows were grouped in a left division and a right division, each division of five arrows: the left division was known as the five Duoliu tribes [for which] ten large *chuo* (*chor*) were established; a *chuo* (*chor*) commanded one arrow; the right division was known as the five Nushibi: [for them], five great *sijin* were established; a *sijin* commanded an arrow. Their generic name was the ten arrows: later it happened that an arrow was called a tribe, and that the great arrow chiefs were given the name of great commanders.⁷²

This appears to suggest clearly that the military structure pre-existed the political structure. The political groups formed gradually from the *tumen* of the two wings of the Turkish army. This pre-existence was perhaps a separate matter, linked to the irruption of Turkish power into the western steppes, which in the long term imposed a political structure alongside other and older groups. Conversely, we know that the advance guard of the Uighur army in the Turkish era always consisted of the combination of two allied groups, and therefore that in this case the political structure predated the military structure. This appears to have generally been the case in the second Turkish empire.⁷³ The *Strategikon* is ambiguous on this point: 'until the day of battle, they spread about according to tribes and clans, they continuously graze their horses both summer and winter'. It seems to contrast the Turkish political structure which prevailed in times of peace with the organisation of the army on campaign or in battle, which followed other criteria. Perhaps, dimly, the outlines can be perceived for the first Turkish empire (but not for the second, which is identifiable as a clear renaissance) of what had been the Xiongnu practice and would be that of Chinggis khan: a decimal reorganisation of the army which enabled the breaking of pre-existing political solidarities and ultimately the recreation of

72 *Jiu Tangshu*, ch. 194, p. 5183. 73 See for example T 08 in the Orkhon inscriptions.

new political groups.⁷⁴ The control achieved in this way was far from perfect: the first Turkish empire disappears in the east in 630 because 'the laws were multiplied and the army put into motion year after year. The people of the nation resented it and the tribes deserted.'⁷⁵

It is generally supposed that the armies were not paid, unless in the form of booty. Yet a text exists which explicitly states the contrary. Sulu's successor, Kūrṣūl, paid his troops in rolls of silk: 'Kūrṣūl was paying each of his men per month one piece of silk, which at that time was worth twenty-five dirhams.'⁷⁶ This was not an isolated case if we take the Khazars into account: Gardīzī specifies in relation to them that the income from the land tax was used to pay the troops, and that among the 10,000 horsemen 'some of these receive a salary and some are from the military following of the wealthy who accompany the king in their own armor and equipment'.⁷⁷ In addition, the Khazars also had recourse to Muslim mercenaries from Iranian-speaking Central Asia, the *Ursiyya*, who appeared to play a substantial political role.⁷⁸ Similarly, the troops of the Qara Khitai in the twelfth century were paid.⁷⁹ It is known that the Turkish qaghans of the first empire had a personal guard, the *Bōri* (wolves):

They decorated the tip of their standards and guidons with a golden wolf's head: the guards corps were known as *fuli* (meaning 'bōri' in Turkish), which also meant wolf in Chinese; thus the memory that they were originally descended from a she-wolf was not lost.⁸⁰

There is also reference to a guard of nearly 4,000 soldiers with the Khazar qaghan.⁸¹ No further detail is known of these guards and, contrary to what is sometimes written, nothing can make them be seen as *comitatus*, structures of the conquest of power based on personal links. On the other hand, it appears that the Uighur qaghans of the ninth century had a personal guard of the *comitatus* type, the *čākar*; but they took this from their Iranian-speaking and settled neighbours, the Sogdians, to the south-west. Marvazī writes:

74 On the question of the tribe and the military, see D. Sneath, *The Headless State, Aristocratic Orders, Kinship Society and Misrepresentations of Nomadic Inner Asia* (New York, Columbia University Press, 2009).

75 *Jiu Tangshu*, ch. 194, p. 5159. 76 Ṭabarī, vol. 2, p. 1689.

77 Martinez, 'Gardīzī's Two Chapters', 154–5; Golden, 'War and Warfare', p. 143.

78 Al-Mas'ūdī, *Murūj adh-Dhahab wa Ma'ādin al-Jawhar*, ed. C. Pellat, 7 vols. (Beirut, 1966–79), vol. 1, p. 213; Golden, 'War and Warfare', pp. 143–4.

79 Biran, *The Empire of the Qara Khitai*, pp. 148–9.

80 *Beishi* (Beijing, Zhonghua shuju, 1974), ch. 99, p. 3288.

81 Al-Iṣṭaḥrī, *Kitāb al-masālik al-mamālik*, ed. M. J. de Goeje, *Bibliotheca Geographorum Arabicorum*, 8 vols. (Leiden, Brill, 1873), vol. 1, p. 220; Golden, 'War and Warfare', p. 143.

Their king is called Toghuz-Khaqan, and he has numerous armies. In ancient times, their king had 1,000 life-guards (*shākiri*) and 400 female servants; with him the life guards used to eat food three times a day and after eating, were served with drink three times. Their king only presents himself to the people once a season.⁸²

Curiously, this text also appears to evoke a development in the status of qaghan close to the Khazar evolution. The Uighurs shared the wolf's head standard with the Turks.

The organisation of the Khitan army

The organisation of the Khitan army is by far the best known and should be considered separately. It was highly centralised, with a substantial system of organisation which applied a Chinese administrative model to its nomad military resources:

The Liao palaces and tents, tribes, capitals and prefectures, and the subordinate states, each had their own army. The organisations were correlated: the system was uniform. This is the reason why the power [of Liao] lasted for more than two hundred years.⁸³

The *Liaoshi* then describes this complex hierarchy in full detail, and the way in which it operated according to the political structure, sometimes bringing several nomadic groups together under one command, sometimes consisting of three groups: the *ordu*, the emperor's personal guard formed mainly of Khitan horseman; the Khitan troops, with non-Khitan troops at their side on the frontiers; and militias consisting of Chinese infantry. The formation of the *ordu*, a word which is already known in the Kül-tegin inscription to designate the imperial camp, was an innovation in the empire, aimed explicitly at dividing the most powerful of the existing groups in order to 'strengthen the trunk and weaken the branches. This device was transmitted to posterity; an *ordo* guard was set up for each reign.'⁸⁴ All the men of the empire, aged from fifteen to fifty years, were inscribed in the military registers. All, with the exception of the militiamen, were required to supply their own equipment and to live off the country while on campaign. The *Liaoshi* describes the

82 V. Minorsky, *Sharaf al-Zamān Tāhir Marvazī on China, the Turks and India: Arabic Text (circa A.D. 1120), with an English Translation and Commentary*, James G. Forlong Fund, 22 (London, The Royal Asiatic Society, 1942), p. 29.

83 Wittfogel and Feng, *History of Chinese Society: Liao*, p. 548. 84 *Ibid.*, p. 540.

organisation of a campaign which began with the ancestral sacrifice of the Khitans. An edict was sent out across the whole empire:

As soon as notice was received of a [mobilization] edict, the conscripts were brought together, household possessions estimated, registers examined, and the masses organized in preparation. Officers from sergeants up inspected the army in regular order and took weapons and tallies from the military headquarters. Imperial emissaries could not interfere with them. After a joint inspection of the army a report was made again to the emperor. According to the number of troops the emperor sent further orders for emissaries to assume the posts of military leaders. They and the military headquarters maintained a check on each other. The banners and drums of the five directions were also brought forth. Then the emperor personally inspected the generals and officers. He also selected meritorious relatives and officials of high rank as the chief commander, vice-commander, and chief supervisor of the troops of the imperial traveling cantonments. From the various armies thirty thousand special elite troops were chosen as the imperial guard, three thousand valiant men were picked as a vanguard, and more than a hundred quick daredevils were selected as a *lanzi* scouting force. Each of the above armies had its own commander. From each section of the armies were selected, according to the number of men, five to ten men, who were brought together in a company with a special commander and were used to bring in troops and to dispatch messages.⁸⁵

The Turks in the service of the settled empires

Although it is thus clear that the idea of the 'natural warrior' takes very little account of a complex and changing historical reality, technical, tactical, and strategic innovations or inherited features, short of a history which cannot be reduced to a paradigm, it is nonetheless beyond doubt that it played a central role in the perception held by settled neighbours of Turkish warrior capabilities. All considered the Turks as exceptional warriors; all had recourse to their services as their preferred allies or as mercenaries.

Thus, the Tang practised a systematic policy of gathering and using Turkish nobles and soldiers after the dissolution of the first empire in 630. It was Turkish generals and soldiers who gave the Tang a part of their colonial empire in central Asia, under the direction of the Turkish prince Ashinas She'er. As was written, bitterly, in the inscription of Bilgä (E 7–8):

85 *Liaoshi*, ch. 34, p. 397; Wittfogel and Feng, *History of Chinese Society: Liao*, p. 561.

The Turkish lords abandoned their Turkish titles. Those lords who were in China held the Chinese titles and obeyed the Chinese emperor and gave their services to him for fifty years. For the benefit of the Chinese, they went on campaigns up to [the land of] the Bükli kagan in the east [Korea], where the sun rises, and as far as the iron gate in the west [in Sogdiana]. For the benefit of the Chinese emperor they conquered countries.

Until the definitive breach of ties between Tang China and Central Asia, during the 760s, the Ashinas princes were constantly involved in Chinese military history to varying degrees. More broadly, it was a whole section of the Chinese armies on the frontiers of the north-east and north-west which, in the eighth century, consisted of Turkish soldiers. During the rebellion in 755 of An Lushan, leader of these Chinese armies of the north-east and himself of Sogdo-Turkish origins, part of these troops consisted of Khitans, Tongluo, Xi, etc.⁸⁶

In Central Asia, Sogdian nobles fighting the Arabs paid groups of Turkish mercenaries in kind: 'And the lord gave to the İltäbir half of Iskâdar, and gave him this half in fruit . . . and the lord commanded me to give the İltäbir 200 kafiz of grain, and 50 sheep.'⁸⁷ The situation here was complex, since the long-established presence of Turkish troops and elites in the region had led to the development of mixed groups, with intermarriages and political alliances. It was not unusual to see some town or castle in Central Asia under the control of the Turkish *condottiere*, while several kings in settled Central Asia by then bore entirely Turkish names. But the significance of these social and military contacts between Sogdians and Turks exceeded the regional framework.

In fact, at the beginning of the ninth century these noble and military elites, both Iranian-speaking and Turkish-speaking, taking advantage of the presence in Central Asia of a pretender to the caliphate throne, al-Ma'mûn, and then of his victory backed by the recruitment of all the available troops in Central Asia, imposed themselves in the whole of the Muslim world. The Sogdian *čakar* were then integrated into the caliphate armies. Beginning with the reign of the caliph al-Mu'taşim (833–42), the Turks were particularly dominant until 870. Gathered together with their families in the new capital of Samarra, they made and unmade the caliphs. Yet the construction of Samarra was directly linked to the notion of the natural warrior: everything

86 Étienne de la Vaissière, *Samarcande et Samarra: élites d'Asie centrale dans l'empire abbasside*, Cahier de Studia Iranica 35 (Paris, Association pour l'avancement des études iraniennes, 2007), pp. 77–81.

87 V. A. Livšic, *Juridičeskie dokumenty i pis'ma*, Sogdijskie dokumenty s gory Mug 2 (Moscow, 1962), p. 144.

indicates that the Turkish guard functioned there in isolation, like an army of foreign mercenaries, kept apart from the populations of Iraq. In the framework of racial thinking, the Turks were forbidden to marry into the local populations and in Samarra were supplied with Turkish wives distributed to them by the caliphs. They were required to produce children from these unions for the enrichment of the caliphs – children endowed with the same innate warrior qualities. The text of *Jāhīz*, entirely devoted to celebrating the exploits of the Turks, reflects at its starting point what would dominate the Muslim military thinking for several centuries, the Turks' intrinsic military value. This continuity led, wrongly, to seeing the Turkish soldiers of Samarra as the first *Mamlūks*: this was entirely mistaken, since these warriors were all brought to Iraq as adults, willingly or by force (most were war captives), and placed under the orders of the elites of the steppes; their leader, as if by chance, was a prince of the Ashinas dynasty, following the example of the Tang practices. These were in no way *Mamlūks*, malleable adolescents who underwent specific military and ideological instruction in the Muslim faith to attach them to their master. The *Mamlūk* system in fact arose from the disorders of the Samarra system, after the Turkish guard – imported without change from Central Asia – had proved both its political threat (Turkish guards assassinated four caliphs in the 860s) and its military superiority: they defeated all the other troops of the caliphate gathered against them at the siege of Baghdad in 865. Using a specific pattern of instruction, perhaps that of the Sogdian *čākar*, from the 870s there was then an attempt on a small scale to preserve the innate qualities of the Turks while improving their loyalty: this is the actual origin of the *Mamlūk* system, combining a specific military and political education to the innate qualities of the Turks.⁸⁸

Far from being identical on the *longue durée*, the very diverse sources which characterise the Turkish period of the military history of the steppes make it possible to sketch out the portrait of a Turkish army that was technically very different from its Xiongnu predecessor. It formed a first apogee of the nomad heavy cavalry, endowed with more diverse weaponry and a radically innovative technique of horsemanship, like its distant Mongol successor, although the Khitan army could lay claim in this case to be an intermediate stage. Despite undeniable continuities, there is nothing to confirm that these were more important than the variations and divergences. At the very heart of the Turkish period, we see striking differences between armies reorganised by a charismatic leader, as in the first Turkish empire or the Türgesh of Sulu,

88 La Vaissière, *Samarcande et Samarra*, pp. 267–72.

empires like the second Turkish empire which presented themselves as the inheritors of an earlier tradition, without military redesign of the political groups at the core and, finally, the local conglomerates which undoubtedly took part in warrior activities without any claim to imperial levels of organisation. Examples of this are the Ghuzz tribes of the Caspian and Aral. Examined closely, the image of the natural warrior attached to the Turks among their settled neighbours loses all its straightforward simplicity. Nevertheless, a complex and sometimes skilful construction, through the interface that it established in Central Asia between the worlds of the steppe and the Muslims, it fostered an extension of the Turkish art of war as unexpected as it was enduring in the Near Eastern world.

China: the Tang, 600–900

DAVID A. GRAFF

Introduction

The Tang dynasty, which lasted from 618 to 907, was typical of China's great imperial regimes in that it owed its creation to successful military action and saw its subsequent fortunes shaped to a very great extent by events on the battlefield; when its military power waned the dynasty faltered, and when that power had dissipated completely it fell. In the Tang, as under earlier and later dynasties, the ruling elites were intensely interested in matters of military policy and strategy, with military expenditures claiming the largest portion of the state's revenues. For the Tang, as for all of the other dynasties, the image of Confucian sage kings ruling by moral suasion, without reference to force of arms, belongs to the realm of myth rather than reality. Yet the Tang also had its unique character, its own military ambience and patterns of conflict. Building on the accomplishments of the short-lived Sui dynasty (581–618), the early Tang rulers forged a durable imperial order that embraced virtually all of the territories that had been ruled by the Han and Western Jin dynasties before the collapse of the latter at the beginning of the fourth century CE ushered in nearly three centuries of political division in the Chinese world. Their success was due in part to new military institutions developed in the north toward the end of the period of division, and in part to the steppe heritage of the northern elites who had founded the dynasty. The latter, in particular, was an asset in extending imperial control over the pastoral peoples to the north and west – an enterprise in which the Tang was outdone only by the Yuan and Qing dynasties, themselves both of Inner Asian origin. The Tang was also marked by a dramatic change in its military institutions, from a farmer-soldier pattern in the early years of the dynasty to more of a full-time, professional soldiery by the middle of the eighth century. This sort of shift, driven by strategic needs, was experienced by other Chinese

dynasties as well, but in the Tang case it gave rise to dysfunctional phenomena, such as mutinous soldiers and rebellious generals, that contributed greatly to the eventual downfall of the regime. One consequence of these developments was the estrangement of civil and military elites and the antipathy of many Confucian-educated scholar-officials towards war and warriors, an important ideological theme of the late imperial period.

A dynasty at war

The Tang dynasty had its origin in an armed revolt against the faltering Sui dynasty, launched by Li Yuan, the Sui viceroy at Taiyuan (central Shanxi), in the summer of 617. Li marched southwest to take the Sui western capital (modern Xi'an) and, after a decent interval with a Sui prince as puppet ruler, proclaimed the establishment of his new dynasty in June 618. He owed his opportunity to the dire straits into which the empire had fallen since the second Sui emperor, Yangdi, launched a massive invasion of the northern Korean kingdom of Koguryō in 612. Despite the costly failure of this venture, Yangdi persisted in attacking again in 613 and 614 without regard for the hardships that his demands for soldiers, porters, and supplies imposed on the people of the districts along the lower course of the Yellow river that had recently suffered severe flooding and other natural disasters. Bandit gangs, formed by army deserters and desperate peasants, proliferated and clashed with militia units organized by local communities in self-defense. Before long, Sui local officials and military commanders themselves began to turn against the regime, effectively privatizing their territories and forces. Li Yuan was a relative latecomer to what had become the general trend.

The Tang founder, once ensconced in the western capital now renamed as Chang'an, found that the same conditions that had made his coup possible also meant there was much work yet to be done before his regime could inherit the Sui mantle. By 618, the kaleidoscope of local forces had coalesced into some half-dozen rebel armies controlling vast swathes of territory; some of their leaders seemed content with regional autonomy, while others, like Li Yuan, were intent upon reunifying the empire under their own authority. Li enjoyed several advantages in this competition. His base in the Guanzhong region, "the land within the passes" surrounding Chang'an, was populous, easy to defend, and traditionally the seat of conquering dynasties. In contrast to most of his rivals, Li's high social status appealed to elites throughout the empire. And perhaps most important of all, his precocious second son, Li Shimin, was by far the most talented battlefield commander of the age. The

Tang forces first crushed rival regional leaders to the west (Gansu) and northeast (Shanxi), then directed their attention eastward to the vast, populous North China Plain. The tipping point came in 621, when Li Shimin's victory at the Hulao Pass forced the surrender of two powerful warlords and a Tang fleet pushed down the Yangzi river from Sichuan to subdue the vast region from the Yangzi valley south to Jiaozhi (today's Hanoi). Regional leaders continued to offer resistance in Hebei, parts of Henan, and along the lower Yangzi for several more years, but by the end of 624 the Tang government's authority was recognized throughout virtually all of the territory that had been ruled by Sui.

The transition from Sui to Tang rule was far from revolutionary. The Tang retained most of the institutions and practices of its predecessor, and there was at first little change in the composition of the ruling elite. The Tang house, like the Sui royal family to which it was related by marriage, had its origin in the warlike mixed-blood aristocracy that had arisen in northern China after the collapse of Western Jin, when various non-Han peoples – Xianbei, Xiongnu, and others – had established political control over the region. Both adept at mounted archery and conversant with the Chinese classics after generations of intermarriage and cultural adaptation, the military leadership that took root in Guanzhong during the sixth century fashioned the Northern Zhou regime that unified the north of China in 577; a coup within the Zhou leadership circle then produced the Sui dynasty that conquered the south in 589, restoring China's imperial unity for the first time since the early fourth century. When Sui faltered, the Tang founders stepped forward to rescue and consolidate their great achievement.

The first major external foe to confront the new dynasty was the Eastern Turk empire, which dominated the grasslands to the north of China proper. Having earlier been the victims of Sui's divide-and-rule tactics, the Turks had played an active role in the disorder that engulfed China after 612, providing aid and encouragement to various contenders (including Li Yuan) at different times. As the Tang consolidation gathered momentum, the Turks threw their support to Li Yuan's opponents and eventually took the field themselves, raiding almost to the gates of Chang'an in August 626. After this humiliating experience, the warrior prince Li Shimin, who had just supplanted his father on the throne, set out to destroy the Turk empire. Familiar with steppe politics and almost certainly fluent in the Turks' language, he promoted splits in their leadership, encouraged the defection of subject tribes, and was greatly aided by severe weather that killed off much of the nomads' livestock. The decisive moment came in 630, when boldness and

treachery enabled a Tang cavalry column to surprise the encampment of the qaghan of the Eastern Turks. Since a second Tang force had already maneuvered into position to block the Turks' escape route across the Gobi, the defeat was total and the qaghan was soon brought as a captive to Chang'an.

The subjugation of the Eastern Turks left the Tang empire the dominant power in Inner Asia. Li Shimin assumed the new title of "Heavenly Qaghan" to signal that his rule now encompassed the steppe nomads as well as the sedentary Chinese, and beginning in 632 Tang armies struck westward to capture the oasis kingdoms of the Tarim Basin and establish control over the Silk Road as far west as the Pamirs. Tang expeditionary forces crushed the Turko-Tibetan Tuyuhun people of the Kokonor region (modern Qinghai province) in 635 and defeated the Xueyantuo, who had sought to replace the Turks as the dominant power north of the Gobi, in 646. All of these victories were accomplished by fast-moving cavalry forces composed largely of Turks and other nomads who had submitted to Tang. The apogee of Tang power in Inner Asia came during the reign of Li Shimin's heir, Tang Gaozong (649–83). After its expeditionary armies defeated the Western Turk leader Ashinas Helu (Shaboluo qaghan) in 657, the Tang court extended a string of nominal protectorates through Ferghana, Tashkent, and Bukhara – all the way to Herat in Afghanistan.¹

It was only in the northeast that Li Shimin met with frustration. In 645 he attacked Koguryō only to be stymied by the same combination of long distances, a short campaigning season, and the formidable belt of Korean fortresses along the Liao river that had defeated Sui Yangdi three decades earlier. Unlike Yangdi, Li Shimin ended his effort before it threatened the stability of his empire, but his heir Gaozong renewed the conflict in the late 650s. This time a Tang army was sent by sea to conquer the southwestern Korean kingdom of Paekche (an ally of Koguryō) with the assistance of forces from the third Korean state, Silla (a Tang ally). Once Paekche had been subdued – and a Japanese force sent to its rescue destroyed off the coast by the Tang fleet – Chinese and Sillan troops put pressure on Koguryō from the south while other Tang armies followed the traditional overland invasion route. The capital, Pyongyang, finally fell in 668, and Koguryō was annexed to the Tang empire as Paekche had been. Gaozong's triumph was short-lived, however. Silla soon began to support an anti-Tang resistance movement in

1 Denis Twitchett, "Tibet in Tang's Grand Strategy," in Hans van de Ven (ed.), *Warfare in Chinese History* (Leiden, Brill, 2000), pp. 118, 122.

Koguryō, and by 677 the last Tang troops had been withdrawn from the Korean peninsula.

They were badly needed elsewhere, for it was under Gaozong that the Tang began to show signs of imperial overstretch. In 665 a revolt of the recently defeated Western Turks forced the withdrawal of Tang power from Transoxiana, and between 679 and 682 their eastern cousins also threw off the Tang yoke to establish the second Eastern Turk qaghanate. The revival of the nomad threat along the northern border reached the point that in 696 two previously rather unthreatening tribes, the Khitan (Qidan) and Xi (Qay, Tatabi), made a devastating incursion into Hebei that was ended only after massive imperial armies had been dispatched to the region. The greatest threat, however, came from Tibet. The creation of a strong, unified Tibetan empire by Srong-btsan-sgampo in the first half of the seventh century presented Chinese strategists with a situation that had no historical precedent, since the highlands to the west had hitherto been home only to fragmented tribal groupings that were relatively easy to deal with. After an initial frontier clash in 638, Li Shimin had placated the Tibetan ruler with a Chinese bride (the “princess” Wencheng), but in the early 660s the Tang court’s focus on Korea permitted the Tibetans to occupy the former Tuyuhun territories around Kokonor without opposition. This put them in a position to threaten almost the entire western frontier of the Tang empire, from Sichuan in the south to the upper course of the Yellow river, the Gansu corridor, and the Silk Road oases in the far northwest. The Tibetans soon exploited this position to challenge Tang control of the Tarim Basin, with the region falling under their domination for most of the period from 670 to 692.

The Tibetan challenge contributed to a gradual transformation of the Tang military system, as the ad hoc expeditionary armies filled with part-time soldiers and conscripts characteristic of the early Tang evolved into a network of strong frontier armies and garrisons manned by full-time, professional fighting men. Since distance, topography, and the strength of the opponent rendered a truly decisive blow impossible, Tang expeditionary armies had little choice but to settle in place to protect threatened frontiers. This trend culminated during the later part of Xuanzong’s reign (712–56), when the empire’s northern and western frontiers were covered by ten powerful military commands, most of them led by military governors (*jiedushi*) of non-Han origin, altogether disposing of well over half a million soldiers. This system helped to secure Tang control of the far northwest (the Tarim Basin and Dzungaria, today’s Xinjiang) and stabilized other frontiers. It produced some notable victories, as in 747 when the Tang general Gao

Xianzhi (an ethnic Korean) overran the Himalayan kingdom of Gilgit in Tibet's own backyard, but there were also defeats. Gao lost to the Arabs at the battle of the Talas River (near Atlakh in today's Kyrgyzstan) in 751, and two efforts by other commanders to invade the southwestern kingdom of Nanzhao, a Tibetan ally, in 750 and 754 ended in costly failure with tens of thousands of Tang soldiers lost to disease. The appearance of Nanzhao (in modern Yunnan) in the 730s was symptomatic of the changes that had occurred in the international environment since the early days of the Tang dynasty. Whereas China had once been surrounded by relatively small, weak states and unstable tribal confederacies (such as the Eastern Turk empire), by the end of Xuanzong's reign it was bordered by an arc of strong states: in the west were Nanzhao, Tibet, and, at a greater distance, the 'Abbāsid caliphate; in the northeast were Silla and Bohai (or Parhae); and to the north, the second Eastern Turk qaghanate had collapsed in the 730s only to be replaced by the more tightly organized empire of another Turkic people, the Uighurs.²

The system of powerful frontier armies was well suited to this security environment, but also involved a degree of risk since the interior of the empire and even the capital were largely devoid of effective military forces. The nightmare scenario became reality at the end of 755, when the half-Sogdian, half-Turk military governor An Lushan, commander of the frontier armies in Hebei and southern Manchuria, rebelled and marched on the capital with a large, veteran army that included both Tang regular troops and tribal allies. By the middle of 756, both Luoyang and Chang'an had fallen to An's forces, but the rebels were thwarted in their efforts to push southward into the vital rice-basket regions along the lower and middle Yangzi. The main forces of the other frontier armies were hastily recalled to deal with the crisis, and the Tang court even solicited contingents from the Arabs and the Tibetans. Forces contributed by the Uighur qaghan played a key role in the recovery of the two capitals. The rebel movement was, however, remarkably resilient; new leaders emerged after the assassination of An Lushan in 757, and the conflict dragged on for another five years. In the end, peace was restored only by a compromise: the surviving rebel generals were confirmed in possession of their armies and territories, and in return offered nominal allegiance to the Tang court.

The rebellion left the dynasty badly weakened. When the bulk of its frontier forces were withdrawn to fight the rebels, the Tibetan ruler Khri-srong-lde-brtsan took advantage of the situation to overrun large swathes of Tang territory, pushing the frontier eastward to within 150 miles of Chang'an.

2 Ibid., pp. 145–6.

For two weeks in late 763, his armies even succeeded in occupying the Tang capital. The Tibetans would continue to menace the capital region and the entire western frontier for decades to come, but from the outbreak of the An Lushan rebellion until the end of the dynasty in 907 security problems within the Tang empire would loom much larger than the threat from without. Not only had the court conceded control of important territories, mainly in Hebei, to ex-rebel commanders who rarely forwarded taxes to the center and insisted on hereditary succession to the office of military governor, but the exigencies of fighting the rebellion had also required the importation of the *jiedushi* system into the interior of the empire. The “loyalist” military provinces thus created were often disobedient and difficult to manage, and in some cases (such as Pinglu, controlling essentially the territory of today’s Shandong province) became indistinguishable from the ex-rebels. Under these circumstances, the court’s highest priority had to be the defense – and, if possible, extension – of its authority vis-à-vis these over-mighty subjects.

The first major effort to restore imperial authority over the military provinces was launched by the emperor Dezong shortly after he came to the throne in 779. His refusal to countenance hereditary succession in several of the provincial commands touched off a civil war that appeared to have yielded major gains for the center by early 782. At this point, however, failure to reward key allies and provincial leaders’ fear of the rising power of Dezong’s court caused several provinces to switch sides. The emperor’s fortunes reached a low ebb in the late autumn of 783 when a detachment of soldiers from the Tibetan frontier, passing through Chang’an en route to the battle front in Henan, mutinied upon being offered less than the customary bounty for soldiers setting out on campaign. Dezong fled west to Fengtian, where he was besieged by the mutineers for over a month before being rescued by loyalist forces recalled from the fighting in the east. When the dust settled in 785 the emperor had achieved nothing more than the restoration of the status quo ante, and he pursued a more relaxed policy toward the military governors for the last twenty years of his reign.

A second and much more successful attempt to rebuild the authority of the imperial court was made by Dezong’s grandson Xianzong (r.806–20). Conditions were by now more propitious: the central army was stronger, the treasury was full, and the empire was entering a period of relative détente with the Tibetans, who were focused on their own ongoing conflict with the Uighur empire. Xianzong had also learned from his grandfather’s failure, choosing to quash the separatist provinces one by one rather than all at once. Beginning with

relatively easy campaigns against refractory governors in Sichuan and Zhejiang, Xianzong's armies scored victory after victory. The stubborn province of Huaixi in south-central Henan was conquered in 817. Pinglu in Shandong yielded in 819 and was divided into three weak provinces. By the time of Xianzong's sudden death in 820 even the hard-case military commands in Hebei had accepted governors imposed by the center, and the power of the Tang court was at its highest point since the outbreak of An Lushan's rebellion in 755.

Despite these successes, however, there was no return to the unified empire of Xuanzong's time. The military provinces, weakened though they were, remained a basic feature of the institutional landscape, and those in Hebei quickly reasserted their autonomy after the passing of Xianzong left the empire in less steady hands. When, during the 870s, drought and famine in central China gave rise to the great peasant rebellions that eventually coalesced into a single movement under the leadership of Huang Chao, the power of the Tang court suffered far more than that of the military governors. As the rebels slaughtered their way across the empire from Henan in the center to Guangzhou in the far south (879) to the capital itself (881), *jiedushi* often stood aside, both to preserve their own forces and to enhance their bargaining power vis-à-vis the imperial court by "nurturing the bandits" (*yang kou*). The loss of Chang'an in particular was a devastating blow to the dynasty. Although the capital was recovered in 883 by "loyal" military governors including Li Keyong, leader of the Shatuo Turks who had ensconced themselves in Shanxi, and Huang Chao hounded to his death, the Tang court was left with no reliable, effective military forces of its own.

By this time, there were no major foreign powers left to exploit China's weakness. The Tibetan empire had dissolved in civil war in the 830s, never to rise again, and on the steppes the Uighurs had been overthrown – but not replaced – by the Kirghiz in 840. These developments left the still-vigorous Nanzhao kingdom in Yunnan as the greatest external threat, strong enough to compromise the Tang hold over northern Vietnam but not to invade the imperial heartland. When the Tang dynasty was finally brought to an end on June 5, 907, its executioner was Zhu Wen, strongest among the many military governors who held sway over a China that would remain fragmented until nearly the end of the tenth century.

Strategies of empire, causes of conflict

Underlying the patterns of conflict outlined in the preceding section were several fundamental objectives of the Sui-Tang empire that remained

remarkably constant, even as changing circumstances affected the prioritization of those goals and the means through which they were pursued. Most basic of all was the quest for imperial unity, which in practical terms demanded that all traditionally Chinese territories – essentially those with sedentary populations that had belonged to the Han dynasty at its height – should be ruled from a single center by a single monarch functioning as the ritual intermediary between heaven, earth, and man. Although such unity was elusive for long periods of Chinese history, most notably during the nearly three centuries separating the Western Jin collapse and the Sui conquest of the south in 589, it remained a powerful ideal deeply embedded in the classical texts that were the basis of elite education in the Sinitic world. Unity was the cynosure of political legitimacy. When the empire was divided, those who believed their military power might be equal to the task (such as the Sui and Tang founders) set their sights on reunification. The doggedness with which Sui Yangdi, Li Shimin, and Tang Gaozong pursued the conquest of northern Korea cannot be understood without reference to the fact that the region had been an integral part of the Han empire for several hundred years. Since the imperatives were ritual and ideological, however, the appearance of unity could be substituted for the reality. After the termination of the An Lushan rebellion, peace was maintained within the Tang realm only through the pretence that the autonomous provincial governors were imperial appointees; when ambitious rulers such as Dezong and Xianzong ruptured that façade, war was the inevitable result. During the period of the Tang founding, as after 755, the priority of Chinese leaders was necessarily war (or the preparation for war) within China; clashes with foreign powers beyond the frontiers were merely a sideshow.

Closely related to the goal of maintaining imperial unity was a determination to prevent the emergence of threatening concentrations of power within China. After the military consolidation of Tang authority, local magnates were gradually disarmed and their interests tied to the imperial court, in part through the mechanism of civil service examinations. Both land-ownership and commercial activity were strictly regulated by the state. The Tang followed Sui precedents in permitting possession of sabers and bows for self-defense while prohibiting the private ownership of “heavy weapons” such as crossbows, lances, and horse armor.³ A variety of institutional mechanisms were adopted to prevent the government’s armies

3 Liu Junwen (comp.), *Tang lǚ shuì yì qiǎn jié* [Simple Explanation of the Tang Code and Appended Commentary] (Beijing, Zhonghua shuju, 1996), ch. 16, pp. 1217–22.

themselves from becoming a threat to the dynasty. During the early Tang period, campaign armies were assembled from diverse elements under commanders appointed on a temporary, ad hoc basis; as soon as the fighting was over, the army was dissolved and its general returned (most often) to his billet with the imperial guards at Chang'an. Echoes of this practice continued into the ninth century; for example, the government armies attacking the autonomous military province of Huaixi in 815–17 consisted of small contingents drawn from twenty provinces, grouped into five field armies with no overall commander.⁴ The court might also appoint army supervisors (*jian jun shi*) to keep an eye on its field commanders. At first this responsibility fell to civil officials from the Censorate, the agency responsible for investigating official malfeasance, but from the mid eighth century onward the use of the emperor's most trusted servitors, the palace eunuchs, became the norm. Although army supervisors were not supposed to make command decisions or countersign orders, their confidential reports to the throne could prove fatal for insubordinate or merely unsuccessful generals. In the period after the An Lushan rebellion, the assignment of eunuch supervisors to both campaign armies and military provinces became routine and all but universal.

Conflicts between Tang China and foreign powers occurred for a variety of reasons. Tang imperial rhetoric, on display in declarations of war against other states, routinely asserted the emperor's universal sovereignty and his right – or rather, responsibility – to “spread righteousness” and suppress “arbitrary violence” wherever it occurred.⁵ When the empire intervened in the affairs of distant kingdoms, it did so to uphold a universal order; when outsiders attacked China, they were presented not only as rebels but also as barbarians coveting the empire's riches. The reality was more complex. Cross-border raiding was indeed frequent, especially in the north and west, but it resulted from a number of motives in addition to simple material greed. Raiding was both a means of putting pressure on China to make diplomatic, territorial, or trade concessions and a product of the competitive dynamics of tribal politics as chieftains sought to build reputations and reward their followers. Although some powers, most notably Tibet, sought territorial aggrandizement at Tang expense, the more purely nomadic polities of the northern steppes showed greater interest in extortion than conquest of

4 Charles A. Peterson, “Regional Defense against the Central Power: The Huai-hsi Campaign, 815–817,” in Frank A. Kierman, Jr. and John K. Fairbank (eds.), *Chinese Ways in Warfare* (Cambridge, MA, Harvard University Press, 1974), pp. 130–1.

5 Andrew Eisenberg, “A Study in Tang Factionalism: The Politics of Tang Taizong,” *T'ang Studies* 20–21 (2002–3), 65.

sedentary populations. Rather than taking advantage of the An Lushan rebellion to seize Tang territory, the Uighurs sent troops to help save the dynasty, which then had to acquiesce to an unequal trade in which large quantities of silk were exchanged for horses that were often of inferior quality. Conflicts between Tang, Tibet, and the steppe powers often centered less around the control of territory *per se* than the domination of trade routes (especially those running westward through the small oasis kingdoms of the Tarim Basin) and access to vital resources.⁶ Horses, in particular, were essential to both the mobility and striking power of armies, making control of grasslands on which they could be raised and maintained one of the most fundamental building blocks of military power. Loss of the pastures in today's Gansu to the Tibetans during the An Lushan rebellion had a crippling impact on Tang military capabilities, making it all but impossible for the empire to project power onto the steppes as in the period before 755.

In addition to such concrete, material considerations, the way in which inter-state relations were conceptualized in medieval East Asia was also a spur to conflict. The basic idea was that relationships between polities were inherently unequal and hierarchical; any ruler, in his dealings with another, was either patron or client, suzerain or vassal. Whether a ruler occupied the inferior or (obviously to be preferred) superior position relative to another was largely a function of their relative military power. Sometimes, though by no means in all cases, a test of arms might be needed to determine relative standing. The Tang conflict with the Eastern Turks, for example, owed much to such considerations, with the Turk qaghan providing support to those contenders within China who were willing to acknowledge his suzerainty during the Sui-Tang interregnum and then, a few years later, having to confront a unified Chinese empire under a monarch determined to establish his supremacy over the Turks. Relationships between equals were by no means impossible, but they tended to appear after periods of conflict in which neither side was able to gain a decisive advantage over the other. This phenomenon is exemplified in the treaties negotiated between China and Tibet in the second quarter of the ninth century.

A further layer of complexity was added to medieval East Asian warmaking by the personal preferences and idiosyncrasies of individual rulers. Considering only the Tang emperors, the intensity of the campaigns culminating in the decisive defeat of the Eastern Turks in 630 surely owed something to the determination of Li Shimin to avenge his "humiliation at the Wei

6 Twitchett, "Tibet," p. 133.

River” in 626.⁷ In the middle of the eighth century, Xuanzong’s thirst for military glory was blamed for encouraging frontier commanders to initiate conflicts that were both costly and unnecessary.⁸ A generation later, Dezong’s hatred of the Uighurs, rooted in a humiliation he had suffered at the hands of his steppe allies when he was heir apparent and a nominal field commander during the suppression of the An Lushan rebellion, led him to seek an alliance with Tibet against the Uighur qaghanate in the late 780s in place of the by-then traditional policy of alignment with the rulers of the northern steppes.⁹ The personal factor was never absent, and could sometimes produce decisions very different from what a less subjective calculation of interest might have suggested.

Military institutions

The institutional structures through which the Tang emperors worked to achieve their strategic goals evolved in tandem with changes in the empire’s security environment. The most fundamental changes were set in motion by the Tibetan wars of the 670s and the An Lushan rebellion of 755, resulting in three successive configurations of military power. The first configuration, which the early Tang emperors inherited from their Sui and Northern Zhou predecessors with very little modification, was based on the institution of the expeditionary army (*xing jun*). At most times, the frontiers were guarded by only a thin screen of small garrisons (*zhen*) and even smaller outposts (*shu*). Whenever circumstances required, a campaign army consisting mostly of temporary or part-time fighting men was assembled from diverse sources and sent into the field; as soon as it had achieved its objective, the army was disbanded and its soldiers sent home. After the subjugation of the Eastern Turks in 630, contingents of steppe cavalry commanded by their own chieftains became an extremely important component of many of the Tang expeditionary armies. Submitted tribal groupings, some of them settled on suitable pasture lands along the frontier, were incorporated into the empire as “bridle prefectures” (*jimi zhou*): their chiefs received bureaucratic rank and offices in the Tang system of territorial administration, but these posts tended

7 Li Shutong, *Tang shi suoyin* [Uncovering Tang History] (Taipei, Taiwan Shangwu yinshuguan, 1988), pp. 54, 57–8.

8 Du You, *Tong dian* [Comprehensive Canons] (Beijing, Zhonghua shuju, 1988), ch. 148, p. 3780.

9 Twitchett, “Tibet,” pp. 150–3.

to be held on a hereditary basis with government generally following tribal custom rather than the Tang legal code.

Although the expeditionary army system allowed early Tang rulers to field strong forces at relatively low cost to both the imperial treasury and the empire's agricultural base, it was best suited to the conditions under which it had originally emerged – a divided China in which nearby enemies could be defeated quickly, allowing the soldiers to return to their homes and farms. When the empire encountered foes such as the Tibetans, who could not be destroyed in a single campaign and continued to threaten the borders year after year, change became necessary. From the 670s onward expeditionary armies began to settle in position, becoming what were in effect permanent garrisons far more powerful than the earlier thin screen of frontier guards, and their personnel were gradually transformed into (or replaced by) full-time, professional soldiers. Expeditionary army commanders (*xing jun zong-guan*) gradually evolved into military governors (*jiedushi*). By the 730s the northern and western frontiers had been divided into ten command zones, each under a *jiedushi* holding a variety of concurrent commissionerships that gave him both civil and military authority over his particular zone. The largest of these commands each disposed of nearly 100,000 soldiers, divided among a number of armies (*jun*), stations (*shouzhuo*), and fortresses (*cheng*) as well as the older garrisons and posts. Although many of these units were based in walled strongholds (such as the three “Fortresses for Receiving Surrender” erected north of the Ordos loop of the Yellow river c.710), it is worth noting that the Tang, in contrast to the Qin, Han, and Sui dynasties, invested little in the building and maintenance of “long walls” (*chang cheng*); in this period China's Great Wall was more a geographical expression than a military reality. The mid-Tang defensive configuration was mobile rather than static, as indicated by the fact that most of the frontier commands had approximately one-third of their troops (including most of the cavalry) concentrated in a single army based at the military governor's headquarters.¹⁰ It also marked a very significant departure from the policy of keeping the authority of military commanders temporary, weak, divided, or otherwise constrained.

During the heyday of the expeditionary army system, Chang'an had been the site of a major concentration of military force, which included both permanent imperial guard formations (the Northern Army) and more than 50,000 part-time soldiers doing rotational service in the capital at any given

10 Du, *Tong dian*, ch. 172, pp. 4479–83.

time.¹¹ Although not intended as an “army in being” capable of undertaking military campaigns, this strong garrison certainly provided effective security for the capital city and the Tang court. During the first half of the eighth century, as the system of military governors controlling strong frontier armies emerged, the capital garrison and other forces that had been based in the interior of the empire were allowed to atrophy – a situation that greatly facilitated An Lushan’s drive on Luoyang and Chang’an in 755–6. In response to the rebellion, the military governor system was replicated across much of the empire as loyalist commanders were given control of civil administration in designated areas to guarantee logistical support of their armies. By the early 760s, much of the once hollow interior had become heavily militarized. Most of today’s Hebei and Shandong provinces, along with parts of Henan, was held by ex-rebels and other commanders who asserted *de facto* autonomy.

To confront and contain them, the court maintained a belt of loyalist military provinces in Shanxi and Henan. A key responsibility of the Henan garrisons was to protect the Grand Canal, the lifeline along which grain and revenues flowed from the rich but relatively lightly militarized south to sustain the central government. These resources were also essential for the maintenance of a second belt of loyalist military provinces located north and west of the capital to guard against the Tibetan threat.

Since events quickly demonstrated that the “loyalist” military provinces themselves could be uncooperative and even rebellious, and the court was understandably distrustful of its own generals in the wake of the An Lushan rebellion, a powerful new imperial palace army was created in the 760s. Based in and around Chang’an, this force soon came to be administered – and eventually controlled – by trusted and high-ranking palace eunuchs. At their height the palace armies had more than 180,000 soldiers, serving as a formidable counterweight to the military provinces and the ultimate guarantee of the dynasty’s survival. This gain in security vis-à-vis the provinces came at a cost, however; during the ninth century, the eunuchs’ military power often enabled them to dominate both court and emperor. Over time, laxity and corruption led to a hollowing out of the imperial center with consequences even more grievous than those seen in 755. When the rebel forces of Huang Chao stormed into the capital region in 881, the palace armies were easily overwhelmed. After the recovery of the capital the court

11 Zhang Guogang, *Tangdai zhengzhi zhidu yanjiu lunji* [Collected Studies on the Political History of the Tang Period] (Taipei, Wenjin chubanshe, 1994), pp. 23–4.

no longer had the wherewithal to recreate them, making the eventual demise of the Tang dynasty a foregone conclusion.

Soldiers, society, and the state

As may be glimpsed from the preceding discussion of changes in the structure of the Tang defense system, the process by which men were selected to be soldiers, the terms of their service, and their relationship to both the state and civilian society also changed over time. The backbone of the early Tang military was the *fubing*, often translated as “garrison militia,” though “soldiers of the headquarters” would be a more accurate rendering. This form of military service took shape under the Northern Zhou, reached maturity in the Sui period, and was quickly restored by the Tang founders in the 620s and 630s. It owed its name to the fact that men were enrolled under locally based regimental headquarters, which eventually came to number more than 600 when the system was at its maximum extent. In the early Tang there were large regiments with a regulation strength of 1,000 men, intermediate regiments with 800 men, and small regiments with 600 men. Around 685 these quotas were raised by 200, so there may have been upwards of 600,000 men enrolled as *fubing* in the early eighth century. The regiments, each commanded by an “assault-repulsing colonel” (*zhechong duwei*), were subdivided into units of 200, 100, 50, and 10, but all of them – including the regiment itself – were structures for training, administration, and personnel management rather than tactical or operational formations. When needed for military campaigns and other duties, soldiers were drawn from the regiments as individuals and formed into new units.¹² In expeditionary armies these included squads (*huo*) of 10 men, companies (*dui*) of 50, and battalions (*tong*) of 300. It was highly unusual for an entire regiment to be mobilized and deployed as a unit under the command of its colonel.

Men became eligible to be selected for service as *fubing* when they reached the age of 20. During the seventh century selections were made once every three years, with the actual choice being made by the civilian authorities at the local level. The selection criteria were household wealth, physical strength, and the number of males in the household: “When wealth is equal take the strong; when strength is equal take the rich; when wealth and strength are both equal, take from the household with the greater

12 Sun Jinmin, *Dunhuang Tulufan suo chu Tangdai junshi wenshu chutan* [A Preliminary Investigation of Tang Military Documents Found at Dunhuang and Turfan] (Beijing, Zhongguo shehui kexue chubanshe, 2000), pp. 38, 49.

number of adult males.”¹³ Once chosen, men were expected to serve until the age of sixty. During their period of service they were considered to have military status (*jun ming*), though they and their families continued to be listed in the household registers kept by the local civilian authorities. Like other registered adult males, they were supposed to receive allotments of farmland under the equal-field (*jun tian*) system. In return for their military service, however, they were excused from taxes and corvée labor. Another material advantage of service as a *fubing* was that it gave men the opportunity to acquire honorific rank through exploits on the battlefield, which in turn entitled them to hold far more “land in perpetuity” (*yong ye tian*) than would otherwise have been allowed under the equal-field system. For this reason alone, relatively well-to-do families seeking to build up their landholdings may have found military service an attractive option.

The fact that the *fubing* were provided with land allotments indicates that they were supposed to support themselves and their families through their agricultural endeavors whenever they were not on active service. It also seems that soldiers were expected to provide their own provisions for at least part of each period when they were assigned to campaign, garrison, or guard duty. The most expensive items in the military inventory, including armor, most weapons, cavalry mounts, and possibly the six horses (or donkeys) used as pack animals by each ten-man squad, were provided out of state funds and regarded as state property.¹⁴

Although the *fubing* were not required to devote themselves exclusively to soldiering, the fact that they remained in service for almost the whole of their adult lives meant that it was possible for them to acquire considerable military experience and attain a high level of proficiency at arms. The individual soldier was supposed to practice archery and other martial skills on a daily basis while dwelling at home, and each year, in the last month of winter, the entire regiment assembled for a period of group drill, mock combats, and hunting – which was considered another form of military training. Further opportunities for training arose when the soldiers of many

¹³ Liu, *Tang lü shuyi qian jie*, ch. 16, p. 1173.

¹⁴ Hamaguchi Shigekuni, “Fuhei seido yori shin heisei e” [From the Fubing System toward a New Military System], *Shigaku zasshi* 41 (1930), 1286–9. For horses in particular, see Gu Yiqing, *Tangdai fubing zhidu xingshuai yanjiu* [A Study of the Rise and Fall of the Fubing System during the Tang Period] (Taipei, Xin wenfeng chubanshe gufen youxian gongsi, 2002), p. 232; Sun, *Dunhuang Tulufan*, pp. 4, 10; and Wang Yongxing, *Tangdai qianqi xibei junshi yanjiu* [Studies on Military Affairs in the Northwest during the Early Tang Period] (Beijing, Zhongguo shehui kexue chubanshe, 1994), p. 411.

regiments were brought together for a great imperial inspection. Due to their extensive training and long-term organizational affiliation, the *fubing* are thought to have been the toughest and most reliable troops at the disposal of the court during the first century of Tang rule.

The *fubing* performed several functions in the early Tang defense system. In addition to providing soldiers for ad hoc expeditionary armies (*xing jun*), the regiments also sent men to serve for three-year terms in the garrisons and posts along the frontier. The primary responsibility of the *fubing*, however, was guard duty in the imperial capital – a fact reflected in the designation of the regiments' soldiers as "guardsmen" (*wei shi*). Each regiment was formally affiliated with one or another of the twelve Guard commands (*wei*) in the capital, or in a few cases with one of the six guard corps (*shuai fu*) of the heir apparent. Each of the Guard commands had approximately fifty local regiments under its purview. It did not have direct operational, line-of-command authority over any of them, but was responsible for providing leadership and assigning tasks to the thousands of soldiers from its regiments who came up to the capital each month for guard duty. Some stood guard at the southern gate of the imperial palace, while others manned the gates of the imperial city (*huang cheng*), which housed the offices of the central government. Still others were detailed to guard the residences of imperial princes or to serve as bodyguards for military officials. They performed escort duty whenever the emperor ventured outside the palace, and some acted as a metropolitan gendarmerie, manning police posts at major intersections and patrolling the avenues of the capital at night. At any given time in the early Tang, upwards of 50,000 men from the local regiments were performing guard duty in the capital.

For this purpose, each regiment was divided into a number of shifts (*fan*) that served by rotation according to a schedule designed to equalize the burden of travel to and from the capital. Regiments located within 500 *li* (167 miles) of Chang'an were divided into five shifts, with each shift doing one month of service before being relieved by the next, while regiments at a distance of between 500 and 1,000 *li* were divided into seven shifts. The farther a soldier's home was from the capital the less often his turn came up, which helped to compensate for the greater distance he had to travel.

Despite the central role of the *fubing* in early Tang, the dynasty's military establishment was always an extremely complicated structure with many different but complementary components. Expeditionary armies usually included short-term conscripts (*bingmu*), tribal auxiliaries, and sometimes even gentleman volunteers (*yizheng*, literally "righteous campaigners") as

well as soldiers from the regiments, and in the frontier garrisons *fubing* served alongside *fangding*, men conscripted for a limited term with no continuing military obligation thereafter. Even the primary task of guarding court and capital was shared with permanent, full-time guard units, the so-called Northern Army or “palace army” (*jin jun*). This force, which had its origin in the force that Li Yuan led from Taiyuan to Chang’an in 617, fluctuated greatly in both size and military effectiveness; its members were rarely sent into the field, but could sometimes play a praetorian-like role in the political struggles of the Tang court.

This complexity owed something to the deliberate scheme of checks and balances that prevented the military from becoming a threat to the dynasty, but it was also necessary because there were simply not enough *fubing* to provide for all aspects of imperial defense. The need to maintain the rotation schedules and ensure that sufficient men were always available for service in the capital, together with the expectation that the *fubing* were to support themselves by farming most of the year, meant that even a manpower pool of 600,000 was inadequate. Guardsmen returning from prolonged service in the field were excused from two consecutive tours of guard duty, creating a further disincentive for sending out large armies composed mainly of *fubing*. The numerical insufficiency of the *fubing* was rooted in the fact that the vast majority of the empire’s males were not eligible for recruitment; of the approximately 320 prefectures that made up the Tang empire, only about ninety contained regimental headquarters (*zhechongfu*) enrolling local men for service as *fubing*. The majority of these were located in the northwestern part of the empire, with the capital and its immediate environs being especially favored. Various explanations have been offered for this lopsided distribution, but the major factor seems to have been that the early Tang rulers, whose regime originated in the northwest, lacked confidence in the loyalty of the other parts of their empire.¹⁵

Military manpower was extracted from the east and south not through the regimental headquarters, but by means of a separate conscription system administered by the local civil authorities. Soldiers raised in this way were designated as “conscript-recruits” (*bingmu*). They were chosen from among the registered population to serve in an expeditionary army until the end of

15 Edwin G. Pulleyblank, *The Background of the Rebellion of An Lu-shan* (London, Oxford University Press, 1955), pp. 75–81; Kikuchi Hideo, “Tō setsushōfu no bunpu mondai ni kansuru ichi kaishaku” [An Explanation of the Problem Concerning the Distribution of the Tang Regiments], *Tōyōshi kenkyū* 27.2 (September 1968), 131–6; Gu, *Tangdai fubing zhidu xingshuai*, pp. 29, 32–3, 35, 37–9.

its campaign, when they were disbanded and returned to their home districts. The court could assign troop quotas to any of the empire's prefectures, and the number of men demanded could be tailored to fit the requirements of a particular campaign. In 661, for example, more than 44,000 men were raised from sixty-seven prefectures to take part in military operations against Koguryō. Conscript-recruits were supposed to be chosen in accordance with the same criteria of wealth, strength, and number of males in the household that governed the selection of *fubing*, but there was a strong preference for men holding honorific rank (*xun guan*, usually won on the battlefield) or those with some other previous experience of military service. Unlike *fubing*, they were not expected to bring their own provisions. Issued weapons and clothing by their prefecture of origin, during their time in the field they ate government grain that was either sent along with them or drawn from prefectures on their line of march. Before the 660s it would appear that many *bingmu* enlisted voluntarily, with local officials falling back on conscription to make up the remainder of the quota. As time passed and military service became less attractive, however, the voluntary element largely disappeared.

The *fubing* system also encountered difficulties after the middle of the seventh century; its decline was gradual, but by 749 the government saw no reason to continue transmitting the copper, fish-shaped tallies that the regiments had used to verify mobilization orders. Many explanations have been offered for the failure of what had been the core military institution of the early Tang.¹⁶ One widely held view is that the system was inherently flawed and therefore unsustainable over the long term: the rotation schedules imposed an unreasonably heavy burden on guardsmen dwelling far from the capital, and the demands that the state made of all the *fubing* were more onerous than the tax and corvée obligations of ordinary farmers. Some have pointed to abuses that made military service increasingly unattractive, such as the tendency of officials to whom *fubing* were assigned as bodyguards to use them as menials. The health of the system was also influenced by broader social and economic trends, the most important of which was the breakdown of the equal-field system of land distribution that was supposed to provide guardsmen with the means to support themselves and their families. In theory, each adult male was to be provided with 100 *mu* (14 acres) of arable

16 Nearly the full range of possibilities was outlined by Hamaguchi in 1930; see his "Fuhei seido yori shin heisei e," pp. 1448–65. The subsequent literature is voluminous, but the pattern has been for each contribution to emphasize one or another of the items on Hamaguchi's list while downplaying others.

land – more than enough to support an average family – but real allotments were often less, especially in the core prefectures of Guanzhong where there was an unfavorable ratio of population to land. The problem only intensified over time as wealthy and powerful families augmented their landholdings by a variety of devices, both legal and illegal, leaving less and less land available for ordinary cultivators (and farmer-soldiers).

In addition, the same changes in the strategic environment that put an end to the expeditionary armies also had negative implications for the *fubing* system. The need for large numbers of soldiers to man static army garrisons (*jun zhen*) facing the Turks and Tibetans imposed an even heavier burden on guardsmen and their families and must have subjected the rotational system of guard duty to unprecedented stress. The increase in the size of the regiments in mid 680s was probably driven by the need to supply manpower to the new garrisons while still maintaining the rotation system. It may also have served as a hedge against attrition of the existing pool of trained military manpower; by the 690s at the latest, there are reports of guardsmen absconding or even mutilating themselves to escape from their military obligations. In the early eighth century the state found it necessary to make service less unattractive by reducing the term of service from forty years to fifteen, but this was not sufficient to restore stability to the system since the long-term implication was an even greater loss of manpower. By the early 720s the inadequacies of the *fubing* prompted the government to experiment with a new and considerably less onerous system of rotational service, for capital guard duty only, using volunteers recruited in areas close to Chang'an. These forces, designated the "mounted archers" (*kuo ji*), did not prove a great success, in part because recruitment targeted the poorest strata of the population and involved a strong element of coercion.

In this regard, the "mounted archers" merely replicated problems that had already appeared in the *fubing* system. Dignified by the title of "guardsman" and proximity to the emperor during his tours of guard duty, and in theory selected from among the better-off members of his community, the individual *fubing* was supposed to be an elite warrior who took pride in his special status. Even in the early Tang, the reality must often have been rather different, since the high quotas imposed on some of the prefectures in the northwest could not have been filled without drawing from the poorer families who accounted for the majority of the population. As conditions worsened and military service became less attractive, the burden on the poor must surely have become heavier as the well-to-do used their influence and connections to avoid selection. In fragmentary early

eighth-century household registers from Dunhuang in the far northwest, we find that guardsmen are most likely to come from those occupying the lowest tier in the government's nine-level classification of household wealth and status.¹⁷

In the late seventh century new rotation systems were put in place to supply both *fubing* and conscript-recruits to expeditionary armies that had been converted into permanent frontier garrisons, with tours of duty usually lasting from two to four years. This solution left much to be desired, however. The costs of moving large numbers of men back and forth from the interior was high, and experienced soldiers were constantly being replaced by raw recruits. During the second decade of the eighth century the government began inching toward another solution, encouraging conscript-recruits to remain in the frontier armies voluntarily beyond their term of service by offering material inducements. Those who chose to stay eventually came to be distinguished with the label of *jian'er* ("sturdy lads"), and the breakdown of the equal-field system during this period meant that there was potentially a large pool of willing candidates for this status. The decisive shift from compulsory to volunteer service came in 737, when the court ordered the military governors to fill their manpower quotas entirely by recruitment of currently serving *bingmu* and members of migrant families who were willing to move to the frontier and stay there. Those who volunteered were offered material compensation "above the usual standard," permanent exemption from taxes and corvée, and provision of land and houses.¹⁸ It would seem that these were strong inducements. At the beginning of 738, with its recruitment quotas already close to being filled, the government decreed that the remaining conscripts on the frontier would be released from service. Although there is evidence that the new *jian'er* spent some time on furlough cultivating the lands they had been assigned, the trend was clearly toward a professional, mercenary army of full-time, long-service soldiers paid and fed by the state.

As a consequence of the An Lushan rebellion, this model of military service, like the system of military governors with which it was associated, spread from the frontier to the interior of the empire. The great majority of the soldiers who served in the provincial armies of the late Tang – and in the imperial palace armies, which were in part recruited from loyal provincial forces north and west of the capital – were long-service professional fighting

¹⁷ Gu, *Tangdai fubing zhidu xingshuai*, pp. 171–3.

¹⁸ Wang Qinruo (comp.), *Cefu yuangui* [Outstanding Models from the Storehouse of Literature] (Beijing, Zhonghua shuju, 1960), ch. 124, p. 21b.

men. In contrast to the frontier *jian'er* of Xuanzong's time, they were more completely separated from civilian life and productive economic activities. And they quickly developed a keen sense of corporate identity and collective self-interest that led them to strike out violently when they perceived their interests to be threatened.

As with the earlier frontier armies, the greatest pool of willing recruits for the post-rebellion military was provided by the landless poor. Once a man had enlisted, he would most likely spend the rest of his life in the army, perhaps even after he was too old or infirm to perform active service. Unlike the pre-rebellion *jian'er*, who might still devote some time to farming, the late Tang soldier depended on the pay he received from his commander for his own sustenance and that of his family. This pay included grain rations for the soldier and his dependents, enough silk or hemp fabric to provide him with outfits of winter and spring clothing, and allowances of salt, wine, soy sauce, and vinegar. Soldiers also received many additional rewards of various sorts, such as bonuses of silk cloth for men setting out on campaign and special distributions at the Spring Festival or on the occasion of the installation of a new military governor. The late Tang was a time when market forces were becoming increasingly important, and this trend was clearly reflected in the military where loyalty and obedience were purchased with full and regular payments. A modern historian has counted ninety-nine instances of mutiny in the provincial armies, with financial matters the single most important source of the soldiers' discontent.¹⁹

This turbulence gave rise to a concentric pattern of organization in the provincial armies. The soldiers of the headquarters army, based at the seat of the military governor, were better remunerated than those of the (numerically inferior) outlying garrisons, and in many provinces the governors created elite bodyguard units of personal retainers distinct from the headquarters army. These groups were especially pampered and privileged, like the "Silver Swords" who were treated to daily banquets by the military governors of Xuzhou. The men of bodyguard units were sometimes also bound to their leader by fictive kinship ties, a legacy of the steppe influence that was still strong in the frontier armies of Xuanzong's time.

Although professional, mercenary soldiers dominated the military establishment of late Tang, the farmer-soldier by no means disappeared. At the same time the *fubing* system was encountering difficulty in the early eighth

19 Zhang Guogang, *Tangdai fanzhen yanjiu* [A Study of the Military Provinces of the Tang Period] (Changsha, Hunan jiaoyu chubanshe, 1987), p. 106.

century, the government began to experiment with a new form of part-time military service by recruiting militiamen who became known as “soldiers of the trained bands” (*tuanlian bing*). The manner in which men were selected and their terms and conditions of service in many ways resembled those of the *fubing*, but there were also significant differences. The trained bands were not required to do rotational service in the capital or on the frontier; in theory, they were a sort of home guard who were not expected to serve outside of their own prefecture. Gone, too, was the intricate organizational structure of the regiments and guards, with command now being exercised by the local civil administrator, the prefect, who held the concurrent title of military training commissioner (*tuanlian shi*). Although militiamen were sometimes required to serve outside of their home prefecture in times of emergency, their overall burden seems to have been substantially lighter than that of the *fubing* and they continued to play a role in the provincial armies to the end of the dynasty and beyond.

Tools and techniques of war

In contrast to the many changes in military institutions, there were no revolutionary developments in the technical means of waging war during the Tang period. The major innovations that defined Tang warfare – including iron weapons, the crossbow, cavalry, stirrups, and disciplined infantry capable of maneuvering in formation – were present long before the beginning of the seventh century. Daoist alchemists in the ninth century were already aware of the unpleasant consequences that might result from carelessness with mixtures of saltpeter, sulfur, and carbonaceous materials, but this knowledge was not put to military use until around 1000 CE. Situated between the adoption of the stirrup and the advent of gunpowder, the Tang period was marked by a basic unity of military technology.

The Tang armory included a variety of edged weapons and missile weapons. Those most frequently encountered on the battlefield were bows, sabers (*dao*), and polearms of various sorts. Made from overlapping layers of wood, horn, and sinew, the Tang composite bow was essentially the same weapon that had been used by the peoples of the Inner Asian steppes from ancient times. It could send war arrows as far as 280 yards, but had to be employed at much closer ranges for tactical effectiveness. It was one of the basic weapons of the cavalry and was also carried by many foot soldiers. The saber was a single-edged chopping weapon that had replaced the two-edged sword (*jian*) of Chinese antiquity. It was the near-universal sidearm for both

cavalry and infantry, and was carried as a secondary weapon by many soldiers who placed their primary reliance on bow, spear, or lance. The long lance (*shuo*) was used by many mounted troops, while foot soldiers carried pole-arms of many different lengths and patterns. Probably the most common infantry weapon was the simple spear (*qiang*), standard armament for the infantry drills described by the early Tang general Li Jing.²⁰ A particularly fearsome hybrid weapon was the “long-hafted blade” (*changdao* or *modao*), a sword or saber blade attached to a long handle that was carried by small units of elite foot soldiers who were often used to spearhead attacks on enemy formations. Another powerful weapon was the crossbow. Although no longer the basic arm of the infantry as in Han times, it was still employed by specialist units that might account for up to 10 percent of the total strength of a Tang field army.²¹

To protect themselves from arrows and crossbow bolts, spear thrusts, and saber cuts, Tang soldiers were outfitted with armor and shields. Shields were made from wood or leather and were of two basic patterns: a large, rectangular shield for foot soldiers and a smaller, circular one that was issued to cavalymen. Armor could be of either iron or hide. Many warrior figurines recovered from Tang tombs appear to be wearing armor made of smooth sheets of leather, often with two round metal plaques protecting the chest and sometimes with additional plaques for the back and abdomen. Another very common type of armor was lamellar, made up of many small rectangular pieces of iron or leather laced together horizontally and vertically. A full suit of armor included a helmet, a corselet protecting the front and back of the torso, *épaulettes* covering the shoulders and upper arms, and long flaps hanging down from the left and right sides of the corselet to guard the legs. The war robe (*zhanpao*), a long garment of heavy material, provided additional protection for armored warriors and was probably the only defensive covering worn by many of the more lightly equipped troops.

The first years of the Tang dynasty saw an interesting development in cavalry armor. The typical Sui cavalryman not only had a full suit of armor for himself, but was also mounted on a horse outfitted with lamellar armor covering almost the whole of its body above the lower legs. This type of heavily armored cavalry made its debut in the fourth century CE and soon occupied the most prominent place in the military forces of the rival northern and southern regimes during the period of division. Heavy cavalry played an important part in the Sui conquest of the southern Chen state in 588–9, and

20 Du, *Tong dian*, ch. 149, pp. 3813, 3820. 21 Ibid., ch. 148, pp. 3792–3.

forty squadrons of armored soldiers on armored horses formed the fighting core of each of the thirty “armies” that Sui Yangdi led against Koguryō in 612. Within a few years of Yangdi’s Korean debacle, however, the armored horse had all but disappeared from the battlefield. It was light cavalry (*qingji*) that became the characteristic mounted force of the newly established Tang empire. One possible explanation for the shift is that the Sui unification of north and south left the lightly armored steppe peoples as the principal adversary, with the result that Tang cavalymen had to discard their horse armor in order to keep up with their fast-moving opponents.²²

Given the great variety of Tang military institutions, there was considerable variation not only in the quality and completeness of soldiers’ equipment, but also in their morale and training. This unevenness was reflected in the tactics that Tang commanders employed on the battlefield. It was common for generals to organize small corps d’élite, often armed with special weapons such as the *changdao*, to spearhead their attacks while less reliable troops were held out of the fray. Generals sought to match their best units against the worst troops in the opposing army. Li Shimin won most of his victories by charging a selected weak point in his opponent’s line with his elite cavalry after the enemy had been pinned down or distracted by other elements of his army. He was accompanied in battle by a special unit of 1,000 horsemen dressed in black clothing and black armor. Although they were a minority in most Tang armies (accounting for only 20 percent of the standard expeditionary army described by Li Jing), mounted troops were normally more effective than soldiers on foot. Quite small contingents of Uighur cavalry were responsible for winning several critical battles during the An Lushan rebellion, and Shatuo Turk horsemen played a similar role against various rebel forces in the second half of the ninth century.

Tang armies might adopt many different formations on the battlefield, though there is some evidence that it was standard practice to deploy in two echelons, with cavalry on the flanks and infantry in the center. The fifty-man company (*dui*) was the fundamental, irreducible unit for tactical deployment and maneuver. It was the smallest unit provided with a flag, had a fixed battle formation five ranks deep, and was expected to advance and retreat as a body. Tang commanders used drums to signal advance, horns to order retreat, and flag signals to convey more complicated messages. Strategic communication over much greater distances was facilitated by chains of beacon stations, using smoke signals by day and torches at night, and by the express riders of

22 Albert E. Dien, “A Study of Early Chinese Armor,” *Artibus Asiae* 43 (1982), 41.

the imperial post stations, who carried news of An Lushan's revolt more than 750 miles to the capital in only six days.

Tang warfare was shaped not only by weapons and communications techniques, but also by the technology of fortifications and siegecraft. The empire was studded with many hundreds of walled towns and cities, which served as administrative centers and guarded the major arteries of communication and transport. Strategic points that lacked permanent walled settlements could be protected by improvised forts of earth, stone, or timber, and these lesser strongholds were sometimes used to create fortified belts that could shield entire regions. Field armies that chose to stay in one place for any length of time often constructed defensive works to protect their camps against attack. All of these types of fortification put serious obstacles in the way of offensive operations, and they could be exploited by defenders who wished to avoid battle when the odds were unfavorable.

The typical Tang city was built on a quadrilateral plan and had thick walls of pounded earth (*hangtu*). Sometimes brick was used as an outer facing, especially at vulnerable points such as gates and corners. One of the most impressive specimens, the "imperial city" at Luoyang, had brick walls that were 11 m thick at the base and 11 m high. Many other town walls were within the range of 3–10 m in both thickness and height, and the walls were often supplemented by moats, shallow projecting bastions (*mamian*), and a great variety of outerworks. Brick became increasingly popular as a building material toward the end of the Tang period, especially in the south where heavy rainfall and relatively loose soils made for *hangtu* walls that were prone to collapse.

A tremendous variety of techniques and devices were used to overcome fortified positions. These included trebuchets, powered by men hauling on ropes, that could hurl 50-pound stones against city walls from distances of 100 yards or more, massive crossbows for use against defenders on top of the walls, and battering rams and covered approach vehicles to enable attackers to break down gates or chip away at the foot of the wall. Tunnels were dug to undermine city walls, and earthen mounds, wooden towers, and overlook vehicles were used to permit archers to shoot down on the defenders. Ramps of earth might be piled up to give assault troops access to the battlements, or the attackers might employ "cloud ladders" (*yunti*) – wheeled vehicles carrying long, two-sectioned ladders that could be extended by means of counterweights – for an escalade of the walls. Since many Chinese cities were built on low-lying ground near rivers, one of the oldest poliorcetic techniques was to

divert the water into a new channel in order to inundate the city and its defenses.

Defenders did not have to wait passively until these measures had produced their intended effect. Long before Tang times, a range of ingenious countermeasures had been devised to thwart almost every one of an attacker's techniques. In the late autumn of 783, when rebel forces tried to storm the wall of Fengtian (where the emperor Dezong had taken refuge) with an especially large cloud ladder, one of its wheels became stuck when it hit a tunnel that the defenders had dug beneath its approach path. Combustible materials were ignited in the tunnel while torches, pine pitch, and oil were thrown down from the walls; before long the stricken vehicle and all of its occupants had been destroyed by fire.

Though a walled city was by no means invulnerable even when it was well-provisioned and strongly defended, reducing it to submission was still likely to be a difficult, costly, and time-consuming process. Sieges could drag on for weeks or months, and whenever the besiegers had to wait for a long time, there was a good chance that a relieving army might appear or something else would occur to draw the attackers away. In some cases, attackers had to retreat because they ran out of supplies before the defenders did. Sieges were always difficult and uncertain undertakings, but they were not easy to avoid when walled cities blocked the major arteries of transportation and could be used as refuges by armies wishing to avoid the test of combat in the open field.

Tang armies did not normally seek to live off the land in Napoleonic fashion. An army that provided for itself by seizing what it needed from the territory in which it happened to be operating was perceived as being in a position of weakness rather than strength. In 619, for example, Li Shimin observed that his opponent had no accumulated stores but was supporting his forces by plundering the countryside, and went on to predict that he would have to retreat when there was nothing left to eat – as was eventually the case. Most Tang commanders preferred to support their armies by moving provisions forward from a base of supply, such as a large state granary or a rich agricultural region under friendly control. When large armies had to be supplied over long distances, water transport was the only viable solution. In 816, government armies operating against the rebellious province of Huaixi were supplied over more than 560 miles of canals and navigable rivers.

Logistical imperatives necessarily circumscribed strategic options. Not only were movements most conveniently channeled along rivers, canals,

and established roadways, but the security and integrity of one's line of supply frequently assumed paramount importance in maneuvering against the enemy. Commanders were often unwilling to bypass fortresses and walled cities held by strong garrisons. In 645, the principal Tang field commander in the expedition against Koguryō refused to march on Jian'an until he had taken the fortress of Anshicheng to secure his line of supply, and the Koreans' successful defense of Anshicheng ultimately spelled the failure of the campaign.

The medieval Chinese state had a tremendous capacity to mobilize manpower and material resources in support of military endeavors. If the sources can be believed, Sui Yangdi raised over 1.1 million combat troops and more than 2 million transport workers for his campaign against Koguryō in 612. After a march of more than 400 miles from their base at Zhuojun, however, only about 300,000 were reported to have crossed the Liao river into Koguryō. And their efforts ended in failure and retreat, in large part due to inadequate supplies as the teams and crews hauling grain overland consumed their cargoes long before reaching their destinations. The inescapable logistical constraints of premodern warfare dictated that only a fraction of the empire's theoretical military power could be brought to bear against an enemy at a particular time and place.

Perceptions of war and the military

It is difficult to generalize about Tang attitudes towards war and the military, given that even the literate elites positioned to influence the historical record – not to mention the usually voiceless common people – held a variety of different views that were susceptible to change over time. War was inevitably a source of hardship and suffering for soldiers and civilians alike. The civil wars attending the Tang founding reportedly left vast swathes of the North China Plain virtually depopulated, and the Tang period was punctuated repeatedly by the sack of cities at the hands of foreign invaders, rebel forces, and even the government's own unruly soldiery (a fate that befell the great commercial entrepôt of Yangzhou in 762). From the early and middle Tang especially, when recruitment tended to have a strongly compulsory character, there are reports of men mutilating themselves to avoid military service. Yet for many others, war provided opportunities – to increase one's landholdings, to advance in official rank and improve the social standing of one's family, perhaps even to catch the eye of the emperor himself, as a volunteer named Xue Rengui, deliberately outfitted in

flamboyant clothing, did at the siege of Anshicheng in 645. For the mixed-blood northwestern aristocracy that provided so much of the political and military leadership of the early Tang, martial valor and prowess at arms were fundamental elements of identity; an especially robust representative of this class was the second emperor of the dynasty, Li Shimin, who once claimed that he had *personally* slain more than a thousand opponents in combat during his military career. But the governing elite also included groups with rather different values and priorities. One of the most prominent civil officials of Li Shimin's court, the Confucian scholar Wei Zheng, signaled his disapproval of the "smashing the formation music" (*po zhen yue*), a performance by armed and armored dancers to celebrate his master's military victories, by looking down at the ground and refusing to watch. Shortly after taking the throne, Li Shimin himself authored a treatise on rulership asserting the need to balance the civil and military aspects of government.

The gap between civil and military elites, already noticeable in the early years of the dynasty, widened considerably with the passage of time. This was due to a variety of factors, including the growing prestige of the civil service examinations (especially from the late seventh century onward), the declining attractiveness of military service for members of the aristocracy, and the increasing professionalization of the military which, by the middle of the eighth century, included many officers of non-Chinese origin. Government policies, informed by the notion that "barbarians" were by nature more warlike than Han Chinese, permitted such individuals to rise to the highest command levels; the Turk Geshu Han and the Sogdian An Lushan commanded powerful frontier armies in the 740s and 750s, while their contemporary Gao Xianzhi, a general of Korean descent, led military expeditions deep into Central Asia. The rebellion of An Lushan and the subsequent appearance of autonomous military provinces cast a shadow of suspicion not only on commanders of foreign origin but on Han generals as well, intensifying civil–military tensions. Lai Tian, renowned for his stubborn defense of Yingchuan against the rebel armies, was denounced by eunuchs and forced to commit suicide at the beginning of 763. And the famously loyal Guo Ziyi, one of the court's most successful generals, was not entrusted with a major field command during the last three years of the rebellion. The court now preferred to appoint civil bureaucrats as military governors, and eunuch army supervisors were assigned more systematically than they had been before the revolt of An Lushan. On occasion, scholar-officials might be entrusted with important field commands; for example, Pei Du, an examination graduate and former

president of the Censorate, directed operations against the rebellious province of Huaixi in 814–15.

In the later Tang, civil officials expressed their disapproval of military men in various ways. On the ritual front, the observances at the “military temples” (*wu miao*) that had been established to honor Qi Taigong, the semi-legendary strategic advisor to the founders of the Zhou dynasty, were downgraded to signal that they were no longer considered to be on a par with the civil officials’ cult of Confucius.²³ In the writing of history – like ritual, an arena utterly dominated by scholar-officials – the military also got the short end of the stick. Accounts of battles and campaigns tend to highlight clever stratagems rather than hard fighting as the decisive factor in war. Descriptions of the violent and heroic actions of individual warriors are not absent, especially in materials relating to the early years of the dynasty, but trail off rapidly during the second half of the seventh century (with only a modest and short-lived uptick around the time of the An Lushan rebellion).²⁴ The impression conveyed is that war is above all an intellectual exercise, a suitable field for the talents of scholar-generals. Civil officials assigned to military command who managed to keep the soldiers in line by means of iron discipline were singled out for special praise. In the early years of the dynasty, military command was still identified with leadership on the battlefield. In late Tang historical writing, however, the stress is on the ability of the tough-minded, strong-willed, and ingenious scholar-official to succeed as a strategist and military executive.²⁵ The Tang trend toward professionalization of the military was accompanied by the emergence of a strong – and lasting – belief among China’s civilian elites that war was too important to be left to the soldiers.

23 D. L. McMullen, “The Cult of Ch’i T’ai-kung and T’ang Attitudes to the Military,” *T’ang Studies* 7 (1989), 91–3.

24 David A. Graff, “Narrative Maneuvers: The Representation of Battle in Tang Historical Writing,” in Nicola Di Cosmo (ed.), *Military Culture in Imperial China* (Cambridge, MA, Harvard University Press, 2009), pp. 148–9.

25 David A. Graff, “The Sword and the Brush: Military Specialisation and Career Patterns in Tang China, 618–907,” *War & Society* 18.2 (October 2000), 19–21.

Japan to 1200

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Anthropologists believe that the Japanese archipelago was settled by migrants from the Asian mainland sometime between 140,000 and 500,000 years ago, when falling global temperatures trapped water in glaciers and the polar ice caps, causing sea levels to drop 120 m or more below their present levels, and opening land bridges to Siberia and the Korean peninsula. Permanent village settlements and a cultural complex known as the Jōmon, after the distinctive, cord-marked slab pottery found at most sites, appeared between 14,500 and 10,000 BCE. Around 1,000 BCE, a new wave of immigrants spread outward from northern Kyushu, intermingling with the Jōmon peoples and displacing their civilization with a new one, which archaeologists have dubbed Yayoi after the location of the first site discovered, in Tokyo in 1884. The newcomers brought with them bronze- and iron-working skills, advanced agricultural techniques, and more sophisticated forms of political organization.

They also brought war. While archaeologists have unearthed more than 5,000 human skeletons from Jōmon sites, only ten of these show evidence of violent death. By contrast, more than 10 percent of the individuals discovered thus far in Yayoi sites appear to have died from wounds inflicted by weapons, which, by mid-Yayoi times, had clearly diverged from hunting and farming tools.

The majority of Yayoi settlements were, moreover, surrounded by moats. Many of the larger sites, located on plains, featured elliptical trenches about 20 x 130 m in diameter, 4 m wide, and 2 m deep, with the dirt excavated from the trench piled at the lip. One very large site had three trenches, the inner two featuring stakes and twisted branches that functioned as primitive caltrops, and the outer of which was surrounded by a ring of thigh-high stakes and planks. From around 200 BCE, Yayoi groups in the Inland Sea region and along the Osaka Plain also began constructing villages or outposts on cliffs overlooking bays and sea lanes. Located on difficult-to-reach terrain

hundreds of meters above the level of ordinary rice-lands, these “highland settlements” (*kōchisei iseki*) appear to have been established primarily as lookout bases for military scouts. The number of these hamlets seems to have increased dramatically from the first century CE onward.¹

All of this points to a society at war. Archaeologists surmise that by the end of the second century BCE, population growth and the extension of rice agriculture were creating a shortage of choice land and water resources – evidenced by the expansion of Yayoi settlements into the upper reaches of river valleys and low hilly areas – provoking conflicts between neighboring settlements. At the same time, such conflicts led to a strengthening of relationships among settlements and the emergence of supra-village-level political leaders, which then spawned larger and more frequent conflicts.

Competition between these emerging regional power blocs led in turn to greater political integration, particularly in the collection of tribute and conscription of labor for war. Chinese records from the second century CE describe a loose confederation of twenty-two “countries” stretching from northeastern Kyushu to east-central Honshu. The latter part of the third century witnessed the emergence of still larger confederations under the pressures of trade and political interaction with the mainland, and warfare and political competition in the archipelago. By the fifth century, a country-wide confederation had emerged, centered in the Yamato region of western Honshu.

The Yamato sovereigns buttressed their loose preeminence over chieftains in other parts of the archipelago with investiture from Chinese monarchs in titles like the “King of Wa and Generalissimo Who Maintains Peace in the East Commanding with Battle Axe All Military Affairs in the Seven Countries of Wa, Silla, Imna, Kaya, Jinhan and Mokhan,” accorded “King Bu” (generally identified with the emperor Yūryaku described in later Japanese chronicles) in 478.²

1 William Wayne Farris, *Sacred Texts and Buried Treasures: Issues in the Historical Archeology of Ancient Japan* (Honolulu, University of Hawai'i Press, 1998), pp. 38–9; J. Edward Kidder, *Himiko and Japan's Elusive Chieftdom of Yamatai* (Honolulu, University of Hawai'i Press, 2007), pp. 71–2; Keiji Imamura, *Prehistoric Japan: New Perspectives on Insular East Asia* (Honolulu, University of Hawai'i Press, 1996), pp. 179–81; Seki Toshihiko, “Wakoku ōran” [Great Disorder in the Land of Wa], in Mayuzumi Hiromichi (ed.), *Chūō shūken kokka e no michi* [The Road to the Centralized State] (Tokyo, Daiichi hōken shuppan, 1988), pp. 31–2.

2 *Songshu* [History of the Liu Song Dynasty], quoted in Tsunoda Ryusaku and L. Carrington Goodrich, *Japan in the Chinese Dynastic Histories: Later Han through Ming Dynasties* (Pasadena, CA, P. D. and Ione Perkins, 1951), pp. 23–4.

“Wa” is an old Chinese appellation for Japan; the other countries named here represent kingdoms and tribal leagues on the Korean peninsula. A stone stele erected in 414 on the Yalu river (in what is now northeastern China) by King Kwanggaet’o of the Manchurian and northern Korean kingdom of Koguryō offers further testimony to the military involvement of Japanese sovereigns on the mainland. The monument describes Wa forces active on the peninsula from the 390s allied with the southwestern kingdom of Paekche, against Koguryō and the eastern kingdom of Silla. Japanese interest in Korean affairs stemmed from a desire for iron, equestrian gear, and prestige goods, as well as advanced knowledge in arts, religion, political philosophy, and law. In return for trade and cultural exchange, Japanese elites provided military aid to the rulers of Paekche and Kaya (on the southern tip of the peninsula) in their squabbles with Koguryō and Silla.³

The imperial state

By the late sixth century an emerging royal court cast a waxing shadow across Japan’s political landscape, gathering territorial chieftains across the archipelago into a confederation within which one, the royal Yamato house, stood as *primus inter pares*. In theory, the regional chieftains that comprised this loosely integrated kingdom drew their authority from the court, in the form of appointments as *kuni no miyatsuko*, or Provincial Patriarchs, but in practice, their positions were permanent, hereditary, and only nominally related to the king’s authority. Outside the immediate vicinity of the court, the sovereign and the confederation were little more than a vehicle for cooperation among the great houses in matters of “national” concern. All of that changed – rapidly, fundamentally, and sometimes dramatically – during the seventh century, as this polity gave way to a centralized regime, modeled in large measure on the institutions of Tang China.

The changeover to this imperial, or *ritsuryō* polity accelerated after the sixth month of 645, when a radical clique led by the future emperor Tenji seized power by hacking their political opponents to pieces with swords and spears in the midst of a court ceremony. In the wake of this spectacular coup d’état, Tenji and his supporters introduced a series of Chinese-inspired centralizing measures collectively known as the Taika Reforms, after the calendar era in which the first were launched. Over the next several decades,

3 Bruce L. Batten, *Gateway to Japan: Hakata in War and Peace, 500–1300* (Honolulu, University of Hawai’i Press, 2006), pp. 14–18.

the great regional powers were gradually stripped of their independent bases and converted into true officials through a judicious combination of cajolery, cooptation, and coercion, while the Yamato sovereigns were restyled in the image of Chinese emperors: transcendent repositories of all political authority.

The reformers were aided in their efforts by widespread Japanese apprehension over the growing might of Tang China, engaged at the time in one of the greatest military expansions in Chinese history. By the 660s, the Japanese were reeling from the cascading effects of what one author has described as “a kind of East Asian world war,” and a Chinese invasion of the Japanese archipelago seemed imminent.⁴ The fear this situation engendered served to mute opposition and promote support for state-strengthening reforms, as central and provincial noble houses set aside their differences in the face of a common enemy.

Under the circumstances, it should be no surprise that centralization and restructuring of the military was a major element of the state-reformation process. Yamato “state armies” had been knit together from the private forces of the *kuni no miyatsuko*, who led them into battle under the banner of the Yamato king. This can be seen clearly in the makeup of a force sent to the Korean peninsula in 591. Overall command of the army was held jointly by five of the greatest noble houses, while the individual divisions were led by the heads of lesser noble families. A similar expeditionary force eleven years later centered on a single general, a prince of the royal house, but the army itself was still a heterogeneous patchwork of troops belonging to various provincial chieftains.

By the close of the seventh century, however, the whole of the state’s military resources had been subsumed under the direct control of the newly recast emperor. The resulting system continued to conscript the same peasant cultivators as soldiers, and to appoint the same regional nobles as officers. But there was a crucial difference, for under the new regime, direct conscription by the state – as supervised by the imperial court – replaced private conscription through the provincial patriarchs. This transformation of the army paralleled the transformation of the Yamato confederation into a centrally administered imperium. Neither conversion occurred at a stroke; in both cases commissions, posts, and titles tended to be created first and then empowered little by little – sometimes years after authority had been granted on paper.

⁴ Ibid., p. 18.

The emperor's army

The *ritsuryō* codes reserved for the emperor and his officials authority for all but the most minor military and police affairs. Overall administration of the state's armed forces was conducted by the Ministry of Military Affairs (*hyōbushō*) and overseen at the provincial level by the governor and his staff (all of whom were central appointees).

All free male subjects between the ages of 20 and 59, other than the nobility and those who "suffered from long-term illness or were otherwise unfit for military duty," were liable for induction as soldiers, or *heishi*.⁵ In practice, conscripts were generally quite young – usually in their early twenties – and enlistments were fairly short, with draftees continually rotated in and out of service. Those called to service were enrolled in provincial regiments (*gundan*), which were militia organizations, akin to modern national guards. Once assigned and registered as soldiers, most men returned to their homes and fields. Provincial governments maintained copies of regimental rosters, which they used as master lists from which to select troops for training; for peacetime police, guard, and frontier garrison functions; and for service in wartime armies.

The *gundan* were administrative divisions rather than tactical ones. For this reason, they did not need to be of uniform size, and ranged from fewer than 500 men to as many as 1,000. The fundamental tactical unit was the company (*tai*), composed of fifty men, organized as either cavalry (*kitai*) or infantry (*hotai*), and divided into ten-man campfires (*ka*) and five-man squads (*go*), and for battle, into two lines of five squads each.

The *ritsuryō* system did not provide for a standing army for large-scale offensive or defensive campaigns. In time of war, a temporary expeditionary force was knit together from temporarily mobilized provincial regiments under staff officers holding temporary commissions. At the close of the campaign, the officers' commissions expired, the army was dissolved, and the troops were returned to their homes.

Mobilizations of more than twenty troops could be undertaken only by imperial edict. The procedures for promulgating such writs were complex, and required the concurrence of the Council of State (*daijōkan*). This meant that a decision to employ armed force could be effected only with the broad consensus of the ruling class. The issue would first be discussed by various deliberative bodies and decided on by the Council of State, whereupon an

5 *Ryō no gige* [Interpretations of the Administrative Codes], Shintei zōho kokushi taikēi (Tokyo, Yoshikawa kōbunkan, 1985), p. 192.

imperial edict was petitioned for and an order to fight issued in the emperor's name. The Ministry of Military Affairs would then be directed to calculate and report on the number of troops available for mobilization, the number appropriate for the current campaign, and the specific units most suitable for mobilization. This report would thereupon become the base upon which the Council of State would issue preparation and mobilization instructions to individual provinces "pursuant to an order from his imperial majesty."⁶

The expeditionary force would be composed of one to three armies, or *gun*, each numbering between 3,000 and 12,000 men, and divided into battalions, or *jin*, composed of varying numbers of companies from multiple regiments. Each army was commanded by a general (*shōgun*), who was assisted by varying numbers of subalterns. When three such armies were assembled, a field marshal (*taishōgun*) was designated to command the entire expeditionary force. Field marshals, generals and their subordinates were all nobles holding other (civil) posts in the central government, not career military officers.

Tactically, the imperial armies were predominantly light infantry that fought with bow and arrow from behind portable standing wooden shields. Every soldier carried a bow and quiver, fifty arrows, a pair of swords, and an assortment of support equipment. Archers were augmented by other foot soldiers bearing spears, by light cavalry, and by a somewhat mysterious artillery piece called an *ōyumi* or *do*.

The shields deployed by *ritsuryō* era armies – and by samurai into the medieval period and beyond – resembled the mantlets sometimes used by medieval European archers and crossbowmen: self-standing wooden barriers approximately eye-level in height and about the width of a man's shoulders. They were kept upright by means of a pole, or foot, attached to the back by hinges that allowed it to be folded against the shield for transport or storage. The best were constructed from a single board, but most were made from two, three, or even four planks, about 3 cm thick. Typically, shields of this sort were lined up, sometimes overlapping like roof tiles, to form a portable wall that protected archers on foot. They were also placed atop the walls of fortifications and hung from the sides of boats. On occasion, they served as substitutes for other tools, such as benches or ladders.

The form of the *ōyumi* is not actually known, as no contemporaneous drawings or detailed descriptions of the Japanese version survive, and no examples have been found in archaeological sites. The same character (read

⁶ Ibid., pp. 186, 194–5.

nu in Mandarin) was used in China to name several types of crossbow, but the Japanese weapon does not seem to have been the same as any of these. It appears, in fact, to have been some sort of platform-mounted, crossbow-style catapult, on the order of the Roman *ballista*, perhaps capable of launching volleys of arrows or stones in a single shooting.

The origins of the samurai

The components and structure of the *ritsuryō* military had been carefully adapted from Tang Chinese practices to meet Japanese needs and circumstances. At the same time, the system was designed around sometimes-conflicting priorities, and accordingly, incorporated some rather unhappy compromises. The original foibles were, moreover, exacerbated by changing conditions: by the mid eighth century the needs and priorities of the Japanese state differed considerably from those of the late seventh.

One of the difficulties the government faced was enforcing its conscription laws. Under the *ritsuryō* codes, military conscription was simply one of many kinds of labor tax, and induction rosters were compiled from the same population registers that were used to levy all other forms of tax. For this reason, absconding and other peasant efforts to evade any of these taxes also placed them beyond the reach of the conscription authorities. Far more important than this reluctance of peasants to serve in the military, however, were the fundamental tactical limitations of the imperial armies, which were predominantly infantry, as a matter of both design and necessity.

The architects of the *ritsuryō* polity had seized on large-scale, direct mobilization of the peasantry as a key part of the answer to both of the perceived threats that concerned them (a Chinese invasion, and regional insurrections led by the old provincial chieftains). The system they created enabled the court to corner the market on military manpower – incorporating most of the bodies that could be drawn off to serve as soldiers into the state's armed forces – and to create loyalist armies of daunting volume, thereby effectively closing the door on military challenges to imperial power or authority. An army of imposing numbers was also, of course, precisely what would have been needed to fend off a foreign invasion, while a militia structure made it possible to muster large-scale fighting forces when necessary, without bankrupting the country's economic and agricultural base.

But the court had opted for size at the expense of the elite technology of the age, choosing – as a matter of logistical necessity – a military force

composed primarily of infantry. The premier military technology of the day, however, was mounted archery, not foot soldiers. And while the state did try to maintain as large a cavalry force as it could, efforts to that end ran afoul of major logistical difficulties.

Foremost among these was the simple truth that fighting from horseback, particularly with bows and arrows, demanded complex skills that required years of training and practice to master. It was simply not practical to attempt to develop first-rate cavalymen from short-term peasant conscripts. The court addressed this problem through the straightforward expedient of staffing its cavalry units only with men who had acquired basic competence at mounted archery on their own, prior to induction.

This policy had far-reaching consequences for the shape of military things to come in Japan. It meant, first, that only a small portion of the imperial armies could be cavalry. It also meant that the cavalry would be composed solely of the elite elements of Japanese society. For if the prerequisite to becoming a cavalryman was skill with bow and horse, cavalymen could come only from families that kept horses, a practice that did not spread beyond the nobility and the very top tiers of the peasantry until the tenth century or later.⁷

None of this mattered a great deal initially: the *ritsuryō* military structure was more than adequate for the tasks for which it was designed. But by the middle decades of the eighth century, the political climate – domestic and foreign – had changed enough to render the provincial regiments anachronistic and superfluous in most of the country.

The Chinese invasion the Japanese had so feared simply never materialized. Whatever real peril there might have been ended by the late 670s, when Silla forced the Tang out of the Korean peninsula and checked its eastward expansion. Later, a rebellion (lasting from 755 to 763) by a Turko-Sogdian general named An Lushan shook the Tang dynasty to its foundations, making it abundantly clear to the Japanese that the danger of Chinese warships approaching their shores was past. The likelihood of violent challenges to the central polity from the regional nobility had also dwindled rapidly, as former provincial chieftains came to accept the imperial state structure as the arena in which they would compete for wealth and influence. The passing of these crises all but ended the need to field large armies and prompted the court to begin restructuring its military forces.

7 Suzuki Takeo, "Heian jidai ni okeru nōmin no uma" [Peasants' Horses during the Heian Period], *Nihon rekishi*, 239 (1968), 42–55.

On the frontiers, large infantry units still served a useful function. But martial needs in the vast majority of the country quickly pared down to the capture of criminals and similar policing functions, for which unwieldy infantry units based on the provincial regiments were poorly suited. Instead, the court now needed small, highly mobile squads that could be assembled and sent out to pursue raiding bandits with a minimum of delay. In the meantime, diminishing military usage of the regiments encouraged officers and provincial officials to misuse the conscripts who manned them – borrowing them, for example, for free labor on their personal homes and properties.

The court responded to these challenges with a series of adjustments, amendments, and general reforms, concluding that it was more efficient to rely on privately trained and equipped elites than to continue to attempt to draft and train the general population. Accordingly, troops mustered from the peasantry played smaller and smaller roles in state military planning, while the role of elites expanded steadily across the eighth century. The provincial regiments were first supplemented by new types of forces, and then, in 792, eliminated entirely everywhere except Kyushu and the frontier provinces of the far north.

In essence, the court moved from a conscripted, publicly trained military force to one composed of professionals. Henceforth the state's military and police apparatus came to be centered on an order of warriors – known as the *bushi* or, more commonly in English, the samurai – emerging among the leaders of provincial society and the lower and middle tiers of the court nobility.

The decades following the court's move, in 794, to its new capital at Heian, the present-day city of Kyoto, were marked by expansive sociopolitical changes, centered on a phenomenon often summarized as the privatization of the workings of government or, more accurately, as the blurring of lines separating the public and private persona of those who carried out the affairs of governance. The fundamental relationship between the court and the countryside was also evolving rapidly. Thus, by the late ninth century, the provinces had become a forum for competition for wealth and influence between provincial-resident elites, provincial government officers, and the nobles and religious institutions of the court.

These developments served to make the acquisition of martial skills an attractive path to personal advancement for provincial elites and low-ranking central aristocrats. In the meantime, intensifying competition for wealth and influence among the premier noble houses of the court led to a private

market for military resources, arising in parallel to the one generated by government policies. State and personal needs thus intersected to create broadening avenues to personal success for those with military talents. From the late eighth century, skill at arms increasingly offered ambitious young men a means to get their feet in the door for careers in government service and/or in the service of some powerful aristocrat in the capital. The greater such opportunities became, the more enthusiastically and the more seriously such young men committed themselves to the profession of arms. The *bushi* thus came into being as an order of mercenaries, for whom military service represented a means to broader – “civilian” – career ends.

Justice for hire

Against this backdrop, and in the wake of the abolition of the provincial regiments, the court slowly groped and experimented its way toward a new military system centered on a series of posts and titles that legitimized the use of personal martial resources on behalf of the state – a principle that would characterize military affairs in Japan until the modern era. *Bushi* acquisition of a monopoly over the *means* of armed force did not, however, lead quickly or directly to warrior autonomy in the *application* of force. The principle that final authority and formal control rested with the central government remained a key feature of Japan’s military and police system from the late seventh century until well into the fourteenth. Throughout the Heian period (794–1185) and beyond, the state jealously guarded its exclusive right to sanction the use of force, making an unambiguous distinction between lawful military action, in which one (or more) of the parties involved possessed a legal warrant, and unlawful, private conflicts.

To be sure, Heian warriors *did* fight for reasons other than service to the state, taking to the saddle on behalf of aristocratic employers, over matters of personal or familial honor, and even in overt attempts at self-aggrandizement. And the court’s willingness to tolerate at least small-scale military activities conducted for enhancing or preserving personal profit grew at a pace just a few steps behind its dependence on private warriors for law enforcement. Nevertheless, Japan differed fundamentally from Northern Europe of the same period, where feuds and duels were legal and legitimate activities, serving clearly defined purposes and with clearly defined rules and boundaries.⁸

8 Otto Brunner, *Land and Lordship: Structures of Governance in Medieval Austria*, trans. James Van Horn Melton and Howard Kaminsky (Philadelphia, University of Pennsylvania Press, 1992), pp. 8–81.

The legal structure of Heian Japan made no allowance for the pursuit of private ends through violence. While central authorities were sometimes forced to look the other way during private squabbles between warriors, they never dropped their pretense that such activities were criminal. Private warfare thus corresponded closely to what European legal scholars termed “*guerre couverte*,” or covert war. In such conflicts no legal rights attached to any captured property, and the participants risked punishments that included arrest and exile. This made the affixing of one’s private disputes to some public cause attractive to the point of being imperative, and *bushi* took great pains to cloak their warring under the mantle of state authority – a habit that persisted even in the late medieval era, long after central government had all but ceased to exist.

Outstanding among the cardinal features of the military system that came together in the tenth century was the bifurcation of organizational principles, and therefore the degree of cohesion, that characterized warrior associations and confederations. At the strategic level, the organization of warfare remained closely integrated with the framework of the *ritsuryō* state, and surprisingly obedient to visions of centralized, public authority formulated in the early eighth century. The new commissions – *kebiishi* (“Investigators of Oddities”), *ōryōshi* (“Envoy to Subdue the Territory”), *tsuibushi* (“Envoy to Pursue and Capture”), *tsuitōshi* (“Envoy to Pursue and Strike Down”), and others – though extra-codal, held true to the spirit of the imperial state military system in most respects. Appointments and compensation alike came from the center, following principles and procedures that closely paralleled those specified for comparable posts under the *ritsuryō* codes. These essential similarities enabled the court to retain exclusive authority over – and at least general control of – military affairs for another four centuries.

Moreover, the system, working in tandem with other centripetal socio-political forces, did a remarkably good job of setting thieves to catch thieves. By deputizing powerful warrior leaders, the court gave them a stake in the survival of the polity and linked their success to its own. To this were added rewards in the form of rank, office, and land granted for the meritorious performance of assigned tasks.

But the new offices were also fundamentally different from their *ritsuryō* antecedents on one critical point: they were premised not on the existence of a publicly conscripted pool of manpower over which the officer’s commission gave charge, but on the appointee’s ability to recruit troops for himself.

Curiously, the court offered no statutory guidelines for drafting or otherwise raising troops after its dismantling of the provincial regiments in 792. For

most of the ninth century, troop mobilizations remained grounded in public authority, but were conducted through ad hoc means. Responsibility for mustering fighting men as the need arose rested with provincial governors; the specific manner in which this was to be accomplished varied from case to case, but generally involved drafting the necessary manpower on the basis of the general *corvée* obligations required of all imperial subjects.

This notion of public military service and induction based on public duties remained alive throughout the early medieval era, but by the middle of the tenth century, recruitment had become largely privatized, with “government” troops enlisted and mobilized through private chains of command. The phenomenon that made this possible was the predilection of warriors to arrange themselves into bands and networks.

Warriors began forming gangs by the middle of the ninth century – perhaps even earlier. Military networks of substantial scale, centered on leading provincial warriors, appeared by the 930s. Although the government initially opposed these developments, it embraced them as soon as it realized that private military organizations could be co-opted as mechanisms for conscripting troops when it needed them. Henceforth, the responsibility for mustering and organizing the forces necessary to carry out an assignment could simply be delegated to warrior leaders, who could in turn delegate much of the responsibility to their own subordinates.

Most private military organizations during the Heian period were patchwork assemblages of several types of forces. To begin with, leading warriors in both the provinces and the capital maintained small core bands of fighting men who were their direct economic dependents, lived in homes in or very nearby their compounds, and were at their more or less constant disposal.

Just *how* small these bands were is difficult to ascertain, for few reliable sources record the numbers of followers under a given warrior’s direct command. Those that do, however, indicate that the core units from which early *bushi* military forces were compiled averaged around a half-dozen or so mounted warriors, augmented by varying numbers of foot soldiers. Some were much smaller. But even the largest numbered only in the high teens or low twenties.

For major campaigns, *bushi* also mobilized the cultivators, woodsmen, fishermen, and other residents of the lands in and around the estates and districts they administered. Such men were, strictly speaking, not under the warrior’s control, but they often leased land from him, borrowed tools and seed from him, and conducted trade at his compound, making his residence an important economic center for them. By exploiting whatever political and

economic leverage they could bring to bear on these semi-dependents, warriors could assemble armies numbering in the hundreds. Larger armies had to be knit together through networks based on alliances of various sorts between *bushi* leaders. This technique made it possible for warriors to assemble forces many times the size of their core organizations.

Accoutrements

Like the warriors who deployed them, early *bushi* arms were part and parcel of a national socioeconomic structure, and a culture of warfare that was largely the same all over the country. The weapons, armor, and other tools of early warrior trade were developed, manufactured, and distributed in national networks that connected raw materials from all over the country to production in multiple locations, with the capital serving as the principal marketplace and point of exchange – as well as a key manufacturing location.

The *ritsuryō* state had approached the task of equipping its armed forces in much the same way it did other affairs of government: with a curious mixture of constraint and indolence. Much of the equipment was produced in the capital, under the direction of an Office of Weapons Manufacture (*tsuwamono-zukuri no tsukasa* or *zōhyōryō*) attached to the Ministry of War and closely affiliated with the Left and Right Arsenal Bureaus (*hyōgoryō*). The raw materials needed were collected countrywide as part of the handicraft and special products taxes (*chōyō*); requisitioned from state-managed forests, mines, and pastures; or sometimes simply purchased. Artisans drawn from registered tax households (*ko*) in the capital region performed the actual work. Each household contributed one worker, who labored from the start of the tenth month of each year until the close of the second month of the next, in exchange for which the entire household was excused from all other handicraft tax obligations. Provincial government headquarters throughout the country also manufactured weapons, under the supervision of the governor.

Warhorses were culled from among those raised in state-owned pastures in the east and southwest or received as tax or tribute, and assigned to the provincial regiments, where they were consigned to soldiers from “families of wealth, able to care for them.” Henceforth the soldiers were expected to look after the animals, and to bring them along when their regiments were mobilized for training or war. They were also held accountable for horses that died, except under circumstances deemed unavoidable.⁹

9 *Ryō no gige*, pp. 183–4, 274.

Weapons production and storage were purportedly regulated with an attention to detail that bordered on paranoia. Military materiel produced at provincial government headquarters were placed directly in provincial arsenals or consigned to collection officers for transport to the capital, where they were warehoused by the Left and Right Arsenal Bureaus. Supervising officials prepared and filed reports at every stage of these processes. And the items in government arsenals were inventoried at regular intervals, when they were inscribed with the name of the officer in charge.

Nevertheless, not all armament manufacture took place under government supervision. The state forbade private possession of large, battlefield weapons and of devices for organizing and directing armies, but it did not outlaw ownership of personal arms, such as bows and swords. Indeed, it *required* each conscript soldier “to provide for himself one bow, one bow case, two spare bowstrings, fifty war arrows, one quiver, one long sword, and one short sword,” which he was to bring with him on days of mobilization. It also held individual conscripts liable for “weapons or armors lost or damaged other than in battle” or other circumstances “such as fire or flood, which are beyond human control,” mandating that all such equipment “be paid for at current prices or as directed by the statutes governing weapons manufacture.” Clearly such demands presupposed the existence of a substantial private trade in arms.¹⁰

There is no direct documentation of this trade, but during the eighth century, it must have been part and parcel to the broad commercial activity that centered on the exchange of iron, cloth, salt, and other tax items for additional goods and services. State-run markets in the capital were the hubs of a network of markets established near provincial government headquarters and regulated by provincial officials. Taxpayers pooled their resources to hire specialist artisans to produce required handicraft and special products tax goods, and traded labor, rice, produce, game, and manufactured products of their own for agricultural implements, pottery wares, and other goods – including weapons.¹¹

The court experienced problems with both public and private arms production, almost from the start. Even the *ritsuryō* codes themselves included an injunction that “merchants shall not engage in the sale of counterfeit

10 *Nihon shoki* [Chronicles of Japan], Shintei zōho kokushi taikēi (Tokyo, Yoshikawa kōbunkan, 1985), entry for 685.11.4; *Ryō no gige*, pp. 184, 194.

11 Dana Robert Morris, “Land and Society,” in Donald H. Shively and William McCullough (eds.), *Cambridge History of Japan*, vol. 2: *Heian Japan* (Cambridge, Cambridge University Press, 1999), p. 206.

merchandise.”¹² By the mid eighth century, complaints of shortfalls and poor quality of weapons collected were beginning to mount. Direct state participation in arms production and procurement would, however, soon become superfluous, as the court turned more and more to privately trained, privately equipped “hired swords” for its military and police needs. The new, privatized and pluralized military system, and the warrior order that staffed it, were supported in part by a new economy emerging in both the capital and the provinces.

In all probability, government-supervised production of armaments had always been largely a matter of the state setting prices for goods purchased from specialist artisans. Under the early *ritsuryō* system, this effectively made the artisans employees of the court or the provincial government. But the multi-polar structure of power and authority that emerged during the Heian period helped turn armorers, bowyers, and other weapons makers into free agents providing goods and services directly to local elites, powerful court houses, provincial governors and members of their staffs, and religious institutions, as well as to the state.

Bushi appear to have obtained some of their weapons and military goods from local artisans in their private employ, but items like swords, or armor and saddles, which require high levels of skill to make, were manufactured primarily in and around the capital. By the middle of the Heian period, consumer demand, led by the great houses and religious institutions of the capital, increasingly concentrated in Kyoto and the capital region, inducing the best artisans from throughout the country to congregate there.

Early medieval warriors rode into battle in heavy body armor specifically devised for fighting with bow and arrow from horseback. There were five principal styles of armor to be seen on tenth- to fourteenth-century battlefields (*ōyoroi*, *haramaki*, *haramaki-yoroi*, *dōmaru*, and *hara-ate*), but all five were constructed from rectangular scales, or lamellae, of lacquered iron or leather laced into strips, which were then laced together vertically, each row overlapping the one above. This design, widely used across Asia and the Middle East, is more flexible, easier to move in, easier to store and transport, and requires less customization for fit than plate armor. It also offers better protection than chain mail, and better absorbs shock, by diffusing the energy of blows through the layers formed by the overlapping scales and lacings.

Ōyoroi (“great armor”), the premier armor of the Heian period, appeared sometime between the mid tenth and early eleventh centuries. It featured

¹² *Ryō no gige*, p. 301.

a boxy, heavy cuirass that wrapped around the left, front, and back of the wearer's chest, while a separate piece protected his right side. A four-piece skirt hung from the cuirass shielded the wearer's hips, abdomen, and thighs. In some earlier Japanese armors, the parts covering the wearer's shoulders, neck and torso were made all of one piece. But this design restricted shoulder and arm movement, hindering use of the bow and arrow. To maximize freedom of motion for archers, the cuirass of the *ōyoroï* was cut away around the shoulders and armpits, and the resulting gaps were covered by free-hanging accessory pieces (called *kyūbi no ita* and *sendan no ita*). Large, flat, rectangular plates, called *ōsode*, which were easily the most recognizable feature of early medieval armors, were then added as protection for the shoulders and upper arms. About 30 cm square, *ōsode* served mounted archers (who needed both hands to ride and shoot) as substitutes for hand shields. They were fastened to the body of the armor by cords such that they fell back and out of the archer's way when he drew his bow, but could be slung forward to cover most of his face and upper body between shots.

At around 30 kg, *ōyoroï* was a good deal heavier than later Japanese armors, but it was intended mainly for use on horseback. It fit loose and boxy at the waist so that it could hang over the saddle without pushing up the plates of the skirt and exposing the wearer's thighs. The weight of the armor was thus normally borne by the saddle.

Helmets were slightly conical bowls of overlapping iron plates, fitted with a shallow visor, and augmented by a sweeping lamellae skirt that extended nearly to the wearer's shoulders. The front edges of the skirt were curled back, to shield the face from arrows. Some helmets were decorated with a pair of flat, metal antlers, called *kuwagata*, that resembled the antennae of large beetles.

Bows were fashioned from plain wood – usually catalpa, zelkova, sandalwood, or mulberry – made from the trunk of a single sapling of appropriate girth or from staves split from the trunks of larger trees, and sometimes lacquered or wrapped with bark thongs. Composite bows of wood and bamboo began to appear in the late twelfth century. Simple wood bows will not bend very deeply without breaking, and over-flexing composites of wood and bamboo stresses the adhesive and makes the laminations separate. To achieve significant power, therefore, Japanese bowyers fashioned their weapons long – about 2.5 m during the Heian period.

This might have made them impossibly awkward to use from horseback but for their unique shape, with the grip placed a third of the way up from the

bottom, rather than in the middle in the manner of European longbows. Some historians have speculated that this unusual grip was adopted to facilitate the use of the weapon by mounted warriors, but there is evidence that the shape of the bow predates its use from horseback. Others argue that the lopsided proportions were adopted in order to balance the bending characteristics of the wood, so that it would draw evenly, without over-stressing either end. Still others point out that this unusual grip appears to maximize the rebound power of the bow and minimize fatigue to the archer.¹³

Arrows were made of bamboo, with forged heads mounted into the shafts by long, slender tangs – in the same manner as swords were mounted into hilts. The arrowheads in use by Heian times assumed an enchanting variety of shapes and sizes, including narrow, four-sided heads; flat, leaf-shaped broadheads; forked heads; blunt, wooden heads (used for practice); and whistling heads (used for signaling). Warriors carried their shafts on their right hips, in quivers (called *ebira*) that resembled small wicker chairs. The lower section of this device was box-shaped, with a grid of leather or bamboo strips across the top. Arrows were thrust through this grid and then bound by a loose cord to the top of an openwork frame that rose from the back of the box.

All but the lowliest warriors also carried swords. In fact, those who could afford it usually carried two: a long blade, called a *tachi*, and a shorter one, called a *katana*. Slender, single-edged, and designed for cutting and slashing, the *tachi* was a warrior's principal sidearm, employed when he ran out of arrows or was otherwise unable to bring his bow into play. *Katana* were used

13 *Sanguo zhi*, *Wei shu* “Dongyi zhuan,” passage on the Woren, as quoted in Inoue Mitsusada, *Shinwa kara rekishi e* [From Myth to History], vol. 1 of *Nihon no rekishi* (Tokyo, Chūō kōronsha, 1965), p. 201; Sasayama Haruo, “Bunken ni mirareru senjutsu to buki” [Strategy and Weaponry as Seen in the Literature], in Ōbayashi Taryō (ed.), *Ikusa* [Warfare] (Tokyo, Shakai shisōsha, 1984), p. 131; Fujimoto Masayuki, “Bugu to rekishi II: Yumiya” [Weaponry and History II: Bow and Arrow], *Rekishi to chiri*, 421 (1990), 58–64; Kondō Yoshikazu, *Yumiya to tōken: chūsei kassen no jitsuzō* [Bow, Arrow, and Sword: The Real Image of Medieval Battle] (Tokyo, Yoshikawa kōbunkan, 1997), pp. 42–55; Mori Toshio, “Yumiya no hattatsu” [The Development of Bow and Arrow], in Gomi Fumihisa (ed.), *Kassen emaki: Bushi no sekai* [Illustrated Battle Scrolls: The World of the Warriors], *Fukugen no Nihon shi* (Tokyo, Mainichi shinbunsha, 1990); Irie Kōhei, “Kyūjutsu ni okeru waza to kokoro: Nihon no kyūsha bunka no tokusei” [The Spirit and Techniques of Archery: The Special Qualities of Japanese Archery Culture], in Shintai undō bunka gakkai (ed.), *Bu to chi no atarashii chihei: taiketeiki budōgaku kenkyū o mezashite* [New Horizons of Martial Art and Knowledge: Towards a Systematic Study of Martial Art] (Kyoto, Shōwadō, 1998), p. 65; Kobayashi Kazutoshi, “Iru: kyūdō ni okeru te no uchi no rikigaku” [To Shoot: The Physics of Technique in Archery], *Sūri kagaku*, 181 (1978).

in grappling and other very close combat, as well as for removing the heads from slain opponents, and for committing suicide.¹⁴

Audiences schooled in samurai movies and television are sometimes startled to learn that, mystique and symbolic value notwithstanding, swords were never a key battlefield armament in Japan. They were, rather, supplementary weapons, analogous to the handguns and knives carried by modern soldiers. While swords were certainly deployed in combat, they were far more important in street fights, robberies, assassinations, and other (off-battlefield) situations. This should scarcely be surprising, however, when one considers that early *bushi* were first and foremost mounted warriors. For *tachi* and *ōyoroi* were ill-suited to swordplay on horseback.

It was, to begin with, no easy task to close to sword range against adversaries – particularly mounted adversaries – armed with bows and arrows. Cutting or stabbing through *ōyoroi* presented an even more formidable challenge, particularly for warriors whose balance, striking power and freedom of movement were impeded by the rigid, boxy cuirass and loose-hanging shoulder plates of their own armor. It was doubly hard to accomplish one-handed on the back of a bouncing horse. There is, in fact, not a single depiction, in any document, text or drawing produced before the thirteenth century, of warriors wielding bladed weapons from horseback.¹⁵

The Japanese did, however, deploy other shock weapons, both on and off the battlefield. The oldest of these was the *hoko*, a straight spear, 2–3 m in overall length, fashioned from a round, wooden shaft fitted into a socketed metal head. *Hoko* were used from Yayoi times until at least the end of the Heian period, becoming longer and heavier in both shaft and blade over time. Both the design of the blade and the descriptions in written sources of warriors using them indicate that they were principally one-directional, stabbing weapons. This sort of polearm is most suitable for use by troops in close, organized ranks, rendering the *hoko* a fine weapon for the *ritsuryō* armies, but less than ideal for the early *bushi*, who therefore gradually abandoned it for a new form of polearm, called the *naginata*.

Often described in English sources as “halberds,” *naginata* were in fact more like glaives, featuring a long (up to 100 cm), curved blade mounted to an oval haft 120 to about 150 cm in length, by means of a lengthy tang inserted into a slot in the haft, and held in place by pegs. Unlike the unidirectional

14 Kondō Yoshikazu, *Chūsei-teki bugu no seiritsu to bushi* [Warriors and the Origins of Medieval Weapons] (Tokyo, Yoshikawa kōbunkan, 2000), pp. 64–70.

15 Kondō Yoshikazu, “Buki kara mita nairanki no sentō” [Battles of the Civil War Period as Seen from the Weaponry], *Nihonshi kenkyū*, 373 (Sept. 1993), 70–3.

hoko, a *naginata* could be used to sweep, cut or strike, as well as to thrust, and could even be twirled like a baton to keep opponents at bay. It was, in other words, a personal weapon, designed to be used by individual fighting men, and to maximize their ability to deal with multiple opponents at once. On the other hand, a *naginata* is a poor weapon for use by troops fighting in rank, or in large numbers on a crowded battlefield. Accordingly, during the fifteenth and sixteenth centuries, it was in turn displaced by a new form of straight, thrusting spear called the *yari*.

Strategy and tactics

The privatization and professionalization of Japan's armed forces had important consequences for the manner in which battles would – could – be conducted. It meant, for one thing, that warfare would be shaped by mercenaries whose careers were determined by reputations built on individual prowess. Such men were, like modern professional athletes, more apt to think of themselves as highly talented individuals playing *for* a team than as component parts *of* a team. While the success of the group was always to the benefit of each of its members, a distinguishing individual performance could bring its own rewards, even in the face of team failures. This situation favored arms and tactics that presented maximal opportunities to showcase the skills and prowess of individuals or small groups.

Early *bushi* armies and warbands were, moreover, patchwork conglomerations, assembled for specific campaigns and demobilized immediately thereafter. This arrangement offered commanders few, if any, opportunities to drill with their troops in large-scale group tactics, and mitigated against fielding integrated, well-articulated armies.

In urban street fights, and other situations that circumscribed the arena of combat, warriors often fought on foot. They also conscripted or hired foot soldiers, armed them with bows and polearms, and deployed them in most sorts of battles. Such troops were active combatants, not just grooms and attendants to the mounted warriors (as they have often been portrayed). At the same time, they were considerably less than an infantry.

On open ground, foot soldiers can stand against charging horsemen only when they can form up with sufficient density and depth that horses refuse to collide with them, and only when they also have sufficient morale and courage to stand and face the terrifying charge. This requires that infantry units have ample numbers, as well as enough practice and experience fighting together to be able to trust their fellows to stand with them, rather than break

and run. Effective infantry can, therefore, be deployed only by a command authority strong enough to gather sufficient troops, and wealthy enough to maintain them while they train or fight together long enough to develop the needed unit cohesion.¹⁶ Commanders lacked the resources to accomplish this until well into the fifteenth century.

Thus, foot soldiers in early medieval armies normally fought side by side with mounted warriors, in mixed units, rather than as discrete infantry companies. Their principal contribution was harassing and distracting *bushi* on horseback, whose attention could otherwise be fully directed at allied horsemen.

Cavalry, on the other hand, can be effective in relatively small numbers, and without extensive large group drill, while its superior mobility, both on and off the battlefield, makes it the natural arm of attack and pursuit – an important consideration for Heian warriors, whose functions centered on law enforcement rather than border defense. At the same time, the expense and the long, individual training needed to produce a competent horseman distinguishes cavalry as a fighting method for elite warriors.

Mounted archery tactics in Japan were determined by the technological, as well as geographical, and organizational circumstances the early *bushi* faced. Forced to make do with relatively weak wooden, or wood-and-bamboo, bows; with stout, short-legged ponies incapable of carrying more than about 90 kg – including rider, saddle, and weapons – and unshod, so that their hooves could not take heavy pounding and they could gallop long distances only with great difficulty; protected by sturdy armor; and wielding arrows carried in numbers too few to permit any to be wasted; *bushi* could shoot only at very close range – usually 20 m or less – and needed to target with precision the gaps and weak points in the armor of specific opponents.¹⁷ The result was a distinctive, somewhat peculiar form of light cavalry tactics that involved individuals and small groups circling and maneuvering around one another like dogfighting aviators.

In this sort of fighting, horsemanship counted for as much as marksmanship. The angle at which warriors closed with opponents was crucial, because they could shoot comfortably only to their left sides, along an arc of roughly

16 Stephen Morillo, "The 'Age of Cavalry' Revisited," in Donald J. Kagay and L. J. Andrew Villalon (eds.), *The Circle of War in the Middle Ages: Essays on Medieval Military and Naval History* (Woodbridge, Suffolk, Boydell Press, 1999), pp. 51–2.

17 Fujimoto, "Bugu to rekishi II," p. 70; Kawai Yasushi, *Genpei kassen no kyojō o hagu* [Exposing False Images of the Genpei War] (Tokyo, Kōdansha, 1996), pp. 41–3; Kondō, *Yumiya to tōken*, pp. 119–21.

45 degrees, from the ten or eleven o'clock to about the nine o'clock position. Attempting to shoot at a sharper angle to the front would have resulted in either bumping the horse's neck with the bow or bowstring, or spooking the mount when the arrow was released and flew too close to its face. Attempting to shoot at a sharper angle to the rear would have twisted the archer right out of his saddle. And shooting the lengthy Japanese bow to the right of the horse's neck demanded the flexibility of a contortionist.

Mounted *bushi* could not, therefore, easily target opponents to their right. Canny warriors thus attempted to maneuver so as to approach the enemy from his right, where he could not return the shot, while keeping him on their own left. This was, of course, further complicated by the presence of other horsemen and foot soldiers – double-teaming by opponents, stray arrows from nearby skirmishes and archers on foot, and the polearms wielded by enemy foot soldiers – and by the terrain and other circumstances of the battle site. Japanese ponies' lack of stamina, moreover, made a warrior's ability to judge when and for how long to run his mount full out as important a skill as knowing where to point it.

Skirmishes – particularly pitched battles on open ground – turned largely on the collective prowess of individual warriors, rather than on the cunning of officers and generals. Even senior officers usually fought in the ranks themselves, and were seldom able to exercise much control over the contest once the enemy had been engaged. Instead, tactical cooperation devolved to smaller units and components, with troops working together in small teams. This, too, was a consequence of military organization.

Heian warriors were not solitary free agents recruited for campaigns as individuals, nor did they fight as individuals. Many of those who answered calls to arms brought with them followers and allies belonging to their own private military organizations. In some cases these followers and allies had followers and allies of their own. Thus, while *armies* were temporary, irregular assemblages, unable to drill together and therefore unresponsive to large-scale command and control, they were made up of smaller components, which were in turn made up of even smaller units that *were* able to fight and train together regularly and therefore *were* able to coordinate and cooperate on the battlefield. The fighting men who comprised these monastic organizations lived and trained in close proximity to one another, honing their skills through a variety of regimens and competitive games. By training together in this fashion, warriors were able to harmonize their actions with those of close associates with considerable discipline and fluidity.

Battles, therefore, tended to be aggregates of lesser combats: *mêlées* of archery duels and brawls between small groups, punctuated by general advances and retreats, and by volleys of arrows launched by bowmen on foot, protected by portable walls of shields.

As we have already noted, Heian warriors legitimately took to the saddle only to chastise lawbreakers – as agents of the court or of the temples and great houses that comprised it. Their right to “self-help” – to the pursuit of private ends through violence – was closely circumscribed under law and precedent. In contrast to later ages, in which military might became the ultimate – indeed the primary – arbitrator of political and economic right, the seizure of land offered no long-term gain within the political framework of the classical state, inasmuch as one’s title over the lands one claimed to own or administer was still subject to the confirmation and approval of central authority. Instead, Heian warriors offered their skills and services in exchange for sponsorship of their careers by court powers-that-be or for ranks and posts in the government or private estate (*shōen*) system hierarchy. While rewards of this sort often included perquisites over lands and peoples, and sometimes involved the transfer of lands hitherto administered by warriors on the losing side of a conflict, *bushi* were rarely, if ever, able to specify the size or the particulars of the remuneration for themselves, and any transfers of lands were accomplished indirectly, through the agency of the court and in accord with the niceties prescribed by the court-centered legal system. A warrior who tried to add to his holdings through the expedient of capturing territory directly by force only invited the censure and punishment of the state, usually visited at the hands of a rival commissioned to chastise him. During the Heian period, no one successfully challenged these rules – although there were a few who tried.

Consequently, early *bushi* military campaigns – even private ones – focused on the destruction or apprehension of opposing warriors, not on the capture of territory. The objective – the definition of victory – entailed eliminating the enemy, rather than simply occupying his lands or driving him off them.

Because of this, warriors on the offensive faced a thorny tactical problem: an army in retreat can almost always move faster than a similar army in pursuit, because the latter needs to remain in ranks and ready to fight, should it overtake its quarry. Thus, when opposing hosts are composed of essentially the same weapons systems or similar combinations of systems – as was the case in Japan – it is difficult for either to force battle on the other. All things being equal, combat can take place only when both sides think it to their advantage to stand and fight.

The severity of this impasse depends, of course, on the strategic objectives of the offensive army; some goals – the occupation of enemy territory, for example – can be accomplished without a decisive confrontation. But for early *bushi*, whose missions were complete only with the capture or death of their opponents, the challenge of running an elusive foe to ground proved a particular source of frustration.

The simplest solution to this problem, and the one favored by tenth- and eleventh-century warriors, in particular, was to catch the opponent off-guard – in an ambush or surprise attack. Indeed, the majority of the battles fought during the period appear to have involved some form of surprise attack. Ambush is, however, an effective tactic only if the enemy's whereabouts can be reliably predicted. For Heian warriors, this was most easily accomplished by attacking his home. Night attacks were especially effectual – and particularly favored – for this purpose.

Raiding warbands seldom confined their attentions to the home of the principal quarry. More often, they laid waste to surrounding fields and to the homes of his allies and dependents, as well. The raiders targeted not the real estate itself, but the humans whose livelihoods were tied to it, burning fields, plundering houses, and killing residents in order to destroy an enemy's capacity to raise additional troops and strike again, as well as to bait him into standing and fighting.

On occasion, the scale of destruction wrought by such tactics could be staggering, a direct consequence of the inability of either side to inflict a decisive defeat on the other. Warriors on the strategic defensive did not usually need to crush their pursuers, only to hold them off and to survive, and therefore concentrated on keeping the enemy perpetually at bay – denying him a decisive confrontation – while warriors on the offensive spent a good part of their time and energy burning crops and homes belonging to their quarries' supporters, in an effort to force elusive foes to stand and fight.

By the mid eleventh century, both tactics had featured prominently in Japanese warfare for longer than anyone could remember; but the costs attendant on employing them were becoming less and less bearable, as the scale of *bushi* military resources and socioeconomic influence grew. Fortunately for the economic survival of Japan, however, in subsequent decades defensive strategies began to center on entrenchments and fortifications, rather than evasion and refusal of battle. Whether warriors perceived a problem and responded directly to it, or simply stumbled onto a solution for other reasons, is difficult to assess. Whatever their genesis, however, in the

event, the new tactics helped lessen the levels of “collateral damage” in subsequent conflicts.

The first significant campaign in which fortifications played a major role appears to have been Minamoto Yoriyoshi’s so-called Former Nine Years’ War against Abe Yoritoki and his sons, waged from 1051 to 1062. This contest took place in the northeast, a region where warriors were heir to a three-centuries-old tradition of establishing stockades as bases from which to control the local population. The Abe’s strategy throughout the conflict centered on ensconcing themselves and their followers behind bulwarks and palisades in an effort to outlast Yoriyoshi’s patience and resolve.

Although some, like the famous Taira defense works erected in 1184 at Ichinotani, near the Harima border of Settsu province, could be quite impressive, Heian-period “fortresses” were defensive lines, not castles or forts intended to provide long-term safe haven for armies ensconced within. Most were comparatively simple structures erected for a single battle or campaign. Many were simply barricades erected across important roads or mountain passes. Others were transient wartime modifications to temples, shrines, or warrior residences. The most common features of these fortifications were rows of standing shields (*kaidate*), brush barricades (*sakamogi*), and shallow ditches, sometimes topped on the inner side with earthen ramparts constructed from the dirt removed to dig the trench.

The purpose of all such breastworks was to concentrate campaigns and battles: to slow enemy advances, thwart raiding tactics, control selection of the battleground, restrict cavalry maneuver, and enhance the ability of foot soldiers (who could be recruited in much larger numbers) to compete with skilled horsemen. And they were expendable, as well as expedient; never the sites of sustained sieges nor – by choice – of heroic final stands. Contingency planning normally provided for withdrawal and reestablishment of new defensive lines elsewhere. Indeed, the construction and use of barricades was intimately bound up with the question of how and when to throw one’s own mounted troops at the enemy. Warriors waited behind the walls for the right moment to charge out and counterattack, or to withdraw to secondary or tertiary lines.

On occasion, attacking armies mobilized laborers to build counterfortifications or dismantle enemy barricades. In most cases, however, this tactic would have exposed the workers and their supervisors to rocks and arrows launched from the ramparts. Similarly, warriors who dismounted to scale the walls of the trench made themselves vulnerable to horse-borne

counter-offenses, or made it easier for the defenders to withdraw and escape. More commonly, therefore, warriors confronting fortifications focused on storming the entrances and on flanking attacks.

Wooden gates (*kido* or *kidoguchi*), through which defenders on horseback could rush forth to assault besieging forces, constitute the one ubiquitous feature of late twelfth- and early thirteenth-century fortifications. As the only points at which mounted warriors – of either side – could readily cross the barricades, they were usually the nodal points of battle. Consequently, they were the most heavily defended parts of the line, flanked by one or more shielded platforms (*yagura*; literally, “arrow stores”) from which archers could shoot down at approaching troops.

The Genpei War

A new chapter in samurai history effectively began in 1159, when Minamoto Yoshitomo, a prominent warrior leader, joined a clumsy attempt to rearrange the balance of power within the court. In the resulting Heiji Incident (named for the calendar era in which it occurred), Yoshitomo was trounced by his long-time rival Taira Kiyomori, who then executed Yoshitomo’s allies and relatives, and exiled his sons.

This left Kiyomori as the premier warrior leader in Japan, and for the next two decades his prestige and influence at court grew steadily. In 1171 he arranged to marry his daughter, Tokuko, to the emperor. In 1179 he staged a coup d’état, seizing virtual control of the court. In 1180, he reached the height of his power, when his grandson (by Tokuko) ascended the throne as Emperor Antoku. That same year, however, an appeal by a frustrated claimant to the throne, Prince Mochihito, to rescue the court from Kiyomori provided Yoshitomo’s son Yoritomo with an opportunity for revenge.

At the time, however, Yoritomo was, by any reckoning, an unlikely champion, with even less going for him than typical warrior leaders of his era. His father’s misadventure two decades before had cost him the career as a government official he would otherwise have enjoyed, and doomed him instead to an obscure life as a minor provincial warrior. He held no government posts, led no warband of his own, and controlled no lands. His one and only asset was a shaky claim to preeminence among his surviving relatives. And so, being unable to work within the system, Yoritomo instead hit on an ingenious end run around it.

He used Mochihito’s call to arms as a pretext to issue one of his own, declaring a martial law under himself across the eastern provinces, and

promising that, in return for an oath of allegiance to himself, henceforth he (Yoritomo) would assume the role of the court in guaranteeing whatever lands and administrative rights an enlisting vassal considered to be rightfully his own.

In essence, Yoritomo was proclaiming the existence of an independent state in the east, a polity run by warriors for warriors. But he took pains to portray himself as a *righteous* outlaw, a champion of true justice breaking the law in order to rescue the institutions it was meant to serve. This touched off a groundswell of support, as well as a countrywide series of feuds and civil wars loosely justified by Yoritomo's crusade against Kiyomori and his heirs. These conflicts are collectively remembered as the Genpei War, labeled for the alternative names of the Minamoto (*Genji*) and Taira (*Heike*) houses.

Yoritomo had his first – and last – taste of battle in the ninth month of 1180 at the battle of Ishibashiyama in Sagami province, where his army was routed and very nearly destroyed. Yoritomo escaped, but for the rest of his life left the fighting to subordinates and focused on managing things behind the lines, from his capital at Kamakura. Things went better for the Minamoto forces two months later, when they met and defeated a Taira army at Fujigawa, in Suruga province.

A combination of floods and droughts ruined the harvests for 1180 and 1181 and were followed by plagues and famines, forcing both Yoritomo and his enemies to turn their attentions elsewhere for the next year and a half. Yoritomo used the time to consolidate his position in the east. In the meantime, Kiyomori died of fever in the third month of 1181, cursing Yoritomo on his deathbed.

When the fighting resumed in 1182, Yoritomo's kinsman Kisō Yoshinaka emerged as the leading general for the Minamoto, while Kiyomori's sons, Munemori, Tomomori, and Shigehira, carried on the fight in his name. In the seventh month of 1183 Yoshinaka captured and occupied Kyoto, forcing the Taira to flee, along with the infant emperor Antoku. At this point, a retired emperor, Go-Shirakawa, stepped back into the political picture.

Yoshinaka and Yoritomo had, from the start, been rivals and uneasy allies at best. Go-Shirakawa, well aware of this, now attempted to take advantage of their rivalry, in order to eliminate Yoritomo and regain control of the east for the court. He named Yoshinaka protector of the court and gave him warrants to pursue and destroy not just the remaining Taira leaders, but Yoritomo – who was, nominally, at least, Yoshinaka's overlord – as well.

Unfortunately for Go-Shirakawa and the court, Yoshinaka and his men proved to be even more troublesome and overbearing than Kiyomori and his

sons had been. Within a month Yoshinaka was imposing his own dictatorship on the court, forcing a frustrated Go-Shirakawa to change directions once again, and appeal to Yoritomo for help. By the end of 1183 Yoritomo and Go-Shirakawa had negotiated an agreement that legally recognized most of the powers that Yoritomo had seized over the east and extended some of them over the rest of the country, in exchange for Yoritomo's promise to restore peace and order countrywide.

Armed with this new legitimacy for his regime, Yoritomo dispatched an army under his youngest brother, Yoshitsune, who destroyed Yoshinaka in the battle of Ujigawa in the first month of 1184. From there Yoshitsune took up the job of tracking down and eliminating Kiyomori's sons.

His first victory in this effort came in the second month of 1184, when he routed Taira forces ensconced near Fukuhara, a port on the Inland Sea near present-day Kobe, in the battle of Ichinotani. Thirteen months later, in the third month of 1185, Yoshitsune annihilated a Taira fleet in the Shimonoseki Strait off the southern tip of Honshu, in the battle of Dannoura, killing or capturing all of the remaining Taira leaders and bringing the war to a dramatic close.

The Genpei War ushered in profound changes to the place of warriors in Japan's social, political, and economic order. It is, moreover, celebrated in epic war tales whose vivid descriptions of battle have shaped the imaginations of scholars and popular audiences alike for centuries. It also introduced significant – albeit short-lived – shifts of strategy and tactics.

The most important military development of the 1180s, and the catalyst to all other changes, was the expanding scale of war and size of armies. The battles and armies of the Genpei War were of an order of magnitude larger than anything experienced in earlier conflicts.¹⁸ The vast majority of Heian-period skirmishes had been localized and very small-scale. The most trustworthy sources for the period – legal documents, court records, diaries, and the like – describe forces numbering in single or double digits. Even melodramatically hyperbolic accounts of major struggles recount “surprisingly large armies” as consisting of “more than a thousand men,” “a few thousand troops,” or “more than 4000 warriors.”¹⁹ For the Genpei War, discrepancies

18 William Wayne Farris, *Heavenly Warriors: The Evolution of Japan's Military, 500–1300* (Cambridge, MA, Council on East Asian Studies, Harvard University, 1992) pp. 269–70, 272–3, 291–2, 300–302, 392–3, argues that the warfare of the 1180s did not involve significantly greater numbers of troops than had earlier battles.

19 *Shōmonki* [The Tale of Masakado], ed. Hayashi Rokurō, Shinsen Nihon koten bunko 2 (Tokyo, Gendai shichō sha, 1975), p. 121; *Fusō ryakki* [Abbreviated Annals of Japan], Kokushi taiki (Tokyo, Yoshikawa kōbunkan, 1965), entries for 939. 11.21, 940.2.8;

between the numbers given in courtier diaries, official chronicles, and literary texts are sometimes dramatic. Nevertheless, even the most sober accounts describe armies of 5,000, 6,000, “seven or eight thousand,” and even “several tens of thousands” clashing in some battles.²⁰

The relatively sudden appearance of armies of this magnitude – a product of the countrywide scope of the Genpei conflict – introduced new tactical problems, which were intensified by the use of field fortifications. Such challenges may have been further exacerbated by a decline in quality of troops that accompanied efforts to enlarge the ranks. While it is impossible to calculate with even reasonable precision the total number of warriors in Japan during any part of the Heian or Kamakura periods, it is unlikely that there were, prior to 1180, vast numbers of skillful, but hitherto unemployed, mounted bowmen waiting in the hinterlands for a call to arms and new lives as *bushi*. This being the case, the majority of even the cavalrymen who filled out the Genpei armies must have been relatively new recruits to military life. Commanders were, therefore, faced with finding ways to compensate for the improvidence of many of their troops at combat in the classical, archery-at-a-gallop style.²¹

More extensive use of defense works, moreover, enhanced the role and value of foot soldiers in the fighting. More importantly, the combination of fortifications with larger forces concentrated battles and battlefields, rendering the former longer and the latter more crowded. These factors, in turn, limited the mobility of both attacking and defending troops, mitigating some of the shortcomings of warriors inexperienced at mounted archery. In addition, the inability of Japanese horses to continue to run about for the entire duration of long battles, and the inability of the warriors themselves to carry

Honchō seiki [Chronicle of this Court], Kokushi taikēi (Tokyo, Yoshikawa kōbunkan, 1964), entry for 941.

- 20 *Teishin kōki* [Diary of Fujiwara no Tadahira], Dai Nihon kiroku (Tokyo, Iwanami shoten, 1956), entry for 940.1.13; *Midō kanpakki* [Diary of Fujiwara no Michinaga], Dai Nihon kokiroku (Tokyo, Iwanami shoten, 1952), entry for 1017.3.11; *Nihon kiryaku* [Abbreviated Japanese Annals], Shintei zōho kokushi taikēi (Tokyo, Yoshikawa kōbunkan, 1985), entry for 1028.8.5; *Chōya gunsai* [Collected Documents from Court and Country], Kokushi taikēi (Tokyo, Yoshikawa kōbunkan, 1964), p. 284 (1058.3.29 dai-jōkanpu); *Konjaku monogatari shū* [Tales of Times Now Past], vols. 21–4, Nihon koten bungaku zenshū (Tokyo, Shōgakkān, 1971), 25.5; *Heian ibun* [Documents from the Heian Period], ed. Takeuchi Rizō (Tokyo, Tōkyōdō, 1965), docs. 372, 797; *Shōmonki*, p. 121; *Fusō ryakki*, entries for 939.11.21, 940.2.8; *Honchō seiki*, entry for 941; *Gyokuyō* [Diary of Kujō Kanezane] (Tokyo, Kokusho kankōkai, 1906), entries for 1180.9.9, 12.5, 12.27; 1181.2.1, 2.17; 1183.6.5, 7.21; 1184.3.6; Farris, *Heavenly Warriors*, pp. 392–3.

- 21 Kawai, *Genpei kassen*, pp. 60–7; Kawai Yasushi, “Jishō, juei no ‘sensō’ to Kamakura bakufu” [The “Wars” of Jishō and Juei and the Kamakura Bakufu], *Nihonshi kenkyū*, 344 (1991), 64–5.

sufficient numbers of arrows to last through the entire skirmish, forced even seasoned veterans to make adaptations. Thus, in the accounts of Genpei battles we see warriors shooting from stationary mounts, engaging in sword-play and grappling from horseback, and even using their horses to ram opponents.

Nevertheless, it is clear that the new tactics *augmented* traditional ones; they did not supplant them, and the changes proved neither fundamental nor long-lived. Warriors engaged in archery at a gallop still took the forefront in Genpei War battles. And they dominated later Kamakura conflicts, such as the Ōshū campaign in 1189, the Wada Rebellion in 1213, the Jōkyū War in 1221, and the Mongol invasions in 1274 and 1281.

By the time the dust raised by the war had settled in the early 1200s, the political and economic structure of the country had assumed a shape that resembled that of the late Heian state as much as it departed from it. The underlying conditions and strategic priorities of war, therefore, remained much what they had been; the central objectives of warfare remained human, rather than geographic, and the classic pattern of combat hung on, braced by the power of more than two centuries of tradition. Thirteenth-century warriors continued, by and large, to perceive themselves as followers of “the way of horse and bow,” and thirteenth-century commanders continued, by and large, to look to mounted *bushi* as their primary weapons.

PART II

★

INTERACTIONS, *c.* 1000–1300 CE

Europe, 1000–1300

DAVID CROUCH

The rise of knightly culture in the West

The defining feature of Western warfare in this period was knighthood. This was not because horseback warfare was in any way new in the Frankish lands, or even because the technology of the equipment and use of cavalry had changed in any radical sense, though it is generally assumed that the stirrup appeared as a feature of cavalry equipment at some time in the ninth or tenth century, thus allowing the saddle to become a more effective fighting platform. But the stirrup did not by any means create the knight. What the knight represented was a new social phenomenon which grew progressively more important as generations passed and read new meanings into the status and potential of knighthood.

It is very difficult to locate in time the beginnings of knighthood, though its appearance is easier to account for. There were knights because there were castles, and the appearance of both can be approximately located in the generation before the year 1000. It was in this generation that the Latin word *miles* (plural *milites*) took on a new meaning, being increasingly used to signify 'horse soldiers' in opposition to *pedites* ('foot soldiers'). Recent archaeological surveys indicate a new aristocratic investment between 960 and 1050 in fortifications with formidable towers and outworks of various types, the 'propugnacula' which (according to a Norman statement of 1091) defined a structure as a fortress in which the duke took an interest, rather than a residential hall surrounded by a ditch and palisade.¹

The appearance of castles seems to have had little to do with the contemporary political instability of the kingdom of the West Franks, as used to

¹ Charles Coulson, *Castles in Medieval Society: Fortresses in England, France and Ireland in the Central Middle Ages* (Oxford, Oxford University Press, 2003), pp. 66–8. My thanks to Helen Fenwick and Anne Curry for their advice in the preparation of this chapter.

be believed. Castles appear at much the same time in the Rhineland, the Ardennes, Lorraine, and Alsace in the west of the powerful Salian empire, where square stone towers have been found in fortified residences before 1000, parallel to the contemporary stone towers such as Langeais in the Loire region. Castles with mottes, artificial mounds on which to erect towers, are widespread across central and northern France and the empire alike by the early eleventh century.² The cause in all cases may have been the same: rising wealth, prestige, and political ambition amongst the higher aristocracy expressing itself in military terms, rather than it being a consequence of unusual political insecurity. Castles were by this interpretation a new addition to the armoury of the aristocracy's social dominance. Discussion of the element of prestige and conspicuous aristocratic display in the construction of castles is increasingly evident in recent publications, though without disputing the central place castles also played in medieval warfare (for which see below). It is certainly an evocative fact that one of the largest castles in thirteenth-century Europe, Caerphilly in Glamorgan, was the construction of an earl, Gilbert de Clare of Gloucester, rather than of a king. It was built within a Welsh lordship the earl had recently confiscated, but there was no justification for its extraordinary size and expense other than to assert the great earl's wealth and prestige.

To be effective as expressions of aristocratic power, castles needed permanent garrisons. Horseback warriors naturally extended the reach of a castle's power and were therefore to be preferred. As a result, counts and great magnates recruited such warriors into full-time military households (Fr. *mesnie*, Lat. *familia*, 'household'). The link between knight and castle is explicit in eleventh-century sources, where knights are frequently described in groups under the name of their castle base, as in the case of the Poitevin garrisons described in the famous 'Conventum' of Hugh of Lusignan (c.1026).³ The cost of paying and equipping such *mesnies* was prohibitive, and it is not surprising to find that there was a move by cash-strapped lords to offer land rather than money to recruit members. However, it is by no means certain that more than a minority of such knights were ever offered 'fees' of land (Fr. *fiefs*, Lat. *feoda*) in return for their military service, despite the long-standing historiographical

2 Robert Higham and Philip Barker, *Timber Castles* (London, Batsford, 1992), pp. 88–90; Hermann Hinz, *Motte und Donjon* (Cologne, Habelt, 1981); André Debord, *Aristocratie et pouvoir. Le rôle du château dans la France médiévale* (Paris, Picard, 2000), pp. 64–8; Gérard Guiliato, 'Le Château reflet de l'art défensif en Lorraine de xème au début du xiiième siècle', *Annales de l'Est*, 6th ser., 1 (2003), 55–76.

3 *Le Conventum (vers 1030): un précurseur aquitain des premières épopées*, ed. George Beech, Yves Chauvin, and Georges Pon (Geneva, Droz, 1995), pp. 123–53.

view (going back as far as Montesquieu) that such links caused a ‘feudal’ revolution in society at some time or other between the seventh and eleventh centuries.⁴ Salaried knights were far more flexible in military forces and could be engaged and discharged at will. The Norman army in the Hastings campaign, for instance, was not so much ‘feudal’ as ‘stipendiary’, with many knights retained to Duke William’s standard from all over northern France for the duration of the campaign.

We know very little about the lives of eleventh-century knights, though it is clear that they did not form a cohesive social group initially. French monastic sources not infrequently refer to particular knights as ‘noble’ but since such men were their benefactors and generally rich in land, that is hardly suprising. The trend in Anglophone scholarship has been to conclude that earlier knights were a social continuum: some wealthy and landed, others subsisting on maintenance and board. All would have had some status and family connections, for they rode horses, a sign of social eminence, and would have had to have somehow the means and background to acquire the skills to fight on horseback. But when in the 1020s the Norman *miles* Herluin of Bec, and in 1070 the Breton *miles* Wihenoc of Monmouth, are described as riding out with their own *milites*, they were not the social equals of their retained household. Analysis of the Domesday Book data of 1086 demonstrates that conquered England contained several thousands of men called *milites*, but that perhaps the majority of them could have held little more land than a prosperous peasant. Knights got their prestige and income from the lord with whom they associated, who, like them had trained as a knight and rejoiced in the name of *chivaler* (Lat. *caballarius*, Ger. *Ritter*, MEng. *ridere*, *cniht*).⁵

A major factor in creating a cohesive knightly culture was the widespread military game which, by the early twelfth century, was called the ‘tournament’. Its origins are disputed, but it has been suggested that tournaments began as ad hoc gatherings of knights in the north-east of France and west of the empire as early as the first quarter of the eleventh century. Its influence would partly account for a most unusual manifestation of knightly culture, which is to be found in Poitou already in the 1020s. Unlike previous forms of warrior retinue, knights did not just relate to the lord who employed and rewarded them, but to the knights of other lords. It was perfectly possible for

4 David Crouch, *The Birth of Nobility: Constructing Aristocracy in England and France, 950–1300* (Harlow, Longman, 2005), pp. 173–90.

5 David Crouch, *The English Aristocracy, 1070–1272: A Social Transformation* (New Haven, Yale University Press, 2011), ch. 1.

a retained knight to leave the employ of one lord and enter that of another and so extend his acquaintance amongst a new range of comrades, and have to face his old friends in battle. So it is no surprise to find that knights defeated in warfare might reasonably expect to be captured and held to ransom rather than summarily cut down around their lord.⁶ Such a shared culture was generated and enhanced by frequent peacetime encounters between knights of a variety of lords in military games. The first evidence for a developed form of the tournament as it was understood in its mid-twelfth-century heyday does not come until the 1090s in Brabant. The word itself first appears in a source from Hainault in 1114. But since by that generation a vibrant tournament culture can be found already established across England, Flanders, the Rhineland, Normandy, and Anjou, it probably had been a reality amongst Francophone knights for at least two generations.⁷ The tournament generated other cultural icons of knighthood. The system of aristocratic devices known later as heraldry first emerges on the banners and surcoats (*jupes*) of magnates in the tournament heartland of Flanders and Picardy around 1100, and it can be accounted for more easily as a by-product of the need for identification of magnates and their teams on the tournament field than in warfare.⁸ Tournaments were perpetual (apart from the season of Lent), and warfare was only occasional.

The knightly culture which embraced dukes, counts, barons, and their employees, the knights, was initially no more than shared skills and pastimes, but its social importance developed with the emergence of a behavioural code called 'chivalry' in the late twelfth century. The social ideal of the

6 John Gillingham, 'Fontenoy and After: Pursuing Enemies to Death in France between the Ninth and Eleventh Centuries', in Paul Fouracre and David Ganz (eds.), *Frankland: The Franks and the World of the Early Middle Ages* (Manchester, Manchester University Press, 2008), pp. 242–65.

7 See generally on the European tournament phenomenon and its spread, Michel Parisse, 'Le Tournoi en France, des origines à la fin du xiii^e siècle', in Josef Fleckenstein (ed.), *Das ritterliche Turnier in Mittelalter: Beiträge zu einer vergleichenden Formen- und Verhaltensgeschichte des Rittertums* (Göttingen, Vandenhoeck & Ruprecht, 1985), pp. 175–211; James Baldwin, 'Jean Renart et le tournoi de Saint-Trond: une conjonction de l'histoire et de la littérature', *Annales* 45 (1990), 565–88; Carol Edington, 'The Tournament in Medieval Scotland', in Matthew Strickland (ed.), *Armies, Chivalry and Warfare in Medieval Britain and France* (Stamford, Paul Watkins, 1998), pp. 46–62; Joachim Bumke, *Courtly Culture: Literature and Society in the High Middle Ages*, trans. Thomas Dunlap (New York, Overlook Press, 2000), pp. 247–74; D. Crouch, *Tournament* (London, A. & C. Black, 2005).

8 On the origins of heraldry see particularly, Pierre Gras, 'Aux origines de l'héraldique: la décoration des boucliers au début du xiii^e siècle d'après la bible de Cîteaux', *Bibliothèque de l'Ecole de Chartes* 109 (1951), 198–201; Michel Pastoureau, 'La Diffusion des armoiries et les débuts de l'héraldique en France' (vers 1175–vers 1225), in *La France de Philippe Auguste. Colloque international du C.N.R.S.* (Paris, CNRS, 1982), pp. 737–60.

aristocrat until then had been the ‘preudomme’ – the practised mature man of affairs, at home in the court of princes and respected by his peers for his judgement. But since a cleric or even a peasant could be reckoned a ‘preudomme’ the term did not imply social distinction, only maturity and sense. The *chivaler*, on the other hand, was clearly a person of consequence, an associate of princes and magnates, sharing with them a masculine culture of the camp and hall. When Chrétien de Troyes in his romance *Cligès* (1170 × 80) described aristocratic conduct as *chevalerie*, he was making explicit what until then had been implied: a man who was knighted was not just an employee, but a proper associate of princes who shared their lifestyle.⁹ Knights were *de facto* noble.

A transformation of the knightly group occurred over the two generations after 1200. In part, it involved a shrinkage and even internal collapse of the previously broad group of *milites*. The necessity as a knight to live up to noble status led families of lesser resources to withdraw from seeking the distinction. Whereas in 1130 to seek knighthood was to declare only adult status, by 1230 it was to stake a claim to be noble with the necessity of living in an expensive and noble style. The numbers of men calling themselves knights more than halved in the first half of the reign of King Henry III in England, and something similar is assumed to have happened in France and its cultural colonies, where in the 1230s a lesser noble group called ‘squires’ (Lat. *armigeri*, *scutiferi*, *valleti*, Fr. *écuyers*) emerged as a compensating dignity. The relative lack of men taking up knighthood was more of a problem for the leadership of armies and civil society than for the fielding of a heavy cavalry force. Full knightly equipment was already being worn by squires in the mid thirteenth century. Knighthood itself became a stage in a military career, rather than its commencement. By 1300 men who eventually took knighthood might have served (for less pay but with the same equipment) as ‘servientes’ or ‘valetti’ for years before.

A less appreciated change in knighthood was the effect that the nobilisation of the knight had on the magnate group. While great lords had not objected to being described as knights when it was simply a badge of masculinity and maturity, the idea of knighthood as a sign of social eminence made them uncomfortable. It meant that magnates were placed on the same status level as their household employees and subordinates. So from the late 1170s we find evolving in England and France a superior grade of knighthood

9 ‘La Notion de la chevalerie dans les romans de Chrétien de Troyes’, *Romania* 114 (1996), 289–315.

focused on the banner, which produced the term 'banneret' (Lat. *banerettus*, *vexillifer*) to describe a man who would be called a baron in a civil context: a knight who had sufficient resources to employ a company of other knights. The rank of 'knight carrying a banner' is first found in the 1179 tournament list of Lagny-sur-Marne, which indicates that by then it was already a distinction recognised wherever the tournament was popular. It became a military rank in thirteenth-century England and France, with a separate rite of admission deriving from the eleventh- and twelfth-century ritual of investiture of a count or duke, focusing on the presentation of the square banner of a commander.¹⁰ The possession by an earl or count of his own dependent bannerets in his retinue became a sign of the highest social standing.

The emergence of chivalry at the end of the twelfth century as a self-conscious aristocratic code of behaviour did not much affect the conduct of warfare, though the idea that medieval warfare before, as much as after, 1180 was 'chivalrous' is all too readily assumed by modern writers. Tracts seeking to consciously instruct their readers in chivalry appear only in the 1220s with the *Ordene de Chevalerie*, which treats knighthood as a state comparable to priesthood, into which one might be ordained. This was a pointed comparison being made as early as the 1150s by preachers such as Stephen de Fougères but also in aristocratic circles, such as the household of the count of Vermandois. The 1220s likewise saw *ensenhamen/enseignement* tracts being composed in Catalonia, Burgundy, and Picardy with the same purpose of valorising knighthood, commencing a literary tradition which reached its apogee with Geoffrey de Charny's *Livre de Chevalerie* (c.1350). Features pragmatically identified by modern writers as 'chivalric' on the battlefield long predate this cultural shift: the idea of withholding one's hand from a fellow-knight and taking ransoms rather than their lives is, as has already been said, a feature of Frankish military culture as early as the 1020s. It was alien to contemporary non-Frankish cultures such as the Welsh, Scandinavians, and pre-Conquest English, where it was thought more honourable to die around one's defeated lord and give no quarter.¹¹

10 David Crouch, *The Image of Aristocracy in Britain, 1000–1300* (London, Taylor and Francis, 1992), pp. 114–19; and on the genesis of chivalry, Crouch, *Birth of Nobility*, pp. 29–86.

11 John Gillingham, '1066 and the Introduction of Chivalry into England', in George Garnett and John Hudson (eds.), *Law and Government in Medieval England and Normandy* (Cambridge, Cambridge University Press, 1994), pp. 31–55, and 'Conquering the Barbarians: War and Chivalry in Twelfth-Century Britain', *Haskins Society Journal* 4 (1992), 57–84.

Military mobilisation, 1000–1300

The mounted knight was not the king of the high medieval battlefield, and on a good day he knew it.¹² When a medieval commander such as the young Count Waleran II of Meulan (1104–66) staked all, as at Bourghéroulde in April 1124, on a tournament-style grand charge (*estor*) he and his retinue were all too humiliatingly brought low by archers stiffened with dismounted professional knights acting as heavy infantry. Knights generally fought on foot in the Anglo-Norman armies of the eleventh and twelfth centuries though some squadrons were usually left mounted to exploit victory and an enemy's weakness, as was the case at Bourghéroulde.¹³ Nonetheless, despite these caveats, knights made up the core of the medieval army for several reasons, some ideological, some social, and some pragmatic.

It was unthinkable for social as much as military reasons that a magnate or prince not be mounted and accompanied by a mounted retinue, the more impressive the better. When a twelfth-century magnate founded a borough or commune, it was often written into its charter that the more well-heeled townsmen must turn out to accompany their lord on horseback as he travelled their region or went to war, as with the commune of Meulan in the Île de France, founded in the 1190s.¹⁴ Counts, earls, and other magnates recruited permanent retained retainers whose duty was to attend their lord, and analyses of aristocratic households reveal a core of knights around a lord who might number as many as two dozen even in peacetime. Sometimes these favoured knights might receive landed estates for their support or as inducement, particularly in the cases of England after the Norman Conquest or Spain during the twelfth- and thirteenth-century Reconquista, where land bonanzas were carried on at the expense of native landed aristocracies. It was more usual across Europe – and in England after the mid twelfth century – for a lord to recruit existing local families into his service with his protection, household offices, cash fees, or maintenance.

In time of war a lord's *mesnie* would be expanded, though to what extent and in what manner is difficult to say through lack of evidence. There are abundant indications from England and France that already by 1100 kings and princes would commence the summoning of an army for a particular campaign by written orders directed to individual magnates. There is a similar

12 Matthew Bennett, 'The Myth of the Military Supremacy of Knightly Cavalry', in Strickland (ed.), *Armies, Chivalry and Warfare*, pp. 304–16.

13 Stephen Morillo, *Warfare under the Anglo-Norman Kings, 1066–1135* (Woodbridge, Boydell, 1994), pp. 173–4.

14 Paris, Archives Nationales de France, J 737 no. 3.

practice evident in later twelfth-century Aragon, where the holders of the kingdom's 'honours' were likewise summoned for campaigns.¹⁵ The earliest surviving texts of such summonses do not ask for particular numbers of knights, but just that the recipient bring what strength he could. General summonses might be sent out to the realm asking holders of knights' fees to perform the customary service for their lands. In post-Conquest England at least, this was often the prelude to requesting money in lieu of service (scutage, or 'shield-money'), by which stipendiary knights might be hired or expenses offered to those selected to serve in person. The notional knight service of the realm became indeed the basis for a land tax in medieval England by the thirteenth century rather than its actual military reserve. Edward I of England, in his remorseless militarisation of his realm, used the general summons in a more intimidatory way. By the 1290s he extended it beyond the knights to landholders of an income which could be assumed to support a knightly lifestyle and equipment. By the end of the fourteenth century such summonses might raise an additional heavy cavalry force of some 150–250 men and a large sum of money from the defaulters who paid for exemptions.¹⁶

The key to mobilisation remained the reaction of magnates to their individual summons from the king. Apart from the fact that magnates might send written summonses in turn to their own men, we know very little about how this was accomplished in this period. However, surviving English government inquisitions can lift the veil, even as far back as the twelfth century. In 1170, the exactions on his estates by the veteran warrior, Earl William d'Aubigny of Sussex (d.1176), were examined by a sworn inquisition. The earl had led a very active military and diplomatic career from 1159 which involved a long period as keeper of the Welsh March, campaigns there and in France, as well as an embassy to the empire. In all these activities he needed to finance a strong *mesnie*, and we find that it was by raising substantial amounts of cash from his boroughs, tenants, and monasteries in Norfolk and Sussex that he did so, sometimes taking out loans from the Jews and offering his dependents as security. Earl William undoubtedly recouped some of this money in expense payments from the king his master, for which the Pipe Rolls provide some evidence, but the initial financing had to be

¹⁵ Donald Kagay, 'Army Mobilization, Royal Administration and the Realm in the Thirteenth-Century Crown of Aragon', in Paul Chevedden, Donald Kagay, and Paul Padilla (eds.), *Iberia and the Mediterranean World of the Middle Ages: Essays in Honor of Robert I. Burns S.J.*, 2 vols. (Leiden, Brill, 1995–6), vol. 2, pp. 95–115.

¹⁶ David Simpkin, *The English Aristocracy at War* (Woodbridge, Boydell, 2008), pp. 15–16.

found by himself.¹⁷ The evidence of King John of England's reign (1199–1216) is that barons and knights who answered the summonses and joined the army were paid 'prests' or expenses to facilitate their service and keep them in the field.¹⁸ The armies of his grandson, Edward I (1272–1307), which have been much studied over the years, demonstrate a not dissimilar – though better documented – mechanism. When summoned by the king, an earl or banneret brought with them a mixed 'company' (*comitiva*), consisting of retained and summoned knights, squires, and serjeants wearing his livery. The greatest of magnates might very well lead a retinue with their own bannerets leading sub-retinues.¹⁹

A medieval magnate could thus be likened in a small way to a venture capitalist of the battlefield, and not in principle unlike the aristocratic entrepreneurs who raised regiments for the armies of Gustavus Adolphus and Ferdinand II in the Thirty Years War. Kings counted on the likes of William d'Aubigny to provide the professional core of their armies. Aristocrats might provide companies of infantry to augment their contribution, though to what extent is almost impossible to say. There were many different names used for these men, and some are problematical, not least the word 'serjeant' (Lat. *serviens*), a catch-all word used in many different medieval contexts including the legal profession and domestic households. But some serjeants (the historian's 'foot-serjeant') were well-equipped heavy infantry, armed with swords or spears, helmets, and protective jerkins.²⁰ It is not uncommon to find references to archers and serjeants in the employ of magnates even in peacetime. But when mass recruitment of experienced infantry or light cavalry was required for particular campaigns, twelfth-century contracting seemed to have worked differently from raising cavalry. It was organised through agents such as Welsh lords or Basque, Aragonese, Brabanter, and Flemish contractors, who recruited companies called sometimes *almogàvers*, *ruptarii*, or *routiers*, companies modern writers call 'mercenaries', though strictly speaking almost all medieval soldiers took pay of some sort or other.²¹

17 Crouch, *The English Aristocracy*, pp. 27–8.

18 Michael Prestwich, *Armies and Warfare in the Middle Ages: The English Experience* (New Haven, Yale University Press, 1996), p. 69.

19 Simpkin, *English Aristocracy at War*, ch. 5.

20 John France, *Western Warfare in the Age of the Crusades, 1000–1300* (London, UCL Press, 1999), pp. 64–5.

21 See comments by the editor in John France (ed.), *Mercenaries and Paid Men: The Mercenary Identity in the Middle Ages* (Leiden, Brill, 2008), pp. 1–13. A pioneering study on the difficulties of the concept was Stephen Brown, 'The Mercenary and His Master: Military Service and Monetary Reward in the Eleventh and Twelfth Century', *History* 74 (1989), 20–38. For the empire, Karl Krieger, 'Obligatory Military Service and the Use

Otherwise infantry might be levied on urban centres. The contribution of London to the wars of Stephen's reign in England (1135–54) and Paris to those of Philip Augustus (1180–1223) in France is clear enough, and the reliance on urban militias in providing crossbowmen, spearmen, and even occasionally more specialised support troops, such as carters and miners, is as evident in the thirteenth-century Empire, Holy Lands, and Spain as in England and France.²² Even the accounts of crusading warfare talk of contracted companies of infantry, such as those deployed both by Simon de Montfort and his opponents in his campaigns against the Cathars in Occitania in the 1210s, though only his opponents were condemned for hiring them.²³

The size of medieval armies in the field is a vexed but not unanswerable question. Contemporary chroniclers can provide absurd numbers, such as Orderic Vitalis's reckoning of King Henry's force of 60,000 foot soldiers at Bridgnorth in 1102.²⁴ The entire city of London, by the most generous current estimate, contained little more than that number of souls at the end of the twelfth century. Such figures were meant to be simply representative of 'a lot' by these writers. Even when numbers given by chroniclers seem more realistic, we would be unwise to take them at face value. However, England and Capetian France both provide more solid indications of how small field armies might be in the early thirteenth century. The resources of the resurgent French monarchy were sufficient to maintain a standing army of 257 knights, 245 mounted serjeants, 71 mounted crossbowmen, 101 foot crossbowmen, and 1,608 foot serjeants, according to the surviving Capetian fiscal account of 1202–3, the year before Philip Augustus launched a campaign that would conquer the Angevin realms north of the

of Mercenaries in Imperial Military Campaigns under the Hohenstaufen Emperors', in Alfred Haverkamp and Hanna Vollrath (eds.), *England and Germany in the High Middle Ages* (Oxford, Oxford University Press, 1996), pp. 151–68. For Spain, Maria Teresa Ferrer y Mallol, 'Els Almogàvers', in *Organització i defensa d'un territori fronterer: La governació d'Oriola en el segle XIV* (Barcelona, Consell Superior d'Investigacions Científiques, 1990), pp. 237–84.

22 James Powers, *A Society Organized for War: The Iberian Municipal Militias in the Central Middle Ages, 1000–1284* (Berkeley, University of California Press, 1988); David Bacharach, 'Urban Military Forces in England and Germany', in France (ed.), *Mercenaries and Paid Men*, pp. 231–42. A less urbanised kingdom such as Scotland, where the money economy was also weak, had to levy infantry by customary service attached to estates. For comparison, Alice Taylor, 'Common Burdens in the Regnum Scottorum', in Dauvit Broun et al. (eds.), *The Reality behind Charter Diplomacy in Anglo-Norman Britain* (Glasgow, University of Glasgow, 2011), pp. 197–204.

23 Peter of Les Vaux-de-Cernay, *The History of the Albigensian Crusade*, trans. William and Michael Sibly (Woodbridge, Boydell, 1998), esp. pp. 299–301.

24 Orderic Vitalis, *The Ecclesiastical History*, ed. and trans. Marjorie Chibnall, 6 vols. (Oxford, Oxford University Press, 1969–80), vol. 6, p. 28.

Loire.²⁵ In England, the narrative of the campaign conducted to relieve Lincoln in 1217, written from the eyewitness accounts and archives deriving from the household of Earl William Marshal of Pembroke (c.1146–1219), produce the credible figures of 406 knights and 317 crossbowmen in his force, which teamed up with the besieged garrison and defeated a somewhat larger combined rebel and French force in the city. The figures are credible because Marshal kept the muster rolls which detailed the salaries owing to the royal armies. The same source also indicates how bodies of knights might be numerous in exceptional circumstances. Its author had access to a celebratory roll listing the knights present at the Capetian state tournament at Lagny-sur-Marne in 1179, in which he counted more than 3,000 names.²⁶ The autobiography of King James I of Aragon (1213–76) is another good source for actual sizes of medieval armies in the field, as the king's own recollections are backed up – as in England – by an administrative record. In 1232 he sailed to foil a threatened invasion of Majorca from Tunis with 300 knights and 2,000 infantry, the largest force he could muster from Catalonia.²⁷

The technology of warfare

Though little of any material nature survives from the weaponry and armour of this period, sigillography, manuscript illumination, and theological tracts, not to mention the embroidery of the Bayeux Tapestry, provides quite rich and often narrowly datable source material. The last-named source is particularly important, depicting as it does both Anglo-Scandinavian and French warriors, horse and foot, in the mid eleventh century. It indicates that in the 1060s in Western Europe the warrior was equipped in a homogenous manner. This equipment changed only slowly over the next two generations. There are broad similarities of the tapestry's depictions of warriors with those of the knights of the Cîteaux Bible of c.1110 (Bibliothèque municipale, Dijon, ms 14), not to mention those to be found in Romanesque sculpture, on the capitals of pillars and church portals. Mail hauberks and shorter haubergeons

25 John Baldwin, *The Government of Philip Augustus* (Berkeley, University of California Press, 1986), pp. 166–8. Baldwin points out that a *routier* company of around 300 infantry under the mercenary captain, Cadoc, could probably be added to the tally.

26 *History of William Marshal*, ed. Anthony Holden and David Crouch, trans. Stewart Gregory, 3 vols., Occasional Publications Series 4–6 (Anglo-Norman Text Society, 2002–7), vol. 1, lines 4782–4; vol. 2, lines 16264–8.

27 *The Book of Deeds of James I of Aragon*, trans. Damian Smith and Helena Buffery (Basingstoke, Ashgate, 2010), pp. 126–7.

backed by leather or quilted jackets protected the body and thighs. A simple helmet, usually with nasal piece, was sufficient for cavalry and infantry alike, though the knight wore a mail coif and a muffler-like neck piece called a *ventaille*. Within this basic range there was some variation. Mail leggings were worn by some warriors, and the variety of ways the helmet was depicted indicates perhaps the existence of older or cheaper styles and maybe regional variation. The Norman historian Wace and the French author of the *Roman de Thèbes* – both sources of the 1150s – observe that in their time styles of equipment had regional characteristics.

The difference between the equipment of the warriors of the Bayeux Tapestry and those of the Cîteaux Bible is not great. However, there is one significant change. The shield devices of the 1060s that the tapestry depicts have no identifying meaning to its designer: the same character will appear with different shields on different occasions with none of the basic heraldic vocabulary of shape and division. If any item of equipment is used there for identification it is the banner. But by the turn of the twelfth century this was changing. The devices found in the Cîteaux Bible are proto-heraldic, featuring the animals and geometrical shapes familiar in later heraldry. Magnate seals of the 1120s and 1130s confirm that by then great lords were displaying symbols of their lineage on shield, banner, and surcoats, which were being deployed to mark them out in sigillographic representations. Two notable groups are already evident at that time: the Franco-Norman chequy device employed by the descendants of the Carolingian house of Vermandois (including the Capetian counts of that place and their cousins of Meulan, Leicester, and Warenne), and the chevrons (inverted 'V's) of the descendants of the Norman counts of Brionne (including the several Clare and Giffard lineages).²⁸

Major changes in military dress occurred in the mid twelfth century, indeed there was something of a technological shift under way. If any one cause contributed, it was most likely to be the expansion of the tournament under extravagant princely patronage, which was by then a widespread aristocratic pursuit from the Polish marches to Iberia and from Scotland to Palestine. Seals of the 1140s reveal rapidly changing knightly fashions, as for instance the fastening of streamers to wrists and helmet back, a passing fad of that generation, designed to flicker out in the grand charge which happened regularly in tourneying but very rarely in warfare. Likewise in the 1150s more pragmatic technological advances appear which can only have been devised

28 Crouch, *Image of Aristocracy*, pp. 220–8.

for the tourney field, such as visor plates which can be found attached to helmets and which protected against the explosive shattering of lances in the grand charge; the appearance of mail mittens to guard exposed hands, and leather or mail horse armour to protect expensive mounts against damaging collisions in the press of the *mêlée*. Armorial trappers on the warhorses of counts and barons, such as that of William fitz Empress (1136–63), brother of Henry II of England, marked out the magnate on the tourney field as much to help his bodyguards as reveal his identity to his opponents. By 1170 the reflections of the Norman theologian Ralph Niger and the noble Occitan poet Arnaut-Guilhem de Marsan on the military equipment of their day reveal that the knight was by then equipped in much the same way as the knight we find depicted on thirteenth-century warrior tomb effigies. Niger even indicates that iron and boiled leather plates were already in use for the protection of exposed knees and shoulders in his time.²⁹ Iron breastplates are not in evidence till the mid thirteenth century. The enclosing bucket-helm which is so familiar in depictions of the thirteenth-century knight had evolved by the 1180s, as is apparent from several seal effigies.

Equipment of soldiers other than knights is less easy to analyse, though sources indicate that a broad-brimmed iron cap, the chapel-de-fer, was already in use well before the end of the twelfth century. It was expected to be owned by of the class of freemen who made up horse or foot serjeants in Henry II of England's 'Assize of Arms' of 1181. Mail haubergeons or quilted jackets protected the body of such soldiers, and a range of hafted weapons were deployed in battle by foot-serjeants: pole-axes, gisarmes, and spears. Crossbowmen and archers deployed in companies are found as early as the eleventh century. Archers might be rather more lightly equipped, as were the Welsh companies employed by the Angevin kings of England. Crossbowmen appear to have been the more heavily armoured troops, particularly because they were deployed in siege operations. By the mid thirteenth century, archers and crossbowmen in the English royal household were expensively equipped with uniform livery jackets of rough sindon silk, leather armguards, and the usual protective jerkins of mail and studded leather. The existence of fabric or enamel livery badges to mark a retained soldier's employer is known for the thirteenth century. There are indications that

29 For these under-used but revealing sources, Ralph Niger, *De Re Militari et Triplici Via Peregrinationis Ierosolimitane*, ed. Ludwig Schugge, *Beiträge zur Geschichte und Quellenkunde des Mittelalters*, 6 (Berlin, De Gruyter, 1977); *L'Ensenhamen ou code du parfait chevalier du troubadour gascon Arnaut Guilhem de Marsan* (Mounenh en Biarn, Pyr  monde, 2007), pp. 64–95.

the contemporary – but less well-documented – French royal household did the same for its elite infantry companies.³⁰

Campaigns and battles

The sophisticated strategic vision of certain medieval commanders is worth commenting on. The ability to comprehend the geography of entire realms and formulate sophisticated strategies is notable amongst such as Richard the Lionheart of England (1189–99) and the emperor, Frederick II (1194–1250). The fact that crusade, pilgrimage, the itinerant nature of royal courts, and the spread of their own estates made aristocracies of the Middle Ages highly mobile perhaps made up for the lack of usable maps. William Marshal, in his long but not exceptional career, travelled throughout the widespread Angevin dominions from the Scottish border to the Pyrenees. Besides this, pilgrimage and tourneying took him into eastern France, through Flanders and the Rhineland into the empire, and he spent at least a year in the kingdom of Jerusalem. Many of his later years were spent in his Irish lordship of Leinster where he was resident for most of the period between 1207 and 1214. Such a lifestyle encouraged a wide appreciation of topography and geopolitics. Even the aristocratic sport of hunting contributed to this. King James of Aragon travelled the mountains between his realm and the kingdom of Valencia without guides, since he knew the area well enough from his boar-hunting expeditions.³¹ The best and most successful medieval commanders made discriminating use of intelligence. Informers, turncoats, opportunists, and even sometimes retained spies, provided a steady flow of information to medieval princes about the movements of opponents and potential traitors, though – as James of Aragon discovered – they were as likely to report rumour as fact. Medieval commanders used light cavalry in the field as scouts and screens for their own movements. When so much might hang on the result of a single battle an efficient medieval general would not commit blindly if he could help it.³²

30 In general, Philippe Contamine, *War in the Middle Ages*, trans. Michael Jones (Oxford, Blackwell, 1984), pp. 188–92; Frédérique Lachaud, 'Armour and Military Dress in Thirteenth- and Early Fourteenth-Century England', in Strickland (ed.), *Armies, Chivalry and Warfare*, pp. 344–69.

31 *The Book of Deeds of James I of Aragon*, p. 172.

32 John Prestwich, 'Military Intelligence under the Norman and Angevin Kings', in George Garnett and John Hudson (eds.), *Law and Government in Medieval England and Normandy* (Cambridge, Cambridge University Press, 1994), pp. 1–30.

Another factor in the sophistication of medieval strategy was the key place the castle played in warfare. The castle-building classes showed from the beginning an alertness to the situation of their fortifications, invariably placed so as to take advantage of terrain or the possibility of water defences, to command trade routes, and impose lordship on urban centres. Castles inhibited hostile movement and could monitor and choke trade. It is not surprising then that warfare very frequently became castle-taking campaigns, as was the case in much of the Angevin–Capetian warfare of the twelfth and thirteenth centuries and the Reconquista of the eleventh- and twelfth-century Iberian peninsula. Recent studies have tended to stress what had previously been neglected: that castles were as much symbols of noble status and theatres for noble display as they were military structures. Even in the twelfth century, a castle might form the centrepiece of a planned landscape of pleasantries, hunting parks, and gardens, rather as did the great house of the early modern period.³³ The medieval castle (such as Dover or Coucy) might also incorporate a large collegiate church whose purpose was anything other than military. However, that did not alter the castle's essential military significance, and the castles of borderlands had to be and were business-like structures geared for defence.

The predominance of castles in the warfare of this period accounts in part for the use of systematic pillaging by Western armies as their primary strategy. The burning of an enemy's crops and villages denied him economic resources and subverted his reputation as an effective lord to his people. This sort of territoriality in medieval warfare was a response to both its social and military character. Pitched battles were relatively rare in the medieval period. It has been observed that commanders of medieval armies were reluctant to commit to open battle unless the odds were much in their favour or they were driven to it by force of circumstances. It has been suggested that this was the sign of a literate aristocracy given to reflecting on the Classical inheritance of military handbooks, such as Vegetius's *De Re Militari*. This willingness to project a 'war-college' mentality on medieval commanders is perhaps to underestimate their pragmatic intelligence, the effect of the military *habitus* in which they were raised, and the effect of social imperatives on the way they undertook campaigns.³⁴

33 Robert Liddiard, *Castles in Context: Power, Symbolism and Landscape, 1066 to 1500* (Macclesfield, Windgather Press, 2005). For a recent debate, Colin Platt, 'Revisionism and Castle Studies: A Caution', *Medieval Archaeology* 51 (2007), 83–102; Oliver Creighton and Robert Liddiard, 'Fighting Yesterday's Battle: Beyond War and Status in Castle Studies', *Medieval Archaeology* 52 (2008), 161–9.

34 Clifford Rogers, 'The Vegetian "Science of Warfare" in the Middle Ages', *Journal of Medieval Military History* 1 (2002), 1–19.

The intellectual investment of medieval warriors in their craft can be seen best with the continual evolution of castles and siege warfare. It is not unusual to find eleventh-century soldiers, such as Robert de Bellême and Bohemond, being commended for their siege expertise. The twelfth-century French occupational name 'Lengineur', hints that specialists in military machines could make a living. King James I of Aragon and Majorca was deeply fascinated by the power, use, and construction of the several varieties of catapults and trebuchets of his day, and became – at least in his own mind – something of an authority on them. Torsion artillery existed throughout this period, an inheritance from the Classical period, but it had a limited range and capacity to deliver. Traction artillery was a post-Roman development in the Middle East, and penetrated the West perhaps as late as the ninth century. The effectiveness of the traction-trebuchet was a challenge to castle design as its heavy shot (as heavy as 200 kg by the twelfth century) could demolish masonry walls. The counterweight trebuchet, the ultimate weapon – devised perhaps in the Byzantine empire in the late eleventh century – was particularly deadly.³⁵ King James observed that in the capture of Ibiza in 1235, the trebuchet had only to fire ten shots to breach the castle and town walls. As a response to this in the West, the square stone tower, a classic expression of castle lordship since the late ninth century, gave way in the mid twelfth century to rounded or radial keeps. There was an increasing resort to the expensive sophistication of concentric defences, first evident in the kingdom of Jerusalem in erection of the Hospitaller castle of Belvoir in the 1150s.³⁶ The refortification of Kenilworth by King John of England created concentric defences around an existing great keep. The redesign of Kenilworth included extensive water defences, which had the same effect of distancing artillery from the core defences, and reduced its effectiveness. Even the counterweight trebuchet had to be within a long bowshot of the defences, protected by screens or mantlets, if it was to be effective.

Medieval battles, as it is often said, tended to be brief. With small numbers involved, the likely issue became obvious fairly soon, once the initial onset had either succeeded or been repelled. Such a battle was Brémule in August 1119. The armies of Henry I of England and Louis VI of France were manoeuvring in the Seine valley as the French king threatened Rouen and established himself at Andely within striking distance of the Norman

35 Paul Chevedden, Zvi Shiller, Samuel Gilbert, and Donald Kagay, 'The Traction Trebuchet: A Triumph of Four Civilizations', *Viator* 31 (2000), 433–51; France, *Western Warfare*, pp. 119–25.

36 France, *Western Warfare*, p. 92.

capital. The two armies encountered each other in open country, though Henry had warning because of his foresight in posting scouts to monitor the French progress by the fires they were setting as they plundered and wasted the Norman countryside. Hard-pressed by rebellion within the duchy, Henry decided he had to fight or suffer a dangerous and possibly catastrophic loss of prestige. He sent out pickets of cavalry to mask his dispositions from the French and dismounted most of his knights behind them to form a line of heavy infantry, with himself, his son and heir William Atheling, and his military household in the centre. A mounted reserve under his illegitimate son, Richard, was kept ready to exploit the course of the battle. Chroniclers put his army's strength as a not-unlikely total of 500 knights and an unknown number of infantry. Louis took the offer of battle, perhaps himself feeling as though his prestige depended on it, or perhaps overconfident, as even the French chroniclers imply. His 400 knights stayed mounted and abruptly charged in two divisions. Though the impetus of the charge scattered the cavalry screen it came up hard against the steady line of the disciplined royal *familia* behind. Its impetus took French knights as deep into the Norman line as the 51-year-old king himself, who had to employ his sword in his own defence. But the charge lost impetus leaving the mounted French milling and exposed to counterattacks from Anglo-Norman cavalry. The French broke and in the pursuit over a third of the French knights were captured. King Louis himself was lucky to escape, though his standard was captured.³⁷ The whole engagement could not have lasted as long as an hour, but the fatalities were surprisingly light.

There is a considered tidiness to chroniclers' accounts of such battles which ignores the chaos, fear, and messiness of the medieval battlefield experience. It was enough to traumatise even warriors trained in war from boyhood. Jean de Joinville's eye-witness account of the battle of Mansūra near Cairo in February 1250 is very instructive in that regard. The French knights crossed a tributary of the Nile by a ford revealed to them by a local guide so as to seize the town of Mansūra, Joinville among them. Having managed that feat, the attack degenerated into an undisciplined *mêlée* as companies surged forward, forgetting any plan decided in council with Louis IX. The French lost many knights and serjeants as they were trapped in the town's streets. Joinville tells his tale from his own perspective, as he rode through the *mêlée* with his household, encountering and skirmishing with

37 Matthew Strickland, 'Henry I and the Battle of the Two Kings: Brémule 1119', in David Crouch and Kathleen Thompson (eds.), *Normandy and its Neighbours* (Turnhout, Brepols, 2011), pp. 77–116.

small groups of Egyptians but then blundering into their main force, which he evaded by taking shelter in an abandoned house where he was trapped, the Egyptians climbing on to the roof and thrusting down at them with their long lances. His household suffered appalling wounds. One knight with his nose hanging over his mouth broke out and found assistance, but died as a result of his wounds. On rejoining King Louis, Joinville witnessed the king's inability to comprehend what was happening on the field, torn between the desperate pleas of the various commanders and the conflicting advice of his household. Once more lost in the press of battle and cut off from his king, Joinville gathered a few knights and held a bridge for hours under fire from the Egyptians while some knights fled past him and others plunged to drown in the river. He had no idea how it was that the battle was won, other than that the king successfully rallied his household and pushed back the enemy. Joinville survived due to the eventual arrival of a company of crossbowmen which intimidated his assailants into withdrawing. By contrast with Brémule, the engagement of Mansūra, in all its incoherence and indiscipline, lasted from dawn to dusk.³⁸

Maritime warfare

The potential for maritime operations and indeed amphibious warfare was well understood during this period. The two principal naval theatres for Westerners were the Atlantic littoral and the Mediterranean. Of the two, the latter was the most strategically significant, especially following the establishment of the kingdom of Jerusalem. The needs of the Crusade stimulated sea transport and even technological innovation during the twelfth century. The large two-masted round-hulled sailing ship was introduced into the Mediterranean to meet the needs of supply and transport. Towering above the waves, with two or three decks and castles, and manned by bowmen, it proved more than a match for the traditional galley fleets of the Muslim powers.³⁹ Dominant Western naval power allowed the conquest by Western kingdoms of the Balearics, Crete, and Cyprus, and even permitted King Roger of Sicily (1130–54) to dream of an African empire dependent on his

38 *Vie de Saint Louis*, ed. Jacques Monfrin (Paris, Classiques Garnier, 1995), pp. 103–20.

39 John Pryor, 'The Naval Architecture of Crusader Transport Ships: A Reconstruction of Some Archetypes for Round-hulled Sailing Ships', *Mariners Mirror* 70 (1984), 161–70; John Dotson, 'Ship Types and Fleet Composition at Genoa and Venice in the Early Thirteenth Century', in John Pryor (ed.), *Logistics of Warfare in the Age of the Crusades* (Aldershot, Ashgate, 2006), pp. 63–75.

crown. Venice, Pisa, and Genoa rose to be great naval and commercial powers, long maintaining Western naval dominance in the eastern Mediterranean and enabling the overthrow of the Greek empire. It was rather a pity from the Western point of view that in the thirteenth century Genoa and Venice became more interested in fighting each other for commercial dominance than countering the Muslim powers.⁴⁰ Amphibious operations dependent on naval dominance were responsible for significant Crusading victories, such as the seizure of Lisbon by northern Crusaders in 1147 and the Genoese seizure of Ceuta in 1235.⁴¹ The long maritime expedition of King Sigurd Magnusson of Norway (1103–30) was a remarkable instance of this. It took him down the Atlantic Coast in 1108 into the Mediterranean, where he raided Moorish coasts and islands, finding his way to Sicily and ultimately Jerusalem, sacking towns and killing heathens in something of a Christianised reinvention of the Viking age. His fleet, burdened by plunder, travelled north to Cyprus and finally dispersed at Constantinople, from where the king took the overland route home, where he arrived in 1111.⁴²

Atlantic waters were probably more pacific, so to speak. The English Channel was the most consistent theatre of naval warfare, with Scandinavian fleets still active up and down the English and French coasts throughout the eleventh century. It was a threatened seaborne invasion of England by Cnut IV of Denmark (1080–86) which was the immediate stimulus for the commission of the Domesday survey in 1085. But the twelfth century, when an English king generally ruled on both sides of the Channel, stimulated commercial shipping rather than warfare, with herring fisheries spurring major port developments around the North Sea coasts. As a symptom of this change the Cinque Ports along the English Channel Coast facing Picardy and Flanders – formerly an important source of coastal defence for the pre-Conquest kings – lost their naval importance, and became the predatory nuisance on Channel trade they remained for the rest of the Middle Ages.⁴³ Oar-powered warships were to be

40 John Pryor, *Geography, Technology, and War: Studies in the Maritime History of the Mediterranean, 649–1571* (Cambridge, Cambridge University Press, 1988); Charles Stanton, *Norman Naval Operations in the Mediterranean: Warfare in History* (Woodbridge, Boydell, 2011).

41 Matthew Bennett, 'Military Aspects of the Conquest of Lisbon, 1147', in Jonathan Phillips and Martin Hoch (eds.), *The Second Crusade* (Manchester, Manchester University Press, 2001), pp. 71–89; Dotson, 'Ship Types', pp. 69–70.

42 Richard Unger, 'The Northern Crusaders: The Logistics of English and Other Northern Crusader Fleets', in Pryor (ed.), *Logistics of Warfare in the Age of the Crusades*, pp. 251–3.

43 Nicholas Rodger, 'The Naval Service of the Cinque Ports', *English Historical Review* 111 (1996), 636–51.

found in the Atlantic as much as the Mediterranean. They were relatively fast but demanded a large crew, generally one man for each ton of weight. The expense of their manpower, and their lack of commercial use meant that it was as difficult for princes to maintain a war fleet of galleys for any length of time as to keep an army in the field. Nonetheless the French and English kings had the capacity to assemble such fleets for particular purposes, as Philip Augustus did in the Flemish ports for his projected invasion of England in both 1213 and 1216. The king of England for his part assembled fleets on several occasions in the thirteenth century, finding his port of Bayonne in Gascony particularly useful as a source of galleys. Lesser lords of the Atlantic littoral kept war fleets. There is reference to fleet of galleys 'and other vessels' Earl Richard Marshal maintained at Chepstow on the Severn estuary in 1233 by which he mounted amphibious operations. Since the earls of Pembroke had major lordships on either side of the St George's Channel, and built and maintained a great lighthouse at Tower of Hook (still in operation) to assist the approach of vessels to the ports of Waterford and New Ross, it is evident the earls of Pembroke sought naval dominance in the Bristol Channel and southern Irish Sea.⁴⁴

Medieval naval battles were rare, and where they occurred they were near coasts. Medieval fleets had no capacity to sail in search of an enemy. They had enough trouble staying together on short sea passages, as we learn from accounts of William of Normandy's crossing from Picardy to Sussex in 1066, or James of Aragon's crossing from Catalonia to Majorca in 1229. Great beacons were burned on the lead ship in both cases, but vessels nonetheless scattered, leading in both cases to separated crews landing on hostile shores and being attacked. The accounts of the naval battle off Sandwich in 1217, when an English fleet intercepted a French one sailing to the relief of Louis of France trapped in rebel London, portray fighting that was hand-to-hand as ships grappled and bowmen fired on to hostile decks. There were no naval tactics. The English simply sailed or rowed directly out to encounter the French moving in tight formation down the Channel. Once the two fleets met, sails were furled and battle took place around the taller sailing vessels, called 'cogs' in the account. The French admiral, Eustace le Moine – whose ship was overloaded with horses and a prefabricated trebuchet and consequently rode low in the water – found his decks swept by archery and peppered by shattering pots of quicklime thrown from above. Once the

44 Marvin Colker, 'The "Margam Chronicle" in a Dublin Manuscript', *Haskins Society Journal* 4 (1992), 137.

flagship was boarded and captured the French ships that were able hauled sail and scattered towards Calais. As was the custom, only noble prisoners were taken, defeated mariners were thrown overboard to drown. Eustace was beheaded.⁴⁵

Warfare and its laws

Sources for this period are very conscious of the difference between times of war and of peace. It recognised it as characteristic that the state of war suspended many of the niceties and conventions of normal life. So we find in the twelfth and thirteenth centuries the idea of a *tempus guerrae* which was used to account for events which would not normally happen, so in England in the 1220s people remembered Stephen's reign (1135–54) as a time of 'grant guerre' when disorder (*desrei*) reigned.⁴⁶ This consciousness can be found in England soon after the Norman Conquest. In 1070 the papal legate, Ermenfrid of Zion, noted the state of *publicum bellum* which had existed in England after the landing of Duke William in England and up as far as his coronation as king. He prescribed a moderated penance on those of his followers who had killed during it because of their obligation to serve in his host. The phrase, which might be translated as 'open' or 'public' warfare, was already well-established by 1066 in the Church's view of war.⁴⁷

England before 1200 developed a strong political and legal culture of public order enforced by a national network of courts operating under the crown. Not surprisingly therefore it reveals in its historical sources a sharp awareness of when things were amiss and a time of peace had become a time of conflict. In the later 1230s, the Buckinghamshire knight Bartholomew de Sackville referred back to the *gwerra* of 1215–17 when sheriffs made inroads on the liberty of his father's manor of Fawley, which he was attempting to recover.⁴⁸ His lord, Earl William Marshal II of Pembroke (1190–1231), also referred back to the same *gwerra*, in which he

45 *History of William Marshal*, vol. 2, lines 17281–514.

46 *History of William Marshal*, vol. 1, lines 40–2. See also Matthew Paris's comment on William de Valence's housebreaking and pillaging of the bishop of Ely's manor of Hatfield in 1252 leaving the house 'as if it had been gutted in war time hostilities [quasi in hostili guerra conquassata]', *Chronica Majora*, ed. Henry Luard, 7 vols. (Rolls Series, London, 1872–84), vol. 5, p. 234.

47 Herbert Cowdrey, 'Bishop Ermenfrid of Sion and the Penitential Ordinance Following the Battle of Hastings', *Journal of Ecclesiastical History* 20 (1969), 235, 239–41, and for comparison see Maurice Keen, *The Laws of War in the Late Middle Ages* (London, Routledge, 1965), pp. 63–73.

48 British Library, Additional Charter 27143.

had looted and inflicted damage on possessions of Reading abbey which neighboured his manor of Caversham, where eventually he compensated the monks.⁴⁹ Looking back on his already long reign in 1261, King Henry III (1216–72) took some credit for the fact that it had been so little afflicted with periods of ‘hostility and general war’ over the previous forty-five years, for maintaining a state of civil peace was the king’s task.⁵⁰ A time of war was when men heedlessly committed what would be indictable crimes in time of peace: arson, murder, dispossession, and theft.

This pragmatic understanding of the difference between war and peace was paralleled by a legal-theological debate as to how war could be justified, a very necessary intellectual exercise for clergy in an age where the aristocracy defined itself by its military function.⁵¹ Lay society took its reasoning on board and was perfectly capable of justifying the violent actions it had taken. So a clerk of that conquering king, Edward I of England (1272–1307) could write in Augustinian terms around 1280: ‘it is perfectly allowable to levy a just war insofar as canon law permits aggression, for which reason our most excellent prince, the noble lord king of England, might fight long and hard against his enemies in Wales because he had no choice in defense of his legitimate rights’.⁵² War in defence of Christendom was easy enough to justify by the papacy, and successive popes were the energisers of the major crusades of the twelfth century. Urban II (1088–99) is reported to have preached to would-be Crusaders that if up until then they had by their violence oppressed orphans, robbed widows, and pillaged churches, they could by drawing their swords in defence of Christendom leave behind their evil ways and find redemption.⁵³ This was the message that Bernard of Clairvaux broadcast at the military aristocracy when (c.1126) he preached the ‘new knighthood’ of the Templars. Since there were Christian groups who might be characterised as enemies of the Church it was not beyond the capacity of the pope and his legates to declare Crusades within Christendom, as a way of validating the papacy’s own political and ideological purposes: most famously in the Crusading privileges granted to the opponents of Louis of France’s invasion of England in 1216–17 and Simon de

49 British Library, Additional Charter 19616.

50 Thomas Rymer, *Foedera, Conventiones, Litterae et Cuiuscunque Generis Acta Publica*, 4th edn (The Hague, 1739–45), vol. 1(1), pp. 408–9.

51 For context, Richard Kaeuper, *Chivalry and Violence in Medieval Europe* (Oxford, Oxford University Press, 1999), pp. 169–88.

52 Kew, The National Archives, E36/274, folio 368r (author’s translation).

53 Baudrey de Bourgeuil, *Historia Hierosolymitina*, in *Patrologiae Cursus Completus: Series Latina*, ed. J.-P. Migne, 221 vols. (Paris, 1847–67), vol. 154, col. 568.

Montfort's campaign against the supposedly Cathar nobles of Occitania, 1209–29. If there is anything characteristic of Western warfare between 1000 and 1300 it was this fusion of military pragmatism, furious intellectual debate, and noble aspiration which was generated by the dialectic between the two idealisms: Christian and noble.

Crusaders and settlers in the East, 1096–1291: Christian attack, Muslim response

JOHN FRANCE

The Crusades have always been a focus of historical attention. William of Tyre (c.1130–86) wrote a great history of the crusades in Latin which was so well received that in the early thirteenth century it was translated into French and extended in many versions to cover the period after 1186. The French version was so popular that the Renaissance scholar, Francesco Pipino, unaware of the original, translated it back into Latin, while Caxton produced an English version in the fifteenth century.¹ Many of the earlier crusader chronicles, notably Robert the Monk's account of the First Crusade, were also extensively copied in the Middle Ages and were edited very early in the age of print, notably in the great collection by Jacques Bongars in 1611.² In modern times the crusades have always been a contentious subject, as President George Bush discovered when he referred to a 'crusade against terrorism' shortly after 9/11.

Controversy about crusading has tended to focus on questions of motivation.³ Modern authors incline to the view that they were a religious phenomenon, and that the driving force was Urban II's offer of an indulgence, a remission of the burden of penance, to all who participated.⁴ However, because the basic appeal of the crusade was religious does not mean that people went only for religious reasons, as witness the rallying cry

1 Peter Edbury and John Rowe, *William of Tyre: Historian of the Latin East* (Cambridge: Cambridge University Press, 1988), pp. 4–5.

2 Jacques Bongars, *Gesta Dei per Francos* (Hanover, 1611).

3 For an interesting survey of modern writing see Jonathan Riley-Smith, 'Erdmann and the Historiography of the Crusades, 1935–95', in Luis Garcia-Guijarro Ramos (ed.), *La Primera Cruzada, novecientos años después: el concilio de Clermont y los orígenes del movimiento cruzado* (Madrid, Amat Bellés, 1997), pp. 17–29, and also the same author's *The Crusades, Christianity and Islam* (New York, Columbia, 2008).

4 Marcus Bull, *Knightly Piety and the Lay Response to the First Crusade* (Oxford, Clarendon Press, 1993) gives a fine analysis of religious influence upon European aristocrats.

of the army at the battle of Dorylaeum on 1 July 1097, recorded by a participant who may well have been a knight:

Stand fast altogether, trusting in Christ and in the victory of the Holy Cross.
Today, please God, you will all gain much booty.⁵

Despite the emphasis of recent historians on understanding the development of the sanctification of war, most people still react with horror at the notion of salvation through slaughter. In consequence Sir Steven Runciman's majestic verdict on the crusades continues to enjoy much support amongst scholars and the wider public:

In the long sequence of interaction and fusion between Orient and Occident out of which our civilization has grown, the crusades were a tragic and destructive episode . . . There was so much courage and so little honour, so much devotion and so little understanding. High ideals were besmirched by cruelty and greed, enterprise and endurance by a blind and narrow self-righteousness; and the Holy War itself was nothing more than a long act of intolerance in the name of God, which is the sin against the Holy Ghost.⁶

But whatever may be felt about the crusades and the reasons for them, there can be no doubt that they were a remarkable series of military expeditions in which European power was projected into the eastern Mediterranean.⁷ There was plenty of conquest in Europe in the late eleventh century, but it was relatively slow and relatively localised. Only the papacy had the vision to look so far afield. Not the least remarkable aspect of crusading was the sheer size of the armies which made the journey. It is by no means easy to establish numbers because contemporaries lived in a localised world where large gatherings were unusual and, when they occurred, deeply impressive. Fulcher of Chartres was a priest who participated in the First Crusade, and he believed that the army which concentrated at Nicaea in June 1097 was 600,000 strong, of whom 100,000 were 'protected by coats of mail and helmets', but that originally some 6,000,000 fighting men had taken the cross.⁸ Such

5 Anonymous, *Gesta Francorum et Aliorum Hierosolimitanorum*, ed. Rosalind Hill (Edinburgh, Nelson, 1962), pp. 19–20 [henceforward GF].

6 Stephen Runciman, *A History of the Crusades*, 3 vols. (Cambridge, Cambridge University Press, 1954), vol. 3, p. 401.

7 There is a new general survey of crusading armies, Steven Tibble, *The Crusader Armies* (New Haven, Yale University Press, 2018).

8 Fulcher of Chartres, *Historia Hierosolymitana*, ed. Heinrich Hagenmeyer (Heidelberg, Winters, 1913), p. 81, trans. Francis Ryan and Harold Fink as *A History of the Expedition to Jerusalem 1095–1127* (Knoxville, University of Tennessee Press, 1969), p. 81 [henceforward FC].

figures are sheer fantasy, but while Fulcher may well have been trying to convey the sense of a vast army, what does he mean by the distinction between well-armoured soldiers and others? Is this the distinction, commonly made at the time, between *milites et pedites* (knights and foot) or between soldiers and the non-combatants who we know were very numerous on the journey? Modern writers have naturally been sceptical of immense totals, and the numbers who gathered at Nicaea in June 1097 have been realistically estimated at between 40,000 and 60,000, while the army which triumphed at Jerusalem in 1099 probably numbered about 12,000. No one has been bold enough to estimate the non-combatants, not least because, certainly amongst the men, there could never have been a clear distinction between fighters and non-fighters, especially as Western clergy were perfectly prepared to fight on occasion. There is also the issue of whether we should place any trust in the implied ratio between knights and others, and this is a matter of some importance because knights were the most important element in Western armies.

The best reasoned discussions suggest tentatively that between 5,000 and 7,000 knights were present at Nicaea, and something like 1,500–2,500 by the end.⁹ It is difficult to arrive at conclusions, not least because the term *milites* is often used by crusader and Western European sources to mean simply cavalry, whose numbers fluctuated according to the availability of horses. There is good reason to believe that in February 1098 only about 700 horses could be found in the whole army. By June 1098 they could raise only 200 horses for the great battle against Kerbogah, and two of the leaders, Godfrey de Bouillon and Robert count of Flanders, had to beg mounts from their wealthier colleague, Raymond count of Toulouse.¹⁰ This obscurity about numbers partly arises from the nature of the crusader army which was not one force, but a composite of substantial groups: those of Raymond of Toulouse, Godfrey de Bouillon, Robert of Flanders, Robert of Normandy, Bohemond, Hugh of Vermandois, and Stephen of Blois, to which other

9 John France, *Victory in the East: A Military History of the First Crusade* (Cambridge, Cambridge University Press, 1994), pp. 122–42; Jonathan Riley-Smith, 'Casualties and the Number of Knights on the First Crusade', *Crusades* 1 (2002), 13–18. Bernard Bachrach, 'The Siege of Antioch: A Study in Military Demography', *War in History* 6 (1999), 127–46, has argued for 100,000 armed warriors at Antioch, while Jean Flori, *Pierre l'Ermite et la première croisade* (Paris, Fayard, 1999), p. 453, suggests between 12,000 and 15,000 knights at Nicaea. While this indicates the range of possibilities offered by the sources, in my opinion the figures suggested by Flori and Bachrach are not sustainable.

10 GF, p. 27; France, *Victory*, pp. 245, 286.

smaller forces and individuals attached themselves, though not always on a regular basis. The number of ‘floaters’ should not be exaggerated, and they probably fell in number at bad times when they needed support. However, at any one time no leader could ever have been sure how many men were at his disposal, especially when mortality of horses was high.

There were only two armies on the Second Crusade. That of the German emperor Conrad III (1139–52) has been reasonably estimated at 30,000–35,000 plus non-combatants, though some contemporaries reckoned it at over 900,000. It has proved difficult to suggest the size of the French army, but at the time it was thought to be about the same size as that of the Germans.¹¹ In the event both suffered heavy defeats in Anatolia and brought only limited numbers of survivors to the Holy Land. The Third Crusade was provoked by the fall of Jerusalem after Ḥaṭṭīn in 1187, but it consisted of a number of armies and contingents arriving at various times between 1187 and 1191. The German army of Frederick Barbarossa is thought to have numbered between 12,000 and 15,000 and to have had a very large proportion of mounted knights, while discouraging non-combatants.¹² Philip II of France (1180–1223) embarked for the East in 1190 after arranging passage with the Genoese for 650 knights and 1,300 squires (who would have been mounted), but many of the French princes had preceded him and when he left the Holy Land in July 1191 he is said to have left 10,000 French behind. Richard of England (1189–99) had an army of 17,000 soldiers and seamen by the time of his arrival at Acre in 1191. Many other contingents, including some Germans who continued their crusade after the death of Barbarossa, were already at Acre, but losses due to sickness and heavy fighting in the last stages of the siege, reduced the army. When Richard faced Saladin in battle at Arsuf, on 7 September 1191, he commanded 20,000 men, of whom something like a quarter were knights. Saladin’s army was as numerous but entirely mounted.¹³ Overall it is clear that large numbers of soldiers participated in the Third Crusade, but few figures are given and many contingents had no chroniclers.

For the Fourth Crusade we have remarkably accurate numbers. Its leaders had no fleet of their own, and in the winter of 1200/1 they despatched six plenipotentiaries charged with hiring a fleet at their

11 Jonathan Phillips, *The Second Crusade: Extending the Frontiers of Christendom* (New Haven, Yale University Press, 2007), pp. 168–9.

12 Walter Eickhoff, *Friedrich Barbarossa im Orient: Kreuzzug und Tod Friedrichs I* (Tübingen, Wasmuth, 1977), p. 77.

13 John Gillingham, *Richard I* (New Haven, Yale University Press, 1999), pp. 129, 144; Raymond Smail, *Crusading Warfare, 1097–1193* (Cambridge, Cambridge University Press, 1995), pp. 161–5.

commanders' expense. They approached the Venetians, and by the Treaty of Venice their plenipotentiaries agreed to pay the sum of 85,000 marks for the transport and victualling for one year of an army of 33,500 men and 4,500 soldiers to the East – its intended target being Egypt. In addition, the Venetians offered to create a fleet of fifty war-galleys in return for a half-share of all proceeds – by which money and goods rather than land were intended. The creation and maintenance of this fleet was a tremendous investment for the Venetians, and ultimately involved considerable manpower – at least 12,000 sailors and marines. But in the event only about 12,000 crusaders turned up at Venice, and despite the greatest efforts the army was 34,000 marks in debt to the Venetians.¹⁴ Many others had decided to make their own way to the East, but the signs are that they were never very numerous. One assumes that the plenipotentiaries had given an optimistic total on the basis that leaving willing crusaders on the dockside would have been terrible, but 33,500 proved to have been a hopeless overestimate.

For the Fifth Crusade in 1217 the Germans and Frisians raised a fleet of some 300 ships, while King Andrew of Hungary and Leopold VI of Austria contracted with Venice to provide ten large ships and an unknown number of smaller ones to convey their army to the Holy Land.¹⁵ Contingents of crusaders from other lands were also continually leaving. However, when a strong force marched into Egypt in 1221 it is said to have numbered 1,200 knights, plus an unspecified number of Turcopoles, 4,000 archers, and 2,500 mercenaries, while at least an equal number of soldiers remained behind in Damietta. In 1228 the emperor Frederick II of Hohenstaufen arrived in Cyprus with a force of seventy galleys, transports, and others ships, while most of his army had already landed in Acre.¹⁶ He had agreed to raise a force of 1,000 knights and to pay the travelling expenses of another 2,000, but in the event he promised to pay for any who wished to come, and although non-combatants were turned away, his force could hardly have been smaller than 10,000 in all.¹⁷ In 1239 Theobald of Champagne had a force of 4,000 knights

14 Donald Queller and Thomas Madden, *The Fourth Crusade: The Conquest of Constantinople* (Philadelphia, University of Pennsylvania Press, 1997), pp. 11, 51.

15 James Powell, *Anatomy of a Crusade, 1213–21* (Philadelphia, Pennsylvania University Press, 1986), pp. 123, 127.

16 Philip de Novare, 'Les Gestes des Ciprois: The Crusade of Frederick II 1228–29', in *The Crusades: A Documentary History*, trans. James Brundage (Milwaukee, Marquette University Press, 1962), p. 228.

17 Thomas van Cleve, *The Emperor Frederick II of Hohenstaufen, Immutator Mundi* (Oxford, Clarendon Press, 1972), pp. 161–2, 194–5.

with an unknown number of others.¹⁸ St Louis, king of France (1226–70) made very careful preparations for his crusade in 1248 which have left considerable traces in the royal records. Their analysis by Strayer suggests an army of 15,000, within which there was a very high proportion of knights. Of course, a very large number of sailors were also involved.¹⁹

It is interesting to compare these figures with campaigns in Europe at this time. In 1066 William the Bastard defeated Harold of England with an army of about 6,000–7,000.²⁰ During his Italian campaigns Frederick Barbarossa (1152–90) could only occasionally, and for short periods, raise an army of 4,000–5,000 cavalry and about twice that number of infantry, as for the siege of Crema, 1159–60. Mostly he had to make do with much smaller forces. For the battle of Carcano in 1160 the emperor had only about 400 knights and 2,500–3,000 foot against 600 knights and 5,000–6,000 foot in the Milanese force.²¹ In 1214 when imperial and French forces confronted one another at the battle of Bouvines, each numbered about 7,000 including somewhat less than 2,000 cavalry.²² At Cortenova in November 1237 Frederick II of Hohenstaufen (1197–1250) disposed of some 10,000 men, though this was only a part of the army which he had maintained earlier in the year, against about the same number of Milanese. At the battle of Benevento on 26 February 1266 Manfred of Sicily disposed of 4,000–5,000 cavalry and 10,000 foot, while the victorious Charles of Anjou had perhaps 4,000 cavalry and a rather lesser number of infantry.²³ Crusading involved warfare on a radically different scale from that in the West, particularly in the twelfth century. Armies tended to become smaller in the thirteenth century, probably because of the costs of sea transport which had to be met ‘up-front’, and also, in line with the Western experience, because they were becoming more

18 Christopher Marshal, *Warfare in the Latin East, 1192–1291* (Cambridge, Cambridge University Press, 1992), p. 71.

19 John Strayer, ‘Crusades of Louis IX’, in *Medieval Statecraft and the Perspectives of History* (Princeton, Princeton University Press, 1971), pp. 166–7.

20 Bernard Bachrach, ‘Some Observations on the Military Administration of the Norman Conquest’, *Anglo-Norman Studies* 8 (1985), 1–26.

21 John France, ‘The Battle of Carcano, the Event and Its Importance’, *War in History* 6 (1999), 245–61.

22 Jan Verbruggen, *The Art of Warfare in Western Europe during the Middle Ages*, trans. Charity Willard and Richard Southern (Woodbridge, Boydell, 1997), pp. 239–60. John France, ‘The Battle of Bouvines 27 July 1214’, in G. L. Halfond (ed.), *The Medieval Way of War: Studies in Medieval Military History in Honor of Bernard S. Bachrach* (Aldershot, Ashgate, 2015), pp. 251–72. A perceptive analysis of the sources is to be found in the excellent Dominique Barthélemy, *La Bataille de Bouvines* (Paris: Perrin, 2018).

23 John France, *Western Warfare in the Age of the Crusades c.1000–1300* (London, UCL Press, 1999), pp. 153–5, 178–80.

professional. Richard I seems not to have had the Third Crusades preached in England (though it was in Wales), perhaps because he preferred to rely on his professionals bulked out by volunteers.²⁴ Mercenaries were numerous in the Fifth Crusade and thereafter seem to have formed an element in most of the armies which went to the East.²⁵

The sheer numbers who went to the East, especially on the crusades which travelled by land, imposed enormous logistical problems. It is about 4,000 km from Paris to Jerusalem, and most of the participants on the First Crusade walked virtually all the way. The knights may have begun with riding horses as well as chargers, but by October 1097 a participant was bemoaning the lack of horses, and though they did purchase more, notably on the journey through Syria to Jerusalem from the amir of Ḥimṣ in January 1099, they only had some 1,500 cavalry when they reached Jerusalem in June.²⁶ Heat was a terrible experience for them. As they crossed the Anatolian plateau in the height of summer 1097 about 500 perished of thirst in a single day, while at the siege of Jerusalem in June–July 1099 water was so scarce that it was brought from some distance away and some choked on leeches in the polluted liquid.²⁷ Food was a perennial problem for an army on the march. In the main, logistics were the affair of individuals and groups rather than the armies as a whole. In friendly territory the crusaders could buy food and we know that the Byzantine emperors Alexius (1081–1118) and Manuel (1143–80) provided the First and Second Crusades with markets.²⁸ Once into Anatolia the army was in territory held by the Turks, but as they were pushed back the crusaders could probably buy food from its Christian inhabitants. The leaders of the First Crusade as a whole clearly took logistics seriously to the extent of detouring through the rich and well-watered lands of Pisidia, and into Cappadocia whose Armenian population offered real prospects of supply. A key factor at the siege of Antioch (October 1097–June 1098) was the support of Western fleets, notably English and Genoese, which brought food from Byzantine Cyprus and which also conveyed supplies to the siege of Jerusalem.²⁹ In fact sieges posed the greatest challenge to the army because it was forced to stay in one place, exhausting

24 Peter Edbury, 'Preaching the Crusade in Wales', in Alfred Haverkamp and Hanna Vollrath (eds.), *England and Germany in the Middle Ages* (Oxford, Oxford University Press, 1996), pp. 221–33.

25 Powell, *Anatomy of a Crusade*, pp. 178, 187.

26 GF, p. 27; Raymond of Aguilers, *Liber*, ed. John and Laurita Hill (Paris, Geuthner, 1969), p. 104 [henceforward RA]; France, *Victory*, p. 130.

27 Albert of Aachen, *Historia Ierosolimitana*, ed. Susan Edgington (Oxford, Clarendon Press, 2007), III.2 [henceforward AA].

28 GF, pp. 12, 14. 29 RA, pp. 134–5, 141.

local supplies. By Christmas 1097 after three months at Antioch the army was starving and dispatched a force to forage. It had little success because it bumped into a relief army under Duqaq of Damascus. This failure precipitated a real crisis in early 1098. Knights became unwilling to escort foragers for fear of losing their horses, and this is why the count of Toulouse promised to compensate his men, obliging others to follow suit.³⁰ In January 1099, after the siege of Ma'arra famine in the army was so acute that some crusaders resorted to cannibalism.³¹ Thereafter the supply situation eased as the army moved into rich territory where it could buy food with the plunder already taken, though there were shortages at the siege of Jerusalem until the arrival of a fleet.³²

All the problems of supply which faced the First Crusade also afflicted the Second.³³ The German army of Conrad III raided friendly countryside in the Byzantium as it advanced towards Constantinople and, in consequence, received a cool welcome. Once into hostile territory in Anatolia it was quickly defeated, and in a letter to Wibald of Corvey Conrad III himself explained the defeat in part by saying that his army had been gravely short of food at the time.³⁴ As early as late June 1147, within a month of departure, the French army came to blows with food merchants at Worms. A small fleet accompanied the army as it marched down the Danube, and the wealthy used it to carry carts, some with two and some with four horses, to carry their supplies. These were disembarked at Belgrade and thereafter suffered frequent breakdowns on the roads, blocking the passage of pack-horses and holding up the army badly. The clear suggestion is of private provision and nobody in overall charge, with resulting chaos.³⁵ In his march through the Byzantine empire towards Constantinople Louis VII (1137–80) benefited from imperial generosity:

But there preceded and followed him [Louis VII] many divisions who gained plenty for themselves, either from the market, whenever that was possible, or from plunder, because they had the power to do that.³⁶

30 GF, pp. 30–3; RA, pp. 54–5. 31 RA, p. 101.

32 On money and purchase see Alan Murray, 'Money and Logistics in the First Crusade', in John Pryor (ed.), *Logistics of Warfare in the Age of the Crusades* (Aldershot, Ashgate, 2006), pp. 229–49.

33 On the subject generally see John France, 'Logistics and the Second Crusade', in Pryor (ed.), *Logistics of Warfare*, pp. 77–93.

34 Odo of Deuil, *De Profectione Ludovici VII in Orientem*, ed. Virginia Berry (New York, 1948), pp. 41–3, 47–9, 91–3 [henceforward Odo]; Conrad III in Friedrich Hausmann (ed.), *Die Urkunden Konrads III, und seines Sohnes Heinrich* (Vienna, Bölaus, 1969), nos. 195, 354.

35 Odo, pp. 25, 28–9, 31, 33. 36 Ibid., pp. 24, 40–2.

There was widespread anger about the rate of exchange offered by Byzantine merchants for Western coins. When the army crossed the Bosphorus money-changers set up on the shore, their tables groaning with money and 'the silver vessels which they (the money-changers) had bought from us'. Discontent finally exploded and a Fleming led an assault on the money-changers who fled in such haste that innocent crusaders were trapped on board their ships and were beaten in revenge by the locals. Louis intervened immediately because disruption of the money-changing facilities would have caused a major hiatus in the whole system of supply. Louis hanged the Fleming and arranged full restitution for the merchants and money-changers.³⁷ Once into hostile territory the army was in grave danger of starvation. Frederick Barbarossa had been in Conrad's army, and when on the Third Crusade he led his own army across Byzantium and Anatolia he discouraged non-combatants, imposed a strict discipline, and insisted on his men taking plenty of money with them.³⁸

Barbarossa's success was remarkable. He brushed aside Byzantine attacks, mounting such a threat to Constantinople that the emperor came to terms with him. He then marched across Anatolia and crushed the Seljuq sultanate of Rum, threatening its capital of Iconium which the Byzantines under Manuel Komnenos had signally failed to do with a great expedition in 1176.³⁹ But the whole expedition fell apart after Frederick drowned in the Saleph river on 10 June 1190, much to the relief of the Muslims who feared its arrival:

Had not God shown his grace to the Muslims and destroyed the king of the Germans at his appearance in Syria . . . people would be saying, 'Syria and Egypt used to belong to the Muslims.'⁴⁰

In reality it was plague, striking an army weakened by its exertions and hardships, which destroyed the German army.

Frederick's success and the effects of his death, highlight a particular problem of all crusades, leadership. The crusade was a pilgrimage, and in principle all who went were equal. The very first crusaders to reach

³⁷ Ibid., pp. 23, 41, 67, 74.

³⁸ Alan Murray, 'Finance and Logistics of the Crusade of Frederick Barbarossa', in Iris Shagrir, Ronnie Ellenblum, and Jonathan Riley-Smith (eds.), *In Laudem Hierosolymitani: Studies in Crusades and Material Culture in Honour of Benjamin Z. Kedar* (Aldershot, Ashgate, 2007), pp. 357–68.

³⁹ See the sources for his journey trans. Graham Loud, *The Crusade of Frederick Barbarossa: The History of the Expedition of the Emperor Frederick and Related Texts* (Aldershot, Ashgate, 2010).

⁴⁰ Ibn al-Athir, *Chronicle (Years 1146–93)*, ed. Donald Richards (Aldershot, Ashgate, 2007), p. 364.

Constantinople in the autumn of 1096 were various groups from Italy, France, and Germany who are often described as the 'People's Crusade' under the religious leadership of Peter the Hermit. In fact their make-up was not very different from that of the other armies, but they lacked a dominant leader of high status, and partly because of this they were annihilated by the Turks of western Anatolia.⁴¹ Urban II appealed to men of high status, and it was these 'princes', and their immediate followers, their *mouvances*, who formed the nuclei of armies. Much depended upon the ability of such men to command respect and to cooperate with one another. Medieval armies in the West were not standing forces, but temporary assemblies of cavalry and infantry which came together for short periods and then dispersed. The knights had the means to train themselves and were expert and well-equipped fighters, but when they gathered in the *mouvance* of a great man they were not used to cooperating in anything more than small local groups. Infantry, with the exception of small groups of mercenaries, were ad hoc forces which lacked cohesion to a much greater extent. In these circumstances a great deal depended on the personality of the leader.⁴²

The First Crusade was a gathering of such armies in which command rested upon a committee of leaders. It was probably this loose command structure which led to the dispersal of the army as it marched east from Nicaea, enabling the Muslims to pounce upon the vanguard at Dorylaeum. The crusade only survived through chance, and thereafter tightened its formation.⁴³ But it was very reluctantly, under the grave threat of attack from Aleppo in February 1098, and solely for the duration of the emergency, that the other leaders consented to a single commander in the person of Bohemond. At Easter they elected Stephen of Blois to lead them, but he deserted and, when they were besieged in Antioch shortly after they had captured it, they made Bohemond their commander again and he led them to the stunning success in battle against the Muslims on 28 June. It was his prestige which enabled Bohemond to claim Antioch, but this breached the agreement with Alexius which the count of Toulouse championed. As a result, the crusade broke up with considerable forces staying with Bohemond in Antioch. The rump of the army now faced the forces of

41 France, *Victory*, pp. 88–95; on social make-up following Frederic Duncalf, 'The Peasants' Crusade', *American Historical Review* 26 (1921), 440–53.

42 France, *Western Warfare*, pp. 128–38; John France, 'Patronage and the Appeal of the First Crusade', in Jonathan Phillips (ed.), *The First Crusade: Origins and Impact* (Manchester, Manchester University Press, 1997), pp. 5–20.

43 France, *Victory*, pp. 173–81.

Fāṭimid Egypt whose leaders had pursued friendship with them, and were badly surprised by the attack which began in May 1099 and seized Jerusalem in July. The leaders of the First Crusade hung together long enough to achieve their main objectives, and proved to be able military leaders. And the army they commanded became more experienced and disciplined as time went on, and able, for example, to assume a complex formation to avoid ambush as they advanced against the Fāṭimids at Ascalon.⁴⁴ This was not the case for the Crusade of 1101 whose major leaders took different routes across Anatolia and were destroyed separately.⁴⁵ There was a similar failure on the Second Crusade. Although the Germans and French had meetings at Châlons-sur-Marne and Étampes in February 1147 and coordinated their journeys to Constantinople, there seems to have been no thought of working together thereafter. Conrad III advanced to Dorylaeum, while Louis VII followed the suggestion of Manuel Komnenos and took a more southerly route. Neither was in full control of his army. The Germans pillaged friendly territory and in Asia Minor the non-combatants broke away and took the southern route. Once in contact with the enemy Conrad seems to have managed his army badly and went down to defeat.⁴⁶ Louis VII tried to stamp his authority on the army at Metz by imposing military law, but Odo of Deuil remarked:

But because they did not observe them well, I have not preserved them either.⁴⁷

It is hardly surprising, therefore, that the French army was undone at Mount Cadmus by the slackness of the vanguard which enabled the Turks to inflict terrible damage. Louis fought bravely and prevented a rout, but subsequently turned to the Templars to help him impose discipline. Once at Adalia he was faced with a revolt by his leading men who demanded to go by sea, abandoning the infantry and the poor for whom there were insufficient ships, on the grounds that they lacked horses.⁴⁸

After Ḥaṭṭīn numerous groups of crusaders arrived in the Holy Land, and, lacking leadership, rallied to Guy of Lusignan in his siege of Acre. Richard's prestige and military ability, which was much admired and had just been demonstrated by his rapid conquest of Cyprus en route, ensured his

44 Georgios Theotokis, 'The Square "Fighting March" of the Crusaders at the Battle of Ascalon', *Journal of Medieval Military History* 11 (2013), 57–72.

45 Alec Mulinder, 'The Crusading Expeditions of 1101–2', unpublished PhD diss., Swansea University, 1996.

46 Philips, *Second Crusade*, pp. 175–81. 47 Odo, p. 21. 48 Odo, pp. 117–25, 131–9.

leadership. He demonstrated his military skill by defeating Saladin at the battle of Arsuf on 7 September 1191. However, the crusader army was made up of many peoples and its leaders were bitterly quarrelling amongst themselves. Many of the native barons wanted Conrad of Montferrat to rule the kingdom of Jerusalem because he had held Tyre in defiance of Saladin in the wake of Ḥaṭṭīn. They regarded Guy of Lusignan as having forfeited the kingdom because of this defeat – but others did not agree. Richard undoubtedly wanted to attack Egypt as the seat of Saladin's power, but most of the crusaders were focused on Jerusalem. Richard thought it would be impossible to hold the city, though twice he came within an ace of seizing it. These real issues were enormously complicated by personal rivalries in which Richard, who was no diplomat, became enmeshed. All this contributed to the military deadlock between the crusaders and Saladin's army. As a result, Richard concluded a truce with Saladin which left Jerusalem in Muslim hands.⁴⁹

The Fourth Crusade was in the hands of a committee of leaders, but amongst them it was the aged Doge of Venice, Dandolo, who took the lead. Without him it is unlikely that the crusade would have captured Constantinople in 1204.⁵⁰ On the Fifth Crusade contingents came and went as crusaders took the view that a year's service had discharged their obligations. John of Brienne, king of Jerusalem (1210–25), was chosen as leader in 1218, but he had only been king by right of his dead wife and was at the time ruling for his daughter Yolande. He, therefore, lacked prestige and constantly worked in the shadow of the expectation that the emperor Frederick II would come. Then in 1219–20 he went off to Armenia in search of a kingdom. *De facto* leadership evolved upon the papal legate, Pelagius, who lacked military expertise but took advice from other prominent men and especially the heads of the Military Orders, in effect a committee.⁵¹ Louis IX was in undisputed command of his army which at first enjoyed remarkable success, but he was

49 There is no modern study of the Third Crusade as a whole. However, the siege of Acre has recently been looked at in detail by John Hosler, *The Siege of Acre* (London and New Haven, Yale University Press, 2018). For an outline of events see Sidney Painter, 'The Third Crusade: Richard the Lionhearted and Philip Augustus', in Kenneth Setton and Marshall Baldwin (eds.), *History of the Crusades*, 6 vols. (Philadelphia, University of Pennsylvania and Madison, Wisconsin, 1955–89), vol. 2, pp. 45–86; and Gillingham, *Richard I*, pp. 155–221. For Richard's qualities as a soldier see John Gillingham and James Holt (eds.), *War and Government in the Middle Ages* (Woodbridge, Boydell, 1984), pp. 78–91.

50 Queller and Madden, *Fourth Crusade*, *passim*, and see also Thomas Madden, *Enrico Dandolo and the Rise of Venice* (Baltimore, Johns Hopkins University Press, 2003).

51 Powell, *Anatomy of a Crusade*, pp. 107–20.

not an especially good military commander and after the battle of Mansūra he hesitated to retreat, resulting in the isolation and destruction of his army.

Leadership, or the lack of it, is largely a matter of chance, but far from the only such random factor to influence the course of events. Baldwin II of Jerusalem (1118–31) was a fine soldier, but in 1102 he was almost killed when he failed to recognise that he was in the presence of the whole Egyptian army and not just a part of it, at the second battle of Ramla.⁵² If Richard of England had realised just what a state of panic his advance towards Jerusalem in 1192 had induced in its defenders, who were preparing to abandon the place, he would probably have pressed on.⁵³ But then, as Clausewitz remarked:

War is the realm of chance. No other human activity gives it greater scope: no other has such incessant and varied dealings with this intruder. Chance makes everything more uncertain and interferes with the whole course of events.⁵⁴

Diplomacy was another uncertain area for crusader leaders, because from the first, although it is not usually seen in this light, the crusade was a matter of alliances. Alexios Komnenos triggered the First Crusade by asking for Western assistance at the Council of Piacenza in order to exploit the break-up of the Seljuq empire, and as the armies approach Constantinople the leaders needed to establish good relations with him:

For it was essential that all establish friendship with the emperor since without his aid and counsel we could not easily make the journey.⁵⁵

In fact, the agreement reached by which the leaders promised to return to Alexius all former Byzantine territory was mutually profitable. The crusaders had little interest in Anatolian lands whose occupation could only sap the strength of their armies, while they profited from Byzantine support, particularly food from Cyprus, and this showed in their reluctance to grant Antioch to Bohemond. At a time when they knew a large enemy army was advancing and they were still outside Antioch, and Bohemond clearly had found a traitor within the city, they made him only a provisional promise of control of Antioch he was demanding:

⁵² FC, p. 168.

⁵³ Christopher Tyerman, *God's War: A New History of the Crusades* (Harvard, Belknap, 2006), pp. 467–9.

⁵⁴ Carl von Clausewitz, *On War*, ed. Michael Howard and Peter Paret (Princeton, Princeton University Press, 1976), p. 85.

⁵⁵ FC, p. 80.

on condition that if the emperor come to our aid and fulfil all his obligations which he promised and vowed, we will return the city to him as it is right to do.⁵⁶

In the event, Alexius did not come, and Bohemond's possession of the city opened up a long-lasting diplomatic breach with the Byzantine empire which ruled out any joint clearing of Anatolia.

A key piece of advice which Alexius had offered the leaders was to open negotiations with Fāṭimid Egypt. He was aware of the hostility between the Shi'ite power in Egypt and the Sunni Turks, and the crusader leaders saw the sense of this advice for they entertained Fāṭimid ambassadors at Antioch and, according to Stephen of Blois, entered into some kind of agreement with them.⁵⁷ It is quite clear that the Egyptians placed so much confidence in this relationship that the crusader thrust into Palestine in May 1099 came as a complete surprise to them. And the whole business seems to have opened the eyes of the leaders to splitting their enemies, for in late 1098 and 1099 they made a whole series of agreements with Muslim potentates to allow them to press on to Jerusalem. In addition to this Alexius seems to have put the crusaders in touch with the Armenians who were so numerous in eastern Anatolia, and these contacts served the Franks very well and led to the formation of the county of Edessa.⁵⁸ On the Second Crusade Louis VII probably refused aid from the Sicilians to avoid offending their Byzantine enemies, and both he and Conrad, like Godfrey on the First Crusade, cleared the way with the rulers of Hungary.⁵⁹ However, they mishandled relations with Manuel and were defeated by the Seljuqs of Rum. Barbarossa tried to persuade both the Byzantine emperor and the sultan of Iconium to let him pass freely. Richard of England negotiated constantly with Saladin before the final treaty of 1192. In the early thirteenth century the divisions of the descendants of Saladin, the Ayyubids, usually separated Syria and Egypt, offering the alluring possibility of playing off one against the other. During the Fifth Crusade, Pelagius, the papal legate, refused an offer from the sultan to exchange most of the kingdom of Jerusalem in return for

⁵⁶ GF, p. 45.

⁵⁷ *Historia Belli Sacri*, Recueil des historiens des croisades [RHC] Occ. III. pp. 189–90, 212; GF, pp. 37, 42; RA, pp. 58, 109–10; Second letter of Stephen of Blois to his wife Adela, in Heinrich Hagenmeyer, *Die Kreuzzugsbriefe aus den Jahren 1088–1100* (Innsbruck, Heinrich, 1902), p. 156.

⁵⁸ RA, pp. 102–3, 131–2; GF, pp. 82–3, 86, 89–91; Monique Amoureux-Mourad, *Le Comté d'Edesse 1098–1150* (Paris, Geuthner, 1988); A. A. Beaumont, 'Albert of Aachen and the County of Edessa', in Louis Paetow (ed.), *The Crusades and other Historical Essays Presented to D. C. Munro* (New York, Books for Libraries, 1928/68), pp. 101–38.

⁵⁹ Odo, pp. 12–14, 30; Philips, *Second Crusade*, p. 120.

the surrender of the important Egyptian port of Damietta which they had captured.⁶⁰ In 1229 Frederick II negotiated the return of Jerusalem, though with guarantees for Muslim access to the Temple Mount.⁶¹ When St Louis embarked on his crusade he sought an alliance with the Mongols.⁶² This proved fruitless, but it indicates the range of diplomacy which was growing from the crusades. Such contacts might seem alien to what is often supposed was the spirit of the crusade – a black-and-white conflict between opposites – but in fact military success was closely caught up with alliances and friendships, and this was clearly realised by many crusader leaders.

One of the great changes which came upon crusading was reliance upon sea travel. Frederick Barbarossa's army was the last to attempt the overland journey. The Seljuq sultanate of Rum posed a substantial obstacle, and the sheer wear and tear of crossing Anatolia eroded armies. Travelling by sea had considerable implications for crusading. The cost discouraged at least the poorer non-combatants, because payment had to be made 'up-front', whereas a land journey could be staged and offered opportunities for begging charity from the wealthy and gathering loot. Moreover, numbers had to be precisely known and this may well have made discipline and control easier within contingents. The problems of victualling en route were nullified, while as long as they were near the sea armies could be supplied relatively easily. On his crusade St Louis established large magazines of food in Cyprus to feed his army as it prepared for the assault on Egypt.⁶³

In fact, one of the most remarkable aspects of crusading warfare was the establishment by the Italian city-states of a naval supremacy in the eastern Mediterranean.⁶⁴ At the time of the First Crusade the Byzantine fleet was very powerful. Under Manuel Komnenos (1143–80) in the 1160s and 1170s it joined the kingdom of Jerusalem in assaults upon Egypt and earned the admiration of the crusaders. However, this great sea-power disappeared after 1180 as internal strife afflicted the empire under a succession of short-lived emperors all of whose legitimacy was challenged.⁶⁵ Egypt had an important navy at the time of the First

60 Powell, *Anatomy of a Crusade*, pp. 160–1, 186–7. 61 Van Cleve, *Frederick II*, pp. 219–20.

62 Joinville, *Life of St Louis*, ed. Margaret Shaw (Harmondsworth, Penguin, 1963), pp. 197–8.

63 *Ibid.*, pp. 197–8.

64 There is no general survey of naval war in the crusades, but see John Pryor, *Geography, Technology and War: Studies in the Maritime History of the Mediterranean 649–1571* (Cambridge, Cambridge University Press, 1988).

65 Niketas Choniates, *O City of Byzantium!*, trans. Harry Magoulias (Detroit, Wayne State University Press, 1984), pp. 32–3 [henceforward NC]; William of Tyre, *Chronicon*, ed. Robert Huygens, CCCM 63, 63A, 2 vols. (Turnhout, Brepols, 1986), trans. as *A History of Deeds Done Beyond the Sea*, ed. Emily Babcock and August Krey, 2 vols. (New York: Columbia, 1943), 20:13, 21:17 [henceforward WT].

Crusade, but it was driven from the seas in the twelfth century. Saladin attempted to recreate the Egyptian fleet, but ultimately with little success.⁶⁶ Naval power played a major role in the First Crusade, capturing Port St Simeon (the port of Antioch) and Laodicea before the army arrived at Antioch, and subsequently protecting communications with Cyprus and bringing supplies to the sieges of Antioch and Jerusalem. The Genoese were notable, but at least two English fleets played major roles.⁶⁷ The fleets of the Italian city-states were very important in the capture of the cities of the Palestinian littoral which were so vital to the establishment of the kingdom of Jerusalem. In recognition of this and the importance of maintaining communications with Europe, the cities in return received trading privileges. The Genoese and Pisans supported the successful siege of Acre in 1104, while Venice established itself in the Holy Land by its role in the capture of Tyre in 1124.⁶⁸ Despite Saladin's efforts, there was little threat to Western fleets during the Third Crusade. The Venetian fleet, which successfully assaulted Constantinople during the Fourth Crusade, was unchallenged at sea. Most remarkably, no Muslim ships interfered with the Fifth Crusade in the four years of its assault upon Egypt, 1217–21, while the later crusades of the thirteenth century could simply assume maritime security.

Although its results were very striking, there is no real study of how the Italian city-states achieved this maritime supremacy.⁶⁹ Genoa and Pisa had a tradition of war against the Muslims in the western basin of the Mediterranean, notably expressed in the Pisan attack on North Africa in 1087, and this may well explain their early though fairly modest contribution to crusading.⁷⁰ But if the idea had not previously occurred to them, experience must have revealed the special commercial value of the connection. Carrying pilgrims offered an easy source of revenue which could be traded for the luxury goods of the East. Once this was clear Venice became eager to join in. This wealth made equipping fleets for the eastern Mediterranean worthwhile, especially as the Italians intruded more and more into the

66 Andrew Ehrenkreutz, 'The Place of Saladin in the Naval History of the Mediterranean Sea in the Middle Ages', *Journal of the American Oriental Society* 74 (1955), 100–16.

67 John France, 'The First Crusade as a Naval Enterprise', *Mariner's Mirror* 83 (1997), 389–97; John Pryor, 'Water, Water, Everywhere, Nor Any Drop to Drink: Water Supplies for the Fleets of the First Crusade', in Michel Balard, Benjamin Kedar, and Jonathan Riley-Smith (eds.), *Dei Gesta per Francos: Crusade Studies in Honour of Jean Richard* (Aldershot, Ashgate, 2001), pp. 21–8; RA, p. 134.

68 AA IX.27–9; WT XII.22–5, XIII.1–13.

69 We have to rely on the excellent John Pryor, *Geography, Technology and War* and specialist articles by this author.

70 Herbert Cowdrey, 'The Mahdia Campaign of 1087', *English Historical Review* 92 (1977), 1–29.

carrying trade, even working for Muslim powers. There were, of course, limits to this Western supremacy. Ships could not stay at sea in the winter, or even for long periods in the summer, so that there was nothing like the 'fleet in being' of Nelson's time. The city-states hated and fought one another, notably in the war of St Sabas, 1256–70 between Genoa and Venice.⁷¹ So this was a qualified supremacy, but without it there would have been no crusades and the Latin states of the East would have ceased to exist.

But how did the crusaders and their enemies conduct the all-important collision of arms on land? To conquer territory it was essential to seize the strongpoints, and in the Middle East that involved attacking cities which anchored the states of the area. Anna Komnena suggests that Alexius instructed the ignorant Westerners in the art of siege, but in fact they were perfectly familiar with its techniques.⁷² What was new to them was the challenge of attacking huge cities such as simply did not exist in Europe. On the whole, after a hesitant start, the crusaders adapted very well. Nicaea was the capital of the sultanate of Rum and its recovery had long been sought by Alexius. Its Roman fortifications were formidable, but the main problem was that the crusader army was not yet unified. Substantial forces began the siege on 14 May 1097, but Raymond of Toulouse arrived only on 16 May when he encountered and fought off an attempt by the Turks to reinforce the city. Thereafter there was for a long time little attempt to coordinate the actions of the various armies, and indeed Robert of Normandy and his companions did not arrive until 3 June. The primary form of attack at Nicaea was by mining under the cover of armoured penthouses. But Alexius did provide food, materials, and the boats which closed the lake alongside which Nicaea stands, to the garrison, forcing its surrender on 19 June.⁷³ Antioch was a much more formidable target because the army had dwindled, and the city's topography and its formidable Roman fortifications made attack difficult. Moreover, it was only 100 km from Aleppo, which could be expected to lend support. When the army arrived there, many thought a close siege inadvisable and urged a distant blockade as implemented by the Byzantines when they captured it in 969, but the priority was to keep the army together and a close siege was adopted.⁷⁴ In effect the crusaders husbanded their resources and avoided any direct assault on the city, instead gradually surrounding and strangling it. This involved terrible hardships for

⁷¹ Marshall, *Warfare in the Latin East*, pp. 39–41.

⁷² Anna Komnena, *Alexiad*, trans. Robert Sewter (Harmondsworth, Penguin, 1969), pp. 335–6.

⁷³ France, *Victory*, pp. 159–65; *Alexiad*, p. 336.

⁷⁴ RA, pp. 46–7; France, *Victory*, pp. 220–4.

the army, but the final betrayal was a testimony to the effectiveness of these tactics.

At Jerusalem the crusaders adopted very different tactics. On 13 May, after rejecting the peace terms offered by the Fātimids, they entered Egyptian territory. They were aware that this would provoke the sending of an army from Egypt. As a result, they marched quickly to Jerusalem where they arrived on 7 June. Despite the lack of machinery and even ladders they made an assault on 13 June which failed. This forced them to a systematic siege, involving the construction of mobile siege towers, a ram, and numerous catapults.⁷⁵ Skilled labour and the material to construct these came from a Genoese fleet which put into Jaffa on 17 June,⁷⁶ though the topography of the city meant they could only assault the city from the north and south. Because of the race against time they launched an all-out attack of the city on 13 July which succeeded, after very heavy losses, on 15 July.⁷⁷ Siege warfare remained a preoccupation of Western crusaders. In 1148 the Second Crusade failed to capture Damascus, but the successful assault on Acre was the main event of the Third Crusade, extending from 1189–91. On the Fourth Crusade Constantinople was twice successfully assaulted, on both occasions by Venetian ships operating in the Golden Horn. On the Fifth Crusade the siege of Damietta preoccupied the army across 1218–19, though the garrison of the same city panicked and fled before St Louis in June 1249. Siege was a bloody and often long-drawn out affair because of the strength of the defence, and the crusader achievement in this respect was very remarkable.

But siege provoked battle, and the First Crusade fought major engagements at Dorylaeum on 1 July 1097, the Foraging Battle near Albara on 31 December, the Lake Battle on 9 February 1098, the battle against Kerbogah on 28 June, and the victory over the Egyptians at Ascalon on

75 The catapults were almost certainly lever-action trebuchets powered by teams of soldiers. These appear to have superseded the torsion catapults employed in the classical world at some time after the fall of the Western Roman Empire. For a survey of the whole subject see Michael Fulton, *Artillery in the Age of the Crusades: Siege Warfare and the Development of Trebuchet Technology* (Leiden, Brill, 2018). This work argues that trebuchets were not in any sense wall-breakers and were only, at best, capable of damaging the crenellations which guarded the walkways of castles and cities. I agree with this position, but it should be noted that in the East both crusaders and their enemies used mining to great effect. For a notable example see the account of the fall of the castle of Jacob's Ford by Malcolm Barber, 'Frontier Warfare in the Latin Kingdom of Jerusalem: The Campaign of Jacob's Ford, 1178–9', in John France and William Zajac (eds.), *The Crusades and Their Sources: Essays Presented to Bernard Hamilton* (Aldershot, Ashgate, 1998), pp. 9–22.

76 RA, pp. 141–2.

77 The best contemporary description of the siege is that of AA VI. 6–31, but see also France, *Victory*, pp. 325–66.

12 August 1099. It is often, and quite rightly, said that they would never have been victorious if their enemies had not been divided. But, of course, they were only there because the Middle East was divided and Alexius saw in this an opportunity. In 1055 the Turks, a steppe people, conquered Baghdad and established a hegemony over Iran and Iraq which they extended into Syria in the 1070s, capturing Jerusalem from the Fāṭimids of Egypt in 1073. Theirs was an ideological as well as a territorial expansion because the Turks were Sunni, and justified their attack on Shi'ite Egypt in religious terms.⁷⁸ But they were actually a very alien people who built citadels in the Arabs cities to overawe their populations.⁷⁹ In 1092 Malik Shah died and the succession struggle on his death lasted with few interruptions until 1131. This meant that the pretenders to the sultanate could only periodically coordinate resistance to the Westerners, while their old dominion broke up. In Syria the death of Malik Shah's brother, Tutush Shah, in 1094 while trying to succeed his brother, produced a division of that province between his sons, Ridwan in Aleppo and Duqaq in Damascus, to the great profit of governors like Yaghi Siyan in Antioch and Janah ad-Dawlah at Ḥimṣ. Nevertheless, despite this fragmentation, in every engagement the crusaders were outnumbered, often heavily, so their victories need explanation.

The Turks were a steppe people and their military tactics depended on disciplined horse-archers whose strings of horses enabled them to sustain strategic movement across long distances or fast tactical movement in raids or on the battlefield. Their compound bows were powerful, yet short enough to use on horseback. This was a great contrast with the Westerners whose armies were predominantly infantry with a small and slow-moving but ferociously effective cavalry component. The paradigmatic battle was in fact the first collision in the open field at Dorylaeum on 1 July 1097. The army was approaching the old Byzantine city of Dorylaeum. It had fallen into a strong vanguard with perhaps 2,500 knights, and a rearguard with 3,500 some 5 km behind, with stragglers in between. It was ambushed by a Turkish army whose sudden arrival evoked surprise and dismay:

78 For a good summary of the Turkish expansion and its consequences see Peter Holt, *The Age of the Crusades: The Near East from the Eleventh Century to 1517* (London, Longman, 1986), pp. 1–8.

79 Sophie Berthier, 'La Citadelle de Damas. Les apports d'une étude archéologique', in Hugh Kennedy (ed.), *Muslim Military Architecture in Greater Syria* (Leiden, Brill, 2006), pp. 151–64.

Our men wondered exceedingly whence had arisen so great a multitude of Turks, Arabs, Saracens and others, for almost all the mountains and hills and valleys and all the level places, within and without, were on all sides covered with that excommunicate race.⁸⁰

This was surprise in the simple sense of the word, and Bohemond threw the crusader knights forward, but they were surrounded and fell back onto their camp in panic, rallied only by the efforts of Bohemond and Robert of Normandy. The greater surprise, in fact, was this fast-moving style of war:

Altogether they numbered 360000 fighters all on horses and armed with bows as was their custom. We, on the other hand, had both foot-soldiers and knights . . . The Turks crept up, howling loudly and shooting a shower of arrows. Stunned, and almost dead, and with many wounded, we immediately fled. And it was no wonder, for such warfare was new to us all.⁸¹

But the Anonymous author of the *Gesta Francorum* perceived the limitations of Turkish tactics deployed against heavy cavalry:

Turks . . . thought that they would strike terror into the Franks, as they had done with the Arabs and Saracens, Armenians, Syrians and Greeks, by the menace of their arrows.⁸²

For all the manoeuvrability of the Turks and their skill with the compound bow, winning by these means alone was rarely possible. Victory in battle depended ultimately on the close-quarter hacking match, and if the enemy did not panic and become disordered the Turks would always have a problem.⁸³ The crusaders quickly perceived that the Turkish horse-archers were usually backed up by heavier cavalry. When they arrived at Antioch, Raymond of Aguilers noted that the garrison consisted of 2,000 superior knights, 4,000–5,000 others, and 10,000 or more foot.⁸⁴ When Kerbogah of Mosul besieged the crusaders in the city in June 1098 the Anonymous author noted:

Agulani numbered three thousand; they fear neither spears nor arrow nor any other weapon for they and their horses are covered all over with plates of iron.⁸⁵

80 GF, p. 19. 81 FC, p. 84. 82 GF, p. 21.

83 Charles Bowlus, 'Tactical and Strategic Weaknesses of Horse-Archers on the Eve of the First Crusade', in Michel Balard (ed.) *Autour de la Première Croisade* (Paris, Publications de la Sorbonne, 1996), pp. 159–66.

84 RA, p. 48. 85 GF, p. 49.

Saladin used the wealth of his lands to create an elite corps of the superbly equipped and mounted *tawashi* whom William of Tyre numbered at 8,000 when Saladin invaded Jerusalem in 1177.⁸⁶ These troops could fight the heavily armoured Western knights on their own terms and formed the essential core of the armies of Saladin which triumphed over the army of Jerusalem at Ḥaṭṭīn in 1187.⁸⁷

The First Crusade was lucky to survive Dorylaeum – the Turks closed too soon, became enmeshed in the tangled confusion of horses, men, tents, and guy-ropes, and were drawn into a close-quarter battle in which, even in confusion, Western knights excelled. This allowed time for the main body of the army to come up and put the Turks to flight. Time after time crusader battles against the Turks showed the same characteristics. Ambush, manoeuvre, and sudden movement on one side, solidity and mass on the other. The First Crusade leaders learned from this. They kept their army together, and adopted new tactics. In particular they began to pay careful attention to guarding their flanks and deployed a rearguard to prevent encirclement. By the time of the battle of Ascalon on 12 August 1099 they had learned to throw their infantry forward of the knights to prevent enemy archers wounding the horses with arrow-fire. Here, however, they encountered an enemy whose army was very like their own, relying on heavy and light cavalry supported by efficient infantry. Above all, they recognised the need for discipline and close-order. This sounds fairly simple, but the armies of the Crusade of 1101 and the Second Crusade failed dismally to observe these simple precautions.⁸⁸ Even Richard I had difficulty imposing his will on the Third Crusade, while on St Louis's crusade, at the very crisis of the battle of Mansūra, Joinville reports:

In the meantime, I and my knights had decided to go and attack some Turks who were loading the baggage in their camp on our left.⁸⁹

Finding themselves outnumbered, they then had to be rescued.

Crusades were an appalling experience for Westerners. They involved an unmatched intensity of fighting with the risks of severe weather and terrible diseases. Warriors had to mortgage property just to be able to afford to participate, and the fighting took place in strange environments to which the

⁸⁶ WT XXI, 23.

⁸⁷ On the *tawashi* see Yaacov Lev, *Saladin in Egypt* (Leiden, Brill, 1999), pp. 145–8.

⁸⁸ For the Crusade of 1101 see James Cate, 'The Crusade of 1101', in Setton and Baldwin (eds.), *History of the Crusades*, vol. 1, pp. 343–67. A more modern but unpublished treatment is that of Mulinder, 'Crusading Expeditions of 1101–2'.

⁸⁹ Joinville, *Life of St Louis*, p. 220.

enemy were usually better adapted than they. The ferocity of the fighting made the risks of death and injury high, for as William of Tyre commented:

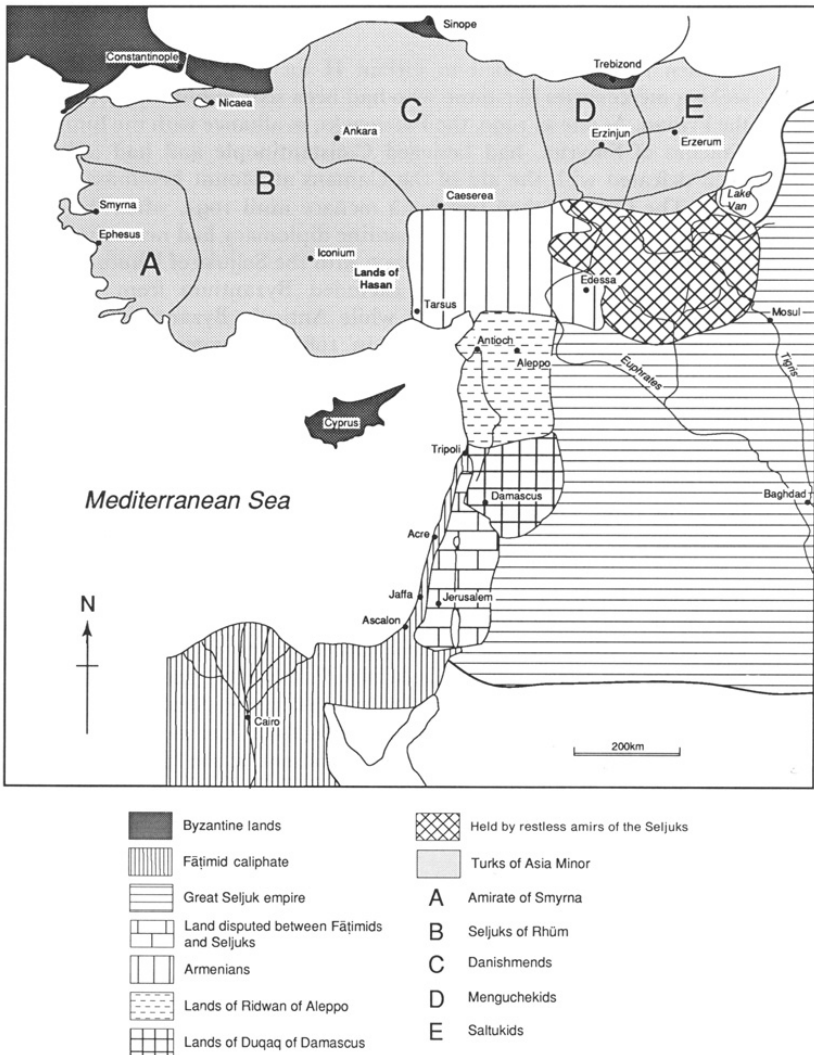
War is waged differently and less vigorously between men who hold the same law and faith. For even if no other cause for hatred exists, the fact that the combatants do not share the same articles of faith is sufficient reason for constant quarrelling and enmity.⁹⁰

The risks of capture were high, and sheer distance made ransoming difficult. The Turks were at first surprised by Western methods, but they adapted quickly. Turkish tactics were well-suited to the open plains of Syria and Palestine, and the discipline to counter them was alien to Western lords and knights brought up in a much more individual tradition of fighting. The Nile Delta was a difficult theatre of war, and here Turkish knowledge of the country and its hydrology was the primary reason for the failures of the Fifth Crusade and that of St Louis. What is surprising is not that the crusades failed, but that they succeeded to the extent that they did. The fact that so many went is a tribute to the deep religious feeling which animated them, and to their devotion to the idea of a Christian Catholic Jerusalem.

The warfare of the settlers in the Holy Land was, of course, related to that of the crusaders who came so often to their aid, but it was also rather different. This is exemplified by events at Acre in 1104. King Baldwin I of Jerusalem had besieged the city with the aid of Pisan and Genoese fleets, and when the citizens sued for peace he consented, permitting them to leave with all the wealth they could carry. The Italian soldiers agreed to this only reluctantly and, when the citizens marched, attacked them, precipitating a massacre much to the king's annoyance.⁹¹ The Italians wanted short-term gain, but the king had to think of other occasions. For the four Latin states knew they were part of the state-system of the Middle East. They faced very different challenges and possibilities.

The first of the states was Edessa whose Armenian population submitted to Baldwin of Boulogne in March 1098 as a result of the welcome accorded to the First Crusade by the Armenian Christians. It stood east of the Euphrates, threatening the edges of Aleppo, but was itself menaced by the aggressive Turkish amirates to the north and the Islamic heartlands to the east and south. Edessa was a major trading city, but elsewhere Frankish power rested on a network of fortresses like Tell Bashir. Its small Frankish population were highly aggressive, but numbers were small and their hold on the land tenuous.

90 WT XIII.16. 91 AA IX.27–9.



MAP 8. Friends and enemies in the Middle East

To the west was Antioch whose obvious line of expansion lay due east across the Jebel as-Summaq to Aleppo, a deeply divided city with a substantial Christian population. But Bohemond had taken Antioch against the wishes of the Byzantines who threatened his government. After an alliance of Antioch and Edessa was defeated at the battle of Harran in 1104 Bohemond went to

the west and mounted a crusade against Byzantium which diverted imperial attention, allowing his nephew, Tancred, to expand Antioch by the acquisition of Apamea, Byzantine Cilicia, and a series of places east of the Jebel as-Summaq. Aleppo had a strong Shi'ite population which inclined Ridwan (1095–1113) to favour the Assassins. Moreover, as a Turk his rule was resented by many in the city, which had been under local Arab rule until 1086 and had a reputation for factional violence.⁹² After the death of Ridwan nominal rule passed to his descendants, but in practice the city was controlled by factional leaders like Loulou the Eunuch or Turkish grandees invited at moments of despair, like Il-Ghazi of Mardin who ruled the city from 1118 to 1122, defeating and killing Roger of Antioch at the Field of Blood in 1119.⁹³ But as long as Aleppo was divided even such a heavy defeat was only a setback. The decisive event came in 1127 when the sultan appointed Zengi of Mosul to rule Aleppo. He crushed internal opposition and profited from the internal conflict over the succession which broke out in Antioch after the death of Bohemond II in 1130.

The nucleus of the county of Tripoli was established by Raymond of Toulouse, though he died in the siege of the city in 1105. It was not until 1109 that the city fell and power passed to Raymond's son, but the country was almost always under the authority of Jerusalem. Its strategic importance lay in command of the western exit of the al-Bukeir plain between the Nusairi mountains to the north and the Lebanon range to the south. It was, therefore, in a position to threaten Hims, and indeed Crac des Chevaliers was used to extract tribute from that city and Hama, but Tripoli lacked the strength to be a major power.⁹⁴

Jerusalem was by far the largest of the Latin states, and the only kingdom. Because of its prestige the kings were expected to support the other princes, but they had no direct authority over them. As a result of emergencies, Baldwin I (1100–18), Baldwin II (1118–31), and Fulk (1131–43) all took over the government of Antioch for short periods of time but the principality remained independent. Jerusalem itself had two axes of expansion. Damascus lay temptingly close to Galilee. In 1129 Baldwin II, after careful preparation launched a major assault on the city, but Buri, its ruler, allied with Zengi of Aleppo to fight off the attack. In 1148 the kingdom took advantage of the Second Crusade to launch another attack on Damascus, which was beaten off by an alliance with Zengi's son, Nur

92 Matthew of Edessa, *Chronicle*, trans. Ara Dostourian (New York, University Press of America, 1993), pp. 153–4.

93 Kemal ad-Din, *Chronique d'Aleppe*, in RHC, Or. 3: 614–34.

94 Kevin Lewis, *The Counts of Tripoli and Lebanon in the Twelfth Century* (London, Routledge, 2017), pp. 144–7, which updates Jean Richard, *Le Comté de Tripoli sous la dynastie toulousaine (1102–1187)* (Paris, Geuthner, 1945).

ad-Din. Relations with Damascus had another side because the city was anxious to preserve its independence from Aleppo and had common interests in the exploitation of the Golan heights – resulting in a condominium with Jerusalem to share the area which lasted until 1187. The other obvious line of expansion was Egypt whose Fāṭimid rulers were often divided, and in any case ruled over a largely Sunni population with a very strong Christian minority. In 1118 Baldwin I died on an expedition to Egypt and King Amalric (1163–74) led a series of expeditions there, but they all failed.

The settlers entered into complex diplomatic relations with the other powers of the area. They were well informed of the tensions between the various Seljuq powers in Anatolia and Syria, their fear of domination by any over powerful sultan, and their dislike of Fāṭimid Egypt. In 1104 King Baldwin supported a pretender to the throne of Damascus, provoking the city into alliance with Egypt whose rulers mounted a major attack defeated only after a major battle at Ramla in 1105. In 1106 Ridwan of Aleppo employed the Assassins to murder his governor of Apamea, and Tancred of Antioch was able to profit from the subsequent disorder to take over the city.⁹⁵ Crusader leaders even enlisted Turkish rulers in their own quarrels. In 1108 Tancred of Antioch allied with Ridwan of Aleppo against Baldwin of Edessa and Chavli of Mosul.⁹⁶ In 1124 Baldwin II of Jerusalem besieged Aleppo in alliance with Dubays, an important Arab leader who had often rebelled against his Turkish overlords, to whom Baldwin promised the rule of Aleppo.⁹⁷ In the mid century the kingdom of Jerusalem acquiesced in Byzantine dominion over Antioch, and persuaded Manuel Komnenos in 1169 and 1177 to join them in attacks upon Egypt, whose Fāṭimid regime was in terminal decline.⁹⁸ However, the Frankish settlers and the Byzantines failed to coordinate their attacks and this failure precipitated a serious change in the balance of power because Egypt fell to Nur ad-Din, who had acquired Damascus in 1154. There was no guarantee that this union of Syria and Egypt would endure. Saladin wrenched Egypt from Nur ad-Din, and only with great difficulty seized Syria on the latter's death in 1174, but when he died in 1193 Syria and Egypt once again became divided by the quarrels of his descendants.⁹⁹

95 Kemal ad-Din, *Chronique d'Aleppe*, pp. 594.

96 Harold Fink, 'The Foundation of the Latin States', in Setton and Baldwin (eds.), *History of the Crusades*, vol. 1, p. 394.

97 Kemal ad-Din, *Chronique d'Aleppe*, pp. 645–50. 98 NC, pp. 32–3. WT XX: 13, 21:17.

99 For a discussion of strategy see John France, 'Thinking about Crusader Strategy', in Niall Christie (ed.), *Noble Ideals and Bloody Realities: Warfare in the Middle-Ages, 378–1492* (Leiden, Brill, 2006), pp. 75–96.

The settlers were in the Holy Land for the long-term, and the most concrete indications of this are the cities and numerous castles which they built. Fundamentally their regime was anchored by the cities of the area whose fortifications could at the very least hold up an enemy while the field army mustered to frustrate any siege. But because their social structure turned on lordships, they also built many castles. Many of these were not very formidable. The Red Tower (al-Burj al-Ahmar) in the plain of Sharon is a simple tower-keep with an enclosing wall, built in the first half of the twelfth century, and is broadly representative of buildings which were essentially designed to exploit the agricultural wealth of their surroundings.¹⁰⁰ But such minor fortifications could shelter Franks from raids and support their own field army. As Turkish power increased in the mid twelfth century, the Franks built castles of unparalleled power in strategic places. The key fortress was Belvoir constructed in the years 1168–70. This is an intellectual conception – a strong outer wall 130 x 100 m with massive towers arises from a deep and wide dry moat. Along its inner side vaulted passages with arrow-slits provide protected shooting galleries. An inner castle precisely mirrors the outer and its towers and walls are so placed as to enable the garrison to aid those on the outer walls. The ultimate development of this pattern is Crac des Chevaliers, built at the turn of the twelfth and thirteenth centuries.¹⁰¹ These structures were the product of intensive warfare, and far in advance of anything in the West.

This intensive warfare faced by the settlers produced much military innovation which was not confined to fortress building. In a famous tract, John of Ibelin suggested that by about 1187 the king of Jerusalem could call nearly 700 knights and 5,000 sergeants to the army. This is almost certainly an understatement, and in any case the 600 knights and an unknown total of infantry and light horse of the Military Orders need to be added.¹⁰² Moreover recent research has shown that the Franks were far more rooted in the countryside than used to be thought and could draw on the Christians in the 500,000 native population.¹⁰³ They recruited *Turcoples*, light cavalry drawn from the native population and the Franks, who played an important role in their armies.¹⁰⁴

100 Denys Pringle, *The Red Tower* (London, British School of Archaeology in Jerusalem, 1986).

101 Hugh Kennedy, *Crusader Castles* (Cambridge, Cambridge University Press, 1994), pp. 58–61, 146–63.

102 *Le Livre de Jean d'Ibelin*, RHC Lois I, 7–423; Peter Edbury, *John of Ibelin and the Kingdom of Jerusalem* (Woodbridge, Boydell, 1997), pp. 127–54.

103 Ronnie Ellenblum, *Frankish Rural Settlement in the Latin Kingdom of Jerusalem* (Cambridge, Cambridge University Press, 1998), pp. 159–61.

104 Yuval Harari, 'The Military Role of the Frankish Turcoples: A Reassessment', *Mediterranean Historical Review* 12 (1997), 75–116.

The most startling military innovation was the development of the Military Orders, the Temple, Hospital, and later the Teutonic Order, whose great prestige and vast endowments in the West enabled them to support their own members, plus mounted sergeants, *Turcoples*, mercenaries, and others. It is no accident that the greatest castles, Crac des Chevaliers, Margat, Athlit, and others were all held by the Orders, for such structures were immensely expensive.¹⁰⁵ However, it was as providers of regular standing forces that they were outstandingly important. In the twelfth century the Temple and Hospital seem each to have been able to field up to 600 knights, almost as many as the king and barons could raise, and in addition they provided sergeants, *Turcoples*, and infantry. Their monastic discipline carried over into the military field making them highly effective soldiers.¹⁰⁶

The frequent warfare enabled the Latin armies to develop a tactical system based on unleashing the mass charge of their heavy cavalry against the crucial mass of the enemy army. This had developed on the First Crusade, but it was the constant practice of war which enabled the settlers to deliver their 'famous charge' to such effect. This necessitated discipline, the absence of which was why mass charges were so uncommon in the West.¹⁰⁷ This was linked to another important development, the fighting march. The crusaders were generally outnumbered, and they needed to be able to refuse battle, or to take it at their convenience. They therefore would throw their infantry around the cavalry to hold enemy archers out of effective range, and march through them like a battering-ram in a fighting march.¹⁰⁸ If opportunity presented itself, they could then deploy and send their heavy cavalry at the heart of the enemy's army. In July 1187 Guy of Lusignan led just such a formation against Saladin's army, and although he was defeated at the battle of Ḥaṭṭīn his army hung together remarkably well in very adverse circumstances, especially lack of water, almost until the end. In September 1191 Richard used precisely the same formation to march south from Acre to Jaffa, and despite all Saladin's efforts he

105 Adrian Boas, *Archaeology of the Military Orders: A Survey of the Urban Centres, Rural Settlement and Castles of the Military Orders in the Latin East (c.1120–1291)* (London, Routledge, 2006).

106 Judith Upton-Ward, *Rule of the Templars: The French Text of the Rule of the Order of the Knights Templar* (Woodbridge, Boydell, 1992), which reprints an article by Matthew Bennett, 'La Règle du Temple as a Military Manual or How to Deliver a Cavalry Charge', pp. 175–88, which discusses discipline; Helen Nicholson, *Templars, Hospitallers and Teutonic Knights: Images of the Military Orders, 1128–1291* (Leicester, Leicester University Press, 1993).

107 John France, 'Crusading Warfare and Its Adaptation to Eastern Conditions in the Twelfth Century', *Mediterranean Historical Review* 15 (2000), 60–1.

108 Smail, *Crusading Warfare*, pp. 156–65, first understood this development.

held the Muslims at bay and defeated them at Arsuf.¹⁰⁹ It was the discipline imparted by frequent fighting which characterised the warfare of the settlers, but after the battle of Ḥaṭṭīn in 1187 the kingdom was never able to raise a really large army as it struggled with uncertain succession, aristocratic faction, and merchant-city self-interest. There was only a limited recovery in the thirteenth century, so that in October 1244 the kingdom could contribute 1,000 knights and 6,000 foot, who, in alliance with the Ayyubids of Syria, were defeated at La Forbie by the Egyptians. Essentially, however, the Jerusalemite style of war perished with the kingdom in 1187 because thereafter the kingdom was very heavily dependent on external support.

The collapse of the kingdom in 1187 changed the military balance in the Middle East radically. Any Western attempt at recovery had to face the great problem which the kingdom had hitherto posed for its Muslim attackers, of seizing fortified places in the presence of a strong field army. But why was Saladin able to destroy Jerusalem in 1187? At Ḥaṭṭīn, Saladin tempted Guy of Lusignan to battle in unfavourable circumstances. To relieve besieged Tiberias, Guy's army needed to march 26 km on waterless roads in open country which suited Saladin's much bigger army of perhaps 30,000. So formidable were the Western knights that Saladin was careful to avoid direct confrontation with them and kept his main force away from the Franks until they were weakened by the attacks of his light cavalry and lack of water. But the creation of Saladin's army was the result of a long period of political consolidation in the western parts of Islam. The strife over the succession to the Seljuq sultanate of Baghdad enabled the First Crusade to triumph. Local Christians, Arab potentates, and even Turkish amirs all saw the new Latin principalities as offering opportunities as well as risks. Syria became a theatre of ambition for Turkish potentates where they could build their power away from the dominion of the Seljuqs of Baghdad. Its wealth could be exploited to employ Türkmen soldiers from the steppe lands. A succession of Turkish leaders, particularly Zengi of Mosul and Aleppo, his son Nur ad-Din, and Saladin, cultivated *jihād* as a means of solidifying behind them Turkish soldiers, petty princes, and the Arab peoples of the cities whose taxes paid for armies and power. There was nothing inevitable about this process. On Saladin's death his family, the Ayyubids, fell to quarrelling and his empire broke up, commonly dividing Syria and Egypt. This is why the Fifth Crusade and that of St Louis both attacked Egypt, which very nearly succumbed. It was by

109 For studies of the battle of Ḥaṭṭīn see Benjamin Kedar, 'The Battle of Hattin Revisited', in Benjamin Kedar (ed.), *The Horns of Hattin* (London, Variorum, 1992), pp. 190–207; and John France, *Hattin* (Oxford, Oxford University Press, 2015).

exploiting these divisions that in 1229 Frederick II of Hohenstaufen was able to negotiate the liberation of Jerusalem.

But the Ayyubid divisions were brought to a halt by the coup of 1250 in Egypt which brought to power a series of ruthless Turkish Mamlūk sultans who exploited the Egyptian peasantry to create a regular army of amazing quality and strength. The Mamlūks recruited Turks direct from the steppes, trained and equipped them very well so that they could take on Western knights, imposed a severe brand of Sunni Islam, and provided career prospects which were a powerful incentive to fight. The crusaders were not the chief problem of the Mamlūks. In 1258 Hülegü and his Mongol army destroyed Baghdad, and then invaded Syria. In 1260 they destroyed Aleppo, and Damascus capitulated to them. Egypt was the next target of the Mongols, but the death of the great khan obliged Hülegü to withdraw, leaving only a relatively small Mongol force under Kedbuqa. Bohemond VI of Antioch and Hetoum of Cilician Armenia had both joined the Mongols, but the settlers in the Latin kingdom were bitterly divided in their attitude to the Mongol invasion. As a result, they were essentially helpless spectators in 1260 when the Mamlūks recognised Kedbuqa's weakness and defeated him at 'Ayn Jālūt and recovered control of Syria. The Mamlūks were unable to dislodge the Ilkhanid (Mongol) regime in Iran, but the settlers were too divided to take advantage of this, enabling the Mamlūks to mop up crusader settlements on the Palestinian littoral. The crusade projected by St Louis had worried the Mamlūks, but it was diverted to Tunisia where St Louis died in 1270, ending the whole expedition.¹¹⁰ By 1271 Antioch and Crac des Chevaliers had fallen to them. The later Edward I of England arrived in Tunis only to find St Louis dead, but he went on to Acre in 1271–2. Despite having only a small army he attacked Qaqun though he was unable to take it, and concluded a treaty with the Mongols of Iran who distracted the Mamlūks with an attack on Aleppo, but his forces were too small to have any decisive impact. In addition, Edward was appalled by the disorganisation and divisions in Acre, where the Venetians were openly trading with the enemy. There was no real authority in the city, and when its nominal king, Hugh I (and III of Cyprus) (1267–84), concluded a truce in May 1272, Edward opposed it, but a severe injury inflicted by a would-be assassin weakened him and after a slow recovery he departed for England in September 1272.¹¹¹ In fact Hugh had little option because his Cypriot barons

110 Jean Richard, *Saint Louis: Crusader King of France*, trans. Simon Lloyd (Cambridge, Cambridge University Press, 1992), pp. 314–29.

111 Michael Prestwich, *Edward I* (London, Methuen, 1988), pp. 66–85; Bruce Beebe, 'The English Baronage and the Crusade of 1270', *Historical Research* 48 (1975), 125–48.

objected strongly to service in the Holy Land, and by 1276 he had virtually withdrawn to the island.

Thereafter the Mamlūk advance was crushing, and greatly assisted by endless quarrels over the royal succession in Acre. More than perhaps any other factor, this collapse of monarchy in the Latin kingdom in the thirteenth century undermined crusading. After the removal of John of Brienne in 1225 there was no generally accepted monarch. The result was factional conflict amongst the barons, feuding between the Italian city-states, and bickering between the Orders whose armies were the mainstay of the rump kingdom.¹¹² In 1285 the sultan of Egypt, Qalavun (1279–90), seized Marqab and Tripoli fell in 1289. His successor, al-Ashraf-Khalil (1290–3) appeared before Acre on 6 April 1291 with a huge army and 100 siege engines. The city was divided and poorly prepared. The Venetians fled on the excuse that their agreements did not oblige them to defend it. In the absence of any leader prepared to rise to the task, William of Beaujeu, Grand Master of the Temple, led a brave but extemporised defence during which he was killed. By 26 May the whole city was a slaughter-house in Egyptian hands. The cities of Sidon and Tortosa were promptly evacuated, and the mighty Templar castle of Athlit was abandoned.¹¹³

The loss of Jerusalem in 1187 triggered a wave of crusades; the Third, the Fourth, the Fifth, the Crusade of Frederick II, the Crusades of Theodore of Champagne and Richard of Cornwall, and the Crusade of St Louis.¹¹⁴ There was no such revival of crusading after 1291, despite much talk.¹¹⁵ Constant failure, and

112 Sylvia Schein, 'The Templars: The Regular Army of the Holy Land and the Spearhead of the Army of Reconquest', in Giovanni Minnucci and Franca Sardi (eds.), *I Templari: Mito e Storia* (Siena, 1989), pp. 15–25; John France, *The Crusades and the Expansion of Catholic Christendom 1000–1714* (London, Routledge, 2005), p. 214.

113 For a general survey of Mamlūk Egypt and its importance see Holt, *Age of the Crusades*, pp. 82–106; and for a clear and detailed study Robert Irwin, *The Middle East in the Middle Ages: The Early Mamluk Sultanate 1250–1382* (London, Croom Helm, 1986). On the Mamlūk military and their abilities see Reuven Amitai-Preiss, 'Ayn Jalut Revisited', *Tarih* 2 (1992), 119–50, repr. in John France (ed.), *Medieval Warfare 1000–1300* (Aldershot, Ashgate, 2006); Reuven Amitai-Preiss, *Mongols and Mamluks: The Mamluk-İlkhanid War, 1260–1281* (Cambridge, Cambridge University Press, 1995). On the last years of the kingdom and the fall of Acre, Malcolm Barber, *The New Knighthood: A History of the Order of the Temple* (Cambridge, Cambridge University Press, 1994), pp. 148–79.

114 For the Crusades of 1239–41, see Peter Jackson, 'The Crusades of 1239–41 and Their Aftermath', *Bulletin of the School of Oriental and African Studies* 50 (1987), 32–60; Michael Lower, *The Baron's Crusade: A Call to Arms and its Consequences* (Philadelphia, University of Pennsylvania Press, 2005).

115 On the many crusading plans after 1291, see Christopher Tyerman, 'Sed Nihil Fecit? The Last Capetians and the Recovery of the Holy Land', in John Gillingham and James Holt (eds.), *War and Government in the Middle Ages* (Woodbridge, Boydell, 1984), pp. 170–81; and Norman Housley, *The Later Crusades, 1274–1580: From Lyons to Alcazar* (Oxford, Oxford University Press, 1992).

the growing Mamlūk power, undermined faith in the crusade. And, as a result, costs were becoming prohibitive. Edward I took to Acre an army of less than 1,000, of whom a third were knights. His personal expenses amounted to at least £100,000, to which must be added the expenses of his major followers and their retinues.¹¹⁶ It was clearly realised that the sheer strength of the Mamlūks demanded that any expedition should be carefully prepared and mounted, but the costs entailed could only be supported by major Western rulers and they had many preoccupations in Europe and little money to spare for expeditions to the Holy Land. Crusading was deeply embedded in the culture of the European upper class, but those moved to act on this impulse could satisfy their wishes in Spain, the Baltic, or even Frankish Greece, where a number of Frankish principalities lingered on after the collapse of the Latin empire in 1264.¹¹⁷ Moreover, the religious spirit which had carried the First Crusade now found other satisfactions; in crusades closer to home like those in the Baltic and in new religious devotions.

The astonishing success of the First Crusade was the product of its combination of Christian enthusiasm, fighting capacity, and remarkable leadership which profited from the divisions in the Middle East. As Turkish power in Syria solidified, the grave problems of fighting so far from home in an alien environment against strong resistance became manifest, even for the more organised armies of the thirteenth century supported by strong Western fleets. The states created by the success of the First Crusade always suffered from a shortage of manpower because sheer distance from Europe limited the influx of settlers and Western rulers had other preoccupations. But the armies of Jerusalem adapted skilfully to their new environment and were innovators in fortress construction. The collapse of the Latin kingdom in 1187 was not an inevitable event. It was specific military misjudgement at Ḥaṭṭīn which undid the kingdom. Reconquest was for long possible, but none of the crusades of the thirteenth century enjoyed sufficiently good leadership and enough luck to succeed, while the settlers were querulous and divided and did very little to help themselves. In these circumstances the military initiative passed to the Mamlūks and their regime was militarily strong enough to destroy the crusader states and to deter great expeditions from Europe. Crusading did not end in 1291, but its objects and directions changed radically. The liberation of Jerusalem remained a glorious rallying cry, and a few hardy souls went there, but major expeditions simply did not happen.

¹¹⁶ Prestwich, *Edward I*, p. 81.

¹¹⁷ Eric Christiansen, *The Northern Crusades: The Baltic and the Catholic Frontier, 1100–1525* (London, Macmillan, 1980); P. Lock, *The Franks in the Aegean* (London, Longman, 1995).

The Mongol empire

ROMAN HAUTALA

According to the Mongol imperial ideology, when the Mongols fought with neighboring nations, they not only expanded their empire by conquest but also fulfilled the heavenly task of establishing order throughout the world by subordinating it to Chinggis khan (r.1206–27) and his successors. Therefore, the Mongols demanded the subordination to their empire of all peoples without exception, regardless of whether they were nomadic or sedentary. To be at peace with the Mongols meant unquestioning obedience to them, and other nations could not hope for peace without the official recognition of this subordination.

Nevertheless, Chinggis khan probably still did not think that his main task was to conquer the world at the time of the official foundation of the empire in Mongolia in 1206. Apparently, this idea became firmly established in his thought later, during the destruction of the mighty Khwārazmian empire in 1220, although the Mongol rulers began to make clear claims to world dominion only from the reign of Güyüg khan (r.1246–8), when the military superiority of the vast empire stretching from Korea to the Danube no longer aroused any doubt.

The Mongol ideology of world dominion directly reflected the military achievements of their army: the Mongols began to claim world dominion when their army began to seem irresistible. The main task of the Mongol empire was to mobilize all its resources to subjugate those peoples who had not yet recognized the rule of the family of Chinggis khan. The Mongol army was the main condition for the existence of the empire. The empire, in turn, existed for the mobilization of the Mongol army.

The period of the united empire (1206–59)

The foundation of the Mongol empire in 1206 was the result of the victorious campaigns of Chinggis khan, which he undertook during the preceding five

years in order to unite the disparate tribes of Mongolia through their military conquest. Those fragments of the tribes of western Mongolia who refused to recognize their subordination in 1206 and migrated west from the Altai Mountains were defeated in 1209 and forced to flee further to the west. Under the influence of these military successes, a number of Turkic peoples of Central Asia preferred to obey Chinggis khan voluntarily. The Uighurs acknowledged their submission in 1209. The Qarlucs (who lived in modern Dzungaria) did this in 1211. In the same year, Chinggis khan interrupted the western expansion in order to start a war against the Jin dynasty (1115–1234) in northern China.

In 1218, the Mongols renewed their conquests in Central Asia. In this same year, the Mongol general Jebe (d.1223) subordinated the weakened empire of the Qara Khitai and Chinggis khan's eldest son, Jochi (d.1227), defeated the Mongol Merkid and the Turkic Qipchaq tribes near the river Emba (in the west of modern Kazakhstan). Just a few days later, Jochi encountered the forces of Khwārazmshah Muḥammad II (r.1200–20) next to the river Quylī. The Mongols could not win and preferred to retreat in order to return a year later with much greater strength.

In the fall of 1219, Chinggis khan arrived at the walls of Uṭrār (in the south of modern Kazakhstan) with approximately 150,000 warriors. Altogether, the troops of the Khwārazmshah exceeded the Mongol forces twice over, but they were scattered across the garrisons of Transoxiana, which allowed the Mongols to destroy them one by one. In the spring of 1220, the Mongols took Uṭrār, Bukhara, and Samarqand, after which Chinggis khan divided his forces into three parts. In April 1221, one Mongol army took the capital of the Khwārazmian empire, Ürgench (in the Amu Darya delta), after months of siege. Then these troops moved to northeastern Afghanistan to join with another army led by Chinggis khan himself, who meanwhile conquered the whole territory of Khurāsān. The united forces of the Mongols then moved south to destroy the enemy army led by the Khwārazmian prince Jālāl al-Dīn (d.1231). Chinggis khan defeated Jālāl al-Dīn in a three-day battle on the Indus in November 1221 and began to slowly return to Mongolia, destroying the last centers of resistance in Afghanistan.

In March 1220, the third army of the Mongols under the command of generals Jebe and Sübe'edei (d.1248) left Samarqand in pursuit of Khwārazmshah Muḥammad, reached western Iran by the fall of the same year, and, not finding the Khwārazmshah there, wintered in the Azerbaijani steppes of Mughan. Having learned at the beginning of 1221 about the demise of the Khwārazmshah and considering their primary task

accomplished, Jebe and Sübe'edei began plundering Transcaucasia. In February 1221, they defeated the Georgian army of King George IV Lasha (r.1213–23) in the north of Azerbaijan and in the following months they destroyed a number of towns in Armenia and Azerbaijan. However, having learned the following year that the Georgians had gathered a new army against them, the Mongol generals chose to leave Transcaucasia, crossed the Caucasus and defeated the combined forces of the north Caucasian tribes of Alans and Qipchaq-related Polovtsians in Dagestan. Pursuing the Polovtsians, Jebe and Sübe'edei reached the Dnieper in the spring of 1223, where they came across a powerful army of the Russian princes. The Mongol generals lured the enemy forces to a favorable position by feigned retreat, and there routed the Russian-Polovtsian army in the battle on the river Kalka (in the southeast of modern Ukraine) on May 31, 1223. However, the Mongols were unable to continue the conquests and began to return to the east. On the way back, they encountered the army of the Volga Bulgars in what is now the Samara region and suffered a serious defeat in the autumn of 1223.

In 1229, Chinggis khan's son and heir Ögödei (r.1229–41) ordered Sübe'edei to resume the offensive against the Volga Bulgars. By autumn 1232, Sübe'edei reached the neighborhood of the Bulgar capital Bilyar (in present-day Tatarstan), but he did not have the strength to seize it. Therefore, in the spring of 1235, Ögödei khan declared a general mobilization of the imperial forces aimed at resuming the offensive in the west under the command of Chinggis khan's grandson Batu. In the autumn of 1236, Bilyar was completely destroyed, like all other towns of Volga Bulgaria. By the end of the next year the Mongols had reached the southern borders of the northeastern Rus'. On December 21, 1237, the Mongols took and burned Ryazan. Then they defeated the field army of the Vladimir-Suzdal principality in the battle of Kolomna and, having destroyed Moscow on the way, they took and burned its capital, Vladimir-on-Klyazma (February 7). After this the Mongol army split into three columns and destroyed fourteen large Russian towns in one month as well as the last military units of Vladimir's Prince Yurii Vsevolodovich (d.1238).

After a break of two years, in the autumn of 1240, Batu continued the offensive. By the end of November, the entire Mongol army came to Kiev and captured the ancient capital of Rus' on December 6. Then the Mongols plundered western Rus' for only a couple of months. Galich and Volodymyr-Volynskyi, abandoned by their princes, did not show significant resistance, and other west Russian towns preferred to surrender without a fight. Already in January 1241, the corps under the command of Batu's elder brother, Orda,

invaded the principality of Lesser Poland. On February 13, Sandomierz fell. In March, the Mongols burned Krakow and on April 9 they defeated the army of Henry II, duke of Silesia (r.1238–41). Batu himself, in turn, invaded Hungary with the main forces. On April 11, 1241, he defeated the Hungarian king Béla IV (r.1235–70) in the battle of the river Sajó. The Mongols ravaged eastern Hungary for the rest of the year and in February 1242 they were able to break into its western part along the frozen Danube. In March, however, Batu left Hungary after learning about the death of the great khan Ögödei in Mongolia.

Chormaqan (d.1242), the commander of Mongol troops in northwestern Iran, began to reconquer Transcaucasia in parallel with Batu's campaign. At the beginning of 1235, the Mongols captured Gandzak. After that, they divided into three separate columns and conquered Armenia (by the end of 1236) and Georgia (by 1239). In 1242, Baiju (fl.1242–60), who succeeded Chormaqan, launched an offensive in eastern Anatolia. On June 26, 1243, Baiju inflicted a complete defeat on the army of the Seljuqs at Kösedagh. From that moment the Seljuqs acknowledged their submission to the Mongols. However, the Mongol attack on Baghdad was halted in 1245, and this temporary setback prompted the Mongols to make Baghdad the target of a much more serious attack after careful preparation.

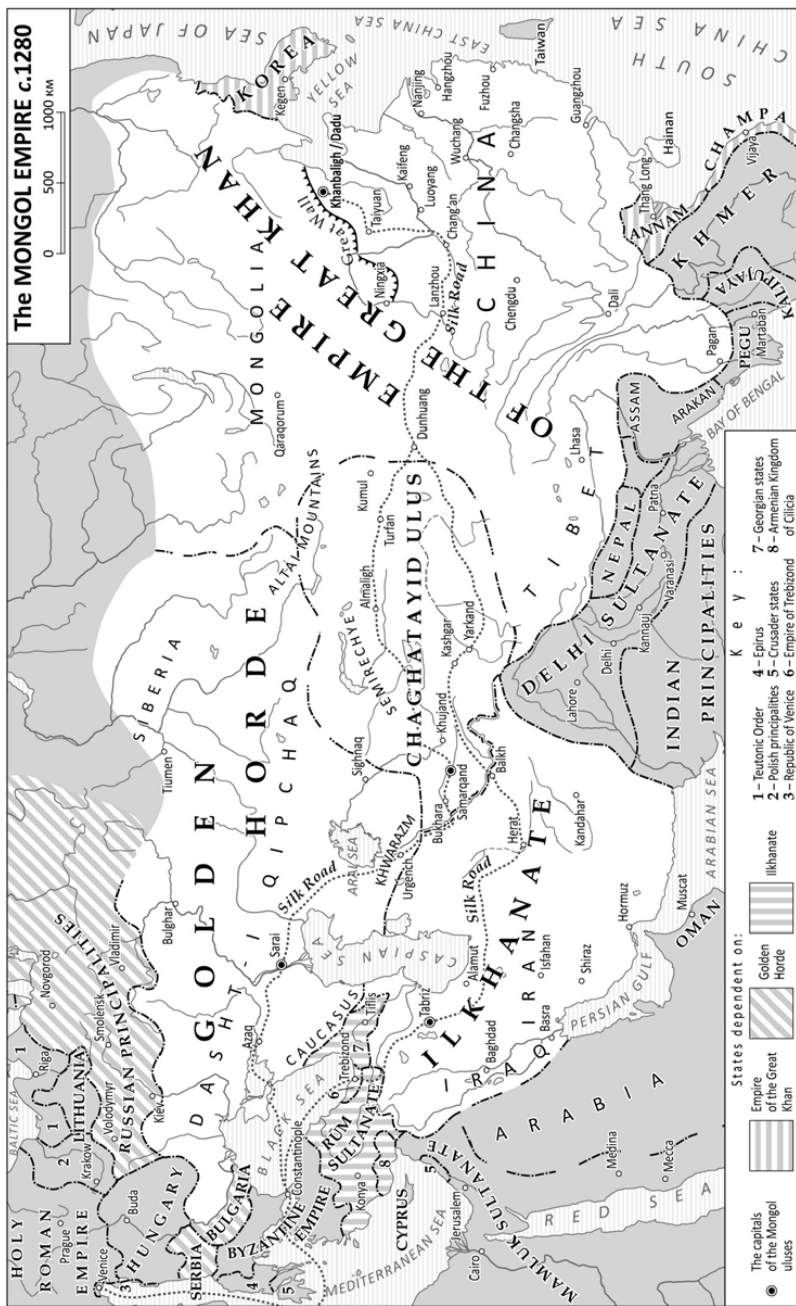
Chinggis khan's grandson Möngke (r.1251–9) assigned his brother Hülegü (d.1265) command of an army that consisted of approximately 20 percent of all the military forces of the empire. In autumn 1253, Hülegü began his campaign from Mongolia at a leisurely pace and reached eastern Iran in the spring of 1256. Throughout the autumn of that year, Hülegü conquered dozens of fortresses of the Nizāri Ismā'īlīs in the Elburs Mountains and Quhistān. The following year he was occupied with the conquest of western Iran, gradually approaching the capital of the caliphate and proceeding to its siege on January 29, 1258. In early February, the caliph al-Musta'şim (r.1242–58) ceased resistance and surrendered Baghdad to the Mongols.

In the fall of 1259, Hülegü resumed his offensive to the west. On January 24, 1260, he took Aleppo, and his vanguard entered the defenseless Damascus just eleven days after that. However, after learning about the sudden death of Möngke khan in southern China, Hülegü himself interrupted his campaign and returned to Iran. A small unit of about 10,000 Mongols remained in Syria and Palestine under the command of general Kedbuqa until it was forced to retreat to Iran after the defeat suffered at the hands of the Egyptian Mamlūks in the battle of 'Ayn Jālūt (in Galilee) on September 3, 1260.

This serious defeat marked the end of the Mongol expansion in the west. In 1260, Chinggis khan's grandsons Arigh Böke (d.1266) and Qubilai (r.1260–94) contested power in the east of the empire. In 1264, Qubilai emerged victorious from the ensuing civil war. However, with the exception of Hülegü, other Mongol rulers in the west of the empire did not recognize Qubilai's seniority. As a result, the empire split into four independent states (*uluses*). The *ulus* of Chinggis khan's youngest son Tolui (d.1232) in Mongolia and China became an implacable enemy of the *ulus* of Chinggis khan's second son Chaghatai (d.1242) in Central Asia. The *ulus* of Chinggis khan's eldest son Jochi in the vast territory of the modern Kazakh, Russian, and Ukrainian steppes started a war with the *ulus* of Chinggis khan's grandson Hülegü, which in turn included Iran, Iraq, and Anatolia.

The *ulus* of Hülegü (the Ilkhanate)

The dissolution of the Mongol empire immediately affected the combat effectiveness of its successor states. In December 1260, 6,000 Mongols under the command of general Baidar, who intended to reconquer Syria, suffered total defeat near Ḥimş fighting against only 1,400 soldiers of the local Syrian rulers. After this, from 1264 to 1275, the Mongols made five serious invasions of northern Syria. Each time, however, they withdrew without a fight as the troops of Mamlūk sultan Baybars (r.1260–77) approached. In the spring of 1277, Baybars invaded southern Anatolia and on April 15 of that year he destroyed the corps of Mongols under the command of general Tudawun in the battle of Elbistan. Ilkhan Abagha (r.1265–82) was only able to strike back four years later. In September 1281, a large Mongol army under the command of his brother Mengü Temür invaded northern Syria, but was defeated by the army of sultan Qalāwūn (r.1279–90) in the battle of Ḥimş on October 29, 1281. The Mongols were able to take revenge for a series of their defeats only in the reign of Ilkhan Ghazan (r.1295–1304). In October 1299, in response to the capture of Mardin (in the southeast of Turkey) by the Mamlūks, Ghazan invaded northern Syria and defeated a Mamlūk army at al-Wādī al-Khaznadār near Ḥimş (December 22). Within a week he entered Damascus without a fight. However, in February of the following year, Ghazan led his army back to Iran. In January 1301, extremely unfavorable weather conditions prevented his attempt to reinvade Syria. However, in the spring of 1303, a large army of Mongols under the command of general Qutluğ Shāh (d.1307) advanced to Damascus, where it was completely defeated by the Mamlūks in the battle on the meadows of Marj al-Şuffar (April 19). Ilkhan



MAP 9. The Mongol empire c.1280. Map drawn by Dmytro Vortman.

Öljeitü (r.1304–16) made the last attempt to invade Syria at the end of 1312. However, having failed in the siege of the border fortress Raḥbat at-Shām, he began to negotiate peace with the Mamlūks, putting an end to the continuous war that had lasted for half a century.

The actual defeat of the Ilkhans in the war against Mamlūks was due to the fact that the Mongol rulers of Iran could not use all their troops in the conquest of Syria, since they had to give their main attention to repelling a military threat from the neighboring Mongol states. In the summer of 1262, prince Noghai (d.1299), who led the army of the *ulus* of Jochi (the Golden Horde), invaded the Hülegüid lands in Transcaucasia and plundered the region of Shirvan in northern Azerbaijan. Ilkhan Hülegü struck back and defeated Noghai's troops on November 14. Early the next year, the Ilkhanid army invaded the Jochid territory in Dagestan, but soon suffered a serious defeat on the river Terek from the Golden Horde ruler Berke (r.1257–66). In the spring of the same year, Noghai again invaded Shirvan and repeated the invasion in the summer of 1265, which led to a hard battle for both sides on the river Aksu in Azerbaijan. At the end of the battle, both armies settled on the opposite banks of the river Kura not daring to continue the battle. This standoff ended only the following year after the sudden death of Berke.

Major military actions in the Caucasus were interrupted for a long time. However, the tension on the border of both *uluses* and the threat of invasion from the north did not weaken throughout the entire existence of the Ilkhanate. Jochid troops invaded Shirvan in the winter of 1279–80 and in 1288. In 1290, Golden Horde troops under the command of prince Tama Toqta collided with the Hülegüids in a bloody battle on the river Kura-su in northern Azerbaijan. Then, at the beginning of 1319, the Jochid khan Özbek (r.1313–41) suffered a major defeat in Transcaucasia from the Hülegüid troops led by amir Choban (d.1327). Nevertheless, he repeated the invasion at the end of the same year. In 1325, Choban struck back and ravaged the Golden Horde lands to the north of the Caucasus. In turn, Özbek khan tried to exploit the weakness of the disintegrating Ilkhanate and invaded Transcaucasia at the end of 1335. However, his offensive was halted by the troops of Arpa Ke'ün khan (d.1336). Finally, in December 1357, the Golden Horde khan Janibeg (r.1342–57) managed to defeat the Iranian Mongols and occupy Azerbaijan, but the death of Janibeg, which immediately followed this, did not allow the Jochids to gain a foothold in Transcaucasia.

The invasions of the Mongols from the Chaghatayid *ulus* also posed a serious danger to the Ilkhanate. In the beginning of 1270, the army of Chaghatayid khan Baraq (r.1266–71) invaded the Hülegüid territory and,

having defeated Ilkhanid troops, plundered the entire territory of Khurāsān. Ilkhan Abagha (r.1265–82) hastily led his army to the east and almost completely destroyed the invading army in the bloody battle of Herat (July 22). After a year and a half, Abagha took advantage of unrest in the Chaghatayid *ulus* and plundered Bukhara on January 29, 1273. Nevertheless, the Ilkhans failed to secure their eastern provinces from enemy invasions. In 1291, taking advantage of the death of Ilkhan Arghun (r.1284–91), Chaghatayid troops led by the rebellious Ilkhanid amir Nawrūz invaded Khurāsān and plundered it for a year. The invasion of Chaghatayid khan Du'a (r.1284–1307) in 1295 proved to be equally ruinous for Khurāsān and Mazandaran.

In 1313, Ilkhan Öljeitü was able to deploy considerable forces in the east and expel the Negüderi Mongols subordinated to the Chaghatayids from southern Afghanistan. However, his success aroused the response of the Chaghatayid *ulus*, whose army under the command of prince Köpek (d.1326) inflicted a heavy defeat on Ilkhanid troops near the river Murghab in central Afghanistan (January 1314). No longer relying on his own forces, in 1316 Öljeitü allowed Chaghatayid prince Yasa'ur to resettle with 30,000–40,000 nomadic families in his domain and entrusted him with the actual administration of Khurāsān. Yasa'ur remained loyal to the Hülegüids for two years, but in 1318 he rebelled against Ilkhan Abū Sa'īd (r.1316–35) in an effort to declare himself an independent ruler. Ironically, he was defeated in June 1319 and killed in the battle with amir Eljigidei from the Chaghatayid *ulus*, who had responded to Abū Sa'īd's call for help. By the end of Abū Sa'īd's rule, Khurāsān practically belonged to the Chaghatayid sphere of influence.

Despite external threats, the Ilkhans managed to secure their core areas in Azerbaijan and western Iran. The subsequent disintegration of the Ilkhanate was a consequence of internal strife among the Iranian Mongols. On November 30, 1335, Ilkhan Abū Sa'īd died without leaving any heirs. The line of direct heirs of Hülegü was interrupted with his death. The Oirat, Jalayir, and Suldus tribes plunged into a long-term internecine struggle for supremacy in the Ilkhanate. At first, each of the warring sides enthroned puppet Chinggisid khans but, in the end, they proclaimed their own local dynasties, which led to the final breakdown of the Ilkhanate.

The *ulus* of Jochi (the Golden Horde)

In the year of the dissolution of the Mongol empire (1260), the Golden Horde ruler Berke prepared an invasion of Hungary. Two years earlier, the Jochid prince Burundai had ravaged Lithuania and a year later, having entered with

a large army into the western Rus', he forced the local princes to demolish defensive walls in most of their towns. Henceforth, the Galician and Volyn principalities began to pay regular tribute to the Golden Horde and fulfill military duty to its rulers. In particular, their troops joined the army of Burundai in November 1259 and took part in the looting of Lesser Poland that lasted until April of the following year.

The next target of attack was to be Hungary. However, the flaring conflict of the Golden Horde with the Ilkhanate forced the Jochids to abandon further conquests in the northwest. The subsequent invasions of Hungary and Poland were largely a response to the aggressive actions of their rulers. In 1285, the Jochid princes Noghai and Töle Buqa (d.1291) invaded Hungary simultaneously and ravaged its eastern and southern areas in response to the attack on the northwest of Moldavia by the Hungarian king László IV (r.1272–90). In the same year, the high duke of Poland Leszek II the Black (r.1279–88) invaded the territory of Galicia, which caused a reciprocal Mongol invasion two years later. Another Mongol attack on Hungary in 1326 was the result of the invasion of Moldavia by the troops of the Hungarian king Carobert (r.1310–42). At the beginning of 1341, the Mongol forces again sacked Lesser Poland in response to the attempt of the Polish king Casimir III (r.1333–70) to annex Galicia. By 1349, Janibeg khan (r.1342–57) was reconciled with the annexation of Galicia to Poland in exchange for the promise of the Polish king to pay old tribute from this principality. However, Casimir III broke the promise, and the delay in paying tribute caused another invasion of Lesser Poland in the spring of 1352.

The policy of the Mongols in the Balkans, where they successfully exploited the enmity between Byzantium and Bulgaria, was much more aggressive. The first attack on Byzantium by the allied Mongol and Bulgarian troops was related to the beginning of the conflict between the Golden Horde and the Ilkhanate, in which Byzantium initially took the side of the Hülegüids. In the winter of 1264–5, the Mongol-Bulgarian army plundered Thrace and forced the Greek emperor Michael VIII (r.1261–82) to maintain neutrality in the conflict between the Mongol *uluses*. After repeated attacks by the Mongols on Thrace in 1271 and 1273, Michael VIII found it necessary to get closer to the Golden Horde and gave his daughter Euphrosyne in marriage to the Mongol prince Noghai. The rapprochement between the Golden Horde and Byzantium soon affected Bulgaria, whose territories were devastated by the allied Greco-Mongol forces in 1278. However, after the death of Michael VIII in 1282, the relations of the Mongols with Byzantium deteriorated sharply. In the autumn of 1285,

Noghai's troops invaded northern Thrace and, in spite of the defeat inflicted by Byzantine *strategos* Ubertopulos, the Mongols managed to thoroughly plunder Greek territories. The further conflict between Noghai and the Toqto'a khan (r.1291–1312) loosened the Mongol pressure, but the new khan Özbek (r.1313–41) resumed attacks on Byzantium with unprecedented force. After two preliminary invasions of 1321 and 1322, in the autumn of 1323 a huge Mongol army ravaged Thrace without meeting significant resistance. In the reign of Andronicus III (r.1328–41), the relations of Byzantium with the Golden Horde became even worse. In 1337, the Mongols plundered the Greek lands up to Constantinople. Another major invasion of the Mongols occurred in 1342. This time, however, the Mongols did not stay long in the Thracian territories, since there was nothing left to loot.

Northeastern Rus' was subordinate to the Golden Horde. Its numerous princes considered it their duty to visit the khan to obtain approval for their rule and they regularly paid tribute to the Golden Horde rulers. The Mongol invasions of Rus' were caused by the desire of khans to render military support to any of their protégés. So, in 1252, the Jochid prince Nevrüi helped Aleksandr Nevskii (1221–63) to expel his brother Andrei from Vladimir. In 1281, Töde Mengü khan (r.1280–7) intervened in the discord between the sons of Aleksandr Nevskii. The Mongol army supported Andrei Aleksandrovich and drove his brother Dmitrii from Pereyasavl' (now in the Yaroslavl region). The following year, the Mongols once again supported Andrei. Finally, in 1293, Toqto'a khan ended the feud by sending his brother Tudan to Rus' to force Dmitrii to recognize Andrei's supremacy. The next major Mongol invasion of Rus' took place in the reign of Özbek khan and was related to an aggravation of the struggle between the Moscow and Tver' principalities. At first, Özbek khan supported the Tverite princes in this conflict, but the outbreak of a popular uprising in Tver' in August 1327 caused him to reverse his attitude. His cousin Chol-khan was at that time in Tver' and was killed during the uprising. Therefore, in the winter of 1327–8, a large Mongol army plundered the main part of the towns of the Tver' principality. This invasion sharply weakened the Tverite influence in Rus' and indirectly contributed to the future rise of Moscow.

The Golden Horde did not experience a serious threat from the outside, and its weakening was directly related to internal quarrels among its rulers. The first major conflict erupted in the late thirteenth century between Toqto'a khan and prince Noghai, the *de facto* ruler of the western part of the Golden Horde. In the fall of 1297, Noghai defeated Toqto'a's army in their first battle on the lower reaches of the Don. Nevertheless, two years later

Noghai suffered a complete defeat and was killed at the end of the battle on the Dniester.

The death of Berdibek khan in 1359, which left no direct descendants from Batu's line, caused much more severe upheavals. The Golden Horde plunged into the 'Great Zamyatnya' (the Russian chronicles' term for a time of troubles). During the space of twenty-one years over twenty khans occupied the throne of the Golden Horde and most of them had only nominal power. During this period, the struggle for power took place between the Jochids from the eastern regions of the Jochid *ulus* (the Blue Horde) and the puppet khans enthroned by the powerful amir Mamai (d.1381) who controlled the *ulus*'s regions west of the Don. Mamai captured the Golden Horde capital Sarai (in the Lower Volga region) several times, but each time was forced to retreat to the west under the pressure of his opponents.

The consequence of this internecine strife was a sharp weakening of the military power of the Golden Horde. In the autumn of 1362, the Lithuanian army defeated the Mongol forces in the battle of the Blue Waters (in the Ukrainian Podillia). This enabled Algirdas (r.1345–77), Grand Duke of Lithuania, to annex the entire southern Rus' to his possessions. In turn, the Moscow prince Dmitrii Ivanovich (r.1359–89) ceased paying tribute to the Horde and concluded an alliance against amir Mamai with all the princes of the former Vladimir principality. On August 11, 1378, the invading Mamai troops suffered a serious defeat on the river Vozha (in the modern Ryazan region). Two years later Mamai brought to Rus' a much larger army, which was utterly defeated by the Russian princes on the Don, in the battle of Kulikovo Field (September 8, 1380).

The new Jochid khan Toqtamish (r.1380–95) immediately took advantage of the defeat of Mamai and in a short time established his authority throughout the Golden Horde. In 1382, he felt strong enough to attack Rus'. At the end of August, his troops burned Moscow and all the Russian princes resumed paying tribute to him. However, the revival of the former might of the Jochid *ulus* was prevented by a confrontation with the actual ruler of the Chaghatayid *ulus*, Tamerlane (Temür, 1336–1405). Trying to prevent the conquest of Azerbaijan by Tamerlane, Toqtamish captured Tabriz (1386) but soon retreated northward. His second invasion was halted by the son of Tamerlane, Mīrān Shāh, who defeated the Golden Horde troops in the winter of 1386–7 on the river Samur in southern Dagestan. After this defeat, Toqtamish decided to extend military operations to Central Asia. In this same year, Toqtamish's troops invaded Transoxiana from the north and, having defeated the son of Tamerlane, 'Umar Shaikh, at Uṭrār, they

plundered Transoxianan territory up to the Amu Darya. Already in February 1388, Tamerlane hastily returned from Persia with his army and chased the Jochid troops as far as Ürgench, which he ordered to be razed to the ground. Tamerlane retaliated after three years. Having passed with his army through the modern Kazakh steppes, on June 18, 1391, Tamerlane defeated Toqtamish on the river Kondurcha (in the modern Samara region), but did not dare to cross the Volga. Only in 1395, after the offensive through the Caucasus and victory over the army of Toqtamish in the three-day battle on the Terek (April 15–17), did Tamerlane begin to systematically destroy the towns of the Golden Horde for one year.

Beklerbeği (chief commander) Edigü (1352–1419), who became the *de facto* ruler of the Lower Volga region after the departure of Tamerlane's troops, was the last political leader who had chances to unite the Golden Horde. However, he faced the active resistance of Toqtamish and his sons, who received direct support from Lithuania. On August 12, 1399, Edigü was able to halt the Lithuanian offensive by defeating the army of Grand Duke Vytautas (r.1392–1430) in the battle of the river Vorskla (a left tributary of the Dnieper). Later, however, Edigü lost Sarai more than once only to return there with another puppet khan, until he died in 1419 at the end of a battle in the Lower Volga region against the troops of Qādir-Birdī, one of the sons of Toqtamish.

The *ulus* of Chaghatai

Due to its location in the center of the empire, surrounded by Mongol states, the Chaghatayid *ulus* conducted military operations only against neighboring Mongol rulers. The *ulus* of Tolui (the Yuan empire), which had inexhaustible resources in China but suffered a number of military failures on its western front, became the main opponent of the Chaghatayid *ulus* in the last third of the thirteenth century. During this longstanding conflict, the Chaghatayid forces were led by the grandson of Ögödei, Qaidu (1230–1303), who became the ruler of the eastern part of the *ulus* (to the east and northeast of Transoxiana) in 1266. His further expansion towards Beshbaligh (in modern Dzungaria) aroused the response of the great khan Qubilai: in 1268, the Yuan army drove Qaidu out of Uighuria and pursued his troops to his core area in the Talas basin (in the present-day Jambyl region of Kazakhstan). Three years later, Qubilai sent additional forces to Uighuria led by his son Nomoghan to continue the offensive to the west, and since Nomoghan did not show enough activity, in 1275 the Yuan emperor sent him reinforcements led by

general An Tong. However, the offensive to the west was interrupted in the autumn of 1276, since rebellion arose in the army of Nomoghan who was himself extradited to the enemy by conspirators. By 1280, Qaidu's forces again occupied Almaligh (in modern western Dzungaria) and began to attack the eastern regions of Uighuria in order to prevent Qubilai's stationary garrisons from settling firmly there.

After the enthronement in Transoxiana of loyal Du'a khan (r.1282–1307), Qaidu achieved lasting control over the entire territory of the Chaghatayid *ulus* and significantly enlarged his army. In 1284, Qaidu was defeated by the Yuan prince Yahudu, but the following year Du'a came to his aid and, having defeated the Yuan army led by Qubilai's son Ayachi, he besieged the new capital of Uighuria, Qaraqocho, for six months until its inhabitants agreed to pay him a huge sum. In 1286, Qaidu and Du'a again defeated Qubilai's forces and reached the walls of Beshbaligh. Two years later, the Yuan forces retreated from Uighuria, partly because of the uprising raised in Manchuria by prince Nayan, a descendant of the younger brother of Chinggis khan. This uprising distracted Qubilai's attention and allowed Qaidu to extend military operations in western Mongolia. In 1289, Qaidu defeated Qubilai's grandson Kammala and was able even to occupy Qaraqorum, the former capital of the Mongol empire, although he was forced to leave it as the Yuan army approached led by Qubilai himself. Throughout the period from 1290 to 1300, the Yuan forces were forced to repel Qaidu's invasions of western Mongolia, until the Yuan prince Chong'ur succeeded in pushing the enemy southwest from the Altai. In September 1301, Qaidu in turn managed to halt the Yuan offensive by smashing a huge enemy army under the command of the Mongol prince Qaishan (d.1311) in southwestern Mongolia. However, Qaidu died two years later, and his protégé in Transoxiana, Du'a, hastened to make peace with the Yuan emperor Temür Öljeitü (r.1294–1307). In 1306, the armies of the Yuan from the east and Du'a from the west surrounded the troops of the son and heir of Qaidu, Chapar, forcing him to submit to Du'a and make peace with the Yuan emperor, which put an end to the continuous war between the two *uluses*.

The next time the Chaghatayid *ulus* began to pose a serious threat to its neighbors was after the coming to power of Tamerlane (who ruled on behalf of puppet Chinggisid khans) in its western part (1370). From 1371 to 1377, Tamerlane conducted several devastating campaigns in Moghulistan, as the eastern and already independent part of the Chaghatayid *ulus* began to be called. Tamerlane conducted these campaigns in Semirechye and the eastern regions of present-day Kyrgyzstan in order to protect Transoxiana from

attacks by local nomads during the ensuing conquest of Iran. Later, however, the nomads of Moghulistan attacked the Ferghana valley at the very moment in 1387 when the Jochid khan Toqtamish besieged Samarqand, forcing Tamerlane to conduct two more campaigns in Moghulistan in 1389 and 1390 in order to destroy the threat of an attack on the eastern borders of his dominion.

Tamerlane began to subordinate Iran in 1381 with the conquest of Khurāsān; in April, his army took Herat and moved west to subdue Ṭūs. In 1383, his army invaded eastern Iran and, having taken Shahr-i Sīstān, devastated the whole region of Sīstān. A year later, his troops invaded Azerbaijan and captured the former capital of the Ilkhanate, Sulṭāniyya. In 1386, Tamerlane again invaded Azerbaijan in response to the attack of the Golden Horde's khan Toqtamish and, having plundered Azerbaijan and Georgia, he annihilated all the population of Isfahan on the way back to Samarqand (1388). At the end of 1392, Tamerlane launched a new campaign against the Muzaffarids (r.1314–93) and by May of 1393 had subjugated the entire southwest of Iran. In August of the same year, he suddenly appeared under the walls of Baghdad and captured the former 'Abbāsīd capital in order to advance later to the north and then invade the territory of the Golden Horde. In 1396, the army of Tamerlane returned to Samarqand after having completed the subordination of Iran.

In the autumn of 1397, Tamerlane sent his grandson Pīr Muḥammad (d.1407) to Punjab and soon followed him with his entire army in order to launch a two-year campaign in northern India culminating in the sack of Delhi in 1398. At the end of 1399, Tamerlane again led his army to Azerbaijan and launched a new campaign (the fifth in a row) against Georgia in the spring of the next year. After that, in the autumn of 1400, Tamerlane moved west, to eastern Anatolia, but unexpectedly changed the direction of the offensive by transferring his army to Syria. Taking Aleppo on the way, in December 1400, his army appeared under the walls of Damascus and plundered the Syrian capital in March of the next year. Tamerlane besieged Baghdad on his way back to the north and annihilated all of its population after the fall of the city on July 9, 1401. After that, Tamerlane invaded Anatolia, crowning his last campaign with the defeat of the army of the Ottoman sultan Bayezid I (r.1389–1402) in the battle of Ankara on July 28, 1402.

The empire of Tamerlane collapsed immediately after his death on February 18, 1405. His son Shāh Rukh (r.1409–47) emerged victorious from the ensuing four-year power struggle among the sons and grandsons of Tamerlane. Shāh Rukh had to conquer his father's domain anew, and having

achieved the subordination of eastern, southern, and central Iran by 1420, he spent the rest of his reign struggling against the Qara Qoyunlu Türkmén for control of northwestern Iran.

The military organization of the Mongol empire

The mobilization of the liable male population exceeded 30 percent of its total number in rare cases, when the invasion of large enemy forces threatened any of the Mongol states, as, for example, when the Hülegüid army invaded the Golden Horde in 1263 or when Tamerlane attacked it in 1395. However, it was more important that all the adult Mongols were liable for military service. Moreover, the entire Mongolian society was considered by Chinggis khan as a single military organization, which was subordinated to a strict hierarchical structure with a distribution of responsibilities among all its members. On the occasion of the empire's foundation in 1206, all of its nomadic subjects were divided into the so-called 'thousands' (Mong. *minqan*, plural *minqat*); that is, the nomadic communities that were required to mobilize, on the first call, an average of 1,000 warriors and provide them with the necessary equipment. All individuals of these communities had to fulfill their duties for life and had no right to leave them without obtaining permission from the supreme command. These same requirements also concerned those members of these 'thousands' who took direct part in the hostilities. At the same time, the entire personnel of such military units were collectively responsible for the behavior of each of their individual members. The penalty for desertion, unauthorized looting and other crimes of individual soldiers was imposed on their brothers in arms too.

Often the 'thousands' consisted of integral Mongol clans and retained their former name. However, such large tribal unions as Tatars, Keraites, and Naimans, who had stubbornly resisted Chinggis khan and posed a danger to the integrity of the empire, were divided into several 'thousands', although they retained their clan identity in each of these 'thousands'. In this way, the military system of the Mongol empire suppressed separatist tendencies among nomadic tribes, since the suppression of inter-tribal conflicts had been a necessary condition for the founding of the empire and became its primary task afterward. The 'thousands' of the Mongol empire had to obey unquestioningly its supreme command. As long as the 'thousands' fulfilled these requirements, the Mongol empire possessed unquestionable military capabilities. Each manifestation of disobedience, in turn, immediately affected the might of the empire.

Chinggis khan and his heirs combined these 'thousands' into *tümens* – or corps – which conditionally consisted of 10,000 warriors. They could also split these 'thousands' at their own discretion into separate 'hundreds' or even 'tens' and send them to another corner of the empire for permanent service. These segments of the Mongol 'thousands' retained their original name and contributed to the integration of other nomads subordinated by them to the Mongol empire, thus replenishing the ranks of its army. Although some nomads to the southwest of the Altai Mountains (the Uighurs and Qarluqs) were allowed to form their own 'thousands', the main part of the nomads of the Eurasian expanses were deprived of their clan affiliations and included in those segments of the Mongol 'thousands' that did not return to Mongolia after military campaigns but settled in the conquered territories. Included in these 'thousands', local nomads lost their former ethnic names and adopted the names of the Mongol (or Turkic) 'thousands'. After their inclusion in the military system of the Mongol empire, their chances of resistance were significantly reduced and most of them resigned themselves to what had happened and began to serve from that moment on the 'thousand' to which they were assigned.

In most cases, military units were led by the nobility of the nomadic clans from which these units were formed, although the supreme command could, for whatever reason, appoint a commander who was not related to his subordinates. When choosing a commander, noble lineage had a certain importance, but military talent was appreciated more, especially in the period of the united empire, when ordinary nomads (such as Sübe'edei) could rise to the highest rank due to their merits. These merits included tactical and strategic talents, but the ability to take care of the daily needs of his subordinates was considered the most valuable quality of the commander.

Thus, the supreme command directly appointed officers and expected unquestioning obedience to orders from them and their subordinates. In return for their faithful service to the empire, the nomads received guarantees of a regulated distribution of booty. Already in 1202, on the eve of the battle with the Tatars, Chinggis khan promulgated a decree that any booty was to be shared among all the warriors of the army and that its division was to occur only after the complete defeat of the enemy. Booty was divided according to strictly established rules and regardless of who was able to get it at the end of the battle. Therefore, every Mongol warrior could be sure that he would receive a part of booty and could focus on the pursuit of the fleeing enemy, not on the robbery of the abandoned train. However, discords due to the sharing of booty or prisoners of war continued to arise (albeit rarely) in

the Mongol army and could even lead to major defeats, as, for example, in the case of the Golden Horde khan Toqtamish, abandoned in 1395 by the military commander Aktau at the decisive moment of his battle with Tamerlane.

Warfare of the Mongol empire

Mongol warriors had to personally take care of acquiring the necessary field equipment. The main type of weapon used by most of them was the bow, which they learned to use from an early age by participating in both battue hunts and in regular military inspections and trainings. The so-called 'Mongol' composite bow was made from layers of horn, wood, sinew, and glue. This weapon possessed a maximum range of 300 m and was therefore extremely lethal both at close and long range. The Mongols also took with them on each campaign an average of sixty arrows of 70–80 cm in length. They used tapered spiked arrowheads to pierce the protective armor of the enemy. Under other circumstances, they might employ a broad-headed arrow that was better suited against unprotected objects or for shooting from a near distance.

Thus, for the most part the Mongol army consisted of lightly armed riders, who could be additionally armed with axes and knives for hand-to-hand combat. As a rule, in the initial period of the united empire, these warriors defended the body with long robes of felt or other coarse fabrics, with sealing pads made of horsehair or wool. Such robes protected their wearers from arrows shot from a long distance or from axe strokes. However, with the expansion of the empire and the exploitation of handicraft centers of neighboring peoples, the command could equip its warriors with so-called 'steel robes' (Mong. *khatangu degel*), reinforced with iron plates, which were sewn from the underside of the robe. Such armor could already protect against any weapon, except for a lance. Lamellar armor made from overlapping plates of leather was even more reliable, but it was only available to special troops because of the high cost of its production. Warriors with such armor could be armed with sabers and less often with spears, and participated in the battle as a heavy cavalry. The proportion of heavy cavalry in the army of the Mongol empire began to grow after its dissolution into the *ulus* states and increased significantly during the conquests of Tamerlane. However, in most cases, heavy cavalry entered the battle last, at the moment when it was necessary to break the last resistance of the enemy, which often came from its infantry.

With the exception of Tamerlane, who used infantry units intensively in his Indian campaign of 1397–8, the Mongols avoided the use of infantry

because of the slowness of its movement. However, the Mongol horsemen often dismounted during battles to increase the accuracy of their archery when they had to repel attacks by enemy cavalry. For example, dismounted archers contributed to the victory of Ilkhan Ghazan over the Mamlūks in 1299 in the battle of Hims and rescued the army of Tamerlane from defeat on the first day of the battle with Toqtamish khan on the river Terek (1395).

The abundance of horses was an important component of the military successes of the Mongols (as, indeed, of other nomadic empires). During the military operations, each Mongol warrior had from three to five battle horses, which were inferior to the best racers of settled peoples in speed of movement, but surpassed them in endurance. Owing to the abundance of horses, the Mongols could move almost without stopping and cover long distances in a short time during military campaigns. They also could continuously attack the enemy by changing to fresh horses during the battles, while the enemy, who had one horse for each warrior, exhausted them already in the initial stage of the fight. In addition, the Mongols did not have to take care of fodder for their horses, which fed themselves with grass on their own even in the winter season. Nevertheless, the mobility of the Mongols was limited in areas with a grass cover insufficient for their numerous horses. In particular, Mongol horses lacked food during the Hülegüid invasions of Syria. The Ilkhans were forced to attack Mamlūk territory with a limited number of horses and accordingly with relatively small armies. Even during the successful campaigns of 1260 and 1299, they could not keep the conquered territory, since they had to retreat at the approach of the hot Syrian summer. These considerations partly explain their failure in the protracted war with the Mamlūks, as well as, perhaps, the refusal of the Mongols to conquer northern India.

Mongol warriors were famous for their endurance and ability to cover, if necessary, long distances without any provisions. Nevertheless, their command sought to provide their units with the necessary food and surpassed their opponents in caring for their subordinates. In the case of rapid incursion into enemy territory the Mongols took with them for food dried meat, flour, and dried milk and, if possible, organized a hunt on the march to get fresh game, as did the army of Tamerlane in 1391 when passing through the eastern lands of the Golden Horde khan Toqtamish. However, in most cases, the Mongol warriors were accompanied by their herds, which slowly moved after them led by their wives and children. Between 1253 and 1256, Hülegü's army moved from Mongolia to eastern Iran at a leisurely pace and was accompanied by the families of its warriors, who took care of the 'living

food convoy' in the further conquest of Iran. In this way, the families of the Mongol warriors took an indirect but extremely important part in the hostilities.

Discord in the enemy camp served as an additional incentive for invasion and the Mongols sought to enlist the support of one of the warring factions before the outbreak of hostilities. So, at the very beginning of the Khwārazmian campaign in the autumn of 1219, a number of Turkic amirs moved to the side of Chinggis khan, having committed before that an unsuccessful attempt on the life of Khwārazmshah Muḥammad II. Tamerlane, in turn, might not have decided on his lightning invasion of Syria in 1400, if he had not been aware of the internal conflict of Mamlūk sultan Faraj (r.1399–1411) with the Egyptian amirs. The renowned ruler of the Chaghatayid *ulus* was famous for his ability to entice disgruntled military commanders in the enemy's camp before the outbreak of hostilities. Tamerlane won three major battles – against the Golden Horde khan Toqtamish in 1391 and 1395 and against the Ottoman sultan Bayezid I in 1402 – thanks to treason of the most important military commanders of the enemy, who went to the side of Tamerlane at the decisive moment of the battle as a result of bribery, or flattered by his tempting promises.

In addition to individual hostility, the Mongols used ethnic discord in an attempt to split the ranks of the enemy, as the Mongol generals Jebe and Sübe'edei did when they collided in 1222 with the allied troops of Polovtsians and Alans in northern Ciscaucasia: by referring to the affinity of the Turks and Mongols, Jebe and Sübe'edei managed to persuade the Polovtsians to leave the Iranian-speaking Alans and then defeated the Alans and Polovtsians one at a time. Interreligious conflict was another factor that guided the Mongols in their search for allies. Thus, the Mongol attack on the Qara Khitai empire in 1218 coincided with the anti-Muslim persecution by its ruler Güchülüg. Using this internal conflict to his own advantage, the Mongol general Jebe invaded the territory of the empire under the slogan of restoring the former religious tolerance and did not encounter significant resistance from the Muslim population of Kashgaria. The Mongol rulers could intentionally show sympathy (often sincere, but rarely conflicting with the principles of religious tolerance in practice) for a particular world religion with a view to concluding advantageous military alliances. The Jochid khan Berke, converted to Islam, began negotiations with the Mamlūk sultan Baybars on joint military operations against the Ilkhanate in 1262, emphasizing both mutual benefits and belonging to the same religion, after which the exchange of numerous embassies between the Golden Horde and Egypt lasted until the

end of the fourteenth century. In turn, Ilkhan Hülegü sent a message to the French king Louis IX (r.1226–70) at the end of the same year with the proposal of a joint campaign against Egypt, emphasizing Hülegü's personal sympathy for Christianity. His son Abagha and grandson Arghun continued persistently to send embassies to Europe in a vain attempt to organize a joint campaign against the Mamlūk sultanate. In each of their messages to the West, the Ilkhans invariably emphasized their Christian sympathies and, in particular, Arghun considered it appropriate in 1289 to assure the French king Philip IV the Fair (r.1285–1314) of his intention to return Jerusalem to Christians in case of a successful joint campaign.

Undoubtedly, the Mongol rulers were informed in detail about the quarrels in the enemy camp and the intentions of natural allies due to the effective work of their intelligence service. Already Chinggis khan deliberately attracted merchants and endowed them with personal protection not only because of economic interests, but also to obtain detailed information about the lands of potential adversaries. Defectors from the enemy camp as well as simple adventurers who entered the service of the Mongol rulers supplemented this information, while Tamerlane was famous for his patronage of the members of Islamic orders, dervishes, and itinerant monks, who shared with him observations of the lands they visited. In this way, before the beginning of any campaign, the Mongols collected as much information as possible about the military strength of the enemy, its morale, fortresses' status, and ways of communication. They paid particular attention to the recruitment of guides; Qaidu khan, for example, hired defectors from the Ilkhanate and descendants of Möngke khan for the respective attacks on Khurāsān and western Mongolia.

Spies in the service of the Mongols often revealed the general strategic plan that the enemy intended to adhere to. So, on the eve of the Khwārazmian campaign, Chinggis khan appears to have been perfectly aware of the Khwārazmshah's plan to avoid a field encounter and to disperse his forces over the town garrisons. Therefore, Chinggis khan allowed himself to divide his forces into four columns, being aware that no one of them would have to face a field battle with superior enemy forces. These same spies disseminated false information about the exaggerated power of the Mongol army, and the Mongols invading enemy territory sought to strengthen this misperception. To this end, they drove civilians under the walls of besieged towns, passing them off as additional units with counterfeit military banners. In other circumstances, they could pass their wives off as warriors in order to appear more numerous to the enemy. They put dummies on the backs of their

numerous horses for the same purpose, as was done in the spring of 1221 by the Mongols led by general Shigi Qutuqu in the battle with Khwārazmian prince Jālāl al-Dīn near Parwān (in eastern Afghanistan).

The standard invasion strategy of the Mongols involved intimidating the enemy and constraining his disparate forces. If they did not get the opportunity to destroy the main field forces of the enemy at the very beginning of the campaign, as they managed to do when invading the northeastern Rus' in early 1238 and northern Syria at the end of 1299, the Mongols went into enemy territory divided into several columns. As a result, the enemy lost the opportunity to coordinate the actions of its units, since the field commanders of each of them thought that they were the main target of the attack, while the supreme command had the impression that they were opposed by a number of enemies immeasurably greater than the actual potential of the Mongols. The Khwārazmian campaign of Chinggis khan was ideal in this respect. During the campaign, the Turkic garrisons on the middle Syr Darya and in Uṭrār could not help Bukhara and Samarqand besieged by Chinggis khan, because they, in turn, were attacked by separate units led by the sons of the Mongol emperor. For his part, Khwārazmshah Muḥammad, who learned of the simultaneous fall of his main towns in Transoxiana, refused further resistance, having been assured of the innumerable strength of Chinggis khan's army.

After the Mongols captured the main strongholds, they combed enemy territory to destroy any remaining forces and often in order to catch a local ruler who could still organize resistance. So, after the destruction of Vladimir, the capital of the northeastern Rus', in early February 1238, the Mongols divided their army into three columns heading toward the north, west, and east, and they captured fourteen Russian towns in one month. Eventually one of these columns under the command of prince Burundai overtook the Vladimir prince Yurii Vsevolodovich and defeated his troops on the ice of the river Sit' (in the modern Yaroslavl region) on March 4, 1238. After taking Kiev, the Mongol army acted in the same way in the winter of 1240–1 by combing the territory of the Galician and Volyn principalities in a vain search for local princes who had fled to neighboring Hungary.

If the Mongols sought to annex the conquered territory, as they often did during the period of the united empire, they continued their offensive further and attacked neighboring territories, subjecting them to systematic devastation. Chinggis khan did this when he ruined Khurāsān in order to secure the conquered territory of Transoxiana. His grandson Batu did likewise, when he ravaged the eastern lands of the Hungarian king Béla IV, although this did not

prevent the latter from attacking the Galician principality four years after the Mongol invasion. The Mongols planned to return to these ravaged territories in order to gradually annex them to the Mongol empire, as happened with the Iranian lands to the south of the Amu Darya. However, if their strength was not enough to occupy the neighboring territory and if their relations with neighbors remained highly hostile, they would make regular raids there in order to prevent the potential strengthening of the enemy. So, the khan of the Chaghatayid *ulus*, Qaidu, who did not have enough strength to take the eastern Uighuria and Khotan region (in the southeast of modern Xinjiang) from the Yuan empire, took advantage of the higher mobility of his troops for constant attacks on enemy territory in order to prevent the troops of the great khan Qubilai from gaining ground in these regions.

When the Mongols collided with the enemy in a field battle, they occasionally resorted to a frontal assault on the enemy's center imitating the tactics used by Chinggis khan in the battle against the Naimans in May 1204. The Mongols made a frontal attack divided into several squadrons at the battle of Himš on December 2, 1260, when their troops were almost five times greater in number than the enemy forces. They made the same attack at the beginning of the battle near Elbistan in 1277, when they saw that the Mamlūk army did not have time to line up properly. However, as in the former case, they suffered a complete defeat.

Much more often, the Mongols lined up in a crescent-shaped order, with the flanks pushed forward with respect to the center, which, in turn, held down the enemy forces opposite it, but attacked by the end of the battle. With this line-up, the Mongols first attacked one or both of the enemy's flanks, bypassing them from the side and attacking with alternating chains of light archers. These chains swept along the ranks of the enemy, shooting arrows at the enemy from a close distance and giving way to a new chain of archers. The enemy's flank was hit in this way by the deadly 'shower of arrows' shot from close range, which broke its line-up and crushed the line-up of the center upon retreat, allowing the Mongols to enter the enemy's rear and attack its main forces in turmoil from three sides, or even completely encircle the enemy's army.

Progressive movement of chains of archers in front of the enemy's line required high proficiency from the Mongols and obviously was one of the most important elements of their military training, since such maneuvering could be hampered by the error of the warrior who led the chain or of several warriors along its length. However, the Mongols could deliberately break the chain in front of the enemy to incline them to an immediate counterattack

and to lure them with a feigned retreat to be attacked by a regiment hiding in ambush. The Georgian army was destroyed in this way in Azerbaijan in early 1221. Tamerlane's warriors succumbed to the same trick on the first day of the battle of Terek in 1395, when his left flank was ambushed and crumpled his center in panic, allowing Toqtamish's troops to attack the rearguard, where Tamerlane's headquarters was situated. Luring the enemy with feigned flight could precede the battle and last for several days, as happened in 1223 when the Russian troops pursued the Mongols for eight days before being defeated in the battle of Kalka by the main forces of the Mongol army, which were waiting for the enemy at a favorable position. Naturally, the Mongols were not the only people using this universal trick in order to stretch and exhaust the enemy's forces, or to lull their vigilance. The same army of Mongols which had lured and destroyed the Russian troops on the river Kalka suffered a heavy defeat in the autumn of the same year after the Volga Bulgars, who were waiting for the Mongols on their return to the east, lured them into an ambush in the territory of the present-day Samara region, and destroyed the bulk of their army.

In the siege art, however, the Mongols, who brought with them to the west detachments of engineers from north China, had no equal, at least in the period of the united empire. Approaching every town that was to be placed under siege, the Mongols surrounded it with a palisade to defend against sudden attacks by the town garrison and then began to fire at the defenders on the town wall, who, as a rule, were inferior to the Mongols in their accuracy in shooting. Suppressed by the incoming fire, the defenders of the town could not prevent the Mongols from dragging to the town wall stone-hurling machines built in place by Chinese and Muslim engineers in the service of the Mongols. The Mongol counterweighted trebuchet could hurl projectiles weighing 100–150 kg for 150 m for several days without stopping, until they pierced the defensive wall to allow the Mongol warriors to break through the breach into the town. The same trebuchet could throw incendiary missiles filled with naphtha, especially if the attackers could not pierce the wall. In addition, the Mongols had powerful ballistae that fired bolts at 2,500 paces, which could also have been filled with naphtha. Having caused a fire in the town that distracted its inhabitants from defense, the Mongols rushed to storm the town using civilians as a living shield. Prisoners were forced to operate battering rams to break through the town gates, and to put the ladders to the walls and climb them first in order to shield the Mongols who followed them. In such cases, the assault led to high losses both among prisoners and among the Mongols themselves. If possible, the Mongols tried

to take fortresses by starvation, as was done with Ashiyār (in central Afghanistan), which surrendered after fifteen months of siege, as well as with Mosul, which surrendered in the summer of 1262 after a six-month siege. In addition, the Mongols could undermine the defensive walls (still using the labor of the captives) until they collapsed. The Mongol general Chaghatai took the Armenian fortress of Lori in this way in 1236, as well as Tiflis in Georgia later. Yet not all sieges were successful. Around 1230, the defenders of Saqsin in the Volga delta were able to destroy the siege machines of the Mongols with their catapults. After this, the Mongols dug an underground passage, broke through it into the town and set fire to the other side of the town at the same time. However, in the end their attack was repulsed and the Mongols were forced to lift the siege.

In anticipation of any siege, the Mongols tried to negotiate the surrender of the town without resistance, and during the talks they often used guarantors from the captive local aristocracy. Thus, dozens of fortresses of the Nizāri Ismāʿīlīs in the Elburs Mountains and Quhistān surrendered at the behest of their captive leader Khūrshāh (d.1256), who vouched for the safety of their defenders. The Mongols mercilessly massacred the entire population of towns that offered stubborn resistance, showing in this way that the next towns approached by the Mongols could expect the same fate in the event of resistance. In 1221, the Mongols completely slaughtered the crowded population of Ürgench, which had resisted the Mongols for four to five months, and they did the same in 1238 with the small Russian town of Kozelsk, which had defended itself for seven weeks. The Mongols acted with particular cruelty toward those towns in whose vicinity some member of Chinggis khan's family had been killed. In 1221, the Mongols killed not only all the people in Nīshāpūr and Bāmiyān but also domestic animals, due to the fact that, respectively, the son-in-law and grandson of Chinggis khan had died under their walls. The populations of Kolomna, Moscow, and Vladimir were slaughtered at the beginning of 1238, probably for the reason that Chinggis khan's younger son Kōlgen died in the battle on the eve of their swift siege and assault.

When towns surrendered without resistance, the Mongols, as a rule, spared the population and sought to widely disseminate information on their treatment, which served as a good example for neighboring fortresses. In the course of 1236, the Mongols managed to subdue in this way the most part of the mountain fortresses in Armenia. However, the Mongols did not always keep the promises given to the surrendered inhabitants. They slaughtered the inhabitants of Kars in Armenia, who surrendered without a fight

after they learned about the previous massacres in the Armenian capital Ani. Also, Hülegü did not keep his promise to the caliph al-Mustaʿsim in February 1258 and allowed his army to massacre the residents of the capital of the caliphate who had surrendered in exchange for a promise that their lives would be preserved. As a result, Hülegü later encountered certain difficulties in negotiating the surrender of the town of Sarūj (in southern Turkey) at the beginning of 1260: before surrendering, its inhabitants demanded that Hülegü swear he would keep his promise. Hülegü probably fulfilled their demand, but then ordered the entire population massacred after the town's surrender, furious with the distrust that had been shown to him.

In conclusion, it should be noted that the Mongols in the western half of their empire, who were extremely susceptible to borrowing new military technologies during its expansion, were equally conservative in relation to any military innovations thereafter. Having repeated opportunities to verify the superiority of their army, the Mongols were distrustful of all new types of weapons. There is no doubt that the Mongol empire, which erased the internal borders of Eurasia and united previously isolated regions, contributed to the spread of Chinese gunpowder and firearms in Muslim Asia and in Christian Europe. The Mongols had the opportunity to verify the effectiveness of the field guns of the Lithuanians in the battle of Vorskla in 1399 and the Indian cannons near Delhi two years earlier. However, they stubbornly refused to adopt field guns and used cannons only to protect their own towns. Thus, in 1377 the Tatars covered with cannon fire from the walls of Bulghār (in modern Tatarstan) their sortie against the besieging Russian troops from Nizhny Novgorod. However, both the fire of these guns and the sortie itself were ineffective, and the Tatars eventually had to accept subordination to Nizhny Novgorod to lift the siege.

China, 900–1400

PETER LORGE

The Tang dynasty (618–907) went into steep decline as a result of the Huang Chao Rebellion (874–84). The imperial government and the emperor himself became the tools of regional warlords, each maneuvering for his own power in an increasingly uncertain political and military milieu. These struggles were played out in the final decades of the Tang dynasty and beyond, lasting until the mid-point of the tenth century, when the various factions and power groupings of the late Tang had become so enervated by constant warfare and the deaths of the principal players that a new generation of ambitious power-seekers rose to the top. Steppe influence remained important in these conflicts and indeed, from the retrospective standpoint of the Jurchen Jin dynasty (1115–1234) and then the Mongol Yuan dynasty (1272–1368), the intervening control of north China by the Chinese Song dynasty (960–1279) almost seems to be the exception rather than the rule.

The fall of the Yuan dynasty in 1368 to a Chinese ruling house, the Ming dynasty, makes it clear, however, that political control of north China in particular, and even the entire Chinese ecumene, was never a simple question of ethnicity and culture. A number of cultures spanning China and the northern steppes produced a broad range of military capabilities and modes of warfare. By the tenth century the general outlines of these ways of war were well known to all concerned parties. Cavalry predominated in the north, with the steppes maintaining the largest pool of horses and trained cavalymen. These horsemen fought primarily as mounted archers, and were weak in static or positional warfare, particularly siegecraft. Infantry and riverine naval operations predominated in the south. Lacking sufficient or capable cavalry, southern armies and navies had great trouble fighting on northern Chinese battlefields.

Any would-be ruler who wished to conquer all of China, north and south, had to develop or acquire an army possessed of northern and southern capabilities. Just as campaigning in the north required large cavalry forces,

campaigning in the south required an effective navy and good infantry. Even northern campaigns required substantial infantry forces for siege work. Successful armies tended to be hybrids, both militarily and culturally. Northerners, often non-Han steppe tribesmen, supplied cavalry units and southerners supplied naval and infantry units. Mixed into this were soldiers whose origins and skills did not fit this simplified schema: southern cavalymen, and numerous northern infantry. There were even steppe infantry units. Soldiers tended to be shaped by the environment in which they grew up, and reflected the broad range of Chinese and steppe culture.

A new military technology entered this environment in the twelfth and thirteenth centuries: the gun. The gun grew out of experimentation with an incendiary substance generally called *huoyao* or “fire drug,” though there were many different recipes. This mixture, what we now call “gunpowder,” was first invented or discovered in the ninth century and used as a weapon soon afterward. Over the succeeding centuries it was used in a number of different forms and was produced by government arsenals during the eleventh century. Indeed, it was during the eleventh century that a formula for gunpowder was first published. The true gun, in turn, appeared during the widespread and large-scale wars of the twelfth and thirteenth centuries. By the end of the thirteenth century at the latest, handguns were being mass-produced on an industrial scale, along with grenades and other gunpowder weapons.

Gunpowder and gunpowder weapons spread rapidly throughout China and the steppes, effectuating a revolution in military technology without changing the balance of power among the many polities seeking dominance. Guns were found on all sides and were used in conjunction with bows, crossbows, and poliorcetic devices. But the dawn of what we might now call “modern warfare” arrived in China without a sudden shock to the existing order. Warfare changed, and guns continued to develop past 1400, though indigenous Chinese developments would be overtaken by Western imports toward the end of the Ming dynasty.¹

The major driver of warfare in China between 900 and 1400 was politics, not technological change. In this respect, the period was no different from any other in Chinese history. Many contenders for control over the Chinese

¹ For the history and effects of gunpowder and guns see Kenneth Chase, *Firearms: A History to 1700* (Cambridge, Cambridge University Press, 2003); Peter Lorge, *The Asian Military Revolution* (Cambridge, Cambridge University Press, 2008); and Tonio Andrade, *The Gunpowder Age: China, Military Innovation, and the Rise of the West in World History* (Princeton, Princeton University Press, 2016).

ecumene struggled to combine war and politics into a formula that would create a large, stable empire. Most failed, of course; those who succeeded presided over a changing political and military problem.

Despite many generalizations to the contrary, the geopolitical problems facing a given dynasty or polity evolved and shifted over the course of time. While the military framework outlined above remained true, the reasons for military action were different not only from the beginning to the middle and end of a dynasty, but also as a result of constantly changing political alignments. Those political alignments formed a territorial continuum ranging from the far south of the Chinese ecumene to the far northern steppes, and from as far east as Japan to deep into Central Eurasia in the west. Politics spanned the vague boundaries of any putative governmental authority. The boundaries of authority and the political relationships between different groups were decided by violence, and when the results were unsatisfactory to one or both sides, tensions remained.

The fall of the Tang dynasty

The authority of the Tang imperial government collapsed long before the dynasty itself ended in 907. Unlike the subsequent Song, Liao, and Jin dynasties, the Tang was not conquered by an outside group. Two major rebellions, the An Lushan Rebellion (755–63) and the Huang Chao Rebellion (874–84), had reversed and then fatally undermined the power of the central government. The military vigor of the early Tang had been based in part on a hybrid and cosmopolitan culture that mixed steppe and Chinese practice. Steppe generals, such as An Lushan, and steppe cavalry played key roles in the Tang military. And, as An Lushan's rebellion so clearly showed, there were fundamental tensions between ethnic groups, military commanders, and the central government.

Those tensions were never resolved during the Tang, and the dynasty collapsed in a struggle between what might roughly be characterized as a steppe faction and a Chinese faction. Ethnicity did not dictate allegiance, however, and membership in these groups was fluid. These two factions struggled for control of the Tang emperor and the central government while much of southern China broke away to form its own *de facto* kingdoms. While the remnants of Tang dynasty sovereignty persisted, mostly in the minds of those struggling for power, the regional strongmen confined themselves to taking sub-imperial titles. This political limitation at the ritual level was only a slight brake on unrestrained military adventurism, as

powerholders hedged against the possibility of a Tang revival. Few strongmen wanted to be caught out on the wrong side of a seemingly legitimate ruler.

All these cautions evaporated with the official dissolution of the Tang in 907. Where before there seemed to be little gain in denying the Tang government some respect, now there was little gain from pretending it still existed. The absence of a centralizing ritual and political focus did not clarify the landscape of power, however; if anything, it further complicated it. There was no authority, no matter how impotent, to defy or curry favor with, leaving a disturbingly chaotic milieu.

Since the Tang had not been destroyed by an outside force or even a new internal group, the final end to three centuries of Tang governance left no one in charge. A dynastic collapse like this would not happen again until 1911.

The Five Dynasties and Ten Kingdoms

The military and political history of the period from 907 to 960 (or, more accurately, 979) can be split geographically between north and south China, with a series of governments controlling more or less the same territory in the north, and a number of governments controlling disparate parts of the south simultaneously. The territorial extent and ruling houses of these southern regimes also changed repeatedly. Another important player in China was the Khitan steppe empire, which declared itself an imperial power in 916. The Khitan gradually expanded their influence in north China, initially through client rulers, but eventually attempting direct rule.²

War was central to the rise and fall of regimes; it seemed for several decades that there was no escape from the continuous military struggle for power. The idea of recreating the unified empire of the Tang remained attractive, but for almost half a century no single leader was able to marshal the necessary military and political resources to accomplish that. Retrospectively, eleventh-century Song historians blamed the problem on

2 For this period see Peter Lorge, *War, Politics and Society in Early Modern China, 900–1795* (London and New York, Routledge, 2005), pp. 17–29. For the south see Hugh Clark, “The Southern Kingdoms between the T’ang and the Sung, 907–979,” in Denis Twitchett and Paul Jakov Smith (eds.), *The Cambridge History of China*, vol. 5(1): *The Sung Dynasty and Its Precursors, 907–1279* (Cambridge, Cambridge University Press, 2009), pp. 133–205. For the north see Naomi Standen, “The Five Dynasties,” in Twitchett and Smith (eds.), *The Cambridge History of China*, vol. 5(1), pp. 38–132; and Naomi Standen, *Unbounded Loyalty: Frontier Crossing in Liao China* (Honolulu, University of Hawai’i Press, 2007).

the rise of military men to positions of power. Conversely, the failure of civil officials as a whole to act correctly and insist upon a moral order allowed military men to take over. This was self-serving nonsense written by men living under an established dynasty, but it did influence the subsequent analysis of the history of the period. Song and later historians attempted to construct a period of chaos and war that was ended by the establishment of civil dominance in government.³

Like other turbulent times in Chinese history, the military history of the Five Dynasties and Ten Kingdoms period is deep, extensive, and complex. Thousands of battles and skirmishes, large and small, occurred across the former Tang empire, with varying degrees of importance for the overall struggle for political power. Even the hundreds of larger battles recorded in the historical records form a bewildering account of how war shaped China at that time. Nevertheless, it is clear that war was virtually the only deciding factor in the distribution of power.

On the strategic level, the first half of the tenth century was a period of limited war. Smaller warlords and local strongmen might be annihilated, but the regional powers were more resilient. Indeed, the persistence of a fairly unified northern polity with a generally consistent territory that experienced a succession of dynastic houses argues strongly for the strength of even politically unstable governments. Politics within the northern government was a struggle for control of the appurtenances of that institutional structure and the accompanying legitimacy that control accorded. Since the Song government would eventually emerge from the northern government, there was clearly a great deal of power to be had in controlling that institution.

The central strategic problem, then, was how to shift from a period of limited war, with persistent and resilient polities, be they self-proclaimed kingdoms, empires, or more modest regimes, to a period of total war that would recreate the empire of the Tang. (And we must keep in mind that the wars were not limited by design; many rulers wanted to annihilate neighboring states totally, they were just incapable of doing so.) Fortunately for anyone attempting this, the ideology of a unified empire spanning the former Tang territory already existed. There was, however, a countervailing ideological force that accepted the scattering of Chinese regimes and multiple emperors. The former remained an ideal for the ambitious, the latter the

3 One of the great examples of this history-writing process is Ouyang Xiu's *Historical Records of the Five Dynasties*, trans. Richard Davis (New York, Columbia University Press, 2004).

status quo clung to by the conservative or cautious. Although this is not the place to discuss this, it is worth noting that the Five Dynasties and Ten Kingdoms period was also a time of great cultural flourishing.⁴ Yet if culture flourished, it did so mostly in the south and west. Conquest and unification came from a revitalized northern regime, which destroyed all of the separate governments of the south and west.

Military power was not a northern monopoly, but it was the force that reunified China. Northern military power dealt with two problems: defense against the Khitan empire to its north, and the conquest of southern and western China. This was a familiar paradigm that required the full panoply of military means to effectuate. Neither of these problems was resolved before the founding of the Song in 960; it was not until the early 950s that the northern regime even appeared likely to conquer southern China. Something changed during the later Zhou dynasty (951–60) that altered the pre-existing trajectory of inconclusive, limited war. The change was political and social, and it followed the collapse of the Khitans' overreach into northern China in 947.

When Zhu Wen (852–912), a former rebel commander, officially dissolved the Tang dynasty in 907 and set up his own Liang dynasty (907–23), his action was part of an ongoing struggle with the Shatuo Turk leader Li Keyong (856–908). Zhu and Li had risen to high positions at the Tang court after cooperating to put down Huang Chao's rebellion, before clashing in 884. Over the course of the last two decades of Tang rule Zhu built up his own strength centered on the city of Bianzhou (Kaifeng), the northern terminus of the Bian canal on the Yellow river. Li Keyong's base was at Taiyuan in Shanxi, close to the steppe frontier. Indeed, it was Li's developing power in the north that precipitated Zhu's ending of the Tang. Li had become a sworn brother of Abaoji, the Khitan leader, in 905.

The struggle between Zhu and Li continued into a second generation, while southern and western China broke up into smaller kingdoms and states and the Khitan declared their own imperial dynasty in 916. In the second generation, it was the Li who triumphed, this time under the leadership of Li Keyong's son, Cunxu (885–926). Li Cunxu was an outstanding general, and gradually wore down the Liang government by winning victory after victory. This took a full decade of warfare, showing the deep strength of even the politically unstable Liang dynasty. Indeed, Liang forces were still extremely

4 For the cultural developments in the Five Dynasties and Ten Kingdoms period, see Peter Lorge (ed.), *The Five Dynasties and Ten Kingdoms* (Hong Kong, Chinese University Press, 2010).

powerful in 923, some surrendering only after the dynasty fell. One Liang army that surrendered was 50,000 men strong.

Li Cunxu finally defeated the Liang dynasty by capturing Kaifeng, Zhu's capital, though he had reestablished the Tang dynasty (in name only) earlier in 923. The restored Tang capital was established at Luoyang, but the territorial extent of the dynasty was much diminished. Sichuan was successfully recovered, albeit briefly, in 925, before once again spinning out of the orbit of the northern regime in 934. During all this time the Khitan were proving to be an increasingly difficult problem on the northern border with Hebei. Khitan interest in taking control of Hebei clashed with the desire of their erstwhile allies in the restored Tang dynasty to retain control themselves. The Khitan had two ways of accomplishing their goal, by raiding to put political pressure on the Tang court, or by supporting someone at that court who would give them what they wanted.

The Khitan could not simply seize the territory they wanted and then defend it against Tang counterattack. Steppe cavalry armies were always limited in what they could accomplish militarily. They were very good at attacking and raiding, and difficult to force to battle under most circumstances, but they generally failed in capturing and holding territory. Cities presented particular problems for steppe cavalry armies. Steppe armies were seldom proficient at siege warfare, whether attacking or defending. Their horses actually became liabilities in either case, since they consumed a great deal of fodder, something particularly hard to supply when fixed in place for any length of time. All of their advantages in mobility disappeared in positional warfare. A steppe cavalry army succeeded either by destroying an opposing military force, or by making a territory unlivable through raiding.

Constant Khitan raiding did damage Hebei but did not force the Tang regime to cede the territory to the Khitan. Frustrated by their inability to annoy the Tang into giving them the land, the Khitan shifted toward a more direct political intervention at the Tang court. This time they supported Shi Jingtang (892–942), an imperial relative, in his bid to overthrow the regime and establish a new dynasty, the Jin (936–47). The price for this aid was the formal cession of a piece of territory around what is modern Beijing, subsequently known as the Sixteen Prefectures. The Sixteen Prefectures contained all of the strategic passes controlling north–south access between the open plains of Hebei and the steppes. It also contained a significant Chinese population who would prove to be the economic engine of the Khitan empire.

Shi Jingtang's successor was unhappy with Khitan influence, and broke with them. The Khitan responded by invading in force in 946 and capturing Kaifeng (the Jin capital) in 947. This demonstrated the power of a Khitan army to destroy a regime, though it was occasioned by the failure of their earlier policy with respect to China. The Khitan emperor then changed the name of his dynasty from Khitan to Liao in Kaifeng and attempted simply to take over the territory of the Jin. Unfortunately for the Liao emperor, he soon proved that he had exceeded the limits of his military and political power. The Liao army had neither the power nor the reach to subjugate north China. And the Liao government lacked the legitimacy and the political connections in north China to rule without massive military force.

Unsurprisingly, it was a Shatuo Turk leader, Liu Zhiyuan (895–948), based at Taiyuan who declared his opposition to Liao rule. The Liao army now had a hostile force along one line of retreat, and its position became untenable. Liu Zhiyuan then seized control of Kaifeng and ruled a new Han dynasty (947–51). The Liao retained the Sixteen Prefectures but would never again reach so far into China. Yet the Han would also prove short-lived, falling to an internal seizure of power by one of its own, this time Chinese, generals.

The fall of the Han dynasty conclusively ended Shatuo Turk influence over the northern Chinese regime and coincided with the shift toward a revitalized north China. It was not just the departure of Turk and Khitan interference, but also a shift in personnel at the top of the military. In all of these regimes, the civil officials had presided over a government that served a succession of ruling houses. The appurtenances of state reduced those officials to mere functionaries. Yet the new dynasty, the Zhou (951–60) might also have continued on the same unstable path were it not for the last attempt of the Shatuo government at Taiyuan to retake Kaifeng in 954.

In 954 the Shatuo leader was able to call upon Liao support for an invasion of the Zhou. The newly installed second Zhou emperor met this force at Gaoping and decisively defeated it. As a result of the battle, he was able to reorganize the Zhou army, placing his own men at the top. The Zhou emperor then used this fully loyal force to begin, for the first time in decades, to expand the territory of the northern regime. He pushed his borders not only south and west, but also north, capturing the southern edge of the Sixteen Prefectures. It was on his final campaign to capture the Sixteen Prefectures that he fell ill. He returned to Kaifeng, where he died soon after.

The founding of the Song dynasty

By late 959 the military situation of the Zhou dynasty was sound, but its political circumstances increasingly unstable. The child emperor inherited a powerful and unified army with restive generals who were now more loyal to each other than to the ruling house. At the same time, the tremendous territorial gains of his father hung in the balance; if the government splintered, everything could be lost. The Liao dynasty was still smarting from its recent defeat and loss of territory to the Zhou. The solution was obvious and almost bloodless: a coup by the top generals overthrew the Zhou and established a new dynasty, the Song (960–1279).⁵

The new Song emperor, posthumously known as Song Taizu (r.960–76), had been the Zhou dynasty's leading general. His comrades in the coup held all the reins of military power. They soon intermarried with the imperial family, and thus secured, stepped back from power. Not surprisingly then, there was no change in the military and political strategy from the Zhou. Political unity at the top ramified down throughout the government and military, and ultimately out to the empire as a whole, to reduce internal friction and generate immense energy for conquest.

The Song conquest would take some forty-five years to run its course, from the Song founding until the Chanyuan Covenant in 1005. During that near half-century, the Song court would undergo a major shift from conquering power to defensive, established state. The transitions in this process were difficult and seldom ran smoothly, for while the nature and goals of war changed, politically accommodating those shifts caused considerable friction. Politics remained critical in the creation of the Song empire, both between the court and its new territories and between the emperor and his own government. War directly influenced the institutional and cultural structures surrounding imperial power. And war was itself influenced by the particular course of campaigns.

Later historians downplayed the centrality of war in the formation of Song government and culture. Rather than directly engage the campaigns of conquest, they formulated overarching strategic concepts like “the south-first strategy” to subsume the chaotic and contingent operations within an intellectual framework. For Song civil officials writing in the eleventh century, the story of the Song conquest was that of the rise of civil dominance in the government. It was this civil dominance that brought the Song success.

⁵ Peter Lorge, *The Reunification of China: Peace through War under the Song Dynasty* (Cambridge, Cambridge University Press, 2015); Lorge, *War, Politics and Society*, pp. 30–5.

This was an interesting and self-serving interpretation, and wholly wrong. Song Taizu and his chief strategic advisor, Zhao Pu, were not grand strategists, but flexible and clever opportunists. Their goal was to maintain the momentum of successful conquest.

Song Taizu began the Song conquest of China with several distinct advantages inherited from the Zhou. First, the army had a winning record and high morale. It was a motivated, professional force that expected to win. Secondly, the Liao threat to the north had been temporarily diminished after the Zhou defeat of Liao forces. Thirdly, the Song military already had the riverine navy developed under the Zhou. That navy had been built in order to defeat the Southern Tang army and navy during the Huainan campaign. A navy was necessary to conquer the south, a fact that became apparent to the Zhou emperor only after he had already begun the campaign against the Southern Tang. The Song military thus began with all of the disparate skills and capabilities necessary to conquer all of China. Fourthly, and finally, Song Taizu was a skilled leader committed to conquering China.

Even with all of these advantages, the Song conquest of China was a long, grueling and uncertain process. Several attempts to conquer the Northern Han, the rump Shatuo Turk regime based at Taiyuan and a Liao client state, failed. In order to weaken the Northern Han, the Song forcibly removed parts of the subject population to Song territory and commenced a systematic raiding of Northern Han territory to disrupt its economy and agriculture. This was a remarkable reversal of the usual order of raiding in Chinese history; here it was a Chinese regime launching despoiling attacks on a northern territory to put political pressure on a polity. Taizu also pursued some sort of treaty negotiations with the Liao empire whereby the Song would not directly attack Liao territory in return for the Liao not attacking Song territory. The Northern Han was left as an open question where both sides could fight without larger ramifications.

Our knowledge of this Song–Liao agreement is indirect, but it bespeaks a pragmatic strategy on both the Song and Liao sides. Indeed, it indicates a great reluctance on the part of the Liao court to become too actively involved in northern Chinese affairs. Such an agreement held obvious benefits for the Song, but only made sense for the Liao if their history in 946–7 and defeats by the Zhou are taken into account. The Liao court refused repeated requests for aid from the southern Chinese regimes being attacked by the Song. Conversely, it resolutely supported the Northern Han regime in its struggles with the Song, often at great cost in men.

The Song–Liao agreement was critical in allowing the Song to pick off the southern Chinese states individually. Without Liao assistance, there was no large military counterweight to the Song army. Still, every state fought back to the best of its ability, and each was destroyed by the Song army on the battlefield. None were able to band together to form a coalition to resist the Song. This was not a war where propaganda or ideology convinced rulers to give up their sovereignty; the contest was fought out bloodily on the battlefield. By 976, when Taizu died, the only remaining independent states were the Northern Han and the already subordinated Wuyue in the south. By itself, this demonstrated the critical value of Liao support in resisting the Song.

War had made Taizu politically strong. As the ruler of an expanding empire, he had unmatched legitimacy. The same could not be said of his brother and successor, posthumously known as Song Taizong. Taizong had the challenging task of presiding over an increasingly limited military field, while desperately in need of the political legitimacy that military success conferred. In his first campaign as emperor, he overreached after successfully conquering the Northern Han in 979 and was decisively defeated by the Liao when he attacked the Sixteen Prefectures (the *casus belli* for this unprovoked attack was ostensibly that the Liao had broken the earlier agreement). The Song retained the former Northern Han territories, however, making for a mixed military result for the entire campaign.

Taizong was badly damaged politically by his personal failure on the battlefield (and perhaps physically as well, having been wounded). Strangely, the conquest of the Northern Han actually exacerbated his earlier military problems. Now, the only place he could prove himself and obtain political legitimacy through military action was in a direct clash with the Liao over the Sixteen Prefectures. A realistic military position would do the opposite, however, accepting that Song expansion had reached its limit, that it was time to negotiate a cessation of hostilities with the Liao based on the status quo, and that the empire needed to shift to a defensive stance. All of these requirements were politically impossible for Taizong. He could not openly accept his defeat without risking his political survival.

The Song emperor's response would shape much of Song and future Chinese governmental practice. Taizong dramatically increased and regularized the use of civil service examinations to select government officials. His purpose was to capture the loyalty of the bureaucracy by being the one who bestowed their status upon them. All exam graduates would "owe" him their allegiance personally. These measures did not turn out quite as the emperor

intended, but they did help to stabilize his position while he surreptitiously supported defensive measures to strengthen the border. He also openly prepared for a second offensive into the Sixteen Prefectures.

A second offensive was duly launched in 986, though this time without the emperor's personal participation. It also failed. Taizong now blamed the generals for their failure to properly carry out his instructions, though the few successes had come when they contravened them. The emperor's political position was stronger in 986 than it had been in 979, not least because he had had his nephews and younger brother assassinated, and he could absorb the loss without a serious threat to his throne. The exam graduates in his court remained loyal, if not always meek, and the defensive measures, primarily the gradual construction of a canal/water barrier across Hebei (what I have elsewhere called the Great Ditch) meant his northern border was less vulnerable than it had been.⁶

Taizong was succeeded by his son, posthumously known as Song Zhenzong, in 997. Zhenzong had none of his father's political problems, though he did inherit his military ones. But where Taizong had presided over the difficult transition from expansion to defense, Zhenzong had only to treat the conflict with the Liao in defensive terms. After his father's experiences, Zhenzong did not imagine that he could capture the Sixteen Prefectures from the Liao. His goals were to retain the southern tip of the Sixteen Prefectures captured during the Zhou and reach a stable peace with the Liao. One of his earliest policy changes was to openly endorse the completion of the Great Ditch.

Zhenzong's support for the Great Ditch was a profound shift in Song military policy. It was the final step in the course of the creation of the Song empire, both intellectually and, ultimately, physically. The Song court had been in being for almost four decades, and now saw itself as a stable empire. While some imagined the Liao were an existential threat to the dynasty, others, correctly, understood the Liao as a limited threat. Here was the shift back to limited war from the total war of the Song conquest. The Great Ditch was extremely effective at blunting the usual steppe cavalry army practice of raiding to use military means to accomplish political goals. The Liao court also wanted peace, but it still hoped to obtain the southern tip of the Sixteen Prefectures.

6 Peter Lorge, "The Great Ditch of China and the Song-Liao Border," in Don J. Wyatt (ed.), *Battlefronts Real and Imagined: War, Border, and Identity in the Chinese Middle Period* (New York, Palgrave Macmillan, 2008), pp. 59–74.

As the Great Ditch neared completion, the Liao became increasingly desperate in their incursions. It was clear to the Liao leadership that not only would the completed Great Ditch block their one means to influence the Song court, but it would also allow the Song army to project force north. Massive Liao invasions of over 100,000 cavalry culminated in an emperor-to-emperor showdown in 1004. An overextended Liao army deep in Hebei led by the Liao emperor and his mother confronted a frightened Song force led by Zhenzong. Both sides blinked, and a direct clash was averted by negotiations that affirmed the status quo and established peace between the two empires. The Liao came out slightly ahead, receiving annual payments from the Song court. The agreement, the Chanyuan Covenant (or Treaty of Shanyuan) of 1005, marked the official end of Song expansion. Zhenzong's military problems were solved.

The eleventh century

The Chanyuan Covenant both concluded the campaigns that built the Song dynasty and laid the foundation for over a century of peace with the Khitan Liao dynasty. In the immediate aftermath of the agreement the Song military began to decline in quality and effectiveness, though not paper numbers, and the Great Ditch was allowed to deteriorate. The Liao military also declined, though this was not apparent to the Song court. For political reasons, the Covenant, which had been a relief to Zhenzong, quickly came to be regarded as a disgraceful and humiliating treaty. Despite these misgivings, the Song court was uninterested in further military adventures and reluctant to overturn the status quo. The Liao court was similarly inclined to support the status quo, recognizing more clearly than the Song the agreement's advantages.⁷

While the Song and Liao courts were prepared to maintain the status quo, the Tanguts to the west of the Liao and northwest of the Song were not. The Tanguts had briefly troubled the Song border in the late tenth century before the death of a particularly aggressive leader quieted them. This condition obtained until the late 1030s when another bellicose leader rose to power. His goal was to raise the Tangut state to the level of the Liao and Song states, and to be recognized by them as such. This was a quixotic goal given the military means at his disposal, and he vastly underestimated the Song military and completely mistook the Liao court's perspective on interstate relations.

7 Lorge, *War, Politics and Society*, pp. 39–51.

As was usual for a steppe cavalry-based army, the Tanguts repeatedly raided into Song territory to pressure the Song government. The Song army, which had experienced three decades of peace, was ill-prepared to respond and suffered repeated defeats. Yet Tangut incursions were an annoyance, not an existential threat. What the Song court feared, and what the Tanguts tried and failed to create, was a joint Tangut–Liao invasion. The Liao court, however, was neither prepared nor interested in such a military adventure. It was quite ready, on the other hand, to take advantage of Song fears to extract greater annual payments. Once this was accomplished, the Liao were ready to leave the Tanguts to the Song army, which by 1041 was beginning to deal with the incursions quite effectively.

The Song court, for its part, had expected the Liao to actually rein in the Tanguts. The Liao court imagined that it could control the Tanguts as well, and when the Tanguts rejected Liao instructions, the Liao tried to convince the Song to break off their negotiations with the Tanguts. Growing Song military power, and the meager results of years of raiding, led to a Song–Tangut accord whereby Tangut imperial pretensions were not accepted but the Tanguts received some annual payments from the Song. The Liao emperor then attacked the Tanguts to punish them for rejecting his authority and suffered a serious defeat. Thus, the conclusion of the Song–Tangut War demonstrated the limitations of the Tanguts, the diminished power of the Liao, and the resilience of the Song army.

In addition to rebuilding Song military strength by reorganization, the Song court ordered the compilation of a military encyclopedia. This book, *The Comprehensive Essentials from the Military Classics*, was issued in 1044. While *The Comprehensive Essentials* provides an interesting window into the Song military, it is particularly important for containing the first published formula for gunpowder in history. Gunpowder had existed in China for perhaps two centuries by that time, and under the Song government there was a dedicated arsenal to produce gunpowder and gunpowder weapons. These early gunpowder weapons did not play a significant role in eleventh-century warfare, but the techniques for their manufacture were a state secret (*The Comprehensive Essentials* was produced for government use).

There were a great variety of weapons using gunpowder, though in the eleventh century none yet used it as a propellant. Smoke and incendiary grenades and bombs could be thrown or launched by poliorcetic devices. Without sufficiently thick casings, however, these weapons initially had very little concussive or shrapnel value. There were also varieties of arrows enhanced with gunpowder and provided with a fuse for incendiary attack.

It is possible that the fire tube or fire spear existed in the eleventh century, but we have no direct evidence between one image from the mid tenth century, and a direct description in the twelfth century. Certainly, early-stage gunpowder weapons existed in the eleventh century; a more systematic and widespread exploitation of the properties of gunpowder would wait until the twelfth century.

The Tangut war also had a profound political effect on the Song government, which would ramify throughout the historiography of the tenth century. As a result of the invasions, the emperor briefly allowed a reformist group of officials to take control of the government. The reforms they instituted, the Qingli (for the reign period in which they occurred) or Minor Reforms, were soon overturned, but the principle remained: the Song was militarily weak and the government fundamentally failing, and it could only recover by giving a united group of officials unrestrained executive power. The Song founding was retrospectively rendered into a partial military failure, explained by the necessary trade-off between political stability and military power. The Minor Reforms also provided a political blueprint for anyone seeking untrammelled power: the need to strengthen the military caused either by a direct crisis or the promise of future conquest was the only way to win over an emperor.

It was the promise of a reinvigorated military that allowed Wang Anshi (1021–86) to gain full control over the Song government from Song emperor Shenzong. Wang continued to promise a campaign to defeat the Tanguts as a prelude to capturing the Sixteen Prefectures just as soon as he had reformed the government, raised revenues, and transformed the army. But he never did more than allow a small venture in the northwest in 1070 and another against Vietnam in 1076–7. When Wang was out of office, however, the emperor got his campaign against the Tanguts. A five-pronged invasion of several hundred thousand men attacked Tangut territory in 1081, winning a number of early victories. The total destruction of the Tanguts was prevented by logistical problems that should have been foreseen. In 1082, poor Song generalship and desperate Tangut fighting reversed the previous year's successes. Although the Tanguts had suffered tremendously, the Song lost a reported (and politically inflated) 600,000 men.

The 1080s were also momentous in Chinese military thought. As part of Shenzong's interest in improving Song military performance, a new manual of military thought was ordered and produced for use in the military exams. The military exams and military academies had emerged briefly in the 1040s and failed soon thereafter. They were revived again under Shenzong with

a more intellectual focus. Accordingly, the exams required a defined set of knowledge. He Qufei – a scholar known for his learning in military texts, and author of his own work – selected, edited, and arranged this textbook, *The Seven Military Classics* (*Wujing qishu*). Not surprisingly, given the limited-war context in which he wrote (even Shenzong's grandest goal was only to capture the Sixteen Prefectures, not destroy the Liao), and the Song's recent military history, *The Seven Military Classics* advocated for limited war.

The fall of north China and rise of the Jin dynasty

The Song onslaught against the Tanguts had eliminated them as a threat, but it had cost the Song army all of the investments in men and material of the preceding decade. Moreover, the course of the campaigns themselves and their less than clear-cut battlefield victories soured the Song court on further military adventures. Shenzong's attempt to revitalize the Song through military glory had failed, and his dream of capturing the Sixteen Prefectures with it. Unfortunately, the Song military itself was not rebuilt following the Tangut war, even though some further skirmishing continued in the late eleventh century. The Song dynasty thus began the twelfth century with a diminished military, a still powerful resentment of the Liao, and a lack of confidence in the Song army as an instrument of policy.⁸

When the Jurchen, a subject people under the Liao, arose to challenge their overlords, the Song court was eager to cooperate with them. Despite a century of peace, the Song made a military alliance with the Jurchen, who would establish their own dynasty, the Jin, in 1115, to destroy the Liao. The Song was to attack and capture the Sixteen Prefectures while the Jurchen destroyed the rest of the Liao. Once the Liao dynasty was destroyed, the Song would retain the Sixteen Prefectures. Coordinated campaigns began in 1122 with the Jurchen attacking the Liao central capital and the Song attacking Yanjing, the Liao southern capital. The Jurchen quickly succeeded in capturing both the Liao central and western capitals. A remnant of the Liao court took refuge at Yanjing and demanded that the Song honor its commitments to provide its annual payment. This was refused, of course, as a Song army 150,000 men strong began its attack on Yanjing in June of 1122.

Both prongs of the Song invasion were rapidly defeated, and the Song army withdrew. A second attempt in August induced two Liao officials to surrender with their prefectures. By November the advance guard of a Song

8 Lorge, *War, Politics and Society*, pp. 51–67.

army of 200,000 men succeeded in capturing the outer city of Yanjing, and promptly massacred the Khitan inhabitants. The inner city held out, however, and the advance force had to fall back. It was ambushed by a Liao relief army, and the main Song army fled back to Song territory. The defeated commander called upon the Jurchen for assistance and, in January 1123, a Jurchen army captured the city. In order to get the Jurchen to hand over the city the Song had to agree to increased annual payments. This was promptly agreed, but the city the Jurchen handed over had been looted and emptied of inhabitants. In spite of all of this, the Song court had achieved a long-term goal in obtaining the Sixteen Prefectures.

Relations with the Jurchen quickly broke down, however, and they commenced raiding into Song territory to put political pressure on the Song court. In 1126, Jurchen forces overran the Sixteen Prefectures and drove south up to the walls of Kaifeng. They were bought off but returned the next year. It was then that the decades of neglect wrought disaster. Kaifeng, with its 27 miles of walls, had only 100,000 troops on hand to defend it. A new Song emperor, installed the year before when his father abdicated, was badly advised and made what would prove to be catastrophic decisions. The emperor concluded that he would negotiate with the Jurchen over their larger demands and therefore rescinded an earlier order summoning all forces to defend the capital. Unfortunately for him, the Jurchen chose to continue fighting and managed to break into the city. The emperor, the retired emperor, and most of the imperial family were captured in 1127.

Having looted Kaifeng, probably the wealthiest city in the world at that time, the Jurchen leadership scrambled to further exploit their success. Most of Song territory was still outside of their control, and the only way to prevent a Song counterattack was to destroy the Song government. Functionally, the only way to accomplish that was to eliminate or capture every member of the imperial family. Despite great efforts, however, an imperial prince did escape to the south, and after many tribulations and difficulties reestablished the Song government.

The Jurchen failed to defeat the Song because they could not defeat the Song navy. It was naval power on the Huai and Yangzi rivers that preserved the Song dynasty, and indeed would continue to do so against the Jurchen and even for fifty years against the Mongols. Yet there was a corresponding weakness on the Song side. The Song army was no longer able to fight effectively in north China. It had ceased to be a true hybrid force able to campaign across all of China's different environments.

Song naval strength was not mirrored by the army. The earlier system of military recruitment and supervision entirely collapsed with the fall of the north and was never reconstituted. Whereas during the first half of the Song there was a graduated system of recruitment running from local, to provincial, to imperial forces, where the best soldiers gradually moved up to and the less good ones moved down from the imperial army through periodic performance reviews, in the second half of the Song most military recruitment was ad hoc. The regional armies that saved the dynasty from destruction were institutionalized outside of the now moribund original system. These evolved into separate commands along the northern border. Ideally, the distribution of separate commands protected the central government from any one general getting too much power. By the end of the dynasty, however, military and political exigencies allowed a single general, Lü Wende, to control several commands through his family and personal connections. At the same time, the government was repeatedly forced to draft local self-defense forces into the regular military, effectively destroying those forces and undermining local security.

Military recruitment during the Song as a whole was always problematic. Professional soldiers – that is, men who were paid to be soldiers and had no other occupation to return to – had been the rule in Chinese warfare since the mid to late Tang dynasty at the latest. Chinese civil officials did not entirely accept this, and both for intellectual and financial reasons continually sought to replace the professional military with the Warring States Period system of farmer-soldiers, or (a model nearer to them in time) the Tang model of the *fubing*. These efforts failed in the face of military need, but the life of a Song soldier was seldom pleasant. It appears that the immense losses of the 1080s campaign against the Tanguts were never fully made up, and one of the main reasons why the Jurchen were able to capture Kaifeng and seize north China from the Song was a simple lack of Song troops. Why there were so few troops, about 100,000 to guard a city with dozens of miles of walls, is unclear.

One effect of the capture of Kaifeng and the incessant warfare on rivers and against cities was the beginning of intense experimentation with gunpowder weapons. It remains an important lacuna in the research on guns, but it appears that the precursors to the true gun and possibly even the true gun itself developed in the twelfth and early thirteenth centuries. Increasingly powerful grenades and bombs preceded these precursors, fire tubes (packed with gunpowder to spray flames), fire spears (with gunpowder tubes near the head), and rockets, but had been unable to save Kaifeng. Gunpowder technology had dispersed throughout China and was not a monopoly of the Song.

Guns were developed for naval and siege warfare, to burn flammable materials and kill personnel. By the later part of the thirteenth century handguns would be mass produced in the thousands, along with even greater numbers of iron-casing grenades and fire arrows. Warfare had changed, but not to the extent of significantly altering the pre-existing strategic problems.

The rise of the Mongols

Just as the Jurchen had risen in the steppes under the Liao, the Mongols rose in the steppes to the north of the Jurchen. One of the most remarkable leaders in history, Chinggis khan (1162–1227) forged the disparate groups in the steppes into a politically unified force that would create the greatest land empire the world has ever seen. The Song court, now based in its remaining territory south of the Huai river, once again established contact with a group rebelling against its enemy. The parallels with the Jurchen were obvious, and were raised in court debate, but ultimately ignored in favor of an alliance that might destroy a hated enemy.⁹

Long before the Song had serious dealings with the Mongols, Chinggis picked off the smaller states surrounding the Jin. Once this was accomplished, by about 1210, the Mongols began to raid Jin territory. A series of deep Mongol raids in 1211 demonstrated surprising weakness in the Jin state and army, but also some of the limits of the Mongols, particularly in siegecraft. Mongol raiding was steppe warfare at its most violent. Lands and people were intentionally devastated not just to supply the army and provide loot, but also to weaken the enemy for future attacks. The Mongols only fought when they were certain of victory, avoiding forces they could not defeat. Even many high-ranking Jurchen seemed unwilling to fight for the Jin state.

By 1214 the Jin emperor paid off Chinggis with gold, silk, and horses and acknowledged him as his overlord. Chinggis would have been content to leave matters there, but the Jin emperor shifted his capital to Kaifeng, in order to gain distance from his new overlord. This was unacceptable, and the Mongols soon surrounded Kaifeng, blockading it because they could not surmount the walls. The city surrendered in 1215. Having made his point, Chinggis turned to other matters, leaving the Jin state intact. North China now became a complex battlefield as the Mongols, Jin, and Song sought to gain or maintain control over territory, with chaos and banditry laying waste to the economy and society all the while.

9 Lorge, *War, Politics and Society*, pp. 67–90.

The Jin empire outlived Chinggis, who became ill and died while destroying the Tanguts in 1227. Indeed, it had been his need to crush the Tanguts that had distracted him from dealing with the Jin. Chinggis's third son, Ögödei, succeeded him as khaghan (khan of khans) in 1229. The new khaghan attacked and surrounded Kaifeng in 1231, and, while he returned to Mongolia in 1232, the siege continued until 1233 when the city surrendered soon after the Jin emperor fled its environs. The Mongols had, up until this point, been acting under an agreement with the Song for joint military operations against the Jin. Just as with the Liao, it was the Song court who breached an agreement and initiated a war. An ill-advised Song expedition to Luoyang in 1234 was in contravention of the agreement and, worse still, was utterly destroyed by the Mongols.

This began a half-century of Song–Mongol warfare that only ended when the Mongols finally developed a powerful navy and subverted a critical part of the Song army in the 1270s. Song territory was defended for decades by its powerful navy, supported by fortified cities on the Huai river. While the Mongols were subjugating vast swathes of Eurasia, the Song navy blocked their attempts to conquer southern China. It would take the Mongols until the 1270s to fully appreciate the need for a navy that, coupled with their newly acquired siege capabilities, made it possible, though still difficult, to conquer the Song. The sieges and naval battles were massive and were waged with every manner of gunpowder weapon. Thousands of ships took part in massed naval battles on the rivers. In the end, the final remnant of Song rule, a child emperor, was destroyed in 1279 in a massive naval battle at Yaishan, in the South China Sea off the coast of Guangdong.

The founding of the Ming dynasty

Chinggis's great empire began to break apart into separate Mongol empires soon after his death. The world conqueror's supreme accomplishment, it seems, was to unify the Mongols long enough to subjugate much of Eurasia. His sons, grandsons, and relatives fought bloody battles amongst themselves for his patrimony. In China, the Mongol government created a Chinese identity, the Yuan dynasty, through which to rule the Chinese population. Under Qubilai khan (1215–94) the Yuan finally conquered the Song and enjoyed many years of steady leadership. The Yuan dynasty became much more unstable under succeeding emperors. Internecine strife badly weakened the Mongol rulers, and the Yuan government's loose controls over local Chinese society and limited engagement with the Chinese elite left it

with little grassroots support. Even so, the dynasty continued to function until the middle of the fourteenth century.¹⁰

Worsening problems in the 1350s were nearly overcome by the imperial chancellor Toqto'a. Both flooding and rebellions threatened to overwhelm the government. Toqto'a decisively dealt with the flooding and led military efforts to suppress the rebellions. But just as Toqto'a was on the verge of destroying one of the main rebel groups in 1355, the emperor sacked him. The Yuan dynasty never really regained the initiative against the many rebellions plaguing it, and effectively collapsed in the following decade. Rebels and warlords, some with a strong religious foundation, began to struggle for power in the deteriorating empire.

In some ways, the transition from the Yuan to the Ming dynasty (1368–1644) resembled the collapse of the Tang dynasty. Centrifugal forces broke the empire apart along pre-existing regional lines. But unlike the transition from the Tang to the Song, there was no lengthy interregnum of contending states. The rise of the Ming state was notable for two unique aspects: first, the roots of the Ming polity were in a Manichean Buddhist religious movement and, secondly, it conquered the Chinese ecumene from south to north, rather than north to south. The Ming founder, Zhu Yuanzhang (1328–98), expanded his control of China from his base on the middle reaches of the Yangzi river. He first defeated his upriver rival, and then his downriver rival. Also, unlike any previous dynasty, the Ming began as a naval power.

Just as the siege and naval warfare of the twelfth and thirteenth centuries had been driven by a gun- and gunpowder-based warfare, so too did the siege and naval warfare on the Yangzi river rely upon masses of guns and cannon. By the late thirteenth century handguns had moved from ships and city walls and out into the field. This trend accelerated in the fourteenth century as the immense productive capacity of China's workshops enabled vast armies to be armed with handguns and cannon. Vast fortifications encircled cities with cannon-proof walls of pounded earth dozens of feet thick. Armies of over 100,000 men, and navies of hundreds of ships were not uncommon. These were all coordinated, supplied, and directed by highly sophisticated bureaucracies staffed by literate and numerate officials.

The remains of the Yuan dynasty were pushed back into the steppes as the Ming army advanced into north China. Although some Mongol armies remained potent, their lack of coordination and frequent infighting left

10 Edward Dreyer, *Early Ming China* (Stanford, Stanford University Press, 1982). Lorge *War, Politics and Society*, pp. 91–118.

them unable to resist the Ming. Ming armies then pursued the Mongols as far into the steppes as they could in an attempt to completely and permanently destroy Mongol power. In this last task the Ming army failed, becoming overextended and vulnerable as so many Chinese armies before them had when reaching into the steppes. After some severe defeats the Ming army withdrew to forward bases on the Chinese frontier. The purpose of these fortified forward bases was to project power into the steppe as needed, and thereby to engage and disrupt, if possible, any coherent steppe military threats.

The Ming army developed directly out of the armies of conquest. Zhu Yuanzhang's vision for Ming society was one of static peace. Everyone would be fixed in their place, including the military, and registered in their occupation. Military families were settled on military lands, where they would maintain themselves through farming and provide soldiers as needed. The army itself followed the Yuan pattern, which also served to organize the military households. Guards (*wei*) of 5,600 hereditary soldiers were named after their garrison location. Five battalions (*qianhusuo*) of 1,120 men were divided into ten companies (*bohusuo*) of 112 men.¹¹ The paper strength of the Ming military in 1392 was 1,198,442 men. Ming troops rotated through the capital training commands in order to improve and maintain their skills, particularly with firearms.

After Ming reverses in the steppes in 1372, Ming strategy became defensive. Zhu Yuanzhang remained on the throne until he died in 1398, providing the dynasty with an important degree of political stability. When the first emperor died, however, his dynasty headed very quickly into civil war. Zhu Yuanzhang had enfeoffed his sons in important military commands along the northern border. This placed these imperial princes in service to the dynasty, but also gave them important military experience. When the heir apparent, Zhu's eldest son, died in 1392, the heir apparent's son succeeded to his father's position, thus bypassing a generation of armed, ambitious imperial princes. The most ambitious of these, Zhu Di, the prince of Yan, enfeoffed at what is now modern Beijing, officially went into rebellion in 1399 when he refused to be arrested on charges of treason.

The civil war seemed to go against Zhu Di, who had few successes until January of 1402. Zhu Di was fortunate that the Ming court had not prepared itself adequately for his rebellion, but he was still forced on the defensive by

11 Romeyn Taylor, "The Yüan Origins of the Wei-so System," in Charles Hucker (ed.), *Chinese Government in Ming Times: Seven Studies* (New York, Columbia University Press, 2001), pp. 23–40.

the court's immense advantage in men and materials. At the beginning, he did well to beat back a series of attacks on his position at Beiping (modern Beijing). Zhu Di's main advantage was in cavalry, mostly Mongols, which he used to outmaneuver his opponents. Nevertheless, he still failed to take and hold territory after defeating Ming armies, and even lost several times in major battles, taking heavy casualties he could not easily replace. It was not until 1402 that the war turned in his favor, and a desperate drive south shifted the political calculus under the feet of the Ming court. When Zhu Di's forces crossed the Yangzi river, loyalty to the emperor collapsed. The prince of Yan finally captured the Ming capital at Nanjing on July 13, 1402; his nephew the emperor was killed in a fire that broke out in the imperial palace. The Ming dynasty itself continued in power under Zhu Di's heirs until 1644.

Conclusion

The specific tools of warfare changed considerably between 900 and 1400 in China, while the general requirements of politics, organization, and geography remained the same. A polity needed a well-organized, loyal political structure that could support and direct a military machine able to operate in a wide variety of environments if it was to succeed in creating a unified authority over the Chinese ecumene. This military had to fight successfully on the plains of north China, on the rivers, and in the hilly, confined and marshy terrain of south China. Not only did one need to defeat armies in the field, but also to capture cities with massive walls. Vast armies of hundreds of thousands of men had to be supplied and commanded across thousands of miles. Unlike in Europe, this was done with some success on several occasions.

Still, the handgun- and cannon-armed forces of the thirteenth and fourteenth centuries were quite unlike the armies of the tenth century. Much of the technology was incipient in the tenth century and continued to be so into the eleventh century as well. But in the twelfth century the Chinese, in conflict with the Jurchen Jin, began a period of technological discovery that would change the entire world. These developments would continue and mature into the thirteenth century, when a new form of weapon, the true gun, would move from the city wall or ship deck to the battlefield in large numbers. It is even possible that this came about in some limited way in the twelfth century. Chemically powered projectiles became vital and regular parts of warfare and, while not always decisive, provided the side armed with them a great advantage over a side without.

From the larger perspective of the effects of the Chinese invention of the true gun and indeed early modern warfare in the period between 900 and 1400, it is clear that this was one of the most important periods in the history of the world, not just Chinese military history. The true gun changed not just the military sphere in other cultures when it spread from China, but many societies and governments as well. It was in the succeeding centuries, when China's military advances reached the rest of the world, that China laid at least one of the foundation stones of the modern world.

PART III

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NATIONS AND FORMATIONS,

C. 1300–1500 CE

Western Europe, 1300–1500

ANNE CURRY

Introduction

In popular perceptions, the later Middle Ages loom large as the apogee of medieval chivalry, epitomised by the foundation of chivalric orders, such as the Order of the Garter, by instructional texts such as the *Livre de Chevalerie* of Geoffroi de Charny, and by the chronicles of Jean Froissart (c.1337–c.1405), written

in order that honourable enterprises, noble adventures and deeds of arms which took place during the wars waged by France and England should be fittingly related and preserved for posterity, so that brave men should be inspired thereby to follow such examples.¹

In the next century Enguerran de Monstrelet (1400–53) emphasised a similar aim

to give everyone his due share of honour . . . for to do otherwise would be to detract from the honour and prowess which valiant and prudent men have acquired at the risk of their lives.²

Yet the period has also been interpreted as witnessing the end of chivalry. The dominance of the chivalric classes – nobles, knights, and gentry serving for personal honour and out of obligation to their lord or king – was eroded by the rise in numbers and military significance of the rank and file as well as by expectation of pay by all troops, serving within what were undoubtedly state-controlled, and increasingly professional, armies. What better demonstration than the fact that massed infantry determined the outcome of all

1 As translated in *Froissart, Chronicles*, ed. Geoffrey Brereton (London, Penguin, 1968), p. 37.

2 *The Chronicles of Enguerran de Monstrelet*, trans. Thomas Johnes, 2 vols. (London, Henry G. Bohn, 1853), vol. 1, p. 2.

major battles: the Flemish urban militiamen who defeated the flower of French chivalry at Courtrai in 1302; the Scottish spearman who crushed the English at Bannockburn in 1314; the English archers who overcame the might of French chivalry at Crécy (1346), Poitiers (1356), Agincourt (1415), and Verneuil (1424); the Swiss pikemen who triumphed against the Burgundians at Granson (1476), Murten (1476), and Nancy (1477).

In such a scenario it is hardly surprising that historians, most notably the American Clifford Rogers, should argue for 'an infantry revolution' which began with a sudden jolt in the late thirteenth century and which continued to evolve over the next two centuries.³ Rogers added a second phase of change – an artillery revolution – building slowly from the mid fourteenth century but with an increasingly telling impact from the middle of the fifteenth century onwards. In this interpretation, guns thenceforward out-paced fortifications, prompting a radical rethinking of the way defences were constructed: rounded medieval towers and curtain walls were abandoned in favour of the angular *trace italienne*. The rise of gunpowder artillery has been deemed to sound the final death knell of chivalry: as John Hale put it pithily, 'the indiscriminate death dealt by shot and ball ruined war as a finishing school for knightly character'.⁴

Both revolutions were strongly linked to the development of the fiscal (or taxation) state.⁵ War was undoubtedly the major cost facing any ruler. The intensity of warfare in the period, emerging from national and local rivalries, impacted on, and therefore concerned, the whole population. Professional paid armies, whose soldiers were recruited from a wider social spectrum than in the past, evolved as the agents of the state. Financial and military developments together prompted the need for more extensive bureaucracy to record and audit military expenditure, especially where accountability to taxpayers was needed: as a result the late medieval historian has a vast array of administrative records at their disposal which enable the

3 Clifford Rogers, 'The Military Revolutions of the Hundred Years War', *Journal of Military History* 57 (1993), 258–75, republished in Clifford Rogers (ed.), *The Military Revolution Debate: Readings on the Military Transformation of Early Modern Europe* (Boulder, Westview Press, 1995).

4 John Hale, 'Fifteenth and Sixteenth Century Public Opinion and War', *Past and Present* 22 (1962), 23, cited in Malcolm Vale, *War and Chivalry: Warfare and Aristocratic Culture in England, France and Burgundy at the End of the Middle Ages* (Athens, The University of Georgia Press, 1981), p. 129.

5 For useful contextual studies see *The Rise of the Fiscal State in Europe 1200–1800*, ed. Richard Bonney (Oxford, Clarendon Press, 1995); and *War and Competition between States*, ed. Philippe Contamine (Oxford, Clarendon Press, 2000), both products of projects of the European Science Foundation.

reconstruction and analysis of war, removing, in contrast with earlier centuries, the dependence on chronicle sources, even if such narratives remain key to understanding actual military engagements as well as the mindset of society at war.

This chapter begins with a brief overview of the wars of the period before going on to consider the ways in which they were fought, the armies which were developed to fight them and the military culture which underpinned them. A central theme throughout is the Hundred Years War – the intensive, insoluble, and wide-ranging Anglo-French conflict which reinforced and extended the military potential not only of its main protagonists but also of the international and internal players affected by it.⁶ The Anglo-French conflict and its aftermath contributed to higher levels of militarisation across Western Europe, creating a truly international dimension to war through cross-cultural influences and emulations. Civilian involvement was on a scale hitherto unprecedented, whether as victims or as facilitators and supporters.

War and politics in late medieval Europe

The later Middle Ages were undoubtedly a period of intense contestation within Western Europe on a scale not seen in preceding centuries. Increased aggressiveness was the result of, as well as contributing to, enhanced conceptions of royal power: the waging of war was an integral part of rulership. A notable feature was the emergence of England as a serious military player in Europe for the first time. Expansionism began within the British Isles under Edward I (r.1272–1307) through the exploitation of royal feudal rights, with almost complete success against the Welsh but an inconclusive outcome against the Scots; as a result, open war between England and Scotland was a frequent occurrence and a militarised border zone a permanent feature. It was the claim of Edward III (r.1327–77) to the French crown, however, which transformed the nature and impact of English military involvement in Europe from the 1330s onwards. Initially the English met with considerable success: winning battles at sea and on land in 1340 (Sluys) and 1346 (Crécy); taking Calais in 1347 after a twelve-month siege; capturing the French king in

6 For an excellent narrative see Jonathan Sumption's multi-volume *The Hundred Years War* (London, Faber and Faber, 1990 onwards). Anne Curry, *The Hundred Years War*, 2nd edn (Basingstoke, Palgrave Macmillan, 2003), ch. 4, reviews the international context in more detail. Christopher Allmand, *The Hundred Years War* (Cambridge, Cambridge University Press, 1988) provides a comprehensive and well-rounded discussion of many facets of the war.

the battle of Poitiers and forcing a diplomatic settlement at Brétigny in 1360 which hugely extended English sovereign territory in France, overturning the pre-1337 requirement for homage to the French king. Even when Charles V (r.1364–80) reneged upon the settlement in 1369, the English managed to hold on to Gascony, Calais, and its march. The high reputation of English soldiers was ubiquitous: for the Italian Petrarch the English had been transformed from “the most timid of the uncouth races” into the supreme warriors of Europe.⁷ In the fifteenth-century wars, which began with Henry V’s (r.1413–22) capture of Harfleur and victory at Agincourt in 1415, the English gained not only a diplomatic settlement in 1420 recognising them as heirs to the French throne but also control of extensive areas of northern France to add to their hereditary lands in the south-west. Not until 1449–53 did the French manage to eject them, except from Calais.

Right from the start, the Anglo-French war involved more than simply its principal protagonists. A French alliance with the Scots, originating in 1295, proved a thorn in the English side but was matched by English alliances with Flanders, a fief within the purview of the king of France and England’s main trading partner. In 1297 Edward I led an army of 8,700 to support the Flemish, the first time since the early thirteenth century that an English king had attacked France directly as opposed to defending his own lands in Gascony. It was at Ghent in Flanders on 26 January 1340 that Edward III made public his claim to the throne of France through his mother. Taking advantage of the rebellion of the cities of Ghent, Bruges, and Ypres against their count, he not only gained recognition as French king by French subjects but also access to Flemish military resources. Already for his first campaign in September 1339 Edward had bought support from other Low Country rulers: the army with which he invaded and devastated the Cambrésis in north-east France contained 6,200 troops provided at a cost of over £200,000 by the counts of Hainault and Guelders, the marquis of Juliers, the duke of Brabant, and Emperor Ludwig IV (r.1328–47).⁸ The choice of theatre was dictated by the appointment of Edward as imperial vicar general, the area around Cambrai

7 Francesco Petrarca, *Le familiari*, ed. Vittorio Rossi, 4 vols. (Florence, Le lettere, 1933–42), vol. 4, p. 38, as put by Jonathan Sumption, *Trial by Fire: The Hundred Years War II* (London, Faber and Faber, 1999), p. 2.

8 As calculated by Clifford Rogers, *The Wars of Edward III: Sources and Interpretations* (Woodbridge, Boydell, 1999), p. 62. For further detail see Henry Lucas, *The Low Countries and the Hundred Years War* (Ann Arbor, University of Michigan, 1929); and Clifford Rogers, *War Cruel and Sharp: English Strategy under Edward III* (Woodbridge, Boydell, 2000), chs. 6–9.

being the only part of France within the empire, a reminder of how carefully aggression had to be justified even at the level of strategic choice.

Edward sought to exploit existing rivalries and conflicts between France and its near neighbours and between the French king and his subjects. This policy persisted throughout the Hundred Years War and beyond, making England's war both a French civil war and a pan-European conflict. In 1383, with Flanders now inherited by a collateral line of the French crown, the English sent armed support to rebels in Ghent under the banner of a crusade, given that a papal schism from 1376 had England and France supporting rival popes. The duchy of Brittany emerged as a theatre from the early 1340s when the English and French supported rival claimants to the ducal title. Even when this dispute was settled the English remained keen to exploit military advantage, leasing and garrisoning Brest from 1378 to 1397 as a toehold in France and a strategic location protecting fleets between England and Gascony.⁹ By 1449, however, the Breton duke was firmly in the French camp and his troops played a significant role in Charles VII's campaign to boot the English out of Normandy.

The civil war of the early fifteenth century between the Armagnac and Burgundian factions of the French royal family for control of the mentally unstable Charles VI (r.1380–1422) was particularly propitious for the English. Henry V hoped for a Burgundian alliance to facilitate his invasion of France but only achieved it when John the Fearless, duke of Burgundy, was assassinated on the bridge at Montereau on 10 September 1419 by the supporters of the then leader of the Armagnac party, the Dauphin Charles. Anglo-Burgundian cooperation was a key feature of English success in France thereafter, contributing substantially to the recognition of Henry as heir to the French throne at the treaty of Troyes in May 1420. Military cooperation between the English and Burgundians relied on each party holding and garrisoning territory in mutual support, with joint action for specific targets.¹⁰ Notably, it was an Anglo-Burgundian composite force which captured Joan of Arc outside Compiègne in May 1430. Such cooperation continued to the eve of Duke Philip ending his alliance with the English in September 1435.

9 Michael Jones, *Ducal Brittany 1364–1399: Relations with England and France during the Reign of Duke John IV* (Oxford, Oxford University Press, 1970), ch. 6. Cherbourg was similarly leased from the king of Navarre, whose Norman interests had already been exploited against the French king in the 1350s.

10 Aleksandr Lobanov, 'Anglo Burgundian Military Cooperation 1420–1435', unpublished PhD diss. (University of Southampton, 2015); and, 'The Indenture of Philip the Good, Duke of Burgundy, of 12 February 1430 and the Lancastrian Kingdom of France', *English Historical Review* 130 (2015), 302–17.



MAP 10. The expansion of Burgundy

The Burgundians occupy a special place in late medieval European warfare through their militarisation, expansionism, and their competition with royal France. By the 1440s the dukes had amassed by inheritance and conquest a vast enclave in the Low Countries as well as in eastern France (the duchy and county known as the ‘Two Burgundies’) and had a high degree of independence from France as well as ambition for more land and power.¹¹ It was through their support that the Yorkist king Edward IV (r.1461–70, 1471–83) was able to recover his crown from the Lancastrians in 1471: it had been the French king Louis XI who had restored Henry VI in 1470, with his successor Charles VIII supporting the invasion of Henry Tudor (VII) in 1485. The Wars of the Roses were therefore an international as well as civil war.

The Valois Burgundian state came to an end when Duke Charles the Bold was killed at the battle of Nancy (1477), fighting against the duke of Lorraine and the Swiss. The exceptionally militaristic Charles had heightened his predecessors’ expansionist policy, first against the French and later towards Guelders, Alsace, Lorraine, and Savoy, but with mixed success, largely because of the effectiveness of the Swiss, newly emerging on the Western European war front. Despite Louis XI’s success in seizing much Burgundian territory after the death of Charles, the remainder of the inheritance passed through the late duke’s daughter Mary (d.1482) to a Hapsburg, Maximilian of Austria (1459–1519). Therein lay the beginnings of early modern military struggles between the French and the Hapsburg empire, boosted by the latter’s acquisition of Castile through the marriage of another heiress, Juana, to Mary and Maximilian’s son Philip (1478–1506). In 1492 Charles VIII ceded the county of Burgundy (the Franche-Comté) to Philip. English tenure of Calais, the final foothold in France, was finally ended by French attack in 1558.

The decline of the military power of the English state after 1453 (although not of its soldiers who were still eagerly sought as mercenaries) and the domestic upheavals which ensued, combined with the curtailing of Burgundian expansionism two decades later, boosted French military and political ascendancy at home and abroad. By the end of the century French ambitions focused on Italy, an area of many contending powers, with invasions in 1494–5 and 1499–1504.¹²

11 See, in general, Elodie Lecuppre-Desjardin, *Le Royaume inachevé des ducs de Bourgogne (xive–xve siècle)* (Paris, Belin, 2016); Robert Stein, *Magnanimous Duke and Rising States: The Unification of the Burgundian Netherlands 1380–1480* (Oxford, Oxford University Press, 2017); Richard Vaughan’s biographies of the four Valois dukes, Philip the Bold (1963), John the Fearless (1966), Philip the Good (1970), and Charles the Bold (1977) originally published by Longman in London and reissued by Boydell in Woodbridge in 2002.

12 David Potter, *Renaissance France at War: Armies, Culture and Society c.1480–1560* (Woodbridge, Boydell, 2008), pp. 27–9.

Such actions brought the French into rivalry with the Spanish who, after the marriage of Ferdinand of Aragon and Isabella of Castile in 1469, had pursued a newly aggressive position against Muslim Granada and in support of Aragonese interests in Italy.

The Hundred Years War had itself proved pan-European. Military actions prompted by the conflict occurred in Castile in the late 1360s where the English and French supported rival claimants to the throne, culminating in the Black Prince's battle at Nájera in 1367, and leading subsequently to English claims to the throne of Castile and Leon; in Portugal in the 1380s where English military assistance to the Aviz line, notably in the battle victory at Aljubarrota of 1385, prevented Castilian penetration; in Scotland in 1385 where the French sent a substantial force for a joint invasion of northern England intended to coincide with seaborne assaults on the south coast of England. In the fifteenth-century phase the Scots reciprocated by sending troops to assist the French in their struggle to recover ground against the English. Their roles in the Anglo-French debacle contributed to the preservation of the independence of both Scotland and Portugal. In the case of the latter, it also gave confidence for expansionism, as in João I's conquest of the Muslim enclave of Ceuta on the North African coast in 1415.¹³ In the same year the Swiss cantons annexed the Aargau, the hereditary lands of the Hapsburgs,¹⁴ building on defeats of the Austrians at the battles of Sempach (1386) and Näfels (1388). Such successes were signs of the military cohesion of the Swiss which was to have a major impact in late-fifteenth-century Europe both in the demise of the Burgundians and in the Italian forays of the French, the army of Charles VIII in 1494 being supported by 8,000 Swiss mercenaries. Swiss independence was ensured by victory in a series of battles in 1499 against the Hapsburgs and their allies. In 1512 the confederacy annexed the county of Neuchâtel as a protection against French invasion (a good example of 'defensive conquest'),¹⁵ and after victory at Novara in 1513 controlled Milan. But Swiss military ascendancy was dealt a blow at Marignano in 1515, which the young French king Francis I won with the support of the *landsknechts*, German mercenary companies established from the late 1480s in imitation of the Swiss. Ten years later at the battle of Pavia in 1525, it was the turn of the

13 João Monteiro et al., 'Another 1415: Portugal's Military Landscape at the Time of Agincourt', *Journal of Medieval History* 43 (2017), 118–35.

14 Christian Hesse, Regula Schmidt, and Roland Gerber (eds.), *Eroberung und Inbesitznahme. Die Eroberung des Aargaus 1415 im europäischen Vergleich* (Ostfildern, Jan Thorbecke Verlag, 2017).

15 Tom Scott, 'Summary and Perspectives', in Hesse, Schmidt, and Gerber (eds.), *Eroberung und Inbesitznahme*, p. 290 drawing on a phrase of Giorgio Chittolini.

French, whose army included Swiss mercenaries, to face defeat at Hapsburg and *lands knecht* hands.

Ways of war

There is a notable asymmetry in the Hundred Years War since virtually all of the action occurred in France. For the English, direct experience of war came through French raids on the south coast and Scottish raids in the north, actions which were intended as short, sharp shocks causing as much damage and disruption as possible within the shortest time and without risk of interception. The French had no ambition – and indeed no justification – for invasion, yet to win popular support for war taxation and military service, it suited the English crown to claim they did, with allegations even of their intention to destroy the English language.¹⁶ The threat of invasion preserved ancient military obligations of the local population to offer defence, formalised through county-based commissions of array, and encouraged the construction of coastal defences such as the fort at the mouth of the river Dart in Devon begun in 1388 and adapted in the next century for gunpowder artillery.

Cross-Channel conflict generated naval warfare on a hitherto unprecedented scale.¹⁷ Edward III sought battle at sea as much as he did on land,¹⁸ gaining an initial advantage at the battle of Sluys in June 1340 with the capture of 190 French ships. Notable was the intensity of small-scale actions at sea, encouraged by the high value of ships and cargoes, blurring the boundary between official action and semi-sanctioned piracy.¹⁹ Throughout the period, the style of fighting at sea remained highly conservative: although guns are seen on ships from the 1380s, there is little evidence of their use in battle till the early sixteenth century. A ship fastened itself to its target with grappling irons; archers, and especially crossbowmen, in specially constructed superstructures, showered the decks to cause disarray; then troops rushed on board for hand-to-hand fighting. Study of

16 Anne Curry et al., 'Languages in the Military Profession in Later Medieval England', in Richard Ingham (ed.), *The Anglo-Norman Language and its Contexts* (Woodbridge, York Medieval Press/Boydell, 2010), p. 75.

17 Craig Lambert, *Shipping the Medieval Military: English Maritime Logistics in the Fourteenth Century* (Woodbridge, Boydell, 2011).

18 George Cushman, *Edward III and the War at Sea: The English Navy 1327–1377* (Woodbridge, Boydell, 2011), p. 90.

19 Andrew Ayton and Craig Lambert, 'Navies and Maritime Warfare', in A. Curry (ed.), *The Hundred Years War: Problems in Focus Revisited* (London, Red Globe Press, 2019), pp. 169–202.

English troop lists has shown there was no specialisation: soldiers who fought on land also fought at sea.²⁰

The war at sea was closely linked to the international dimension. The French drew on support from the Castilians and Genoese, whose high-sided carracks and fast galleys were useful for raids as well as close combat. The French had started as early as 1292 with the foundation of the *Clos des Gallées* at Rouen to build up a royal naval resource. The English relied largely on the impressment and conversion of merchant shipping as fighting vessels, but Henry V's appreciation of purpose-built warships is evident in the construction in 1418 of the 'Grace Dieu', which was over twice as large as the 'Mary Rose' of the next century and designed for battle against the high-sided Genoese carracks, but so large that it proved impossible to manoeuvre when it went to sea in 1420.

The English claim to the crown required land campaigns to be conducted in France yet also begged the question what form these campaigns should take. A clear contrast can be seen here between the fourteenth and fifteenth centuries. In the earlier century emphasis was on an aggressive and destructive strategy through the *chevauchée*, a swift raid across territory. Efforts to take locations were not completely ignored but the frequency, and indeed the success, of sieges was much lower than in the following century. By contrast, from 1415 the emphasis was on conquest and occupation of a consolidated block of territory.

The idea of a destructive raid was not new but fundamental to warfare. Indeed, the two centuries as a whole, even with the change of English strategy towards conquest, were replete with armies of all sizes moving across the countryside, harassing civilians, and causing random damage. Such was the style of private seigneurial warfare in France (where, as with actions at sea there was a blurring between official and unofficial attacks), of English actions in Scotland and Wales, and of Burgundian and French actions against rebels: all were aimed at subduing and demoralising their opponent into surrender. The tactic was especially common in frontier regions, being conducted by small bands and lasting only a few days, hence with a limited geographical dimension. On occasion it was larger scale, as the operation of Burgundians and Hainaulters against rebel Liège in 1408, which sources describe as a *chevauchée* as well as a 'riese', a term commonly used for the actions of the Teutonic knights on the frontiers of Poland and

20 Anne Curry, 'After Agincourt, What Next? Henry V and the Campaign of 1416', *The Fifteenth Century* 7 (2007), 36–7.

Lithuania.²¹ Sorties from garrisons, such as those on the Anglo-Scottish frontier, in Lancastrian Normandy and Maine, or Hapsburg-held locations within the old Burgundian lands, followed the same pattern, being undertaken within a restricted area for a short duration and at low cost. Many also had a policing function to remind the local population of the power of their rulers, to collect military intelligence, and to track down resistors.

The scale and military significance of English *chevauchées* of the first period of the Hundred Years War was unprecedented and unique in the warfare of late medieval Western Europe. France had never been attacked in this way before. The English targeted rural areas, generally avoiding attacks on fortified centres; the 1346 *chevauchée* led by Edward III across Normandy was an exception in that Caen was besieged, but he made no effort to hold the town after his army moved on towards Paris. These *chevauchées* had a political as well as economic motive, both being central to the claim to the throne. A swift and damaging ride across enemy territory demonstrated to the native population not only the strength of the English but also the weakness of their own king. With little by way of garrisons, the French king could not raise troops quickly enough to have them in the right place at the right time. French authority was thereby undermined as was the local economy and with it taxative capacity. Edward certainly made his mark in his first, and perhaps most destructive, campaign in the Cambrésis in 1339: documents concerning relief distributed at papal initiative in the following year speak of seventy-eight villages burned, plundered, and laid waste, with compensation targeted at individuals most damaged, whether clergy, craftsmen, farmers, or merchants.²²

For the attacker, a *chevauchée* had the advantages of keeping troops moving and of the possibility of boosting supplies by living off the land. In reality, however, armies took initial supplies with them, especially where large numbers of horses were involved, and had fall-back means of later victualling through waggon trains and pack horses carrying barrels of salted foods and sacks of grain, and animals on the hoof.²³ For the 1346 campaign vast quantities of wheat, oats, flour, dried peas and beans, pork, mutton, beef, and cheese were collected over at least eleven counties of eastern

21 Bertrand Schnerb, 'La Bataille rangée dans la tactique des armées bourguignonnes au début du 15^e siècle: essai de synthèse', *Annales de Bourgogne* 61 (1989), 7–8.

22 Rogers, *Wars of Edward III*, document 46.

23 Yuval Harari, 'Strategy and Supply in Fourteenth-Century Western European Invasion Campaigns', *Journal of Military History* 64 (2000), 297–334. See also Mollie Maddern, *The Black Prince and the Grande Chevauchée of 1355* (Woodbridge, Boydell, 2019) for discussion of carrying capacities and the fodder needs of this form of campaign.

England using royal purveyance.²⁴ From the point of view of the soldiery, as for French and Scottish troops involved in raids on England, there was a heady mix of excitement as well as opportunities for booty, though rarely were prisoners taken since they were a drain on resource. Furthermore, commanders might choose to limit soldiers' freedom of action. A complete free-for-all threatened effectiveness by slowing the advance or leaving the army too dispersed, but large armies (the English numbered as many as 15,000 in 1346) needed to forage over a large front. Edward sought to impose a limit on how far the troops could disperse in search of booty but the width of the English passage was between 15 to 20 miles (24 to 32 km) nonetheless.²⁵

Rogers suggested that the purpose of English *chevauchées* was to force the enemy to battle.²⁶ For 1346 Edward certainly goaded the French by marching close to Paris. There is also evidence that a battle site within the English hereditary county of Ponthieu had already been designated.²⁷ For other *chevauchées* such as those of the Black Prince across southern France, from the Atlantic to the Mediterranean in 1355 and towards the Loire in 1356, and the long-distance campaigns of the period from 1369 to 1382, the battle-seeking argument remains contentious. Indeed it is notable that whilst the *chevauchées* of the latter period covered long distances (in 1373, 850 km from Calais to Bordeaux, 300 km more than Edward III's route in 1346) they were executed by armies of 5,000–6,000,²⁸ less than half the size of 1346, and with equal numbers of men-at-arms to archers, rather than the archer-rich army (5:1 in 1346) considered necessary for battle.

There is debate on whether Henry V's move from Harfleur towards Calais in 1415 was a *chevauchée* at all: the king shrank from allowing damage at least until he was prevented from crossing the Somme and was forced to move far inland, running out of supplies. There is strong evidence that Henry was keen to avoid

24 Herbert Hewitt, *The Organization of War under Edward III, 1338–62* (Manchester, Manchester University Press, 1966), pp. 54–9.

25 Andrew Ayton, 'The Crécy Campaign', in Andrew Ayton and Philip Preston, *The Battle of Crécy, 1346* (Woodbridge, Boydell, 2005), p. 66.

26 Clifford Rogers, 'Edward III and the Dialectics of Strategy, 1327–1360', *Transactions of the Royal Historical Society*, 6th Series, 4 (1994), 83–102, repr. in Rogers, *Wars of Edward III*, pp. 265–84.

27 Ayton, 'The Crecy Campaign', pp. 73–85.

28 Usefully listed in Adrian Bell, *War and the Soldier in the Fourteenth Century* (Woodbridge, Boydell, 2004), p. 10, and mapped in *The Cambridge Illustrated Atlas of Warfare: The Middle Ages 768–1487*, ed. Nicholas Hooper (Cambridge, Cambridge University Press, 1996).

battle.²⁹ Nonetheless, Rogers' overall argument on campaign planning is undisputed: commanders did not act randomly but had a clear idea of strategic ends and how to achieve them by tactical means. Spying and reconnaissance was already well developed. So too was the military arts of deception, trickery, and surprise.³⁰

Siege warfare displays planned generalship well since the preparations needed were substantial, the risks considerable, and the direct financial benefit sometimes questionable.³¹ The English conquest of Normandy in 1417–19 and the French reconquest of the same area in 1449–50 were systematic 'siege campaigns', and as such unique in late medieval Western Europe for their scale and extent. Wars of conquest placed huge demands on the attacker in terms of sustainability over an extended period. A large army was needed so that places could be besieged and then garrisoned whilst leaving enough troops to continue to the next places to be captured. Any army based in one location for too long provoked victualling problems since resources soon ran low unless externally replenished. Horses were especially difficult to maintain in a static situation.

A good commander would think ahead of how to mitigate such problems. It is no coincidence that Henry V began his 1417 campaign in a different manner from that of 1415, although both armies were c.12,000 strong. On the first occasion he concentrated his efforts on one location, leading to problems of food and water supply as well as dysentery with too many men concentrated into one area. Two years later he ensured that he controlled a stretch of coastline and more than one river estuary before he led the bulk of his army to besiege Caen. He thereby ensured points of entry for victuals as well as a no-fire zone as a supply base. That said, we should not forget that he had ordered those accompanying him on the 1417 campaign to bring six-months' worth of victuals with them, double the requirement of 1415.

The intensity of siege warfare in the fifteenth-century phase of the Hundred Years War is notable; at least eighty sieges are known between

29 Anne Curry, *Agincourt: A New History* (Stroud, Tempus, 2005), ch. 5. For a contrary view see Clifford Rogers, 'Henry V's Military Strategy in 1415', in L. J. Andrew Villalon and Donald Kagay (eds.), *The Hundred Years War: A Wider Focus* (Leiden, Brill, 2005), pp. 399–428. See also the discussion of the mindset of medieval commanders in Jan Honig, 'Reappraising Late Medieval Strategy: The Example of the 1415 Agincourt Campaign', *War in History* 19 (2012), 123–51.

30 Christopher Allmand, 'Intelligence in the Hundred Years War', in Keith Neilson and Brian McKercher (eds.), *Go Spy the Land: Military Intelligence in History* (Westport, Prager, 1992), pp. 31–47; David Whetham, *Just Wars and Moral Victories: Surprise, Deception and the Normative Framework of European War in the Later Middle Ages* (Leiden, Brill, 2009).

31 Clifford Rogers, 'Medieval Strategy and the Economics of Conquest', *Journal of Military History* 82 (2018), 709–38.

1415 and 1453, a contrast with around twenty-five between 1337 and 1389.³² In addition, proportionately more success was enjoyed by besiegers in the fifteenth century than in the fourteenth. Across the whole period, however, very few attempts to take major urban centres (i.e. with a population in excess of 10,000) were successful because their circuits were too large to conduct a meaningful siege. Rouen was the largest place taken by siege but needed over six months and a political as much as a military rationale for surrender. Rather as in the *chevauchée*, the aim was to test French resolve. The French demurred from any attempt to rescue the city so that its citizens chose to accept Henry's terms.³³ The surrender of such a major centre not surprisingly had a domino effect so that the remaining towns of Normandy and the Seine valley offered little if any resistance.

A useful comparison can be made with the failed siege of Neuss, an imperial city on the Rhine. Laid by Duke Charles of Burgundy to prevent an attack on his rear as he advanced towards Upper Alsace, the siege lasted from 29 July 1474 to 27 June 1475.³⁴ Although the duke had ensured that supplies could pass through neighbouring territories, the siege demonstrates well the difficulties facing attackers. The defenders had been able even with short notice to stockpile food. The duke's efforts to control the river were only partially successful; Rhine floods of January 1475 forced the duke to evacuate his troops from the islands he had occupied. There were successful sorties out of Neuss to steal food from Charles's own camp. Furthermore, despite the duke's formidable artillery train, which caused substantial damage, the defenders had their own artillery in an outwork in front of the gates: culverins were fired at the attackers 'thicker than rain, and hot water, great stones and other things thrown at them'. Divisions within the duke's 9,000-strong army developed, with his English mercenaries threatening to desert because they had not been paid and then trying to kill each other over a woman.³⁵ (That the Burgundians had a substantial number of women with them is borne out by a German mercenary, Wilwolt von Schaumberg, who describes how the duke employed women to block one branch of the Rhine

32 I am grateful to Peter Hoskins for the outline figures: see his *The Sieges of the Hundred Years War* (Barnsley, Pen and Sword, 2019) although I have increased the number for the English conquests of the fifteenth century to include actions in Maine in the 1420s.

33 Anne Curry, 'Henry V's Conquest of Normandy 1417–1419: The Siege of Rouen in Context', in *Guerra y Diplomacia en la Europa Occidental. XXXI Semana de Estudios Medievales. Estella 19–23 de julio 2004* (Pamplona, Gobierno de Navarra, 2005), 237–54.

34 Vaughan, *Charles the Bold*, ch. 9.

35 Ibid., pp. 323–4, from a letter sent from the siege to the mayor and echevins of Dijon on 16 September 1474.

by sinking barges loaded with earth.³⁶) Once the imperial army arrived in May 1475, although itself beset by squabbling between its different nationalities, the Burgundians realised they could no longer maintain the siege. Both armies withdrew simultaneously, saving face through the command of a papal legate that both should stop fighting or be excommunicated.

The siege of Neuss reminds us that even towards the end of the fifteenth century, the use of gunpowder artillery by a besieger was not necessarily decisive since it could be countered by similar provision within a town. Research on the development of such artillery in England in the later fifteenth century reveals that towns kept pace with the crown in building up arsenals, with an increasing variety of types and sizes of weapons.³⁷ That said, gunpowder artillery had already proved more effective in sieges than had any of the mechanical devices of the past: this is particularly apparent from the time of Henry V's siege of Harfleur in 1415 onwards.³⁸ By the late 1440s artillery trains were more fully developed, especially in France and Burgundy. Yet despite the building of artillery outworks such as bulwarks, it was not until the 1530s that there was any major redesign of urban defences in Western Europe along the *trace italienne* model, at an even greater cost to urban populations than the walls they had financed in earlier centuries.³⁹

The role of townspeople in their own defence should not be overlooked. In 1419 the inhabitants of Mantes offered their keys to the English to avoid attack. Thirty years later they chose to surrender to the French rather than suffer damage to the walls in which they had recently invested so much of their local taxes.⁴⁰ Urban populations might be victims if sieges were long but they were also protagonists. Their populations played a key role in the defence of their town alongside any military provision by their king or lord. This mutuality of interest is well illustrated by the common practice of keys being shared between officials of the garrison and the town and by the maintenance of watch. Even where there were sizeable garrisons the political opinion of the inhabitants, their pride, and their desire for self-preservation, led them to have a major influence in decisions concerning resistance and

³⁶ Ibid., p. 325.

³⁷ Daniel Spencer, *Royal and Urban Gunpowder Weapons in Late Medieval England* (Woodbridge, Boydell, 2019).

³⁸ Daniel Spencer, 'The Scourge of the Stones: English Gunpowder Artillery at the Siege of Harfleur', *Journal of Medieval History* 43 (2017), 59–73.

³⁹ Steven Gunn, David Grummitt, and Hans Cools, *War, State and Society in England and the Netherlands 1477–1559* (Oxford, Oxford University Press, 2007), pp. 70–3.

⁴⁰ Anne Curry, 'Towns at War: Relations between the Towns of Normandy and Their English rulers, 1417–1450', in John Thomson (ed.), *Towns and Townspeople in the Fifteenth Century* (Gloucester, Alan Sutton, 1988), pp. 149–53.

surrender. In addition, rulers might cite their right to assault a town based on Deuteronomy, but in reality none did: towns were, after all, the major sources of taxation revenue and of political support, as was immediately apparent to the Hapsburg inheritors of the Low Countries after the death of Duke Charles of Burgundy.⁴¹ No ruler in the period had enough resource to control a town without local involvement. Urban militias were also crucial to defence. At Douai in 1477 different stretches of wall were allocated to different groups to defend: at Leiden equipment requirements were imposed through a five-point scale based on wealth. And in the same year, the town government of Tournai was able to reject the imposition of a garrison.⁴²

Rural fortifications might be demolished where they were deemed too vulnerable or expensive to garrison, another example of military strategic planning. For instance, faced with the threat of English attack, the French king Charles V had all of the fortified places of the *bailliage* of Caen inspected to inform decisions on which to retain and which to decommission.⁴³ Intensive garrisoning was only possible where there was access to regular taxation, as in Lancastrian Normandy with a maximum establishment in excess of 7,000 in 1436.⁴⁴ Essentially the Normans were paying for their own occupation, which explains the care the English gave to civil-military relations, even inviting locals to lodge complaints against any illegal taking of victuals or other transgressions.⁴⁵ The input could be localised: the English agreed after petition from the inhabitants of Lower Normandy in 1442 that they should pay only for their own garrisons and not subsidise the defence of the north and east of the duchy then under attack from the French.⁴⁶ Without

41 Amable Sablon du Corail, 'L'Armée, le prince et ses sujets. Le financement de la guerre aux Pays Bas bourguignons après la mort de Charles le Téméraire 1477-1482', *Revue internationale d'histoire militaire* 83 (2003), 298-308, and *La Guerre, le prince et ses sujets. Les finances des Pays-Bas bourguignons sous les règnes de Marie de Bourgogne et de Maximilien d'Autriche (1477-1493)* (Turnhout, Brepols, 2019).

42 Gunn, Grummitt, and Cools, *War, State and Society*, p. 57; Graeme Small, 'Centre and Periphery in Late Medieval France: Tournai, 1384-1477', in Christopher Allmand (ed.), *War, Government and Power in Late Medieval France* (Liverpool, Liverpool University Press, 2000), pp. 145-50.

43 Arcisse de Caumont, 'Relation de la visite des forteresses du bailliage de Caen en 1371', *Mémoires de la Société des Antiquaires de Normandie* 11 (1840), 185-204.

44 Anne Curry, 'The Garrison Establishment in Lancastrian Normandy in 1436 According to Surviving Lists in Bibliothèque Nationale Manuscrit Français 25773', in Gary Baker, Craig Lambert, and David Simpkin (eds.), *Military Communities in Late Medieval England: Essays in Honour of Andrew Ayton* (Woodbridge, Boydell, 2018), pp. 237-69.

45 Benedicta Rowe, 'Discipline in the Norman Garrisons under Bedford, 1422-35', *English Historical Review* 46 (1931), 194-208.

46 Charles de Beaurepaire, *Les États de Normandie sous la domination anglaise* (Evreux, Hérissé, 1859), p. 78.

regular financial support, garrisons had to be sustained by the levy of *appatis* from ‘ransom districts’, essentially protection money, but it was difficult to sustain large numbers of troops over long periods by this means and it was inevitably unpopular with the local population.⁴⁷ That said, in times of uncertainty towns and villages might seek out and be willing to pay strong local warlords for immunity from attack, as in eastern France in the 1420s, thereby blurring the line between private and public warfare.⁴⁸

Garrisons controlled civilian populations, acting as nodal point for the defence and policing of the surrounding area as well as a base from which troops could be sent out into the field against enemy penetration. This is easily detected in Lancastrian Normandy: for instance, at least thirty-nine garrisons sent contingents to participate in the battle of Verneuil in 1424 alongside expeditionary troops from England, urban militias, and local gentry and settlers raised via a feudal-type summons.⁴⁹ A network of garrisons therefore mitigated constraints on campaign length which arose from the difficulties of maintaining separate troops in the field. Garrisons were therefore a significant step towards permanent standing armies, contributing to state control of war but also a reflection, and a signal to the civilian population, of such control. More than any other way of war they linked to the need for a constant and reliable source of state income, as well as offering the best opportunities and incentives for a long-term career in arms especially for the rank-and-file infantry.

It has been suggested that ‘by the mid fourteenth century, formal battles were relatively rare, as commanders tried to avoid to give battle’.⁵⁰ This is misleading. At least 186 actions which can be described as battles occurred between Christian peoples in Europe between 1295 and 1525, giving an average of 0.8 per annum. In the preceding ninety-five years (1200–95) using the same definitions we find only thirty-six, reflecting an average of 0.37 per annum. Between 1526 and 1600 the intensity falls to 0.5 per annum. The international battles of the later medieval period are particularly significant, especially in analysis of the rise of the nation states and of the balance

47 Jones, *Ducal Brittany*, pp. 164–70.

48 Valérie Toureille, *Robert de Sarrebrück ou l'honneur d'un écorcheur (v.1400–v.1462)* (Rennes, Presses Universitaires de Rennes, 2014), pp. 166–8.

49 Anne Curry, ‘Military Organization in Lancastrian Normandy 1422–1450’, unpublished PhD diss., CNAA/Teesside Polytechnic, 2 vols. (1985), vol. 2, p. clxvi. In general, see Anne Curry, ‘The Organisation of Field Armies in Lancastrian Normandy’, in Matthew Strickland (ed.), *Armies, Chivalry and Warfare in Late Medieval Britain and France* (Stamford, Paul Watkins, 1998), pp. 207–33.

50 Helen Nicholson, *Medieval Warfare* (Basingstoke, Palgrave Macmillan, 2004), p. 135.

of power in Europe, and are at a scale and intensity not previously witnessed. But the period sees a wide range of battles in terms of scale as well as of types of protagonists, arising out of challenges put forward by a broad spectrum of social groups and forms of polity: between towns and cities, peasants and their lords, heretics and preservers of orthodoxy, individual nobles and their factions, and rival claimants to land and title. In addition, there were also innumerable smaller actions (skirmishes), some linked to devastation operations, some to sieges and especially to sallies by the defenders, but also as preludes to battles, such as to reconnoitre enemy positions. A statistical survey, which identified 161 skirmishes in the Hundred Years War from chronicle evidence alone, suggests that 'skirmishes were motivated by tactical and operational necessity in support of larger strategic objectives', and that the French tended to lose because of their indiscipline.⁵¹

In the intensity of battle across the period we find evidence, as well as an explanation, of the rise of infantry. Not only rulers but also all groups were more likely to fight a pitched battle if they had more men and in particular more missile men. That the frequency increases from the late thirteenth century onwards is no coincidence but linked to changes in army composition, as will be discussed in the next section. Especially significant was the tendency towards a mixture of types of troops, as we see with the archer/man-at arms combination of the English. We should not underestimate the significance of the longbow in creating, cheaply, the first massed 'distance' assault, commonly by thousands of men, thereby transforming battle tactics. The crossbow was always the more dominant weapon on mainland Europe because it was more accurate and was easier to use, not needing years of physical training. But its range was shorter than that of the longbow and took longer to reload. The beauty of the longbow was its simplicity of construction and cheapness (as also arrows). As a weapon it was eminently flexible: it could be deployed at long range (250 m; 270 yds) in short sharp bursts to unnerve, longer continuous volleys to cause disarray and as much damage as possible even before the men-at-arms could engage, and then used at short range.⁵² Cavalry continued to have a role to play in battle but for flanking actions rather than for a coordinated forward charge, for reconnaissance, and

51 Ronald Braasch III, 'The Skirmish: A Statistical Analysis of Minor Combats during the Hundred Years War, 1337–1453', *Journal of Medieval Military History* 16 (2018), 140.

52 For this and much else, see the excellent Matthew Strickland and Robert Hardy, *The Great Warbow* (Stroud, Sutton Publishing, 2005); and the debate in Clifford Rogers, 'The Development of the Longbow in Late Medieval England and Technological Determinism', *Journal of Medieval History* 37 (2011), 321–41.

especially for the rout. Hand-to-hand fighting was conducted by men-at-arms on foot in close formation.

The dominance of fighting on foot explains the developments in plate armour, especially with extra protection for the shoulders, armpits, and the groin, whilst maintaining mobility.⁵³ Since armour and weaponry developed symbiotically, it is not surprising to see an increasingly wide range of staff weapons as well as developments in the sword. Staff weapons (essentially a variety of metal forms attached to a wooden pole) were not solely the preserve of lower-class infantry: evidence of fighting manuals and illustrations of the foot joust show them in wide use in aristocratic circles. Although staff weapons such as the bill had been in use since the thirteenth century, the fifteenth-century expansion into ingenious combinations of hammer, axe, top spike, and side prong features indicate a response to the development of plate armour and curved helmets, as do spiked maces ideal for denting and warping armour. There were some local specialities such as the shorter *goedendag* (1.3 m (4 feet) long with a club-like metal capped head and spike) used by the Flemish militias.⁵⁴ From the late fourteenth century we find sword blades with ‘a flattened diamond section, which gave increased rigidity for thrusting, and [which were] tapered to a still, needle-like point to seek out gaps in the armour’.⁵⁵ The use of the sword was not restricted to the chivalric classes since archers were also expected to have both sword and dagger.

Some idea of injuries arising from the archer/man-at-arms combination is seen in wounds in skeletons at Towton (1461).⁵⁶ With a mixture of blunt and sharp force injuries, a variety of distance and hand-to-hand fighting is revealed, but with no wounds to the chest or back it seems that body armour was effective. The most common body injuries were in the forearm ‘consistent with defence injuries that result when parrying a blow from an assailant’, but head wounds were the most numerous. Only two were caused by arrow heads; the rest were from blades, pole-axe spikes, or war hammers.

53 Thom Richardson, ‘Armour in England 1325–1399’, *Journal of Medieval History* 37 (2011), 307. See also Tobias Capwell, *Armour of the English Knight, 1400–1450* (London, Thomas del Mar Ltd, 2015); and Robert Woosnam-Savage, *Arms and Armour of Late Medieval Europe* (Leeds, Royal Armouries, 2018).

54 As portrayed on the Courtrai Chest, which belongs to New College, Oxford (John Verbruggen, *The Battle of the Golden Spurs: Courtrai, 11 July 1302* (Woodbridge, Boydell, 2002), pp. 203–6.

55 Robert Woosnam-Savage, ‘All Kinds of Weapons: The Weapons of Agincourt’, in Anne Curry and Malcolm Mercer (eds.), *The Battle of Agincourt* (New Haven and London, Yale University Press, 2015), p. 139.

56 Veronica Fiorato, Anthea Boylston, and Christopher Knüsel (eds.), *Blood Red Roses: The Archaeology of a Mass Grave from the Battle of Towton AD 1461* (Oxford, Oxbow, 2000), ch. 8: ‘Battle-related Trauma’.



FIGURE 2. Battle scene from the 'Courtrai chest', whose fourteenth-century carvings commemorate the Flemish victory against the French on 11 July 1302. The chest was discovered in 1905 in a property held by New College Oxford. Image courtesy of the Warden and Scholars of New College, Oxford/Bridgeman Images.

By contrast the Visby bodies (1361, where the coat of plates was the main protection) show crossbow bolt wounds as well as blade injuries. Bodies from the battle of Sempach (1386) and Dornach (1499), both Swiss victories, show the impact of halberds through skulls cleanly split in two.⁵⁷

The defeat at Nicopolis in 1396 of a Christian army made up of French and Burgundians with a few English had an effect on battle tactics in the early fifteenth century, not only by the copying of the use of stakes by the English to protect the archers at Agincourt and Verneuil from cavalry charge, but also by the adoption of essentially defensive positions by Burgundian armies.⁵⁸ Yet such formations remained largely linear, 'meaning that the normal infantry formation was much broader than it was deep', with ranks of footmen rarely more than four to eight deep.⁵⁹ It was use by the Swiss of much deeper

⁵⁷ Woosnam-Savage, *Arms and Armour*, p. 83. ⁵⁸ Schnerb, 'La Bataille rangée', p. 11.

⁵⁹ Clifford Rogers, 'Tactics and the Face of Battle', in Frank Tallett and David Trim (eds.), *European Warfare 1350–1750* (Cambridge, Cambridge University Press, 2010), p. 206.

formations – squares forty to sixty deep – which transformed battles in the late fifteenth century and beyond. Such squares avoided weakness of the flanks as had been a problem in linear formations, and were particularly effective against cavalry charge, with the added advantage that the depth of the formation made it difficult for the cavalry to penetrate. Their mass weight gave the square unprecedented momentum, which easily broke lines of foot, and their compact nature facilitated forward movement through arrow or crossbow bolt volleys. Key to their success was another Swiss innovation – the pike. The pike, at 5.5 m (18 feet), was much longer than any existing staff weapon: pikes were placed on the outer edges of the square, tilted forwards, with men with shorter staff weapons protected within the core.

Years of training enabled surprisingly swift collective movement, culminating in a great rush forward in the rout. This is the first evidence in a medieval context of drill. Whilst this form of pike formation required training as well as group and self-discipline, it did not require the many years of archery practice to build up skill and physical strength. Furthermore, the squares were used in a collaborative manner, and increasingly in conjunction with gunners in pike/shot formations. Such formations and tactics dominated in Western Europe until well into the seventeenth century since even when the use of handguns expanded substantially, the pike formation provided protection whilst (customarily slow) reloading took place.

The Swiss were much in demand as mercenaries in the late fifteenth century but their styles of war were soon emulated and adapted by other powers. We see this, for instance, in the ordinances of Charles the Bold, duke of Burgundy, which ordered men to practise a forward lance charge on foot in close formation, as well as withdrawal and regrouping on command; the pikemen were to advance and then kneel in front of the archers, with their pikes lowered to the height of a horse so that the archers could shoot over them ‘as if over a wall’.⁶⁰ It is notable, however, that the English were slow in developing the use of the pike, continuing to rely on their archer-rich armies well into the sixteenth century and on a supply of foreign pikemen and handgunners.

Field cannon were deployed in battle from at least the early fifteenth century but with little impact and as a supplement rather than a replacement for other weapons. Illustrations from the *Antiche Berner Chronik* (1483) by Diebold Schilling give a clear impression of this with handgunners operating alongside

⁶⁰ Vaughan, *Charles the Bold*, p. 128.

crossbowmen and pikemen.⁶¹ The tide began to turn in the latter part of the century with more easily manoeuvrable gun carriages but the real point of transformation was the increased use of handguns, especially when paired with the pike formations. Battle was fought at closer quarters, with much deadlier weapons against which armour could offer no effective protection, making death both more random and more likely. Rogers suggests that the ratio of victors killed to defeated killed was as low as 1:50 or even 1:100 in medieval battles, but more usually between 1:2 and 1:6 in the early modern period.⁶² In this scenario commanders were less likely to want to chance their arm in pitched battles and there is a notable decline in their frequency from the mid 1520s onwards.

Armies

Armies were shaped by the societies which produced them and by war aims and needs but, at base, the trend across the whole of Western Europe in the later Middle Ages was the search for effective infantries. This necessitated a move away from indiscriminate mass recruitment based on service by obligation to the selection of suitable troops. This in turn generated a paid professional army made up of soldiers who chose to follow a military career.

Whilst the French crown employed the *semonce des nobles*, pay was already the norm in the early fourteenth century.⁶³ Those responding brought companies of men-at-arms, and sometimes crossbowmen and foot sergeants, the last two groups also being provided by royal towns. When necessary to raise a very large army, as on six occasions between 1340 and 1356 in the face of English attack, a wider call up of the able-bodied male population was made by the *arrière ban*. 'With the feudal contingents alone, the king of France could gather a great army, stronger than any other western army of the time, while the *arrière ban* would provide him with numerous infantry and carriage transport.'⁶⁴ Financial records of the treasurers of Philip VI show him raising 28,000 men in 1340 for service in a number of different locations, and with 28.5 per cent foreign troops engaged through alliances: John of Luxembourg,

61 Burgerbibliothek Bern Mss h.h.1.1, p. 143, in Sean McLachlan, *Medieval Handgonnes: The First Black Powder Infantry Weapons* (Botley, Osprey, 2010), p. 14.

62 Rogers, 'Tactics and the Face of Battle', pp. 208–17, 223.

63 For full discussion of the whole period see the magisterial Philippe Contamine, *Guerre, état et société à la fin du moyen âge* (Paris and The Hague, Mouton, 1972).

64 Bertrand Schnerb, 'Vassals, Allies and Mercenaries: The French Army before and after 1346', in Andrew Ayton and Philip Preston (eds.), *The Battle of Crécy, 1346* (Woodbridge, Boydell, 2005), p. 266.

the blind king of Bohemia who died at Crécy had provided on that occasion 500 men-at-arms as he had already done in 1332, 1339, and 1340. Yet whilst the French could raise large numbers their armies were amorphous and poorly coordinated between the different types of troops, which helps to explain their vulnerability in battle against the English.

The English had shown that they too could assemble large armies to meet the demands of multi-theatred and extended campaigns in the reign of Edward I.⁶⁵ His armies were the largest raised in England until the early sixteenth century; for the invasion of Scotland in 1298, for instance, Edward had 27,500 foot soldiers in pay, almost 11,000 recruited in Wales,⁶⁶ a reminder of the military value of his recent conquest, although at this point the Welsh served as spearmen rather than archers.⁶⁷ Various means were introduced to increase manpower: the halving of the income level at which mounted service was expected from £40 to £20; writs of summons to the nobility which emphasised ‘the faith and allegiance you owe the crown’ rather than simply tenurial obligation; (from 1294) the offering of pardons for criminal offences in return for service. Pay was also introduced (40 per cent of the cavalry in the 1298 Scottish expedition were in receipt of wages) although the nobility still preferred to serve without remuneration as a sign of their feudal honour and there were still time limits for service. Reforms were made to the shire levies: commissioners of array chose men based on equipment and skill, and troops were organised into twenties and hundreds. Such recruitment methods produced armies with large numbers but which were not well integrated: lack of coordination and leadership revealed the fragility of English massed armies at Bannockburn.

The opening of the Hundred Years War therefore presented challenges. The backbone of Edward III’s armies remained the nobility, who provided substantial numbers of men and formed the main supply of cavalry. Whilst the king called on their service using the same summons as Edward I had done, pay was now the norm and troops were expected to serve for as long as the king required. Until 1346 there was reluctance to rely on shire levies for

65 For an excellent summary see Michael Prestwich, ‘Edward I’s Armies’, *Journal of Medieval History* 37 (2011), 233–44. For subsequent developments, see Andrew Ayton, *Knights and Warhorses: Military Service and the English Aristocracy under Edward III* (Woodbridge, Boydell, 1994); and Michael Prestwich, *Armies and Warfare in the Middle Ages: The English Experience* (New Haven and London, Yale University Press, 1996).

66 Prestwich, ‘Edward I’s Armies’, p. 237, from The National Archives E101/12/17.

67 Adam Chapman, *Welsh Soldiers in the Later Middle Ages 1282–1422* (Woodbridge, Boydell, 2015).

the necessarily large-scale provision of infantry: instead Edward paid for contingents provided by allies in the Low Countries and Germany, including 1,200 provided by the duke of Brabant, and over 6,000 from Flanders.⁶⁸ For his first major *chevauchée* into royal France in 1346, however, Edward looked to England, raising an army of 14,000–15,000, including 8,000 foot, of whom the majority were longbowmen. Such a composition was achieved by two means: first, by setting targets for infantry recruitment from the shires, towns, and from Wales; and, secondly, by reducing further the levels of landed income at which military provision was expected: ‘a 100s landowner was to be (or to provide) an archer; a £10 a hobelar [light cavalry]; a £25 man was to be a man-at-arms’.⁶⁹ The 1346 campaign saw the largest army of Edward’s reign (the next largest at 10,000 being that with which he attempted to besiege Reims in 1359–60)⁷⁰ and was prompted by the king’s desire to make a truly effective challenge to the French, which was achieved at Crécy. Yet the reliance on levied troops remained a risk, given their tendency to indiscipline and their lack of mobility in the *chevauchée*.

What really transformed English armies was the move away from infantry raised by commission of array to the inclusion of archers in mixed retinues raised by nobility and gentry, operating alongside men-at-arms and with all troops mounted.⁷¹ Such a change was facilitated by a system whereby captains entered into indentures (i.e. contracts) with the crown to provide certain numbers and types of troops under set conditions and rates of pay. Indentures were not new. They had been used for the appointment to garrison captaincies from at least the early fourteenth century and for actions in France where the king was not present in person. So, for instance, on 13 May 1345 Henry of Lancaster, earl of Derby, entered into an indenture with the king to serve in Gascony as royal lieutenant for a year with 500 men-at-arms, 500 mounted archers, and 1,000 foot archers of whom 500 would be Welsh.⁷² The terms covered all financial aspects as well as military, such as

68 Sergio Boffa, *Warfare in Medieval Brabant 1356–1406* (Woodbridge, Boydell, 2004), p. 225; Rogers, *War Cruel and Sharp*, p. 203.

69 Andrew Ayton, ‘The English Army and the Normandy Campaign of 1346’, in David Bates and Anne Curry (eds.), *England and Normandy in the Middle Ages* (London, The Hambledon Press, 1994), pp. 261, 255.

70 Andrew Ayton, ‘English Armies in the Fourteenth Century’, in Anne Curry and Michael Hughes (eds.), *Arms, Armies and Fortifications in the Hundred Years War* (Woodbridge, Boydell, 1994), p. 39.

71 Ayton, ‘English army and the Normandy Campaign’, p. 268.

72 Nicholas Gribit, *Henry of Lancaster’s Expedition to Aquitaine 1345–46: Military Service and Professionalism in the Hundred Years War* (Woodbridge, Boydell, 2016), pp. 251–3. A similar indenture was entered into by Prince Edward in 1355: Mollie Maddern,

the king's promise to provide further support if the earl was besieged or attacked by such a great force of men (*par si grant force des gentz*).

From 1369 the English stopped raising shire levies for overseas service although they remained the basic form of internal defence and were called out in civil war. From the same date up to the reign of Henry VIII virtually all English armies for all theatres were raised by indenture, making it simpler for the crown to raise armies since the burden of recruitment was passed onto those who indented. In essence this was a 'franchising' arrangement but where the crown was able to impose unified conditions of service, such as pay rates and divisions of spoils of war, and to impose discipline. Sometimes the crown entered into indentures with many captains to create as large an army as possible (over 500 are known for Henry V's army of 12,000 in 1415). On other occasions indentures were entered into with a handful of nobles or even only one, as in 1387–8 with Richard, earl of Arundel, for naval action or in 1428 with Thomas, earl of Salisbury, to penetrate south of the Loire.

By such streamlining and regularisation, the English were able to send armies to France with exceptional frequency. Whilst the majority numbered 2,000–5,000, the regularity with which they were despatched maintained the English position even in the period of French recovery in the 1370s. Such military strength reflected the crown's ability to raise taxation through parliament, which gave security on which to raise loans to despatch the armies at the time needed. The system also generated a military community in which men sought opportunities for service. Career patterns are visible especially through the musters which crown officials took before embarkation to check that the indenture terms had been met.⁷³ That soldiers might serve under different captains on different campaigns is further indication of professionalism, moving away from dependence on pre-existing household, family, or tenurial ties. That said, there is evidence of high turnover – only 15 per cent of the men-at-arms and archers under the earl of Arundel of 1387 served with him again in the following year, a continuity rate also seen between the invasion armies of 1415 and 1417⁷⁴ – reminding us that the potential military community was adequately large. Another sign of professionalisation was the rise of the militarily active esquire at the expense of the

⁷³ 'The Indenture between Edward III and the Black Prince for the Prince's Expedition to Gascony 10 July 1355', *Journal of Medieval Military History* 12 (2014), 165–72.

⁷⁴ Adrian R. Bell, Anne Curry, Andy King, and David Simpkin, *The Soldier in Later Medieval England* (Oxford, Oxford University Press, 2013).

⁷⁴ Bell, *War and the Soldier*, p. 101. The figures for 1415 and 1417 derive from research by Anne Curry and David Cleverly as yet unpublished.

knight: from the late fourteenth century onwards the proportions of knights in armies declined substantially.⁷⁵

Whilst armies sent to France between 1369 and 1389, undertaking land *chevauchées* and naval activity, were designed to have equal numbers of men-at-arms and archers, from 1406 a ratio of one man-at-arms to three archers became the norm, although more archers are sometimes seen: the invasion of Scotland in 1400, for which an army of 13,085 was raised, had 6.4 archers for every man-at-arms, a marked difference from the ratio of 2:1 in the Scottish invasion army of 1385, which totalled 13,734 men. We must conclude that by the early fifteenth century the perceived military value of archers was accepted, although there was a financial imperative too: archers were paid 6d per day, half the daily rate of men-at-arms. That the proportion of archers increased at moments of crisis, such as in 1450, also suggests that archers were easier to find quickly; hardly surprising when all adult males were obliged, following a statute of 1363, to practise at the butts on Sundays. That archers might be tested on their skills in order to inform selection is seen in an order of 1434 in Ireland: twenty-four were rejected as insufficiently able.⁷⁶ As the century continued the proportion of archers increased: Edward IV's invasion army of 1475, numbering 11,451, had a ratio of 8:1 and was recruited by the indenture system.

The size of this army indicates that the English did not increase their military forces much over the course of the fourteenth and fifteenth centuries. When Henry VIII wished to emulate the large forces of his continental rivals in the early sixteenth century, he abandoned the indenture system (it was last used in 1512) and returned essentially to the methods used by Edward I in the late thirteenth century, drawing on the obligations of the population at large to serve their king in war. Only by such means, and by extensive use of Continental mercenaries on a much greater scale than the English had ever done before, did he manage to achieve 30,000 for his invasion of France in 1513.⁷⁷

During the Hundred Years War, we see distinct changes in French organisation in response to English successes. Notably, the French moved away from use of the *arrière ban*, not calling it at all between 1356 and 1410 and only briefly resuming it for a few years during the civil war between the Burgundians and Armagnacs. Suspicion and mistrust of the lower orders

⁷⁵ Bell, Curry, et al., *Soldier*, pp. 59–73.

⁷⁶ *The Register of John Swayne, Archbishop of Armagh and Primate of Ireland 1418–39*, ed. David Chart (Belfast, HMSO, 1935), pp. 145–6.

⁷⁷ Gunn, Grummitt, and Cools, *War, State, and Society*, p. 240

led to a preference for the use of foreign crossbowmen, especially Spanish and Italian. Although the French had an embryonic indenture system through the *lettres de retenue* whereby captains were engaged with specific numbers of men for specific missions, kings were reluctant to use it, suggesting they wished to retain control. Hence in 1351 captains were ordered by John II to organise their men-at-arms in *grosse routes* of twenty-five to eighty men, to be reviewed twice monthly and paid wages in advance.⁷⁸ Further reforms followed in 1374 which established the optimum size of companies at 100, divided into units of ten and with some placed in garrison, as well as regular inspection by the marshals and an emphasis on retinue stability. For Philippe Contamine this was the first outline of a permanent mobile army ('une première esquisse d'armée permanente mobile') which was set at 5,200 in the campaigning season and 2,400 over the winter.⁷⁹ These arrangements placed the French in a stronger position against the English but did not persist because of financial crisis and civil war under Charles VI. Whilst the French kings had strong powers of arbitrary taxation, collection could only begin once an emergency had been established: the parliamentary taxation system in England allowed for planning in advance.

Although Charles VII began to make headway against the English from 1429 using the traditional means of raising troops, a more radical solution was needed if he was to drive his enemy out of France. We see the first signs in 1439 when, faced with lawless wandering soldiers, the king tried to put appointments of captains under his direct control, assigning to each a certain number of soldiers, which they were not permitted to exceed.⁸⁰ When the English and French agreed a truce in 1444, Charles went further, establishing fifteen paid 'ordonnance' companies each of 100 'lances' (9,000 men in all) and ordering their geographical distribution to further his control and, in time, to facilitate his conquest of English-held territory.⁸¹ The troops and their horses were to be billeted on the population in a controlled system, even being given a set allowance per month for their food. The 'lance' comprised six mounted men in mutual support – a fully armed man-at-arms, a more lightly armed *coutilier*, two archers, a page, and a valet. This combined French traditions with a realisation, thanks to the example of the

78 Valérie Bessey (ed.), *Construire l'armée française. Textes fondateurs des institutions militaires*, tome 1: *De la France des premiers Valois à la fin du règne de François 1er* (Turnhout, Brepols, 2006), text 4.

79 Philippe Contamine and André Corvisier (eds.), *Histoire militaire de France*, tome 1: *Des origines à 1715* (Paris, Presses Universitaires de France, 1997), p. 145.

80 Bessey (ed.), *Construire l'armée française*, text 10. 81 *Ibid.*, texts 11–12.

English, of the importance of archers, a trend further exemplified by Charles's establishment of the *francs archers* in April 1448.⁸² Each parish was obliged to provide a crossbowman or a longbowman, who was to practise regularly, be checked for equipment and prowess at a regular muster by royal officials, and, when selected for service, receive pay. This system gave Charles a force of 8,000 archers.

French victories came about by emulating English organisation (the mixed retinue and large troops of archers) by adding a strong infantry element to the traditional French reliance on men-at-arms. In the mid 1460s Louis XI created a firmer infrastructure for the *francs archers* by dividing the kingdom into four parts, each under a captain general responsible for holding 4,000 men in groups of 500 under royal captains.⁸³ The burden on localities was considerable but Louis tried to distribute the costs fairly. To keep costs down, the *francs archers* were to have a number of shared horses as well as carts to carry their equipment and victuals. There were standard expectations for billeting: six men were entitled to one room with three beds, sixteen plates, stabling for six horses, and storage for three months-worth of provisions and fodder.⁸⁴ Equipment was also laid down: for protection, a *salade* (helmet), gauntlets, and a *jacques* (reinforced jacket); and for arms, a sword, dagger, and *voulge* (which resembled a meat cleaver on a pole, with sometimes a pointed blade at the top point) or another type of staff weapon. It seems, therefore, that this French infantry was now expected to have a range of weapons alongside (or perhaps in some cases instead of) bows.

By the mid 1470s the military power of the French was formidable. In 1476 Louis XI was able to raise 2,846 'lances', containing 2,846 heavy cavalry, mainly drawn from the nobility, 2,846 light cavalry, and 5,692 mounted crossbowmen/archers. He then boosted his 'lances' to 4,142, making a total of 16,568 mounted men alongside 16,000 *francs archers* armed with a variety of longbows, crossbows, *vouges*, and – in emulation of the Swiss – pikes.⁸⁵ But after defeat by Archduke Maximilian of Hapsburg at the battle of Guinegate (Artois) on 7 August 1479, Louis abolished the *francs archers*, who were seen to have fought poorly in the battle, although they were reconstituted as a territorial army organised through the *élections* (tax areas), raising up to 22,000 men in 1513 until their final abolition in 1535. Instead Louis aimed to create a permanent infantry raised in northern France of 10,000 armed with

82 Ibid., text 13. 83 Ibid., text 16.

84 Paul Solon, 'Valois Military Administration on the Norman Frontier, 1445–1461: A Study in Medieval Reform', *Speculum* 51 (1976), 94.

85 Contamine, *Guerre, état et société*, p. 285.

pike and halberds, revealing Swiss and German influence, to serve alongside around 6,000 Swiss mercenaries. Although there were changes after Louis's death, French armies continued to draw on infantry from specific regions: there were 6,000 Gascons and 4,000 Normans at the French victory against the Swiss at Marignan in 1515.⁸⁶ Charles VIII had led an army of 20,000 to Italy in 1494, half of it cavalry as befitted a long-distance campaign, where it was also necessary to leave troops behind in garrison.⁸⁷

The armies of the dukes of Brittany and Burgundy, both of whom played key roles in the Hundred Years War, not surprisingly followed a similar development to that of the French crown. In fact the creation of a parish-based system akin to the *francs archers* is first seen in Brittany in 1425, and the province was the first to follow Charles VII's lead in establishing ordonnance companies of 'lances' in 1449, totalling in this case between 2,800 and 3,500 men in all.⁸⁸ The Burgundians did not move to emulate the French reforms until 1469, perhaps because they felt they had no need: a report sent to Lucca in 1407 predicted that 'the duke of Burgundy will remain the most influential and powerful prince in France. His power is based on the troops he can raise in his lands. He can muster so many that he fears no one.'⁸⁹ The duke's strength derived from the older French model, with companies provided by noble vassals alongside urban contingents, the latter especially from Flanders, and with payment to all troops. A study of Burgundian ducal armies in the first decade of the fifteenth century reveals 38 per cent of the soldiers were raised in Flanders and Artois and 29 per cent from the Two Burgundies (county and duchy), which was always the main source of heavy cavalry for the dukes.⁹⁰ A further 33 per cent were provided by allies or hired as mercenaries. English archers were particularly prized, both now and later in the century. The last duke, Charles the Bold, had 2,000 English and 2,000 Italians in his 12,000 strong army at the siege of Neuss in 1474, and ten companies of English archers, each of 100 men, at the fateful battle of Nancy.

The Burgundian dukes had already been able to field armies of 5,000–6,000, and made a conscious effort to increase their own archer contingents from 10 per cent of their army in the late fourteenth century to more than 50 per cent by 1450. But it was under Charles the Bold that the size of the

86 Potter, *Renaissance France at War*, pp. 105–7. 87 *Ibid.*, p. 63.

88 Michael Jones, 'L'Armée bretonne 1449–1491. Structures et carrières', in Bernard Chevalier and Philippe Contamine (eds.), *La France de la fin du xve siècle. Renouveau et apogée* (Paris, CNRS, 1985), pp. 147–65, repr. in Michael Jones, *The Creation of Brittany: A Late Medieval State* (London, Hambledon Press, 1988), pp. 351–70.

89 Cited in Vaughan, *John the Fearless*, p. 138.

90 Richard Vaughan, *Valois Burgundy* (London, Allen Lane, 1975), p. 124.

Burgundian army more than doubled and that reforms, based on those of the French but also of Venice, established a permanent force. Plans begun in 1468 came to fruition in an ordinance issued at Abbeville in July 1471, which established 1,250 'lances' each with nine members (11,250 men in all): a man-at-arms, a mounted page, a *couteilier* (with a javelin and single-handed sword as well as a double-edged dagger), three mounted archers, a crossbowman, a culverineer, and a pikeman on foot.⁹¹ Companies were subdivided into groups (or *chambres*) of ten with various levels of leadership and a paymaster. Whilst troops were reduced to 8,400 in 1472 and the subdivisions were changed to four squadrons of twenty-five in 1473, the level of detail on organisation, discipline, and conduct in all six of the military ordinances issued by Charles between 1468 and 1476 is truly remarkable, and the furthest any West European state had gone towards creating a formal standing army.

The development of the Burgundian army, inherited by the Hapsburgs, bears testimony to the wealth of the provinces held by the dukes. A contrast can be seen in the case of the Scottish, who, as a poorer nation, continued across the period to rely on crown rights to require service for common defence (the *communis exercitus* or *servicium scoticum*) and on bonds of lordship, with payment of wages being limited to garrisons and campaigns beyond forty days. Indeed, 'military service remained a very pervasive obligation in Scotland, perhaps more so than in many other locations in Christendom'.⁹² Yet as elsewhere, the core of Scottish armies, and the providers of cavalry, were the nobles and their *menies* who emulated the chivalric culture of Europe.⁹³ Whilst regular checks of the readiness of the military community, through quarterly *wappinshaws* at which each man was supposed to appear with arms and armour, were not consistently undertaken, their tradition was sustained. At the outset of the period the mass levies were largely spearmen with long spears and axes, whose circular or rectangular battle formation (the *schiltron*) was effective in defence as well as in pushing the enemy out of formation and into a confined space, as happened at Bannockburn.

The Welsh used similar formations and tactics, hence their value to English kings as spearmen, as did also the Flemish militias, for instance at

91 Vaughan, *Charles the Bold*, p. 206.

92 Alistair Macdonald, 'Courage, Fear and the Experience of the Later Medieval Scottish Soldier', *Scottish Historical Review* 92 (2013), 182. See also Edward Spiers, Matthew Strickland, and Jeremy Crang (eds.), *A Military History of Scotland* (Edinburgh, Edinburgh University Press, 2012).

93 Katie Stevenson, *Chivalry and Knighthood in Scotland* (Woodbridge, Boydell, 2006).

Courtrai in 1302. English royal orders for archery practice, begun in 1363, were imitated in Scotland, but with an earlier minimum age of 12, making Scottish archers very useful as an ‘off the shelf’ army for the French in the 1420s when weakened by Burgundian defection and English success.⁹⁴ The Scots could assemble large armies (20,000 is suggested for Flodden in 1513), but comprising what we should call ‘occasional soldiers’ drawn from a wide social spectrum, with little training, variable armour protection, limited range of weaponry, and lack of organisational systems. This made it increasingly difficult to compete with their English neighbours in formal battle situations, or to conquer and hold territory since they had no means of maintaining garrisons, but their threat as raiders persisted.

A similar conclusion can be drawn for the Gaelic Irish. Whilst sometimes recruited to garrisons and standing forces in Ireland it was common for the English crown to prefer archers born in England.⁹⁵ The native Irish, like the Scottish Highlanders, eschewed armour and the longbow for their own distinctive style of dress (with no breeches), the short bow, long knives, and saddle-less horses. Yet they had their uses as scavengers, their appearance adding to the terror they instilled: Henry V put a force of them under the Knight Hospitaller prior of Kilmainham to good use during the siege of Rouen in 1418, sending them out to raid the locality from which they drove back cattle to the English army, as well as allegedly bringing back beds, bedding, and babies in cradles. Not surprisingly, they jibbed at Henry’s strong discipline as much as he did at their behaviour, threatening them with flogging and other punishment if they did not conform to orders.⁹⁶

By contrast the Swiss were a highly militarised people whose origins as an independent confederacy in 1291 derived from their compact for mutual defence. Further cantons and towns joined the confederacy – the combination of urban and rural forces was an important element in their military organisation. By the 1470s, as we have seen, they had developed a distinctive form of coordinated infantry, revolving around the disciplined use of men armed with pikes in square formation, and they were much in demand for mercenary service, and exercised a great influence on warfare in Western Europe as a result. The Hapsburgs were especially influenced by the success

94 Bruce Ditcham, ‘Mutton Guzzlers and Wine Bags’: Foreign Soldiers and Native Reactions in Fifteenth-century France’, in Christopher Allmand (ed.), *Power, Culture and Religion in France c.1350–c.1550* (Woodbridge, Boydell, 1989), p. 3.

95 Bell, Curry, et al., *The Soldier*, p. 244. For archery practice orders see *Records of the Parliament of Scotland 1424*, item 20, available at www.rps.ac.uk.

96 James Wylie and William Waugh, *The Reign of Henry V*, 3 vols. (Cambridge, Cambridge University Press, 1929), vol. 3, pp. 131–2.

of the Swiss, turning to them to train their own *landsknechts*, first noted in 1486–7 and largely recruited in Swabia, the Rhineland, and Alsace. The *landsknechts* came to occupy the previous position of the English archers and the Swiss pikemen as the universal mercenaries of Western Europe, with a greater variety of weapons, including the pike, the halberd, the two-handed as well as the curved sword, and subsequently the larger handgun known as the arquebus. Also notable was their organisation into quasi-regiments and the use of a circular defensive camp formation defended by guns, which had some debt to the Hussite styles of earlier in the fifteenth century, another example of how geographical and social conditions shaped armies.

The personal interest of rulers was also a factor which is most apparent in the case of Charles the Bold, duke of Burgundy, but we can also place João I of Portugal (1385–1433) in a similar light.⁹⁷ The idea of a ‘lance’ comprising a mounted contingent of men-at-arms with two or three supporters was seen in his reforms, producing potentially 9,000 men in total. Infantry was provided by the *besteiros de conto* (‘the fixed number of crossbowmen’), which had been created in the late thirteenth century in towns, and which was remodelled by João to provide 5,000 men who were committed to regular practice. All troops received pay, the king having replaced the earlier system of *quantias* (a regular variable sum which obliged the recipient to mobilise a proportionate number of lances) by a salary for actual service at a monthly rate, reminiscent of both English and French practice.

The culture of war

Whilst the trend across the period was for increased professionalisation, soldiers were an integral part of society rather than standing apart from it. Once pay had been introduced warfare became a concern for the whole community and the main fillip towards taxation at both a national and local level. Civilians were affected by the need to feed armies but here, as in the production of arms and armour and the provision of horses and other necessities, there were opportunities to profit from war. One small example can suffice. In 1436, as the English rushed to send an army for the relief of Calais now under Burgundian attack, the government ordered proclamations in the city of London against the victuallers and armament makers raising

97 Monteiro et al., ‘Another 1415’, pp. 118–35.

their prices in the face of increased demand.⁹⁸ Yet opportunities might be provided by the crown: shortly after the capture of Harfleur in 1415 the sheriffs of London were ordered to encourage merchants, victuallers, and artificers who might be willing to cross to reside in the town to go there as quickly as possible, with the promise that the captain would provide them with houses and the king would give them a charter of liberties once they had settled there.⁹⁹

Public and private came together in war. Nowhere is this better illustrated than in what seems on the face of it to be a quintessentially chivalric practice – ransoming prisoners taken in war. Fascinating insights into this topic have been provided by Rémy Ambühl.¹⁰⁰ He has shown that the term ‘prisoner of war’ emerges in this period, the first known occurrence being in England in 1357 relating to a Frenchman taken at the battle of Poitiers.¹⁰¹ Whilst the crown expected part of the profit of a ransom and to exercise the right to buy politically important prisoners, the person who held the prisoner was his ‘master’, with the relationship essentially that of private ownership and the ransom payment a transaction. Whilst some soldiers held onto their prisoners in order to gain the ransom directly there was also an active ransom market – another indication of the property-based nature of the relationship – whereby soldiers sold on their prisoners to others. For the soldier that gave an immediate benefit as well as removing risk. For the purchaser there was a definite possibility of gain, otherwise they would not have shown an interest in such marketisation, but actualising the benefit could be problematic. The famous merchant of London, Richard Whittington, for instance, had purchased the right to an Agincourt prisoner, Hugues Coniers, but sold it on, perhaps because he suspected that the prisoner would not be able to raise his ransom, to an Italian merchant in 1420, who then defaulted on the payment, causing Whittington to seek redress in the courts.¹⁰² The number of disputes on ransoms between individuals heard in the courts in France and England indicates again how what might appear a military matter, of which

98 *Calendar of Letter Books of the City of London: Letter Book K*, ed. Reginald Sharpe (London, Corporation of London, 1911), pp. 205–6.

99 *Calendar of Letter Books of the City of London: Letter Book I*, ed. Reginald Sharpe (London, Corporation of London, 1909), p. 139.

100 Rémy Ambühl, *Prisoners of War in the Hundred Years War: Ransom Culture in the Late Middle Ages* (Cambridge, Cambridge University Press, 2013).

101 Rémy Ambühl, ‘Joan of Arc as Prisonnière de Guerre’, *English Historical Review* 132 (2017), 1049.

102 Ambühl, *Prisoners of War*, p. 146.

there was much detail in indentures of service and disciplinary ordinances, was at the end of the day a private dispute.

Across the whole of Western Europe there had been efforts to require male populations to spend their Sundays practising archery. In the towns of the Low Countries we find guilds devoted to the crossbow and the longbow which had a sociopolitical as well as a sporting and military *raison d'être*, bringing honour as well as a sense of collective identity to their town.¹⁰³ The guilds ran regular competitions which became 'some of the largest and most elaborate events in Flanders'.¹⁰⁴ Their 'pull' is revealed, for instance, in a contest in 1394 at Tournai which attracted crossbowmen from fifty towns in northern France and the Low Countries: the Tournaisians showed their loyalty to the French king as well as their own civic pride by decking buildings with French royal colours of green and white and their own town's arms.¹⁰⁵ Later, the Flemish guilds were keen to count the dukes of Burgundy within their fraternity.¹⁰⁶

Such events remind us of the close relationship of military skills and sport, also seen in hunting – an extremely popular pursuit for the wealthy across Europe as witnessed by the popularity of the *Livre de la Chasse* of Gaston Fébus – and in tournaments of all kinds, which brought fighting men together before a public audience as entertainment. An international dimension, so important for cross-cultural interchange and commonality, is wholly apparent. 'War' might be fought out by this means in time of truce, as in the great St Inglevert tournament held for thirty days in 1390 where three French knights sent out challenges to England and elsewhere.¹⁰⁷ One of the French, Jean le Meingre dit Boucicaut, was to face some of the same English 'sportsmen' in battle at Agincourt in 1415. Thanks to the *Livre des faits du marechal boucicaut* (1410) we know the training he had undergone in his youth, which included jumping fully armed onto his horse, long-distance running, using a hammer or axe for extended periods, climbing up and down ladders in armour, and even dancing.¹⁰⁸ This 'fitness regime' was clearly an expected part of a military apprenticeship and marked out those who were

103 Laura Crombie, *Archery and Crossbow Guilds in Medieval Flanders 1300–1500* (Woodbridge, Boydell, 2016).

104 *Ibid.*, p. 3. 105 *Ibid.*, p. 1.

106 Laura Crombie, 'Defence, Honour and Community: The Military and Social Bonds of the Dukes of Burgundy and the Flemish Shooting Guilds', *Journal of Medieval Military History* 9 (2011), 76–96.

107 *Chronicles of England, France and Spain by Sir John Froissart*, ed. Thomas Johnes, 2 vols. (London, Henry G. Bohn, 1857), vol. 2, pp. 434–6.

108 *The Chivalric Biography of Boucicaut, Jean II le Meingre*, ed. Craig Taylor and Jane Taylor (Woodbridge, Boydell, 2016), p. 27.

committed from an early age to a military career. A similar training programme is outlined in the *Enseignements paternels* which Ghillbert de Lannoy (d.1462) wrote for his son. Lannoy had himself learned war the hard way at Agincourt, being lucky to escape from the burning barn into which French prisoners were placed at the order they should be killed. But he urged his son 'to listen to what is said by those who have travelled the most, whether at war or otherwise. From them is much to be learned about war, battles and similar matters.' Boys might find themselves involved in active service between the ages of 12 and 16 (12 was the starting age for compulsory archery practice in Scotland, but 16 in England). Taking all English peers between 1369 and 1453, 10.6 per cent can be shown to have begun their military career before they were 16, with a further 37.5 per cent in arms by the time they were 20. As for retirement, 42 per cent of this same sample ended their careers in their forties, but 32 per cent continued into their fifties with 11 per cent continuing into their sixties.¹⁰⁹

Pan-European military culture is also evident in the 'Fightbooks' distinctive to this period. At least forty texts are known, some linked to specific German and Italian masters such as Johannes Liechtenauer, Hans Talhoffer, and Fiore dei Liberi, but widely communicated across the whole of Europe. Their very existence confirms the importance of training, for both military and sporting reasons, of the would-be 'fighting classes', but research has suggested that they were aimed not at the elite who had their own instructors, but at lower social groups including townsmen.¹¹⁰ The books were accessible through their many drawings of men in actual fighting positions, using a range of weapons as well as in unarmed combat, with minimal written comments. Equestrian training, including combat, is reflected in a treatise written by King Duarte I of Portugal (d.1438). Two fifteenth-century treatises written in French deal with, respectively, pole-axe combat, 'Le jeu de la hache' (the inclusion of 'the word 'jeu' (game) in the title another reminder of link with sport), and archery (*L'Art d'archerie ou la façon de tirer de l'arc a main*, which was put into print in the early sixteenth century).¹¹¹

¹⁰⁹ Bell, Curry, et al., *The Soldier*, pp. 25, 27.

¹¹⁰ Daniel Jaquet, Karen Vereist, and Timothy Dawson (eds.), *Late Medieval and Early Modern Fight Books: Transmission and Tradition of Martial Arts in Europe (14th–17th centuries)* (Leiden, Brill, 2016). I am grateful to Dr Jaquet and Dr James Hester for discussion on these works.

¹¹¹ Delphine Dejonghe and Vincent Deluz, *L'Art d'archerie ou la façon de tirer de l'arc a main, édition critique et commentaire du premier traité de tir à l'arc d'Occident* (Geneva: Droz, forthcoming); Daniel Jaquet, Vincent Deluz, and Delphine Dejonghe, 'L'Art d'archerie. Les apports de l'étude des textes techniques au regard de l'historien sur l'arc long et son emploi dans le conflit franco-anglais de la fin du Moyen Âge', in

There is some irony that the only known treatise on the longbow was produced in France but it reminds us of French military reforms of the mid fifteenth century which finally made it possible for the French to play the English at their own game.

Such literature emphasises again how war in late medieval Western Europe was 'international' in both culture and practice. Nowhere is this more evident than in military treatises popular in the period which were based on admiration for, and a desire to emulate, Ancient Rome. Thanks to the researches of Christopher Allmand we know a great deal about the circulation of the *De Re Militari* of Vegetius, originally written in the fourth century CE, and the *Strategemata* of Julius Frontinus of the first century CE.¹¹² These Roman texts emphasised the need for strong leadership, cohesion, and discipline, thereby mirroring as well as influencing the central place of the ruler and of the state at war in the late medieval period. It is no coincidence that the first known translation of Vegetius was into Anglo-Norman for Edward I before he became king or shortly into his reign. The earliest translation into French, made by Jean de Meun in 1284, was also linked to a young prince, the future Philip IV. Although no translation into Castilian is known until 1400, the impact of Vegetius on the military sections of the *Siete Partidas* of Alphonso X of Aragon (1252–84) indicates the work was already influential in his kingdom. Translations into many vernaculars can be traced, the first into English (1408) being commissioned by an active soldier, Sir Thomas Berkeley, the earliest full German translation to 1438, the same decade as a Portuguese translation (now lost) was made. The Latin text of Vegetius was amongst the earliest texts to be printed (Utrecht, 1473–4). The *Strategemata* was translated into five languages (Castilian, Catalan, Aragonese, French, and Italian) and was often included in full or in part in manuscripts containing the *De Re Militari*. One manuscript of the *Strategemata* even shows a fully armed knight sitting reading it.¹¹³

Anne Curry and Véronique Gazeau (eds.), *La Guerre en Normandie* (Caen, Presses Universitaires de Caen, 2018).

¹¹² Christopher Allmand, *The De Re Militari of Vegetius: The Reception, Transmission and Legacy of a Roman Text in the Middle Ages* (Cambridge, Cambridge University Press, 2011); Christopher Allmand, 'A Roman Text on War: The *Strategemata* of Frontinus in the Middle Ages', in Peter Coss and Christopher Tyreman (eds.), *Soldiers, Nobles and Gentlemen: Essays in Honour of Maurice Keen* (Woodbridge, Boydell, 2009), pp. 153–68. Another highly popular work, also of the first century, *Facta et Dicta Memorabilia* of Valerius Maximus, still needs detailed work.

¹¹³ Bibliothèque Nationale de France, manuscript français 1234, f. 3v, cited in Allmand, 'Roman Text', p. 167.

The *De Re Militari* was adapted to suit the times through the introduction of new material, such as reference in the 1408 English translation to gunpowder artillery used by armies at the time. A mid-fifteenth-century English verse version, ‘Kyghthode and Bataile’, was heavily influenced by the politics of the Wars of the Roses, emphasising that the king needed a trained and loyal army to achieve peace. A contemporary observer claimed that, after the defeat of the royal army at Blore Heath on 23 September 1459, Henry VI called to mind a passage in Vegetius noting that a small well-trained army commonly defeated a larger less-experienced one.¹¹⁴ The ‘ordonnances sur le fait et conduit des gens de guerre’ issued by Charles, duke of Burgundy in 1473, laid down that each company should be led by men known for their experience and knowledge in military matters, using language and principles which were extremely close to Vegetius even to the extent of applying Latin terminology such as ‘decanis’ and ‘centurion’.¹¹⁵

With their emphasis on authority and service to the *res publica*, these works fitted neatly with state-centred warfare and undoubtedly contributed to it. Their use across Europe contributed to the internationalism of organisation and operations as well as to intellectual consistency about war. So too did works of a legal and theological nature which focused on the right to wage war (*ius ad bellum*) as well as the right way to wage it (*ius in bello*).¹¹⁶ Again an international flavour is seen with the *De Bello* (c.1360) of Giovanni Legnano and the contemporary legal works of another Italian, Bartolus da Sassoferrato, which influenced the ‘L’Arbre des Batailles’ (c.1387) of Honoré de Bonet (or Bouvet) which was presented to Charles VI of France. In turn Christine de Pisan drew heavily on Bonet’s work in her own *Livre des fais d’armes et de chevalerie* (1410), written for the Dauphin Louis on the order of Duke John the Fearless of Burgundy, which combined theory with comments on practice influenced by Vegetius. Christine’s book was translated into German in the middle of the fifteenth century and into English by William Caxton when he printed the work in 1489.¹¹⁷ Within this same tradition was Nicholas Upton’s *De Officio Militari*, which included a copy of

114 John Whethamstede, *Registra Quorundam Abbatum Monasterii S. Albani*, ed. H. T. Riley (Rolls Series, London, 1872), 1, pp. 338–9.

115 Christopher Allmand, ‘Did the *De Re Militari* of Vegetius Influence the Military Ordinances of Charles the Bold?’, in *Le Héros bourguignon: histoire et épopée. Publication du Centre européen d’études bourguignonnes (XIVe–XVIe s.) Recontres d’Edimbourg-Glasgow 41* (2001), 135–43.

116 Maurice Keen, *The Laws of War in the Late Middle Ages* (London, Routledge, 1965).

117 Danielle Buschinger, ‘Le Livre des faits d’armes et de chevalerie de Christine de Pisan et ses adaptations anglaise et haut-alémanique’, *Comptes rendus des séances de l’Académie des Inscriptions et Belles-Lettres* 155 (2011), 1073–92.

disciplinary ordinances of Henry V. For the Picard chronicler Jean de Waurin Henry's success in France was because he punished harshly those who broke his ordinances 'and fully maintained the discipline of soldiers as the Romans had done in the past'.¹¹⁸

That there was so much interest in the theory and practice of war reflects the intensity of war in the period and the increasing control of the state. Significant here are the efforts to limit the rights of others to wage war. As Justine Firnhaber Baker points out, whilst seigneurial wars did occur in southern France in the fourteenth century, we know about them almost entirely through judicial actions and pardons of the crown.¹¹⁹ Furthermore French kings of the period issued many *ordonnances* trying to prevent such wars at times of royal wars, a clear indication that the needs of the state should come first.

Many works of the period addressed key themes such as the place of civilians in conflict and the responsibilities of soldiers, aligning with the growing notion of the soldier as protector of the state and its people.¹²⁰ In this context the proper behaviour of soldiers was key. Concomitant with a trend towards professional paid armies was the increased attention paid to control and discipline. Such phenomena were the necessary corollary of armies with larger proportions of men of lower social status and of the rise of the soldier as a recognised category of social existence and as a direct employee of the state.

Whilst the elites never abandoned their interest in the codes of honour, as late medieval literature indicates, and were still expected to play their rightful role in war,¹²¹ the precepts of chivalry were no longer the main dictates of armed action. Instead it was disciplinary ordinances issued by rulers which controlled both individual and collective actions in war and defined relations

118 Cited in Anne Curry, 'The Military Ordinances of Henry V: Texts and Contexts', in Christopher Given-Wilson, Ann Kettle, and Len Scales (eds.), *War, Government and Aristocracy in the British Isles c.1150–1500: Essays in Honour of Michael Prestwich* (Woodbridge, Boydell, 2008), p. 238.

119 Justine Firnhaber Baker, 'Seigneurial War and Royal Power in Later Medieval Southern France', *Past and Present* 208 (2010), 37–76.

120 Christopher Allmand, 'Changing Views of the Soldier in Late Medieval France', in Philippe Contamine, Charles Giry-Deloison, and Maurice Keen (eds.), *Guerre et société en France, en Angleterre et en Bourgogne XIV–XV siècles* (Lille, Université Charles de Gaulle, 1991), pp. 171–88; Philippe Contamine, 'The Soldiery in Late Medieval Urban Society', *French History* 8 (1994), 1–13; David Grummitt, 'Changing Perceptions of the Soldier in Late Medieval England', *The Fifteenth Century* 10 (2011), 189–202.

121 For useful discussion on expectations and criticism of failure to meet them, see Craig Taylor, *Chivalry and the Ideals of Knighthood in France during the Hundred Years War* (Cambridge, Cambridge University Press, 2013).

within the soldier community as well as between soldiers and civilians.¹²² There is a modern ring to many of the clauses – no stealing, no arguing, no rape, no pillage, no sacrilege. The particular penchants of individual princes can be seen, from Henry V's prudery over camp followers to Charles the Bold's concern for blasphemy. Charles's military ordinances covered a very wide range of matters, even urging officers to ensure that their men drank enough water. In his ordinances we can see influences from English and French precedents as well as from classical sources and the duke's own personal military interests. In turn, they seem to have influenced the ordinances issued by Henry VIII for his French invasion of 1513. The internationalism of war is again evident.

So too is the increasing role of the state. The 'artillery revolution' was by necessity a state-led initiative. It was only the state or its sub-elements, such as major towns, which could afford larger artillery pieces and necessary specialist gunners: a large artillery train was a sign of power, as under the dukes of Burgundy.¹²³ Even though it did not guarantee military success the artillery revolution was nonetheless a significant state investment. But even earlier we can see that increasingly the state was providing substantial quantities of weaponry and equipment to its soldiers, an important move to standardisation and professionalisation.¹²⁴ Uniforms are also an indicator: as early as 1385 English armies were ordered to wear a large cross of St George on front and back. At the same date the Franco-Scottish army assembled to face them was ordered to wear the white cross of St Andrew.¹²⁵

Warfare in late medieval Western Europe brought together larger groups of individuals from different social backgrounds and different geographical origins to a greater degree than any other human activity of the period, fanned by the search for larger infantry numbers and the intensity of military commitments. Armies were international. The 'English' garrisons in Normandy, for instance, included soldiers of several European nationalities as well as many local men; twenty soldiers in Calais in 1372 came from as far

122 Andrew Martinez, 'Disciplinary Ordinances for English Armies and Military Change 1385–1513', *History* 102 (2017), 361–85; Vaughan, *Charles the Bold*, pp. 205–11.

123 Robert Smith and Kelly DeVries, *The Artillery of the Dukes of Burgundy 1363–1477* (Woodbridge, Boydell, 2005); Michel Depreter, *De Gavre à Nancy. L'artillerie Bourguignonne sur la voie de la modernité* (Turnhout, Brepols, 2011).

124 Thom Richardson, *The Tower Armoury in the Fourteenth Century* (Leeds: Royal Armouries, 2016), p. 213.

125 Anne Curry, 'Disciplinary Ordinances for English and Franco-Scottish Armies in 1385: An International Code?', *Journal of Medieval History* 37 (2011), 287–94.

away as Bohemia.¹²⁶ By the end of the period the use of foreign mercenaries by the French, the Burgundians, and their Hapsburg successors was on an exceptionally large scale, prompted by a desire to boost state military power. Henry VIII hired 6,000 *landsknechts* for his invasion of France in 1513.¹²⁷ This form of internationalism, along with the predominance of large infantry forces and the move to creating 'standing' forces, necessitated new structures and disciplinary controls which formed the origins of the state armies of later centuries. Armies and soldiers were explicitly agents of the state, all the more so as the medieval period drew to a close. As Christopher Allmand has put it wisely and succinctly, 'the idea that war was the ultimate public service for the defence of the state would gradually undermine the view that it could also be regarded as an opportunity for winning personal glory and reputation'.¹²⁸

¹²⁶ Bell, Curry, et al., *The Soldier*, ch. 6; Anne Curry, 'Foreign Soldiers in English Pay: Identity and Unity in the Armies of the English Crown 1415–1450', in Guilhem Pépin, Françoise Lainé, and Frédéric Boutouille (eds.), *Routiers et mercenaires pendant la Guerre de Cent Ans. Hommage à Jonathan Sumption* (Bordeaux, Ausonius Editions, 2016), pp. 303–16; The National Archives E 403/447 m. 4.

¹²⁷ Gunn, Grummitt, and Cools, *War, State and Society*, p. 23.

¹²⁸ Allmand, *De Re Militari*, p. 344.

Warfare and Italian states, 1300–1500

WILLIAM CAFERRO

The history of Italian warfare from 1300 to 1500 has been dominated by discussion of mercenary soldiers. Italian states used them throughout the Middle Ages and by the fourteenth century the practice evolved into a species of “system,” characterized by reliance on preformed bands of substantial size, containing also foreign soldiers from outside of the peninsula. The era of the “companies of adventure” (*compagnie di ventura*), as it is known, lasted from roughly the second decade to the end of the fourteenth century. It was followed by the emergence in the fifteenth century of individual native mercenary captains, *condottieri*, who settled into regular service with states and were the precursor to more permanent armies by the middle of the century. The reliance on mercenaries rendered Italian warfare out of touch with developments elsewhere in Europe, and left the peninsula unprepared for the onslaught of the armies of France and Spain and the Italian Wars in the sixteenth century. The invasion of Italy in 1494 by the French king Charles VIII was the signal event that revealed the weakness of Italian military institutions and more generally the strength of the rising nation state over its evolutionary predecessor, the city-state.

It is important to restate this standard scholarly view, because it remains largely intact and reflects a historiography that has not advanced as far as other subfields related to premodern Italian history. In 1952, Piero Pieri equated the use of mercenary cavalry with the absence of native infantry, which doomed Italy to failure in the face of the French challenge. Pieri’s interpretation reflects the deep-rooted influence of Niccolò Machiavelli (1469–1527), who forcefully condemned the use of mercenaries in numerous places in his work, seeing in it the loss of native martial spirit, which directly led to the military humiliation by foreign powers that Machiavelli experienced in his lifetime. Pieri’s view is likewise colored by nineteenth-century Italian military historians, inspired by Machiavelli and the nationalism of *Risorgimento*, who treated mercenaries, particularly the foreign soldiers of the

trecento, as emblematic of the external oppression of the peninsula and an internal moral weakness that prevented Italy from achieving unity until the modern era.¹

The consensus was revised in the 1970s and 80s by the English scholars Michael Mallett and John Hale. Both stressed understanding Italian military developments on their own terms and minimized the gap between events occurring on the peninsula and those occurring elsewhere in Europe. They treated mercenaries as part of the society they served, while making clear that the men represented only a portion of Italian forces and thus one aspect of the overall Italian military experience. Their work has formed the basis of an ongoing – albeit slow-moving – reinterpretation of Italian warfare that has sought to understand the phenomenon more closely in terms of political, economic, and cultural developments. War, whether fought by mercenaries or native troops, involved all aspects of Italian society, and, properly understood, was inseparable from the pacific function of states.²

The advent of the companies

Revision notwithstanding, the phases of Italian warfare remain pegged to the evolution of mercenary service and of Italian armies in general.³ The initial turning point occurred in the late thirteenth century, when “native” armies began to make greater use of mercenary cavalry. The shift is attributed to

- 1 Piero Pieri, *Il Rinascimento e la crisi militare italiana* (Turin, Einaudi, 1952). The standard works include Ercole Ricotti, *Storia delle compagnie di ventura in Italia*, 2 vols. (Turin, Pomba, 1845–7); Giuseppe Canestrini, “Documenti per servire della milizia italiana del secolo XIII al XVI,” *Archivio Storico Italiano*, 1.15 (1851); Karl Heinrich Schäfer, *Deutsche Ritter und Edelknechte in Italien während des 14. Jahrhunderts*, 4 vols. (Paderborn, Quellen und Forschungen aus dem Gebiete der Geschichte XV, 1911), vol. 1. Machiavelli’s famous comments on mercenaries are in *The Prince* (bks. 12, 13), *The Art of War* (bk. 1) and *The Discourses* (bk. 2, discourse 20). See also Michael Mallett and Christine Shaw, *The Italian Wars 1494–1559: War, State and Society in Early Modern Europe* (Harlow, Longman, 2012).
- 2 Michael Mallett, *Mercenaries and Their Masters* (Totowa, NJ, Rowman and Littlefield, 1974) and “Venice and Its Condottieri, 1404–1454,” in John Hale (ed.), *Renaissance Venice* (London, Faber, 1973); John R. Hale, *War and Society in Renaissance Europe, 1450–1620* (Baltimore, Johns Hopkins University Press, 1985) and with Michael Mallett, *The Military Organization of a Renaissance State: Venice, 1400–1617* (Cambridge, Cambridge University Press, 1984). An evaluation of the historiographical tradition is in William Caferro, *Mercenary Companies and the Decline of Siena* (Baltimore, Johns Hopkins University Press), pp. xiv–xv, 1–14 and “Warfare and the Economy of Renaissance Italy, 1350–1450,” *Journal of Interdisciplinary History* 39.2 (Autumn 2008), 167–71. See most recently William Caferro, *Petrarch’s War: Florence and the Black Death in Context* (Cambridge, Cambridge University Press, 2018).
- 3 The same basic schema appears in the most recent synthesis in Italian, Paolo Grillo, *Cavalieri e popoli in armi: Le istituzioni militari nell’Italia medievale* (Rome and Bari, Editori Laterza, 2008).

political decentralization attendant on the death of the Holy Roman Emperor Frederick II in 1250, which brought an end to Hohenstaufen rule in Italy. Frederick's demise exacerbated rivalries among states, particularly Guelf and Ghibelline hostilities – a uniquely medieval Italian phenomenon – that increased the incidence of conflict and the need for troops. By the early fourteenth century warfare encompassed the whole peninsula. The rise of aggressive lordships, *signorie*, provided impetus. The Scaligeri of Verona seized neighboring states in eastern Lombardy in the first decades of the fourteenth century; the Visconti of Milan took lands in western Lombardy; and Castruccio Castracane of Lucca, a former mercenary captain, carved out a patrimony in Tuscany which included Pisa, Pistoia, and Volterra. In southern Italy, the king of Naples, Robert of Anjou, made repeated attempts (1314, 1316, 1325–6, 1335, 1339–42) to retake Sicily, which had been lost to the king of Aragon in 1282. Meanwhile, the papacy abandoned Italy for Avignon in 1309 creating a power vacuum that encouraged the rise of petty lords (*signoretti*). Pontiffs attempted to restore order through a series of legates, including Bertrand du Poujet (1320–4) and Gil Albornoz (1353–67). Holy Roman emperors meanwhile maintained legal rights in north and central Italy and routinely “descended” on the peninsula, sometimes in alliance with the pope, more often in opposition to him, which complicated the military situation still further. Emperor Ludwig of Bavaria's descent in 1328 helped Castruccio Castracane capture Pisa. Ludwig bestowed the title of duke on the usurper.⁴

The incessant wars of the early *trecento* raised cries for peace from contemporaries. Dante Alighieri (d.1321) and Marsiglio of Padua (d.1342) famously condemned the state of affairs, blaming the secular ambitions of the papacy. A cycle of famine and plague starting in the third decade of the fourteenth century exacerbated competition for resources that increased the rhythm of war. The Black Death in 1348 reduced overall population by one-third or one-half but intensified inter-city rivalries. Despite the contagion, states mobilized armies, hoping to seize the advantage over rivals. The most notable example of this was the hegemonic policies of the Visconti rulers of Milan, who moved beyond Lombardy, taking on the papacy and much of the peninsula. Milan's wars against Florence and its allies at the end of the fourteenth and first half of fifteenth century are among the most notable of the era.

The notoriety of the Visconti wars notwithstanding, the reality was that most conflicts in Italy were local, between neighboring cities and between

4 Mallett, *Mercenaries*, pp. 6–24; J. K. Hyde, *Society and Politics in Medieval Italy* (New York, St Martin's Press, 1973), pp. 124–52.

cities, subject towns, and the magnate clans who populated the countryside. External violence was often connected to internal rivalries within states. Public officials banished political opponents, who then joined enemies and returned to fight against their native cities.

The circumstances made the use of mercenaries appealing. Continuous conflict created demand for the soldiers, while internal faction made mercenaries, outsiders, more desirable because they were less likely to seek political advantage inside the cities they served. The logic was already apparent in the tradition, dating to the eleventh century, of employment of a *podestà*, a non-citizen outsider, responsible for administering communal justice and overseeing daily governance.

The involvement of Holy Roman emperors in Italy brought German troops, who often remained on the peninsula and sought local employment. According to one scholarly study, there were as many as 10,000 Germans active in Italy in the years from 1320 to 1360.⁵ They were joined by French, Hungarian, and Catalan soldiers: the first associated with the Angevin rulers in Naples, the second with a rival branch of Angevins in Hungary, and the last with the kingdom of Aragon, which controlled Sicily. English soldiers entered Italy in significant numbers in the second half of the fourteenth century, during truces in the Hundred Years War. The famed White Company of John Hawkwood, the greatest captain of the era, came to Italy in 1361 after the Peace of Brètigny.⁶

The majority of mercenaries were, however, indigenous. They came often from within Italy, from regions like Romagna and Umbria. Their numbers included rulers of small independent states, such as the Malatesta clan of Rimini and Este of Ferrara and powerful families like the Orsini and Savelli in Rome.

The transformation of the nature of mercenary service from the use of scattered individuals in the *duecento* to preformed companies of men in the *trecento* has been linked to the use by Italian states of city leagues or *taglie*, alliances against common enemies, and the incursions of foreign princes.⁷ The leagues involved a pledge by each participant of a share (*taglia*) of troops for a common army. The tradition dates back to the twelfth century and the famous Lombard league assembled in 1167 to combat the Holy Roman

5 Stephan Selzer, *Deutsche Söldner im Italien des Trecento* (Tübingen, Niemeyer, 2001), p. 56.

6 William Caferro, *John Hawkwood: An English Mercenary in Fourteenth-Century Italy* (Baltimore and London, Johns Hopkins University Press, 2006).

7 L. Naldini, "La 'tallia militum societatis tallie Tuscie' nella seconda metà del sec. XIII," *Archivio Storico Italiano* 78 (1920), 75–113.

emperor Frederick I.⁸ The league inflicted a military defeat on Frederick in 1176 at Legnano, and various incarnations of it continued into the thirteenth century. By then, however, there developed a series of Guelph leagues, spear-headed by the French Angevin rulers in Naples and their ally, the papacy, aimed against those who opposed their policies. According to Daniel Waley, Florence joined these *taglie* so frequently in the second half of the thirteenth and early years of the fourteenth century that it is impossible to “identify a specifically Florentine army,” but rather a force that operated within the “wide framework of Guelph military policy.”⁹

More pointedly, scholars have argued that the recourse to leagues encouraged the development of a “mercenary system” because the alliances offered long-term employment to soldiers, whose services were not tied not to a specific state but instead to a specific captain.¹⁰ The Tuscan Guelph league of 1305 included a contingent of 300 mercenary cavalymen under direct command of the Catalan captain Diego de La Rat. Rat remained with the league until 1313, during which time his cavalry contingent fluctuated in size from 200 to 300 men and included an Almogavar infantry contingent of 300–500 men. Rat resided in the city of Florence, where he became a well-known figure, catching the attention of Giovanni Boccaccio who included him in the *Decameron* as a schemer who won the favors of the bishop’s niece with counterfeit money.¹¹ Rat’s army nevertheless remained obliged to him and available to hire by the highest bidder.

Rat’s career presaged those of the great foreign captains of the middle of the fourteenth century, who commanded large autonomous bands of mercenaries (*compagnie di ventura*). The phenomenon of independent bands occurred also in France, where free companies formed during truces in the Hundred Years War (1337–1453). In Italy, the most impressive of the entities was the Great Company that operated throughout the peninsula from 1340 to 1360. It was primarily German in composition and organized in a manner similar to both feudal retinues and secular businesses. With respect to the

8 There were later versions of the league in 1185 and 1197 and a revival in 1226. Gianluca Raccagni, *The Lombard League, 1167–1225* (Oxford, Oxford University Press, 2010). Gina Fasoli has traced the formation of leagues on the peninsula back to the ninth and tenth centuries, against the Saracens and others. Gina Fasoli, “La Lega Lombarda: Antecedenti, Formazione, Struttura,” in F. Bocchi, A. Carile, and A. I. Pini (eds.), *Scritti di Storia Medievale* (Bologna, La Fotocromo Emiliana, 1974), pp. 257–78.

9 Daniel Waley, “The Army of the Florentine Republic from the Twelfth to the Fourteenth Century,” in Nicolai Rubinstein (ed.), *Florentine Studies* (Evanston, IL, Northwestern University Press, 1968), pp. 80–2.

10 *Ibid.*, p. 80. 11 *Ibid.*, pp. 83–6.

latter, they referred to themselves as *societates* or societies, the same word used by contemporary cloth, banking, and silk firms. They possessed an articulated internal hierarchy with treasurers to distribute profits, chancellors to write letters, and notaries to handle legal issues. In times of peace, the companies undertook their most profitable business. They raided the countryside and extorted bribes from cities and towns with which they had no quarrel.¹²

The excesses of the companies gained the attention of Italian chroniclers, who wrote at length about them. The precise reason for their formation is not entirely clear. Did they reflect the effect of endogenous forces such as the plagues and famines of the era, or internal forces from within the military profession? Whatever the answers, scholars universally view the bands as the “low point” in Italian military organization and associate their “rise” with the eclipse of native martial spirit.¹³

The view is nevertheless overstated. There were few large companies operating in Italy at any single time. Cities continued to rely on civic militia and native infantrymen. The Florentine army contained local men, who were more professionalized than current studies portray them, and were not, as the stereotype suggests, dismissed wholesale after conflict. Florence retained its soldiers in times of nominal peace. A recent study has in fact shown considerable continuity within the ranks, as Florentine officials employed the same captains, both mercenary cavalrymen and native infantrymen, over many consecutive years.¹⁴ Moreover, the mercenary companies, despite their bad reputations, were often effective fighting forces. This was particularly the case of the English White Company, which proved an indomitable entity in the service of Pisa in 1364. It evoked fear and admiration throughout Italy and its martial ways were widely imitated. Under the leadership of John Hawkwood, it penetrated to the Florentine walls and nearly took the city.

Whatever their military value, the companies and the widespread participation of foreign soldiers in Italian warfare hold interest also in sociological and cultural terms. Italian armies brought together in close proximity men of various lands and languages, and of differing social classes. In this way, they represented one of the most unique spaces in all of Europe. They functioned

¹² Caferro, *John Hawkwood*, pp. 64–71.

¹³ Maria Nadia Covini, “Political and Military Bonds in the Italian State System, Thirteenth to Sixteenth Century,” in Philippe Contamine (ed.), *War and Competition between States* (Oxford, Oxford University Press, 2000), p. 14.

¹⁴ William Caferro, “Continuity, Long-Term Service and Permanent Forces: A Reassessment of the Florentine Army in the Fourteenth Century,” *The Journal of Modern History* 80 (2008), 303–22. See now Caferro, *Petrarch’s War*.

as sites of self-definition, where men recreated themselves anew and notions of ethnicity and nation were operative.¹⁵

The practice of war

The practice of Italian warfare focused primarily on raids in the countryside. Offensives involved burning barns, destroying vines, stealing livestock, and ransoming workers. The attacks were consciously designed to inflict financial damage on opponents. To that end, armies also aimed at cutting off trade by harassing merchants and blockading routes. Battles in the field were consequently rare. States were reluctant to risk losing whole armies, which were expensive. Nevertheless, officials did not hesitate to blame captains for sluggishness or for not seizing the advantage when the opportunity arose. Military planners routed armies through areas where political tensions ran high, hoping to touch off rebellions and thus force enemies to capitulate on account of internal pressure.

Sieges were commonplace. Armies advanced to the gates of towns and attacked the enemy by means of trebuchets and cannons – the latter already in widespread use in *trecento* Italy. Trebuchets and cannons were likewise used to defend town walls. Nevertheless, capitulation occurred most often as the result of treachery, usually by means of bribing a key official within. Large, well-fortified cities were difficult to take by force, and attacks on them usually focused on ravaging the surrounding countryside. In the middle years of the fourteenth century, in Tuscany and Umbria in particular, town walls became the site of what Richard Trexler has called “collective insults,” defamatory acts intended to shame and humiliate the opponent.¹⁶ The demonstrations involved minting coins with mocking insignia, knightng soldiers (often local exiles), and holding horse races (*palii*) that simulated celebratory races run in Italian cities on feast days. The insults included also *pittura infamante*, defamatory paintings, often of enemy commanders, drawn on public buildings and in public areas. During Siena’s war with Florence in

15 William Caferro, “Travel, Economy, and Identity in Fourteenth-Century Italy,” in D. Ramada Curto et al. (eds.), *From Florence to the Mediterranean and Beyond* (Florence, Olschki, 2009), pp. 363–80.

16 Richard C. Trexler, “Correre la Terra: Collective Insults in the Late Middle Ages,” *Mélanges de l’École Française de Rome* 96 (1984), 845–902; William Caferro, “Honor and Insult: Military Rituals in Late Medieval Tuscany,” in Samuel K. Cohn, Jr., Marcello Fantoni, and Franco Franceschi (eds.), *Ritual and Symbol in Late Medieval and Early Modern Italy* (Turnhout, Brepols, 2013), pp. 125–43.

1390, Sienese officials had painted on the city walls derisive images of members of the Malavolti family, who had supported the enemy.¹⁷

The practice should be viewed as part of the larger symbolic and ritualistic aspects of Italian warfare. Captains of armies received their batons by means of public ceremony. The departure of an army was arranged in consultation with astrologers, who paid close attention to other-worldly signs that might indicate future outcomes and even suggested the route that armies should take out of their cities.

Although pitched battles in the field were rare, they did occur. Most were impromptu affairs, happening, as at Crevalcuore near the Panaro river in 1373, when one side was distracted crossing a river or had a distinct advantage over the other.¹⁸ States nevertheless employed broader strategies, arranged in discussion between captains and government officials. In republics like Venice and Florence ad hoc committees known as *balie* were appointed in times of war and given special powers to enact policies without consulting ponderous governmental deliberative machineries. Cities sent civilian officials or *provveditori* to advise captains. The Florentine battle plan in 1391 involved a coordinated attack against the city of Milan from both the south and the north. The plan ultimately failed when the northern force, commanded by Jean II, count of Armagnac of France, was delayed, leaving the southern force isolated, short of provisions, and thus with no option but to retreat. When Armagnac finally arrived, he rushed headlong in disorganized fashion into battle and lost his army and his own life.

Armagnac was clearly an ineffective captain, whose faults were widely noted by Florentine chroniclers, who blamed his rashness on his youth. But other contemporary captains were far more accomplished. Indeed, the presence in Italy of mercenaries from throughout Europe brought different methods of war in close proximity, and the habit of captains in changing sides allowed them to become familiar with the tactics of their opponents, whom they had often previously fought beside. Moral issues aside, the practice added to the sophistication of the warriors. It was indeed in this milieu that the Englishman John Hawkwood emerged as a captain. His tactical skill at the battle of Castagnaro (1387) has been rightly judged masterful. At the head of Paduan forces, cut off from any means of retreat, Hawkwood effected an enveloping move along a canal that enabled him to surround and defeat Veronese forces. The maneuver has been compared to

17 Caferro, *John Hawkwood*, p. 290. 18 Ibid., p. 155.

that used at the great English victory at Poitiers (1356) during the Hundred Years War.

The precise size and composition of fourteenth-century armies is difficult to judge. Our main sources are chronicle accounts. The writers tended, however, to exaggerate. In particular, they were given to overstating the size of opposing forces and understating their own. In addition, they paid more attention to the aristocratic portion of the army, the cavalry, and less to their social inferiors, the infantry. Chroniclers often offer precise numbers and details about the former, but little about the latter, describing them generically as a “mass of men.”¹⁹ The accounts cannot, however, be wholly dismissed, as they are not entirely inconsistent with archival data where that is available. But army size clearly varied widely, depending on the nature of the campaign. Offensives against neighboring magnate clans required fewer men than those against more distant foes. Sieges necessitated a greater proportion of infantry, while campaigns in the field required more cavalry. The open plains of Lombardy could accommodate wars of maneuver; the hills of Tuscany were more conducive to sieges.

Estimates of army size usually range from several hundred to several thousand men. The 15,000 men-at-arms employed by Verona at Castagnaro should be taken as an upper limit. It is in any case necessary to distinguish carefully between those men hired for active service and those employed as auxiliaries or in non-combat roles. It is also necessary to treat cautiously the notion of “state” armies. The Veronese army in 1387, like those of other states, contained contingents from allies and military league partners. It is thus difficult to say for sure what parts were distinctly Veronese.²⁰

Among the best surviving sources of information for armies and their relations with employers are contracts or *condotte*. Many exist, primarily those involving mercenary cavalry captains (and to a lesser extent those involving Genoese crossbowmen). They spell out in detail the obligations between soldiers and states. The first major clause usually stipulated the number of soldiers to be furnished by a captain, expressed in terms of individual horses or in units such as *bandiere*, *barbute*, or lances. The *bandiera* consisted of twenty to twenty-five men, while the *barbute*, common among German mercenaries, consisted of two cavalymen and two horses. By the second half of the fourteenth century these units were replaced by the

¹⁹ *Ibid.*, p. 89.

²⁰ Mallett, *Mercenaries*, pp. 115–16. On the issue of army size, see also Bert S. Hall, *Weapons and Warfare in Renaissance Europe* (Baltimore, Johns Hopkins University Press, 1997), pp. 205–9.

lance, consisting of three men (a knight, a squire, and a page) and three horses. The lance became the standard cavalry contingent in Italy and Europe in the fifteenth century.

Pay was disbursed either in a lump sum to the captain, who distributed it to his men, or, more typically, apportioned directly by the state, at separate monthly rates to the captain and to the members of his band. Captains usually received advance pay in the form of a loan, to help assemble their bands. The sum was deducted from future pay. Contracts also laid out the division of spoils, payment of bonuses, compensation (*menda*) for injured horses, as well as a monthly schedule of inspections of the contingent to make sure they were properly armed and in order.²¹

The contracts make clear the capitalized nature of Italian war. There were monetary rewards (double pay) for "significant" victories in the field, compensation for injured horses, and penalties for failure to maintain one's equipment and pass muster. Soldiers were usually allowed to keep all movables they captured as well as a portion of the ransom of prisoners. The state received lands and castles. There were, however, substantial disagreements over such issues.

Throughout the fourteenth century, most contracts were of short duration, lasting from four to six months. A special type of contract, a *condotta in aspetto*, offered longer terms, allowing a captain, usually a prominent one, to fight for other employers, provided he returned when called upon. For this he received a continuous salary, usually a third of his regular pay.

The *condotta in aspetto* provided a means by which states could gain more permanent service from captains. By the fifteenth century, the duration of the contracts, particularly in the cities of Venice and Milan, increased, extending year-round. The contracts have been viewed as an advance toward more permanent, standing armies by the middle of fifteenth century.²²

We shall discuss more fully below the implications of this contractual evolution. It is important, however, not to overstate its significance. As with all prescriptive legal sources, contracts constitute an ideal and must be treated as a general guideline to military organization and practice. Not all soldiers were hired by means of *condotte*; infantry often were not, and communal levies still remained. Those hired by *condotte* did not necessarily receive pay as promised. There were often long delays and compensation by means of commodities such as cloth rather than coin. Salaries were also subject to

21 Caferro, *John Hawkwood*, pp. 71–81; Mallett, *Mercenaries*, pp. 76–87.

22 For a different interpretation on standing armies and length of contracts, see Caferro, "Continuity, Long-Term Service and Permanent Forces," pp. 303–12.

communal taxes and deductions. Most important, short-term contracts of four to six months did not necessarily mean short-term employment. The Florentine army, for example, retained its mercenaries for long periods in the fourteenth century, rehiring the same men on short-term contract again and again. The continuity was accompanied by careful assessment of the soldiers' skills; Florentine officials kept those men who most distinguished themselves. The short-term *condotte* provided Florence with a frequent means of assessing forces. But there was *de facto* long-term service apart from contractual terms.²³

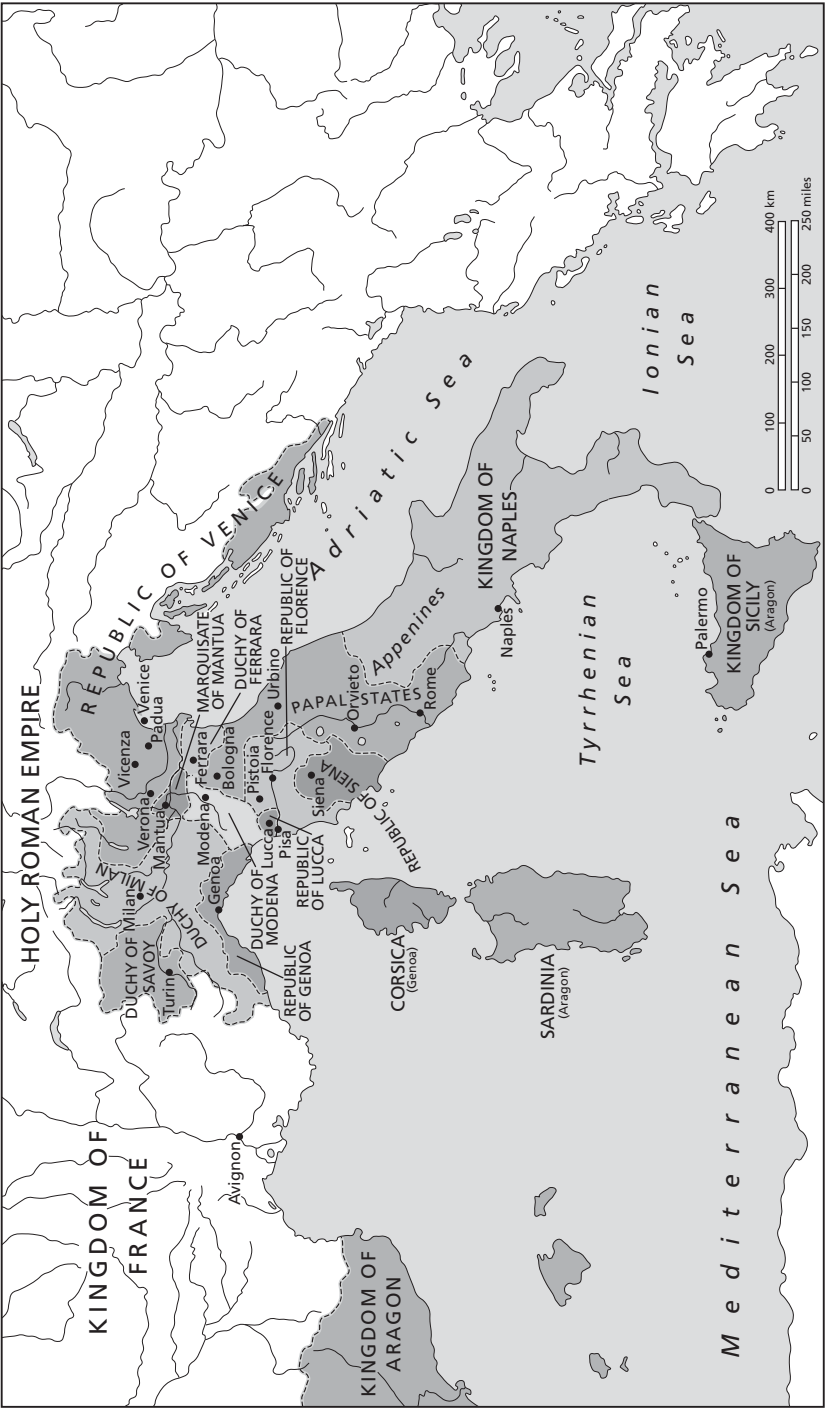
The contractual evidence also overstates the role of the cavalry. Most of extant *condotte* deal with that sector of the army. But infantry remained an important feature of armies. Some scholars have claimed that cavalry outnumbered infantry by as much as ten to one in the second half of the fourteenth century.²⁴ The reality, however, is that the proportions, where we are able to ascertain them, are often close, and sometimes favor infantry, even for armies that operated in the open plains of Lombardy. The Milanese army that defeated the count of Armagnac at Alessandria (near Milan) in 1391 consisted of 1,000 lances and 4,000 infantrymen.

Infantry contingents consisted of shield bearers and crossbowmen as their most basic components. They were joined by *guastatori* and sappers, who dug below fortifications, cleared roads, and did much of the dirty work. These men were usually not formally arranged into units, but their numbers were nevertheless often significant, particularly during sieges. Crossbowmen were frequently integrated with shield bearers, who stood beside them and protected them as they shot, a tactic that had been highly effective at the battle of Campaldino in 1289. The crossbow was more generally an important weapon, used both in the field and to defend against those trying to scale town walls. Missile weaponry also included rocks, thrown from buildings or launched by trebuchets. The defense of the Pisan town wall in 1363 involved tossing rocks and even a beehive at the enemy.

It is important to stress, however, that Italian warfare was not restricted to land. States fought also on the seas and on rivers, and on river and land in combination. Venetian and Genoese fleets battled each other in 1350 near Negroponte in the Aegean. John Hawkwood had men and supplies transported from his lands in Bagnacavallo in the Romagna to his troops in Lombardy via the Po river in the late 1370s. Venice and Milan sent fleets

²³ Ibid., pp. 303–23.

²⁴ Ugo Barlozzetti and Marco Giuliani, "La prassi guerresca in Toscana," in *Guerre e assoldati in Toscana: 1260–1364* (Florence, Museo Stibbert, 1982), p. 55.



MAP II. Italy c.1400

along the Po and Adige; Mantua patrolled the Mincio river with boats. The vessels ranged from war galleys to small *barche*, rowboats with a handful of men. During its war with Pisa in 1363, Florence fought battles on the seas near the island of Giglio. Milanese and Venetian fleets fought a major battle on the Po below the city of Cremona in 1431.

Evolution and innovation in the fifteenth century

Fifteenth-century warfare has received more scholarly attention than its fourteenth-century predecessor. It possessed many of the same features as earlier: emphasis on raids in the countryside, disruption of trade, and, more generally, maneuver and attrition over direct engagement. But scholars position fifteenth-century developments more closely in relation to the rest of Europe and with respect to the so-called military revolution. Italy has been judged backward with respect to the former and thus devolved into a testing ground for the weaponry of the latter. In all cases, scholars agree that Italy saw important changes. The scale and scope of warfare increased, accompanied by innovations with regard to artillery and fortifications, and ultimately the development of more permanent armies employed in times of peace, managed by more regularized administrative structures and procedures.

Two styles or “schools” of battlefield tactics dominated early fifteenth-century Italian warfare. They were based on the methods of two major mercenary captains, Muzio Attendolo “Sforza” (1369–1424) and Braccio da Montone (1368–1424). The men are usually cast as opposites. Sforza, from a wealthy landholding family, is known for his good looks and his promotion early in his career to the rank of full-fledged captain. Braccio da Montone, a Perugian exile, walked with a limp and remained obscure until his late thirties. Both were, however, highly successful in the battlefield. Sforza relied on a loyal cadre of troops recruited from his native lands in the Romagna, which he massed in large contingents and deployed cautiously in counter-attack. Braccio relied on speed and daring, dividing his men into small squadrons and committing them piecemeal into battle. This kept his army fresh and facilitated control of his men, who unlike those of Sforza, were not recruited from his own lands.

The *sforzeschi* and *bracceschi*, as their followers have been called, have attracted significant scholarly attention. Their methods were not so antithetical as they at first appear. Both relied on strong military discipline that involved coordination of cavalry movements with those of infantrymen,

who played an important role in fighting. The *sforzeschi* and *bracceschi* are probably better understood as factions in support of the rival *condottieri*, based more on friendship and place of origin. Their ranks included many of the most important captains of the century and the rivalry continued into the sixteenth century long after both men were dead.

Sforza and Braccio opposed each other directly in the field in June 1424 at L'Aquila. Sforza won the day, in part because one of his captains, Jacopo Caldora, had fought alongside Braccio and knew well his tendencies. Braccio was captured and died of wounds suffered in the conflict. The battle was notable for the roster of mercenary captains who participated in it, many of whom went on to illustrious careers. They included Erasmo da Narni (known as Gattamelata), who fought on the *bracceschi* side, and Niccoló Tolentino, who was among the *sforzeschi*. The battle was also noteworthy for its bloody nature. Chronicle accounts claim that as many as 3,000 men were killed, evidence that contradicts Machiavelli's famous assertion that engagements of the era were generally "bloodless" owing to the lack of interest of mercenaries in battle.²⁵

The period after L'Aquila, from 1424 to 1454, is seen as an important one in the development of Italian armies and war. Scholars point to a variety of developments, above all the broadening of inter-city conflicts. Venice, which had been largely preoccupied with its overseas activities in the fourteenth century, became more involved on the mainland and after 1425 embarked on a long series of wars with Milan that involved much of the northern and central part of the peninsula. The papal states remained unsettled. With the settlement of the papal schism (1378–1415), the newly elected pontiff Martin V (1417–31) attempted to restore order. Meanwhile, Alfonso of Aragon (1396–1458), ruler of Sicily, became heir to the Neapolitan throne in 1421 and embarked on a series of wars to consolidate his hold on the region (which ended successfully in 1442). Italy also faced a growing external threat from the Ottoman Turks, who were moving west and took Constantinople in 1453. The peace of Lodi in 1454 stabilized political realities within the peninsula, but it did not stop local skirmishes or the advance of the Ottomans. Venice fought back Turkish offensives in Friuli and Dalmatia in 1470 and 1477 respectively.²⁶

In the face of the challenge, the size of armies grew. Michael Mallett estimated that Venetian and Milanese forces, which consisted of

25 Mallet, *Mercenaries*, p. 197.

26 Paolo Grillo, *Cavalieri e popoli in armi: Le istituzioni militari nell'Italia medievale* (Rome and Bari, Laterza, 2008), p. 188.

10,000–12,000 cavalrymen in the 1420s, grew to 20,000 cavalrymen in the 1440s and 1450s. The increase was accompanied by use of year-long *condotte*, which now included explicit clauses spelling out the terms of peacetime service. Venice was precocious in this regard, with this type of *condotta* becoming common already by 1425. In 1433 Venice maintained a peacetime force of 5,000 horsemen and 2,000 infantrymen.²⁷ Venice owed its precocity with regard to military organization to several additional factors, including its relative political unity, its restricted land base for recruitment of soldiers in Italy and its expanding frontiers, which required constant vigilance.

The move toward more permanent forces occurred also in Milan. Under Filippo Maria Visconti (1412–47), the city relied on a corps of *famigliari*, cavalry units chosen directly from within Filippo's circle. In addition, Milan employed *lanze spezzate*, broken lances, detached from the service of *condottieri* and hired directly by the state, which then appointed their captains. In the 1420s, Milan recruited 700 *lanze spezzate* from Braccio da Montone's army at Aquila and arranged them into *squadre* under a hand-picked commander. The Venetians pursued a similar policy, building a nucleus of permanent cavalry devoted directly to the state, not to their captain as in earlier years. In addition, both Milan and Venice developed more enduring relationships with infantrymen, employing long term a core of men.

The *condottieri* nevertheless remained an important part of armies. Some settled into long-term service. Niccolò Piccinino captained Milanese armies for twenty years; Gattamelata worked for much of his long career for Venice. Officials worked to keep the men tied to the state by means of rewards, such as pensions and grants of estates. The latter constituted a species of enfeudation of the captains, which also provided a useful means of protecting borderlands. The Venetians, for example, gave the *condottiere* Carmagnola possession of the towns of Chiari and Sanguinetto, the former on the frontier near Brescia, the latter overlooking the Po river and the southeastern approaches to Verona. The grants of land both honored Carmagnola and solidified Venetian defenses in these key locations. In Milan under Francesco Sforza (1450–80), enfeudation helped create a whole class of *condottieri*/vassals obliged directly to Sforza, allowing him to more effectively consolidate his political control on the city.

Despite this "domestication" of *condottieri* by state authorities, it is nevertheless true that the personal status of the captains also grew. Exactly how the two phenomena were linked remains unclear. Contractual evidence shows

27 Mallett, "Venice and Its Condottieri," p. 139; Grillo, *Cavalieri e popoli in armi*, p. 176.

that distinguished *condottieri* received more favorable terms than in the past, including the right, as in the *condotta ad provisionem*, to form his own band in the manner that the captain desired. Bartolomeo Colleoni maintained service with several employers in his career and attempted to carve out his own private domain in Romagna in 1467, a move reminiscent of his less domesticated forebears in the fourteenth century.

In any case, the notion of a decisive shift in these years toward permanent forces should be treated with caution. Elements of permanence may be traced back to the garrisons of fortresses in the communal period and to the long-term employment of mercenaries by Florence in the fourteenth century. In 1369, the ruler of Milan, Bernabò Visconti, inaugurated a "standing" force of *provvisionati*, consisting of a small group of Milanese nobles who wore bright red cloaks. The difference in the fifteenth century appears to be one of degree, as larger numbers of men-at-arms entered permanent service (apart from garrisons, which continued nevertheless to exist). The changes were accompanied by state-level administrative alterations that regularized procedures and made management of armies a permanent part of local bureaucracies.

A major administrative innovation, again evident first in Venice and Milan, was the use in the fifteenth century of *colaterali*, permanent officials responsible for the overall administration of the army. These replaced the ad hoc *provveditori* of the fourteenth century. In Venice, Belpetro Manelmi held the position of *colaterale* for thirty years and had wide-ranging powers. In Milan, the office gained impetus under Francesco Sforza, who used it to create a cadre of permanent and professional officials, which included soldiers in administrative roles.

In both cities, the rise of permanent forces was also accompanied by a more regularized system of billeting soldiers. Milan employed a *commissario degli alloggiamenti* to supervise the comportment of troops. The state maintained the billets by means of taxes imposed on rural communities. Maria Nadia Covini has argued that the taxes and general maintenance of armies constituted a transfer of resources from the countryside to the state and thus the transformation of the Milanese army was closely linked to overall political consolidation.²⁸

There nevertheless remained considerable differences among armies. Not all were large. The Venetian chronicler Marin Sanudo estimated that in 1439

28 Maria Nadia Covini, *L'esercito del duca: Organizzazione militare e istituzioni al tempo degli Sforza, 1450-1480* (Rome, Istituto Palazzo Borromini, 1998).

the three biggest armies on the peninsula were those of Milan, Venice, and Naples, all with about 20,000 cavalrymen. The armies of Florence and the papacy, the two other major states, were substantially smaller, estimated at no more than 4,000 cavalrymen. Attempts at state control were not always successful. King Alfonso of Naples tried in 1443 to create a permanent force of 1,000 lances under his direct control from his demesne lands, but was opposed by local barons.²⁹ He therefore relied mostly on prominent independent *condottieri* from whom he gained generally good and long-lasting service. The Florentines did not use professional officials to manage their armies and were reluctant to grant lands and favors to mercenary captains. The papacy meanwhile managed its army primarily by appointing relatives of popes and cardinals to key leadership positions. Pier Luigi Borgia, nephew of Pope Calixtus III, was captain general of papal armies in 1457 and Antonio Piccolomini, relative of Pius II, served in that role in 1460. The duchy of Savoy, a small Piedmontese state that straddled the Alps, made hardly any use of mercenaries at all, maintaining a feudal cavalry composed of vassals of the duke and citizen infantry.

Nevertheless, the value of permanent forces was by the middle of the fifteenth century accepted in theory if not always followed in fact. It was advocated in military treatises such as that of Diomedes Carafa, who worked for Alfonso of Naples.³⁰ Indeed, Alfonso's son and successor Ferrante achieved modest success in establishing a permanent cavalry force of 1,256 lances and infantry units modeled on the highly successful Spanish armies. The Florentines likewise, by the end of the century, moved more in line with the other states.

Thus, despite local differences, it is fair to say that the armies of the second half of the fifteenth century were distinct from those of the second half of the fourteenth century. States experimented with regard to cavalry, introducing larger individual units and more structured chains of command. The Venetians introduced light cavalry, *stradiots* from Albania, who provided greater maneuverability and flexibility on the battlefield, particularly in the wars against Ottoman armies. The changes in cavalry were matched by changes also with regard to infantry. Italian states developed no equivalent to the contemporary Swiss pike infantry, but they increasingly used infantry in a more offensive role. Braccio da Montone introduced a sword-and-buckler type infantryman, lightly armed for hand-to-hand offensive fighting.

29 Mallett, *Mercenaries*, p. 116; Grillo, *Cavalieri*, pp. 174, 191.

30 Mallett, "Venice and Its Condottieri," p. 139.

There was increased use of firearms and the introduction in the 1430s of specialist handgun infantry units, *schioppetieri* companies, in Venetian and Milanese armies. There emerged also infantry captains, who maintained, like their cavalry counterparts, long-term relationships with states. Diotisalvi Lupi was a captain of Venetian infantry units for thirty years and was knighted by the republic in 1447.

The precise role of firearms and of gunpowder weapons remains a much-debated topic. Cannon were used already in the fourteenth century during sieges, often alongside rock-throwing trebuchets. They were likewise deployed – and often most effectively – in defense of town walls. By the middle of the fifteenth century, cannon had become larger and more mobile. Armies had large-scale artillery trains. The price of gunpowder decreased and the reliability of the weapons increased markedly.³¹

Most Italian scholars agree, however, that the effects of the gunpowder revolution were limited on the peninsula. Cannon and firearms did not yet sway the course of battles, though they were a factor in sieges. Their influence is most evident in fortress building, which by the middle and second half of the fifteenth century was much improved. Defensive walls were thickened and scarped, with emphasis on low projecting bastions. But the changes in fortification have been viewed not so much as a direct response to gunpowder, but as part of a broader impulse toward experimentation with regard to war that included also new approaches to fortifying camps and constructing temporary field fortifications and diverting rivers. The impulse derived also from the artistic and humanistic cultures then developing in Italy. Some of the most important military engineers were Renaissance artists and architects, including Leon Battista Alberti and Leonardo da Vinci. Understood in context then, changes in fortifications during the gunpowder era appear more evolutionary than revolutionary.

This revisionist view has been applied also to the French invasion of 1494, the great turning point in Italian military history. The contemporary humanist historian Francesco Guicciardini attributed French success primarily to their cannons, which were larger, more mobile, and more effective than hitherto seen on the peninsula.³² Few dispute French and northern European expertise and innovation with regard to the weapon. But Italianists now stress local familiarity with the cannon and question the role the weapon played in French success in the peninsula. They argue that the French

³¹ Hall, *Weapons and Warfare*, pp. 67–105.

³² Francesco Guicciardini, *The History of Italy*, trans. Sidney Alexander (Princeton, Princeton University Press, 1984), pp. 50–1.

invading army was in fact not substantially different from forces already operating in Italy. Its advance was in the first instance facilitated by a breakdown in Italian political alliances. The city of Florence has absorbed much of the blame for failing to adequately block its passes through the Apennine mountains, thus allowing French forces to move largely unpeded to Naples.

War and society

The overall impact of war on Italian society is the focal point of much current research. The most obvious effect of war during the period was political. The years 1300 to 1500 coincided with the consolidation of political power on the peninsula, with the formation of territorial states and the so-called five Renaissance states (Venice, Naples, Milan, Florence, and the papacy). It is unclear, however, whether war served as a mainspring or makeweight for these developments. Consolidation and territorial expansion involved a complex game of diplomacy and maneuver in which the acquisition of land often preceded wars (purchased with money) and was as much a cause of them as their result. The notion that war made more efficient or “modernized” government bureaucracies, an argument stated most forcefully in the sociological work of Charles Tilly, is uneasily applied to Italy.³³ The Venetians and Milanese undertook important bureaucratic changes, but it would be an overstatement to assert that their administrations became efficient or modern as a result of warfare. The need to raise quickly enormous sums of money and disburse them produced as much chaos and confusion in the fisc as innovation, and it challenged the bureaucratic capacity of even the wealthiest regimes.

The economic effects of war were similarly variegated. War was in the first instance destructive. It hampered trade and damaged rural lands and physical structures. At the same time, however, it provided income for soldiers and for laborers – carpenters, rope makers, stonemasons, blacksmiths among them – who made weapons, or built field fortifications, trebuchets, and cannons. It produced earnings also for industries such as the Venetian *arsenale*, which produced ships, and for Milan’s armor business. Most important, war redistributed wealth, both on the micro level within states (in terms of the various social classes, which bore different tax burdens) and on the

33 Charles Tilly, *Coercion, Capital, and European States, AD 990–1992* (London, Wiley-Blackwell, 1992).

macro level, among states, which gained and lost according to outcomes, and whose economic, social, and political makeup as well as geographic location occasioned diverse pressures and produced different responses. In this context, the shift from use of foreign mercenaries in the fourteenth century to native *condottieri* in the fifteenth century assumes a critical economic meaning. The former sent earnings back home to their native states to prepare for return there, while the native troops spent all their pay within Italy, enhancing the recycling of wages back into the local economy.

The last statement points us toward the cultural dimension of war, which is perhaps its most visible and enduring feature. War was profitable for those soldiers who successfully fought it. Captains often used these profits to endow chapels, patronize the arts, and to consume conspicuously. The pattern is evident already in the fourteenth century in the career of the obscure German captain Hüglin von Schöneck, who used his profits to endow a chapel in the local cathedral in his native Basel. His Italian counterpart Braccio da Montone spent lavishly to beautify his native Perugia, after he took the city in 1416. The trend reached its peak with Sigismondo Malatesta of Rimini (d.1468) and Federico da Montefeltro of Urbino (d.1482), *condottieri* known as much for the art they commissioned in their native states as their deeds on the battlefield.

The reconquest and the Spanish monarchies

DONALD J. KAGAY

Although a battle zone from early in its history, the Roman province of *Hispania* began to undergo external military pressure in the fifth century CE with the invasions of the Visigoths, Suevi, and Vandals.¹ Within a century, the Visigoths had come to dominate the Peninsula, establishing their capital at Toledo and exchanging their Arian brand of Christianity for Roman Catholicism.² Like its Roman imperial predecessor, the Visigothic kingdom was structurally weak and revealed this instability each time a sovereign died. Rulers were seldom replaced without a civil war in which members of the royal family and their supporters fought for the throne. In the last of these struggles, Roderick (710–11) was opposed by the heirs of his predecessor, Watiza (701–10), led by Count Julian of Ceuta on the African litoral. Gathering a small army of Berber tribesmen, many of whom had recently converted to Islam, Julian led an assault against Roderick in the late spring of 711. He was eventually disposed by Tarik ibn Zīyad, an agent of the Muslim governor of Tangier.³

1 Roger Collins, *Early Medieval Spain: Unity in Diversity, 400–1000* (London, Macmillan, 1983), pp. 11–24; Simon Keay, *Roman Spain* (Berkeley, University of California Press, 1988), pp. 202–18; Preston King, *Law and Society in the Visigothic Kingdom* (Cambridge, Cambridge University Press, 1972), pp. 19–24.

2 Ramon Abadal i de Vinyals, *Del reino de Tolosa al reino de Toledo* (Madrid, 1960); Manuel C. Diaz y Diaz, 'La cultura de la España visigótica del siglo VII', *Settimane di studio del centro italiano di studi sull'alto medioevo* 5 (1958), 813–44; Jocelyn Hillgarth, 'La conversion de los visigodos', *Analecta Sacra Terraconensia* 34 (1961), 121–46; Edward Thompson, *The Goths in Spain* (Oxford, Oxford University Press, 1969, repr. 2000), pp. 7–51.

3 For Visigothic institutional weakness and succession problems, see José Orlandis Rovira, 'La Iglesia visigoda y los problemas de la sucesión al trono en el siglo VII', *Settimane di studio del centro italiano di studi sull'alto medioevo* 7 (1960), 333–51; José Orlandis Rovira, *El poder real y la sucesión al trono en la monarquía*, Estudios visigóticos III (Rome/Madrid, 1962); Claudio Sánchez Albornoz, 'La pérdida de España. El ejército visigodo: su protofeudalización', *Cuadernos de Historia de España* 43–44 (1967), 5–73. For the Islamic invasion, see Roger Collins, *The Arabic Conquest of Spain 710–797* (Oxford, Oxford University Press, 1994), pp. 17–22; 'The Chronicle of 754', in *Conquerors and Chronicles*

Within a decade of Tarik's initial attack, a number of small Arabic-Berber armies had captured the majority of Spain. Though the Peninsula was initially ruled by a 'governor' (amir), it came under the direct administration of a caliph when the last scion of the Umayyad dynasty, 'Abd al-Rahmān ibn Mu'āwiya, established himself at Cordoba in 756. Becoming a magnet for artists, philosophers, scientists, and theologians, the city grew to over 100,000 residents. By 1031, however, the Umayyad caliphs had lost their control over the Spanish hinterland, which now came to be dominated by some twenty mini-states (*taifas*) that normally controlled one Iberian provincial capital and the territory around it.⁴ Though these small polities fell under the domination of African Islamic fundamentalists – the Almoravids in the eleventh and twelfth centuries and the Almohads in the twelfth and thirteenth⁵ – pockets of Muslim power in the Peninsula eventually coalesced into the Nasrid kingdom of Granada in the thirteenth century.⁶

While the rulers of this mountainous state were occasionally under the political and military shadow of the north African dynasty that

- of *Early Medieval Spain*, trans. Kenneth Wolf (Liverpool, Liverpool University Press, 1990), pp. 132–6 (chs. 55–64); H. Kennedy, *Muslim Spain and Portugal: A Political History of Al-Andalus* (London, Longman, 1996), pp. 3–15; Mahmood Makki, 'The Political History of Al-Andalus (92/711–897/1492)', in Salma Khadra Jayyusi (ed.), *The Legacy of Muslim Spain*, 2 vols. (Leiden, Brill, 1994), vol. 1, pp. 6–10.
- 4 Richard Fletcher, *Moorish Spain* (Berkeley, University of California Press, 1992), pp. 53–102; Thomas Glick, *Islamic and Christian Spain in the Early Middle Ages: Comparative Perspectives on Social and Cultural Formation* (Princeton, Princeton University Press, 1979); Philip Hitti, *Capital Cities of Arab Islam* (Minneapolis, University of Minnesota Press, 1973), pp. 135–63; Kennedy, *Muslim Spain and Portugal*, pp. 82–149; Evariste Levi-Provençal, *Histoire de l'Espagne musulmane 711–1031*, 3 vols. (Paris/Leiden, Maisonneuve and Larose, 1950–1953); Josiah Russell, *Medieval Regions and Their Cities* (Newton Abbot, David & Charles, 1972), pp. 181–2; David Wasserstein, *The Caliphate in the West: An Islamic Political Institution in the Iberian Peninsula* (Oxford, Oxford University Press, 1993), and *The Rise and Fall of the Party Kings: Politics and Society in Islamic Spain 1002–1082* (Princeton, Princeton University Press, 1985).
- 5 Jacinto Bosch Vila Vila, *Los Almoravides*, ed. E. Molina López (Granada, 1996); Ambrosio Huici Miranda, *Historia política del imperio Almohade*, 2 vols. (Tetuan, Instituto General Franco de estudios e investigación Hispano-Arabe, 1956–7); Ambrosio Huici Miranda, *Las grandes batallas durante las invasiones Almoravides, Almohades y Benimerines* (Madrid, Torres, 1956), pp. 19–82; Kennedy, *Muslim Spain and Portugal*, pp. 154–272.
- 6 Rachel Arie, *L'Espagne musulmane au temps des Nasrides (1232–1492)* (Paris, Editions de Bocard, 1972, repr. 1990); James Dickie, 'Granada: A Case Study of Arab Urbanism in Muslim Spain', in Jayyusi (ed.), *The Legacy of Muslim Spain*, vol. 1, pp. 88–111; Fletcher, *Moorish Spain*, pp. 157–69; Mariano Gaspar y Remiro, 'Documentos árabes de la corte nazarí de Granada', *Revista de archivos, bibliotecas y museos* 21 (1909), 330–9, 531–5; 22 (1910), 260–9, 421–31; 23 (1911), 27–48, 411–23; Leonard Harvey, *Islamic Spain 1250 to 1500* (Chicago, Chicago University Press, 1992), pp. 15–274; Kennedy, *Muslim Spain and Portugal*, pp. 273–308; Luis Seco de Lucena, *La Granada nazarí del siglo XV* (Granada, Patronato de La Alhambra, 1975).

dominated Morocco, the Marinids,⁷ they knew full well that the greatest danger to their existence did not originate from their co-religionists but rather from the ascendant Christian powers of northern Spain. The Christian realms sprang from the pockets of Visigothic survivors who held out against Islamic conquest in the mountainous region of Asturias along the north-west coast and in south-eastern French valleys of the Pyrenees. The central realms, Castile and Aragon, sprang from the great Pyrenean 'empire' established by Sancho III 'the Great' of Navarre (1000–35), whose own homeland was eventually subsumed by the modern states of France and Spain.⁸ Castile, first as a county and then a kingdom, became linked by marriage to León, the successor-state to Asturias, and from the reign of Fernando III (1217–52) came under the control of a Castilian royal family.⁹ Aragon was eventually bound by dynastic ties to the easternmost Iberian realm, Catalonia. This 'land of castellans' had entered institutional life as a Carolingian march, but by the twelfth century had expanded to meet its landlocked Aragonese neighbour. When in 1137 the Catalan ruler, Count Ramon Berenguer IV of Barcelona (1131–63) married the Aragonese queen, Petronilla (1137–73), these two very different lands were lashed together as the Crown of Aragon.¹⁰ In the far-western districts of the Peninsula, a Leonese march, the county of Portugal gained its independence under the leadership of

7 M. A. Manzana Rodríguez, *La intervención de los Benimerines en Península Ibérica* (Madrid, Consejo Superior de Investigaciones Científicas, 1992).

8 Thomas Bisson, *The Medieval Crown of Aragon: A Short History* (Oxford, Oxford University Press, 1986); Henry Chaytor, *A History of Aragon and Catalonia* (London, Methuen, 1933, repr. New York, 1969), pp. 32–3. For Sancho the Great, see Analecto de Artueta, *Sancho el Mayor, Rey de los Vascos* (Buenos Aires, Anacleto de Ortueta, 1963); Justo Pérez de Urbel, *Sancho el Mayor de Navarra* (Madrid, Diputación Foral de Navarra, 1950).

9 Julio González, *El reino de Castilla en la época de Alfonso VIII*, 3 vols. (Madrid, Consejo Superior de Investigaciones Científicas, 1960); Bernard Reilly, *The Kingdom of León-Castilla under King Alfonso VI 1065–1109* (Princeton, Princeton University Press, 1983); Bernard Reilly, *The Kingdom of León-Castilla under Queen Urraca 1109–1126* (Princeton, Princeton University Press, 1982).

10 Pierre Bonnassie, *La Catalogne du milieu du Xe siècle à la fin du XIe siècle. Croissance et mutation d'une société*, 2 vols. (Toulouse, Publications de l'Université Toulouse-le-Mirail, 1975–6); Ferran Soldevila, *Història de Catalunya*, 3 vols. (Barcelona, Editorial Alpha, 1934); *The Usages of Barcelona: The Fundamental Law of Catalonia*, trans. Donald J. Kagay (Barcelona, University of Pennsylvania Press, 1994). For unification of Aragon and Catalonia, see Josep Pernaud i Espelt, 'Les condiciones de la unió de Aragó i Catalunya en un manuscrit de Valencia Rafael Martí de Viciàna', *Arxiu de Textos Catalans Antics* 2 (1983), 357–61; Joaquim Targgja, 'Il·lustració del reynado de don Ramiro de Aragón', *Memorias de la Real Academia de Historia* 3 (1799), 588–91 (docs. 13–14).



MAP 12. The realms of medieval Spain

the French adventurer, Henry of Burgundy (1093–1112) and his son, Afonso I Henriques (1110–85), the first Portuguese king.¹¹

While the diplomatic and political exchanges of these states were extremely complicated and transitory, the frontier dividing Christian and Islamic states of the Peninsula remained as a permanent site of military interaction and human exchange. In their early history, the Christian states isolated themselves from their much stronger Islamic neighbours by transforming their frontiers into what modern geographers call ‘artificial border wastes’. On the edge of these vast swaths of open land, Christian rulers established settlers whose prime duty, besides agricultural cultivation of the boundary

¹¹ Charles J. Bishko, ‘Count Henrique of Portugal, Cluny and the Antecedents of the Pacto Sucessorio’, *Revista Portuguesa de Historia* 13(1970), 155–88; José Mattoso, *D. Afonso Henriques e fundação de nacionalidade portuguesa* (Coimbra, Temas e Debates, 1949); Antonio Henrique de Oliveira Marques, *History of Portugal*, 2 vols. (New York, Columbia University Press, 1972), 1, pp. 35–42.

land, was to stand as first defenders against Muslim raiders. The temptation of so much unsettled territory, however, motivated this 'first-alert' force to claim possession of the ownerless land in the vicinity of their homes. As a result, these hardy frontiersmen pushed Christian control southward slowly and imperceptibly, cementing their gains by building small towers or conquering larger, Muslim fortresses.¹²

From this process that history seldom took notice of came the first phase of the reconquest marked by the incessant raids (*cabalgadas*) against Muslim outposts across the frontier. This military duty of attack and garrison defence was one of the principal duties of male and female citizens in Christian towns and villages along the frontier.¹³ Besides these urban militias that played important roles against Islamic Spain until the fifteenth century, many reconquest expeditions were carried out under the auspices of local leaders such as Rodrigo Díaz de Vivar 'the Cid' in the eleventh century and Geraldo Gualdes 'the Fearless' in the twelfth. These marcher lords maintained an army of their own retainers, whose services they sold off to the highest bidder, Christian or Muslim. While they often operated under the banners of Christian kings, they adopted such Muslim military norms as lightweight armour and highly mobile cavalry units (*jinetes*) in fashioning extremely experienced and adaptable military forces that could hold their own against much larger national contingents.¹⁴

12 Lord Curzon, 'Frontiers', *The Romanes Lecture 1907* in Wikisource: Speeches <http://en.wikisource.org>; Julian V. Minghi, 'Boundary Studies in Political Geography', *Annals of the Association of American Geographers* 53 (1963), 407. For frontier castles on Iberian frontiers of Middle Ages, see Pere Catalá i Roca, 'Los castillos de la Reconquista en Cataluña', *Castillos de España* 71 (1971), 18–31; José María Cuenca López, 'Las fortificaciones andalusíes. La enseñanza de la historia a través de los castillos', *Iber: Didáctica de las ciencias sociales, geográfica y historia* 51 (2007), 51–612; Thomas Glick, *From Muslim Fortress to Christian Castle: Social and Cultural Change in Medieval Spain* (Manchester, Manchester University Press, 1995); Iñaki Martín Viso, 'Castillos, poder feudal y reorganización espacial en la Transierra madrileña (siglos XII–XIII)', *Espacio, tiempo y forma. Serie III, Historia medieval* 13 (2000), 177–244.

13 For *cabalgadas*, see María del Mar García Guzmán, 'Las cabalgadas en tierras granadinas de Juan Fernández Galindo', in *Homenaje al Prof. Jacinto Bosch Vila*, 2 vols. (Granada, Editorial Universidad de Granada, 1991–2), vol. 1, pp. 181–92; Pedro Andrés Porras Arboledas, 'Dos casos de erechamiento de cabalgadas (Murcia 1334–1392)', in *Estudos em homenagem ao Professor Doutor José Marques*, 4 vols. (Porto, Universidade do Porto, 2006), vol. 2, pp. 261–9; Manuel Rojas Gabriel, 'La capacidad militar de la nobleza en la frontera con Granada: El ejemplo de Don Juan Ponce de León, II conde de Arcos y señor de Marchena', *Historia, Instituciones, Documentos* 12 (1995), 512, and 'El valor bélico de la cabalgada en la frontera de Granada (c1350–c1481)', *Anuario de Estudios Medievales* 31 (2001), 295–398.

14 Stephen Clissold, *In Search of the Cid* (London, Hodder and Stoughton, 1965); Richard Fletcher, *The Quest for El Cid* (New York, Oxford University Press, 1990); Denis Lomax, *The Reconquest of Spain* (New York, Longman, 1978), pp. 113–15.

Even with this 'background static' of local and small-scale attacks on Islamic territory in the Peninsula, a quantum leap in such military endeavours was accomplished when linked to the broader administrative reach of the royal government and the effective fiscal and motivational tools connected with the crusading movement. Both Christian and Muslim armies at this highest stage of development were surprisingly similar through the first centuries of reconquest warfare. Led by a sovereign, or other members of a ruling family, these forces were divided between heavy- and light-armoured cavalry who used broadswords and lances and infantrymen who relied on lances, longbows, and crossbows. On the Christian side, most of these troops were feudally tied to the ruler or the various commanders who served under him. They consisted of knights from the baronial ranks and often-sizeable companies of their vassals who served for up to three months at their lords' expense. Town militias were also required to serve in royal armies, but often in a subsidiary capacity. Muslim leaders used similar types of units, but increasingly relied on mercenary troops to defend their territory. From the twelfth century, both Christian and Muslim commanders supplemented their armies with military manpower of a religious nature, whether 'holy warriors' (*ijihādi*) from across the Islamic world who garrisoned each scattered 'frontier fort' (*ribat*), Christian frontier fighters (*almogaveres*), or military orders (Templar, Hospitallers, Calatrava, etc.) who occupied similar posts on the Christian frontier.¹⁵

Christian armies involved in the reconquest could involve as many as 20,000 troops led by up to 3,000 heavily armoured knights. If such campaigns assumed papal authorization as crusades these larger forces, bolstered by volunteers from outside Iberia, were not unheard of. Islamic armies, which often consisted of Granadan and African units, could range up to 40,000.¹⁶

15 María Teresa Ferrer i Mallol, 'La organización militar en Cataluña en la Edad Media', in 'Conquistar y defender. Los recursos militares en la Edad Media hispánica', Special issue of *Revista de Historia Militar* 45 (2001), 178–86; Alan Forey, *The Military Orders from the Twelfth to the Early Fourteenth Centuries* (London, Macmillan, 1992), 50–1; Francisco García Fitz, *Castilla y León Frente al Islam: Estrategias de expansión y tácticas militares (siglos XI–XIII)* (Seville, Universidad de Sevilla, 1998), pp. 135–6; Francisco García Fitz, 'La composición de los ejércitos medievales', in Bías Casado Quintanilla and José Ignacio de la Iglesia Duarte (eds.), *La guerra en la Edad Media: XVII semana de estudios medievales* (Logroño, Castellano, 2007), pp. 85–146; Hugh Kennedy, *The Armies of the Caliphs: Military and Society in the Early Islamic State* (London, Routledge, 2001); F. Franco Sánchez and Mikel de Epalza Ferrer (eds.), *La Rábita en el Islam: Estudios internacionales de Sant Carles de la Ràpita* (1989, 1997) (Alicante, Universidad Alicante, 2004); Ferran Soldevila, *Els almogàvers* (Barcelona, Edicio Barcino, 1952); *The Templars*, ed. Malcolm Barber and Keith Bate, Manchester Medieval Sources (Manchester, Manchester University Press, 2000), pp. 93–6 (docs. 17–18).

16 Nicholas Agrait, 'Monarchy and Military Practice during the Reign of Alfonso XI of Castile (1312–50)', unpublished PhD diss. (Fordham University, 2003), pp. 68–71; Ferrer i Mallol, 'Organización', p. 171; García Fitz, *Castilla*, pp. 136–9; Donald J. Kagay, 'Army

Because of the harsh and largely arid landscape over which Iberian armies had to operate, such troop levels were not normal for most reconquest campaigns. The same natural factors mandated that the principal military action in reconquest campaigns was the cross-border raid that attempted to ravage enemy settlements, agriculture, and commerce. While few reconquest campaigns featured pitched battles, they did occur frequently enough to demonstrate the differences in tactics between Christian and Islamic forces. In comparison to Christian armies that relied on the infantry to throw into disarray enemy formations and then on cavalry units to turn this *mêlée* into either slaughter or surrender, Muslim armies of the Peninsula relied on feint and ambush positions to decimate or break up enemy formations.¹⁷

The most important of the larger military operations was the siege which coordinated naval and artillery units with the core infantry and cavalry battalions in an effort to close off castles or walled cities. In the earlier centuries, Christian armies often captured enemy fortresses by stealth, entering them at night and gaining access by secretly opening the gates. This means was of limited effectiveness when Muslim fortresses were not close to Christian territory and eventually gave way to a much more complex operation. With the dry climate of many Iberian regions, the blockage of water sources and the spread of disease was a favourite means utilised by besieging forces to bring about rapid enemy surrender. Along with this select destruction, besieging forces sought to open up viable supply lines to their own territories while ringing the target of the siege with strongly defended outposts. From this circle of security, the attackers

Mobilization, Royal Administration, and the Realm in the Thirteenth-century Crown of Aragon', in Paul Chevedden, Donald Kagay, and Paul Padilla (eds.), *Iberia and the Mediterranean World of the Middle Ages: Essays in Honor of Robert I. Burns S.J.*, 2 vols. (Leiden, Brill, 1995–6), vol. 2, pp. 104–5; Joseph F. O'Callaghan, *Reconquest and Crusade in Medieval Spain* (Philadelphia, University of Pennsylvania Press, 2003), pp. 125–6; Alvaro Santamaría, 'La expansión político-militar bajo la dirección de Jaime I: Baleares', in *X Congrés d'història de la corona d'Aragó dedicat al rey En Jaume I y a la seva època* (Zaragoza, CSIC, 1975–6), *Ponencias*, pp. 122–3; Juan Torres Fontes, *La frontera murciano-granadina* (Murcia, Real Academia Alfonso X el Sabio, 2003), pp. 326, 429–31; Juan Torres Fontes, *Instituciones y sociedad en la frontera murciano-granadina* (Murcia, Real Academia Alfonso X el Sabio, 2004), p. 124.

- 17 Nicholas Agrait, 'The Experience of War in Fourteenth-century Spain: Alfonso XI and the Capture of Algeciras: Alfonso XI and the Capture of Algeciras (1342–1344)', in Donald J. Kagay and L. J. Andrew Villalon (eds.), *Crusaders, Condottieri, and Cannon: Medieval Warfare in Societies around the Mediterranean* (Leiden, Brill, 2002), pp. 122–4; Fernando Castillo Cáceres, 'La caballería y la idea de la guerra en el siglo XV: El marqués de Santillana y la batalla de Torote', *Medievalismo* 8 (1998), 91–3; García Fitz, *Castilla*, pp. 160–70; Elena Lourie, 'A Society Organized for War: Medieval Spain', *Past and Present* 35 (1966), 68–70; O'Callaghan, *Reconquest*, pp. 140–3.

gradually tightened their hold with raids and major attacks. During this time, the attackers used two means to weaken the enemy walls. Sappers dug tunnels that started from behind the moats of the besieged fortress and slowly moved under its walls, which they eventually undermined by igniting firewood placed in the tunnel. From the thirteenth century, besiegers increasingly turned to traction and counterweight artillery pieces to open cracks in the front and rear wall facings that held in the central rubble. When these breaches were large enough the attackers stormed them, often putting the entire garrison and many civilians to the sword.¹⁸

Because of the centuries of intense, albeit intermittent warfare, the frontiers that divided Christian from Muslim Spain during the years of the reconquest attained a unique character that resembled neither of the combatant societies, forming instead land dominated by war and self-interest. Characterised by Burns as a 'region of warfare and peril' and by Jackson as a 'miniature Wild West', these highly unstable frontiers were filled with criminals and nonconformists who were invariably bilingual or even trilingual and utilised the instability of the situation to their advantage. They fought when Christian and Muslim leaders brought large armies to bear on the area, but they also enriched themselves from profitable plundering expeditions. Besides this activity, which normally proved acceptable to their distant lords, all classes of residents enriched themselves with a remarkable variety of commercial ventures, including counterfeiting, rustling, and smuggling. The porous nature of the frontiers also made slave-trading a ready source of capital as it caused the transport of both Christian and Muslim captives across and even outside of Iberia. Even with the formal end of the reconquest in 1492, the wild nature of Spain's southern borderlands was not tamed by Spanish rulers for centuries to come.¹⁹

18 Agrait, 'Experience', pp. 226–32; García Fitz, *Castilla*, pp. 217–77; Joseph Goday y Casals, 'Medis d'atach y de defensa en la Crònica del Rey D. Jaume', in *Congrés d'història de la corona d'Aragò dedicat al rey En Jaume I y a la seva època* [ICHCA], 2 vols. (Barcelona, 1909–13), vol. 2, pp. 803–5; Donald J. Kagay, 'Jaime I of Aragon: Child and Master of the Spanish Reconquest', *Journal of Medieval Military History* 8 (2010), 92–5; O'Callaghan, *Reconquest*, pp. 135–40. For the spread of counterweight and traction artillery into medieval Spain, see Paul Chevedden, 'The Invention of the Counterweight Trebuchet: A Study in Cultural Diffusion', *Dumbarton Oaks Papers* 54 (2000), 102–6; Paul Chevedden, Les Eigenbrod, Vernard Foley, and Werner Soedel, 'The Trebuchet', *Scientific American* (July 1995), 58–63; Paul Chevedden et al., 'The Traction Trebuchet: A Triumph of Four Civilizations', *Viator* 31 (2000), 433–86; Paul Chevedden, 'The Artillery of James the Conqueror', in Chevedden, Kagay, and Padilla (eds.), *Iberia and the Mediterranean World*, vol. 2, pp. 68–76.

19 James W. Brodman, 'Medieval Ransoming Law on the Medieval Spanish Frontier', *Speculum* 60 (1985), 318–30; James W. Brodman, *Ransoming Captives in Crusader Spain: The Order of Merced on the Christian-Islamic Frontier* (Philadelphia, University of

Though the subject of recent scholarly debate, the linkage of reconquest and crusade is evident from the primary documentary record. From the ninth century, Christian writers sanctified the mythic story of Pelayo who resisted the Islamic conquest of the early eighth century by dedicating himself in a kind of military service to Christ who would aid Spain. Succeeding centuries abound with examples of Spanish rulers who saw the war on their Islamic neighbours as part of a cosmic conflict between good and evil. This was obvious with serious practitioners of the reconquest such as Alfonso I of Aragon (1104–34), who left his realms to the crusading orders of the Hospital, Temple, and Holy Sepulchre when he died without a legitimate heir, and Ramon Berenguer IV of Barcelona (1131–62), who in 1134 dedicated himself for a year's service with these selfsame orders to further the war on Islam in the Peninsula.²⁰

The papacy began to manipulate these sentiments in the eleventh century by offering both temporal and spiritual rewards to those who would engage in resettlement projects such as the reclamation between 1018 and 1089 of the archbishopric of Tarragona that had been destroyed and abandoned since the first years of the Islamic conquest and in underwriting full-fledged military campaigns such as the attack on the Muslim outpost of Barbastro in 1064 that was conducted by both French and Iberian troops. In both of these cases, the pope promised 'penance . . . and remission of sins' for all participants in these activities. In 1097, after such papal activity coupled with the emergence of the Seljuq Turks had brought about eastern crusading, Urban II (1088–99) recognised the two-pronged conflict against Islam that he now oversaw by commanding Spaniards to maintain their war on the Iberian Muslims rather than engaging in the campaigns in the Holy Land which were being carried out by

Pennsylvania Press, 1986); Robert I. Burns, S.J., 'The Significance of the Frontier in the Middle Ages', in Robert Bartlett and Angus MacKay (eds.), *Medieval Frontier Societies* (Oxford, Oxford University Press, 1989), p. 322; Antonio Gutierrez de Velasco, 'Molina en la Corona de Aragón (1369–1375)', *Teruel* 6 (1951), 111–12; Gabriel Jackson, *The Making of Medieval Spain* (London, Thames and Hudson, 1972), p. 36; José Enríquez López de Coca Castañer, 'Institutions on the Castilian-Granadan Frontier, 1369–1482', in Bartlett and MacKay (eds.), *Medieval Frontier Societies*, pp. 146–7; Joaquín Miret y Sans, 'Négociations de Pierre IV d'Aragon avec la cour de France (1366–1367)', *Revue Hispanique* 13 (1905), 102–3; Luis Suárez Fernández, 'Política de Enrique II', *Hispania* 16 (1956), 50–3.

- 20 Armando Besqa Marroquín, 'El testamento de Alfonso I 'el Batallador'', *Historia* 16.390 (2008), 8–17; Alan Forey, 'The Will of Alfonso I of Aragon and Navarre', *Durham University Journal* 73 (1980), 59–65 and *Military Orders*, p. 24; Elena Lourie, 'The Will of Alfonso I, el Batallador, King of Aragon and Navarre: A Reassessment', in *Crusade and Colonisation: Muslim, Christians, and Jews in Medieval Aragon* (London, Routledge, 1990), study III, and 'The Will of Alfonso I of Aragon and Navarre: A Reply to Dr. Forey', in *Crusade and Colonisation*, study IV; O'Callaghan, *Reconquest*, pp. 1–17.

other European Christians. For the next four centuries, Aragonese, Castilian, and Portuguese rulers largely complied with this papal command by chipping away militarily at the damaged foundations of Islamic Spain. They relied on the crusading superstructure provided by the papacy to attract manpower from both outside and inside the Peninsula while obtaining a stable funding base for such campaigns through the diversion of ecclesiastical revenues for a limited time. Jaime I of Aragon (1214–76) is a perfect example of a crusade warrior who became expert at manipulating papal aid in mounting one expedition after another against Islamic Spain. Jaime looked on himself as a crusader, however, and, after decades of warring in his homeland, he took up the cross in 1269 to carry this fight to the Latin East.²¹

While the Christian war on Spanish Islam took place in a chronological continuum that affected all of the Peninsula in roughly similar fashion, it is often easier to follow the ebb and flow of this conflict in individual realms and regions. To tie these local histories to the general phases of the reconquest, we will discuss military events in separate segments down to the great Christian victories of the mid thirteenth century and then provide the background for the last reconquest triumph, the war on Granada.

With the longest and most influential reconquest pedigree, Castile-León must be discussed first. In the decades after the disintegration of the Cordovan caliphate, the rulers of the central Iberian Christian states commenced aggressive attacks on neighbouring *taifas* that ultimately resulted in the glorious conquest of Toledo in 1085. Within a year, however, the architect of this triumph, Alfonso VI (1065–1109), was soundly defeated by an Almoravid army at Zallāqa (Sagrajas) on 23 October 1086. This hardly slowed the course of Castilian and Leonese arms, however, which now followed the lead of the Cid in probing along a wide front from Toledo to Valencia. The strong-willed queen, Urraca (1096–1126), and her son, Alfonso

21 José Goñi Gaztambide, *Historia de la bula de la cruzada en España* (Vitoria, Editorial Seminario, 1958), pp. 56–61; Lawrence J. McCrank, 'La restauración y la reconquista abortiva de Tarragona', *Cuadernos de Historia de España* 61–62 (1979), 145–245; O'Callaghan, *Crusade*, 31–4. For Jaime I's crusading career, see Robert I. Burns, S. J., 'The Many Crusades of Valencia's Conquest (1225–1280): An Historical Labyrinth', in Donald J. Kagay and Theresa M. Vann (eds.), *On the Social Origins of Medieval Institutions: Essays in Honor of Joseph F. O'Callaghan* (Leiden, Brill, 1998), pp. 167–77; and 'The Spiritual Life of James the Conqueror, King of Arago-Catalonia, 1208–1276: Portrait and Self Portrait', *Catholic Historical Review* 62.1 (January 1976), 19–20; Francesch Carreras i Candi, 'La creuada a terra santa (1269–1270)', *ICHCA*, vol. 1, pp. 106–38; Donald J. Kagay, 'Jaime I of Aragon: Child and Master of the Spanish Reconquest', *Journal of Medieval Military History* 8 (2010), 81.

VII (1126–57) continued this policy by raiding into Andalusia while effecting limited conquests in a narrow band from Coria to Albarraçín.²²

These successes spurred the Almohad caliphs to action and on 19 July 1195 at Alarcos a Muslim army soundly defeated a Christian force commanded by Alfonso VIII (1158–1214). This humiliating rout drove Alfonso to long for revenge and motivated Pope Innocent III (1193–1216) to propose a new Iberian crusade against the Almohad threat. With this crusade preached far and wide, a great number of French and Spanish knights, along with Pedro II (Pere I) of Aragon (1196–1213) and Sancho VII of Navarre (1194–1234), eventually joined an army commanded by the old campaigner, Alfonso VIII. Meeting a huge Almohad force at Las Navas de Tolosa (al-Iqāb in the Arabic sources) on 16 July 1212, Alfonso threw caution to the wind and led the Castilian centre to a victory so thorough that it marked the effective end of Almohad power in Spain and ushered in what later historians call the Great Reconquest.²³

As the Almohad caliphate dissolved into a succession crisis that led to an internecine struggle between African and Andalusian Muslim authorities, Castilian and Leonese leaders bided their time until the accession of the great warrior-king, Fernando III of Castile (1217–52), who was destined to lead a number of crusades that knifed deeply into Andalusia. Following up on the more restricted campaigns of Alfonso IX of León (1188–1230) in Extremadura during the 1220s and 1230s, Fernando slowly extended his conquests down the

22 Charles J. Bishko, 'The Spanish and Portuguese Reconquest, 1095–1492', in Kenneth M. Setton (ed.), *A History of the Crusades*, 6 vols. (Madison, University of Wisconsin Press, 1975–86), vol. 3, pp. 398–9; Huici Miranda, *Batallas*, pp. 19–35; Lomax, *Reconquest*, pp. 71–3; O'Callaghan, *Reconquest*, pp. 141–4; Antonio U. Arteta, *Atlas Histórico Como se formó España* (Valencia, Anubar, 1958), Map: *El siglo XI*.

23 Martín Alvira Cabrer, 'De Alarcos a las Navas de Tolosa: Idea y realidad de los orígenes de la batalla de 1212', in R. Izquierdo Benito and F. Ruiz Gómez (eds.), *Alarcos 1195: Actas del Congreso internacional conmemorativo del VIII Centenario de la Batalla de Alarcos* (Cuenca, Ediciones de la Universidad de Castilla-La Mancha, 1996), pp. 249–64; Bishko, 'Spanish and Portuguese Reconquest', pp. 422–4; María Agueda Castellano Huerta, 'Castillos y poblamientos en el marco de la batalla de Las Navas de Tolosa', *Boletín del Instituto de Estudios Giennenses* 135 (1988), 71–88; Manuel Gabriel López Payer and María Dolores Rosado Llamas, *La batalla de las Navas de Tolosa* (Madrid, Almena Ediciones, 2002); Francisco García Fitz, *Las Navas de Tolosa* (Barcelona, Editorial Ariel, 2005); Huici Miranda, *Batallas*, pp. 219–327; Lomax, *Reconquest*, pp. 124–8; O'Callaghan, *Crusade*, pp. 66–76; Julia Pavón, 'La batalla que cambió la historia', *Nuestro Tiempo* 671 (2011), 42–52; Damian Smith, 'Innocent III and Las Navas de Tolosa: "Soli Hispani," Innocent III y las Navas de Tolosa', *Hispania Sacra* 51.104 (1999), 487–514; Antonio Ubieto Arteta, *Como se formó España* (Valencia, Anubar, 1958), Map: 'Desde Alarcos Hasta las Navas de Tolosa'; Theresa Vann, 'Our Father Has Won a Great Victory: The Authorship of Berenguela's Account of the Battle of Las Navas de Tolosa, 1212', *Journal of Medieval Iberian Studies* 3 (2011), 77–90; Carlos Vara Thorbeck, 'Las Navas de Tolosa: Una batalla decisiva en la historia de España', *Anuario: Real Academia de Bellas Artes de San Thelmo* 5 (2005), 61–74.

Guadalquivir river through the early 1230s. With this base firmly secure, he advanced on the old caliphate's capital, Córdoba, and conquered it in 1236. Solidifying his hold on the region's huge Muslim population, the Castilian monarch then began extending his control toward the Mediterranean with victorious assaults on Ecija (1240) and Seville (1248). Alfonso X (1252–82) finished his father's work by driving to the mouth of the Guadalquivir with the conquests of Niebla (1262) and Jerez (1263).²⁴

Despite irruptions of Muslim power throughout their early histories, the rulers of Aragon and Catalonia throughout the ninth and tenth centuries had slowly expanded their territorial base to the northern bank of the Ebro and along the Catalan litoral. Through the daring campaigns of the Cid, Christian control temporarily expanded as far south as Valencia. The Aragonese king, Sancho I Ramírez (1063–1094) and his sons, Pedro I (1094–1104) and Alfonso I (1104–34), began the slow process of encircling the great fortress cities of Zaragoza and Tudela. Alfonso 'the Battler' completed the work of his relatives by utilising the advantages granted him by a papal crusade to conquer Zaragoza on 18 December 1118. He spent the rest of his life in attempting to invest and conquer Lerida, a city that would eventually mark the boundary of Aragon and Catalonia. While fighting at Fraga in 1133, Alfonso was wounded and died in the next year without male heir. Though his brother, the monk Ramiro I (1134–7), reluctantly took up the Aragonese crown, he relinquished the title three years later to his daughter, Petronilla, and son-in-law, Count Ramon Berenguer IV of Barcelona.²⁵

Even before this dynastic union, the counts of Barcelona were busy in extending their control over lands between the Llobregat and Segre rivers. In 1113, Ramon Berenguer III of Barcelona (1097–1131) had manipulated a huge Pisa fleet determined to wage holy war against the Balearic Islands. Though the Catalan leader accomplished the conquest of the Balearic capital of Palma by the next summer, Ramon Berenguer's triumph proved short-lived since the islands were reclaimed in 1115 by an Almoravid expeditionary force. He did provide his son, however, with a glorious reconquest record to live up to. Ramon Berenguer IV, who also bore the title 'prince of Aragon' eventually

24 Bishko, 'Spanish and Portuguese Reconquest', pp. 425–8; Lomax, *Reconquest*, pp. 144–54; O'Callaghan, *Reconquest*, pp. 78–89, 92–8, 110–17; Ubieta Arteta, *Como*, Map: 'Terminación de la Reconquista Portuguesa y Aragonesa'.

25 Bishko, 'Spanish and Portuguese Reconquest', pp. 403–4; José Marí Lacarra, *Alfonso el Batallador* (Zaragoza, Guara, 1978); Lomax, *Reconquest*, pp. 82–86; ; María Jesús Mayoral Roche, *Alfonso I: El rey batallador* (Zaragoza, Delsan Libros, 2003); O'Callaghan, *Crusade*, pp. 35–7; Ubieta Arteta, *Como*, Map: 'Alfonso I el Batallador (1104–1134)'.

exceeded this behest by joining an expedition against the port city of Almería mounted by his Castilian overlord, Alfonso VII of Castile. With the conquest of Almería in October 1147, the Barcelona count freed himself from feudal subservience to the Castilian overlord and then convinced the Almería host along with its Genoese fleet to attack Tortosa on the Ebro delta which fell in December 1148. In the next year, Ramon Berenguer completed the unfinished business of Alfonso 'the Battler' by capturing Lerida on 25 October 1149.²⁶

The immediate successor of the 1137 accord, Alfonso II (Alfons I) (1162–96), continued the expansion of his two realms by winning the mountain towns of Teruel and Albarracín in 1170. Alfonso's son, Pedro II (Pere I) 'the Catholic' (1196–1213) emerged as a reconquest hero from his role in the victory of Las Navas de Tolosa (1212). His feudal and dynastic ties to Count Ramon VI of Toulouse, however, drew the Catholic hero into the Albigensian crisis that had dominated southern France for over a decade. Entering the fray at Muret on 12 September 1213, the Aragonese sovereign, himself a great crusader in his own mind, fell victim to his arrogant underestimation of another crusading figure, Simon de Montfort. With Pedro's death, his young son, Jaime, became the prisoner of his father's adversary for almost a year. Moved by papal pressure and the angry threats of the Aragonese and Catalan barony, de Montfort released his prisoner, who was hailed sovereign of the Crown of Aragon at Lerida in August 1214. Thus began the reign of eastern Spain's greatest reconquest warrior, Jaime (in Catalan Jaume) I 'the Conqueror'.²⁷

After spending his first years as king under the tutelage of the Hospitallers at Monzón and at the mercy of his ambitious and unscrupulous aristocratic regents, Jaime began his military career at age 17 in 1225 when he led a crusading force against the Muslim fortress of Peñíscola on the Valencian coast. Though unsuccessful in this first venture, the young king recognised how important was the manipulation of the reconquest for both his reputation and power. As a result, he engaged in almost-constant campaigns between 1229 and 1238, during which time he won both the Balearics and the majority of Valencia. While he spent most of his mature adulthood in solidifying control over his new lands that still contained large Muslim

26 Bishko, 'Spanish and Portuguese Reconquest', pp. 405–6, 409–10; Lomax, *Reconquest*, pp. 83, 89–93; O'Callaghan, *Reconquest*, pp. 35–36, 44–6; Ubieto Arteta, *Como*, Map: 'Alfonso VII el Emperador y Sus Resultados'.

27 Martin Alvira Cabrer, *12 de Septiembre de 1213: El Jueves de Muret* (Barcelona, Universitat de Barcelona, 2002); Bishko, 'Spanish and Portuguese Reconquest', pp. 415, 419; O'Callaghan, *Reconquest*, pp. 60–6; Ferran Soldevila, *Els primers temps de Jaume I* (Barcelona, Editorial Base, 1968), pp. 15–137.

majorities, Jaime was never far from the life of a campaigner. Thus in 1244, he conquered southern Valencia down to Jativa and in 1265–6 aided his son-in-law, Alfonso X, in winning the Muslim enclave of Murcia. He planned to cap his military career in 1269 when he organised a crusade to the Holy Land that he was forced to abort because of bad weather and the disinterest of his own subjects. When the *mudêjar* population of Valencia rose in rebellion, Jaime, an elderly campaigner of 68, took to the battlefield once more, but was felled by disease and died on 27 June 1276. The Conqueror's son, Pedro III (Pere II) (1276–85), a chivalric warrior and poet in his own right, put down the *mudêjar* revolt, but soon realised there were no further neighbouring Muslim territory in the Peninsula left for him to conquer. Instead, he turned his martial focus to North Africa and was then drawn into central Mediterranean military affairs.²⁸ Thus, unlike Castile's reconquest that would linger on for another two centuries, that of Aragon and Catalonia would end before the thirteenth century did.

The reconquest of Portugal began not from a national core, but from a frontier march of the Leonese kingdom. The slow settlement of this far-western Iberian territory was carried out by Spanish knights and peasants, but also attracted a steady stream of Frenchmen who looked on the Portuguese frontier as a source of both profit and social advancement. Two of these adventurers, the cousins, Count Ramon of Amous and Count Henry of Burgundy, would become important as frontier commanders, but, more especially, for their successful marriages. The first wed Alfonso VI's oldest daughter, Urraca, and fathered the next Castilian king, Alfonso VII. The second married Alfonso's second daughter, Theresa, and fathered the architect of Portuguese independence, Afonso I Henriques (1128–85). Spending most of his life trying to capture Lisbon, Afonso eventually accomplished this mission by manipulating a crusading fleet bound for the Holy Land in 1149. Commencing the siege of one of Iberia's greatest port cities in July 1149, he gained final victory on 24 October, after forcing Lisbon into surrender by blocking both its maritime and land access. This great victory of 1149, the only real triumph of the Second Crusade, was marred by the

28 Bishko, 'Spanish and Portuguese Reconquest', pp. 429–31; Josep Goday I Casals, 'Media d'atach y de defensa en la Crònica del Rey D. Jaume', in *ICHCA* II, 799–810; Paul Humphries, "'Of Arms and Men': Siege and Battle Tactics in the Catalan Grand Chronicles (1208–1287)", *Military Affairs* 49.4 (Oct. 1989), 173–8; Kagay, 'Jaime I', pp. 73–5; Lomax, *Reconquest*, pp. 141–2, 148–9; E. Marcos, 'L'exèrcit de Jaume I', *Escola catalana* 43.452 (2008), 14–15; E. Marcos, 'Jaime I: El incasable conquistador', *Clio: Revista de Historia* 75 (2008), 76–81; O'Callaghan, *Reconquest*, pp. 89–92, 99–103; Ubieta Arteta, *Como*, Map: 'Resultado de la Batalla de Las Navas (1220–1240)'.

wholesale slaughter of Lisbon's Muslim population in violation of earlier surrender accords.

With the Almohad recovery of Andalusia and the treaty of Sahagun (1158) that assigned the future conquest of the central and western parts of the Peninsula between the rulers of Castile and León, the Portuguese reconquest did not come to an end with the conquest of Lisbon, but was pushed forward at first by private rather than royal means. Raiders and parties of settlers of the frontier from cities such as Santarem (which was reconquered itself once more in 1147) moved southward with the conquest of the remaining *taifas* of western Andalusia (*al-Gharb al-Andalus*). The greatest reconquest figure of this era was the dashing adventurer, Geraldo Geraides 'the Fearless (*O Sem Pavor*), who, like the Cid in the previous century, conducted a private war on Islam leading a sizeable army of his own retainers. Rather than openly besieging Muslim walled towns and fortresses, Geraldo utilised stealth tactics by leading small parties of specially trained troops who used ladders to secretly scale the walls, kill the sentries, and then open the front gates to Geraldo and his comrades who had waited patiently in the shadows to commence the sack of the site. With the rapid conquest of Cáceres, Evora, and Trujillo in 1165 and Serpa in the following year, Geraldo emerged as an important figure on the western Andalusian frontier, whose success alarmed both Afonso I and the Leonese ruler, Fernando II (1157–88). After capturing the town of Badajoz in 1169, Geraldo called for help from the former monarch in investing the town's citadel, a feat well beyond his normal secret tactics. Infuriated by this affront, the Leonese king sent a relief force that restored the city to its Muslim leader, capturing both the Portuguese king and the adventurer in the process. They quickly bought their freedom, but, for Geraldo, this cost him the surrender of the small principality he had won in the last few years. Disgusted with the turn of events in the western half of the Peninsula, he then campaigned in the eastern half of the Peninsula, making several ephemeral conquests in both Valencia and Murcia. He was soon drawn back into western Andalusian affairs, however, with the conquest of Beja in 1172. This brought a rapid military response from both the Leonese and Portuguese kings that eventually drove Geraldo to an alliance with the Almohad caliph. This pact, though bringing the adventurer a lucrative Moroccan administrative post, would soon cost him his life as the victim of Almohad court intrigues.

The final phases of the Portuguese reconquest occurred during the rise and fall of Almohad power in the Peninsula. Under Alfonso I's successor, Sancho I (1185–1211), Portuguese raiding across the Tajo and Guadiana rivers

stretched Portuguese control to the Atlantic. These conquests brought at least temporary Portuguese control to Muslim strongholds such as Alcacer do Sal, Evora, and Silves. The Almohads reclaimed many of these sites in the 1190s, but after the signal Muslim defeat at Las Navas de Tolosa in 1212, the Guadiana river basin was once again open to Portuguese arms and the monarch, Sancho II (1223–45), was quick to respond with the reconquest of Cacela, Mertola, Moura, and Serpa between 1232 and 1238. The last piece of the Portuguese reconquest, the southern lands known as the Algarve, was won between 1240 and 1249 by Afonso III (1245–79) with the conquest of Abufeira, Faro, Odemera, and Maneique. With its peninsular ambitions slackening, Portugal, like the Crown of Aragon, directed its energies beyond the Spanish scene, thus laying the foundations for its subsequent maritime empire.²⁹

In the two centuries after the commencement of the Great Reconquest, the forces of conquest and assimilation reached an equipoise that allowed Christian, Jewish, and Muslim communities to develop within close proximity of each other. Despite this interaction, which modern historians have characterised as *convivencia* or 'living togetherness', these groups, which by their very existence symbolised a millennium of hatred and distrust, could explode into violent exchanges for seemingly minor reasons. Even with rapid Aragonese and Castilian settlement, the conquerors long constituted a minority in lands still dominated by a Muslim population, now known as *mudéjares*. With the very real threat of invasion from the Nasrid amirate of Granada and from the Marinid kingdom of Morocco, Fernando III and Alfonso X attempted to better control their new Muslim subjects by moving them from the large Andalusian cities into the countryside and allowing the Moorish nobility to retain many of its former privileges. Even with these precautions, however, Alfonso weathered a serious *mudéjar* revolt which took two years (1264–6) and the aid of his Aragonese father-in-law, Jaime I, to put down. A decade later in 1275, a Marinid sultan, Abū Yūsuf, took advantage of Alfonso's absence from the kingdom to land an expeditionary

29 Bishko, 'Spanish and Portuguese Reconquest', pp. 410–11, 413–14, 438; Rafael Cómez Ramos, 'Arquitectura fronteriza portuguesa la Vera Cruz de Marmela, un clave de la reconquista lusa', *Laboratorio del Arte: Revista del Departamento de Historia del Arte* 21 (2008–9), 37–65; Lomax, *Reconquest*, pp. 91–3, 113–14, 117–18, 132; O'Callaghan, *Crusade*, pp. 41–4, 58–9, 79–80, 108–10; Oliveir Marques, *History of Portugal*, vol. 1, pp. 35–104; Bernardo Vasconcelos Sousa, 'A reconquista portuguesa nos séculos XII e XIII', in M. González Jiménez (ed.), *Sevilla 1248. Congreso internacional conmemorativo del 750 Aniversario de la reconquista de la ciudad de Sevilla por Fernando III, Rey de Castilla y León, Sevilla, Real Alcázar, 23–27 de Noviembre de 1998* (Seville, Centro de Estudios Ramón Areces, 2000), pp. 245–58.

force on the southern coast and mount holy war against the Castilian infidel.³⁰

Though this new Islamic invasion did not materialise, the fear of it definitely touched the Castilian psyche. As a result, Castile, unlike its Christian neighbours, still felt under threat from the Muslim population in the Peninsula, since such infidel communities might serve as a fifth column for their co-religionists in North Africa and in the Middle East, who often seemed determined to reclaim the 'lost province' of Spain for the Crescent. With the rivers Guadalquivir and Guadiana, the two entry points of Spain's southern coast, in Christian hands by 1263, the only viable invasion route was that which Muslim troops had used eight centuries before – the short strait between Spain and Morocco. To close this door to the Peninsula, Castilian rulers of the late thirteenth and fourteenth centuries began to attack the Muslim territory between Algeciras and Gibraltar. When the amir of Granada surrendered these crucial sites to the Marinid sultan of Morocco in 1275, Sancho IV of Castile (1284–96) was stirred to action. After diplomatic pressure failed, Sancho gathered an army in 1292 and besieged Tarifa, one of the southernmost ports on the Peninsula. Though attaining a rapid conquest, the king left a Christian garrison in the city that was now completely surrounded by Muslim territory. Despite this seemingly hopeless situation,

30 For religious minorities in Christian Spain, see Yitzhak Baer, *A History of the Jews in Christian Spain*, trans. Louis Schoffmann, 2 vols. (Philadelphia, University of Pennsylvania Press, 1961); John Boswell, *The Royal Treasure: Muslim Communities under the Crown of Aragon in the Fourteenth Century* (New Haven, Yale University Press, 1977); Robert I. Burns, S.J., *Muslims, Christians, and Jews in the Crusader Kingdom of Valencia* (Cambridge, Cambridge University Press, 1984); Bivian B. Mann, Thomas F. Glick, and Jerrilynn D. Dodds (eds.), *Convivencia: Jews, Muslims, and Christians in Medieval Spain* (New York, George Braziller, 1992); Fletcher, *Moorish Spain*, pp. 131–56; Jane S. Gerber, *The Jews of Spain: A History of the Sephardic Experience* (New York, Free Press, 1992); Maria Rosa Menocal, *The Ornament of the World: How Muslims, Jews, and Christians Created a Culture of Tolerance in Medieval Spain* (New York, Little, Brown, 2002); David Nirenberg, *Communities of Violence: Persecution of Minorities in the Middle Ages* (Princeton, Princeton University Press, 1996); Reyna Pastor de Togneri, *Del Islam al Cristianismo: En las fronteras de dos formaciones económicas-sociales. Toledo, siglos XI–XIII* (Barcelona, Peninsula, 1975); Jonathan Ray, *The Sephardic Frontier: The Reconquista and the Jewish Community in Medieval Iberia* (Ithaca, NY, Cornell University Press, 2006); Norman Roth, 'The Civic Status of the Jew in Medieval Spain', in Chevedden, Kagay, and Padilla (eds.), *Iberia and the Mediterranean World*, vol. 2, pp. 75–85. For the Murcian campaign, see O'Callaghan, *Reconquest*, pp. 105–7; and Juan Torres Fontes, *La Reconquista de Murcia en 1266 por Jaime I de Aragón* (Murcia, Patronato de Cultura de la Excm, 1967). For the Marinid invasion of 1275, see Manzano Rodríguez, *Intervención*, pp. 18–30; Joseph F. O'Callaghan, *The Gibraltar Crusade: Castile and the Battle for the Strait* (Philadelphia, Pennsylvania University Press, 2011), pp. 63–7; María Jesús Viguera, 'La intervención de los Benimerines en al-Andalus', *Relaciones de la península Iberica con el Magreb, siglos XIII–XVI: actas del coloquio* (Madrid, 17–18 diciembre 1987) (Madrid, Consejo Superior de Investigaciones Científicas, Instituto de Filología, 1988), pp. 237–48.

the city held out for the next four decades through the dogged resistance of the city's mayor and garrison commander (*alcaide*), Alfonso Pérez de Guzman 'the Good'.³¹

When the outpost was threatened again in 1340 by a Muslim siege, Alfonso XI of Castile (1312–50), who had already mounted a number of campaigns around Gibraltar between 1327 and 1333, petitioned Pope Benedict XII (1334–42) to sanction an international crusade to relieve Tarifa. A large force of Aragonese, Castilian, French, Navarrese, and Portuguese knights, including Afonso IV of Portugal (1325–47), met and routed a Granadan-Marinid army on the banks of the Salado river near Tarifa on 30 October 1340. Celebrated throughout Europe for his triumph, the Castilian king was spurred on to deliver the *coup de grâce* against Spain's last Muslim outpost, Granada. Gaining papal support, Alfonso XI thoroughly invested Algeciras, which fell on 26 March 1344. Nothing now seemed to stand in the Castilian ruler's way as he tightened his grip on Gibraltar, the last site along the Straits still held by his Muslim enemy. As he began this siege in the autumn of 1349, however, his crusading army would fall victim to forces well beyond its understanding when bubonic plague ravaged the Christian camp and on 27 March 1350 claimed the life of Alfonso XI, the highest-placed victim of the Black Death. Granada, shaken by these many defeats at the hands of its Castilian adversary, was given a reprieve by the fortunate action of the pandemic, but knew that the seeds of its ultimate destruction, now lying inactive in Castile's political soil, could spring into life at any time.³²

In the final two centuries of the Muslim–Christian confrontation, Castile made only intermittent and half-hearted efforts to unleash a frontal attack on its Islamic enemy, but could not bear to agree to final peace. Instead, Castilian

31 Bishko, 'Spanish and Portuguese Reconquest', pp. 435–6; Jesús J. Coria Colino and Santiago Francia Lorenzo, *Reinado de Fernando IV (1295–1312)* (Palencia, Aretusa Ediciones, 1999); José Luis Gómez Barceló, 'Tarifa en las crónicas lusa referidas a la costa africana del Estrecho', *Al Qantir* 11 (2011), 136–63; César González, *Fernando IV, 1295–1312* (Palencia, Diputación Provincial de Palencia, 1995); Huici Miranda, *Batallas*, pp. 331–8; Lomax, *Reconquest*, pp. 164–5; O'Callaghan, *Gibraltar Crusade*, pp. 88–108.

32 Huici Miranda, *Batallas*, pp. 342–79; Daniel Jesús García Riol, 'La campaña del Estrecho y la Batalla del Salado: El final de la intervención norteafricana en la Reconquista', *Homenaje al profesor Eloy Benito Ruano*, 2 vols. (Murcia, Universidad de Murcia, 2010), vol. 1, pp. 331–42; Manuel López Fernández, 'La batalla del Salado sobre la toponimia actual de Tarifa', *Aljaranda* 67 (2007), 2–10, and 'La batalla del Salado y sus momentos decisivos', *Ejército de tierra español* 817 (2009), 106–13; Manzano Rodríguez, *Intervención*, pp. 243–9; Carlos Nuñez Jiménez, 'La Batalla de Salado', *Aljaranda* 44 (2002), 4–6; O'Callaghan, *Gibraltar Crusade*, pp. 162–88; Luis Seco de Lucena Paredes, 'Fecha de la batalla del Salado', *Al-Andalus* 19.1 (1954), 228–31; Wenceslao Segura González, 'La batalla del Salado (1340)', *Al-Qantir* 3 (2005), 1–32, and 'El desarrollo de la batalla del Salado (año 1340): La muerte de Guzmán el Bueno', *Al-Qantir* 9 (2009), 1–44.

and Granadan rulers could only agree to truces of short duration. The two adversaries somehow seemed to need each other on several levels. The very fact of the Muslim state allowed Castilians and other Europeans to engage in holy war on the cheap. This small-scale combat could not persist, however, in the atmosphere of boundary determinism prevalent in the Castilian court from the mid fifteenth century. Moved by a millennial anticipation of Granada's fall, many courtiers called for immediate action against Granada, the illegal plunderer of Iberian territory. This impatience is clear in lines dedicated to Enrique IV in 1463: 'how glorious would be the king if [he] were to march on Granada and burst through into Africa!'³³ In 1482, two new Spanish rulers would fulfil these words and effectively terminate the ancient territorial division of Christian and Muslim Spain by declaring war on Muslim Granada.

The fifteenth century marked a nadir in Castilian royal authority and saw the steady growth of baronial dominance.³⁴ With the accession of Isabela I (1474–1504) and her marriage to her cousin, Fernando II of Alfonso (1479–1516), a new spirit animated the Spanish court. The reconquest, which had gained only limited successes in the past century, was again of prime importance to sovereigns, who now saw the conquest of Granada as an enterprise by which their authority would be measured. Though concluding a truce with Granada in 1478, border disputes soon gave the Catholic kings the opportunity to again commence hostilities. After a Muslim attack on the Christian fortress of Zahara near Ronda in late 1481, a small Christian army took by surprise the powerfully fortified city of Alhama de Granada.

In the midst of this undeclared war, Granada's infamous political instability again rose to the fore. In July 1482, Granada's current ruler, Abū l-Ḥasan 'Alī (1464–82) was forced into exile by his son, Abū 'Abd Allah Muḥammad, who took the title Muḥammad XII (1482–92), but was known to the Castilians as Boabdil. With Muslim leadership in Granada and Malaga, the war with Castile was hard-fought but often poorly administered. When Boabdil was

33 Roger Boase, *The Troubadour Revival: A Study of Social Change and Traditionalism in Late Medieval Spain* (London, Routledge and Kegan Paul, 1978), p. 112.

34 For weaknesses of the states of late-medieval states of Christian Iberia, see Luis Suárez Fernández, 'The Kingdom of Castile in the Fifteenth Century', in Roger Highfield (ed.), *Spain in the Fifteenth Century 1369–1516: Essays and Extracts by Historians of Spain*, trans. Frances M. López-Morillas (New York, Harper & Row, 1972), pp. 82–113; Jaime Vicens Vives, 'The Economies of Catalonia and Castile', in Highfield (ed.), *Spain in the Fifteenth Century 1369–1516*, pp. 31–57; Santiago Sobreques, *La alta nobleza del norte en la guerra civil catalana de 1462 a 1472* (Zaragoza, Institución Fernando el Católico, 1966); Luis Suárez Fernández, *Nobleza y monarquía: Puntos de vista sobre historia castellana del siglo XV* (Valladolid, Esfera de los Libros, 1959).

captured in 1483, the entire Muslim war effort fell back on the old sovereign and, with his death in 1485, was transferred to his brother, Muḥammad XIII (1485–92).

As these byzantine machinations took place, the Christian army, supported by foreign crusaders and highly skilled artillerymen, unleashed devastating attacks on Ronda in 1485 and in the next two years conquered territory between Loja and Malaga. With Castile's martial success clear for all to see, Muḥammad XIII surrendered a large portion of Granada's eastern coast around Alicante in exchange for safe passage out of Spain. With Granada once more in his hands, Boabdil vowed to resist his Christian enemies until the bitter end. For the next two years, Fernando tightened the noose around Spain's last Islamic capital. In the spring of 1491, he began the reconquest's last siege by completing the fortified camp, Santa Fe, to the south of Granada. After months in which Castilian cannon reduced Granada's formidable walls to rubble, Boabdil began surrender negotiations and on 1 January 1492 turned over to his adversaries his palace, the magnificent Alhambra.³⁵ With this victory, an undertaking seven centuries in duration, came to an end. Its spirit, however, lived on in one of the participants of the Granada war, Christopher Columbus, who carried on his voyage to the 'Indies' a bull of crusade. Holy war, it seemed, was destined to continue on the American side of the Atlantic.

35 Bishko, 'Spanish and Portuguese Reconquest', pp. 447–54; Weston F. Cook, Jr, 'The Cannon Conquest of Nāṣrid Spain and the End of the Reconquista', in Kagay and Villalon (eds.), *Crusaders, Condottieri, and Cannon*, pp. 253–82; Antonionde la Torre, *Los reyes católicos y Granada* (Madrid, Instituto Jeronimo Zurita, 1946); Fletcher, *Moorish Spain*, pp. 165–6; Ernesto García Fernández, 'Acerca de la contribución militar de la Junta General de la provincia de Guipúzcoa al la Guerra de Granada in 1484', *Anuario de Estudios Medievales* 40.2 (2010), 617–42; Joaquín Gil and Juan J. Toledo Navarro, 'Artillería de los Reyes Católicos en la Guerra de Granada: La conquista de la provincia de Málaga', *Revista español de historia militar* 110 (2009), 2–13; Harvey, *Islamic Spain*, pp. 275–323; Diego Hurtado de Mendoza, *Guerra de Granada* (Granada, Extramuros Edicion, 1991); Kennedy, *Muslim Spain and Portugal*, pp. 299–304; Miguel Angel Ladero Quesada, *Castilla y la conquista del Reino de Granada* (Granada, Disputación Provincial de Granada, 1987); Lomax, *Reconquest*, pp. 167–71; Maria del Mar García Guzmán, 'La conquista de Baza vista desde Jerez de la Frontera', *Estudios sobre patrimonio, cultura y ciencia medievales* 7–8 (2005–6), 163–86; Albert D. McJoynt, 'An Appreciation of the War for Granada (1481–1492): A Critical Link in Western Military History', in Kagay and Villalon (eds.), *Crusaders, Condottieri, and Cannon*, pp. 239–52; David Solar Cubillas, 'La guerra de Granada, el ocaso de la Granada Nazarí: cronología de la guerra', *Historia* 88 (1991), 78–83; Ubieto Arteta, *Como*, Map: 'El Final de la Reconquista'.

The Byzantine empire and the Balkans, 1204–1453

MARK C. BARTUSIS

The Fourth Crusade (1199–1204), culminating in the sack of Constantinople and the conquest of most of the Byzantine empire, is a textbook example of a noble plan gone awry. The original intent was to attack the Ayyubids in Egypt, but along the way financial and other considerations diverted the French and Venetian crusaders to Constantinople where they restored the deposed emperor Isaac II Angelos (r.1185–95, 1203–4) to power. According to an earlier agreement, Isaac was to provide the crusaders with military and financial aid, but fiscal problems within the empire made this impossible. As time passed, anti-Latin sentiment within the city led to a palace coup which overthrew Isaac. The crusaders then seized the city and the empire itself. The Fourth Crusade and the subsequent Latin conquest intensified the anarchy that already existed within the provinces, providing the grace blow to an empire which had become increasingly fragmented to the point of disintegration.¹

The history of later Byzantium is a rather gloomy story. In time the Byzantine successor states in Asia Minor and in western Greece, around which resistance to the Latin occupation centered, did manage to recover a large measure of Byzantine territory, and eventually Michael VIII Palaiologos (r.1259–82) was able to recover Constantinople. But the restored empire of the Palaiologan dynasty was a second-rate state surrounded by hostile neighbors as strong or stronger than it was. A modest recovery during the thirteenth century was overshadowed first by the rise of medieval Serbia to a position of prominence within the Balkans and then by the rise of the Ottoman Turks. Despite the gravity of external threats, unity eluded the

¹ Among the more recent works on the Fourth Crusade, see Donald Queller and Thomas Madden, *The Fourth Crusade: The Conquest of Constantinople* (Philadelphia, University of Pennsylvania Press, 1997); Michael Angold, *The Fourth Crusade: Event and Context* (Harlow, UK, and New York, Longman, 2003); and Jonathan Phillips, *The Fourth Crusade and the Sack of Constantinople* (New York, Viking, 2004).

Byzantines. During the fourteenth century the government was racked by civil wars, palace coups, and a continuing progressive decentralization and fragmentation of its control over the provinces. By the turn of the fifteenth century the end was expected at any moment.

As throughout most of Byzantine history, in the late period all of the offensive wars launched by Byzantium can be placed under the rubric of reconquest, legitimizing the desire for glory and territory. And the civil wars, while advancing personal ambitions, were framed as the avenging of wrongs. The Roman imperial tradition dictated that war was the constitutional responsibility of the emperor. This can explain why only as an emergency means of local defense and, even then, only in the most dire of circumstances, did authorities make popular appeals to anti-Muslim or anti-Latin feelings, or even to a general desire to preserve the fatherland. Generally, they preferred not to encourage such popular enthusiasm, which when roused was often unmanageable and counterproductive. Supplementing the Roman imperial tradition was the religious concept of the Byzantines as the Chosen People of God. Within Byzantine religious ideology there was also a strong measure of fatalism. So long as the empire prospered it was possible to maintain the conceit that God was on their side, but whenever the tide turned against them, the Byzantines tended to conclude that God was punishing them for their iniquities. After the reign of Michael VIII, once the long final decline began, this idea became commonplace.²

The Nicaean period and the reign of Michael VIII (1204–82)

After the Fourth Crusade, Constantinople became the capital of a Latin Empire. Venice received much of the Aegean. In Macedonia, Boniface of Montferrat carved out the Latin kingdom of Thessaloniki. In the south what became known as the Duchy of Athens and Thebes was granted by Boniface as a fief to the Burgundian Otto de la Roche, and in the Morea William of Champlitte and Geoffrey Villehardouin established the French Principality of Achaia. On the Black Sea coast, the so-called Empire of Trebizond, which had been founded by members of the Komnenos family shortly before 1204, struggled on independently with only marginal contact with the rest of Byzantine civilization. Around Arta in western Greece and modern

2 Mark Bartusis, *The Late Byzantine Army: Arms and Society, 1204–1453* (Philadelphia, University of Pennsylvania Press, 1992), pp. 350–4.

Albania, Michael Doukas (r.1204–15) organized the state known as the Despotate of Epiros, which soon extended from Naupaktos in the south to Dyrrachion in the north. Meanwhile, the despot Theodore Laskaris (r.1204–22), a son-in-law of Emperor Alexios III Angelos (r.1195–1203), had fled to Asia Minor and organized a state from a base at Prousa (Bursa) and later Nicaea.

The fortunes of the Latins quickly reversed in 1205 at the battle of Adrianople when the Latin army was annihilated by the tsar of Bulgaria, Kalojan. The Latins were forced to withdraw from Asia Minor and by 1206 Theodore Laskaris was styling himself Emperor of the Romans. Meanwhile, Michael Doukas of Epiros moved into Macedonia in 1207, but it was through the efforts of his brother Theodore Doukas (r.1215–30) that the Epirote state made its bid as the true successor of the old Byzantine empire. Beginning in 1215 this remarkable general seized most of Macedonia and finally Thessaloniki, where he was proclaimed emperor and later crowned, in 1224. His possessions extended from the Adriatic to the Aegean, and included Epiros, Thessaly, and most of Macedonia. Constantinople itself was within his reach, but in 1230 he was defeated and captured by the Bulgarians at the battle of Klokotnica on the Marica between Philippopolis and Adrianople. Theodore Doukas's defeat opened the door for the Nicaean rulers. In 1224 Theodore I Laskaris's successor, his son-in-law John III Vatatzes, defeated the Latins at Poimannenon, and the following year he made his first excursion into Europe, conquering much of Thrace. Twenty years after the Latin conquest, over half of the territory captured by the crusaders was lost. The Latin possessions were now more or less limited to Constantinople, southern Greece, and a number of islands. Throughout the 1240s and 1250s Vatatzes carried out a series of conquests in Europe extending his control all the way to northern Epiros. Due to the amiable relations with the Seljuqs of Ikonion, a product of skillful diplomacy as well as military preparedness exemplified by the chain of fortifications he built along the Meander valley, Vatatzes and his immediate successors enjoyed a remarkably stable Anatolian frontier, a crescent-shaped swath of land from the Black Sea to the southern Aegean.³

3 Clive Foss, "Byzantine Responses to Turkish Attack: Some Sites of Asia Minor," in Ihor Ševčenko and Irmgard Hutter (eds.), *AETOS: Studies in Honour of Cyril Mango* (Stuttgart and Leipzig, Teubner, 1998), pp. 154–71. The best general treatments of the Nicaean era remain Michael Angold, *A Byzantine Government in Exile: Government and Society under the Laskarids of Nicaea, 1204–1261* (London, Oxford University Press, 1975); and Donald Nicol, *The Despotate of Epiros* (Oxford, Blackwell, 1957). The strategy and tactics, structure and armaments of the Nicaean army are discussed by P. I. Žavoronkov, "Voennoe iskusstvo Nikejskoj imperii" ["Military art in the Nicaean Empire"], in *Vizantijskie očerki: trudy rossijskikh uchenykh k XIX Mezhdunarodnomu kongressu vizantinistov* (Moscow, Indrik, 1996), pp. 143–51. For the armies of Bulgaria, see D. Angelov and

The Nicaean era concludes with the battle of Pelagonia in 1259 in which a large Nicaean army defeated the combined forces of Michael II Doukas of Epiros, King Manfred of Sicily, and the prince of Achaia, William II Villehardouin. An allied victory would have strengthened the Latin empire and weakened Nicaea. Instead, the ambitions of Manfred and Michael Doukas were foiled, the Principality of Achaia was weakened dramatically, and the stage was set for the conquests in Greece of Michael VIII Palaiologos (r.1259–82). With pressure from the west lifted, Michael VIII planned the reconquest of Constantinople. In the end, the city fell into Michael's hands almost by accident. In July 1261 a Nicaean force heading to Bulgaria passed by the city and found that the Venetian fleet was away, stripping the city of almost all its soldiers. After a brief encounter the Latins evacuated the city on the Bosphorus, which once again came under Byzantine control.

The reconquest of Constantinople placed the restored Byzantine empire again in the center of Aegean affairs. Through diplomacy and force of arms Michael VIII directed most of his energies toward protecting Constantinople, amassing armies large enough to tackle the Latins in the Morea and the Greeks in Thessaly and ensuring the continued Byzantine control over the European provinces of Thrace and Macedonia. Toward the west he spent his reign in nearly constant warfare with numerous enemies: Michael II Doukas of Epiros, the Latins of the Morea, the Venetians of the Aegean, and the king of Sicily, Charles of Anjou (r.1266–85). When not fighting these enemies, he sent forces to Asia to deal with the encroachments of the Turks. From Michael's point of view, matters involving the western frontier deserved the most attention. Fundamentally, he did not have the resources to push westward and to hold onto Byzantine territory in the east.⁴

The reign of Andronikos II Palaiologos and the era of the civil wars (1282–1357)

At his father's death Andronikos II Palaiologos (r.1282–1328) tried his best to continue his father's policies. However, Michael VIII's ambitions had drained the empire of its resources, and Andronikos, surrounded on all sides by

B. Čolpanov, *Bŭlgarska voenna istoriia prez srednovekovieto (X–XV vek)* [Bulgarian Military History during the Middle Ages] (Sofia, Bŭlgarskata Akademiia na Naukite, 1994).

⁴ For Michael VIII's reign, Deno Geanakoplos, *The Emperor Michael Palaeologus and the West, 1258–1282* (Cambridge, MA, Harvard University Press, 1959); and Donald Nicol, *The Last Centuries of Byzantium*, 2nd ed. (Cambridge, Cambridge University Press, 1993), pp. 41–89.

hostile neighbors, found he lacked the means to do much more than tread water. In 1285 Andronikos was forced to accept his advisors' counsel to reduce the size of the fleet, levy special taxes, and debase the coinage. Minor successes in northern Greece and in the Morea were thoroughly overshadowed by the loss of Asia Minor, where Andronikos applied much effort to no avail. In 1302 on the plain of Bapheus in Asia, between Nikomedeia and Nicaea, Byzantine forces were defeated by an army commanded by Osman, the Turkish amir of Bithynia, composed of some five thousand light cavalry. This battle marked the first major victory for the founder of the Ottoman state. The Byzantine empire, which had been on the offensive since the reign of John Vatatzes, had entered a period of retrenchment from which it would never emerge.⁵

By around 1320 Andronikos II saw the possibility of a positive change in the empire's fortunes. While Asia Minor was all but lost, Andronikos was able to extend imperial authority over Epiros and part of Thessaly. Further, by 1321, through increased taxation and the greater diligence of tax collectors, the fisc had raised the impressive sum of nearly 1 million hyperpyra. "It was the old emperor's intention to establish twenty permanent triremes against sea and coastal enemies, and a land army in Bithynia of one thousand permanent cavalry and in Thrace and Macedonia, 2,000 of the same."⁶ Yet Andronikos's plans for restoring the empire were shattered by a series of civil wars that ravaged Byzantium intermittently for more than thirty years and drained the empire of its last measure of strength and vitality. The first of these, between Andronikos and his grandson Andronikos III, lasted from 1321 to 1322 and from 1327 to 1328, and ended with Andronikos II's abdication. The second civil war, between the usurper John VI Kantakouzenos and the regency for Andronikos III's son John V Palaiologos, began soon after the death of Andronikos III in 1341 and ended in 1347 when the regency for John V formally acknowledged Kantakouzenos as co-emperor. The final civil war of this era began in 1352 as a response to Kantakouzenos's efforts to work his son Matthew into the picture. The feud between the Palaiologoi and the Kantakouzenoi finally concluded in 1357 when Matthew renounced his claim to the imperial purple and John V at last became sole emperor.

5 For the reign of Andronikos and the era of the civil wars, see Nicol, *Last Centuries*, pp. 93–250; Angeliki Laiou, *Constantinople and the Latins: The Foreign Policy of Andronicus II, 1282–1328* (Cambridge, MA, Harvard University Press, 1972); and Bartusis, *Late Byzantine Army*, pp. 67–102.

6 Nicephori Gregorae *Byzantina Historia*, ed. L. Schopen, *Corpus Scriptorum Historiae Byzantinae*, I (Bonn, 1829), pp. 317–18.

As so much of the empire's military resources and energies were channeled into internecine combat, Byzantium lost its final chance to bring about a *modus vivendi* with the Ottoman Turks. In 1326, Prousa fell to Osman, and his son Orhan made the city his capital. A Byzantine defeat at Pelekanos in 1329 was the first and only major battle ever fought between the Byzantines and the Ottomans. Nicaea surrendered in 1331 and Nikomedeia in 1337. Except for Philadelphia and a few coastal cities, the East was lost. Meanwhile, Andronikos began to cultivate the other amirs of Asia Minor, most notably Umur Pasha of Aydin, in hopes that these would discomfort the Ottomans and relieve the pressure on Byzantium. During an expedition into Albania, Umur's Turks were the first Turkish allied troops employed by the Byzantines since Andronikos II called them into Thrace during the civil war in 1321. Because of Kantakouzenos's close relationship with Umur, this tentative use of Turks soon came to an end, and the Byzantines began to rely on Turks to fight their wars. It seemed that there was an endless supply of Turks willing at a moment's notice to come to Europe and, just as important, to return to Asia when no longer needed.

Meanwhile, in 1330 at the battle of Velbužd, Stefan Dečanski of Serbia defeated Michael Šišman of Bulgaria. The Bulgarian army was destroyed and Šišman himself mortally wounded. John Alexander came to the throne in Bulgaria, and in 1331 the nobles of Serbia murdered Dečanski and placed his son Stefan Dušan on the throne. Dušan married a sister of John Alexander and united Serbian and Bulgarian interests, leaving him a free hand to attempt the age-old dream of the south Slavic states, the conquest of Byzantium. By 1345 with John VI Kantakouzenos now in charge of a nominally united empire, all attention was focused on the Serbian occupation of Macedonia, and later of Thessaly and Epiros, and on the continued safety of Constantinople. Serres had fallen to Stefan Dušan in 1345, and the next year he was formally crowned "emperor of the Serbs and Greeks." In 1348, the Serbs conquered all of northern Greece except for Thessaloniki. The Serbian empire, now larger than Byzantium, extended from the Danube to the Gulf of Corinth, and from the Adriatic Sea to the Nestos river in eastern Macedonia.

The Byzantine situation was grave. Except for distant Philadelphia and the Morea, Byzantium was reduced to Constantinople, Thrace, a few Aegean islands, a few coastal towns in Asia Minor, and Thessaloniki. The treasury was empty and trade had come to a standstill. Only in the Morea, which seems to have experienced an independent internal development, was the situation stable. John Kantakouzenos realized that the only way to maintain

any control over these disparate areas was through the rebuilding of a Byzantine fleet. But by taking to the sea the Byzantines again landed themselves at the center of the disputes between the Venetians and Genoese over control of trade in the Black Sea and the Aegean.

The last century

Much more serious than the threats posed by Serbia was a new development involving the Ottoman Turks. Following earthquakes in 1352 and 1354 the Turks occupied the Gallipoli peninsula. The era had ended in which the Byzantines could rely on the rapid appearance and rapid departure of Turkish allied troops. The Turkish conquest of the Balkan peninsula had begun. In 1361 Didymoteichon fell, though whether the conquerors were Ottomans is unknown. In 1363 Philippopolis (Plovdiv), then in Bulgarian hands, was taken, followed by the fall of Adrianople probably in 1369, whose conquerors were non-Ottoman Turks. In 1377 Adrianople became the first European Turkish capital when Sultan Murad I formally entered the town. Three years later Ohrid and Prilep fell.⁷

While the later Palaiologan emperors never abandoned the hope that a way could be found to restore the empire's defenses, attempts at internal reform were unsuccessful and the Byzantines could not expect aid from their Balkan neighbors. Most of their efforts involved diplomatic pleas to Western powers. Beginning in 1369, when John V journeyed to the West, these requests frequently included personal pleas from the emperor, however humiliating. Some of these travels took the emperor as far afield as England, but ultimately all such requests produced very few tangible results. The rulers of the West were ambivalent toward Byzantium. Some wished to conquer it themselves; others, the pope in particular, felt that submission to the Church of Rome must precede aid.

In September 1371, the Serbian despot John Uglješa and his brother King Vukašin were killed battling the Turks at Černomen on the Marica river in Thrace. Ever since the fragmentation of Stefan Dušan's empire after his death in 1355, Vukašin had been ruling the district between Prilep and Ohrid, while Uglješa held Serres. Their deaths marked the end of Serbian power in the Middle Ages. With the battle of Marica showing the futility of a purely regional military solution to the Turkish problem and with pleas for aid

7 On the last century, see Bartusis, *Late Byzantine Army*, pp. 103–19, and in much greater detail, Nicol, *Last Centuries*, pp. 253–412.

from the West unanswered, John V adopted a policy of cooperation with the Turks, becoming in essence a vassal of the sultan. As the customary sign of subordination to the Turkish ruler, John V joined Murad I in Asia Minor and fought alongside him.

Murad continued his advance through the Balkans taking Sofia in 1385, Niš in 1386, and Verria in 1387. That same year Thessaloniki surrendered after a three-year siege. In 1389 at the battle of Kosovo Polje, Murad along with his Christian vassals defeated the allied forces of Prince Lazar of Serbia, Tvrtko I of Bosnia, and the Serb Vuk Branković. During the battle Murad was assassinated, but the accession of his son Bayezid brought little respite to Byzantium. After a revolt in Bulgaria resulting in the country's direct subjection to the sultan, Bayezid laid siege to Constantinople from 1394 to 1402, during which time two major battles were fought: the indecisive battle of Rovine in Wallachia (May 1395) between Bayezid and Mircea of Wallachia, during which the petty Serbian princes Marko Kraljević and Constantine Dragaš, vassals no less than John V and Manuel II, were killed while fighting for the sultan, and the battle of Nikopolis (September 1396) in which as many as 100,000 crusaders – French, Germans, Wallachians, Hungarians, and others – under John Stracimir of Vidin, Mircea of Wallachia, and Sigismund of Hungary were crushed by Bayezid and his vassal Stefan Lazarević of Serbia. Bayezid was forced to end the siege due to pressure from the Mongols under Temür (Tamerlane). In July 1402 at the battle of Ankara Bayezid's forces were crushed and the Ottoman empire disintegrated as Temür swept through Asia Minor. A civil war among Bayezid's sons (1402–13) granted another temporary respite to Byzantium. In 1422 Sultan Murad II laid siege to Constantinople but was forced to abandon operations when a civil war broke out again in Anatolia.

By this time the Byzantine empire was reduced to little more than Constantinople, its suburbs, and the distant Morea. Meanwhile the Turks had been besieging Thessaloniki, which had returned to Byzantine hands in 1403. In 1423, its Byzantine governor decided his only option was to offer the city to the Venetians in hopes that the Turks would abandon their siege. But this desperate act did not save the city, which fell in 1430.

In 1451 Sultan Murad II was succeeded by his son Mehmed II, who decided it was time to erase the irritating little state on the Bosphorus. Mehmed II prepared a fleet and by the early spring of 1453 all the towns around Constantinople were in Turkish hands. On April 2 Mehmed's troops assembled before the walls of Constantinople and began the fifty-five-day siege. Within a week the cannons were fully deployed and the constant

bombardment began. By then the defenders had taken up their positions on the walls. There were probably 7,000 or 8,000: some 5,000 Byzantines and 2,000 or 3,000 foreigners, mainly Venetians and Genoese. Most were civilians. Roughly triangular in shape, Constantinople was protected by 14 miles of walls. The sea walls were about 5 and a half miles long, rising almost from the shore. Along the 3 and a half miles of the short river called the Golden Horn, where the Latins of the Fourth Crusade had breached the walls of the city, great care was taken with the harbor boom to ensure that the Turkish fleet could not enter. On the land side was a triple line of defenses extending 4 miles from north to south. Built a thousand years earlier and repaired continuously, it consisted of a moat and two lines of walls. The outer wall had towers about 45 feet high, and the inner line of walls were some 40 feet high with massive towers about 60 feet in height. Most of the Turkish army – perhaps 50,000 strong – was positioned along the land walls. A general assault began early on May 29. After several hours of fierce fighting the Janissaries succeeded in battling to the inner walls. About fifty found their way into the city through the small gate, and by noon the city was the sultan's.⁸

Although the capital was lost, the Byzantine states of the Morea and separatist Trebizond survived for several more years. In the Morea the despots Thomas and Demetrios Palaiologos spent their time plotting with Western powers and bickering among themselves until Mehmed II invaded in 1460, brutally crushing all resistance. Thomas Palaiologos escaped westward, Demetrios surrendered Mistra without a struggle, and the Despotate of the Morea came to an end. The next year distant Trebizond capitulated, and Byzantium was no more.

Organization

By the time of Alexios I Komnenos (r.1081–1118), the old thematic organization of the army was dead, and the process was completed whereby the service obligations burdening the old military estates were transformed into simple taxes. Alexios responded in a makeshift fashion to new threats from the Normans to the west and from the Pechenegs to the north by hiring foreign mercenaries of every ethnic stripe but instituted no real reform of the

8 Bartusis, *Late Byzantine Army*, pp. 120–35; and more recently, David Nicolle et al., *The Fall of Constantinople: The Ottoman Conquest of Byzantium* (Oxford, Osprey, 2007), and Marios Philippides (ed. and trans.), *Mehmed II the Conqueror and the Fall of the Franco-Byzantine Levant to the Ottoman Turks: Some Western Views and Testimonies* (Tempe, Arizona Center for Medieval and Renaissance Studies, 2007).

army. His army was made up of an imperial guard and elite troops, who were often foreigners; smallholding foreign peoples settled within the empire and with an obligation to perform military service; permanent and temporary mercenaries, usually foreigners; troops of allied or client states; and finally, some ethnically Byzantine troops organized into troop divisions bearing the name of their place of origin (Thracians, Thessalians).

One military innovation that does seem to have begun under Alexios I was the creation of the institution of *pronoia*. A *pronoia* (literally, “providence” or “solicitude”) was a grant of state land and tax-exempt peasants (and, beginning in the thirteenth century, of tax revenues as well) by the emperor to an individual or group of individuals. Alexios implemented it on a small scale, and his grandson, Manuel I Komnenos, seems to have dramatically increased the number of *pronoia*-holding troops. Nevertheless, the real expansion of *pronoia* as a military institution seems to have started only after 1204, when it also became an important social and economic institution.⁹

The empire of Nicaea tended to rely on the provincial administrative structures current in Byzantium prior to the Latin conquest. The central army, composed of the military corps called the *tagmata*, included the soldiers of the imperial court and household, as well as the field army, the heart of the campaign force. Under the Komnenoi and into the Nicaean era, these troops were in large measure foreigners and mercenaries. Also, at times during both periods there were foreign peoples settled in the provinces who performed campaign service, and these formed part of the same central army. Yet despite the heavy reliance of both the Komnenoi and Laskarides on foreign troops and mercenaries, provincial soldiers continued to exist. The sense of the word “theme” as the provincial army itself had disappeared in the eleventh century. From the twelfth century a provincial army was an army “of a theme,” the term then and until the end of Byzantium restricted to designating merely administrative and geographic units. In the early twelfth century the provincial, or “thematic,” armies were small, insignificant, and useless for holding out invaders or providing reserve troops for campaigns.

The Komnenoi undertook a restoration of their enfeebled provincial military apparatus, culminating with the efforts of Manuel I in western Asia Minor. In order to counter the Seljuq threat Manuel created a number of new, smaller themes by carving up and redefining the areas of older

9 See below, and also Paul Magdalino, “The Byzantine Army and the Land: From Stratotikon Ktema to Military Pronoia,” in K. Tsiknakis (ed.), *Tò Ἐμπόλεμο Βυζάντιο (905–1205 αι.)* [Byzantium at War (9th–12th Centuries)] (Athens, Idryma Goulandri-Horn, 1997), pp. 15–36.

traditional themes, each governed by a *doux* (“duke”) who commanded the army of the particular theme. By the later thirteenth century, the office of *doux* gave way to that of the *kephale*, the civil and military governor of a smaller provincial unit composed more or less of a major fortified town (*kastron*) and the surrounding countryside. While most *kephalai* were governors of *kastra*, their jurisdictions varied, sometimes encompassing larger geographical areas such as islands.

By the time of Theodore II Laskaris, provincial troops were campaigning in Europe. Earlier, campaign forces were composed exclusively of divisions of the field army and were in large measure foreign, particularly Latin, mercenaries, but during the Nicaean period the distinction between field and thematic armies gradually blurred for three reasons: during the 1250s Theodore II and then, to a greater extent, Michael VIII began using Anatolian thematic troops for European campaigns; campaign troops were used to garrison and occupy the fortresses of Europe; and there was an increasing tendency to make grants of *pronoiai* to field army troops. By the end of the thirteenth century, there were probably more *pronoia* holders in the central army than mercenaries.

The late Byzantine army is characterized by a rather large number of military groups or divisions, remarkable given how small the army was. Following the reconquest of Constantinople, Michael VIII created four new military divisions: the *Thelematarioi* (literally “volunteers”), composed of inhabitants from the area around Constantinople who had remained loyal to the Byzantines; the *Gasmouloi*, men of mixed Byzantine-Latin descent who formed the backbone of the marines who fought on Michael’s new fleet; the *Prosalentai* (literally “rowers”), who likewise were assigned to the new fleet; and the marine *Tzakones*, most of whom were transported from the Morea to assist the *Gasmouloi*. By the end of the reign of Michael VIII further divisions of soldiers were created called the *megala allagia*, or “Grand Allagia,” which included at least two kinds of soldiers: *pronoia* soldiers and frontier garrison troops. These may have been the largest divisions of native Byzantine soldiers, and they are attested through the middle of the fourteenth century.¹⁰

¹⁰ Bartusis, *Late Byzantine Army*, pp. 43–8, 194. On the *Thelematarioi*, see also B. Hendrickx, “Qui sont les θεληματάριοι de 1261?,” *Ἑλληνικά* [Hellenika] 42 (1991–2), 355–63; and I. Karayannopoulos, “Οἱ Θεληματάριοι,” in Costas N. Constantinides et al. (eds.), *Philellen: Studies in Honour of Robert Browning* (Venice, Istituto Ellenico di Studi Bizantini e Postbizantini di Venezia, 1996), pp. 159–74. On the *allagion*, see also B. Hendrickx, “Allagion, tzaousios et prôtallagatôr dans le contexte Moréote: quelques remarques,” *Revue des Etudes Byzantines* 50 (1992), 207–17.

From the early fourteenth century both native and foreign troops were organized with increasing frequency into companies (*syntrophiai*) of soldiers in which the members proportionally shared profits and responsibilities. These companies generally were composed of small groups of foreigners or refugees from other parts of the empire, and the soldiers within them were frequently commanded and paid not by imperial officials but by their own leaders. Most companies probably began as mercenary bands, but some were gradually transformed into companies of *pronoiai* through modest grants of *pronoia* held jointly by the group. The Catalan Grand Company, an army of adventurers some 6,500 strong, is certainly the best-known soldier company in Byzantine history. While in Andronikos II's employ from 1303 to 1305, it was their leader Roger de Flor who negotiated their rates of pay, received this pay from the emperor, and distributed it to his soldiers. In 1305 with their pay in arrears, they turned on the Byzantines and spent several years plundering Thrace, Macedonia, and Thessaly before conquering the French Duchy of Athens in 1311 and creating the Catalan Duchy of Athens which lasted until 1388. The Catalan Company was by far the largest soldier company ever found in Byzantium; later soldier companies tended to be rather small.¹¹

A similar assortment of units is found among the palace guard. By the reign of Alexios I Komnenos, most of the traditional divisions of the *tagmata* which guarded the emperor, the palace, and Constantinople itself had disappeared or faded into obscurity. The only two still attested at the time (the *Exkoubitoi* and the *Athanatoi*) were supplemented by a couple of new guard divisions (the *Vestiaritai* and the *Varangians*), both organized as palace-guard troops in the first half of Alexios's reign. After his death all of these divisions disappear from the sources except for the *Varangians*, who, along with a new division called the *Vardariotai*, formed the palace guard of the later Komnenoi. The *Vardariotai*, attested as a palace guard division into the fourteenth century, probably had their origin as a group of Hungarians settled in the tenth century along the Vardar river in Macedonia. Of the numerous late Byzantine palace-guard divisions, the best-known are the *Varangians*. Russian and Scandinavian mercenaries had appeared in the army from the time of the first contacts between Russia and Byzantium in the ninth century and, by the early eleventh century, regiments of *Varangians* were an important part of the campaign army before appearing as imperial bodyguards. Gradually, the *Varangian* guard lost its Scandinavian character as Anglo-Saxons joined the regiment following the battle of Hastings. In the thirteenth

¹¹ Bartusis, *Late Byzantine Army*, pp. 199–205.

century, the Varangian guard, wielding the famous two-edged axe, was more or less entirely English in composition. In the thirteenth and fourteenth centuries their activities were restricted to guarding the emperor and prison guarding.¹²

The defense of fortified towns was undertaken by garrison soldiers who, when a town was not under immediate threat, could number merely in the dozens. In times of war the numbers could swell into the hundreds and include cavalry. Most garrison soldiers were paid with cash, but some held *pronoiai*. The number of garrison soldiers needed in a *kastron* was minimized by employing local semi-professional guards for the duties (night patrolling, fire-watch) not requiring the services of a trained soldier.¹³

A substantial portion of the late Byzantine army was composed of foreigners. Most were either Latins of various sorts (Italians, Germans, Catalans, Frenchmen, and Spaniards), Turkic peoples (Turks, Alans, and Cumans), or Slavs (Serbs, Bulgarians), but a variety of other ethnic groups, such as Vlachs, Albanians, Mongols, and Georgians, also appear. Latins figured prominently in the Nicaean armies because the Crusades had attracted large numbers of Latin warriors to the Aegean. At the battle of Antioch on the Meander in 1211, for example, the Nicaean forces consisted of 2,000 cavalry, of which 800 were Latin mercenaries. During the reign of John Vatatzes we see the first Latin *pronoia* holders, called *kavallarioi* (from the Latin *caballarius*), living in the area of Smyrna. The use of Latin mercenaries declined during Michael VIII's reign. At the battle of Pelagonia in 1259 it is quite possible that there were no Latins among the Nicaean forces. The western orientation of Michael's policies made the military services of Cumans and Turks much more useful in these and other campaigns. Andronikos II, for his part, also preferred Turks and Cumans for his one major European expedition in 1292, and his later recruitment of the Catalan Company indicates that there might not have been sufficient Latins on the scene available for mercenary service. During the civil wars of the fourteenth century, Latins again appeared as mercenaries in Byzantium, but much more significant was the increasing tendency to utilize the services of Serbs, Bulgarians, and especially Turks to wage both civil and foreign wars.¹⁴

Pay

Soldiers were remunerated through grants of cash, land, and the rights to state revenues. Mercenaries received direct cash payments. Most were

12 Ibid., pp. 271–86. 13 Ibid., pp. 286–302. 14 Ibid., pp. 28, 196–9.

foreigners: Latins, as well as Alans and Turks. Mercenary pay was frequently paid irregularly. Late Byzantine narrative sources depict a central government without sufficient resources to finance an adequate army. From campaign to campaign we read of emperors requesting aid from abroad, appropriating Church property, utilizing their personal fortunes, or even simply ordering their tax collectors to be more zealous about their task. Nevertheless, Andronikos II's plan to use the tax revenues he raised around 1320 to finance 3,000 mercenary cavalry suggests that mercenaries were the soldiers of choice.¹⁵

The practice of granting arable land to soldiers, thereby creating smallholding soldiers, was an institution which existed continuously throughout Byzantine history with precedents in the Roman past. In the late period smallholding soldiers generally lived in communities situated at strategic locations and farmed their own land. They tended to form the lower end of the social spectrum of professional soldiers: light cavalry, infantry, and rowers. Further, either they were a large group of transplanted foreigners or the emperor had a particular area in which he wanted soldiers to be settled for direct defense or for convenience of mustering. There is no evidence that individual smallholding soldiers existed after 1204.¹⁶

Pronoia-holding soldiers with their larger holdings generally did not farm, but on an individual basis acted as landlords and tax collectors, frequently in out-of-the-way places. A pronoia was a grant by the emperor of the state's fiscal and usufructuary rights over a defined set of revenue sources to an individual or group of individuals. The fiscal rights bestowed were generally the claim on the taxes and state charges burdening peasants (*paroikoi*) and the taxes burdening immovable property, usually land, but including mills, mines, fisheries, docks, etc. Usufructuary rights permitted the holder of a pronoia to manage and demand the rents and other charges on state property and the labor services of specified *paroikoi*. Beginning with the reign of Michael VIII, emperors occasionally granted hereditary rights over pronoiai or fractions of pronoiai to recipients at all social levels. Through the fourteenth century this practice accelerated, though it seems that the service obligation passed to the heirs and it was forbidden to transfer the hereditary elements of the grant outside of the family. The institution of pronoia was adopted by the Serbs and Bosnians, and the term is found in Venetian documents from the Adriatic and the Aegean, though the degree to which

¹⁵ Ibid., pp. 139–56. ¹⁶ Ibid., pp. 157–61.

they actually appropriated the Byzantine institution is unclear. The pronioia has similarities to the fief and to the Muslim *iqtaʿ* and *timar*, and the interrelation between them is a subject of debate.¹⁷

Each manner of remuneration had its own strengths and weaknesses. Thus, pronioia soldiers, unlike smallholding soldiers, were usually heavy cavalry and were less expensive than mercenaries because they were paid “at the source.” Pronioia soldiers, however, often held their pronioiai in out-of-the-way places, making them difficult to muster, and their dependence on these revenues hindered their participation in long campaigns. Mercenaries campaigned as long as their salaries were paid, but they were the most expensive troops. Smallholding soldiers were the best bargain, and their attachment to the land upon which they lived made them the best suited to hold frontier positions. But smallholding soldiers were at best light cavalry and, since they were frequently backward, clannish foreigners, they were not the most reliable or disciplined troops. Therefore, the army could not have been composed exclusively of mercenaries because there was not enough cash, nor exclusively of pronioia soldiers or smallholding soldiers because some troops were needed who could campaign at a moment’s notice and for long periods. Neither pronioiai nor smallholding soldiers alone could supplement mercenaries, because both heavy cavalry and soldiers attached to specific lands were in demand. While most soldiers may be categorized according to their primary type of remuneration – mercenary, smallholding soldier, pronioia soldier – there nevertheless is evidence that combinations of pay methods were often employed, creating pay “packages” for individual soldiers or groups of soldiers and blurring the distinction between mercenary, smallholding soldier, and military pronioia holder.

17 Ibid., pp. 162–89. And more recently I. Karayannopoulos, “Ein Beitrag zur Militärpronoia der Palaiologenzeit,” in Werner Seibt (ed.), *Geschichte und Kultur der Palaiologenzeit: Referate des Internationalen Symposions zu Ehren von Herbert Hunger* (Vienna, Österreichische Akademie der Wissenschaften, 1996), pp. 71–89; Alexander Kazhdan, “Pronoia: The History of a Scholarly Discussion,” in Benjamin Arbel (ed.), *Intercultural Contacts in the Medieval Mediterranean* (London and Portland, OR, Frank Cass, 1996), pp. 133–63; and T. Maniati-Kokkini, “Μία πρώτη προσέγγιση στη μελέτη τοῦ βυζαντινοῦ θεσμοῦ τῆς ‘πρόνοιας’: οἱ προνοiάριοι” [“An Initial Approach to the Study of the Byzantine Institution of ‘Pronoia’: The Pronoiairioi”], in *Πρακτικὰ τοῦ 7οῦ Πανελληνίου Ἱστορικοῦ Συνεδρίου (Θεσσαλονικί, Μάιος 1988)* [Acts of the 7th Panhellenic Historical Conference (Thessaloniki, May 1988)] (Thessaloniki, Hellenike Historike Hetaireia, 1991), pp. 47–60.

Campaigns

Some of the most valuable sources for the study of the army up through the eleventh century are the military manuals, or *taktika*. There is evidence that these continued to be written during the late period, but unfortunately none are extant. The single idiosyncratic exception is a treatise written in 1326 by Andronikos II's second son, the marquis of Montferrat, Theodore Palaiologos (1291–1338). We know the treatise only through a fourteenth-century French translation based on Theodore's Latin translation of the original Greek work. Since he lived almost all of his adult life in the West, where he acquired all of his firsthand military experience, the treatise is much more a product of the Western European than the Byzantine cultural sphere.¹⁸ Thus, most information about the operation of the Byzantine army must be derived from the accounts of the historians.

The traditional campaign season began in March and extended through autumn and into December. Since most of the army lived in the provinces, a certain amount of time was needed to muster a campaign army. In one particular case, John VI Kantakouzenos notes in his memoirs that the time needed to muster the army from the area of Thrace and at least eastern Macedonia was about two weeks. Other men without a military obligation arrived to campaign too. Some, who served as retainers and servants, accompanied the soldiers or arrived independently. Others, primarily lightly armed infantry, were recruited specifically for the campaign from among the peasantry and urban poor or frequently appeared unbidden. Most of these fought for nothing more than the hope of acquiring plunder. The number of people who finally arrived at the point of assembly probably exceeded by many times the number of pronioia soldiers, smallholding soldiers, and mercenaries. Some emperors, such as John III Vatatzes, Andronikos III Palaiologos, and John VI Kantakouzenos, participated personally in most of their campaigns. Others such as Michael VIII Palaiologos and Andronikos II Palaiologos rarely or never took the field, preferring to delegate authority to military commanders, most of whom were drawn from the relatively small number of families that made up the late Byzantine aristocracy.¹⁹

Before combat, troops were arranged in battle-order. The sources refer to this as “separating the *allagia* (or *syntaxeis*).” It seems that the main purpose of

18 Christine Knowles (ed.), *Les Enseignements de Théodore Paléologue* (London, Modern Humanities Research Association, 1983).

19 *Ioannis Cantacuzeni eximperatoris historiarum*, ed. L. Schopen, *Corpus Scriptorum Historiae Byzantinae*, 3 vols. (Bonn, 1828), vol. 1, p. 136. Bartusis, *Late Byzantine Army*, pp. 213–17, 221–44.

the procedure was to divide the army into combat units differentiated by ethnic group and by mode of combat (horse and foot). For example, at the battle of Apros in 1305 there were five *syntaxeis*, differentiated by ethnicity: the Alans and Tourkopouloi (light cavalry units composed of Christianized Turks and their half-Byzantine offspring) in the van, followed by the Macedonians, the Anatolians, the Vlach infantry, and the Thelematarioi as a rearguard with the imperial entourage. Cavalry was the most important component of Byzantine forces. Often the sizes of armies, Byzantine or otherwise, are provided simply in terms of numbers of horse troops, even when foot troops were participating as well. The Byzantine preference was for heavy cavalry. The cavalry contingents of foreign troops (Cumans, Alans, and Turks) consisted of highly mobile lightly armed archers. Infantry were divided into two groups, heavily and lightly armed, the latter including archers.²⁰

Late Byzantine campaign armies were small, rarely numbering more than a few thousand, often merely a few hundred. Michael VIII Palaiologos's armies, amassed at a time when the fortunes of the empire were temporarily in the ascendant, were probably the largest the Byzantines could field in the later period, but we still must think only of thousands and not tens of thousands. During the first half of the fourteenth century the total number of imperial soldiers residing in the empire could have been no larger than 5,000.²¹

Equipment

Byzantium's close contact during its last centuries with numerous other societies, including its extensive use of foreign soldiers, produced a cosmopolitan military style such that the armor and weaponry of armies throughout the Balkans were rather similar. Heavily armed soldiers generally wore one of a variety of chain mail hauberks. Some late Byzantine warriors wore metallic or hardened leather lamellar cuirasses on top of or instead of mail hauberks. Perhaps the most common helmet was conical, sometimes onion-shaped or even roundish, relatively tall, with a brim. There were also simpler round helmets which appear to extend far down the wearer's back. Heavy infantry, including crossbowmen (who were usually foreigners), probably wore the kind of padded tunics reaching to the knees, along with a few pieces of mail, seen in Italian and Spanish art. Light infantry, armed

20 Bartusis, *Late Byzantine Army*, pp. 256–8. 21 Ibid., pp. 258–69.

with bows, slings, and perhaps spears, probably dressed like the peasants they were.

The standard shield seems to have been of an elongated triangular design, about 4 feet high, with a pronounced bow along its width, framed with wood or iron and covered with hardened leather. This type of shield developed from the large almond-shaped shield known as the "Norman" shield that was popular in the eleventh and early twelfth centuries in Byzantium and throughout Europe. Smaller round shields (about 2 feet across) may have been a common style for infantry in the Balkans and Asia Minor. Swords were generally either long and straight, sometimes with a slight taper toward the tip, or curved sabers, the latter showing the influence of Turkish cavalry. Due to Western influence, the couched lance was adopted during the reign of Alexios I Komnenos. Native Byzantine cavalry employed the sword and lance almost exclusively. On the other hand, in the Empire of Trebizond closer contact with the Seljuq and Ottoman Turks seems to have led to the adoption of horse-archery. The only indigenous Byzantines to use the bow were light infantry. The bow was of the short recurved composite style with a short draw, often called the "Scythian" bow. The crossbow was used infrequently, and then almost exclusively in sieges and sea battles.²²

Byzantium was slow to utilize firearms and never made extensive use of them. By the middle of the fourteenth century firearms were found in the cities of the Adriatic coast and in Hungary. By 1378 Dubrovnik (Ragusa) was engaged in making cannon. Firearms could be found in Serbia by 1386 and in most of the cities of the eastern Adriatic by the end of the fourteenth or early fifteenth century. By the early fifteenth century the Serbs had large-caliber cannon and mortars similar to those in the West, and their manufacture began soon afterward. Even in relatively backward Bosnia cannon were being manufactured by 1444. During Bayezid's 1396–7 siege of Constantinople, the Turks still did not have firearms, only conventional siege machinery, especially stone-throwing trebuchets which inflicted little damage. The first Ottoman use of firearms seems to have occurred in 1422 during Murad II's siege of Constantinople. During this siege the Byzantine forces employed firearms, including bombards, perhaps for the first time. At the siege of Constantinople in 1453 both sides employed firearms. Most of the defenders' artillery were under the control of the Western Europeans. The

22 Ibid., pp. 322–34; and A. Babuin, "Later Byzantine Arms and Armour," in David Nicolle (ed.), *A Companion to Medieval Arms and Armour* (Woodbridge, UK, and Rochester, NY, Boydell Press, 2002), pp. 97–104. For illustrations of weapons and armor, see Ian Heath, *Byzantine Armies, 1118–1461* (London, Osprey, 1995).

Turks had arquebuses or other varieties of handguns as well as traditional artillery. The largest cannon at the siege was a 29-nine-foot monster that fired 1,200-lb balls. Without such artillery the Turks might have had as little success in 1453 as in 1422.²³

From 1204 on, few areas in the Aegean basin were immune to sudden and frequent attack by any of a host of enemies. For Byzantium, most war took place within the empire itself and it affected everyone. Starting with the reign of Michael VIII, the army's size was inadequate. The inability of the state to acquire enough trained soldiers from the native population led to the employment of troops that had no affinity with or responsibility toward the empire's indigenous residents. Since the number of trained, professional troops was small, it was necessary not only to supplement the size of the army but to alter tactics as well. The value of each professional soldier was raised to the point where pitched battles were avoided, military commanders preferring less hazardous tactics such as skirmishing, pillaging, and treachery to accomplish what could not be done through overt force or through attrition.

To account for numerical inadequacy from the 1260s on, the Byzantines hired mercenaries, singly and in groups, of almost every ethnicity. They employed *pronoia* in various permutations to maintain a small, well-equipped campaign force, and they created smallholding soldiers, some native, some foreign, and tried to create still more. But they could not do more than break even. Put simply, the economy was not healthy enough, nor was the state's fiscal apparatus efficient enough, to produce sufficient resources to finance enough mercenaries. Fundamentally, there was no late Byzantine military system. Rather, there was a motley collection of little groups of soldiers. If there was a consistent policy, it was to turn every invader, neighbor, or visitor by any means possible into a soldier.

Even though the late Byzantine army was ultimately unsuccessful in maintaining the state, it was nonetheless effective against a number of its enemies. In conjunction with diplomacy, it prevailed over the Latins in the Morea and on the Aegean islands, as well as those from the West who made occasional war against the empire, and it at least held its ground against the Bulgarians, the Turks of Asia Minor through the 1290s, and the Serbs until the era of Stefan Dušan (the 1340s). On the other hand, the army was not effective against the Turks in Asia from the early fourteenth century, the Mongols, the Catalans, the Serbs under Dušan, and the Turks once they entered Europe

23 Bartusis, *Late Byzantine Army*, pp. 122–3, 334–41.

during the 1350s. Yet the assaults of most of these enemies were short-lived and with patience were overcome. With the exception of the loss of Anatolia, the empire struggled on through the first half of the fourteenth century with relatively little loss of territory. In fact, despite the enervating effects of the civil wars, if the only enemies Byzantium faced had been the Bulgarians, the Serbs, the Latins of the Morea and the Aegean, the Catalans, and the Mongols, the empire might well not have fallen. By the 1350s, despite over thirty years of intermittent civil war, no Balkan state had been able to take permanent advantage of the empire's weaknesses. Rather, it was the Turks who capitalized on Byzantium's frailties and proved to be the implacable enemy.

Ottoman expansion and military power, 1300–1453

GÁBOR ÁGOSTON

Introduction

The Ottoman empire is named after Osman (d.1324), the eponymous founder of the dynasty, whose name came to be rendered in English as Ottoman. Osman was a Turkish frontier lord – *beg* in Turkish – who commanded a band of semi-nomadic fighters at the beginning of the fourteenth century in northwestern Asia Minor (Anatolia), known at the time to Turks, Persians, and Arabs as the land of Rum (Rome); that is, the land of the Eastern Roman Empire. Osman Beg was but one of many Turkish lords who carved out their respective principalities in western and central Asia Minor, profiting from the power vacuum caused by the Mongols' destruction of the Seljuq sultanate of Rum in 1243.

Within three generations, Osman's successors – Orhan (r.1324?–62), Murad I (r.1362–89), and Bayezid I (r.1389–1402) – extended the Ottoman domains up to the Euphrates river in Anatolia and to the banks of the Danube river in Southeastern Europe (modern Balkans), known to the Ottomans and the indigenous people of the peninsula as Rumeli or Rumelia; that is, the lands of the Romans. In 1453, Sultan Mehmed II (r.1444–6, 1451–81) conquered Constantinople, the capital of the thousand-year-old Eastern Roman or Byzantine Empire. Declaring himself Caesar, the heir to the Byzantine emperors, and lord of “two lands” (Rumelia and Anatolia) and “two seas” (the Black Sea and the Aegean), Mehmed II announced his imperial claims both in Europe and Asia. Mehmed II's grandson, Selim I (r.1512–20) crushed the Mamlūk sultanate of Egypt and Syria, incorporating their realms into his empire. Selim's son, Süleyman I (r.1520–66) added what is today Iraq and Hungary to his empire. Yet, any short summary of early Ottoman conquests is misleading, suggesting a linear and easy expansion of the Ottoman domains. But the rise of the house of Osman to prominence was neither foreseeable at around 1300 nor unchallenged in the decades and centuries to

come. Ottoman rule was contested by the neighboring Turko-Muslim principalities, popular uprisings, and neighboring regional powers – both Christian (Byzantium, Venice, Hungary) and Muslim (Timurids, Qara Qoyunlus, Aq Qoyunlus, Mamlüks, and Safavids). Twice in the fifteenth century, in 1402 and 1444, the very existence of the Ottoman dynasty was at stake. How does one then explain the rapid Ottoman expansion?

The dominant explanation until the late 1970s was the so-called *ghaza* theory, originally formulated in the 1930s by the Austrian Orientalist scholar Paul Wittek. This viewed the Ottoman amirate as a quintessential Islamic frontier warrior state, whose *raison d'être* was *ghaza* or “holy war” against the Ottomans’ Christian neighbors. The theory served as an all-embracing explanation of the rise and bellicose nature of the Ottoman empire. In the past decades, historians have pointed out the theory’s weaknesses and offered more complicated explanations.¹ Research has noted the propitious location of Osman’s small amirate, the power vacuum in Anatolia that followed the collapse of the Seljuq sultanate of Rum, and the wars among the Ottomans’ neighbors that all aided Ottoman expansion. Interest in the history of the environment and epidemics drew attention to the possible effects of natural disasters – floods and earthquakes – and the Black Death that arrived in Asia Minor in 1347.² At the same time, the study of Byzantine and European sources has demonstrated that many of the early Ottoman campaigns, which Ottoman court chroniclers termed as religiously inspired *ghaza*, were in fact inclusive political enterprises in which Muslims and Christians often joined forces against the Ottomans’ regional rivals, both Muslim and Christian. Research has shown that throughout the early fourteenth century, the Muslim Türkmen amirates of Aydın, Karasi, Saruhan, and Ottoman forged numerous alliances and launched joint military ventures with Christian Catalans, Byzantines, and Genoese.³ The

1 Paul Wittek, *The Rise of the Ottoman Empire: Studies in the History of Turkey, Thirteenth – Fifteenth Centuries*, ed. Colin Heywood (London and New York, Routledge, 2012), which contains Wittek’s most important writings on the subject with Colin Heywood’s introduction; Cemal Kafadar, *Between Two Worlds: The Construction of the Ottoman State* (Berkeley, University of California Press, 1995); Heath Lowry, *The Nature of the Early Ottoman State* (Albany, State University of New York Press, 2003); Rudi Paul Lindner, *Explorations in Ottoman Prehistory* (Ann Arbor, University of Michigan Press, 2007).

2 Elizabeth A. Zachariadou (ed.), *Natural Disasters in the Ottoman Empire: A Symposium Held in Rethymnon 10–12 January 1997* (Rethymnon, Crete University Press, 1999); Uli Schamiloğlu, “The Rise of the Ottoman Empire: The Black Death in Medieval Anatolia and Its Impact on Turkish Civilization,” in Negin Yavari, Lawrence G. Potter, and Jean-Marc Ran Oppenheim (eds.), *Views from the Edge: Essays in Honor of Richard W. Bulliet* (New York, Columbia University Press, 2004), pp. 255–79.

3 Kafadar, *Between Two Worlds*; Lowry, *The Nature*; Colin Imber, “What Does Ghazi Actually Mean?,” in Çiğdem Balım-Harding and Colin Imber (eds.), *The Balance of Truth: Essays in Honour of Professor Geoffrey Lewis* (Istanbul, Isis Press, 2000), pp. 165–78.

Ottomans crossed the Dardanelles Straits in 1347 into Southeastern Europe as allies of John Kantakouzenos, who sought help from Orhan, Osman's son and heir, in his bid for the Byzantine throne against Emperor John V Palaiologos (r.1341–91), who succeeded his father at the age of 9 under the regency of his mother Anna of Savoy. With Ottoman help, John Kantakouzenos – who married his daughter Theodora to Orhan in 1346 – became co-emperor.

The history of Ottoman expansion and setbacks demonstrates that the Ottomans not only profited from historical accidents and contingencies, but employed a wide array of strategies to weaken, conquer, and subjugate their rivals. They also managed to integrate elements of the conquered peoples' societies and institutions into the Ottoman military and administrative systems, which, in turn, were shaped by these people, institutions, and encounters. Thus, following a brief overview of Ottoman expansion and setbacks – a reminder that Ottoman expansion was anything but a linear process – this chapter re-examines Ottoman strategies of conquest and incorporation and the evolution of Ottoman military capabilities. These, as well as historical contingencies and accidents, played a crucial role in the emergence of the Ottomans as a military power in both Southeastern Europe and Asia Minor.⁴

Expansion and setbacks

The Ottomans' first major success was the capture of the Byzantine town of Prousa in 1326 by Orhan, which he promptly made the capital of his principality. In 1352, profiting from the Byzantine civil war as ally of John Kantakouzenos, Orhan acquired the Ottomans' first foothold in Thrace in Southeastern Europe. Two years later his son, Süleyman Pasha, captured the important Byzantine fort and naval base of Gallipoli, whose defenses a devastating earthquake had just destroyed. The Ottomans not only used Gallipoli as their bridgehead for their raids into Europe, but soon turned it into a maritime base and the site of the first Ottoman naval arsenal, built on the basis of the existing Byzantine dockyards. With the conquest of Adrianople, most probably in 1369, Murad I gained access to Thrace and Bulgaria. The fact that Murad made the city his capital signaled that the Ottomans were in Europe to stay and that they considered themselves a power with strategic interests both in Asia Minor and Europe. In 1386,

4 I examine the emergence of the Ottomans and the formation of the Ottoman military in more detail in my forthcoming book, *The Last Muslim Conquest*.

Murad I's better-organized army defeated the amir of Karaman, although the Karamanids remained a challenge to Ottoman ambitions until Mehmed II eventually incorporated the amirate into his empire towards the end of his reign.⁵

The death of Murad I in 1389 at the battle of Kosovo Polje (Field of the Blackbirds) could have halted Ottoman expansion in Europe. However, the Serbian ruler Lazar was also killed in the battle, and his successor, Stefan Lazarević, became the vassal of the new Ottoman ruler, Bayezid I, who quickly assumed power and embarked on aggressive campaigns of expansion. He conquered Bulgaria (1393, 1395) and defeated a European crusader army led by Sigismund of Hungary at the battle of Nikopol (1396). This prompted Sigismund to adapt a defensive strategy, based on a multilayered defense system consisting of vassal states, border provinces, border forts along the lower Danube and its tributaries, and a field army as a last resort in case the Ottomans broke through the first three layers of defense. This is just one example of how Ottoman expansion impacted the policies in the neighboring countries.

Byzantine support for the crusaders provoked a long Ottoman blockade of Constantinople (1394–1402). To control navigation along the Bosphorus Straits, Bayezid I ordered the construction of a castle on the straits' Asian shore – called Anadolu Hisarı or Anatolian castle – northeast of Constantinople. This bold strategic move could not compensate for the lack of adequate Ottoman siege artillery. Yet, Constantinople was saved not due to lack of Ottoman siege artillery, but rather because Bayezid had to abandon the siege and face his new opponent, Temür Lenk (Tamerlane), the ruler of an expanding Muslim empire in Transoxiana.

Ottoman conquests in eastern Anatolia provoked a clash between Bayezid and Temür. Temür claimed suzerainty over all Anatolian amirs on account of his descent from Chinggis khan (r.1206–27), whose Ilkhanid successors ruled over Asia Minor in the second half of the thirteenth century. Bayezid, on the other hand, considered himself heir to the Seljuqs of Rum, who had ruled Anatolia from the late eleventh through the early fourteenth century. In open defiance, Bayezid requested from the caliph in Cairo the title of “Sultan of Rum,” used by the Rum Seljuqs. However, at the battle of Ankara (July 28,

5 For the early Ottoman conquests see Colin Imber, *The Ottoman Empire, 1300–1481* (Istanbul, Isis, 1990); Caroline Finkel, *Osman's Dream: The Story of the Ottoman Empire, 1300–1923* (New York, Basic Books, 2006); and Kate Fleet (ed.), *The Cambridge History of Turkey*, vol. 1: *Byzantium to Turkey, 1071–1453* (Cambridge, Cambridge University Press, 2009).

1402), Temür defeated and captured Bayezid, who died in captivity the next spring. Temür's victory at Ankara checked the first phase of Ottoman expansion. The debacle also threatened the very existence of the Ottoman polity, as Temür restored the lands that Bayezid conquered in eastern Anatolia to their Türkmen lords and partitioned the remaining Ottoman domains amongst Bayezid's sons.

However, the sons of Bayezid started a decade-long fight to establish undivided sovereignty over the Ottoman domains, suggesting that the idea of the indivisibility of the domains of the house of Osman had taken root among the Ottoman elite. Having defeated his brothers, Mehmed I (r.1413–21) emerged victorious and set out to reestablish Ottoman sovereignty in Anatolia. In 1416, he eliminated Sheikh Bedreddin, a charismatic Muslim mystic and judge, who led a popular uprising against Mehmed southwest of the Danube delta. The same year, Mehmed also routed his brother Mustafa, who had just been released from Timurid captivity and appeared as a pretender to the Ottoman throne. Mustafa entered into negotiations with the Byzantines, Venetians, and Wallachians, hoping to mount a coordinated assault on Mehmed. Defeated, Mustafa found refuge with the Byzantine Emperor Manuel II Palaiologos (r.1391–1425), and Mehmed found it wise to pay Manuel an annual sum of 10,000 gold ducats so that the emperor would not release Mustafa from his custody.

Murad II (r.1421–44, 1446–51) continued his father's work, eliminating his uncle and brother – dubbed “False Mustafa” and Little Mustafa by Ottoman court chroniclers – whom the Byzantines released from custody to instigate rebellion against the new sultan. Using military force, diplomacy, appeasement, vassalage, and marriage alliances, Murad II not only secured his throne, but also saved the Ottoman state from possible collapse during the crisis years of 1443–4. As a response to Ottoman raids into Hungary and Murad II's subjugation in 1439 of Serbia, Hungary's vassal, the Hungarians attacked the Ottomans. The campaign into Ottoman Rumelia in the winter of 1443–4, and a renewed offensive of the amir of Karaman in Anatolia, yet again threatened the very existence of the Ottoman domains and forced Murad II to seek peace. The Hungarian–Serbian–Ottoman peace treaty of 1444 reestablished the pre-1439 borders by returning Ottoman-conquered Serbia to its ruler, George Branković. Now Murad II turned against the Karamans, who made peace with Murad, accepting the status quo ante. Having thwarted the danger, Murad II abdicated in favor of his 12-year-old son, Mehmed II. However, the young sultan was unable to deal with the rebellion of Skanderbeg in Albania, a renewed Karaman campaign, and, most

importantly, an anti-Ottoman crusade. Urged by the papacy, which declared the treaty of 1444 concluded with the “infidel Turk” void, the Hungarians broke the truce. In September 1444, a crusading army – led by King Wladislas of Hungary and Poland and his general János Hunyadi – entered into Ottoman domains. At this critical moment, Murad II assumed command of the army, while Mehmed remained the sultan. Murad’s army of some 40,000 defeated the 18,000 crusaders at the battle of Varna on the Black Sea coast (November 10, 1444), killing King Wladislas.⁶

The crises of 1443–4 revealed the vulnerability of the young Ottoman state and the friction among the old and new leaders, represented respectively by viziers from the old Turkish aristocracy and by statesmen of Christian origin, who were either recent converts from Christianity to Islam or products of the Ottoman levy of Christian boys. The first group pursued a cautious policy against the Ottomans’ European enemies, while the new elite advocated for a more belligerent policy. In order to avoid a possible disaster such an aggressive policy might cause, Grand Vizier Halil Pasha, the scion of the famous Turkish Çandarlı family and the leader of the old elite, recalled Murad II from his retirement for the second time, using as pretext the 1446 janissary rebellion in Edirne. This erupted partly because Mehmed II debased the Ottoman silver coinage in which the janissaries received their salaries. During his second reign (1446–51) Murad II secured Ottoman rule in Rumelia, defeating another crusading army in 1448 at Kosovo Polje in Serbia. When he died in 1451, his son Mehmed II, by then 19 years of age, was poised to execute his belligerent plans against his Christian rivals.

Mehmed II’s greatest achievement was the conquest of Constantinople. To assume control over the Straits of the Bosphorus, which separated the Ottomans’ Asian and European lands, the sultan had a fortress built at its narrowest point. Rumeli Hisarı or Rumelian castle stood opposite the old “Anatolian castle,” which Bayezid I had erected. With their cannons deployed on the walls of the two castles, the Ottomans effectively sealed off Byzantium, depriving it of reinforcements and supplies. With 80,000 men, the besiegers greatly outnumbered the defenders, who counted 8,000 Greeks and 2,000 foreigners, in addition to 40,000 civilians. Following fifty-four days of constant Ottoman bombardment and repeated attacks, Constantinople fell on May 29, 1453. The conquest proved the advantages of firearms against

6 Pál Engel, “János Hunyadi and the Peace ‘of Szeged’ (1444),” *Acta Orientalia Academiae Scientiarum Hungaricae* 47 (1994), 241–57; Colin Imber (ed.), *The Crusade of Varna, 1443–45* (Aldershot, Ashgate, 2006); John Jefferson, *The Holy Wars of King Wladislas and Sultan Murad: The Ottoman-Christian Conflict from 1438–1444* (Leiden, Brill, 2012).

medieval fortifications. During the siege, the Ottomans deployed some of the largest bombards known to contemporaries, which threw stone balls weighing between 240 and 400 kg, a testament to Ottoman manufacturing and logistical capabilities. However, cutting-edge military technology was but one element in the Ottoman success. Other important factors included numerical superiority, careful planning, better logistics, prowess in siege warfare, and resourceful leadership, which portaged ships, soldiers, and weaponry into the Golden Horn, where the Byzantine defense was the weakest.⁷

Marcher lords, the house of Osman, and the evolution of the Ottoman military

The heterogeneous nature of the early Ottoman society was a rich source of military and administrative skills and acculturation. Amongst the closest comrades of Osman one finds Orthodox Greeks and recent Christian converts to Islam, such as Köse Mihal and Evrenos Beg, who assisted the Ottomans with their knowledge of the neighboring societies and geography. Mihal was the Byzantine castellan of a small fort in Bithynia in control of the lowlands of the Middle Sangarios/Sakarya river valley, bordering Osman's realms. Mihal and Osman concluded a mutually beneficial alliance by which Mihal stabilized his position on the volatile Byzantine–Ottoman frontier, whereas Osman secured his rearguard during his raids. Mihal later converted to Islam, and in 1326 as an Ottoman commander negotiated the surrender of Prousa to the Ottomans with the town's Byzantine commander. Ottoman chronicles claimed that Evrenos Beg was a Muslim Turk from the neighboring Karasi amirate. However, a recently discovered source suggests that he was of Serbian descent, the son of a certain Branko Lazar, who after his conversion to Islam was known as Isa Beg. It is also plausible that Branko Lazar had joined the Ottomans in order to preserve and extend his original patrimony by fighting (now under the Ottoman banner) against his local Christian rivals. His Serbian origin might explain why Murad I entrusted Evrenos Beg to lead the Ottoman army to the battlefield of Kosovo. Unlike the newcomer Ottomans, Evrenos Beg was familiar with the region's

⁷ Kelly DeVries, "Gunpowder Weapons at the Siege of Constantinople, 1453," in Yaacov Lev (ed.), *War and Society in the Eastern Mediterranean, 7th–15th Centuries* (Leiden, Brill, 1997), pp. 343–62; Gábor Ágoston, "War-Winning Weapons? On the Decisiveness of Ottoman Firearms from the Siege of Constantinople (1453) to the Battle of Mohács (1526)," *Journal of Turkish Studies* 39 (2013), 129–43.

geography and politics. Evrenos Beg was one of the most famous marcher lords (sing. *uc begi*), who conquered for the Ottomans most of what is today northern and central Greece.⁸

The marcher lords possessed large hereditary estates and substantial armies of frontier raiders. These the Turks called *akıncı*, meaning “those who flow,” because – in the words of the Byzantine chronicler Doukas – they descended upon their enemy “like a flooding river.”⁹ The marcher lords often acted independently of the Ottoman rulers, and governed large areas in the Rumelian marches as fellow generals of equal status to the Ottoman sultans rather than military commanders subject to the orders of the latter. The status and influence of the marcher lords can be seen from the important role they played in the Ottoman succession struggles of 1402–13, as none of the warring Ottoman princes could hold onto their lands in Southeastern Europe without their support.¹⁰ Exempted from taxes, the *akıncı* raiders originally sustained themselves from plunder and sale of booty, especially captured slaves. Due to the exceptional speed and endurance of their horses, bred especially for swift and long-distance raids, these cavalrymen played important roles in cross-border attacks, devastating the border areas of the Ottomans’ neighbors and terrorizing their population. In campaigns, they served as scouts and vanguard forces, demoralizing the enemy by their guerilla tactics. They also guarded river crossings and bridges. The light cavalry *akıncı* raiders remained a significant unit in the Ottoman military until the early sixteenth century.

In addition to these mounted soldiers under the command of the marcher lords, the early Ottomans also recruited young volunteer peasants for the infantry *yaya* (footman) and cavalry *müsellem* (lit. exempt) corps. Paid by the ruler during campaigns, they returned to their villages after campaigns and were exempted from certain taxes in return for their military service. Under Murad I, the *müsellems* were gradually replaced by the dynasty’s salaried palace horsemen, whereas *azab* infantrymen and the janissaries took the

8 Heath Lowry and İsmail E. Erünsal, *The Evrenos Dynasty of Yenice-i Vardar: Notes & Documents* (Istanbul, Bahçeşehir University Press, 2010); Mariya Kiprovska, “Byzantine Renegade and Holy Warrior: Reassessing the Character of Köse Mihal, a Hero of the Byzantino-Ottoman Borderland,” *Journal of Turkish Studies* 40 (2013), 245–69; Mariya Kiprovska, “Ferocious Invasion or Smooth Incorporation? Integrating the Established Balkan Military System into the Ottoman Army,” in Oliver Jens Schmitt (ed.), *The Ottoman Conquest of the Balkans* (Vienna, Austrian Academy of Sciences Press, 2016), pp. 79–102, esp. pp. 96–9.

9 Quoted in Lowry, *The Nature*, p. 46.

10 Dimitris Kastritsis, *The Sons of Bayezid: Empire Building and Representation in the Ottoman Civil War of 1402–1413* (Leiden, Brill, 2007).

place of the *yaya* infantry. The *yayas* and *müsellems* became auxiliary forces, charged with transporting weapons and ammunition, and building roads and bridges during campaigns. Organized similarly to the janissaries, and armed with bows and swords, the infantry *azabs* were a kind of peasant militia, originally composed of unmarried (*azab*) young men. They received their military kit from a certain number of tax-paying families. The *azabs* were lower-quality troops, who could be used as cannon fodder and who fought in the first ranks of the Ottoman battle formation, in front of the cannons and janissaries. Although their number was significant (some 20,000 in 1453), the janissaries gradually replaced them, relegating the *azabs* to garrison and naval duties.¹¹

The most important pillars of the Ottoman dynasty's military power, with which they gradually overpowered not just their Türkmen rivals in Anatolia but also the lords of the Rumelian marches, were the Ottoman prebendal system that financed thousands of mounted provincial soldiers, and the standing household army under the direct control of the Ottoman sultans. The Ottoman prebendal system, based on revenue or service grants called *timar*, had developed under the first Ottoman rulers, following pre-existing Byzantine and Seljuq conditional service grant arrangements, known as *pronoia* and *iqta'*, respectively. In return for the right to collect revenues from his assigned *timar* prebends, the Ottoman provincial cavalryman or *sipahi* had to provide for his arms (short sword and bows), armor, and horse, and to report for military service along with his armed retainers when called upon by the sultan. During campaigns, muster rolls were checked against *timar* registers in order to determine if all the timariot cavalrymen had reported for military duty and brought the required share of retainers and equipment. If the cavalryman did not report for military duty or failed to bring with him the required number of armed retainers, he lost his *timar*, which was then assigned to someone else. Numbering some 10,000–15,000 during Murad I's wars, the timariot provincial cavalry and the *timar* system played an important role in transforming the early Ottoman military into a semi-permanent army under the sultan's command.

From the earliest times the Ottoman rulers could count on their military entourage, known as *kul* (lit. slave or servitor) and *nöker* (companion, client,

¹¹ On the early Ottoman army see Gyula Káldy-Nagy, "The First Centuries of the Ottoman Military Organization," *Acta Orientalia Academiae Scientiarum Hungaricae* 31 (1977), 147–62; Pál Fodor, "Ottoman Warfare, 1300–1453," in Fleet (ed.), *Byzantium to Turkey*, pp. 192–226, esp. pp. 211–12 (on the *azabs*); and Gábor Ágoston, "Azep," *Encyclopaedia of Islam Three* (Leiden, Brill, 2007–).

retainer). These were the forerunners of the sultans' salaried household troops, known as *kapukulu*; that is, "slaves/servitors of the sultan's gate." Either Orhan or Murad I established the ruler's elite slave guard, the famous janissary corps, from the Turkish *yeniçeri*, meaning "new troops."¹² Initially numbering only a few hundred men, the janissaries were the first standing infantry in European history that existed continuously for centuries following its establishment, preceding similar permanent infantry formations in Western Europe by some two centuries.

In battle, the janissaries' main function was to protect the sultan. Forming a square of several rows and positioned after the irregular forces, the janissaries engaged in the fight only if the enemy, having routed the provincial cavalry on the wings and the irregular infantry *azabs* before them, reached their ranks and threatened the sultan. Accounts of mid-fifteenth-century battles such as Varna (1444) and Kosovo (1448) describe the janissaries as an impassable wall, protected by an embankment strengthened with iron stakes and large shields. Behind the janissaries, the Ottomans placed their camels laden with rich baggage. Should the enemy reach the embankment, these were to be used to distract the enemy to buy time.¹³ In siege warfare, the janissaries played an equally important role. Ordered to scale the walls of enemy fortresses during decisive attacks, they regularly broke the resistance of defenders, leading to the capture of the fortress.

At first the sultan used prisoners of war to create his own independent military guard. In the 1380s, a forced levy of Christian boys, called *devşirme* or "collection," was introduced to recruit soldiers for the janissaries. Under the levy, Christian boys between 8 and 20 years old were periodically collected, at varying rates. In the 1490s the average age of levied boys was 13.5 years. The collection occurred haphazardly in the fifteenth century, more regularly in the sixteenth century when frequent and prolonged wars often decimated the ranks of the janissaries. Reports recording the number of youths levied varied from a thousand to several thousand per collection and/or year. Extensive and circumspect regulations governed the collection of boys based on

12 Colin Imber, "The Origin of the Janissaries," in C. Imber, *Warfare, Law and Pseudo-history* (Istanbul, Isis Press, 2011).

13 See, for instance, Halil İnalçık and Mevlud Oguz (eds.), *Gazavat-i Sultan Murad B. Mehmed Han, İzladı Ve Varna Savaşları (1443–1444) Üzerinde Anonim Gazavatname* (1989), also published in English in Imber (ed.), *The Crusade of Varna*; see also a Hungarian captive's narrative, Georgius de Hungaria, *Incipit Prohemium in Tractatum de Moribus, Conditionibus et Nequicia Turcorum* (Urach, 1481), Hungarian translation in Lajos Tardy (ed.), *Rabok, követek, kalmárok az oszmán birodalomról* (Budapest, Gondolat Kiadó, 1977), 74; cf. Jefferson, *The Holy Wars*.

physical and mental condition, as well as their social status. According to the *Laws of the Janissaries* – written in 1606 by a former janissary but reflecting both early practices and changes that had occurred until the early seventeenth century – the officials charged with the collection of boys could not gather the only child of a family, for the head of the household needed his help with cultivating his land in order to pay his taxes to the timariot provincial cavalryman. Similarly, they were not supposed to collect the sons of the village elders “as they were vile and so were their children”; the children of shepherds and herdsmen “as they had been brought up in the mountains so they were uneducated”; the boys of craftsmen since they did not fulfill their pledge for soldier’s pay; and the married boys, because their “eyes had been opened, and those would not become the sultan’s *kul*” – that is, household slave. Likewise, excluded from the levy were orphans, those who were not in perfect health, those who spoke Turkish or were circumcised, those who were too tall or too short – they were considered stupid and trouble-makers, respectively – and those who had visited Istanbul but returned to their province, “for they were shameless.” Certain ethnic groups, like the Hungarians and Croats beyond Belgrade, or Christians who lived in the regions between Karaman and Erzurum were also excluded from the collection. The Hungarians and Croats were considered unreliable, while those belonging to the second group were suspicious because they lived among Georgians, Türkmens, and Kurds. Officials compiled two copies of detailed registers for each group of 100–150 or 200 levied boys, called “the flock.” The registers listed the boy’s name, the name of his father, that of his *sipahi*, and his village. They also gave a physical description of the boy.¹⁴ The “flock” then traveled on foot to the capital. Many perished during the long journey of hundreds of kilometers, while others managed to run away. Still others escaped the levy because their families bribed the recruiting officers. On the other hand, Ottoman and European sources alike indicate that some Christian families volunteered their boys, because the levy provided them with opportunities for upward social mobility.

Those who made it to the imperial capital were, upon arrival, inspected, circumcised, and converted to Islam. The smartest ones were singled out for education in the Palace School. In due course, these lads could achieve the highest offices within the empire, becoming provincial governors and grand

14 Quotations are from *Mebde-i Kanun-i Yeniçeri Ocağı Tarihi*, published in Orhan Sakin, *Yeniçeri Ocağı Tarihi ve Yasaları* (Istanbul, Doğu Kütüphanesi, 2011), pp. 9b–11b; see also Colin Imber, *The Ottoman Empire, 1300–1650: The Structure of Power*, 2nd rev. ed. (Basingstoke, Palgrave Macmillan, 2009), pp. 123–7.

viziers. The majority of the levied boys, however, were hired out to Turkish farmers, during which time they became “accustomed to hardship” and learned the rudiments of the Turkish language and Islamic customs. After seven or eight years of hard work in the fields, the boys were recalled to the Ottoman capital and Gallipoli. There they joined the ranks of janissary novices and lived in their barracks under strict military discipline. They also served as a cheap workforce in public construction, in the imperial gardens, the Imperial Cannon Foundry, and the Naval Arsenal. Only after several years of such service did the novices become janissaries or fill vacancies in the corps of artillery gunners, gun-carriage drivers, armorers, and bombardiers.¹⁵

The Ottoman *timar* and *kul/devşirme* systems considerably strengthened the Ottoman ruler’s position vis-à-vis the marcher lords and helped to consolidate the rule of the house of Osman after the debacle of Ankara and the decade of fratricide. In line with his centralizing policy, Mehmed II also transformed the *akıncı* raiders into soldier-peasants, who worked on the plots that they received from the state and fought for the Ottoman dynasty as light cavalry in return for tax exemptions. Government officials surveyed and recorded the *akıncıs* into registers that contained their numbers, privileges, and obligations. One such register, prepared in 1472–3 in preparation for Sultan Mehmed II’s 1473 campaign against Uzun Hasan, ordered the conscription of one mounted *akıncı* “from every thirty households of unbelievers and Muslims” in Rumelia, while the remaining households, called *yamak* or helpers, paid a sum of money to cover the expense of their fighting peer. Mehmed’s intention was clearly to weaken the corps’ traditional Türkmen and Muslim character as he ordered his judges to levy Muslims only if they could not find enough people “among the unbelievers who are able to serve as *akıncıs*.”¹⁶

Following the conquest of Serbia and Bosnia, Mehmed used the creation of new administrative units to tighten his government’s control over the marcher lords by appointing them governors of the newly established Ottoman military-administrative units, called *sancak*. The *sancak* (lit. flag, standard) originally designated an army unit, without territorial association, under a standard that the unit commander received from the ruler as a symbol of transferred authority. Soon the *sancak* became the basic

15 *Mebde-i Kanun-i Yeniçeri*, pp. 7a–8a, 16b–18b; see also Gülay Yılmaz, “Becoming a Devşirme: The Training of Conscripted Children in the Ottoman Empire,” in Gwyn Campbell, Suzanne Miers, and Joseph C. Miller (eds.), *Children in Slavery through the Ages* (Athens, Ohio University Press, 2009), pp. 119–34.

16 Lowry, *The Nature*, pp. 51–4.

territorial-administrative unit in the Ottoman domains, headed by a governor (sing. *sancakbeği*), who commanded the timariot cavalry troops in his respective *sancak*. Ali Beg of the famous Mihaloğlu dynasty of marcher lords was the longest-serving *sancak* governor of Smederevo, directing this frontier *sancak* and its *akıncı* raiders for more than twenty-five years in the latter part of the fifteenth century. The creation of the *sancak* of Bosnia provided Mehmed II with an opportunity to dismantle the marches around Skopje by appointing its marcher lord İsa Beg as the first *sancak* governor of Bosnia in 1463 and integrating most of his marches into the new *sancak*.¹⁷ The gradual incorporation of the marcher lords and their *akıncı* raiders into the Ottoman military and provincial administration is also reflected in the terminology used in contemporaneous Ottoman sources. The *uc* of the marcher lords gradually became *serhad*; that is, a frontier province governed by *sancak* governors appointed by the central government. Changing terminology in turn reflected the gradual transformation of the Ottoman frontier polity into a territorial empire increasingly under the control of the sultan and his government.

Having lands both in Rumelia and in Anatolia, the Ottomans realized early on the need for a navy, which could maintain communication between the two parts of their domains and ferry troops, weaponry, and supplies from Asia to Europe and vice versa. While the early Ottomans could occasionally rely on Genoese ships for such tasks, with the takeover of Byzantine Gallipoli in 1354 they acquired an important dockyard and naval base, which they quickly turned into the basis of Ottoman naval construction and seafaring. By 1374 under Murad I, just two generations after the founding of their small frontier principality, the Ottomans possessed their own fleet. Following the conquest of the maritime Turkish principalities of Aydın and Menteşe, Bayezid I fitted out a fleet of some sixty long warships and used his fleet during the long blockade of Constantinople from 1394 to 1402. By the early 1410s Ottoman vessels were plundering Venetian islands, which, in turn, forced the Venetians to challenge the Ottomans in open battle. In the first such engagement in 1416 between the two powers, the Venetians soundly defeated the as yet weak and inexperienced Ottoman fleet.¹⁸

17 Ema Miljković-Bojanić, *Smederevski sandžak, 1476–1560: zemlja, naselja, stanovništvo* (Belgrade, Istorijski Institut, 2004), p. 53; Rossitsa Gradeva, "Administrative System and Provincial Government in the Central Balkan Territories of the Ottoman Empire, 15th Century," in R. Gradeva, *Rumeli under the Ottomans: Institutions and Communities* (Istanbul, Isis, 2004), p. 26.

18 Kate Fleet, "Early Turkish Naval Activities," *Oriente Moderno* 20.1 (2001), 129–38.

The Ottomans realized the importance of controlling the rivers and river crossings in Rumelia and established their own flotillas on the Danube and its tributaries. The capture of Golubac on the Danube from the Hungarians (1428), for instance, enabled the Ottoman *akıncı* raiders to cross the river into Hungary, and to turn the fort and town into a naval base. When in the spring of 1433, the Burgundian traveler Bertrandon de la Brocquière was in Belgrade, he noted that in Golubac, “two days journey below Belgrade,” the “Turk . . . keeps a hundred light galleys, having sixteen or eighteen oars on a side to pass over to Hungary at his pleasure.”¹⁹

The siege and capture of Constantinople in 1453 was a major boost to Ottoman naval power. According to a Venetian eyewitness account, at the siege the Ottomans used some 145 ships, including twelve armed galleys and seventy to eighty *fuste* or large galiots.²⁰ They also famously portaged some seventy smaller ships overland from the Bosphorus into the Golden Horn, whose entrance the Byzantines had blocked by a stretched chain in order to deny access to the Ottoman fleet. After the conquest, the Ottomans turned Constantinople into the naval base of a formidable armada, due to its natural harbor, the Golden Horn. Along with Venice and Barcelona, Constantinople was one of three port cities in the Mediterranean that was capable of serving a large galley fleet, thanks to its wealthy hinterland and natural harbor.

The Ottoman navy possessed impressive capabilities by the late fifteenth century. In their campaign against Belgrade in 1456 they employed some 200 ships, including sixty-four galleys.²¹ In 1470 against Negroponte they mobilized 280 galleys and *fustes*. Sultan Mehmed II mobilized 380 galleys in his Caffa campaign (1475), which resulted in the conquest of the Crimea and the subjugation of the Crimean Khanate. By this time the Ottomans could operate two large armadas independently. In May 1480, an Ottoman fleet of 104 vessels (including forty-six galleys) arrived at Rhodes under the command of Mesih Pasha, a member of the Byzantine Palaiologos family. Another Ottoman fleet of twenty-eight galleys and 104 light galleys and transport vessels, under the command of Gedik Ahmed Pasha, landed at Otranto in July.²² In 1496, Marino

19 Bertrandon de la Brocquière, *The Travels of B. De La Brocquière to Palestine, and His Return from Jerusalem Overland to France During the Years 1432 and 1433*, trans. T. Johnes (At the Hafod Press, L.P.J. Henderson, 1807), p. 283.

20 Fleet, “Early Turkish Naval Activities,” p. 134.

21 Gábor Ágoston, “La strada che conduceva a Nándorfehérvár (Belgrade): L’Ungheria, l’espansione ottomana nei Balcani e la vittoria di Nándorfehérvár,” in Zsolt Visy (ed.), *La campana di mezzogiorno: Saggi per il Quinto Centenario della bolla papale* (Budapest, Edizioni Universitarie Mundus, 2000), p. 239.

22 Imber, *The Ottoman Empire, 1300–1481*, pp. 248–50.

Sanudo the younger claimed that the Ottomans had a hundred galleys, fifty *fustes*, fifty *grippi* (smaller vessel than the *fuste*), three galleasses, two carracks, and two smaller carracks called *barzotti*. In the Ottoman–Venetian war of 1499–1503, the Ottoman fleets under the command of Kemal Reis that defeated the Venetians in the battles of Zonchio in 1499 and of Modon in 1500 are said to have numbered about 260 and 230 ships, respectively.²³

Strategies of conquest and incorporation

Ottoman expansion entailed more than military conquest. The marriage of Orhan to Theodora in 1346 established a pattern of Ottoman dynastic marriages as a tool of subjugation and conquest. Dynastic marriages were not unique to the Ottomans. Other contemporary ruling dynasties, both Christian and Muslim, also used them to forge marital alliances, further diplomatic goals, and acquire crowns and lands. However, the Ottoman dynasty used marriage to subjugate and annex the neighboring Christian and Muslim polities. Through their marriage alliances with the Byzantine, Serbian, and Bulgarian royal houses and with the Anatolian Türkmen principalities of Germiyan, İsfendiyaroğlu, Aydın, Saruhan, Çandar, Karaman, and Dulkadır the Ottomans acquired new territories, gained useful alliances, and received taxes and auxiliary troops from their vassals. At the same time, Ottoman sultans were careful not to produce children by these marriages so that the wives' families could not claim Ottoman patrimony, the basis of the dynasty's power. Except for Murad I's mother, Nilüfer, daughter of a local Byzantine lord near Prousa who later converted to Islam, the early Ottomans procreated with slave concubines. Mehmed II ended the policy of dynastic marriages, for it would have been below the sultan's dignity to marry his sons and daughters to petty princesses and princes of Rumelia and Anatolia. The mighty Ottoman armies soon conquered most of these lands, thus leaving no viable candidate for such marriages anyhow. Yet, the marriage strategy of the first sultans is a reminder that Ottoman conquest went beyond the use of sheer military force.²⁴

23 John H. Pryor, *Geography, Technology, and War: Studies in the Maritime History of the Mediterranean, 649–1571* (Cambridge, Cambridge University Press, 1992), p. 180.

24 Leslie Peirce, *The Imperial Harem: Women and Sovereignty in the Ottoman Empire* (New York, Oxford University Press, 1993), pp. 28–35; Imber, *The Ottoman Empire, 1300–1650*, pp. 80–3.

In their recently conquered lands from Southeastern Europe to the Aegean Island of Limnos and the former Byzantine “empire” of Trebizond in north-eastern Anatolia on the Black Sea coast, the Ottomans preserved and absorbed the local Albanian, Bulgarian, Serbian, Bosnian, and Byzantine administrative and military institutions, and incorporated pre-Ottoman land regimes and tax regulations. The Ottomans used the *sancak* system to integrate pre-Ottoman administrative divisions. The *sancaks* of Nikopol and Vidin, for instance, incorporated the lands of the last Bulgarian tsars of Trnovo and Vidin. The *sancaks* of Küstendil in Bulgaria, Karhieli in Epiros, and Dukakin in Albania were named after these regions’ former Christian lords, as were three of the five subdivisions of the *sancak* of Bosnia (Bosna) after its establishment in 1463. In similar fashion, the *sancaks* of Karesi, Saruhan, Aydın, Menteşe, Germiyan, Hamid, and Teke in western Asia Minor preserved the names of the pre-conquest Türkmen dynasties. In Rumelia, in order to maintain law and order and thus secure the steady flow of revenues to the imperial center, the Ottomans allowed pre-Ottoman local communal organizations and their leaders (*knezes* and *primikürs*) to continue to function in conquered Serbia, Bulgaria, and Greece. Adjusting Ottoman taxation regimes to match that of pre-Ottoman taxation practices, protecting the taxpaying subjects from unjust levies through an efficient provincial administration, and providing for the poor through a network of soup kitchens and dervish lodges were all methods in accordance with the Islamic principle of *istimalet* or accommodation, but also indications of Ottoman governmental pragmatism.²⁵

While the Ottomans usually eliminated the royal dynasties and aristocracies of the conquered lands after their victory, they tried to win over the middle and lesser nobility by enlisting thousands of local Christians in the Ottoman *timar*-holding provincial cavalry, frontier garrisons, and auxiliary military organizations. Just as Muslim timariot *sipahis* in Anatolia, Christian military prebend-holders in Rumelia too collected taxes and dues from their respective villages in return for military service and maintained law and order in the countryside. By these arrangements, the conquerors not only eased their manpower shortage of fighting men in the newly conquered and

25 Halil İnalçık, “Ottoman Methods of Conquest,” *Studia Islamica* 2 (1954), 104–29; Hazim Šabanović, *Bosanski pašaluk. Postanak i upravna podjela* (Sarajevo, Svjetlost, 1982), p. 39; Heath Lowry, *Fifteenth Century Ottoman Realities: Christian Peasant Life on the Aegean Island of Limnos* (Istanbul, Eren, 2002); Heath Lowry, *The Shaping of the Ottoman Balkans, 1350–1550: The Conquest, Settlement & Infrastructural Development of Northern Greece*, 2nd ed. (Istanbul, Bahçeşehir University, 2010); Imber, *The Ottoman Empire, 1300–1650*, p. 171; Kiprovskā, “Ferocious Invasion,” p. 82.

overwhelmingly Christian lands, but they also integrated layers of the local elite and former military into their provincial military-administrative system, facilitating the acceptance of Ottoman rule among the conquered. In return for their cooperation with the conquerors, such Christian timariot cavalymen preserved portions of their hereditary estates (*baştina*) or pronoia prebends, along with their privileged status within the local society. Following the Ottoman conquest, the share of Christian timariots could have been quite high in certain regions, amounting, for instance, to 65 percent in northern Serbia. However, within a generation or two many Christian *sipahis* disappeared from the Ottoman registers. Their proportion in the *sancak* of Smederevo decreased from 48 percent in 1476 to 21 percent in 1516, indicating their gradual conversion to Islam and the consolidation of Ottoman rule through fuller integration.²⁶

By converting to Islam, the sons and grandsons of the original Christian lords who sided with the conquering Ottomans achieved higher offices, occasionally becoming *sancak* governors. A scion of the Albanian Muzaki family, for instance, governed the Albanian *sancak* of Arnavut-ili (“the land of Arnavut/Albania”) in 1441, and died during the 1442 Ottoman campaign against Hungary. Yet, these men also had to give up part of their patrimony and feudal privileges. The wealthier their family originally had been, the greater loss they sustained. This occasionally led to resistance and insurrection, of which that of Iskender Beg (alias Skanderbeg) is best known. A member of the Albanian Kastrioti noble family, George Kastrioti was sent to Murad II’s court in Edirne as hostage in 1423, after his father was forced to accept Ottoman suzerainty. Having been educated in the sultan’s court, he served the Ottomans for some twenty years, including as *sancak* governor of Debar in northern Albania. However, when the sultan ordered his *sancak* governor at Kroja to take control of all the forts of his family, Skanderbeg deserted the Ottoman army marching against the crusaders in 1443, rebelled against his sovereign, and led a protracted insurrection against the Ottomans for the next twenty-five years.²⁷

In addition to the coopted Christian nobility and timariots, military men in Southeastern Europe were incorporated in the thousands into the Ottoman *voyruk* and *martolos* organizations. Established in the 1370s or

26 Halil İnalçık, “Stefan Dušan’dan Osmanlı İmparatorluğuna: XV. Asırda Rumeli’de Hristiyan Sipahiler ve Menşeleri,” in *60. Doğum Yılı Münasebetiyle Fuad Köprülü Armağanı* (İstanbul, Dil ve Tarih Coğrafya Fakültesi Yayını, 1953), pp. 215–22; Miljković-Bojanić, *Smederevski sandžak*, pp. 73–4.

27 İnalçık, “Stefan Dušan’dan,” pp. 225, 227–8; John V. A. Fine, *The Late Medieval Balkans: A Critical Survey from the Late Twelfth Century to the Ottoman Conquest* (Ann Arbor, University of Michigan Press, 2009), pp. 522, 556–8.

1380s, *voynuks* – from the Slavic *vojnĭk*, meaning fighting man or soldier – retained part of their hereditary *baština* estates as *timars* in lieu of military service. They were to be found in significant numbers in Bulgaria, Serbia, Macedonia, Thessaly, and Albania, especially along strategic routes and border regions. Large numbers of Christian nomads in Rumelia, called *vlachs*, were also incorporated into the ranks of *voynuks*. Around the 1420s, the Ottomans also incorporated to their military system the Christian *martoloses*, from the Greek *armatolos*, meaning armed men. Guarding border forts, and often amounting to a substantial part of border garrison troops in Rumelia, *martoloses* also served on river flotillas. They habitually raided enemy territory, terrorizing and kidnaping their fellow Christians on the other side of the border. They also guided Ottoman soldiers into enemy territory and were regularly charged with reconnaissance missions. Performing military service in return for tax exemptions, these Christian military men soon became part of the Ottoman privileged military class, receiving regular pay and a share of the booty. Christian timariot *sipahis*, *voynuks*, and *martoloses* significantly augmented the Ottomans' military potentials in Southeastern Europe, while also bringing valuable tactical diversity and knowledge of enemies' lands.²⁸

Weapons, Wagenburg, and military acculturation

Most Ottoman soldiers used swords and bows. The Ottomans made their reflex and recurved composite bows of wood, horn, sinew, and glue. The typical Ottoman bow measured only 102 to 110 cm in length and was the shortest among its relatives. Ottoman composite bows had formidable range and armor-piercing capability. Historical records and modern velocity tests made with bows and arrows similar to historic ones suggest that Ottoman master archers could shoot their light arrows at distances of more than 800 m. While flight archery had little military applicability, target shooting was important in military training. In combat, Ottoman archers owed their superiority to their archery technique: drawing and releasing the string with the thumb, using a thumb ring to protect the thumb, and having shorter draw, which allowed the archer to shoot from horseback. Since the string

28 İnalçık, "Stefan Dušan'dan," p. 223; İnalçık, "Ottoman Methods," pp. 112–17; Olga Zirojević, *Tursko vojno uređenje u Srbiji (1459–1683)* (Belgrade, 1974), pp. 162–9; Yavuz Ercan, *Osmanlı İmparatorluğunda Bulgarlar ve Voynuklar* (Ankara, TTK, 1986); Fodor, "Ottoman Warfare," pp. 215–16; Kiprovskā, "Ferocious Invasion."

hand of the archer could hold several extra arrows, this technique also resulted in a faster shot sequence.²⁹

The appearance and mass employment of firearms in warfare was one of the most significant developments of the Late Middle Ages. By the 1380s, the Ottomans were acquainted with the new weapon, as they faced enemies who used firearms – Byzantines, Venetians, and Hungarians. Ottoman sultans established a separate artillery corps as part of their standing army in the early fifteenth century, well before their opponents in Europe and Asia. Sultan Bayezid I had artillery gunners paid with military prebends, and a generation later the sultans began to employ salaried cannoneers. From the mid fifteenth century onward, there was a separate unit of armorers (sing. *cebeci*) within the sultan's standing household troops, who looked after and carried the infantry janissaries' weapons. Beginning in the second half of the same century, the army had its own gun-carriage drivers (sing. *top arabacı*), whose job was to manufacture, repair, and operate war wagons in campaigns. The corps of bombardiers (sing. *humbaracı*) was established in the late fifteenth century. All this was in sharp contrast to most of the Ottomans' European adversaries, in whose realms the gunner remained a master craftsman. Archival sources from the middle of the fifteenth century onwards list Ottoman artillery gunners and arquebusiers, both Muslim and Christian, in a number of Ottoman-held castles in Rumelia, including Novo Brdo, Nikopol, Smederevo, Vidin, and Zvornik. While most of these specialized troops were Christians or recent converts, in strategically located forts all of the artillerymen were Muslims, who gradually outnumbered their Christian peers in other forts as well. Ottoman soldiers used cannons in their sieges of Byzantine Constantinople (between 1394 and 1402, 1422, and 1453), Thessaloniki (1422 and 1430), Antalya (1424), Novo Brodo (1427 and 1441), Smederevo (1439), and Belgrade (1440). Considering that cannons became common in European sieges only from the 1420s on, these examples suggest that the Ottomans were on par with developments occurring elsewhere in Europe. In addition to siege warfare, by 1444 the Ottomans had started to use cannons aboard their river flotillas, and in field battles. They employed cannons against both fixed and moving targets – such as castles and enemy ships. By this time, they also used matchlock arquebuses.³⁰

29 Murat Özveri, *Okçuluk Hakkında Merak Ettğiniz Her Şey* (Istanbul, Umut Matbaacılık, 2006), pp. 82–3.

30 Gábor Ágoston, *Guns for the Sultan: Military Power and the Weapons Industry in the Ottoman Empire* (Cambridge, Cambridge University Press, 2005), pp. 16–21, 28–9; and

During the Hungarian–Ottoman wars of the 1440s, the Ottomans acquainted themselves with the Hussite *Wagenburg* tactic. The *Wagenburg* or wagon laager, perfected by the Hussites in Bohemia during the Hussite wars (1419–36), was a defensive arrangement of war wagons, chained together and manned with crossbowmen and handgunners. The Hungarian general János Hunyadi – who had learned the *Wagenburg* tactic in Bohemia, fighting against the Hussites in the service of King Sigismund of Hungary – deployed some 600 war wagons against the Ottomans in his winter campaign of 1443–4. In the 1444 Varna campaign the crusaders had some 2,000 wagons, most of which the Ottomans captured in the battle. The Ottomans quickly realized the usefulness of the *Wagenburg* and also determined how to overcome it. They surrounded the wagon laager out of range of the guns, forcing the enemy to give up its positions, a tactic they successfully employed at the battles of Varna (1444) and Kosovo (1448). It is not known when the Ottomans first used their wagon laager, known as *tabur*, after the *Wagenburg*’s Hungarian name (*szekér tábor*). Whereas in the battle of Kosovo in 1448 Hunyadi used the wagons as *Wagenburg*, the Ottomans employed not the Hungarian-style wagon laager, but the type of defensive embankment that served them so well at Varna in 1444: a deep trench and a dirt embankment strengthened with iron stakes and large shields, behind which stood janissary archers, arquebusiers, and light artillery pieces. By the second half of the fifteenth century, however, the combined use of field artillery, arquebus infantry, and the *tabur* had become a decisive factor in Ottoman battlefield victories.³¹

Conclusions

Three years after the conquest of Constantinople Mehmed II failed to take Belgrade, despite the deployment of a large army and flotilla. While this failure halted any Ottoman advance beyond the Danube until the early 1520s, under Mehmed II’s reign the Ottomans did conquer Serbia (1459), the Byzantine Despotate of the Morea (1460), Bosnia (1463), Herzegovina (1463–6), and Albania (1468). The Ottoman capture of Negroponte (1470) in the Venetian–Ottoman war of 1463–79, secured Ottoman possessions in western Rumelia and the Peloponnese. After annexing the southern shores of the

“Firearms and Military Adaptation: The Ottomans and the European Military Revolution, 1450–1800,” *Journal of World History* 25 (2014), 88–90, 94.

31 Ágoston, “Firearms,” pp. 91–2; Constantin Emanuel Antoche, “Du tabor de Jan Žižka et de Jean Hunyadi au *tabur cengi* des armées ottomanes,” *Turcica* 36 (2004), 91–124.

Black Sea with the capture of the last remaining Byzantine state of Trebizond (1461), Mehmed turned to the northern shores. He eradicated the Genoese trading colony of Caffa in the Crimea (1475) and made vassals of the Crimean Tatar Giray dynasty, the rulers of northern Crimea and the adjacent steppes (1478). These latter conquests turned the Black Sea for three centuries into an “Ottoman Lake,” although in fact Ottoman control over the sea was never complete. In Anatolia, Mehmed II defeated the Ottomans’ most stubborn rival, the amir of Karaman (1468), but he could re-annex their lands only after he defeated the Karamans’ eastern neighbor, Uzun Hasan (r.1453–78) of the Aq Qoyunlu (“White Sheep”) Türkmen confederation, which controlled eastern Anatolia, Azerbaijan, Iraq, and western Iran from its capital Tabriz. By the death of Mehmed II in 1481, the Ottoman army was one of the strongest in Rumelia and Anatolia. It was also the most effective instrument by which the sultan asserted his power over both regional and domestic rivals. Mehmed II also made his empire a naval power. His fleets not only guarded the empire’s capital city Constantinople, its coastlines, and maritime lanes, but also played a crucial role in projecting Ottoman power into the Mediterranean, Aegean, and the Black Seas. Using his military and the navy, Mehmed II successfully transformed his father’s *ghāzī* frontier state into an increasingly centralized empire with claims to universal sovereignty.

India, c.1200–c.1500

PHILLIP B. WAGONER

The years around 1200 CE mark a significant turning point in the history of warfare in India, due to the decisive campaigns waged in northern India by the Ghurids of Afghanistan and the concomitant introduction of new forms of military culture from the eastern Islamic world. While limited parts of India's periphery had been under Islamic rule long before this time,¹ it was only under the Ghurids that Islamic control was established in the core region along the Ganga and Yamuna rivers (the "Ganga-Yamuna Doab"). A series of decisive battles was carried out here between 1192 and 1206, under the direction of Quṭb al-Dīn Aybeg, a Turkish slave commander (*ghulām*) in the service of the Ghurid sultan Mu'izz al-Dīn Muḥammad bin Sām. Even after Mu'izz al-Dīn's death in 1206, Aybeg remained in India controlling the newly acquired Ghurid territories from his base in Lahore in the Punjab. Although Aybeg himself stopped short of claiming the status of sultan, this move was taken by one of Aybeg's own *ghulāms*, Shams al-Dīn Iltutmish, immediately following Aybeg's death in 1210/11.² Basing himself in the city of Delhi, Iltutmish adopted all the titles and perquisites of a sultan, thus inaugurating the history of the Delhi sultanate – the first sultanate to rule the subcontinent from a base in India itself, and not in neighboring Afghanistan.

Over the course of the next century and a half, the Delhi sultanate would undergo a tremendous territorial expansion, made possible by its military superiority over established Indian states practicing decidedly different forms

1 The Indus river basin, from al-Mansurah in the south to Multan in the north, had been under the control of Umayyad and then 'Abbāsid governors, from the conquest of the region in 711 CE until the late ninth century. In the early eleventh century, Sindh and Punjab were annexed by the Ghaznavids. Stan Goron and J. P. Goenka, *The Coins of the Indian Sultanates* (New Delhi, Munshiram Manoharlal, 2001); Clifford Edmund Bosworth, *The New Islamic Dynasties* (New York, Columbia University Press, 1996).

2 Thus, the coins minted by Aybeg in Lahore and Delhi are all issued in the name of Muḥammad bin Sām (Goron and Goenka, *The Coins of the Indian Sultanates*, pp. 16–18).

of warfare. Although there were in fact defeats and reversals along the way, the Delhi sultanate had nonetheless succeeded in annexing almost the entirety of the subcontinent by the period of its apogee in the early fourteenth century. After this time, the sultanate's imperial control would weaken and the sultanate would fragment into a number of smaller states, including both regionally based sultanates and resurgent Hindu kingdoms. But even though the sultanate itself faded politically during the late fourteenth and fifteenth centuries, it continued to exercise a profound impact on Indian society through the legacy of its distinctive military culture and systems of warfare. These included not only combat tactics and weapons technologies, but also a range of administrative practices and social and economic institutions necessary to support the military apparatus of the state. These sultanate forms of warfare left an indelible impress on Indian society, largely replacing earlier Indic approaches to war through a complex process of interaction and adjustment. This process occurred both internally within the sultanate, as Indian soldiers serving in Delhi's armies adjusted to the new military culture, and externally, as Hindu polities resisting incorporation by Delhi were forced to adopt many elements of the sultanate's military culture in order to survive.

Because pre-sultanate India has not been dealt with elsewhere in this volume, the first section of this chapter examines approaches to warfare in India's early medieval period (mid eighth through twelfth centuries), up to the eve of the sultanate conquest. A second section turns to the establishment of the Delhi sultanate, with special emphasis on the nature of its military systems and the process of its expansion through the subcontinent. The third section turns to Indic states outside the territory of the sultanate and examines their varied responses to the new sultanate system of warfare. A fourth and final section turns to the matter of gunpowder weaponry, and reviews evidence suggesting that cannon and matchlocks were already coming into use in India toward the end of our period, in the latter half of the fifteenth century.

Warfare in early medieval India, c.750–1200

Motives for war

During India's early medieval period, the spatial patterning of culture in the subcontinent was far from homogeneous. There was a fundamental opposition between the space of state society – articulated as a complex network of

interconnected nuclear regions, each typically serving as the core territory of a distinct state – and the tribal zones lying in between and beyond these core areas, where local populations had yet to be assimilated into the broader society with its Sanskritic, pan-Indic cultural norms.³ Generally speaking, the core areas were located in well-watered river basins or coastal plains, where intensive agriculture could support large populations, while the tribal zones were located in arid, upland areas better suited for cattle grazing, or in primary forest tracts where hunting and gathering economies still prevailed. Over the course of the early medieval period, state society gradually expanded at the expense of the tribal way of life, as forests were cleared and dry upland areas were provided with irrigation tanks. As a result, many tribal populations were sedentarized and brought within the pale of state society, although in many parts of the subcontinent sizeable tribal populations continued to exist well on into the later medieval period – and, indeed, continue to eke out a precarious existence even today.

Because of the complexity of this patterning of cultural space, motives for warfare in early medieval India varied significantly from one locale to another. Along the frontiers between state society and the tribal zone – and especially in those areas where the process of sedentarization and social integration of tribal populations was actively underway – violent conflict over economic resources appears to have been a common occurrence, spurred on by the competition between different means of livelihood. For example, the memory of a three-way conflict between groups representing agricultural, pastoral, and hunting and gathering lifestyles is preserved in *Katamaraju-katha*, a Telugu oral epic still performed today in the Nellore region. The epic appears to be inspired by an actual conflict that took place in the late thirteenth or early fourteenth century, and which is alluded to in contemporary inscriptions. According to the epic, the hero Katamaraju is the chief of the Gollas, a group of cattle herders from the hills of western Nellore who appear to be undergoing the transition from tribe to caste. When a severe drought dries up their traditional grazing lands, Katamaraju leads his people down from the hills to the coastal plain, and into the territory of king Nallasiddhi of Nellore. Nallasiddhi permits the Gollas to graze their

3 For analysis of India's "perennial nuclear regions" and the historical interplay between centripetal and centrifugal cultural forces, see Bendapudi Subbarao, *The Personality of India: Pre- and Proto-Historic Foundations of India and Pakistan* (Baroda, Maharaja Sayajirao University of Baroda, 1958); and David E. Sopher, "The Geographic Patterning of Culture in India," in David E. Sopher (ed.), *An Exploration of India: Geographical Perspectives on Society and Culture* (Ithaca, NY, Cornell University Press, 1980).

cattle within the territory of his kingdom, provided that they give as a grazing tax all the bull-calves born during their stay. When the drought extends to Nallasiddhi's kingdom, the hungry cattle wander into the king's irrigated fields to feed on the young rice plants. The king attempts to resolve the conflict between the Gollas and the farmers by restricting the Gollas to the forest lands within his kingdom. But when the Gollas start killing the wild forest animals in order to protect their herds, this compromises the interests of the Kiratakas, a group of tribal hunters, who retaliate by poaching Katamaraju's cattle. When Katamaraju refuses to pay the grazing tax because the king has not protected his herds, a full-scale war erupts between the Gollas and the armies of the king.⁴

Within the established bounds of agrarian-based state society, on the other hand, violent conflict was less often precipitated by competing economic regimes, but was often spurred on by the prospect of augmenting state revenue by plundering the territory of another kingdom. As Richard Davis has shown, classical and medieval Indian law texts recognized plundering as a legitimate activity following upon the defeat of an enemy, something that was categorically different from theft.⁵ Plunder could provide a significant portion of the income of early medieval states, which, as George Spencer has demonstrated, relied on a broad spectrum of different methods for collecting revenue, ranging from taxation in their core territories, through tribute collected from neighboring subordinates, to plunder taken during the conquest of an enemy's territory.⁶ Eleventh-century inscriptions from the Chola kingdom of southeastern India are full of references to the extraction and redistribution of plunder, which typically included gold, silver, gems, and ornaments, as well as livestock – all forms of movable wealth which could be readily transported back to the conqueror's territory. The Cholas appear to have taken plunder to a level unseen in any other documented instance in this period, in that they even extended their plundering campaigns across the sea,

4 For the epic, see Veturi Prabhakara Sastry (ed.), *Kāṭamarāju Katha*, Madras Government Oriental Series 91 (Madras, Government Oriental Manuscripts Library, 1953); and V. Narayana Rao, "Epics and Ideologies: Six Telugu Folk Epics," in Stuart H. Blackburn and A. K. Ramanujan (eds.), *Another Harmony: New Essays in the Folklore of India* (Berkeley, University of California Press, 1986), pp. 131–64; see also the discussion of the epic's historical content in Cynthia Talbot, *Precolonial India in Practice: Society, Region, and Identity in Medieval Andhra* (New York, Oxford University Press, 2001), pp. 76–7.

5 Richard Davis, *Lives of Indian Images* (Princeton, Princeton University Press, 1997), pp. 60–2, citing Medhatithi's commentary on the Dharma Shastra of Manu.

6 George W. Spencer, "The Politics of Plunder," *Journal of Asian Studies* 35.3 (May 1976), 405–19.

through maritime expeditions to Sri Lanka and even Sri Vijaya in Southeast Asia.⁷

Finally, within the bounds of state society, there were also more purely political motives for warfare. Indeed, many of the documented wars between the different states of early medieval India resulted from their rulers' aspirations for imperial hegemony, as they strove to realize the ideal of the "wheel-turning monarch" or *chakravartin*. By the eighth century, one of the fundamental assumptions of Indian political theory was that the subcontinent comprised a unitary cultural realm, and that accordingly, even though it might be divided into different regional states with their own kings, these should ideally all be encompassed within the overarching ritual lordship of a single ruler, the *chakravartin*. The means to realize this goal was to carry out a "conquest of the four quarters," or *dig-vijaya*, in which the aspiring *chakravartin* undertook a clockwise campaign around the subcontinent, defeating in turn each of his enemy kings. In contrast to the less predictable forms of conflict that might obtain on the frontier between state and non-state society, the *dig-vijaya* appears to have been a more ritualized and orderly performance, subject to ethical regulations and rules of restraint that were generally shared by all contenders. Ideally, victory did not lead to annexation of conquered territory, but rather to the conversion of defeated kings into tributaries (*samantas*), who would provide both monetary tribute and military service for their overlord, thus facilitating their incorporation into the imperial formation.

While the ideal of the *dig-vijaya* is prescribed in detail in normative Sanskrit texts on political theory (*nitī-shāstra*), it is also clear from the evidence of contemporary historical inscriptions and historiographic writings that the ideal informed actual practice on multiple occasions. One of the best-documented cases of a full-scale *dig-vijaya* is that carried out in the second quarter of the eighth century by Lalitaditya Muktapida, the Karkota king of Kashmir. These campaigns are not only described in some detail in Kalhana's celebrated *Rajatarangini* (completed 1149/1150)⁸ but, more importantly, their historicity is corroborated by contemporary eighth-century literary and epigraphic sources from many of the regions conquered, as Hermann Goetz has demonstrated.⁹ Striking south from Kashmir, Lalitaditya first subjugated Yashovarman of

7 George W. Spencer, *The Politics of Expansion: The Chola Conquest of Sri Lanka and Sri Vijaya* (Madras, New Era Publications, 1983).

8 *Rajatarangini* IV, 114–371, trans. in M. A. Stein, *Kalhana's Rājataranginī: A Chronicle of the Kings of Kāśmīr*, 2 vols., repr. (Delhi, Motilal Banarsidass, 1979), vol. 1, pp. 130–56.

9 Hermann Goetz, "The Conquest of Northern and Western India by Lalitaditya Muktapida of Kashmir," in *Studies in the Art and History of Kashmir and the Indian Himalaya* (Wiesbaden, Otto Harrassowitz, 1969), pp. 8–22.

Kanauj (in the Ganga-Yamuna Doab), and then marched eastward together with his new tributary to conquer the king of Gauda (the present area of Bengal). From this point, Lalitaditya's swelling imperial army continued its clockwise circuit, attaining victories against the rulers of the Deccan in the south, the Konkan coast on the west of the peninsula, and then moving up northward again, against the rulers of Gujarat and Rajasthan. Not content with India alone, Lalitaditya attempted to carry his campaigns into Central Asia, where he appears to have met his end in the Taklamakan desert. His successors were unable to maintain his imperial status, and the various tributary rulers started breaking away almost immediately, some of them attempting their own *dig-vijayas*.¹⁰

Social organization of armies

Classical Indian social theory had divided society into four estates and assigned to just one of them – the *kshatriya* – the functions of ruling the state and conducting war. By the early medieval period, however, this ideal model and its conception of a single class of professional warriors was becoming increasingly irrelevant in most parts of the subcontinent. Instead, the period witnessed a gradual militarization of society, as different social groups became involved in violent conflict and developed their own traditions of warfare. Given the continuing appeal of the *kshatriya* ideal and the high status it conferred, some of these new groups employed bards and genealogists to formulate myths of origin that might mask their humble beginnings and support their claims to *kshatriya* identity. This appears to have been the case with many of the Rajput clans of northern India, which have been described as originating in a process of sedentarization of pastoralist tribal groups (as mentioned above).¹¹ In other areas, newly emergent martial groups openly acknowledged their humble beginnings, even after rising to the position of professional warriors and local chiefs ruling as tributaries of a regional state. This was the case in early medieval Andhra, where the dominant agricultural communities had become highly militarized, thanks to perennial conflicts over agricultural land and water resources in the arid uplands of the interior. Even the ruling dynasty of Kakatiya kings whom they served did not claim to be *kshatriyas*, but instead proudly proclaimed

10 Goetz, "The Conquest of Northern and Western India"; Ronald Inden, "Imperial Puranas: Kashmir as Vaisnava Center of the World," in Ronald Inden, Jonathan Walters, and Daud Ali (eds.), *Querying the Medieval: Texts and the History of Practices in South Asia* (New York, Oxford University Press, 2000), pp. 29–98.

11 See B. D. Chattopadhyaya, "Origin of the Rajputs," in *The Making of Early Medieval India* (Delhi and New York, Oxford University Press, 1994) and the works cited therein.

themselves to be members of “the fourth class” (*caturtha-kula*) – that is, *sudra* peasants.¹² In the Deccan region, even groups involved in trade and craft production developed military traditions during the early medieval period. An influential long-distance trading group known as the “Five-Hundred Swamis of Ayyavole” appears to have maintained its own paramilitary force for the protection of its caravans, and glorified their fierceness in battle in their inscriptions.¹³ So pervasive was this military ethos that even new religious movements were affected by it. Thus, when a new sect of militant worshippers of Shiva arose in Karnataka in the eleventh and twelfth centuries, they were referred to as “Vira-Shaivas” – using the word for “warrior” (*vira*) as part of the name. Vira-Shaiva hagiographies are full of stories of devotees who manifested their devotion through violent conflict, like the washerman Madivalu Machayya who killed the king’s elephant and a whole troop of mahouts in order to uphold the purity of his fellow devotees.¹⁴

There is little detailed evidence for the social organization of individual armies, but passing epigraphic references to the “sixfold army” (*shad-angabala*) suggest that they were far from homogeneous.¹⁵ This sixfold classification, first appearing in classical Sanskrit texts on political theory, categorizes the various units in an army with reference to the different sources from which they were recruited and the varying degrees of training and loyalty they would possess. According to the *Artha Śāstra* of Kauṭilya, these are (in decreasing order of effectiveness and reliability): the king’s standing army (*maula*), mercenary troops hired for pay (*bhritaka*),¹⁶ troops contributed by guilds (*shreni*), troops supplied by allies or feudatories (*mitra*), troops that had

12 For the Kakatiyas, see Talbot, *Precolonial India in Practice*; see Burton Stein, *Peasant State and Society in Medieval South India* (Delhi, Oxford University Press, 1980), pp. 70–2, for a general discussion of the peasant origin of warrior groups in southern India.

13 See, for example, ll. 11–24 of the Kolhapur Inscription of Saka 1058, in Lionel D. Barnett, “Two Inscriptions from Kolhapur and Miraj: Saka 1058 and 1066,” *Epigraphia Indica*, vol. 19 (1927–8), no. 4 (Calcutta, Government of India, 1928), pp. 34–5.

14 Story related in the *Basava Purana* of Palkuriki Somanatha, trans. in V. Narayana Rao and Gene H. Roghair, *Śiva’s Warriors: The “Basava Purāṇa” of Pāṅkuriki Somanātha* (Princeton, Princeton University Press, 1990), pp. 130ff.

15 See, for example, verse 29 of the Aihole inscription of the early western Chalukyan ruler Pulakesin II (dated 634–5 CE), which refers to Pulakesin’s “six-fold forces, the standing army and the rest” with which he conquered the city of Kanchipuram. F. Kielhorn, “Aihole Inscription of Pulakesin II; Saka-Samvat 556,” *Epigraphia Indica*, vol. 6 (1900–1), no. 1 (Calcutta, Office of the Superintendent of Government Printing, 1901), p. 11.

16 I follow J. Sundaram, “Section 2: South India,” in S. N. Prasad (ed.), *Historical Perspectives of Warfare in India: Some Morale and Material Determinants* (New Delhi, Centre for Studies in Civilizations, 2002), p. 185, in taking “*bhritaka*” in the sense of “troops paid for or hired.”

defected from the enemy's ranks (*amitra*), and troops made up of tribal populations from the forest (*atavika*).¹⁷ Even though the classification itself is clearly the product of normative theorizing, it seems quite likely that most early medieval armies would indeed have been highly varied in their composition and level of training.

The theoretical texts are silent on the institution of military slavery, but Daud Ali has recently suggested that the specialized *kaikkolar* troops of the Chola army should be interpreted in this light, as an elite slave corps. Ali presents epigraphic evidence of strong social ties between a category of warriors called *kaikkolar* and the palace women known as *pentattis*, who appear to be domestic slaves captured by the Cholas in their military expeditions. According to Ali, the *kaikkolar* were the male offspring born to these women; they were trained as warriors and showed an uncompromising loyalty to the king, since they had been born in his household and had no kin relationships other than with these women who likewise served the king.¹⁸ Additional evidence suggests that some form of military slavery may have been established in the Deccan as well, where certain inscriptions refer to a class of soldier known as *lenka*. As Venkataramanayya and Somasekhara Sarma describe them:

lenkas were slaves who had entered into a covenant with their lord to devote themselves exclusively to his service. They took an oath (*basa*) to look on their lord as their *guru* and deity in this world and the next, to have no regard either for their own property or for their lives in furtherance of his interests, to stand by him in the hour of danger, to fight his battles, either to perish with him in the clash of arms or to kill themselves if they should chance to survive him.¹⁹

In this connection, we may note an inscription from Karnataka, dated to 1045 CE, that records the establishment of a feeding house and other benefactions by a corporate group of *lenkas* ("the *lenka* 1000") serving the Nolamba chief Udayadityadeva. What may be especially relevant here, given Ali's argument about the connections between *kaikkolars* and Chola *pentatti* women, is that the *lenkas* also record their donation of land for the maintenance of a group of

17 *Artha Śāstra* 2.33.8; 7.8.27, and 9.2.1, trans. in L. N. Rangarajan (ed. and trans), *Kautilya: The Arthashastra* (New Delhi, Penguin Books, 1992), pp. 683–5.

18 Daud Ali, "War, Servitude, and the Imperial Household: A Study of Palace Women in the Chola Empire," in Indrani Chatterjee and Richard M. Eaton (eds.), *Slavery and South Asian History* (Bloomington, Indiana University Press, 2006), pp. 44–62.

19 N. Venkataramanayya and M. Somasekhara Sarma, "The Kakatiyas of Warangal," in Ghulam Yazdani (ed.), *The Early History of the Deccan*, 2 vols. (London, Oxford University Press, 1960), vol. 2, p. 670.

women in servitude – in this case the temple servants known as *devadasis* – which raises the question of whether the *lenkas* might not have originated as the male offspring of these “slaves of the god.”²⁰

Prescriptive and descriptive texts alike agree in suggesting that early medieval armies were commonly composed of three divisions, namely foot soldiers, cavalry, and an elephant force. It is difficult to arrive at reliable figures for the sizes of armies, as many accounts of battles seem to inflate the figures for literary effect. B. N. S. Yadava reports that, according to al-‘Utbī, the army of Jaipala, the king of Bhatinda, consisted of 30,000 foot, 12,000 horse, and 300 elephants when it faced the Ghaznavid forces under Maḥmūd in 1001 CE; a few years later, according to Nizamuddīn Aḥmad, the Chandella king Ganda faced the Ghaznavids with 145,000 foot, 36,000 horse, and 390 elephants.²¹ As much as the various sources appear exaggerated and often contradict one another, they do tend to agree in suggesting that foot soldiers constituted by far the most numerous division in traditional Indic armies, followed by cavalry, and then elephants. The sources also suggest that the relative numbers of horse in Indian armies generally decreased as one moved from north to south. Because the Indian climate is not congenial to horse breeding, the vast majority of warhorses had to be imported either from Central Asia, the Arab lands, or the Persian Gulf. According to Marco Polo, most of these imported horses quickly became emaciated due to poor feeding and ignorance of the proper methods of maintaining their health; he further describes one south Indian kingdom where, of the more than 2,000 imported horses bought annually by the king, not 100 would survive by the end of the year.²² Elephants, on the other hand, thrived in the forests of eastern and southern India, and could be readily captured, domesticated, and trained for battle. They held a strategic and symbolic importance far in excess of their numbers, thanks to their great size and their ability to terrify attacking horses.²³ They were frequently put at the front of an assaulting force, so as

20 See Inscription no. 101 in R. Shama Sastry and N. Lakshminarayan Rao (eds.), *South Indian Inscriptions (Texts)*, vol. 9(1): *Kannada Inscriptions from the Madras Presidency* (Madras, Government Press, 1939), pp. 70–4.

21 B. N. S. Yadava, “Chivalry and Warfare,” in Jos. J. L. Gommans and Dirk H. A. Kolff (eds.), *Warfare and Weaponry in South Asia, 1000–1800*, Themes in Indian History Series (New Delhi, Oxford University Press, 2001), pp. 76–7.

22 R. E. Latham (trans.), *The Travels of Marco Polo* (Harmondsworth, Penguin Books, 1974), pp. 61, 264. For references to other European accounts commenting on the poor quality of country-bred horses, see Robert Elgood, *Hindu Arms and Ritual: Arms and Armour from India, 1400–1865* (Delft, Eburon Academic Publishers, 2004), pp. 46–7.

23 Simon Digby, *War-Horse and Elephant in the Delhi Sultanate: A Study in Military Supplies* (Oxford, Orient Monographs, 1971).

to frighten and mow down enemy troops;²⁴ they also provided ideal elevated combat platforms, carrying in their howdahs soldiers who might shoot arrows at long range and fight with spears at close quarters.²⁵

Weaponry and battlefield tactics

Sanskrit texts on military science classify weapons according to a number of different typological schemes, of which the most fundamental is a two-part division into the categories of projectile weapons (*astra*) and hand weapons (*shastra*). The former category included javelins, discus, and, most importantly, the bow and arrow, which was the projectile weapon of choice in this period. Most of the evidence suggests that Indian bows in this period were simple longbows, made of wood or even bamboo.²⁶ Because of their large size, they were not well-suited for use by archers mounted on horse, and instead they tended to be used either by foot soldiers or by archers mounted in howdahs atop elephants. According to Fakhr-i Mudabbir, arrows shot from these bows did not travel very far but were nonetheless capable of inflicting a serious wound.²⁷ The category of hand weapons or *shastra* included pikes and lances, maces and battle axes, and a range of different types of swords, sabers, and daggers. While pikes and lances appear to have been the primary hand weapons for ordinary foot soldiers and for some cavalry, swords and sabers had more elite connotations, and were especially favored for one-on-one combat, whether on foot or on horse. Fakhr-i Mudabbir praises Indian swords, and singles them out from more than ten other varieties made between China and Europe as being “the best and most lustrous.” Indeed, Indian swords were renowned throughout the Islamic world, and were exported to areas as far away as Seljuq Anatolia and Umayyad Spain.²⁸

It appears that soldiers in the early medieval period protected themselves in battle primarily with bucklers and other forms of small shields, which are frequently depicted in contemporary reliefs and hero-stones (*virakal*)

24 Sundaram, “Section 2: South India,” p. 186.

25 This latter observation, referring to the war elephants of the Chola kingdom, was made by Zhao Rugua, inspector of foreign trade at the southern Chinese port of Fujian, in his *Description of the Barbarous Peoples* (*Zhu fan ji*), compiled in the early eleventh century. Friedrich Hirth and W. W. Rockhill (trans.), *Chau Ju-Kua: His Work on the Chinese and Arab Trade in the Twelfth and Thirteenth Centuries, Entitled Chu-fan-chi*, repr. (Taipei, Literature House, Ltd., 1965), p. 96.

26 Fakhr-i Mudabbir states, in his *Ādāb al-Ḥarb*, that “the Hinduvi bow is of lance cane (*nay-i nayza*)”; E. McEwen, “Persian Archery Texts: Chapter Eleven of Fakhr-i Mudabbir’s *Ādāb al-Ḥarb*,” *The Islamic Quarterly* 18 (1974), 83. Simon Digby suggests that this might refer to bamboo (*War-Horse and Elephant*, p. 17).

27 McEwen, “Persian Archery Texts,” p. 83.

28 Digby, *War-Horse and Elephant*, pp. 18–19.

commemorating the deaths of fallen warriors. From the remarks of foreign visitors, who consistently state that the Indians went into battle “naked,” it appears that armor was very rarely used.²⁹ However, in Sanskrit treatises on kingship and warfare, there is evidence that quilted cloth armor (*tanutrana*) was known, as well as steel plate armor (*kavacha*).³⁰ One suspects, however, that this apparently conflicting evidence is in fact indicative of a class distinction, and that protective armor was used primarily by elite warriors, while ordinary troops had to go without anything but their bucklers. Certainly, the images of warriors on hero-stones – which overwhelmingly commemorate rank-and-file soldiers – invariably show them without armor of any sort.

Detailed descriptions of individual battles are practically non-existent for this period, and the few accounts that are available tend to be highly conventional, informed more by ideals than by actual descriptive concerns. Sanskrit treatises on warfare devote considerable space to discussion of various battlefield “arrays” (*vyuha*) – that is, patterns for the arrangement and deployment of troops – but it is difficult to know just how relevant these were in actual battles. J. Sundaram has discussed battlefield tactics in the Chola country, based on the evidence both of inscriptions and of a contemporary Chinese traveler’s account, and suggests that elephants were placed in an advance guard, together with the battle standard and accompanied by some protective foot soldiers, while the cavalry and the bulk of the infantry followed behind. This evidence also suggests that the king himself – or, in the absence of the king, the commander of his troops – rode one of the elephants in the advance guard, so as to be able to direct the course of battle. The Chinese source adds that the infantry were separated into groups by the weapons they bore, with lightly armed men in the front, followed by men with lances, then men with long swords, and finally archers bringing up the rear.³¹ Despite the emphasis on battle arrays and massed columns of men, the ideal of single combat remains powerful in the early medieval period, although again it is difficult to judge how much this ideal might have affected actual practice. But at least in literary works and in the panegyrics recorded in inscriptions, it is expected that the most noble warriors should come out from the ranks of their armies and meet face to face,

29 Sundaram, “Section 2: South India,” pp. 216–17, citing Marco Polo and John of Montecorvino for the end of the thirteenth century, and Friar Odoric and Wang Dayuan for the early fourteenth century.

30 Yadava, “Chivalry and Warfare,” p. 79, citing the *Aparājita-prccha*.

31 Sundaram, “Section 2: South India,” pp. 209–10. The Chinese traveler’s account is contained within Ma Duanlin’s encyclopaedia, compiled in the thirteenth century.

ideally on foot, to engage in hand-to-hand combat. To a great extent, this idea seems to reveal the influence of the two classical Sanskrit epics in defining the ideals of heroic conduct in battle. In inscriptions, the warriors in medieval battles are often compared explicitly to their epic models, as, for example, when the Kakatiya king Rudra is said to have made his enemy Domma flee by loosing hundreds of arrows, just as the epic hero Arjuna did when attacking Karna.³²

Given the prominent and exposed position of the king or his commanding general in the advance guard, it was natural that warriors in the opposing army should single him out as a target. In fact, two Chola commanders are known to have died on the battlefield under just such circumstances.³³ In the battle of Takkolam, fought in 949 CE between the Chola army and the forces of the Rashtrakuta king Krishna III, the Chola crown prince Rajaditya was slain on his elephant by Krishna's feudatory Ganga Butuga and the latter's retainer Manalera; as a result the Chola army lost its resolve and retreated from the battlefield. During the battle of Koppam, fought in 1054 CE between the Chola army and the army of the Chalukyas, the Chola king Rajadhiraja was himself slain on his elephant. Although the army began to retreat, the king's brother Rajendradeva took command and rallied the troops to an ultimate victory over the Chalukyan forces. There are other documented instances of attacks on a commander's elephant, including unsuccessful attempts where the attacker was slain. One example is provided by the inscribed text of a tenth-century hero-stone from Peddabalijapalli (Cuddapah District, Andhra Pradesh), which commemorates the death of a Vaidumba warrior who fell while trying to slay the elephant of the enemy Ganga king. The sculpture depicts the hero, who has mounted the elephant and sits on its front shoulders, trying to kill it; behind him, the elephant's driver sits in the howdah, about to strike the hero with his raised sword.³⁴ Another hero-stone from Andhra, dated to 1028/9 CE, commemorates the death of a foot soldier who had attempted to kill the elephant of the invading Chalukyan king Jayasimha II; the sculpture depicts the heroic foot soldier, standing firmly on the ground, thrusting his pike into the head of the

32 Verse 14 of the Hanamkonda inscription of Rudradeva, 1163 CE, in P. Sreenivasachar (ed.), *A Corpus of Inscriptions in the Telingana Districts of H.E.H. the Nizam's Dominions*, Part 2 (Calcutta, Baptist Mission Press, 1940), p. 17.

33 See Sundaram, "Section 2: South India," appendices 3 and 4 (pp. 251–3) for an analysis of these battles.

34 P. V. Parabrahma Sastry, *Inscriptions of Andhra Pradesh: Cuddapah District, Part I* (Hyderabad, Government of Andhra Pradesh, 1977), inscription no. 68, p. 72, and plate facing p. 73.

elephant – represented at a diminutive scale – as its driver and two archers in the howdah look on. At the top of this slab, the departed hero is shown again in the afterworld, seated at ease between two heavenly maidens – the commonly understood reward for the ultimate act of heroic self-sacrifice.³⁵

Warfare in this period was not confined to the battlefield alone but extended as well to sieges of fortified strongholds. A tradition of fortification is documented in India going back to the early historic period, represented both by surviving or excavated remains and by prescriptive theoretical texts. Although our knowledge of fortification in the early medieval period is far less detailed than for both earlier and later periods, it appears that several important advances were being made at this time. First, new typologies of fortifications appear in technical treatises of this period, based on a fundamental opposition between “built” (*aharya*) forts – constructed from stone, brick, rammed earth, and wood – and “natural” forts (*svabhavika*), in which pre-existing landscape elements – hills, water bodies, thorn forests, deserts – were “borrowed” for their natural defensive qualities.³⁶ The new importance accorded to “natural” fortifications in theoretical works is matched in the archaeological record, as there is a significant increase in the number of forts making use of natural landscape features, especially hilly and rocky terrain.³⁷ Secondly, the thickness of ramparts begins to increase, and ashlar masonry is introduced as a facing material, replacing the much thinner curtain walls of brick, laterite, or occasionally rubble masonry that had characterized earlier forts. Concomitantly, several sites show a series of concentric walls, introducing what Jean Deloche refers to as the principle of “defense based on the accumulation of obstacles.”³⁸ All of this suggests an increasing prevalence of sieges, and an attendant interest in improving the

35 Abdul Waheed Khan, *Stone Sculptures in the Alampur Museum*, Archaeological Series 39 (Hyderabad, Government of Andhra Pradesh, 1973), catalog and plate no. 46, inscription no. 2 (pp. 10, 24–7).

36 The “natural/built” (*svabhavika/aharya*) distinction is drawn in Somadevasuri’s tenth-century *Niti-vakyamritam* (20, 3–4), and in Bhoja’s eleventh-century *Yukti-kalpataru*, where the terms *akritrima/kritrima* are used.

37 Yadava, “Chivalry and Warfare,” p. 80, refers to the increased tendency to construct hill forts in this period in northern India, citing the examples of Loharakotta, Bansala, Ajmer, Chittorgarh, Ranthambhor, Gwalior, and Kalinjar, among others, all of which were prominent fortified centers on the eve of the establishment of the sultanate. The trend apparently did not extend into the Deccan and South India until much later, where it may represent a response to the intrusion of sultanate power into the region. See Richard M. Eaton and Phillip B. Wagoner, *Power, Memory, and Architecture: Contested Sites on India’s Deccan Plateau, 1300–1600* (New Delhi, Oxford University Press, 2014).

38 Jean Deloche, *Studies on Fortification in India*, Collection Indologie 104 (Pondicherry, Institut Français de Pondichéry and École Française d’Extrême Orient, 2007), pp. 59ff.

ability of forts to withstand them. Nonetheless, the defensive system used was still largely a passive one, relying on the inaccessible location of the fort, and the number and thickness of its walls themselves, as obstacles to impede the advance of enemy troops. Most surviving forts from this period lack developed battlements, such as would be required to provide protection to forces engaged in active defense from atop the walls, and gateways tend to remain undeveloped, without barbicans and outer courtyards to protect their approach.³⁹ Historical accounts do indicate that stone-throwing devices were sometimes used both offensively and defensively during sieges. Thus, in recounting the Arab conquest of Sindh in the eighth century, the *Chach Nama* refers to a local chief of the Multan region using catapults to fling stones from the walls of his fort at the besieging army, and the *Rajatarangini* refers to the offensive use of catapults by the forces of Jayasimha during his siege of the fort of Bansala in the twelfth century.⁴⁰ In sultanate period sources, these devices used by the Indians are usually referred to in Persian as *'arrāda*, which suggests that they were some variety of torsion-powered catapult or onager that threw stones.⁴¹

Warfare in the period of the Delhi sultanate, c.1200–1500

Establishment of the Delhi sultanate and factors contributing to its dominance

As explained at the beginning of this chapter, the groundwork for an independent sultanate in India was laid through the campaigns of the Ghurid

39 It is not until the second half of the thirteenth century – at Warangal, in its inner stone wall – that bent-axis gateways with multiple doors and courtyards appear in the Indic tradition of fortification.

40 For the *Chach Nama* passage, see H. M. Elliot and John Dowson (trans.), *The History of India as Told by Its Own Historians*, 8 vols. (London, Trubner and Co., 1871–7), vol. 1, p. 203; for the *Rajatarangini* passage, see vol. 8, pp. 1677–9, 1685–6; and Ranjit Sitaram Pandit, *Rajatarangini: The Saga of the Kings of Kashmir* (New Delhi, Sahitya Akademi, 1968), pp. 540–2.

41 For example, in his *Khazā'in al-futūḥ*, Amir Khusrau refers repeatedly to the *'arrādas* used by the Hindu armies in defending their forts; see Muhammad Habib (trans.), *The Campaigns of 'Alā'u'd-Dīn Khiljī, Being the Khazā'inul Futūḥ (Treasures of Victory) of Hazrat Amir Khusrau of Delhi* (Bombay, D. B. Taraporewala, Sons, and Co., 1931), pp. 40, 62, 65, 68. This term generally designates a relatively small type of torsion-powered catapult that threw stones. Carole Hillenbrand, *The Crusades: Islamic Perspectives* (Chicago, Fitzroy Dearborn Publishers, 1999), p. 525; David Nicolle, *Medieval Siege Weapons (2): Byzantium, the Islamic World, and India AD 476–1526*, illustrated by Sam Thompson, New Vanguard Series (Oxford, Osprey Publishing, 2003), pp. 6–9; Donald R. Hill, “Trebuchets,” *Viator* 4 (1973), 100.

commander Quṭb al-Dīn Aybeg. After the pivotal battle of Tarā'in in 1192, Aybeg pressed his troops forward against the local Hindu rajas, taking in succession the strongholds of Meerut (1192), Delhi (1193), Kol (1194), Mount Abu (1197), Budaun (1198), Kanauj (1199), Gwalior (1200), and Kalinjar (1203). More or less simultaneously, another Ghurid commander – Muḥammad bin Bhaktiyār Khaljī – was campaigning further east, successfully conquering the territories of Bihar and Bengal.⁴² By the end of the reign of the first independent Sultan of Delhi, Iltutmish (1211–36), much of northern India from Rajasthan to Bengal was under direct or indirect sultanate rule; a little under a century later, the sultanate would extend southward all the way to the tip of the peninsula.

The rapidity with which the Delhi sultanate expanded, and the vastness of its territorial gains, have led many to search for the causes underlying this success. Some have invoked the supposed unity of Islam in the face of an assumed Hindu divisiveness, while others have sought to locate the answer in one form or another of superior military technology enjoyed by the sultanate, or in its ability to monopolize access to the best sources of warhorses and elephants. The reality is doubtless far more complex than what is suggested by any of these explanations, all of which tend to reduce the answer to a single, unitary cause. In contrast, what is here argued is that the sultanate's extraordinary successes were the product of many different factors – ideological, economic, administrative, and technological – that together constituted a distinctively "sultanate" form of military culture.

*Ideological, economic, and institutional foundations
of warfare under the Delhi sultanate*

We may start by considering the underlying motives for warfare. Although the idea of holy war or *jihād* is invoked in many contemporary historical accounts, critical examination of the full range of source materials suggests that these claims were often made simply to justify what were in reality economic motives. Thus, in Jūzjānī's *Ṭabaqāt-i Nāṣirī*, the Ghurid sultan Muḥammad bin Sām is routinely called "the holy-warrior sultan" (*sultan-i ghāzī*),⁴³ suggesting that his Indian campaigns were motivated by a desire to subjugate infidels. But as John Deyell has argued on the basis of numismatic evidence, the Ghurid campaigns in India were more likely designed to increase the supply of precious metals – plundered from Indian treasuries

42 Peter Jackson, *The Delhi Sultanate: A Political and Military History* (Cambridge, Cambridge University Press, 1999), pp. 12–13.

43 *Ibid.*, p. 20.

and struck into coin – so the Ghurids could finance their ongoing wars against the Khwārazm Shahs in Central Asia. Deyell's argument is supported by the distribution patterns of coin hoards containing Ghurid Indian issues, significant numbers of which were found in Afghanistan where they would have been used to pay troops fighting the Khwārazm Shahs.⁴⁴ Later, during the period of the Delhi sultanate's southward expansion at the end of the thirteenth century, economic motives continued to drive military campaigns – and in this period the motives were often acknowledged much more openly. Thus, both Baranī and 'Iṣāmī are quite explicit about the Khaljī prince Garshasp Malik's motives for launching a campaign against the Yadava capital of Devagiri in the Deccan. According to 'Iṣāmī, Garshasp wished to become sultan of Delhi but needed cash in order to pay the troops needed to oust his father-in-law, Sultan Jalāl al-Dīn Fīrūz Shāh Khaljī, and support his own bid for the throne. Having heard about the riches of Devagiri, where "in every house there were heaps of jewels and enormous quantity of silver and gold,"⁴⁵ Garshasp undertook to conquer that kingdom and capture its treasure. As 'Iṣāmī has Garshasp say, "If the problem-solving gold falls into my hands, every part of the country will tremble before my sword."⁴⁶ The expedition proved successful, and Garshasp seized vast stores of gold *padma-tankas* from the Yadava treasury and marched back to Delhi. Along the way, he used a small portable trebuchet (*manjanīq*) to shower some of the gold coins on the people in the countryside; shortly thereafter, he had his father-in-law slain, and reaching Delhi, assumed the throne as Sultan 'Alā' al-Dīn Khaljī.⁴⁷

It is important to note, however, that these campaigns were much more than simple plundering expeditions, like those that had been undertaken by the Cholas and other Indian kings. Whereas earlier Indic custom had favored leaving conquered rulers in place as ritually subordinate vassals, the general practice under the Delhi sultanate was to annex the conquered territory and establish sophisticated administrative mechanisms for extracting the productive capacity of the land. Of key importance here was the landholding

44 John S. Deyell, *Living without Silver: The Monetary History of Early Medieval North India* (Delhi, Oxford University Press, 1990), pp. 195–206.

45 Agha Mahdi Husain (trans.), *Futūḥ's Salāṭīn, or Shāh Nāmah-i Hind of 'Iṣāmī*, 3 vols. (New York, Asia Publishing House, 1977), vol. 2, p. 402.

46 Ibid., p. 395.

47 Ibid., p. 414; Elliot and Dowson (trans.), *The History of India*, vol. 3, p. 158. For an overview and analysis of Garshasp's Devagiri campaign, see P. M. Joshi, "'Ala-ud-din Khaljī's First Campaign against Devagiri," in H. K. Sherwani (ed.), *Studies in Indian Culture: Dr. Ghulam Yazdani Commemoration Volume* (Hyderabad, Maulana Abul Kalam Azad Oriental Research Institute, 1966), pp. 203–11.

institution known as the *iqta'*, a form of military service tenure that had developed on the Iranian plateau between the eleventh and thirteenth centuries.⁴⁸ The *iqta'* was an assignment of territory together with the right to collect its land revenue, in return for which the holder was obliged to provide military service for the state. There was a precise correlation between the yield of an *iqta'*, defined in terms of its size and the revenue yield of its lands, measured monetarily, and the number and composition of the troops its holder was obligated to provide – again, measured monetarily in terms of the expense of their salaries, equipment, and supplies. The key to the *iqta'*'s efficiency lay in the monetary standard that served to link together the productive capacity of the land and the expense of maintaining the required body of troops. Because of this, the spread of the *iqta'* went hand-in-hand with the expansion of a cash economy and the spread of more accurate systems of revenue accounting. *Iqta'*s thus provided not only a mechanism for integrating newly conquered regions into the expanding territory of the state, but also the economic basis for the support of more warfare and the further militarization of society.⁴⁹ They also brought about a concomitant transformation of the built landscape, as *iqta'*s were inevitably centered on garrison towns that were built – or rebuilt on earlier foundations – according to new principles of fortification that were imported, like the *iqta'* itself, from further west in the Islamic world (see below).

Another key to the success of the Delhi sultanate was the widespread institution of military slavery. Especially during the first century of its existence, the sultanate depended heavily on Turkic military slaves (*ghulām*, *banda*) to fill the ranks of its most elite armies; in this, it was no different from most other states in the eastern Islamic world at this time. Many of these Turks were initially taken as battle captives in Transoxiana and along the Pontic-Caspian steppes, while others were sold into slavery by their kin. However they had originated, a great many of these slaves were brought to

48 For the evolution of the *iqta'* in Seljuq Iran, see Ann Lambton, "The Internal Structure of the Saljuq Empire," in J. A. Boyle (ed.), *The Cambridge History of Iran*, vol. 5: *The Saljuq and Mongol Periods* (Cambridge, Cambridge University Press, 1968); Ann Lambton, *Landlord and Peasant in Persia: A Study of Land Tenure and Land Revenue Administration* (London, I. B. Tauris, 1991); and C. E. Bosworth, "Barbarian Incursions: The Coming of the Turks into the Islamic World," in D. S. Richards (ed.), *Islamic Civilisation 950–1150* (Oxford, Cassirer, 1973).

49 For discussions of the *iqta'* in India, see Jackson, *The Delhi Sultanate*, pp. 95–102; Richard M. Eaton, "Iqta' Tenure in the Age of Timur," unpublished paper presented at the 25th Annual Conference on South Asia, Madison, Wisconsin, October 18–20, 1996; and Richard M. Eaton, *A Social History of the Deccan, 1300–1761: Eight Indian Lives*, *The New Cambridge History of India* 1/8 (Cambridge, Cambridge University Press, 2005), pp. 25–6.

the subcontinent by commercial slave traders, often after being bought and sold several times along the way.⁵⁰ Turkic slaves were in high demand, in part because of their reputation as skilled warriors and horsemen, and in part because by having been uprooted from their families and places of origin, they could be counted on to develop a strong sense of loyalty to their masters. In the words of Fakhr-i Mudabbir, “When the hearts of the Turkish slaves turn to Islam, they do not really remember their homes, their place of origin, or their kinsmen . . . The further they are taken from their hearth, their kin, and their dwellings, the more valued, precious, and expensive they become, and they become commanders and generals.”⁵¹ Such Turkic slaves not only made up the elite core of the sultanate’s armies, but as Fakhr-i Mudabbir suggests, the most accomplished among them also rose to become commanders (amir), *iqtaʿ* holders, and even sultans – as we have seen with Qutb al-Dīn Aiybeg, Iltutmish, and their immediate successors.

Finally, the evidence suggests that the armies of the sultanate tended to be more thoroughly trained and considerably more professionalized than was typical in traditional, pre-sultanate India. The income from an *iqtaʿ* made it possible for the holder to pay regular salaries to his troops, to purchase the horses and equipment they required, and to ensure their readiness for battle by keeping them at the garrison engaged in regular training and drills. While the textual evidence from sultanate India sheds little light on the nature of military training, there are passing references in Jūzjānī’s *Ṭabaqāt-i Nāsirī* to training and extraordinary accomplishments in archery (*tir-andazī*) and horsemanship (*sawarī*),⁵² and at least one treatise dealing with the art of war is known to survive from the reign of the Sultan Iltutmish – Fakhr-i Mudabbir’s *Ādāb al-Ḥarb waʾl-shajāʿa* (“Correct Usages of War and Bravery”).⁵³ While this text is much more theoretically conceived and anecdotal in approach than the more technical *furūsīya* manuals surviving from Mamlūk Egypt, it seems reasonable to conclude that something akin to the *furūsīya* tradition likely

50 For the source of origin of Turkic slaves in India, see Peter Jackson, “Turkish Slaves on Islam’s Indian Frontier,” in Indrani Chatterjee and Richard M. Eaton (eds.), *Slavery and South Asian History* (Bloomington, Indiana University Press, 2006), pp. 66–9.

51 Fakhr-i Mudabbir, as quoted in Sunil Kumar, “Service, Status, and Military Slavery in the Delhi Sultanate: Thirteenth and Fourteenth Centuries,” in Chatterjee and Eaton (eds.), *Slavery and South Asian History*, p. 83. See also Sunil Kumar, *The Emergence of the Delhi Sultanate* (Ranikhet, Permanent Black, 2007), pp. 78–87.

52 Jūzjānī, as cited in Jackson, “Turkish Slaves,” p. 65.

53 Ananiasz Zajaczkowski (ed.), *Le Traité iranien de l’art militaire, “Ādāb al-ḥarb wa-š-šajāʿa,” du XIIIe siècle* (Warsaw, Państwowe Wydawnictwo Naukowe, 1969); for a translation and analysis of the eleventh chapter, on archery, see McEwen, “Persian Archery Texts.”

existed in sultanate India, providing troops with regular and intense training in horsemanship, archery, and other fighting methods.⁵⁴

Sultanate military culture: technological and tactical foundations

In the area of military technology, the armies of the sultanate enjoyed a decided superiority to most Indian armies at the time of conquest. This technological superiority was seen both in field engagements and in sieges, whether defensive or offensive, and cannot reasonably be reduced to any one single innovation or device. Rather, it is more productive to think in terms of two distinct but complementary systems of combat that had developed in the eastern Islamic world and were introduced into the subcontinent, where both continued to be developed and refined. One system, revolving around mounted combat on open ground, was facilitated by an interlinked body of equipment and weapons that were designed to mount a warrior firmly on a warhorse, to protect both man and horse from enemy arms, and to provide the man with an assortment of weapons for deployment both at close range and at a distance. The other system, revolving around the taking of an enemy's strongholds and the defense of one's own, was facilitated not only by a new breed of siege engines that had been developed through a process of innovation and exchange across various parts of Eurasia, but also by the development of new design principles and techniques for the construction of fortifications. Let us consider each of these in turn.

The sultanate superiority in mounted combat appears to have accounted for many of the Ghurids' early victories. Although, as we have seen, many north Indian Rajput armies included mounted horse troops, Norman Ziegler has called attention to a range of evidence suggesting that these horses were used more for transport to the battlefield than as mobile platforms for combat.⁵⁵ In part, this was due to the small size and poor quality of the country-bred Indian horses, and in part it was due to established norms of battlefield conduct which emphasized hand-to-hand combat on foot. For

54 C. E. Bosworth, "Ādāb al-Ḥarb wa'l-Šajā'a," *Encyclopaedia Iranica*, Online Edition, 1982, available at www.iranicaonline.org/articles/adab-al-harb-wal-sajaa. For Mamlūk *furūsiya* training, see David Ayalon, *Gunpowder and Firearms in the Mamluk Kingdom*, 2nd ed. (London, Frank Cass, 1978), pp. 52ff.; for an archery manual relating to this tradition, see J. D. Latham and W. F. Paterson, *Saracen Archery: An English Version and Exposition of a Mameluke Work on Archery (c. AD 1368)* (London, Holland Press, 1970).

55 Norman P. Ziegler, "Evolution of the Rathor State of Marwar: Horses, Structural Change, and Warfare," in Karine Schomer et al. (eds.), *The Idea of Rajasthan: Explorations in Regional Identity*, 2 vols. (Columbia, MO, South Asia Publications, 1994), vol. 2, pp. 206–8.

example, in recounting the battle of Samel, fought in 1544 between the Rajput ruler of Marwar and the sultanate forces of Shēr Shah Sūri, the Mughal historian Badā'ūnī noted with evident astonishment that:

at the very moment when the army of Sher Shah came in sight, as a result of their own stupidity, by the good luck of Sher Shah, or by the superior fortune of Islam, the infidels in a body dismounted from their horses, and renewing their vows and singleness of purpose and mutual assistance, binding their sashes together and joining hand to hand, attacked the army of the Afghans with their short spears . . . and with their swords. Sher Shah then ordered the elephant troops to advance and trample them down.⁵⁶

In a similar vein, several decades later, the Jesuit Monserrate noted the contrast between the Rajput cavalry and the cavalry forces of the “Persians, Mongols, Chaghatais, Uzbeks, and Turkomans,” noting that the Indians:

all ride on little ponies hardly as big as donkeys. Arriving in this manner at the place of battle, they dismount and await the attack of the enemy, armed with short spears and light shields. The Muslims say that these Rajputs and Marathas know how to die, but not how to fight.⁵⁷

From this perspective, it is easy to comprehend the advantage enjoyed by a rigorously trained cavalry force, riding larger and more robust warhorses imported from Central Asia or the Persian Gulf. Not only were the horses more formidable, but they were also equipped with elaborate saddles and harnesses in the Turkic style, which better enabled the rider to stay firmly mounted and in control of his horse. At the heart of this mounting system was the so-called “high saddle,” built up around a wooden framework (the “tree”) consisting of two boards lying along the sides of the horse’s spine and joined by vertical, wooden saddle bows front and back, thus providing a base which was then covered with padding and leather.⁵⁸ The tree not only helped distribute the rider’s weight off the horse’s spine and onto its flanks, but also, its raised pommel and cantle created a contoured seat that helped keep the rider firmly mounted even when striking a blow with a spear or mace. Iron

56 Ziegler, “Evolution of the Rathor State,” p. 207, citing the 1973 repr. of G. S. A. Ranking’s translation of Badā’ūnī’s *Muntakhab al-Tawārīkh*, vol. 1, pp. 368–9.

57 John S. Hoyland (trans.), *The Commentary of Father Monserrate, S.J., on His Journey to the Court of Akbar*, repr. (New Delhi, Asian Educational Services, 1992), pp. 83–4 (spellings modernized).

58 Archaeological evidence of saddle trees from the central Eurasian steppe in this period is discussed in Witold Świetosławski, *Arms and Armour of the Nomads of the Great Steppe in the Times of the Mongol Expansion (12th–14th Centuries)* (Łódź, Oficyna Naukowa MS, 1999), pp. 81ff., and is illustrated in plate XXV.

stirrups hung from the frame additionally permitted the rider to turn and fire a bow in almost any direction. These saddle and harness systems were nothing new in most of Eurasia, having developed on the Central Eurasian steppes over the course of centuries and diffused to most of the rest of the continent with the arrival of Turks, Mongols, and other steppe peoples.⁵⁹ But the integrated system of high saddle and stirrups was virtually unprecedented in the subcontinent, where much simpler and less efficient harnessing systems prevailed right up to the eve of the sultanate conquest (and even long after in many parts of India). Indeed, most representations of horsemen in pre-sultanate Indian sculpture depict a tree-less saddle of cloth, with neither stirrups nor pommel and cantle.⁶⁰

Pictorial evidence from the end of our period suggests that sultanate horse troops were regularly armored, the men typically provided with a metal helmet and lamellar cuirass – constructed of small rectangular metal plates (*lamellae*) arranged in a scale-like pattern and rivetted to a cloth or leather undergarment – while the horses are generally protected (when protected at all) with quilted armor (*bargustuwan*) and, occasionally, a chamfron for the head.⁶¹ Many paintings from this period show mounted warriors with bow and arrow, as well as with a lance, mace, or sabre for fighting at close range. Bows were invariably of composite construction and shaped with reflex curvature, thus enabling them to be short enough to be fired conveniently from horseback but powerful enough to unloose an arrow with deadly force.⁶² Textual sources regularly refer to the use of the *nāwak*, a term often used to designate a crossbow in later texts, but in this period more

59 Their presence is visually documented in Khurāsān, Afghanistan, and Transoxiana; see David Nicolle, *Arms and Armour of the Crusading Era, 1050–1350: Islam, Eastern Europe and Asia* (London, Greenhill Books, 1999), esp. chs. 13 and 14, for line drawings and analysis.

60 See, for example, the horse carved as a projecting bracket figure at Amar Sagar near Jaisalmer, pictured in Stella Sneed, *Animals in Four Worlds: Sculptures from India*, with texts by Wendy Doniger and George Michell (Chicago, University of Chicago Press, 1989), plate 7.

61 See, for example, a sultanate-period *Shah Nama* ms. (c.1500) in the collection of the Bharat Kala Bhavan in Varanasi. There are two late fifteenth- to early sixteenth-century helmets from sultanate India in the collection of the Furusiya Art Foundation; see Bashir Mohamed, *The Arts of the Muslim Knight: The Furusiyya Art Foundation Collection* (Milan, Skira, 2008), nos. 314 and 315.

62 For the construction and design of composite bows, see Paul E. Klopsteg, *Turkish Archery and the Composite Bow: A Review of an Old Chapter in the Chronicles of Archery and a Modern Interpretation*, 3rd ed. (Manchester, Simon Archery Foundation, 1987); and Edward McEwen, Robert L. Miller, and Christopher A. Bergman, “Early Bow Design and Construction,” *Scientific American* 264.6 (June 1991), 76–82. For a technical discussion of the mechanics involved, see Brian Cotterell and Johan Kamminga, *Mechanics of Pre-Industrial Technology: An Introduction to the Mechanics of Ancient and Traditional Material Culture* (Cambridge, Cambridge University Press, 1992), pp. 185–7.

likely used in its original sense as an “arrow guide.” This was not an integral part of the bow, but rather a removable device that permitted the archer to shoot special arrows (*tir-i nāwak*) that could be as much as half the length of a regularly sized arrow.⁶³ In comparison to the performance of an ordinary arrow, the *tir-i nāwak* launched at a higher speed, followed a flatter trajectory, and enjoyed a significant increase in range – without in any way lessening its deadly force.

In accounting for the Ghurid success at the battle of Tarā'in, Peter Jackson has suggested – based on his analysis of the accounts of both Jūzjānī and 'Awfi – that much depended on the carefully balanced tactical use of two distinct cavalry forces. First, a smaller group of 10,000 lightly armed archers was ordered to harass the Rajput force from all sides, alternately charging in to shoot and then retreating, staying just out of range of the Indian forces. With the enemy relatively immobilized and drawn into a solid mass, the bulk of the force – reportedly consisting of 120,000 heavy cavalry – appear to have attacked with lances and other close-range weapons. According to Jackson, it was the complementarity between these two different mounted forces that made the early sultanate army so effective in the field.⁶⁴

In the area of siegecraft, the source of the sultanate's advantage was the counterweight trebuchet (*manjanīq-i maghrabi*, in Persian sources, or simply *manjanīq* or *maghrabi*), a technological innovation first introduced in the eastern Mediterranean region around the middle of the twelfth century.⁶⁵ In essence, the *manjanīq* consisted of a pivoting beam, and utilized the force of gravity to pull down a counterweight attached to its shorter end, driving the long end upward and forward, and thus launching a massive stone projectile

63 Fakhr-i Mudabbir refers to several different varieties of *tir-i nāwak*, with colorful names suggesting their diminutive size, e.g. “the ‘little locust’ (*malakhak*), the ‘grain weight’ (*dang sang*) and ‘half-grain weight’ (*nim dang sang*), the ‘sack needle’ (*javalduz*) and ‘half-sack needle’ (*nim javalduz*)” (McEwen, “Persian Archery Texts,” p. 81). Detailed descriptions of the *nāwak*'s western Islamic equivalent, the *majra*, appear in two Arabic archery treatises, the anonymous “Book on the Excellence of the Bow and Arrow,” most likely written in Morocco c.1500, trans. in Nabih Amin Faris and Robert Potter Elmer, *Arab Archery: An Arabic Manuscript of about AD 1500* (“A Book on the Excellence of the Bow and Arrow” and the Description Thereof (Princeton, Princeton University Press, 1945), and the “Essential Archery for the Fighting Archer, or All that the Toiler Desires” of Taybugha ibn 'Abd Allah, most likely written in Syria c.1368, trans. in Latham and Paterson, *Saracen Archery*.

64 Jackson, *The Delhi Sultanate*, pp. 16–18.

65 Different locations have been proposed for the invention of the counterweight trebuchet, from Europe, to the Middle East, to China; see the review in Paul E. Chevedden, “The Invention of the Counterweight Trebuchet: A Study in Cultural Diffusion,” *Dumbarton Oaks Papers* 54 (2000), 102ff. Chevedden himself argues for the device's Byzantine origin.

from a sling hung at its tip. Earlier trebuchets had relied on man-powered traction to drive the arm, requiring large teams of men to draw the short end downward by pulling on ropes. According to modern estimates, such traction trebuchets might have required between forty and a hundred men to operate, and were capable of firing projectiles weighing up to 130 lbs (59 kg) and sending them a distance of between 93 and 145 yards (85 and 133 m).⁶⁶ The counterweight trebuchet represented a significant improvement over such traction-powered machines on several counts. First, once it was set up, it required far less manpower to operate, thus exposing fewer men to enemy fire. Secondly, because of its reliance on the constant force of its massive counterweight – instead of on the lesser and more variable force of human power – it could not only fire substantially larger projectiles to a much greater distance, but also, once it was aimed, it could fire much more accurately – enabling a besieging force to repeatedly strike a single spot along a wall or tower until it collapsed. According to calculations made by Donald Hill, a large counterweight trebuchet would have been capable of throwing a 500-lb projectile a distance of about 285 yards, thus making it a vastly more deadly weapon than its traction-powered precursors.⁶⁷

It is not yet clear when and under what circumstances the *manjanīq* was first introduced into sultanate India. The bulk of the evidence would seem to suggest that it was only during the course of the thirteenth century that the new technology arrived in the subcontinent, and that the most likely vector for its introduction would have been the campaigns either of the Khwārazm Shah Jalāl al-Dīn Mingbarnī, who was fighting in the Punjab between 1221 and 1224, or of the Mongols, who carried out a devastating siege of Lahore in 1241.⁶⁸ In any case, the earliest documented uses of the counterweight trebuchet in India would appear to date from the opening years of the

66 Kelly DeVries, *Medieval Military Technology* (Peterborough, Ontario, Broadview Press, 1992), pp. 133–4.

67 Hill's calculations assume a total beam length of 57.6 feet, a throwing arm length of 48 feet, a sling length of 30 feet, and a counterweight load of 20,000 lbs. See Hill, "Trebuchets," pp. 111–14.

68 In the case of Mingbarnī, although it is not clear whether or not he had counterweight trebuchets at the time of his campaigns in India, Chevedden notes that he did in fact use them in his siege of Akhlat five years later in 1229; Paul E. Chevedden, "The Citadel of Damascus," unpublished PhD diss., University of California, Los Angeles (1986), p. 279. As for the Mongols, Jūzjānī states that during the siege of Lahore, they "planted a great number of *majaniqs* round about the fortifications of that city, and destroyed the walls," but it is not clear whether these were counterweight trebuchets or the older traction trebuchets. H. G. Raverty (trans.), *Tabakat-i Nasiri: A General History of the Muhammadan Dynasties of Asia*, repr., 2 vols. (New Delhi, Oriental Books Reprint Corporation, 1970), vol. 2, pp. 1133–4.

fourteenth century, when it clearly played an important part in the second wave of sultanate expansion under the Khaljīs and early Tughluqs. From the historical works of Amir Khusrau, Baranī, and ‘Iṣāmī, we learn that the *manjanīq* or *maghrabi* contributed significantly to the success of Malik Kāfūr’s sieges of Ranthambor (1301), Chitor (1303), and Siwana (1310) in Rajasthan, as well as in his sieges of Warangal (1310) and of Dorasamudra (1311) in the Deccan.⁶⁹ At Warangal, it figures again in Khusrau khan’s siege of 1318, and in Ulugh khan’s siege of 1323.⁷⁰ That these authors are referring to counterweight as opposed to traction trebuchets is not always clear from the terminology, which can be ambiguous, but it is abundantly evident from certain descriptive details and poetic conceits that figure in these accounts. Thus, in describing Malik Kāfūr’s siege of Chitor, Amir Khusrau refers at one point to the warriors of the sultanate army “placing heavy stones into the pan (*palla*) of a *maghrabi*, for except for the pan of the *maghrabi*, nothing else could measure their strength” – a clear reference to filling the counterweight container with the stone ballast that will enable it to hurl its stone balls (*guroha-i maghrabi*).⁷¹ These sources are also quite suggestive of the strategic advantage that the *maghrabi* conferred upon the sultanate’s army, repeatedly revealing that the Hindu forces had nothing more than torsion catapults (*arrāda*) to fire back at the attackers, and suggesting in graphic terms the destructive efficacy of the *maghrabi* balls against the walls of the Hindu fortresses. For example, in his *Diwal Rānī-yi Khazir Khān*, Amir Khusrau dwells on the destructive power of the *maghrabis* in Malik Kāfūr’s 1301 siege of Ranthambor: “The *maghrabis* began to strike the fort from east to west with such force that at every stroke, one of the towers threw its hat on the ground; because the stones were sent by the emperor, the fort kissed the ground as soon as they touched it . . .”⁷²

69 See, for example, the descriptions of these sieges in Muhammad Habib (trans.), *The Campaigns of ‘Alā’u’d-Dīn Khiljī*: Ranthambor (pp. 39–40), Chitor (p. 48), Siwana (pp. 53–4), Warangal (pp. 62ff.), Dorasamudra (pp. 89ff.).

70 For Khusrau khan’s 1318 siege of Warangal, see Amir Khusrau’s *Nuh Sipihr*: Muhammad Wahid Mirza (ed.), *The Nuh Sipihr of Amir Khusrau: Persian Text* (London, Oxford University Press, 1950), pp. 87ff. For Ulugh khan’s 1323 siege, see Baranī’s *Ta’rīkh-i Firūz-Shāhī*, in Elliott and Dowson (trans.), *The History of India*, vol. 3, p. 231.

71 Habib, *The Campaigns of ‘Alā’u’d-Dīn Khiljī*, p. 48. The *maghrabi* is being metaphorically likened to a balance, and its ballast container is likened to the pan (*palla*) of the balance. This metaphor would not work for describing a traction trebuchet, since it lacks such a container.

72 This excerpt from *Diwal Rānī-yi Khazir Khān* is translated by Habib in his translation of *Khazā’in al-Futūḥ* (*The Campaigns of ‘Alā’u’d-Dīn Khiljī*, pp. 41–2, note 2).

Although the fortresses of the Delhi sultanate had little to fear from Indic armies, which were slow to adopt the new counterweight trebuchet, attack by the Mongols and other forces with *maghrabis* was a constant concern during the course of the thirteenth century. Accordingly, rulers in Delhi appear to have introduced a number of improvements in the art of fortification, which reached a culmination with Sultan Ghiyāth al-Dīn Tughluq's construction of the new city of Tughluqabad between 1320 and 1325. It is indeed striking that two other new, fortified cities were established in the Delhi plain during the forty years just prior to the foundation of Tughluqabad – Shahr-i Nau at Kilukhari, started by Mu'izz al-Dīn Kai Qubād in 1286 and finished by Jalāl al-Dīn Khaljī a few years later, and Siri, built by 'Alā al-Dīn Khaljī between 1298/9 and 1300/1. This sudden spate of new building activity was likely the result of ongoing attempts to improve defensibility by incorporating new forms of fortification that were developing in response to the threat of the *maghrabi*. Although too little is preserved of the two earlier cities to prove this point, it is certainly the case at Tughluqabad, which is not only remarkably well-preserved, but has also been subjected to thorough and illuminating documentation and analysis by Mehrdad and Natalie Shokoohy.⁷³ Comparing Tughluqabad's walls with those of the earliest sultanate fortifications dating to the beginning of the thirteenth century, one detects three new features which may be understood as adaptations against *maghrabis*. First, the walls and bastions of the fort are considerably thicker than was typical in earlier practice and are now constructed of a mortared rubble masonry core reinforced with an exterior revetment of massive, tightly fitted ashlar slabs. Secondly, the lower portions of these walls are in turn protected by a *raoni* or *fausse-braye* – that is, an additional wall attached to the front of the main rampart and built of the same double-shelled construction and with a steeply battered profile. Thirdly, these fortifications are designed for active defense, providing a total of three tiers of battlements. Thus, the *raoni* rises up to an average height of about two-thirds the total height of the wall, where it ends in an open-air battlement fronted by a parapet with two rows of loopholes. Above the *raoni*, there are two further battlements in the main wall itself: one, in an enclosed gallery with loopholes, and the other, in the open *chemin de ronde* atop the wall. These multiple tiers would have provided ample locations from which

73 Mehrdad Shokoohy and Natalie H. Shokoohy, *Tughluqabad: A Paradigm for Indo-Islamic Planning and its Architectural Components*, The Society for South Asian Studies (British Academy) Monograph Series (London, Araxus Books, 2007). See pp. 3–4 for the state of the two earlier cities of Kilukhari and Siri.

archers could fire on a besieging force as it was attempting to set up its trebuchets.

New forms of gateway also developed in sultanate architecture during the thirteenth century, likewise as a defensive response to the use of *maghrabi*. Older forms of gateway, with their outer doors directly exposed to the exterior, provided a natural and vulnerable target for the *maghrabi*. In the new design, the outer wooden doors were protected behind a fortified polygonal courtyard, defined by a pair of lateral walls projecting forward from the gate's flanking bastions, and connected by a third, solid outer wall which completely screened the doors of the gate. Access to these courtyards was inevitably provided only through one of the lateral walls, leaving the outermost curtain as a solid bulwark against *maghrabi* fire. There is evidence of two such fortified courtyard gateways from thirteenth-century Delhi, but again, the best evidence of their wholesale adoption comes from Tughluqabad in the 1320s, where every gateway facing the plain takes this form.⁷⁴

Although these varied improvements to fortification were worked out in India itself, largely through a process of trial and error, it is nonetheless clear that these efforts were informed by design principles that had already been formulated elsewhere in the wider Islamic world. Indeed, since these defensive innovations were directly linked with the spreading use of the *maghrabi*, it is likely that the new principles of fortification arrived in India through some of the same channels of diffusion that brought knowledge of the counterweight trebuchet – that is, through specialists in weapons technology and military architecture who arrived in India from various places in the Middle East and Khurāsān. It is known, for example, that the architect responsible for the design of Tughluqabad was Aḥmad bin Ayaz, a *rūmi* hailing from Anatolia;⁷⁵ he may well have been responsible for introducing the type of ashlar masonry construction that was used for the revetment of the city's fortifications, as well as certain other features in the design of the battlements. But as the Shokoohys have pointed out, yet other features of the walls such as the use of the *raoni* appear to be based on Khurāsāni precedent, which is suggestive of the willingness to experiment on the part of both architect and patron.⁷⁶ As for the gateways, with their fortified courtyards and laterally placed entrances, these too have partial precedent in the Middle

74 For discussion of the design features of this type of gateway, based on the well-preserved north gate into the Tughluqabad fort, see Shokoohy and Shokoohy, *Tughluqabad*, pp. 42–9.

75 *Ibid.*, p. 24. 76 *Ibid.*, p. 32.

East, where lateral entrances begin to become the norm in Ayyubid Egypt and Syria during the thirteenth century – that is, shortly after the diffusion of the counterweight trebuchet.⁷⁷

The Indic response to sultanate military culture, thirteenth through sixteenth centuries

Although the Delhi sultanate was for a brief time able to rule most of the subcontinent, the distances between Delhi and the provinces were so vast that effective communication was next to impossible, and this led to the eventual fragmentation of the state. This process began as early as the fourteenth century in peninsular India, where local governors and *iqta*' holders began to assert their independence just decades after the Tughluqs had annexed the region. Some of these upstart states were founded by Persianate Turks and took the form of regionally based sultanates, as with the Bahmani sultanate that ruled the upper Deccan for a century and a half, or the sultanate of Ma'bar that briefly ruled in the far south for some forty years. But other break-away states were founded by Hindu warrior elites, some of whom had previously served under Delhi, and had thus pragmatically come to adopt many elements of the dominant Persianate Islamic culture. One such state was the kingdom of Vijayanagara, which dominated the peninsula below the Krishna river from the 1340s until 1565. Although largely Indic in its cultural orientation, the Vijayanagara court simultaneously embraced many practices associated with the sultanate. Thus, even though the kings of Vijayanagara primarily legitimated their authority by appealing to Hindu cults and rituals, they also assumed the title "Sultan among Hindu Kings" and adopted many Islamicate cultural forms, including systems of courtly dress and styles of architecture.⁷⁸ Vijayanagara was not the only such state; a similar pattern played out in the eastern Indian region of Orissa, as well as in Rajasthan, where many Rajput houses reasserted their independence when the sultanate further contracted during the fifteenth century.

77 See, for example, the Bab al-Nasr (1213), Bab Antakiya (1246), and Bab Qinnasrin (1256) at Aleppo; Yasser Tabbaa, *Constructions of Power and Piety in Medieval Aleppo* (University Park, Pennsylvania State University Press, 1997), figs. 5 and 7.

78 See Phillip B. Wagoner, "'Sultan among Hindu Kings': Dress, Titles, and the Islamization of Hindu Culture at Vijayanagara," *Journal of Asian Studies* 55.4 (1996), 851–80 for the titles and dress; and George Michell, *The Vijayanagara Courtly Style: Incorporation and Synthesis in the Royal Architecture of Southern India, 15th–17th Centuries* (New Delhi, Manohar and American Institute of Indian Studies, 1992) for the architecture.

In contexts such as these, the interactions between traditional Indic and sultanate military cultures could be quite complex. Especially where Hindu elites had earlier served as military commanders in the sultanate's armies, there were powerful incentives for adopting the newer forms of military culture. But at the same time, this openness to change could be countered by conservatism and inertia emanating from humbler soldiers who often remained more invested in established modes of combat. As a result, Indic states did adopt certain elements of sultanate military culture during this period, but rarely in a comprehensive manner, and there could be great variability in the elements that were selected for adoption at any given place or time.

At Vijayanagara, the process of change unfolded gradually over a period of nearly two centuries, and even at the end of this period, there were still many areas in which Vijayanagara remained militarily conservative. The first clear evidence of the process dates to the 1430s, when the ruler Devaraya II (r.1422–46) was becoming frustrated by a succession of battlefield losses to the Bahmani sultanate. According to the account of Firishta, Devaraya convened a council of his officers and advisors and asked them about the causes of Bahmani success. Some of the advisors argued that it was due to two factors:

first, that [the Bahmanis'] horses were stronger, and able to endure more fatigue than the weak animals of the Carnatic [i.e. Vijayanagara]; secondly, that a great body of excellent archers was always maintained in pay by the kings of the house of Bahmani, of whom the Raya had but few in his army.⁷⁹

Firishta continues:

Devaraya, upon [hearing] this, gave orders to enlist Muslims in his service, allotting to them estates, and erecting a mosque for their use in the city of Vijayanagara. He also commanded that no one should molest them in the exercise of their religion, and moreover, he ordered a Qur'an to be placed before his throne on a rich desk, so that the faithful might perform the ceremony of obeisance in his presence without sinning against their laws. He also made all the Hindu soldiers learn the art of archery; to which both he and his officers so applied themselves, that he could soon muster two-thousand Muslims and sixty-thousand Hindus well skilled in archery, besides eighty thousand cavalry, and two-hundred thousand infantry, armed in the usual manner with pikes and lances.⁸⁰

79 John Briggs (trans.), *History of the Rise of the Mahomedan Power in India till the Year AD 1612, Translated from the Original Persian of Mahomed Kasim Ferishta*, 2 vols. (Calcutta, Editions Indian, 1966), vol. 2, pp. 265–6.

80 *Ibid.*, pp. 265–6. Although Firishta wrote nearly 200 years after Devaraya II's reign, contemporary epigraphic and archaeological evidence indeed appears to substantiate

Although Firishta says nothing about what the king may have done to improve the quality of his horses, he does speak in detail about the measures taken to expand the numbers and skills of the archers in Vijayanagara's service. His account indicates that Devaraya hired significant numbers of Turkic mercenaries, both to serve as archers in his army and to train the Hindu soldiers in bowmanship. What further seems implied here is that at least some of these new Hindu bowmen were mounted archers, and that what was being introduced specifically was the use of the shorter composite bow and *nāwak* – although this is nowhere stated explicitly.

After thus modernizing his army, Devaraya resolved on attacking the Bahmanis in 1443, and at least in the initial stages of this campaign, the investment in modernization appears to have paid off. Crossing the Tungabhadra river, he quickly succeeded in taking the fortress of Mudgal from the Bahmanis, and despatched two subsidiary forces, led by his sons, to besiege the nearby forts of Raichur and Bankapur. When the Bahmani Sultan Ahmad Shah II received word of this large-scale offensive, he summoned the governors of his northern provinces, ordering them to come immediately with all their troops to join him in repelling the invasion. Firishta notes that three engagements took place between the two armies in the space of two months, and that in the first, Devaraya emerged victorious after inflicting heavy losses on the Bahmani troops. Although the tide turned in the second engagement, and the conflict ultimately ended with a peace treaty after the third, the campaign seems to have marked the dawn of a new era for Vijayanagara's military culture.⁸¹

By the early sixteenth century, eye-witness descriptions of Portuguese visitors are suggestive of yet other ways in which Vijayanagara had brought its military into closer conformity with the practices of its northern enemies. According to Duarte Barbosa, writing in about 1518, the king of Vijayanagara had "upwards of twenty thousand horses, each of which costs him from four to six hundred cruzados."⁸² These were largely imports from the Arabian Peninsula and the Persian Gulf, brought or diverted by the Portuguese to Goa, and then sold to Vijayanagara. Thus, by the early sixteenth century, if

his claims. For example, a distinct "Muslim Quarter" has been identified in the urban core of Vijayanagara, identifiable as such by the presence of graves, tombs, and a mosque.

81 Ibid., pp. 266–8.

82 Mansel Longworth Dames (trans.), *The Book of Duarte Barbosa: An Account of the Countries Bordering on the Indian Ocean and Their Inhabitants, Written by Duarte Barbosa and Completed about the Year 1518 AD*, repr., 2 vols. (Millwood, NY, Kraus, 1967), vol. 1, pp. 189, 210–11.

not even before, the inferior quality of Vijayanagara's horses that Devaraya's advisors had signaled a century earlier was clearly a thing of the past. There is also evidence suggesting that Vijayanagara armor was increasingly adapting to sultanate forms and styles. Domingo Paes, another Portuguese visitor to Vijayanagara and himself a horse trader, described the kingdom's cavalry in some detail (writing in about 1520), noting in particular the use of metal chamfrons to protect the heads of the horses and the use of lamellar armor and quilted headpieces to protect the rider:

The cavalry were mounted on horses fully caparisoned, and on their fore-heads plates, some of silver but most of them gilded . . . The horsemen were dressed in quilted tunics . . . [which] are made of layers of very strong raw leather, and furnished with other iron (plates) that make them strong . . . Their headpieces are in the manner of helmets with borders covering the neck, and each has its piece to protect the face; they are of the same fashion as the tunics.⁸³

Paes's description of the headpieces being "in the manner of helmets" but yet "in the same fashion as the tunics" resonates closely with several quilted helmets that Robert Elgood has convincingly attributed to sixteenth- or seventeenth-century south India. One of these headpieces, in the collection of the Metropolitan Museum of Art, is similar in shape to a contemporary Deccani steel helmet with attached neck and cheek defences of padded cloth and an adjustable steel nasal; unlike this sultanate helmet, however, the Vijayanagara headpiece is constructed entirely of thick, quilted fabric – with the sole exception of its adjustable anchor-shaped nasal which is made of steel.⁸⁴ Another headpiece, also in the Metropolitan's collection, is of similar form and construction, but the fabric is reinforced by converging steel lamellae on the crown, and the neck and cheek pieces are integrated into a single continuous hood which is covered with protective steel mail. These and other similar examples likely represent different stages in the Indic responses to sultanate varieties of steel helmets – the first, translating the new sultanate form into the familiar material of Indic quilted armor, and

83 Robert Sewell, *A Forgotten Empire, Vijayanagara: A Contribution to the History of India*, repr. (New Delhi, Government of India Ministry of Information and Broadcasting, 1962), pp. 265–6.

84 For the Metropolitan Museum of Art headpiece (no. 36.25.122), see Elgood, *Hindu Arms and Ritual*, p. 57 and plate 5.2; for the Deccani example, which is in the Furusiya Art Foundation Collection (Inv. R-823), see Mohamad, *The Arts of the Muslim Knight*, entry no. 317 on p. 330.

the second, going farther by also beginning to adopt the steel material of sultanate models.

Vijayanagara's response to sultanate military culture was not limited to the areas of technology and tactics alone. There is also evidence suggesting that Vijayanagara adopted the sultanate institution of the *iqta'*, although the military service tenures it granted are referred to not as *iqta'* but as *nayamkara*.⁸⁵ Although the terminology differs, it is clear from these sources that the *nayamkara* functioned in a manner that was strikingly similar to the *iqta'*. Most fundamentally, the *nayamkara* was, just like the *iqta'*, an assignment of territory (*sīma*) together with the right to collect land revenue, in return for which the holder was obliged to serve the state by providing a prescribed number of well-trained and well-equipped troops under his command.⁸⁶ As with the *iqta'*, the proper functioning of the *nayamkara* depended on the keeping of precise records by the state, using written registers to record the specific details of each assignment, relating both to its territorial definition and to the numbers of troops required of its holder. Like an *iqta'*dar, a *nayamkara* holder was expected to take responsibility for governing within his territory, but his tenure was always at the pleasure of his ruler, and his assignment was subject to revocation and regrant without notice. Finally, just as the *iqta'* was conceived in terms of a central fort together with its surrounding territory, so too was the *nayamkara*, and accordingly, both were often referred to as districts named after their central fort – as, for example, with “the *iqta'* of Sagar,” or “Gandikota-sima.” The two institutions are so similar in conception and operation (and just as importantly, the *nayamkara* system is so dissimilar from previous south Indian forms of land tenure) that we may reasonably conclude the *nayamkara* to be an Indic adaptation of the *iqta'*. Not only would the *nayamkara* have contributed to the efficiency with which land revenue could be extracted and converted into well-trained military units, but also, it would have facilitated the incorporation of any territories newly conquered from the Bahmanis or

85 It is generally assumed that the word *nayamkara* is Sanskrit in origin and derives from *nayaka* “commander” compounded with *kara*, in the sense of “office,” with the resultant meaning of something akin to a “commandery” (Stein, *Peasant State and Society*, p. 397).

86 Perhaps the most detailed indigenous account of the working of the system is presented in passing in a late sixteenth-century Telugu history of Vijayanagara, the *Rayavācakamu*. See the translation and discussion of this passage in Phillip B. Wagoner, *Tidings of the King: A Translation and Ethnohistorical Analysis of the Rāyavācakamu* (Honolulu, University of Hawai'i Press, 1993), pp. 100–7, and pp. 198–200.

their successors, since the occupying Vijayanagara force could simply tap into administrative arrangements that were already in place.

While south Indian engagement with sultanate military culture was especially far-reaching in the Vijayanagara period, we should note that the process actually appears to have begun before Vijayanagara's founding – and for that matter, even before Delhi began expanding into the peninsula in 1296. Thus, in the Kakatiya kingdom of the northeastern Deccan, epigraphic and archaeological evidence indicates that certain changes were underway as early as the reign of Rudramadevi (1262–89). It is under Rudramadevi that *nayamkara* tenure makes its first tentative appearance in the epigraphic record, apparently being used to empower a new class of military commanders who supported the state when the established nobility rebelled.⁸⁷ Similarly, a mid-sixteenth-century Telugu historical text credits Rudramadevi with improving the fortifications of Warangal by constructing the four main gateways in the city's inner stone wall.⁸⁸ These gateways were built with protective outer courtyards and entrances only in the side walls⁸⁹ – a plan remarkably similar to that being developed contemporaneously in Delhi as protection against Mongol trebuchets. If changes such as these were indeed stimulated by a knowledge of contemporary sultanate practice, then this knowledge must have been gained indirectly, through intelligence reports, diplomatic exchanges, and possibly even mercenary hires occurring long before Khalji expansion into the region.

This pre-conquest phase of military adjustment appears to have extended even to the southern Deccan. Through his analysis of sculptural friezes depicting military processions, Jean Deloche has called attention to certain far-reaching changes in cavalry technology that begin to appear in the Hoysala kingdom in the second half of the thirteenth century. Specifically, Deloche has documented the appearance of a new array of equipment used in cavalry warfare, including an integrated complement of stirrups, horseshoes, horse armor, and most importantly, the high saddle built on a tree, with its pronounced pommel and cantle.⁹⁰ This is of course the mounting system favored by the Delhi sultanate (although Deloche is oddly silent about this

87 See Cynthia Talbot, "Political Intermediaries in Kakatiya Andhra: 1175–1325," *Indian Economic and Social History Review* 31 (1994), 261–89.

88 C. V. Ramachandra Rao (ed.), *Ekāmrānāthuni Pratāparudra Caritramu* (Hyderabad, Andhra Pradesh Sahitya Akademi, 1984), p. 34.

89 George Michell, "City as Cosmogram: The Circular Plan of Warangal," *South Asian Studies* 8 (1992), fig. 6.

90 See Jean Deloche, *Military Technology in Hoysala Sculpture, Twelfth and Thirteenth Century* (New Delhi, Sitaram Bhartia Institute of Scientific Research, 1989).

point), and accordingly, its appearance in the southern Deccan during the latter half of the thirteenth century must represent one of the first documented instances of its adaptation by local Indic elites. However, given the Hoysala kingdom's even greater remove from Delhi, it seems plausible that the new equipment might have been introduced not by an overland route from northern India but, rather, by sea from the Middle East. Perhaps the Arab and Persian merchants who supplied warhorses to ports on the Hoysalas' Kanara coast were in the business of supplying saddles and harnesses as well.⁹¹

The introduction of gunpowder artillery to India

A final theme that must briefly be addressed is the introduction of gunpowder weaponry to India, a process which clearly begins during the period covered here. While there is a general consensus that gunpowder-based incendiary devices were introduced as early as the thirteenth century,⁹² the questions of when cannons were first introduced, and from what specific sources beyond India, are still subject to debate. In part, this is due to the ambiguity of the terminology employed in the literary sources, and in part, it is due to the general neglect of the material evidence afforded by surviving specimens of actual ordnance.

Iqtidar Alam Khan has argued that cannons were introduced as early as the second half of the fifteenth century. He argues that these early cannon – most often referred to in the sources as “lightning” or “lightning bows” (*ra'd* or *kaman-i ra'd*) – were introduced from Timurid Central Asia and were generally made from cast bronze, brass, or other copper alloys. According to the testimony of contemporary fifteenth-century sources, such *kaman-i ra'd* seem to have been used primarily in siege operations, both offensively and defensively, but were not yet employed in open battle.⁹³ Jos Gommans, on

91 An inscription dated to 1188 CE mentions the merchant Chatti Setti, who “imported horses, elephants, and pearls in ships by sea, and sold them to kings.” See B. Lewis Rice, *Epigraphia Carnatica*, vol. 5(1): *Inscriptions in the Hassan District* (Mangalore, Basel Mission Press, 1902), Arsikere 22, p. 119, and the discussion in Daud Ali, “Between Market and Court: The Careers of Two Courtier-Merchants in the Twelfth-Century Deccan,” *Journal of the Economic and Social History of the Orient* 53.1 (2010), 185–211.

92 According to Iqtidar Alam Khan, *Gunpowder and Firearms: Warfare in Medieval India* (Delhi, Oxford University Press, 2004), pp. 17–40, this was in the context of the thirteenth-century Mongol invasions, as Mongol deserters who were experts in pyrotechnics (*atishbazi*) introduced a variety of incendiary devices that were then taken up for use by the Delhi sultanate.

93 Khan, *Gunpowder and Firearms*, pp. 41–52.

the other hand, has questioned Khan's interpretation of *kaman-i ra'd*, suggesting that the term more likely refers to "some kind of cross-bow shooting fire-arrows (*tir-i atish*)," and concludes that there is no unequivocal evidence of true guns being used in India before the early sixteenth century, when they were introduced from western Eurasia.⁹⁴ Certainly, literary evidence shows that both Ottoman and Portuguese traditions of gunfoundry had been introduced to peninsular India by 1509, largely as an unintended consequence of the Portuguese defeat of a combined Mamlūk-Ottoman naval force off of Diu in that year.⁹⁵ Several Ottoman gunners who were with this expeditionary force took refuge in Goa, then under control of the 'Adil Shahi Sultan, where they were put to work in a new shipyard and arsenal manufacturing both iron and bronze cannon.⁹⁶ Portuguese designs and methods of manufacture appear to have been introduced more indirectly, via an assortment of captured Portuguese cannons held in the Goa arsenal that served as models for local craftsmen.⁹⁷

The material testimony provided by surviving cannons corroborates this written evidence, and attests to the significant impact immigrant gunfounders and imported guns had on the production of ordnance in South India. It so happens that the two earliest dated cannons preserved in the Deccan are both made by an immigrant Ottoman gunfounder, Ustad Muḥammad bin Husain Rūmi, who worked in the employ of the Nizam Shahi sultanate of Ahmadnagar. One of these guns, dated 950/1543, sits atop the northeastern bastion of the fort at Ausa; the other (a bombard) is the celebrated "Malik-i Maidan," made in Ahmadnagar in 956/1549 but now located at Bijapur. The impact of Portuguese designs is also clearly apparent, especially in the local adaptation of the *berço*, a type of small breech-loading swivel gun that was commonly mounted on the gunwales of Portuguese ships.⁹⁸ Gaspar Correia

94 Jos Gommans, *Mughal Warfare: Indian Frontiers and High Roads to Empire, 1500–1700* (London, Routledge, 2002), p. 229 (n. 52), and pp. 147–8.

95 Palmira Brummett, *Ottoman Seapower and Levantine Diplomacy in the Age of Discovery* (Albany, State University of New York Press, 1994), pp. 111–15.

96 This information is provided by Duarte Barbosa. See Dames (trans.), *The Book of Duarte Barbosa*, vol. 1, pp. 175–7; and also the discussion in Richard M. Eaton, "'Kiss My Foot,' Said the King: Firearms, Diplomacy, and the Battle for Raichur, 1520," *Modern Asian Studies* 43.1 (2009), 289–313, 297–9.

97 Thus, Gaspar Correia writes that at the time of the Portuguese conquest of Goa (1510) there were "two of our camel cannons (*camelos*) and eight cradles (*berços*) and mortars which the Turks had brought from the defeat of Dom Lourenço at Chaul [in 1508]." Rainer Daehnhardt, *Espingarda Feiticeira: A Introdução da Arma de Fogo pelos Portugueses no Extremo-Oriente* [The Bewitched Gun: The Introduction of the Firearm in the Far East by the Portuguese] (Lisbon, Texto Editora, 1994), p. 37.

98 Judging both from excavated shipwrecks and from a 1525 gun-list from Portuguese India, it appears that *berços* were widely used as light weapons on Portuguese ships. See

notes that there were eight Portuguese *berços* in the Goa arsenal in 1510,⁹⁹ and Indian-made adaptations of Portuguese-style *berços* may be seen today in the fort at Ausa, in the archaeological museum at Bijapur, and at other sites. Comparative evidence suggests that these were the guns known as *firangi* or *firingi* in sixteenth-century Indian sources.¹⁰⁰ More importantly, the swivel mounting system of the *berço* inspired an important series of design innovations in the mounting of cannons in the 'Adil Shahi realm, as its swivel fork was adapted to the mounting of full-sized cannons atop the bastions of forts. This would in turn lead to a series of far-reaching changes in the design of fortifications by the 1560s.¹⁰¹

While it is thus certain that gunpowder artillery was present in India from the opening decade of the sixteenth century, it is at least possible that the new weaponry might have been introduced still earlier, as Khan suggests, in the second half of the fifteenth century. He identifies Timurid Central Asia as the likely source of introduction for northern India, but in the south, the fifteenth century may also have seen the introduction of cannon by sea from the Middle East, since states in peninsular India maintained diplomatic relations with both the Mamlūks and the Ottomans. Richard Eaton has recently called attention to tantalizing evidence suggesting that cannon were already being used and manufactured along the western coast of the peninsula, even before Portuguese power was established in the region. Thus, Gaspar Correia reports that as early as 1502, Portuguese ships were bombarded from a hilltop overlooking the port of Bhatkal.¹⁰² It might well be argued that the ordnance so used had been captured from the Portuguese in

Joe J. Simmons III, "Wrought-Iron Ordnance: Revealing Discoveries from the New World," *The International Journal of Nautical Archaeology and Underwater Exploration* 17.1 (1988), 25–34; and Donald H. Keith, "Shipwrecks of the Explorers," in George F. Bass (ed.), *Ships and Shipwrecks of the Americas* (New York, Thames and Hudson, 1996), pp. 45–68. For the gun-list, see Richard Barker, "A Gun-List from Portuguese India, 1525," *Journal of the Ordnance Society* 8 (1996), 53–6.

⁹⁹ See Daehnhardt, *Espingarda Feiticeira*.

¹⁰⁰ The term *firangi* or "Frankish" refers to their Western European origins. Interestingly, these guns were also introduced to China in the early sixteenth century, where they were also copied, and referred to as "Frankish" (*folangji* in Chinese). See Joseph Needham et al., *Science and Civilisation in China*, vol. 5(7): *Chemistry and Chemical Technology: Military Technology; the Gunpowder Epic* (Cambridge, Cambridge University Press, 1986), pp. 367–76.

¹⁰¹ See Richard M. Eaton and Phillip B. Wagoner, *Power, Memory, and Architecture: Contested Sites on India's Deccan Plateau, 1300–1600* (New Delhi, Oxford University Press, 2014); Eaton and Wagoner, "Warfare on the Deccan Plateau," and Phillip B. Wagoner, "Firearms, Fortifications, and a 'Military Revolution' in the Sixteenth-Century Deccan," unpublished paper presented in the seminar "Islamic India in Transition: The Sixteenth Century," University of Pennsylvania, March 17, 2007.

¹⁰² Eaton, "Kiss My Foot," p. 297.

some earlier engagement, but given both the short time elapsed (just four years after the arrival of Vasco da Gama) and the documented existence of diplomatic and trade relations between southern India and the Mamlūk and Ottoman states, it is equally plausible that the weapons might have been introduced from one or both of these sources in the latter half of the fifteenth century, a generation or two before the arrival of the Portuguese.¹⁰³

Early Portuguese references to matchlocks would seem to further support such a possibility. In December of 1513, Afonso de Albuquerque wrote to King Manuel I about the master gunsmiths who had previously worked for the ‘Adil Shahis in Goa, saying that they “make [matchlocks] as good as the Bohemians,” invoking the standard of excellence in contemporary European matchlock design. This suggests the presence of a well-established and sophisticated industry of matchlock production on south India’s western coast, which, according to Rainer Daehnhardt’s analysis of technical design features, would have been based on a fifteenth-century Ottoman tradition. Although these gunsmiths had fled the city after the Portuguese conquest in 1510, Albuquerque wrote that they had now returned, “becoming our masters in artillery and the making of cannons and guns, which they make of iron here in Goa and are better than the German ones.”¹⁰⁴

By 1520, the use of cannon had spread beyond the coast to the interior, where several hundred cannon were used during the battle for Raichur, fought by the forces of Ismā‘īl ‘Adil Shah (1510–34) against the invading forces of Vijayanagara under Krishnaraya (1509–29). Ismā‘īl employed cannon both in a field battle fought against the Vijayanagara army on the southern bank of the Krishna river, and in defending the fort of Raichur against the Vijayanagara army. We learn from Fernão Nunes, who appears to have been an eyewitness to the siege, that the defenders had some 200 cannons placed atop the curtain walls of the fort, but that they were completely ineffectual in repelling the Vijayanagara forces who proceeded to dismantle the wall with crowbars and pickaxes. According to Nunes, the reason for the ineffectiveness of Bijapur’s cannons was that they had been placed atop the

103 During the reign of the Bahmani sultan Muḥammad Shah III (1463–82), the vazir Maḥmūd Gawan initiated diplomatic and trade relations with the Ottomans; see Shai Har-El, *Struggle for Domination in the Middle East: The Ottoman–Mamluk War, 1485–91* (Leiden, E. J. Brill, 1995), p. 113. Given that the earliest known reference to the use of cannon in the Deccan (if Iqtidar Alam Khan’s interpretation of *kaman-i ra’ad* is indeed correct) occurs in the context of the Bahmani siege of Belgaum in 1473, under the direction of Maḥmūd Gawan (Khan, *Gunpowder and Firearms*, p. 46), these cannon might well have been supplied by the Ottomans.

104 Daehnhardt, *Espingarda Feiteira*, pp. 38–9.

curtain walls, as opposed to on the projecting bastions, which he notes were occupied by the familiar trebuchets. As a result, it was impossible for the cannon to produce flanking fire to cover the area in front of the walls, and they contributed little to Bijapur's ability to defend the fort. Although the 'Adil Shahis lost this battle and had to surrender the fort, they clearly took this lesson to heart, as they embarked on a series of experiments involving the mounting of cannons and the design of fortifications, which, by the latter half of the sixteenth century, would make their fortifications almost unassailable.¹⁰⁵

¹⁰⁵ Wagoner, "Firearms, Fortifications, and a 'Military Revolution'"; Eaton and Wagoner, *Power, Memory, and Architecture*; and Eaton and Wagoner, "Warfare on the Deccan Plateau."

Southeast Asia, 1300–1540

MICHAEL W. CHARNEY

The end of the thirteenth century and the early decades of the fourteenth century witnessed the end of Southeast Asia's classical period, that age when the empires of Pagan (Burma), Angkor (Cambodia), Dai Viet (northern Vietnam), and Sri Vijaya (in the Malay Archipelago) thrived and introduced the region's religions, political models, and cultural standards. The thirteenth-century invasions of Mongol armies coming out of Yuan China encouraged, but did not cause, the collapse of most of these states, although changes in the application of the Chinese tribute system may have played a substantial role in the fall of Sri Vijaya. On the mainland, however, Mongol intervention was merely disruptive and did not represent meaningful conquest. Instead, administrative weaknesses and trade dislocation contributed to political fragmentation followed by internecine war among the myriad successor states. This fighting would only end with the reemergence of large-scale empires from the middle to the end of the sixteenth century. The period between 1300 and 1540 thus represented a phase of near constant warfare, due both to the multiplicity of competing polities and the administrative weaknesses that worked against sustained political centralization. By the end of the period, the formation of new empires established the political terrain for warfare in the centuries to come.

Compared to many other areas of the world, Southeast Asia's history during the fourteenth to sixteenth centuries is obscured by the poor availability of direct source material. We have inherited few contemporary insights into how war was fought, beyond temple inscriptions (which do not shed much light on the topic) and temple murals from which weaponry, war animals, and clothing can be identified. Historical records of a relatively recent vintage, such as chronicles and the occasional royal order, permit reconstruction of past political developments and state warfare at a general level. The discussions of battles and tactics in these sources, however, are generally apocryphal and reflect more the world of the writers in, say, the

eighteenth and nineteenth centuries than the world of the centuries under examination here.

Differences in the ecology of war – the availability and type of natural resources, the scale and patterns of human settlement, the degree of political centralization, and accessibility to war animals – meant differences not only in how war was fought, but what warfare meant to local society. Before European encroachment and for long into the colonial period Southeast Asia was divided into two state types. There were the large-scale, lowland states of Java and the Southeast Asian mainland. On their periphery were the tiny states of highland areas of the mainland and the rough topography of much of the large Malay Archipelago, with the exception of much of Java and a few other political centers that dotted the main trade routes.

Among the more heavily populated lowland states of Ava (upper Burma), Pegu (lower Burma), Dai Viet, Sukothai (Thailand), and Angkor, warfare was on a larger scale and fought in a manner that would have been recognizable to contemporaries from other regions. These states could easily muster armies numbering in the tens of thousands. By the early sixteenth century, larger states, such as Sukothai's successor, Ayudhya, sported armies numbering over 100,000 combatants or more. Although ritual played a role in warfare among the states, this was not ritualized combat as in much of the archipelago. Instead, one waged war to defeat rivals and forge larger-scale empires. This effort ultimately resulted, in the mid sixteenth century, in the largest empire in the history of the mainland, when a Burmese dynasty ruled a kingdom stretching from the Bay of Bengal in the west to the Mekong river in the east.

Even so, administrative organs designed to hold these huge entities together were poorly developed and, in most cases, a ruler would depend upon a brother or an uncle to control each major population center. As these men would have their own courts, armies, resources, and claims to royal legitimacy, political succession struggles at the court continually led to the collapse of these empires and renewed warfare. Even during a sovereign's tenure on the throne, direct political control was only possible at the centre, while on the periphery, indirect control depended upon the ability of the central ruler to command armies sufficient to hold the throne and dispatch meaningful punitive missions. Thus, most central rulers were continually at war holding the kingdom together.

By contrast, much of the archipelago and the highland areas of mainland Southeast Asia were subject to geographical constraints that prevented polities of scale, cultural homogenization, and the development of trans-



MAP 13. Southeast Asian states and empires, c.1300 to c.1500

local orientations regarding warfare. In such areas, warfare was generally waged between rival villages, or constellations of villages, over generations, even centuries. The constraints on the availability of surplus and the predominant belief in animist spirits contributed to the ritualized nature of

warfare. Fighting generally occurred for the purposes of accumulating spiritual power from the enemy, in the process both reducing the demands of the rival village population on local resources and providing the means of demonstrating manhood and winning a reproductive mate. The victors would take the heads of their fallen enemy as proof of the kill, as the vehicle for concentrations of spiritual power, and as a ritual object they would place in their own village's ancestor shrine. In this kind of warfare, the battle bridged both human and spiritual worlds; ancestral spirits participating in the fighting and were thus in need of propitiation. Such warfare, known as headhunting, involved the eating of human flesh and the gift of the head to the village shrine, so that the ancestral spirits could also partake in the consumption of the flesh of the defeated enemy.

Highland Southeast Asia and much of the Malay Archipelago afforded more opportunities for female participation in warfare. Although lowland Southeast Asia was not without its Joan of Arcs (on several occasions, female members of the nobility climbed atop elephants to lead armies into battle), this was not a common occurrence. The highly ritualized nature of warfare outside of the lowlands, however, meant that armies did not go into battle, societies did. Hence, faithful ritual observances by women back home, such as not committing adultery on an absent warrior, had a positive spiritual impact on the outcome of the fighting far away.

Large sea battles were uncommon among mainland states, even coastal ones, until the sixteenth century, when larger empires and broader coasts made ocean-going fleets a necessity. Nevertheless, there are some clear exceptions, one being the kingdom of Arakan in western Burma, which developed a powerful sea-going fleet from the late fifteenth century which, about a century later, allowed it to control the mainland's coasts from Dacca to Martaban. Some maritime states during this period, such as Sri Vijaya and Melaka that followed, also based their strength on the stability of trade and the suppression of piracy. The solution was partly diplomatic, tying potential competitors to the center through marriage and through the attraction of participating in the center's rich trade, but also partly military, drawing potential pirates among seafaring peoples in the area into the service of the state. Ultimately, the Portuguese victory at Melaka in 1511 broke up this unifying force in the Malay Archipelago and introduced strong, cannon-armed European warships that devastated maritime fleets at sea, although European naval hegemony would not be asserted on the mainland's river systems until the nineteenth century.

Naval battles on rivers were different from those fought out at sea and were more common in Southeast Asia before the sixteenth century. While the battle at sea would take place between galleys of various sizes with room for maneuver and flight, the constraints of even the widest rivers meant that flight and maneuver were not easy options. What made the two possible were innovations in hull design that allowed for Southeast Asian river boats, possessing solid hulls carved out of a single log, to be rowed both backwards and forwards with equal ease and precision. Southeast Asian riverboats were thus double-ended.

One of the advantages of building small, solid-hulled craft was that they were very shallow-draft and thus were able to transit the shallows with greater ease and make use of networks of small creeks, such as those that dominate deltaic areas. Indeed, when European shipping did begin to attempt to penetrate rivers, they found themselves easily trapped in the narrows and shallows, unable to maneuver, and subject to assault by the crews of fast-moving riverboats. The Europeans would be unable to assert supremacy on at least the mainland's river systems until the introduction of the steamship.

River and coastal fleets provided transport for land armies, but also served in combat in their own right and even lent support to land campaigns and sieges. Before the introduction of firearms, crews would fire volleys of arrows at one another or rush the enemy and grapple themselves to their own boat to commence hand-to-hand fighting. Firearms did not change this, although they provided new ways to destroy an enemy before contact. The solid hull of river boats allowed the fitting of the muzzle of a small cannon through an orifice cut into either prow, leveling the barrel a few feet above the waterline. One of the most effective uses of river and coastal fleets, however, was to choke off supplies to besieged towns, thus encouraging starvation and eventually surrender, as King Rajadhirat (c.1348–1421) of Pegu nearly succeeded in doing at Prome in 1401.¹

Technological innovations imported from outside of the region were partly responsible for the ability of some lowland states to erect larger states, although the timing and direction remain the subjects of controversy. There is some evidence that rudimentary Chinese firearms filtered into Southeast Asia prior to the introduction of European guns, although some scholarship suggests that Indian-made firearms preceded those of both the Chinese and

1 Jon Fernquest, "Rajadhirat's Mask of Command: Military Leadership in Burma (c.1348–1421)," *SOAS Bulletin of Burma Research* 4.1 (2006), 11.

the Europeans. Suggestions that firearms entered the region overland from China are poorly documented. In either case, when the Portuguese first arrived at Melaka on the western coast of the Malay Peninsula in 1509, they reportedly encountered an array of 8,000 cannon. Conventionally, scholars partly attribute the Portuguese victory over Melaka in 1511 to the hesitance of the sultanate's defenders to risk hitting Asian merchant ships in the harbor by firing back at the Portuguese fleet just outside the port. Nevertheless, the Portuguese victory indicates that the local assembly of guns was of little military worth. Melaka became the first base of European power that would grow over the next few centuries to encompass most of the region. This expansion, of course, was in large part due to the superiority of European warfare technology.

The impact of firearms on lowland warfare was limited at first. The pre-European guns were in practice useful for little more than pounding fortress walls with little accuracy or frightening any enemy without such weapons, but this impact would have worn off quickly. Throughout the region, however, guns, especially big guns, took on a spiritual importance, and were propitiated and called upon to defend cities against attack. In the sixteenth century, more technologically advanced European cannon led Chinese gunsmiths to abandon Chinese gun-making skill in favor of copying that of the Portuguese. For Southeast Asia, as in China, such Western firearms presented such a huge leap, in the areas of both impact and accuracy, that any army that carried them easily swept aside their enemies, especially those in the interior, far from the coasts and maritime access to the guns. Along with firearms came European or Muslim mercenaries, who could provide training to local musketeers or handle the guns in battle themselves. Soon, all major lowland states maintained arsenals of tens of thousands of the new European muskets and cannon.

Even to the end of the sixteenth century, however, firearms were still not effective enough to alter the fundamental character of battle, while admittedly giving some advantages to armies possessing them. After guns became more widespread, the possession of them by opposing armies tended to nullify these advantages. Furthermore, the firearms of this period were heavy and clumsy, requiring the use of a tripod, and in a wet, tropical environment, the gunpowder invariably became wet and useless in battle. When much fighting focused on fast-moving infantry and even faster elephants and horses moving about in jungle growth with few opportunities for a clear line of sight, firearms were of little use. Their relevance grew with

siege warfare, but still, in the sixteenth century, the technological limits were significant.

The pre-seventeenth century was the heyday of the elephant in Southeast Asian warfare. Although increasingly accurate and mobile firearms in later centuries would force elephants from the field of battle and into support roles, during the centuries under examination here they remained the superior mount relative to horses. One cannot easily domesticate the huge African elephant. By contrast, the smaller Indian or Southeast Asian elephant can be easily trained in warfare. Throughout mainland Southeast Asia and large parts of the island world (mainly Java and Sumatra), armies made use of the elephant. Large and capable of traveling over seemingly impossible terrain, the elephant was especially well suited to combat in the region.

The method of catching elephants had a dual purpose during these centuries. Southeast Asians caught elephants in the wild, usually in well-forested hill tracts far from lowland population centers. Elephant hunting, in which the hunters would themselves ride elephant mounts, was an important part of court life, for participation in the hunt provided training to court nobles in how to handle an elephant in battle, what the animal's limitations were, and how to work in a mobile, tense setting as a group. Royalty



FIGURE 3. Khmer army on the march, depicted on Bayon, Angkor Wat. Photograph © 2012 Michael Charney.

participating in elephant hunting was very common. Not all elephant hunting was directed to capturing elephants for war purposes, however, for often the hunt was directed to capturing the occasional white elephant which had a special symbolic importance and would be pursued for enhancing royal legitimacy and prowess.

The fourteenth to early sixteenth centuries saw the elephant take on a glorious role as the mount of champions. Certainly, in at least one case, the kings of opposing armies decided the fate of the battle by fighting in single combat on elephants,² but in battles generally, elephants were the mounts of choice of noble warriors. As armies crossed the field, the horizons would be dotted with the elevated warriors on elephant and they would seek to engage similarly mounted nobles among the enemy. Elephant tusks added striking power to elevation, and some riders even attached metal balls to chains tied to tusks to usher death to the opposing infantry the elephant would have to bolt through. Ultimately, however, the age of the firearm brought the glory of fighting elephant-back to an end, for the elephant was too easily frightened by guns and too easy a target.

Fighting on elephant back was not a one-man proposition. A noble rider's main duty was to fight, and he could not manage the elephant at the same time. Instead, the elephant *mahout* or driver would accompany him as well as, perhaps, another man to help the noble rider arm himself with different weapons as the necessities of the fighting required. An elephant could also be equipped to support substantial contingents of common soldiery, usually archers and later musketeers. This was achieved by mounting a castle, and this, depending upon the size and strength of the animal, could support anywhere from five to fifteen warriors. The elevation so achieved provided a commanding view of the battle and an enviable line of sight allowing the mounted archers (and later, musketeers) to wreak havoc among the enemy below.

The Burmese demonstrated the elephant's advantages over the horse against Mongol cavalry among the Yuan army sent against Burma at the battle of Vochang in c.1277 described by Marco Polo. Certainly, the Chinese had once had elephants, but these had become extinct in earlier centuries, the

2 According to the Jesuit missionary Father Nicolas Pimenta, in the mid 1590s King Nandabayin (r.1581–99) of Pegu fought "against his Uncle [the ruler of Ava], and . . . offered him single Combate upon an Elephant, the survivor to possesse the Scepter. In this Combat, the King of Pegu slew his Uncle of Ava." Nicolas Pimenta, "Jesuit Letters on Pegu in the Early Seventeenth Century," *SOAS Bulletin of Burma Research* 2.2 (Autumn 2004), 184.

likely victims of the pursuit of ivory for Chinese medicinal cures. The Mongols, whose cavalry defeated Song armies, thus gained no elephant corps when they seized control of China and established the Yuan dynasty in the thirteenth century. They were very much unprepared and surprised by the elephant force dispatched against them when they forged their way towards Burma. Terrified Mongol horses would not stand against the Burmese elephant lines. However, the Mongols also revealed a fundamental weakness of the elephant – the fact that when terrified the animals could wreak as much havoc on their own side as on the enemy. As Mongol archers hit the beasts, they destroyed their castles by beating them on trees and turned round about, charging through the ranks of the Burmese. The Burmese suffered a terrible defeat.

One drawback of the elephant was that it could go unpredictably into *musth*. Male elephants leak a substance from their head known as *musth* during this “hot” stage of the urge to procreate. A male animal in *musth* is extremely volatile and difficult to control. Although Southeast Asians did intoxicate their elephants on occasion to encourage aggression and feelings of invulnerability, such attempts had the potential to hurt one’s own side as much as that of the enemy. In one fifteenth-century siege, the defenders of Ava dispatched a drunken elephant against the Shan army outside only to have the elephant turn around and destroy the largely bamboo buildings of the town itself. Perhaps because of the potential for males to *musth*, many noble riders preferred to mount more reliable and safer female elephants. When Southeast Asians weighed the problem of *musthing* with the elephant’s tendency to be frightened of the sound of firearms and the increasing accuracy of these firearms relative to the bulky elephant, the elephant’s value on the field of battle declined.

In large part because of the elephant and the absence of pitched field battles in wide open areas (see below), cavalry was less useful in Southeast Asian warfare than elsewhere, particularly in Europe. Another factor was that Southeast Asian horses are much smaller than their Arabian counterparts, more comparable to Shetland ponies than to the great Arabian breeds. Short and stocky, they were good for carrying loads and crossing through difficult terrain, but not effective for sweeping infantry, whom the mounted cavalry would face, quite literally eye-to-eye, off the field. Instead, cavalry had more utility as a mobile force a commander could dispatch quickly, to do much of the fighting on foot, making them actually mounted infantry.

Maintaining supplies of horses for cavalry was more difficult for some states than for others, due to geographical and climatological constraints. Deltaic areas, such as those of the coastal mainland and much of the

archipelago, proved to be detrimental to the health of horses, and states based in these areas were in constant need of new supplies, while interior states such as Ava or Luang Prabang (Laos), were able to maintain sizeable stocks with few problems. Interior polities thus became suppliers for coastal buyers and targets for coastal states seeking supplies that were more regular.

Due to the low population to land ratio in the region and hence the often vast distances between political centers, maintaining supply lines during a campaign was difficult. Water buffalo and cattle pulling carts provided the chief means of transportation. For security against wild predators and enemy scouts alike, they moved in long caravans at such a slow speed that in any given caravan a number of drivers were often asleep, their unsupervised animal following the cart in front. Unlike in the West, the two-wheeled cart would hold a monopoly on wheeled carriage until Europeans introduced the sturdier four-wheeled wagon during the wars of colonial conquest in the nineteenth century.

Southeast Asian armies did engage in field battles on occasion. These were not as common as in the West and they usually occurred when armies crossed each other on their way to somewhere else. Because of topography and a lower people-to-land ratio that made widely cast field formations impossible, most warfare concentrated either on river battles between war boats, as discussed above, or sieges of fortified positions on land.



FIGURE 4. Khmer army in battle, depicted on Bayon, Angkor Wat. Photograph © 2012 Michael Charney.

Most land-based warfare in Southeast Asia during these few centuries focused on the building of fortifications, the collection of supplies, and the manning of walls, on the one hand, and the mining of fortifications, the burning of fields, and assaults on men defending the walls, on the other. The siege was the main arena for land warfare and could last years, as in the case of the Prome-Toungoo-Arakan siege of Pegu in the late 1590s. The length of the siege thus afforded the defender ample opportunities to launch counterattacks, and in preparation for these a besieging army would erect its own defense works. Nevertheless, these latter structures would usually serve as only temporary defenses to prevent a surprise assault and not for sustained defense. Mon commanders at Prome in 1401 (and presumably earlier at Hmawbi as well in 1386), for example, deemed questionable the worthiness of hastily built bamboo structures, especially by comparison with the more solid, permanent defenses of the besieged town, and chose not to defend them.³

Between 1300 and 1540, fortifications underwent substantial change in the region. As Southeast Asians shifted from building in stone to building in brick, fortifications followed suit in major towns. In smaller towns or in cases of hastily constructed field fortifications, bamboo or other materials would be used to build forts, although these could become quite substantial. Villages in Southeast Asia typically surrounded themselves with bamboo walls and thorn-bush barricades, perhaps partly to fend off wild animals, but primarily to provide rudimentary defenses against possible attacks by their neighbors or bandits. Although Southeast Asian fortifications were very effective in their environmental and combat context, they were not comparable to the complex fortifications of Europe or the thick, stone walls of Japan of the time.

There is some debate among historians concerning whether or not Southeast Asians avoided bloodshed as a consequence of living in a low population density region in which life was thus considered to be more valuable, at least as labor inputs. Due to subregional specializations and thus different evidence mustered about particular areas, suggestions about region-wide patterns have proven to be dubious.⁴ Most scholars have abandoned the avoidance-of-bloodshed thesis for the region as a whole, especially for the period after the introduction of better firearms and thus the easy increase in the scale of killing. During this later phase of Southeast Asian statecraft, larger states were not after momentary, symbolic victories, but

3 Fernquest, "Rajadhirat's Mask of Command," pp. 7, 11.

4 Michael W. Charney, *Southeast Asian Warfare, 1300–1900* (Leiden, Brill, 2004), pp. 17–21.

real conquest of land and people and not more easily abandoned stakes. Moreover, even outside of the lowlands, killing was an important part of headhunting and other ritualized warfare. Nevertheless, in some areas of the Malay world, tendencies to spare life when possible or to flee rather than fight may have played a more important role than in lowland areas.⁵

Southeast Asia was subject to waves of external influence in the premodern period. Chinese rule was extended over Vietnam around the beginning of the first millennium CE and lasted for about 1,000 years, exerting a Sinic influence over Vietnam, bolstered by reconquest in the early fifteenth century, that helped foster fundamental differences between Vietnamese culture and warfare and those of other areas of Southeast Asia. Vietnam, it should be stressed, at this time referred only to the far northern sections of the country as it is known today, and much of what today is Vietnam was under the then Indian-influenced state of Champa, whose warfare, like its society, was much more Southeast Asian than that of its Sinified Vietnamese counterparts to the north. It was during the struggles between these two states that Vietnamese civilization's Southeast Asian features became stronger, an influence that grew as Vietnamese moved in increasing numbers to the southern frontier, a frontier that itself was constantly being pushed further south.

The rest of the region, until the end of the classical period in the fourteenth to fifteenth centuries, was subject to influence from India. Scholars debate the method of the cultural influence, whether it was drawn in by Southeast Asian rulers of polities sufficiently sophisticated on their own terms to make use of foreign models or if Brahmanic priests or Kshatriya warriors introduced it. Regardless, the result was the same: Indian epics, terminologies, and models of warfare all helped influence representations of warfare in texts and court rituals, if not on the actual battlefield.

One Indian model adopted by Southeast Asian courts and chroniclers in symbolic arrangements of armies and relations of the exploits of these armies in court histories was the standard division of the army into four "wings" or corps, including infantry, elephanteers, cavalry, and chariots. Chariots, although mobilized on occasion for court ritual, were not a feature of actual Southeast Asian warfare, given the difficult topography of much of the region. Nonetheless, indigenous historians would frequently apply generic references to the "four war wings," including the chariot, to their accounts of battles up to the introduction of colonial rule. Similarly, in order to bolster

5 Hans Hagerdal, review of Michael W. Charney, "Southeast Asian Warfare, 1300–1900," *Bijdragen tot de Taal-, Land- en Volkenkunde* 163 (2007), 382–4.

their claims to legitimacy, Southeast Asian rulers gave themselves fictive lineages extending their ancestors back to Kshatriya clans in India. Southeast Asian royal orders and court texts likewise attribute to their societies caste divisions that simply did not exist. Rulers drew liberally from South Asian culture other terminologies including various titles for generals and other commanders, with *senapati* (the Sanskrit word for general), for example, commonly entering various Southeast Asian languages during this period.

The Indian epic form became an important influence on Southeast Asian literate culture and remained important in the Malay Archipelago, as in the mainland, even after the Islamization of the former. While such Indian epics as the *Mahabharata* and the *Ramayana* were reproduced in Thai, Burmese, Khmer, or Javanese form in the early modern period, and were incorporated into murals and court performances earlier in the classical period, they influenced general society through shadow plays (known as *wayang* theater in Java). Such epics provided not only guidance for political behavior, such as through the *Bhagavad-Gita* portion of the *Mahabharata* when Arjuna ruminates on the obligations of rulership, but also focused on battles and behavior in war. When Southeast Asians produced histories of their own, perhaps originally as oral tales but by the eighteenth century written out in poetry, chronicles, and treatises, the narrative mimicked the Indian classics. This was especially true of treatments of the warfare between Ava and Pegu in the fifteenth century, which provides Burma with an epic war almost as grand as that found in the *Mahabharata*.

The importance of Indian influence diminished to a certain degree, but by no means evaporated, in the Malay Archipelago from the fifteenth century, with the increasing influence of Islam. Islam as well as Persian and Arabic culture filtered into the region via traders and trade routes moving into the South China Sea, through the Straits of Melaka, from the Indian Ocean. As its influence spread, it won the conversion of one ruler after another, a process that picked up great speed after the conversion of the Hindu ruler of Melaka to Islam at the beginning of the fifteenth century. By 1565, when the Spanish arrived in Luzon, they found Islamic statelets, indicating just how far the Islamic sweep had been. As with Indian influence, in much of Muslim Southeast Asia, Islamic influence remained, in Van Leur's words, merely a "thin, flaking glaze."⁶ Nonetheless, new models and tactics of warfare arrived, although, again, these merely overlaid the existing culture of war.

6 J. C. van Leur, *Indonesian Trade and Society* (The Hague, W. van Hoeve, 1955), p. 95.

In practical terms, the expansion of Islam in the Malay Archipelago introduced connections to Turkish gunners and mercenaries.

The importance of warfare to Southeast Asian societies in this period was significant. Southeast Asian societies expected their kings to be warriors as well and to personally lead their armies into battle. Due to the influence of Karmic notions of cause and effect, populations viewed kings who won wars as deserving their place on the throne while those kings who failed on the battlefield saw their legitimacy as rulers decline rapidly. One result of this was that administrative rise and fall in Southeast Asia usually involved a warrior king toppling a weak ruler, the descendants of the new king gradually shunning the battlefield, leading to their replacement by a new warrior king. Weak administrative structures contributed to this cycle. Although hints of this prevailing early modern pattern are discernible during the present period, the constant warfare and short life of dynasties during this period help to obscure this pattern so early on.

Given the martial expectations of the ruler, it should not be surprising that waging war was the major activity of the state. Courts collected revenues from overlords in the countryside who in turn collected it from village headmen. Kings determined to maintain their royal legitimacy directed much of this revenue into religious patronage and court luxuries. Nevertheless, court elites were also the preeminent warriors on the battlefield, the rural gentry were lower-ranked commanders, and the peasants mustered provided the bulk of the fighting force. Most Southeast Asian states, aside from a small contingent of palace guards, had no recognizable standing army.

While in times of peace the rural gentry and the peasants had agricultural activities with which to concern themselves, court elites had the time and motivation to hone their warrior skills. Court sports focused on marksmanship, horsemanship, and skill in handling elephants. The education of a noble also involved tutoring in combat, tactics, and how to wage a campaign. Once in the field, these men would ride either horse or elephant into the enemy, identify other nobles, and engage them in duels in the midst of battles, not unlike the duels played out in the Indian epics.

Likewise, the daily lives of most peasant men provided them with most of the necessary training. During the period discussed here, armies usually charged the enemy as a disordered mass as opposed to the field formations moving according to a predetermined script in European warfare of a later period. The importance of spears, archery, and other forms of violence in hunting for food or the use of bladed weapons for various agricultural

pursuits appears to have been sufficient training for the average conscript during times of war. Commanders of armies intended most peasant conscripts to serve as fodder for the enemy, as they blocked easy access to the nobles on elephant or on horse. It was only with the introduction of European muskets that the training of special contingents of musketeers was needed, for the state refused to allow guns to enter the daily lives of most people, given their potential to strengthen rebellions against the throne. Instead, the shift to firearms involved the hiring of mercenaries to bear arms and train additional royal guards or others to handle firearms.

Arming the soldiery and the nobles encouraged a certain division of labor in society, beyond the actual mustering of fighting men. Fighting men had to be armed. Although peasants would bring as weapons tools drawn from the rural economy and cultivation, including tridents, broad-bladed swords, spears, bows and arrows, and so on, all items useful in hunting, fishing, or work about the homestead, nobles required special armorers. Nobles often sought protection behind chain mail, breastplates, and even outright armor, as well as specially constructed weapons not useful in the general economy and whose only real utility was on the battlefield. Hence, the courts or urban centers around them hosted metalworking villages, populated by royal servicemen skilled in producing arms and armor and keeping them in repair. When firearms became widely available, some royal service groups produced gunpowder and wielded guns on the field of battle. However, because of firearms' advanced level of technology, courts hoarded them and kept them in central arsenals, dispersing and then recollecting them at the beginning and end of a campaign. Courts directed new service groups created out of war captives to support warfare on a permanent basis, at first to supply noble fighters, but eventually, in later centuries, to serve the emergence of new, formal standing armies, though this mainly began in the eighteenth century.

Warfare in the region severely affected the lives of everyday people during the period. Given the weak political structures, the struggle between a wide array of local overlords meant nearly constant warfare. Prospective defenders of towns first seized crops if they had time to reap them, or burned them if they had not. Families were broken up as the winners of a siege carted off substantial portions of the defeated as slaves as part of the spoils of war. The bulk of Southeast Asian armies would melt away during harvest time, so men could return to their villages and reap their crops. Nevertheless, their numbers would have been substantially reduced in the numerous bloody

encounters that characterized campaigns in the region, depriving agriculture of valuable manpower.

Campaigns were so disruptive that political centers seeking to become empires in Buddhist societies often found potential levies joining the monastic order to avoid conscription. This was a serious problem for the ruler in question, as monasteries were free of taxation and monks could not be conscripted. Ironically, although patronage of Buddhism highlighted a king's legitimacy it also moved resources, both those of manpower and revenue, out of his reach and into untouchable categories. Some desperate rulers thus attacked the legitimacy of the monastic order when things got tough. The sixteenth-century king of Pegu, Nandabayin, for example, purged the monasteries on charges of monastic transgressions when he found that he could not obtain conscripts for his overburdened armies by any other means.

The main impact of warfare on society during this period was that it reduced the number of competing political centers and gave way to larger, more administratively sophisticated polities. The fighting of this period also set the main patterns of the waging of war, both in the field and institutionally. The elephant would give way to cavalry and organized or regular cavalry formations. Firearms would increasingly determine conflicts in the field and demand similarly permanent regiments trained in their use in the centuries to come. Europeans would become a greater not a lesser threat, as the seventeenth century would soon demonstrate, at first at sea and then on land. The 1300–1540 period in Southeast Asian warfare then was an intermediary period, witnessing the last gasps of traditional warfare and yet laying the groundwork for the military revolution to come. New, more centralized empires that replaced the myriad warlord domains of the period would take up this work.

Japan, 1200–1550

THOMAS D. CONLAN

Over a span of three and a half centuries (1200–1550) Japan experienced profound transformations in the institutions, ideals, and methods of war. Originally a limited, clearly defined and extraordinary event, warfare became an endemic and encompassing element of life in the mid sixteenth century. Earlier, small bands of mounted warriors, skilled in archery, arrived in camp and departed as they saw fit, for no institutional mechanisms existed for them to supply themselves or their followers with food and materials of war. By the sixteenth century, however, powerful magnates (*daimyō*) were capable of supplying and maintaining large armies, numbering in the thousands, largely composed of pike-wielding foot soldiers.

Warfare in thirteenth-century Japan constituted an extraordinary mobilization of a few thousand warrior families who resided throughout the archipelago. The boundaries of Japan in 1200 varied from the modern Japanese state – the Ryūkyū islands and the northern island of Hokkaido were not included – but remained clearly defined. Even warriors located on Tsushima island, 50 km from Korea, fought in Japan's civil wars of the fourteenth century, as did warriors living in southern Kyushu and the far north of Honshu. Most who fought came from *gokenin*, or “honorable houseman,” families where one or more members possessed the office of *jitō*, or land steward, a special position that was recognized by Kamakura and fully heritable.

In medieval Japan, tension between individual accomplishment and the exigencies of military organization remained unresolved for centuries as warfare changed from geographically limited conflicts involving small groups of mounted warriors to large-scale encounters of pike-wielding foot soldiers. The Kamakura *bakufu*, a warrior government based in eastern Japan, and distinct from the imperial court of central Japan, adjudicated judicial disputes and prospered in spite of not resolving these issues. Its battle-hardened leaders had fought as both rebels against the regime and upholders of the

courtly order during the Genpei War of 1180–5. Camaraderie kept the early Kamakura forces cohesive, and the small numbers of men facilitated communication and speed in mobilization.

Kamakura proved skilled at waging limited wars. The Jōkyū war, lasting little over a month in 1221, demonstrated the considerable powers of the *bakufu* in such a campaign, for the opposing court forces of Go-Toba were defeated before they could fully mobilize. The Mongol invasions of 1274 and 1281 strained the *bakufu*'s resources, even though they involved mobilizing just a few thousand horsemen. Kamakura proved effective at recording military service and compensating warriors for their actions. Nevertheless, logistics remained ad hoc and ill-suited for an extended conflict.

The emperor Go-Daigo, who hoped to avenge the loss of Jōkyū, destroyed Kamakura in 1333. Go-Daigo's victory led to the onset of endemic warfare between his forces and the armies of Ashikaga Takauji, one of Kamakura's generals, who founded his own warrior government (*bakufu*) in 1338. The unfolding of the civil war in the 1330s put pressures on both Go-Daigo and Ashikaga Takauji to secure adequate followers, and they called increasing numbers of men, and some women, into battle, including those who had not been previously recognized as *jitō* or *gokenin*. Some monks and members of the nobility also commanded armies as the upper echelons of society became militarized.

Commanders were obligated to compensate warriors for their service, rather than demand it from their followers. Warriors continued to arrive and depart encampments as they saw fit, and some fought for both sides in the civil war, so as to prove their power and service. The 1351 promulgation of a *hanzei* edict, whereby half of provinces' revenues were used for military supplies, allowed for provincial protectors, or *shugo*, to garner enough revenue to permanently maintain armies. Thereupon, trained infantry formations of pike-wielding soldiers became prominent, leading to the supremacy of defensive tactics during the Ōnin War of 1467–77. Armies increased in size after Ōnin as regional magnates, now known as *daimyō*, strove to physically occupy contested territory in the provinces as well as the capital in what became known as the Warring States era (1493–1600).

Sixteenth-century warfare ceased to be a clearly defined act. Initially predicated upon court declarations, making it an explicitly "public" endeavor, warfare became endemic when political authority bifurcated and the power of the state devolved into two courts, each of which directed the organizational powers of the state toward the destruction of the competing political entity. The "private" use of military force became legitimate as warriors used

violence to settle disputes under the rubric of fighting in a civil war. Kamakura had prohibited such actions, which it classified as “outrages,” but these conflicts became subsumed into a civil war as warriors engaging in disputes with their neighbors argued that their actions were part of the public conflict. The Ashikaga *bakufu*, the successor state to Kamakura, *de facto* legitimated such “defensive” warfare in 1351. Thereupon the state recognized autonomous judicial right, or feuding, as a legitimate recourse, which pervaded daily life until late in the sixteenth century when Toyotomi Hideyoshi broke warrior ties to the land and prohibited the unilateral recourse to violence.

Patterns of warfare, 1200–1333

The Jōkyū war of 1221

The Kamakura *bakufu*, Japan’s first warrior government, strove to contain violence through the adjudication of disputes and by having its *shugo* or protectors police the provinces. Between its establishment and 1333 destruction, the *bakufu* experienced only two major, but limited conflicts, the Jōkyū war of 1221 and the Mongol invasions of 1274 and 1281.

The Jōkyū war was a clearly defined and “public” conflict. The retired emperor Go-Toba initiated hostilities by demanding the destruction of Kamakura on the twenty-first day of the fifth month (1221.5.21). The war ended the following month, when Go-Toba, having been defeated at the outskirts of the capital, repudiated his advisors and surrendered to Kamakura, where he endured exile.¹ In spite of Go-Toba’s ignominious defeat, the authority of the court remained unquestioned. Even in the midst of the war, Kamakura respected the authority of the court and the sanctity of imperial edicts, with its men dismounting and carefully reading them out loud and, after hostilities had ceased, the *bakufu* ensured that a more pliant member of the imperial family ascended the throne.

The Jōkyū war of 1221 highlights the *bakufu*’s strengths in organization and mobilization. Kamakura had been preparing for war for some time, and its plans had been finalized before the outbreak of hostilities. A mere four days after Go-Toba’s declaration of war, Kamakura’s officials, located over 320 km to the east of the capital, had already decided that Hōjō Yasutoki would lead their attack, and determined which warriors would fight with

¹ Takeuchi Rizō (comp.), *Kamakura ibun* [Kamakura Documents], 51 vols. (Tokyo, Tōkyōdō shuppan, 1971–97), vol. 5, pp. 14–15 (doc. 2746) [hereafter *KI*].

him.² Hōjō Yasutoki's main army traveled 350 km in twenty days, fighting and winning a decisive battle at the Uji river, located just to the south of the capital, on 1221.6.13–15.

Go-Toba was at a disadvantage, for he initiated the conflict and only had the palace guards (*hokumen*) at his disposal, and otherwise had to entice disgruntled warriors and *shugo*, or protectors, each of whom policed one of Japan's sixty-six provinces, to join his cause. Numerous western warriors and some *shugo* supported Go-Toba. Most had been invited to an archery competition and coerced into joining his forces. It took time, however, for warriors to abandon Kamakura. Kōno Michinobu, for example, ultimately joined Go-Toba on 1221.6.28 in Iyo province, in distant Shikoku, ironically after Go-Toba had already surrendered.³ Kamakura's victory stemmed from the speed of its offensive.

Sources of battle

The Jōkyū war involved a small percentage of the population. The speed of the conflict, the rudimentary nature of recording it, and the utter defeat of Go-Toba's partisans has caused few reliable sources to survive. The *Jōkyūki*, a thirteenth-century chronicle, and the *Azuma kagami*, a chronological compilation of sources that contains inaccuracies and anachronisms, provide the best overview of the conflict, although they remain unreliable. The *Jōkyūki* and the *Azuma kagami* grossly exaggerate the size of the armies, suggesting that Kamakura's forces were as large as 70,000 or even 190,000 men.⁴ Lacking consistency, the *Jōkyūki* otherwise more plausibly claims that 1,800 of Kamakura's men arrived in the capital.⁵ Hōjō Yasutoki, in his letter to the Ichikawa, referred to armed forces in terms of tens or hundreds of horsemen, suggesting that the Kamakura armies constituted at most several thousand men.

No documents survive pertaining to the conflict save for a few letters and rosters of the dead and wounded, which are reproduced in some versions of the *Azuma kagami*.

2 Ibid., p. 15 (doc. 2747). 3 Ibid., p. 20 (doc. 2762).

4 William McCullough (trans.), "Shōkyūki: An Account of the Shōkyū War of 1221," *Monumenta Nipponica* 21 (1966), 210–11 (hereafter *Jōkyūki*); and see William McCullough (trans.), "The *Azuma Kagami* Account of the Shōkyū War," *Monumenta Nipponica* 23 (1968), 113, for an estimate of Kamakura's forces of 190,000. For a more recent translation of the oldest version of the *Jōkyūki*, see Royall Tyler, *Before Heike, and After: Hogen, Heiji, Jōkyūki* (Blue Tongue Books, 2016).

5 *Jōkyūki*, p. 190; and McCullough, "The *Azuma Kagami* Account," p. 108 (5.21.1221), for Go-Toba's forces consisting of 1,700 horsemen.

These Kamakura rosters reveal that 339 men fought Go-Toba in the capital on 1221.6.13–15, with ninety-nine capturing or killing the enemy, ninety-eight perishing, and 142 suffering wounds. The 240 listed wounds and fatalities plausibly represent a casualty rate of 13 percent for an army of 1,800. Go-Toba's defeated army suffered the death or capture of 181 men, which comprised slightly fewer than 10 percent of an army of 1,700 men. Capture and death were virtually synonymous, for fewer than ten men can be verified as being taken prisoner.⁶

The brevity of the campaign makes it difficult to ascertain how it was fought. Kamakura's men did not know their opponents, for enemy troops were at best identified vaguely, for example, as "followers of a Kumano monk." This contrasts with fictional battle narratives, where warriors invariably called out their names and rank before battle, a device of narrative expediency but not reflecting actual practice. Most of the conflict involved archery by mounted horsemen, as mention of men shot in the eye and horses with arrows lodged into their body attests, but on a few occasions battle rosters list the term *uchiji ni* next to the name of a fatality to describe men who had been killed by hand-held weapons such as swords.⁷

Limited command authority

Warrior allegiance remained tenuous. Few were committed to either the court or the Kamakura regime. The *Jōkyūki* contains an anecdote where Iga Mitsusue, hopelessly surrounded by Go-Toba's forces, released his eighty-five followers, saying that those who feared death could flee. Immediately fifty-five left, and Mitsusue had to close his gates, otherwise according to the *Jōkyūki* "his forces would have dwindled to three men."⁸ Hōjō Yasutoki, commander of one of Kamakura's armies, appears to have been well aware of the shallow allegiance of warriors. In a letter to Ichikawa Rokurō, written while he was advancing on the capital, Yasutoki argued that speed of attack was essential to secure local support. "By so forcing the enemy [into the mountains], then nearly all of the warriors (*mono*) from [nearby] provinces will ally with us." A military presence and the perceived likelihood of victory proved essential for Kamakura to attract widespread support. Yasutoki

6 Ryō Susumu (comp.), *Azuma kagami* [The Mirror of the East], 5 vols. (Tokyo: Iwanami bunko, 1941), vol. 4, pp. 208–21 (1221.6.18). This does not appear in the version translated by McCullough.

7 McCullough, "The *Azuma Kagami* Account," p. 120 (1221.6.6), and, for wounded horses, 134 (1221.6.18).

8 *Jōkyūki*, 194–6.

praised rather than punished warriors who attacked without waiting for their commander to appear.⁹

Recording actions and granting rewards

Gokenin desired to have their actions witnessed and their names listed on rosters so as to be eligible for rewards. Hōjō Yasutoki, writing during the 1221 war, promised to recommend all warriors who fought and were witnessed for rewards.¹⁰ As the surviving rosters in the *Azuma kagami* attest, officials merely listed the names of those wounded, dead, or who had performed verifiable acts such as taking enemy swords or bowstring bags, or capturing or killing an enemy. Less tangible actions, such as who was the first to cross the Uji river, were verified through questioning witnesses and having them write oaths. Kamakura's warriors did not submit their own battle reports in 1221.¹¹

As family members competed for the same offices, they sometimes fought for both court and *bakufu*. After the end of hostilities, it was they, rather than Kamakura, that most rigorously enforced punishments against their relatives. For example, Sasaki Nobutsuna demanded the execution of his nephew Seitakamaro, in spite of Kamakura's desire for clemency.¹² A division of allegiances allowed some *jitō* to maintain their lands, for a younger brother of the Yamanouchi, by fighting against his older brother, who sided with the court, was duly confirmed as the *jitō* for Jibi estate.¹³ Not all families emerged unscathed. Kōno Michinobu, who disastrously sided with the court after it had already been defeated, lost fifty-three holdings, while his son Michihisa, who had sided with Kamakura, was granted rights to only a single district, a small fraction of what the Kōno had earlier controlled.¹⁴

The Mongol campaigns

Kamakura proved so effective at consolidating its control, that Japan experienced a half-century of peace, marred by the occasional violence in local quarrels, or assassinations due to factional infighting among members of the *bakufu*. Unlike the Jōkyū conflict, the only other major struggle of the thirteenth century arose when the Mongols attempted to incorporate Japan

⁹ *KI*, vol. 5, doc. 2753, pp. 16–17. ¹⁰ *Ibid.*, pp. 16–17.

¹¹ McCullough, "The *Azuma Kagami* Account," pp. 133–4 (1221.6.17).

¹² *Ibid.*, p. 140 (1221.7.11). ¹³ *KI*, vol. 5, doc. 2783, p. 27.

¹⁴ Jeffrey P. Mass, *The Development of Kamakura Rule* (Stanford, Stanford University Press, 1979), pp. 20–1, and pp. 183–4 for translations of documents pertaining to Michihisa; and *KI*, vol. 5, doc. 3207, pp. 263–4.

into their world empire. Kamakura's response against the Mongols in 1274 and 1281 resembled the Jōkyū conflict in that warfare remained an exceptional act, now devoted to repulsing foreign invaders, and limited in scale.

The 1274 invasion

Qubilai khan, after having seized the “mandate of heaven” and established the Yuan dynasty, dispatched a missive to Japan in 1266 requesting that Japan submit to the “masters of the universe.” The Japanese did not directly respond to the Mongol leaders, although Kamakura instructed its *gokenin* to be vigilant in the second month of 1268, and the court, in what was seen as a military act, began performing maledictions against the Mongols in the following month. A Korean uprising delayed Qubilai's invasion plans until all resistance was quelled in 1273.¹⁵

Aware of the imminent attack in 1274, Kamakura strove to bolster its command authority and ordered that all *gokenin* with holdings in Kyushu were to travel there and serve under their *shugo*. The order had the dual purpose of increasing the number of *gokenin* in western Japan, for many eastern *gokenin* had lands scattered throughout the country and it effectively forced many to travel to western Japan.

The Mongol armies departed from Korea and defeated small Japanese forces defending Iki Island on 1274.10.14. They then attacked Tsushima three days later. The Mongols overwhelmed Shōni Kakuei and the other Japanese defenders of these islands. According to the *Hachiman gudō kun*, their gongs and drums startled the Japanese horses “driving them mad with fear” while, conversely, when Kakuei's grandson unleashed a humming arrow (*kaburaya*) as was typical to signify the onset of battle, the Mongols laughed. On these islands, the Mongols presented such a massed force that none of the Japanese defenders who approached returned alive, but nevertheless, these defenders resorted to firing “distant arrows” and picked off the enemy.

Japanese longbows could reach 2 m in length, and were capable of shooting long distances, with a later record being the astounding range of 436 m.¹⁶ The arrows were capable of penetrating armor at limited distances of approximately 14 m, and so the vulnerability of Mongols to long-range shots suggests that they were wearing little armor. The Japanese were feared

¹⁵ Except where otherwise noted, this section is based on information from Thomas D. Conlan, *In Little Need of Divine Intervention: Takezaki Suenaga's Scrolls of the Mongol Invasions of Japan* (Ithaca, NY, Cornell East Asia Series, 2001).

¹⁶ Thomas D. Conlan, *Weapons and Fighting Techniques of the Samurai Warrior, 1200–1877* (New York, Amber Press, 2008), p. 56.

for their skill in archery, and unsurprisingly described themselves as practitioners of the “way of the bow and arrow.” The Zen monk Tōgen Ei’an even claimed in 1270 that the Mongols desired to conquer Japan so as to incorporate Japanese archers into their forces.¹⁷

The Mongols landed at Hakata Bay in northern Kyushu on 10.20, and Kikuchi Takefusa, advancing from the eastern regions of Hakata Bay, defeated the Mongols at Akasaka and forced them to withdraw in some confusion to Beppu and Sohara, two small hills on the bay.¹⁸ The isolated Beppu forces then retreated through the tidal flats to Sohara, and suffered injuries from the charging Japanese defenders, including Shiroishi Michihide and Takezaki Suenaga, both of whom are depicted in the *Scrolls of the Mongol Invasions*. Shōni Kagesuke shot the Mongol commander in the face, but at Sohara the Mongol forces massed and, protected behind rows of light shields, they held off the Japanese counterattack. After the Hakata Bay battle, Japanese forces retreated to the nearest available fortifications, a seventh-century structure at Mizuki that was 13 m high and 1.2 km long, located 14 km from Hakata. The Mongols thereupon burned Hakata and Hakozaki and sailed away the following day. A reverse wind allowed for the Mongol fleet to sail back to the continent, and it seems likely that this first attack was merely a probe of Japanese defenses.¹⁹

Kamakura’s 1274 mobilization was confined to warriors with ties to Kyushu. Estimates of its forces, based on landholding registers, suggest that they were capable of fielding an army of 3,000 *gokenin*. The Japanese outnumbered the Mongol forces, according to the *Yuanshi*, a history of the Yuan dynasty compiled after its 1368 collapse. As the Mongols had to advance and carry all supplies and support personnel, it is unlikely that their fighting forces exceeded 3,000 men as well.

Kamakura’s 1275 response

After the initial invasion, the *bakufu* attempted to expand its armies. A document of 1274.11.1 demanded that even residents (*jūninra*) who were not *gokenin* be rewarded for their military service.²⁰ Nevertheless, Adachi

17 See the Tōgen Ei’an *ikenjō*, trans. in Conlan, *In Little Need*, p. 201 (doc. 1).

18 Conlan, *In Little Need*, pp. 23–90. See also Saeki Kōji, *Mongoru shūrai no shōgeki* [The Shock of the Mongol Invasions] (Tokyo, Chūōkōron shinsha, 2003); and Kondō Shigekazu (ed.), *Mongoru no shūrai* [The Mongol Invasions] (Tokyo, Yoshikawa kōbunkan, 2003).

19 Sugiyama Masaaki, “Mongoru jidai no afuro Eurasia to Nihon,” in Kondō (ed.), *Mongoru no shūrai*, pp. 136–7.

20 Conlan, *In Little Need*, pp. 204–6 (docs 4–5).



MAP I4. Northern Kyushu and Hakata Bay, site of the Mongol landings in 1274 and 1281. Map © 2001 Thomas Conlan.

Yasumori's attempt to expand the social parameters of warriors by recognizing *myōshu*, self-styled "lords of the land" with no direct ties to the *bakufu*, failed in 1281, and contributed to Yasumori's assassination.²¹

Kamakura briefly considered a counterattack on Korea in 1275, but this was abandoned presumably due to lack of available boats. The *bakufu* also had its *gokenin* build walls approximately 20 km in length that ringed Hakata bay. The walls were made of piled earth and enhanced with stacked stone, 2–3 m high and wide, set 10 m from the beach. Guard duty and service in building walls was based upon resources available to each *gokenin*, which become known to Kamakura after the *bakufu* engaged in province-wide land surveys to determine the wealth of its men. *Gokenin* were also forced to guard the walls, with those from two or three particular provinces serving for three-month intervals.

Kamakura had difficulty in rewarding its warriors for their service, as few had accomplished acts that could be verified. Some submitted "receipts" (*fukukanjō*) which had been given to *gokenin* as proof of their normal guard duty service for *shugo*, but Kamakura deemed these documents inadequate proof of military service. Adachi Yasumori, in a dialogue with the *gokenin* Takezaki Suenaga, stated that wounds, deaths, or verifiable proof of service – a captured enemy head – were essential for rewards to be offered. Kamakura devised a more effective means of ascertaining battle service in 1281, when only witness statements from individuals unrelated to a petitioner were accepted, and warriors themselves submitted documents that narrated their actions in battle in a verifiable manner, with reference to the day and location of the encounter, the names of witnesses, and a precise recounting of damages suffered.

The 1281 invasion

After defeating the Southern Song dynasty, the Mongols once again attacked Japan with a far larger force in 1281. In addition to dispatching a fleet under the aegis of the "Bureau for the Subjugation of Japan," the Mongol administrative presence in Korea, the Mongols dispatched a large naval force from the south, which had been the Southern Song's navy. The Mongols may have relied upon gunpowder-filled explosive shells to frighten the Japanese, but their use was not common. The oldest image of an exploding shell, from the *Scrolls of the Mongol Invasions* commissioned by Takezaki Suenaga, has been shown to have been added to the scrolls in

21 Satō Shin'ichi et al. (eds.), *Chūsei hōsei shiryōshū* [Sources of Medieval Law], 7 vols. (Tokyo, Iwanami shoten, 1955–2005), vol. 1, pp. 250–3 (1284.5.20).

the eighteenth century.²² A handful of projectiles were discovered in the ocean floor off of Takashima, although no traces of gunpowder remained; catapults most probably flung them.²³ Far more common were smooth stone projectiles, suitable for being flung by catapults. Fragments of these catapults too have been discovered at Takashima with Song naval markings.²⁴

The Mongol forces departed from Korea on 1281.5.3, and landed at Tsushima on 5.21, overwhelming that island's defenders. The next push, to Hakata Bay, fared badly because the newly constructed coastal walls prevented them from landing. Turning to the unprotected Shikanoshima peninsula, located to the north of the bay, the Mongols could not establish a foothold, as Japanese defenders harried them by boarding Mongol ships at night, killing some sailors and, in one case, burning a ship, which forced the Northern armada to chain their boats together and fire catapults at approaching Japanese boats.²⁵ After an inconclusive week of campaigning, the Northern fleet returned to Iki Island, where the Japanese counterattacked them late in the sixth and early in the seventh month. The Mongols thereupon departed and can be documented as enduring attacks on the high seas by Japanese forces on 1281.7.5. They landed at Takashima, located just to the west of Hakata bay, two days later but endured attacks by the Japanese who fought them on Takashima's beaches.

Japanese naval warfare remained limited to using boats to transport men. Illustrations of Japanese boats in the *Scrolls of the Mongol Invasions* portray each boat as having the flag of its commander and carrying six warriors and four oarsmen. Undoubtedly some warriors fired arrows at their Mongol rivals, but the swell ensured that the accuracy was limited. The Mongols, by contrast, had catapults that they trained on the Japanese vessels, and so the Japanese mostly ventured against the Mongols on the high seas at night. Takezaki Suenaga, desperate to fight at Takashima, pretended to be a deputy *shugo* so as to board one such boat, but he was forced to leave his followers

22 Thomas D. Conlan, "Myth, Memory and The Mongol Invasions of Japan," in Elizabeth Lillehoj (ed.), *Archaism and Antiquarianism in Korean and Japanese Art* (Chicago, Center for the Art of East Asia, University of Chicago and Art Media Resources, 2013).

23 Nagasaki ken Takashima chō kyōiku iinkai (comp.), *Takashima kaitei iseki* [Undersea Takashima Artifacts], 10 vols. (Takashima, Takashima chō bunkazai chōsa hōkokusho, 1992–2004), vol. 7 (2002), pp. 42–4; and vol. 8 (2003), pp. 12–13. Quartz, argonite, and calcium carbonate (CaCO₃) were found in the shells, but no traces of sulfur were evident.

24 Ibid., vol. 1, pp. 75–9, 88, 93; and vol. 8, pp. 12–13, 60–8.

25 Saeki, *Mongoru shūrai no shōgeki*, pp. 141–3.

and helmet behind. Suenaga, wearing a shin guard as a provisional helmet, used a grappling hook, known as a “bear claw” (*kumade*), to either board the enemy ship, or to grab and capture an enemy.

Military parity existed between the Mongols and the Japanese defenders, although the continental forces had a decided edge in naval warfare. Bolstered by the ex-Song navy, which arrived midway through the seventh month, but still thwarted by the Hakata walls, both armadas advanced to Takashima Island on 1281.7.27. Three days later, a typhoon sank most of the Southern fleet, which harbored at Takashima. The Mongol and Korean fleet suffered as well, although few of their remains have been uncovered at Takashima, suggesting that they escaped in better order than the Southern fleet, or sank elsewhere. The Japanese defenders decapitated the few survivors, and the drowned dead, so as to “prove” their battle service.²⁶ Temples and shrines successfully clamored for rewards after 1281, for victory against the Mongols was widely perceived by warriors, members of the court, and clergy to have stemmed from otherworldly support.

Religion and warfare

A fierce competition over religious support reveals that prayers were thought to underpin military victory. For example, in 1221, Go-Toba commissioned elaborate maledictions and Kamakura duly praised religious institutions because “gods and Buddhas [helped them to] maintain their power.”²⁷ Individual monks, rather than institutions, gained credit or castigation for the relative success of their patrons. Kamakura, after the 1221 conflict ended, listed Tsurugaoka monks in a manner similar to warriors, presumably to account for their success as well.²⁸

The role of religion also became enhanced in the late thirteenth century, as maledictions from shrines and temples were thought to be responsible for Japan’s victory over the Mongols. Accordingly shrines and temples gained in grants of lands and power, and became more prominent in the aftermath of the 1281 invasions. A half-century later, with the onset of a civil war pitting court again against Kamakura, ambitious warriors initiated their rebellions at shrines, lavishly rewarding their deities if successful and burning them if not; furthermore, temples served as important strategic centers, for they contained smiths, storehouses of supplies, and massed weapons.

26 Conlan, *In Little Need*, p. 260. 27 McCullough, “The Azuma Kagami Account,” p. 132.

28 *Ibid.*, p. 114 (1221.5.26).

Many Buddhist monks served in war, either through ritualized violence or curses, whereby prayers were burned in front of triangular altars lined with weapons. Reflecting the sophisticated system of recording and rewarding verifiable service, monks submitted their own petitions demanding rewards, which constituted temple offices rather than lands.²⁹ And when Emperor Go-Daigo decided to attempt to overthrow Kamakura in the early decades of the fourteenth century, he had maledictions performed surreptitiously for several years before initiating his rebellion.

Wars of the fourteenth century

In contrast to the limited conflicts of the thirteenth century, those of the fourteenth were endemic and protracted, leading to profound changes in logistics, an expansion of the number of warriors, and a normalization of violence.

Kamakura easily defeated the rebellious Go-Daigo in 1331. The *bakufu*, following the “Jōkyū precedent” mobilized warriors under the command of each provincial *shugo*. Kamakura’s warriors also submitted petitions for rewards, a format that had grown out of the earlier oaths describing military service, which was perfected in the aftermath of the Mongol invasions. Go-Daigo was exiled, but he and his supporters successfully attracted disgruntled warriors from central and western Japan, such as Kusunoki Masashige, to join their cause. Ultimately, Kamakura dispatched reinforcing armies, and Ashikaga Takauji, the commander of one of these forces, turned against Kamakura late in the fourth month of 1333. After Takauji betrayed Kamakura, most *jitō* and *gokenin* abandoned the first *bakufu*, which was destroyed in the fifth month of 1333.

Kamakura’s organizational prowess was unsurpassed. Its last army, which had besieged Kusunoki Masashige’s Chihaya castle, survived after Kamakura’s destruction. The general Aso Harutoki kept his army intact by unilaterally rewarding his followers with lands and praising them in a new style of document, the “document of praise” (*kanjō*), which would become the most common document issued by generals in the field in ensuing centuries. Harutoki’s army also had adopted a more rigorous system of inspection than had existed before, with battle administrators inspecting wounds and adding notations such as “deep” and “shallow” to their

29 Thomas D. Conlan, *State of War: The Violent Order of Fourteenth Century Japan* (Ann Arbor, University of Michigan Center for Japanese Studies, 2003), pp. 165–93.

document, but this practice would end midway through 1333, when Harutoki's army finally disbanded once Go-Daigo confirmed the landholdings of most of his warriors.

The protean armies of the fourteenth century

With the collapse of Kamakura, a systematic method of mobilizing warriors based on geographic origins withered. Warriors received *saisokujō*, or mobilization orders, which invited them to camp. These scraps of paper were preserved because they proved the recipient's *gokenin* status. Upon arriving, these warriors submitted "documents of arrival" (*chakutōjō*) and then had them monogrammed by a local commander. Some, upon receiving this paperwork, and proof of their battle service, thereupon returned to their homelands.³⁰

Armies remained haphazard amalgamations of individuals. From surviving petitions, the actions of sixty warriors who fought for Ashikaga Takauji from the fall of 1335 – when he departed from Kamakura, briefly occupied the capital, and then fled to Kyushu before returning to the capital in the summer of 1336 – can be traced. Only two fought with Takauji throughout the whole campaign. Evidence from the battle fought at Hōsshōji on 1336.1.16 reveals that warriors from different provinces fought together and did not serve under the commands of their *shugo*.³¹

The armies of the fourteenth century remained small, numbering at the most a few thousand. Reliable sources reveal that most forces were in fact measured in the hundreds. Four hundred and thirty perished as Kamakura's Rokuhara forces were annihilated during the fifth month of 1333, and 189 of these men were recorded by name, while the Ashikaga, in exulting over the destruction of an enemy army five years later, described how 700 enemy had been killed.³²

Nevertheless, the fourteenth century witnessed an absolute increase in the number of warriors recognized as *gokenin*, be they either *myōshu* or nominally dependent *gokenin* followers, for these men used their receipt of mobilization orders to assert *gokenin* status. The civil war also allowed for social mobility, as scions of the Ashikaga gained power and their retainers likewise became important warriors in their own right. Some, such as the Yamana, were initially commoners (*hyakushō*), but became the *shugo* of eleven of Japan's sixty-six provinces.

30 Ibid., p. 49. 31 Ibid., pp. 8–11, 72–7. 32 Ibid., p. 57.

By providing opportunities for mobility, the wars of the fourteenth century fractured families. Some who divided their allegiances did so out of subterfuge to ensure that their holdings remained intact. The Migita, for example fought for Kamakura in 1333, but when asked to support Go-Daigo, the patriarch claimed illness and dispatched his son.³³ In most cases, however, younger brothers used the war to strive for autonomy. Most petitions reveal that relatively low-ranking *gokenin* fought with the most élan. High-ranking warriors with office tended to fight cautiously.

The civil war was fought by warriors drawn from throughout the archipelago, from Mutsu in the north to southern Kyushu in the south. Even Tsushima Island warriors, located near Korea, traveled to Kyushu to fight in 1338.³⁴ A clear sense of Japan's political boundaries remained and warriors from all of Japan's provinces fought in the civil war. At the same time, Kyushu warriors continued to repair and guard the walls of Hakata until the Yuan dynasty collapsed in 1368.

A statistical survey of war

With the onset of war, warriors were able to write, or have written, petitions which described the date and location of their encounter, and all verifiable acts of merit such as the capture of enemy heads, boats, or objects, or damages requiring compensation, such as deaths and wounds of relatives, followers, and horses. The 1,302 surviving documents recount the names and actions of 8,634 warriors and provide a meticulous and verifiable record of battle service and casualties.

During the initial five years of civil war lasting from 1333 to 1338 (period I), when Go-Daigo overthrew Kamakura and Ashikaga Takauji in turn rebelled against Go-Daigo, a majority (60 percent) of all fatalities for the century are recorded, as are 43 percent of all warriors, 43 percent of all wounds, and 40 percent of all documents. The decade from 1339 until 1349 (period II) experienced regional fighting and reduced casualties, as the Ashikaga gradually triumphed over Go-Daigo's forces. The years 1350–5 (period III) again witnessed an upswing in violence and military action, as two factions of the Ashikaga resorted to open warfare and a confusing three-way conflict ensued, which proved corrosive to Japanese institutions although fatalities remained low. Arrows remained the mainstay of battle, causing anywhere from

33 Ibid., p. 7. For translations of these documents, see "The Better Part of Valor: Documents (komojo) of the Migita," <http://komonjo.princeton.edu/migita/>.

34 Nagasaki kenshi hensan iinkai (comp.), *Nagasaki kenshi shiryōhen* [Sources of Nagasaki Prefecture], 4 vols. (Tokyo, Yoshikawa kōbunkan, 1963–6), vol. 1, pp. 407, 821.

64 percent (period I) to 85 per cent (period III) of all recorded battle wounds. Swords caused a third of wounds in period I, and only 12 percent of all recorded wounds in period III, a time corresponding with low fatalities.

Most fighting consisted of skirmishing, as mounted archers fired at enemies. Horsemen strove to fight in riverbeds or areas with few barricades, for when their horses had freedom to roam, they could whirl around and kill even the most skilled swordsman. In some battles, such as the conflicts in the capital during the summer of 1336, warriors traveled over 25 km in one day.³⁵ Areas were burned to give the horsemen room to roam. Cases where their mobility was hindered, whether by a blockaded road or unfavorable terrain, mountains, or muddy paddies, led to horsemen being vulnerable to men on foot.

Materials of war

Japanese armor improved over the course of the fourteenth century, particularly with the creation of *hō-ate* designed to cover the lower face and neck, the most vulnerable region to an arrow wound. Wounds to the face and neck decreased from 10 percent of all recorded wounds to 2 percent. Leg wounds also witnessed a decrease in the latter half of the fourteenth century by eleven percentage points, from 38 percent of all wounds to 27 percent, reflecting improvements in chain armor and legging protection.

As warfare became more widespread, and incorporated larger numbers of warriors, simplified suits of armor became more common. One, called *haramaki*, first arose in the late thirteenth century and was much cheaper than *ōyoroi* armor but inferior in quality, lacking the separate *waidate* or supportive piece of the older suits of armor which made them less roomy and hindered the ability of an archer to rotate his torso when firing arrows on horseback. These suits were attached by overlapping sections underneath the arm and some were embellished with shoulder sleeves (*sode*) to protect the upper arms, which were essential to protect a mounted warrior, but less necessary for foot soldiers. Another simplified type of armor called *dōmaru* had a breastplate that was attached in the back, which provided less protection than *haramaki*. The *hara-ate* provided the least protection of all, for it merely protected the abdomen. These simplified suits of armor continued to consist of braided scales of wood coated with lacquer (*sane*) tied together by

³⁵ Conlan, *Fighting Techniques of the Samurai*, pp. 79–83; and *State of War*, pp. 74–6 for battles of 1336.6.30 and 1336.8.25.

chords, but a few examples from the fourteenth century were constructed simply from hardened leather.³⁶

Although swords were less significant weapons than bows, they witnessed some changes. Large swords (*ōdachi*) up to 2.1 m in length became popular during the fourteenth century although pikes would supplant them in the fifteenth century.³⁷ They were only partially sharpened and effective at stabbing enemies and breaking the legs of charging horses. Other, smaller swords, known as *tachi*, were held in scabbards with the blade down. Lower-ranking warriors had preferred a different method, whereby the sword blade was inverted in the scabbard, with the cutting edge on top, and by the end of the fourteenth century this method of housing swords became common. Often the same blade was simply placed in different fittings and became known as a *katana*.³⁸

Fortifications

Most fourteenth-century battles entailed besieging castles. As most of Japan is mountainous, such structures were easily constructed in the hills, overlooking roads, so as to be easily supplied and, conversely, allow their defenders to block the shipment of enemy provisions. Mountains or hills were reinforced with rough barricades or simple earthen moats. A cluster of surrounding structures protected most strategic areas, meaning that to take a fortified region involved a lengthy and protracted offensive. The most impressive castles of the fourteenth century were built on the plains near the swamplands of Hitachi province, in eastern Japan. To compensate for the terrain, these structures had elaborate earthen walls that enemy saps tried to tunnel through but failed. The Southern Court managed to maintain a foothold in these castles for five years before they were finally defeated.³⁹

The wood for these castles was often confiscated from nearby residences. No clear distinction between combatant and civilian existed, so that often nearby hamlets or residences not torn down for fortifications were burned so as to deprive the enemy of building materials. Temple doors were also destroyed at times for shields and building materials, but as a sign of their cultural and military significance, relatively few of these buildings were

36 Suzuki Tomoya, *Ōmishima no dōmaru* [Dōmaru Armor of Ōmi Island] (Ōyamazumi shrine, 1991), p. 25, plate 14.

37 Conlan, *State of War*, pp. 60–4, 77.

38 Karl Friday, *Samurai, Warfare and the State in Early Medieval Japan* (New York, Routledge, 2004), pp. 79–80.

39 Conlan, *State of War*, particularly pp. 100–4.

directly attacked or destroyed – the only exception being those rare institutions that had powerfully and unambiguously supported one side in the conflict.

Judicial violence

The unilateral recourse to violence outside of an institutionalized judicial framework was a stigmatized act prior to the onset of civil war in the 1330s. Violent acts (*ranbō*) were classified as “outrages” (*rōzeki*) if they continued after a cease-and-desist order had been issued. During times of “public war,” however, warriors locked in a judicial struggle could justify their actions through the conflict, although some, such as Tsuchimochi Nobuhide, still initially classified the attacks of a rival as “violent outrages.”⁴⁰ Once he joined the “public war,” Nobuhide killed his judicial rivals and was rewarded for destroying these “enemies of the court.” Having successfully defended their lands by force, Nobuhide and his cohorts began to perceive rights to the land as being inalienable, and when divested of them, they would proceed to build castles on them and switch their political allegiances. Land rights became increasingly autogenic, and contingent upon local coercive force.

The Ashikaga *bakufu* in 1346 first legitimated “defensive warfare” or the right to unilaterally defend one’s lands, by arguing that those who had done so would escape punishment if they had a good reason. In 1351, in response to the fracturing of the Ashikaga regime, Ashikaga Takauji issued an edict that effectively legitimated feuding, as even “offensive warfare” would only be punished depending on the severity of the infraction, which was not clearly explicated. In doing so, the *bakufu* abandoned the monopolization of coercive force, for they tolerated even major *shugo* such as Hosokawa Kiyouji and Niki Yorinaga burning down each other’s dwellings in a land dispute.⁴¹ The members of a military unit (*ikki*) expressed a willingness to protect themselves when they vowed in an oath, “if someone attempts to assert claims over our lands and a battle erupts we shall all rush to the disputed region and fight a defensive war and not wait for the judgment of authority.”⁴² The Ashikaga *bakufu* settled disputes by allowing warriors to fight to assert or defend their rights by force, and this would serve to unravel Ashikaga authority in the ensuing century. This respect for land rights, and loss of a monopoly of coercive force, was countered by logistical changes, which

40 Conlan, “Law and the Legitimation of Judicial Violence,” in *State of War*, pp. 194–221.

41 Conlan, *State of War*, pp. 217–18. 42 Ibid.

caused regional magnates to gradually gain overwhelming economic and military power.

Logistics and supply

Fourteenth-century warfare witnessed no major changes in tactics, but real innovation arose regarding logistics. Previously, Kamakura relied upon each *gokenin* house to supply men, provisions, and material for war. No mechanisms existed for institutional provisions of supplies, save for ad hoc grants of lands as patrimony, or for provisional levies of commissariat rice taxes (*hyōrōmai*), a power provisionally granted to *shugo* but abrogated in the eighth month of 1221.⁴³ During the Mongol invasions, revenue from the court was briefly diverted to these commanders, representing the first time that *shugo* in the field had access to considerable revenue, but this was quickly superseded once the invasions passed.⁴⁴ The cost of supplying provisions, horses, and weapons in the field proved prohibitive, however, during the fourteenth century. Commanders granted lands as rewards, but this remained a finite resource, and one contested during times of civil war, while the costs for warfare remained open-ended. Letters from a warrior named Yamanouchi Tsuneyuki, who perished in the sieges of Hitachi province, to his wife and family were discovered in a statue of Hachiman, a god of war, in 1988. These remarkable sources reveal that he had to sell one of his houses so as to provide robes, armor, bows, and provisions, which included tea, dried persimmons, and chestnuts. Tsuneyuki also had to borrow a horse, saddle, and money to buy *sake*.⁴⁵ Generals forced temples to provide weapons and provisions as well, but the expenses of warfare proved burdensome. Perhaps unsurprisingly, warriors, who bore the brunt of the conflict in money and blood, often spearheaded intense negotiations for peace.

In 1350, a factional dispute among supporters of the Ashikaga *bakufu* led to open warfare among them. This allowed for the beleaguered Southern Court supporters of Go-Daigo (who died in 1339) to stage a comeback. The desperate Ashikaga Takauji promulgated the *hanzei* edict, whereby half of a province's tax revenue could be used by *shugo* of that province for military provisions. With this, *shugo* could outstrip compatriots in wealth and power and become the dominant regional military and political figures. They used their excess wealth to attract and reward followers, punish and break down the autonomy of local rivals, establish foundries, and construct castles. By the

43 Mass, *The Development of Kamakura Rule*, p. 178.

44 Conlan, *In Little Need*, pp. 239–40 (docs. 48–9). 45 Conlan, *State of War*, pp. 91–2.

end of the fourteenth century, the *shugo* was able to mobilize most, if not all, of the warriors of his province and conscript hundreds of laborers to transport supplies.

The wars of the fifteenth century

Institutional changes, namely the ability to indefinitely provision and supply an army, led to tactical transformations, for as men were trained and supplied indefinitely, they could practice fighting in groups, with the coordinated use of pikes. The small-scale battles in the fifteenth century were fought by small clusters of bow-wielding skirmishers, both mounted and on foot. During conflicts that erupted throughout the first half of the fifteenth century, the dominance of cavalry remained uncontested in open spaces. Petitions dating from 1417–18 refer to warriors drawn from a single region fighting together, but otherwise they are stylistically indistinguishable from fourteenth-century documents, while petitions from 1423 and 1440 describe warriors being mobilized on a provincial basis.⁴⁶

The *hanzei*, which had served to allow for provisions to be appropriated by *shugo* on an ad hoc basis, became the excuse for *shugo* to dominate their respective provinces. The Hosokawa, *shugo* of Tanba province, were able to break down the autonomy of local warriors and incorporate them into their regional organization. They ensured that their retainers would become deputy *shugo* of the province, and they forced Tanba residents to supply provisions and provide porters. Other allied warriors became the managers of nominally “private” lands, and in doing so they stopped paying absentee proprietors (*ryōke*) in the capital. The Hosokawa so effectively extracted surplus revenue and arms from the provinces that when war broke out, they could mobilize most of the warriors of the province for war and supply them indefinitely.⁴⁷ These improvements enhanced military organization and led to tactical transformations in the mid fifteenth century.

Massed infantry formations and pikes

As *shugo* became able to mobilize half of a province’s revenue for military supplies, appointment to this post was coveted. Unlike lands, which were

⁴⁶ Thomas Conlan, “Instruments of Change: Organizational Technology and the Consolidation of Regional Power in Japan, 1333–1600,” in John Frerejohn and Frances Rosenbluth (eds.), *War and State Building in Medieval Japan* (Stanford, Stanford University Press, 2010), pp. 124–58.

⁴⁷ Ibid.

readily partible, *shugo* posts were rarely divided, although this happened a few times for provinces such as Izumi. Internecine succession disputes became common, particularly for the most powerful *shugo* houses. The Hatakeyama, *shugo* of multiple provinces, and one of three families eligible for appointment as *kanrei*, or deputy shogun, experienced a particularly intense dispute in the mid fifteenth century. Hatakeyama Yoshinari fought his cousin Yasaburō over who would be Hatakeyama heir during 1454–5. Ashikaga Yoshimasa, the shogun, supported Yoshinari while Yasaburō was forced into the mountains of Kii and Kawachi, supported by only a few followers such as the Tsutsui.⁴⁸ It would seem that Yasaburō effectively organized his men to fight skillfully with pikes. Chronicles describe a “pike confrontation” in Kii province resulting in heavy casualties, which accompanied the unexpected, and decisive victory of Yasaburō.⁴⁹ He was then pardoned by Ashikaga Yoshimasa and returned to the capital, where he died in 1459.

The Hatakeyama dispute continued to fester and ultimately caused a far greater war to break out. After the death of Hatakeyama Yasaburō, Ashikaga Yoshimasa favored his brother and heir Masanaga against Yoshinari. Yoshinari endured repeated Ashikaga attacks in 1462, fleeing to remote regions of Kii province to the south of the capital in 1463. Yoshimasa, otherwise unable to end this conflict, invited both factions to the capital to fight in the grounds of the Gōryō shrine, with the winner becoming the legitimate heir. This decision reveals how strongly violence had become accepted as a means of determining judicial right.⁵⁰ In this conflict, Yoshinari triumphed, but Hosokawa Katsumoto, an ally of Masanaga, violated the agreement and aided Masanaga, and this caused supporters of Yoshinari and enemies of the Hosokawa to clamor for revenge.

The Ōnin War

Shugo occupied expansive residences in the capital, and as chance would have it, most of Hatakeyama Masanaga and Hosokawa Katsumoto’s supporters resided in the eastern wards of the capital, near where the imperial and shogunal palace were located, while Yoshinari’s supporters, led by Yamana

48 For an overview, see Conlan, *Fighting Techniques of the Samurai*, pp. 91–2.

49 Conlan, “Instruments of Change”; and *Kōya shunshū hennen shūroku* [A Chronological Collection of Mt. Kōya Sources], in *Dai Nihon Bukkyō zensho* [The Complete Collection of Buddhist Writings in Japan], 161 vols. (Tokyo, Bussho kankōkai, 1912–22), vol. 131 (1912), maki 11, p. 240.

50 Conlan, *State of War*, pp. 194–211.

Sōzen, tended to reside in western wards. One prominent exception was Isshiki Yoshitada, an ally of Sōzen who resided in the eastern wards of the capital. His abode was attacked and destroyed by the Hosokawa on 1467.5.26. The western forces responded by demolishing Hosokawa dwellings in the west. Extensive areas of the capital were burned in order to allow for horses to roam, with seven major temples and six *shugo* residences being destroyed along with countless other residences. More structures, three *shugo* houses and two noble dwellings, were burned in the following month. The Hosokawa controlled the northeast, where the court and headquarters of the Ashikaga *bakufu* were located, but they could not gain control of the rest of the capital. Ashikaga Yoshimasa treated the war as a private dispute among the *shugo* and did little to influence the course of battle.

As a tactical stalemate arose, both Hosokawa Katsumoto and Yamana Sōzen requested that reinforcements enter the fray, and deputy *shugo* led their men into the capital. Western reinforcements entered the capital on 1467.6.8, and a more formidable force, led by Ōuchi Masahiro, arrived in the capital and allowed the outnumbered western commanders to seize the offensive for the first time.⁵¹

These offensives, centered on Shōkokuji, failed, as defensive tactics proved insurmountable. Hatakeyama Masanaga, according to the *Chronicle of Ōnin*, routed a large force of Rokkaku cavalry on 1467.10.3, thwarting the western offensive at Shōkokuji, located near the palace. After closing in on the Rokkaku horsemen, Masanaga, confident of victory, surged into the enemy and the Rokkaku suffered sixty-seven casualties.⁵²

Surviving casualty lists support the assertion found in chronicles that pikes were used to great effect. Between 1467.9.13 and 10.3, twelve members of the Kikkawa family were stabbed by pikes in fights to seize control of giant watchtowers, while eight more were wounded by arrows, five by rocks, and one by a sword.⁵³ These pike wounds represent a greater number of such wounds than can be verified for all of the fourteenth century.

Pikes became significantly longer in the fifteenth century once they were used by troops in formation. As early as the late thirteenth century, pikes can

51 For a website animating the location and duration of battles during the Ōnin War, see "The Onin War: Visualizing Twelve Years in Twelve Minutes," <http://commons.princeton.edu/onin/>.

52 "Ōninki" in Tōkyō Daigaku shiryōhen sanjo (comp.), *Dai Nihon shiryō*, Series 8, 40 vols. (Tokyo, Tōkyō daigaku shuppan, 1913–), vol. 1, pp. 454–9.

53 Tōkyō Daigaku shiryōhen sanjo (comp.), *Kikkawa ke monjo* [The Kikkawa Documents], 3 vols., *Dai Nihon komonjo iewake* 9 (Tokyo, Tōkyō daigaku shuppan, 1925–32), vol. 1, pp. 272–7 (docs. 320–24).

be documented in the *Scrolls of the Mongol Invasions*. They were most likely made of blades that were inserted into bamboo or wooden poles. Relatively short, around 1.5 m in length, these weapons were less favored in combat than long swords, for the latter could stab, or slash opposing enemies and horses, while pikes could only stab an opponent and were more vulnerable to being broken than the 2.1 m-long swords. Although few examples survive from the fifteenth century, early sixteenth-century pikes commonly attained a length of 6 m.⁵⁴

Once cavalry had been defeated by pikemen on the open battlefield, the war became a defensive struggle, determined by men occupying contested territory rather than the mobility of mounted forces. Very quickly, the opposing Ōnin armies dug trenches to maintain their gains, making the capital of Japan a precursor to the Western Front of the First World War. The eastern army, more beleaguered and outnumbered, began entrenching in earnest early in 1468.⁵⁵ Armies burrowed trenches 3 m deep and 6 m wide, and observers watched their opponents' troop movements from watch-towers, which ranged from 21 to 30 m in height.⁵⁶ Skirmishers, known as *ashigaru*, used flaming arrows and rocks to attack and defend these structures.⁵⁷

Having been marginalized in pitched battles, groups of horsemen raided the villages surrounding the capital in order to cut off supplies flowing into enemy encampments. The western army managed to occupy all but one of the supply roads into the capital, which allowed the stalemate to continue. Ultimately, the commanders of each army encouraged deputy *shugo* to rebel against their superiors. After both rival commanders, Hosokawa Katsumoto and Yamana Sōzen, died of natural causes, the surviving *shugo* reached a peace agreement and abandoned the capital in 1477, returning to the provinces in order to shore up their local authority.

The introduction and early usage of the gun

Primitive firearms and artillery devices were first used in battle during the Ōnin War. A catapult was built by a craftsman from Izumi province, apparently modeled after ancient third-century Chinese devices, which launched

54 Conlan, *Weapons and Fighting Techniques*, pp. 86–91.

55 Unsei Daigoku, *Hekisan nichiroku* [The Hekisan Chronicles], *Zōho zoku shiryō taisei*, vol. 20 (Kyoto, Rinsen shoten, 1982), p. 181 (1468.1.29), and p. 202 (1468.5.3).

56 Ogawa Makoto, *Yamana Sōzen to Hosokawa Katsumoto* [Yamana Sōzen and Hosokawa Katsumoto] (Shinjinbutsu Ōraisha, 1994), p. 188. For the height of the towers, see Daigoku, *Hekisan nichiroku*, p. 199 (1468.4.14), p. 200 (1468.4.25), and p. 206 (1468.5.27).

57 *Hekisan nichiroku*, p. 177 (1468.1.5), p. 200 (1468.4.26), and p. 210 (1468.6.21).



FIGURE 5. A three-barreled “fire arrow” (*hiya*) from Okinawa. Photograph used by permission of the Okinawa Prefectural Museum and Art Museum.

3-kg projectiles for over 300 m.⁵⁸ A weapon known as a “flying projectile fire spear” was also described as being discharged from a besieged tower.⁵⁹ Recent archaeological discoveries in Okinawa, site of the former Ryūkyū kingdom, have revealed that primitive three-barreled “fire arrows” (*hiya*), some of which still exist, fired stone and metal bullets. Eleven spent bullets made of earth, limestone, sandstone, coral, copper, and iron have been discovered at the Okinawan castle of Katsurenjō, which was abandoned in 1458.⁶⁰ A chronicler’s description of how a Ryūkyū official surprised residents of Kyoto when he fired a gun on 1466.7.28 proves that these weapons were brought into Japan on the eve of the Ōnin War.⁶¹

These *hiya* consist of three short barrels, each formed by a rolled iron plate, which were bound together by four iron staves. Limitations in firing range and difficulty in perfecting a powerfully explosive gunpowder recipe meant

58 Ibid., p. 181 (1468.1.29). 59 Ibid., p. 235 (1468.11.6).

60 Toma Shi’ichi, “Hiya ni tsuite,” [Concerning Hiya], *Nantō kōko* [Archaeology of the Southern Islands] 14 (December 1994), 123–52.

61 *Inryōken nichiroku* [The Inryōken Chronicles], 5 vols., Dai Nihon bukkyō zensho 133–7 (Tokyo, Bussō kankōkai hensan, 1912–13), vol. 2 (134), p. 670 (1466.7.28).

that these “fire arrows” did not significantly influence the Ōnin battles. As most *hiya* used stones for bullets, an upswing in rock wounds suggests that these weapons became more widely disseminated in the early sixteenth century. Military petitions describe an upswing of rock wounds in the sixteenth century, with rocks injuring eighty-two men during the years 1524–52, with over half (forty-four) occurring during the seventh month of 1552.⁶² The first documentary reference to someone being shot in the right foot appears in 1527, while the first explicit reference to a gun causing these wounds appears in 1563.⁶³

Portuguese guns represented an improvement over earlier firearms, however, and were disseminated rapidly. Named after Tanegashima, where the Portuguese first landed in 1543, some of these weapons were transmitted from Honnōji to Hosokawa Harumoto in 1549.⁶⁴ Harumoto, who had been defeated by Miyoshi Nagayoshi, built a castle at Amidamine with stone walls to defend against guns in 1550, suggesting that the Miyoshi had access to them as well.⁶⁵ A recipe for gunpowder with a ratio of potassium nitrate, carbon and sulfur that resembled European ratios and had maximum explosive potential proved to be as valuable as the guns themselves, for it enhanced their range, and was passed from Tanegashima to the Ashikaga, and in turn made known to their most trusted *daimyō* allies, such as Uesugi Kenshin.⁶⁶

Although twice as many bullet wounds (seventeen to eight) were recorded as arrow wounds in the 1570s, both were inflicted at roughly analogous rates (nineteen to sixteen) in the 1580s. Indeed, from 1467 until 1600, arrows caused 58 percent of all projectile wounds while bullets were responsible for 28 percent and rocks the remaining 13 percent. Not until 1600 do surviving documents reveal a pronounced preference for guns (*teppō*), which caused 80 percent of all projectile wounds on the plains of central Japan.⁶⁷

62. Conlan, “Instruments of Change.”

63. *Yamaguchi kenshi shiryōhen, Chūsei* [Medieval Sources of Yamaguchi Prefecture], 4 vols. (Yamaguchi prefecture, 1996–2008), vol. 3, p. 443; and *Hagi han batsu-etsuroku* [A Record of Sources of Hagi Domain], 5 vols. (Yamaguchi, Yamaguchi ken monjokan, 1967), vol. 2, maki 79, p. 774 (hereafter *Hagi*).

64. Fujii Manabu, *Honnōji shiryō chūsei hen* [Medieval Honnōji Sources] (Kyoto, Shibunkaku shuppan, 2006), p. 96 (doc. 129).

65. Kuroita Katsumi (ed.), *Nochikagami* [The Latter Mirror] 4 vols. (Tokyo, Yoshikawa kōbunkan, 1934), vol. 4, pp. 623–4 (1550.2.16).

66. Conlan, *Weapons and Fighting Techniques of the Samurai*, pp. 157–61. For a translation of this and other related documents, see “Not So Secret Secrets: Three Uesugi Documents (komonjo) of 1559,” <http://komonjo.princeton.edu/uesugi/>.

67. This data appears in Conlan, “Instruments of Change.” Guns caused 132 out of 165 projectile wounds in 1600.

Guns did not lead to any tactical changes, as it took time for them to be used effectively. Changes commonly ascribed to guns – that they led to the rise of “massed tactics” or the dominance of infantry over cavalry – are mistaken, for these changes occurred as a result of the *shugo*’s increasing logistical prowess.

Warring States

Although the negotiated end of the Ōnin hostilities in 1477 has been thought to constitute the beginnings of the “Warring States” era, 1493 represents a more logical starting point, for during this year Hosokawa Masamoto staged a coup against the shogun Ashikaga Yoshitane. Thereupon two Ashikaga shoguns, Yoshitane and Yoshizumi, competed for power and all of Japan’s surviving *shugo* supported one or the other. Yoshitane sought refuge with the Ōuchi, and the man who later became known as Hōjō Sōun, a close confidant to Ashikaga Yoshitane’s father, attacked the pro-Hosokawa Ashikaga deputy of eastern Japan and went on to establish his own domain in the east, meaning that eastern and western Japan supported one faction and central Japan the other. The Warring States constituted less an inchoate struggle for supremacy among semi-independent regions of Japan than a continued fight between the followers of the “eastern” and “western” armies of the Ōnin War, with the Hosokawa pitted against the Ōuchi in the west and the Imagawa and Hōjō in the east. *Shugo* authority weakened, as members of each faction encouraged rival deputies to overthrow their lords. In the case of Kaga province, an alliance of autonomous warriors, united in belief, made the Honganji temple the lord of their province.

The Hosokawa faction proved more ruthless, and at the same time more susceptible to being overthrown, for they were the first to attack their superiors, the Ashikaga. Hosokawa Masamoto in turn was killed in the bath by one of his followers in 1508. Thereupon, Ōuchi Yoshioki and Ashikaga Yoshitane returned to the capital, and for ten years restored Ashikaga authority. Nevertheless, Yoshioki returned to his domains in 1518 and Yoshitane was eventually forced to flee once again.

Patterns of sixteenth-century conflict

As armies became cohesive organizations, and warrior autonomy became limited, a change occurred in the documents recording battle. Warriors obligated to fight for their *daimyō* no longer submitted petitions of reward or documents of arrival. Even those who maintained some autonomy did not

submit narratives describing where they fought. Instead, the names of the wounded and killed were recorded, with the nature of the wounds mentioned in great detail. In contrast to the fourteenth century, from which over 1,300 records survive, only ninety-four battle reports (*kassen chūmon*) describe the battles of 1477–1600, but these records mention the names and precise wounds of 1,524 individuals.⁶⁸ These documents overwhelmingly survive from western Japan, where older styles of rule lasted longer and more warriors managed to survive the turmoil of the sixteenth century.

According to surviving documents describing the first sixty years of the Warring States from 1493 until 1553, battles can only be documented for seventeen years. To be sure, more struggles existed, but changes in how warriors were rewarded, the discarding of old lists of the battle wounded, and the destruction of older *shugo* houses, such as the Ōuchi during the years 1551–7, led to a decrease in these records. Nevertheless, these records are informative in revealing how warfare was fought in the first half of the sixteenth century.

Two years provide enough documents to allow for study, all from western Japan. The first are from the year 1527 and pertain to a campaign waged by Ōuchi Yoshioki. Nine surviving documents mention 105 wounds or fatalities.⁶⁹ These records do not mention the cause of death for the twenty-four listed as killed. Wounds, by contrast, merited specific notations. According to these sources, forty-six men were wounded with arrows, fourteen by pikes, five by swords, one by gun, and fifteen by “rocks” which most likely were fired from guns. Patterns of wounding reveal that 77 percent (sixty-two out of eighty-one) of all wounds were caused by projectiles, a figure which is consistent for all of the documents depicting battles from 1467 to 1600, as projectiles continued to inflict 75 percent of all wounds. This upsurge in rock weapons stems from the increased use of guns, for other documents dating from this year mention wounds caused by firearms. For example, one man in Amano Okisada’s battle report is listed as being “shot

⁶⁸ Ibid.

⁶⁹ Tōkyō Daigaku shiryōhen sanjo (comp.), *Kumagai ke monjo*, *Miura ke monjo*, *Hiraga ke monjo* [Kumagai, Miura and Hiraga Documents], Dai Nihon komonjo iewake 14 (Tokyo, Tōkyō daigaku shuppan, 1937), pp. 396–9 (docs. 97–8); Tōkyō Daigaku shiryōhen sanjo (comp.), *Masuda ke monjo* [Masuda Documents], 4 vols., Dai Nihon komonjo iewake 22 (Tokyo, Tōkyō daigaku shuppan, 2000–2012), vol. 1, pp. 243–5 (doc. 278); *Yamaguchi kenshi shiryōhen*, *Chūsei*, vol. 2, *Renzen ke monjo*, p. 945 (doc. 10), *Hagi*, vol. 1, maki 16, pp. 456–7, and *Yamaguchi kenshi shiryōhen*, *Chūsei*, vol. 3, pp. 441–3 (Migita Mōri docs. 23–7).

wounded” in the right foot, a terminology that is distinct from arrow wounds mentioned in Okisada’s other documents.⁷⁰

Documents dating from 1527 also describe a group of “shock troops” (*tachi uchi shū*), suggesting that a formation of massed infantry consisting of twenty-eight men fought on the battlefield and captured three enemy heads. Of these men, one was killed and fifteen were wounded: seven by pikes, one by sword, four by arrows and one by both arrow and pike. This group, in contrast to typical behavior, actually attacked the enemy at close quarters and suffered for it. Shock weapons thus inflicted 23 percent of all wounds recorded in 1527. Seventy-three percent (fourteen of nineteen) of these shock wounds were caused by pikes. Pike usage was apparently somewhat less in 1527, for on average pikes caused 242 of 308 or 81 percent of all wounds by hand-held weapons from 1467 to 1600.

Five documents pertaining to the battles of 1552 reveal that pike and gun usage had become more prevalent than before.⁷¹ A total of 118 were wounded by arrows and 44 by rocks, which in fact suggests gun usage, for a total of 162 injuries by projectile. Forty-eight suffered pike wounds while four were slashed. Of the total 214 casualties, projectiles wounded 76 percent, with arrows causing 73 percent of projectile wounds and rocks (from guns) the remaining 27 percent. Pikes caused 92 percent of shock wounds, revealing they were used more commonly than had previously been the case. Once pikes became the favored weapons of foot soldiers, *shugo* strove to mobilize ever-larger armies and occupy contested lands.

Improvements in mobilization

Although guns and pikes were utilized throughout Japan, *daimyō* in eastern Japan appear to have instigated a more successful method of mobilization, based on regional ties and also linking military service to taxable revenue. Hōjō Ujitsuna, writing his testament of 1541, describes cash revenue as being the basis for warrior status.⁷² A register dating from 1559 reveals how the Hōjō had mobilized companies according to geographic rather than kin-

⁷⁰ Yamaguchi *kenshi shiryōhen*, Chūsei, vol. 3, p. 443 (Migita Mōri ke monjo, doc. 26–7).

⁷¹ Hagi, vol. 1, pp. 829–30 (Asonuma monjo, doc. 9); vol. 2, pp. 138–9 (Dewa monjo, doc. 16); Kikkawa ke monjo, vol. 1, pp. 453–5 (doc. 509); Yamaguchi *kenshi shiryōhen*, Chūsei, vol. 3, p. 999 (Yūasa ke monjo, doc. 8); and Tōkyō Daigaku shiryōhen sanjo (comp.), *Mōri ke monjo* [Mōri Documents], 4 vols., Dai Nihon komonjo iewake 8 (Tokyo, Tōkyō daigaku shuppan, 1920–24), vol. 1, pp. 305–19 (doc. 293).

⁷² Takeuchi Rizō (comp.), *Kanagawa kenshi kodai chūsei shiryō* [Ancient and Medieval Sources of Kanagawa Prefecture], 4 vols. (Yokohama, Kanagawa prefecture, 1979), vol. 3, no. 2, pp. 262–72 (doc. 6742). For an overview, see Conlan, *Fighting Techniques of the Samurai*, pp. 131–5.

based distribution. This document recounts the holdings of 560 warriors, which were precisely delineated in 72,168.259 *kan* of cash. The Hōjō probably mobilized as many as 10,000 men if they adopted a ratio of men to income comparable to that shown in this register, and in their domains as a whole the Hōjō could field an army of 20,000 men.⁷³

As armies increased in size, more simplified armor came to be favored. Some of the Hōjō troops wore armor made from lacquered paper, although another style, whereby plates were hung together rather than braided as before, came to predominate. This new type of armor, called *tōsei gusoku*, or “contemporary armor” became widely disseminated. A simplified helmet with eight steel sheets bolted together, called a *zunari kabuto* or head-shaped helmet, became the favored headgear; it first appeared in 1510, created by the armorer Myōchin Nobuie. Its simple and durable construction allowed for fantastic decorations of great horns or catfish tails to later be added.

The regions around the capital, rather than the periphery, witnessed the most effective use of pikes. Miyoshi Nagayoshi, a deputy *shugo* of the Hosokawa, defeated Hosokawa Harumoto, his lord, with a formidable force of 900 pikemen on 1547.7.21. Nagayoshi’s ability to train and effectively use his pikemen proved to be the basis for his success, for Nagayoshi confronted Harumoto with a similar number of troops, but inflicted great casualties on them.⁷⁴ Two years later he expelled the shogun, Ashikaga Yoshiteru, from the capital, and ultimately his heir killed Yoshiteru in 1565, a year after Nagayoshi’s own death.⁷⁵

Nagayoshi’s victory and the subsequent actions of the Miyoshi, who attacked both their Hosokawa and Ashikaga lords, emphasized coercive authority over all other modes of legitimation. Nagayoshi scorned court rank and *bakufu* office and preferred instead to base his authority upon military prowess, which stemmed from his ability to organize and train pike-wielding soldiers.⁷⁶ Many of the social and political changes have been

73 Michael Birt, “Warring States: A Study of the Go-Hōjō Daimyo and Domains,” unpublished PhD diss., Princeton University (1983), pp. 168–77. The source appears in Shizuoka kenshi hensan iinkai (comp.), *Shizuoka kenshi shiryōhen*, *Chūsei* [Medieval Sources of Shizuoka Prefecture], 4 vols. (Shizuoka, Shizuoka prefecture, 1989–96), vol. 3, pp. 979–1000 (doc. 2678).

74 “Ashikaga kiseiki” [The Rise and Fall of the Ashikaga], in *Kaitei shiseiki shūran* [A Revised Compendia of Historical Sources], 31 vols. (Tokyo, Kondō katsuhanjo, 1902), vol. 13, pp. 192–3 (1547.7.21).

75 Jōetsu shishi chūseishi buhai (comp.), *Uesugi-ke gosho shūsei* [A Collection of Uesugi House Records], 2 vols., Jōetsu shishi sōsho 6–7 (Jōetsu shi, 2001–2), vol. 1, p. 182 (doc. 288).

76 Imatani Akira, *Sengoku daimyō to tennō* [Warring States Daimyō and the Emperor] (Tokyo, Kōdansha gakujutsu bunko, 2001), p. 194; and Imatani Akira, *Sengoku jidai no*

mistakenly attributed to the introduction of the gun in Japan, but nearly all of these traits – disdain for status, the defeat of horsemen by infantry, and a disregard for religious and courtly modes of legitimacy – were fully evident in the career of Miyoshi Nagayoshi, who flourished just as the Portuguese firearms were first introduced to Japan.

Religion and war

Religious institutions remained militarily significant, for they continued to be storehouses of weapons and food, and also fielded forces on the battlefield. Some temples, such as Negoroji, became able to field a formidable force of temple gunners. Records pertaining to temples such as Myōtsūji reveal that many patronized by the Ashikaga witnessed an eclipse in the sixteenth century as Ashikaga power withered. Still, as late as 1526.7.30, “military monks” from Zennōji temple can be documented as serving in Kōno Michinao’s encampment.⁷⁷ Changes in belief arose, in that some shrine attendants, such as Iwakiri Tsunetaka, of a family that had fought repeatedly and prominently in the fourteenth and early fifteenth century, requested that shrine attendants no longer perform military (literally “camp service”) in 1505.⁷⁸ Maledictions and prayers, which had been an integral part of the battlefield, decreased in significance.

Major temples, such as Honganji, Mt. Hiei, Negoroji, and Mt. Kōya maintained regional power. Honganji itself, protected by massive fortifications and garnering the revenue from one of Japan’s sixty-six provinces, remained a potent force until after the destruction of the Ashikaga regime. It would surrender, ultimately, along with Mt. Kōya, while Mt. Hiei and Negoroji would be destroyed. That these temples would endure such attacks reveals that Buddhist ritual power weakened in the sixteenth century, particularly after the 1573 downfall of the Ashikaga, for these institutions had upheld much of Ashikaga legitimacy.

Conclusion

Japan witnessed a tactical transformation in the fifteenth century, as armies shifted from being collections of mounted soldiers to trained formations of

kizoku [The Nobility of the Warring States Era] (Tokyo, Kōdansha gakujutsu bunko, 2002), pp. 188–210.

77 Kageura Tsutomu (comp.), *Zennōji monjo* [Zennōji Documents] (Matsuyama, Seikyō shiten insatsujo, 1965), p. 166 (doc. 55).

78 Tamayama Jōgen (comp.), *Iino Hachimangū monjo* [Iino Hachimangū Documents] (Tokyo, Zoku gunsho ruijū kanseikai, 1983), p. 73 (doc. 112).

foot soldiers. This change arose once *shugo* had the ability to supply their armies indefinitely, which became possible after the *hanzei* edict of 1351. A century later, commanders mastered the use of pikes and managed to defeat mounted archers with foot soldiers on the open field of battle.

Pikes became favored over swords and increased remarkably in length, while long swords fell from favor. The shortened *katana* became a weapon for personal protection, but one rarely used on the battlefield. Bows remained the dominant projectile weapon although guns, which had been introduced in Japan in 1466, gradually gained favor, and by 1550 guns influenced the organization of military units and techniques of fortification, as stone gained favor over earthworks. Mountain castles remained favored through the mid sixteenth century; it was not until the final three decades of the century that extensive castles, occupying large plains with substantial stone walls, would arise.

The tension between individual recognition and massed tactics was resolved with the establishment of powerful *shugo daimyō* who broke down the autonomy of mounted warriors and established large armies of pike-wielding soldiers. This did not bring an end to turmoil, as *shugo* deputies who most tightly controlled regional forces became more likely to overthrow their superiors, a trend that became more pronounced after 1550. Armies increased in size over the course of the sixteenth century, and ultimately some *daimyō* amassed enough coercive force to break warriors' ties to the land by offering them revenue in rice in exchange for abrogating rights to the land, and by prohibiting those on the land from possessing weapons. Violence, originally limited, would, by the end of the sixteenth century, become divorced from the parameters of daily life, and the boundaries of the warrior order, imprecise for so long, would once again become distinct.

The Americas

RUBÉN G. MENDOZA

Introduction

The Americas constitute one of the most topographically diverse and environmentally heterogeneous regions of the world, and each of these dimensions, and a host of social, economic, political, and cultural variables, necessarily serve to define the nature of war and society in the American hemisphere. In the two centuries anticipating Columbian contact with the New World in 1492, the Americas were largely dominated by the rise and fall of hundreds of kingdoms and warring polities, and the emergence of two powerful, albeit militaristically distinctive, imperial traditions – one Mesoamerican, the other Peruvian. Each evolved from a pattern of military statecraft and conquest interaction that coalesced in the highlands of each region in the period extending from 1300 to 1500 CE. While the Andean highlands of Peru and Bolivia were the crucibles of a centuries-old tradition of empire building, questions regarding the extent to which Mesoamerican empires fully and completely consolidated their gains as hegemonic imperial formations remain. The evolution and expansion of these imperial traditions has long been recognized as having had long-range social and political consequences for the cultures and civilizations of their respective spheres of influence. By contrast, the Northwest Coast peoples of North America were once thought to have sustained relatively peaceable or diminished scales of military statecraft or social violence in the centuries preceding European contact. Nevertheless, such groups have since been redefined in terms of evidence from archaeology that points to the proliferation of hill forts, palisades, and human sacrifice.¹ Other smaller-scale social formations,

1 Herbert D. G. Maschner, "The Evolution of Northwest Coast Warfare," in Debra L. Martin and David W. Frayer (eds.), *Troubled Times: Violence and Warfare in the Past*, War and Society 3 (Amsterdam, Gordon and Breach Publishers, 1997), pp. 267–302; Joan A. Lovisek, "Aboriginal Warfare on the Northwest Coast: Did the Potlatch Replace Warfare?," in Richard J. Chacon and Rubén G. Mendoza (eds.), *North American*

including those of the Taíno and Carib chiefdoms, battled for domination of the Caribbean, and were characterized by Europeans in diametrically opposed terms. Whereas Columbus described the Contact-era Taíno of Hispaniola as friendly and peaceful traders, the Carib by contrast were described as warlike marauders, raiders, and cannibals. The first Europeans to set foot in the New World in the late fifteenth and early sixteenth centuries were confronted by a bewildering array and juxtaposition of majestic cities, sophisticated technologies, resplendent ceremonies, and alien ways of war and ritual human sacrifice, even far and away from the primary centers of hegemonic expansion and control in the American hemisphere.

In order to effectively address the incredible diversity and dynamism of the social, economic, and political landscapes that fueled the origins and proliferation of warfare, military statecraft, and other forms of social violence in the Americas for the period extending from 1300 CE through 1500, each region's cultural, environmental, and topographical characteristics must be taken into account. Only the more salient features or dimensions of warfare and the proliferation of military institutions are examined on a region-specific basis, with Mesoamerica and Peru serving as the primary points of departure for the analysis of state level or imperial warfare.

The precepts and prospects of war

Whereas R. Brian Ferguson defines warfare as “organized, purposeful group action, directed against another group that may or may not be organized for similar action, involving the actual or potential application of lethal force,” Ember and Ember define warfare as “socially organized armed combat between members of different territorial units (communities or aggregates of communities).”² The motives of warfare vary from case to case, however Marcus and Kicza argue that where Mesoamerica is concerned, “these included the elimination of rivals for the throne, revenge for alleged insults, and retribution for a previous defeat.”³ They go on to acknowledge other

Indigenous Warfare and Ritual Violence (Tucson, University of Arizona Press, 2007), pp. 58–73.

- 2 R. Brian Ferguson, “Introduction: Studying War,” in R. Brian Ferguson (ed.), *Warfare, Culture, and Environment* (Orlando, FL, Academic Press, 1984), p. 5; Melvin Ember and Carol R. Ember, “Cross-Cultural Studies of War and Peace: Recent Achievements and Future Possibilities,” in Stephen P. Reyna and R. E. Downs (eds.), *Studying War: Anthropological Perspectives* (Amsterdam, Gordon and Breach, 1994), p. 190.
- 3 Joyce Marcus, “Conquests: Pre-Hispanic Period,” in David Carrasco (ed.), *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*, 2 vols. (New York, Oxford University Press, 2001), vol. 1, pp. 251–4.



MAP 15A & B. Culture areas of the American hemisphere. After Rubén G. Mendoza and Shari R. Harder, "Mythologies of Conquest: Demystifying Amerindian Warfare and European Triumphalism in the Americas," in Richard J. Chacon and Rubén G. Mendoza (eds.), *The Ethics of Anthropology and Amerindian Research: Reporting on Environmental Degradation and Warfare* (New York, Springer Press, 2012), p. 208; Fig. 9.8.

sources, including "border disagreements; acquisition of land, goods, resources, and labor; and the rebellion of subordinate peoples to free themselves from onerous tribute demands." William R. Fowler, Jr., extends the scope of Ferguson's definition of warfare by noting that he excludes



MAP 15A & B. (cont.)

individual violence targeted at personal retribution. Fowler acknowledges that further distinctions may be made between “true warfare” and “personal retribution,” and goes on to delineate such distinctive features as (1) group versus individual motivation, (2) leadership command and direction, (3) tactical operations, and (4) the wherewithal to sustain a prolonged pattern

of assault or siegecraft until the objectives of war are attained.⁴ The practical ability to plan and conduct campaigns is thought to characterize the “highest levels” of warfare in human communities. Prudence Rice questions the use of the term “warfare” to reference Mesoamerican conflict antedating the Classic Period (300–900 CE). She construes warfare to imply “substantial infrastructural investment and organization, including imperialist politics, territorial expansion, standing armies and supply systems, weaponry systems, defensive fortifications, large-scale offensive operations often at long distance, conquest by force, destruction of enemies and property, tribute collection systems, and the ability to maintain control of the defeated society.”⁵ Such indicators are readily called to mind in so far as the documentary histories of both the Aztec and Inca empires are concerned. The evidence for long-distance occupation or usurpation of foreign capitals by Teotihuacan in Mexico and Guatemala (c.250–550 CE), and Wari in Peru (c.500–900 CE), necessarily extends the prevalence of imperial formations and warfare into remote antiquity in the American hemisphere. Ultimately, the particular conventions or patterns of warfare that prevailed at any given time in Mesoamerica and the Andean Cordillera were directly correlated with the variable topographies, environmental variables, ritual and ceremonial landscapes, and respective cultural adaptations of highland versus coastal lowland peoples (and, where the Andes are concerned, those of the Peruvian Amazon to the east).

Asymmetrical warfare

In the Americas, the highly fractious topographies of both highland Mesoamerica and Peru mediated the development of warfare and the evolution and denouement of cultural traditions and the whole of civilizations. So distinctive were the forms of warfare and governance that evolved in such regions that anthropologists and historians continue to grapple with how best to define the fundamental character of such formations. Clearly, moieties or bifurcated lineage-based forms of governance and warfare were an endemic and ubiquitous sociopolitical formation in the American hemisphere. This fact played a fundamental organizational role in the nature and disposition of armies, warfare, and conflict in the Americas more generally.

Invariably, segmentary states, or those that entail the reorganization of society into segments of roughly equal rank, constituting a tribal form of

4 William R. Fowler, Jr., *The Cultural Evolution of Ancient Nahua Civilizations: The Pipil-Nicarao of Central America* (Norman, University of Oklahoma Press, 1989), pp. 206–7.

5 Prudence M. Rice, *Maya Political Science: Time, Astronomy, and the Cosmos* (Austin, University of Texas Press, 2004), p. 259.



FIGURE 6. Depiction of the abandoned ninth-century Classic Maya acropolis complex of *Yax Mutal* or Tikal, Guatemala. Note access causeway and the elevation of the massive acropolis complex upon which the city was established. From a painted wall panel located at the San Diego Museum of Man in Balboa Park. Photograph © 2008 Rubén G. Mendoza.

social and political interaction, often comprise such formations. A segmentary state, or heterarchy, is one within which is maintained a flexibility in the assignment or configuration of formal relationships and rank privilege. Both the fractious Tlaxcalteca and Mixteca polities of highland central Mexico and their Postclassic contemporaries (900–1521 CE), the Mexicanized Maya or Quichean states of highland Guatemala, provide the most cogent examples of such sociopolitical formations in the American hemisphere. In the Mesoamerican context, the Tlaxcalteca or Tlaxcallan Confederacy maintained a heterarchical configuration that ultimately proved decisive in staving off the advance of the Aztec imperial juggernaut, and did so by way of a system of hill forts and heterarchical alliance formations that included multi-polity war councils that permitted an organic and otherwise amorphous defensive structure.

In highland central Mexico the mountainous terrain of the region served as a buffer between expanding polities such as that of the Mexica Aztec, and other competing segmentary states, heterarchies, and kingdoms or *altepetl* (Water

Mountains).⁶ Among the latter, those of the Tlaxcallan Confederacy, Michhuacan or Tarascan empire, and Mixteca kingdoms held sway for centuries despite the predatory envelopment of their respective domains by the imperial powers of the day. The Mesoamerican Epiclassic (600–900 CE) in turn institutionalized the asymmetrical military formations and heterarchical social and political configurations that ultimately dominated the warring kingdoms of the Postclassic (900–1521 CE).⁷ Flannery and Marcus have nevertheless noted a direct correlation between the origins of inter-village raiding and the emergence of segmentary societies, and have dated the earliest defensive palisade in Mesoamerica to 3260–3160 BP, or c.1310–1210 BCE.⁸ Concomitantly, Cheetham and Clark have each investigated compelling evidence for a militarized state-level Olmec intrusion and ethnic displacement of the peoples of the Mazatán region of Early Formative (1500–950 BCE) coastal Chiapas, Mexico.⁹ As for the ancient Maya, Mesoamerican archaeologists have documented a greater role for militarism in the evolution of Maya civilization at the site of Muralla de León in the Guatemalan Petén for the period extending from 1735 BP (or 215 CE plus or minus eighty-five years). They have traced that pattern through to the end of the Postclassic and subsequent Spanish Contact era of the sixteenth century.¹⁰ Largely reliant on acropolis and hill fort-centered defensive systems, the kingdoms and fractious polities of the Epiclassic were predominantly configured as cartels, alliance formations, and as segmentary states or heterarchies such as those of the Quichean highlands of Guatemala.¹¹ Such polities sought to avoid formal or institutionalized ranking or the massing of troops on a given field of

6 *Altepetl*, or Water Mountain, was the term used in pre-Hispanic highland Mexico to designate kingdoms, and thereby remained the official designation for the indigenous tributaries well into the Spanish era. See Rubén G. Mendoza, “Altepetl, Xicalcolihqui, and Tlalocan: A Cosmological Reassessment and Reimagining of the Water Mountains and ‘Feathered’ Serpents of Mesoamerica,” Symposium: In the Realm of the Vision Serpent: Decipherments and Discoveries in Mesoamerica, California State University, Los Angeles, April 10, 2015.

7 Rubén G. Mendoza, “Conquest Polities of the Mesoamerican Epiclassic: Circum-Basin Regionalism, ad 550–850,” unpublished PhD diss., University of Arizona (1992).

8 Kent V. Flannery and Joyce Marcus, “The Origin of War: New 14C Dates from Ancient Mexico,” *Proceedings of the National Academy of Sciences of the United States of America* 100.20 (September 30, 2003), 11801–5.

9 David Cheetham, “The Americas’ First Colony?,” *Archaeology* 59.1 (January/February 2006), 42–6; J. E. Clark, “The Arts of Government in Early Mesoamerica,” *Annual Review of Anthropology* 26 (1997), 211–34; and J. E. Clark, “Mesoamerica’s First State,” in V. L. Scarborough and J. E. Clark (eds.), *The Political Economy of Ancient Mesoamerica* (Albuquerque, University of New Mexico Press, 2007), pp. 11–46.

10 Don S. Rice and Prudence M. Rice, “Muralla de León: A Lowland Maya Fortification,” *Journal of Field Archaeology* 8 (1981), 271–88.

11 John W. Fox, *Maya Postclassic State Formation: Segmentary Lineage Migration in Advancing Frontiers* (Cambridge, Cambridge University Press, 1987).

battle. It was precisely this pattern that swept the whole of Mesoamerica in the aftermath of the fall of the great cities and states of the Classic in a period spanning centuries best described as the equivalent of a Mesoamerican "Dark Age." Such asymmetrical political and military formations proved a formidable challenge to the growth, consolidation, and hegemonic integration of the expansionist Aztec empire of the Late Postclassic (1250–1521 CE).

Mesoamerican warfare

Mesoamerica is broadly defined as that vast culture region encompassing much of the central and southern portions of modern Mexico, plus Guatemala and portions of western Honduras, El Salvador, the Pacific lowlands of Nicaragua, and northwestern Costa Rica.¹² Technically speaking, both the northern and southern boundaries of Mesoamerica constitute an oscillating frontier in which the primary cultural attributes of advanced civilizations, kingdoms, and empires rose and fell over the course of thousands of years of human development. Such developments span from the rise of the Olmec tradition in 1500 BCE through to the fall of the Mexica Aztec in 1521 CE. What constitutes Mesoamerica as a cultural region was first defined by Paul Kirchhoff, and includes such cultural features as sedentary agricultural villages, maize cultivation, urbanism, civic-ceremonial architecture, writing systems, ball courts and human sacrifice, and a shared ideological framework and cosmology. Given the culture-historical and culture area orientation of Kirchhoff's definition, it is not surprising that Mexican archaeologist Pedro Armillas sought out evidence for warfare in the guise of Mesoamerican fortifications within the whole of this region.

Fortifications

According to Armillas, much of what might fruitfully be construed as evidence for militarism was inherent to the architectural traditions of Mesoamerica.¹³ Beginning with the Aztec, Armillas first considered the strategic military value of the island fortress of Mexico Tenochtitlan, with its waterborne causeways and removable spans or bridges. He then went on to identify a host of defensive features or fortifications from throughout Mesoamerica. Ultimately, Armillas identified concentric dry-stone walls

12 Paul Kirchhoff, "Mesoamérica: Sus límites geográficos, composición étnica y caracteres culturales," *Acta Americana* 1 (1943), 92–107.

13 Pedro Armillas, "Mesoamerican Fortifications," *Antiquity* 25 (1951), 77–86.

(some ranging from 5.0 to 8.0 m in height by 6.0 m in depth), parapets, embankments, topographic barriers, hill forts, bastions with looped holes, detached forts, barbican or gate houses, frontier fortifications, 2.0 to 9.0 m-wide dry moats, and wall-parapet combinations. In addition, his taxonomy of defensive features included triangular fortifications, parallel parapets, trench-wall or palisade combinations, roadblocks, log and fascine-strengthened rock walls, hill-fort groupings or defensive clusters, mesa-top settlements, ravines and other restricted access features, elevated masonry causeways, redoubts, gateways, and sentry posts or guardhouses. To this were added fosses, postern gates, timber palisades or *tulumché*, pitfalls with pointed stakes, timber breastworks, wooden walls, towers measuring 6.0 m in height, compartmentalized wards with concentric walls, stockades, palisade road-blocks, cliff shelters, palisade towns, stone breastworks, acropolis centers, dry-stone bastions, moats with thorn thickets or cacti fill, and a host of related features.

In the Mexican highlands, analogous sites and structures, such as those at the contemporary Aztec and Chontal fortifications of Oztuma, Guerrero, served as temporary barriers to advancing armies. The Aztec and Chontal fortifications each “formed the defensive line of the imperial frontier facing the Tarascans,” and in this way, “Chontal Oztuma maintained internal political cohesion while integrated into the Aztec hegemony.”¹⁴ As with the fortifications at Oztuma, archaeological and ethnohistorical records provide numerous accounts of masonry circuit walls or defensive barriers from fortified settlements throughout Mesoamerica. Nevertheless, it is clear that such static defensive systems were often ineffective under periods of long-term siege warfare, particularly given the massive deployment of soldiers by the Aztec and related imperial formations of the Postclassic era. This fact, combined with the often-temporary nature of static fortifications and the limited resources available within the hill forts themselves, made fortifications a tenuous proposition at best. Conjoined ditch and embankment systems were far more effective in serving as a deterrent, or impediment, to siege tactics than were dry-wall fortification systems in Mesoamerica.¹⁵ The construction of ditch and embankment systems, however, required

14 Jay Silverstein, “Aztec Imperialism at Oztuma, Guerrero: Aztec–Chontal Relations during the Late Postclassic and Early Colonial Periods,” *Ancient Mesoamerica* 12 (2001), 31.

15 David L. Webster, “Lowland Maya Fortifications,” *Proceedings of the American Philosophical Society* 120 (1976), 361–71; David L. Webster, “Three Walled Sites of the Northern Maya Lowland,” *Journal of Field Archaeology* 5 (1978), 375–90.

considerable investment in man and materials, and as such, they were less likely to be selected for as a temporary defensive option in frontier contexts.

Whereas Postclassic-era fortifications served as temporary barriers to advancing armies, the hill forts and acropolis centers of the Epiclassic constituted the semi-permanent siege-forts and frontier settlements of intrusive elites and their warrior populations. The latter observation is rendered credible by the clearly intrusive and multi-ethnic character of the fortified settlements and acropolis centers of the Acopinalco complex of Tlaxcala, whose supporting land base was often circumscribed by walls, moats, and other defensive features. Such centers were well prepared for the long-term campaigns and siegecraft of an earlier time that lasted through the ultimate destruction and collapse of the ancient metropolis and expansive “mercantile empire” of Teotihuacan in the period after 650 CE.

While Pedro Armillas’s “trait list” approach to Mesoamerican fortifications provides an essential point of departure for gauging the extent of military architecture in the region, the utility of this perspective is nevertheless limited by the largely descriptive as opposed to explanatory potentials of the culture historical framework in question. For instance, while Armillas cites siege ladders, towers, or timber palisades, little more than the physical characteristics or individual sites where such devices were used are noted in passing. More recently, a host of archaeologists and military historians have generated robust explanatory models for the causes and consequences of Mesoamerican warfare, and its manifestation in architecture and other forms of material culture. According to Webster, “more formal, large-scale military operations are implied by the massive size of some of the fortifications.” He goes on to acknowledge, “we know that the Post-Classic Maya were capable of fielding forces numbering in the thousands . . . and there is no reason to maintain that their ancestors lacked this capability.”¹⁶ Unlike earlier assessments of military fortifications in the Americas, Webster systematized the study and interpretation of such features, and identified two essential construction techniques: earthworks, the most effective of the two construction techniques, and dry-laid stone walls of “varying height.” The massive undertaking required to erect earthworks kilometers long is seen to reflect significant organizational and demographic considerations, and thereby, the emergence of state-level enterprise in a given region.

¹⁶ Webster, “Lowland Maya Fortifications,” pp. 366–9; and Arthur A. Demarest, *The Petexbatun Regional Archaeological Project: A Multidisciplinary Study of the Maya Collapse* (Nashville, Vanderbilt University Press, 2006).

Transport networks

Effective fortifications are thought to have been indispensable in the American hemisphere, particularly as the lack of domesticable beasts of burden introduced logistical problems for maintaining supply lines in the context of long-term siege warfare. Robert Drennan, for instance, has examined the costs associated with the long-distance transport of foodstuffs versus sumptuary goods, and has concluded that the long-distance transport of foodstuffs was impracticable.¹⁷ By contrast, the transport of sumptuary goods was deemed practical as far as high-value markets and the maintenance of political ties were concerned.

The challenge of maintaining supply lines in the context of empire building necessarily restricted hegemonic control to economic and tributary ends, and thereby precluded territorial gains while at the same time promoting other forms of imperial control. Alternative forms of control under such conditions included the deployment of garrisons, colonial outposts or rural sustaining communities, disguised merchants (*nahualoztomeca*) or merchant spies (*teyalualoanimé*), and the taking of elite captives.¹⁸

Despite constraints posed by the challenges of maintaining supply lines in the Mexican highlands without beasts of burden, human burden bearers (or *tlameme* in Nahuatl) nevertheless plied the length and breadth of the American hemisphere. Such porters were capable of negotiating 30 kg or more of cargo per day over distances ranging between 20 and 25 km using little more than a cordage-fiber tump line known as the *mecapal*. Aztec soldiers similarly bore weapons, supplies, and equipment in such a fashion, whereas the Inca armies of the Andean Cordillera had the benefit of pack animals such as the llama. In Mesoamerica, *Pochteca* merchants, who made extensive use of *tlamemeh* porters for long-distance transport, managed immense quantities of tribute, food stuffs, and sumptuary goods over vast distances. This fact necessarily mitigated extant challenges in Mesoamerica, particularly as water-borne or riverine trade along such great rivers as the

17 Robert D. Drennan, "Long-Distance Movement of Goods in the Mesoamerican Formative and Classic," *American Antiquity* 49 (1984), 27–43.

18 Daniel G. Brinton, *The Annals of the Cakchiquels*, Brinton's Library of Aboriginal American Literature 6 (Philadelphia, 1885); Kenneth G. Hirth, *Eastern Morelos and Teotihuacan: A Settlement Survey* (Nashville, Vanderbilt University Press, 1980); Francis F. Berdan and Patricia Rieff Anawalt (eds.), *The Essential Codex Mendoza* (Berkeley, University of California Press, 1997), p. 132; Samuel V. Connell and Jay E. Silverstein, "From Laos to Mesoamerica: Battlegrounds between Superpowers," in *The Archaeology of Warfare: Prehistories of Raiding and Conquest* (Gainesville, University Press of Florida, 2006), pp. 412–24.

Usumacinta, Pasión, Grijalva, Balsas, Verde, Pánuco, Lerma-Santiago, Río Grande de Santiago, and Motagua facilitated such transport over the whole of the region. In addition, early sixteenth-century Spanish accounts of coastal trade and seaborne transport along the Mexican Gulf Coast make clear that sizeable canoes and rafts or barges moved significant quantities of Yucatecan salt, rubber, cacao, plumage, jaguar pelts, ceramics, paper, military uniforms, gold, jade, and a wide variety of food stuffs. The *Codex Mendoza* provides one of the more thoroughgoing accountings of the trade in military armaments, uniforms, and related accoutrements taking center stage in such transactions.

Over the course of the last century, archaeologists have recovered evidence of ancient formal and informal transport network architecture and related features spanning the length and breadth of Mesoamerica and the American hemisphere more generally. While the Basin of Mexico under the Aztec maintained an elaborate lattice-like network of formal masonry causeways, roads, bridges, and transport-network-related architecture, areas beyond the Basin included tracks, roads, bridges, and causeways of varying quality and formality. Other indigenous transport networks are documented from throughout the Americas. These include, among others: (a) the US Southwest; (b) the Mississippian complex of eastern North America; (c) Casas Grandes, Chihuahua, Mexico; (d) La Quemada, Zacatecas, Mexico; (e) Teotihuacan and the Teotihuacan Corridor, Tlaxcala, Mexico; (f) the Sierra de Puebla, Mexico; (g) Monte Albán and the Valley of Oaxaca, Mexico; (h) the *Sacbe* systems of the northern Maya lowlands and Yucatan Peninsula, Mexico; (i) the southern Maya lowlands, Guatemala, and Honduras; (j) Llanos of Barinas, Venezuela; and (k) the Andean Cordillera of Peru, Bolivia, Chile, and Argentina.¹⁹ The Andean transport network alone integrated both extant ancient roads and transnational transport networks comprised of major highways and trunk lines spanning some 30,000 to 40,000 km. The network in question spanned the region extending from Quito, Ecuador, southward through Chile, Bolivia, and Argentina. The overall network in Inca times in turn spanned some 23,000 km (14,000 miles) of built roads and road-related features, including rope-cable suspension bridges that connected and traversed both highland and lowland areas along the Andean Cordillera.

19 Rubén G. Mendoza and Gretchen Jordan, "Road Networks in Ancient Native America," in Helaine Selin (ed.), *Encyclopaedia of the History of Science, Technology, and Medicine in Non-Western Cultures* (Dordrecht, Kluwer Academic Publishers, 1997), pp. 868–72; and Rubén G. Mendoza, "Transportation: The Americas Before 1492," in J. Michael Francis (ed.), *Encyclopedia of Latin America*, vol. 1: *Amerindians through Foreign Colonization* (Washington, DC, Facts on File, 2010), pp. 296–8.

Ultimately, the preservation and documentation available for the Andean achievement leaves open to question the extent of such transport networks in the Americas more generally, but the system that Moseley has referred to as a “vast all-weather highway system” posed a clear strategic advantage to Peruvian armies. Recent evidence bearing on the extent, formality, and defensive features of other similar transport network features in Mesoamerica suggests similar advantages for Aztec-era military exploits.

Captive taking

The targeting of elite captives was ultimately institutionalized, and thereby ritualized, on a pan-Mesoamerican scale. This fact is apparent from the many Maya and other Mesoamerican monuments that proclaim the capture, control, torture and humiliation, and/or execution of rival or foreign elites at many such centers.²⁰ The antiquity of this practice in military contexts extends well back into the Preclassic era at such sites as Monte Albán, Oaxaca (Monte Albán I, 500–100 BCE), where some 300 sculpted panels identified with the so-called *Danzantes* are now thought to constitute a group of regional elites portrayed in the aftermath of their torture, execution, flaying, and/or dismemberment.²¹ The more than forty elaborately carved stone panels integrated into the masonry walls of the unusual arrow-shaped Building J at Monte Albán have been interpreted to comprise “conquest slabs.” At least one of the toponyms associated with Building J has been identified with the *Cañada de Cuicatlán*, where archaeological investigations now attest to the Zapotec conquest of that region in the Terminal Preclassic (Monte Albán II, 100 BCE–200 CE).²² The portrayal of the upturned or severed heads of elite enemy captives at Monte Albán is similarly telling. In fact, the *Cañada de Cuicatlán* boasts one of the earliest archaeologically recovered “skull racks” or *tzompantli* scaffolds in the whole of Mesoamerica, and the installation of this technology of terror appears to coincide with the Zapotec conquest of the region.

20 Martin Simon and Nikolai Grube, *Chronicle of the Maya Kings and Queens: Deciphering the Dynasties of the Ancient Maya* (London, Thames & Hudson, 2000), p. 29.

21 Joyce Marcus and Kent V. Flannery, *Zapotec Civilization: How Urban Society Evolved in Mexico's Oaxaca Valley* (London, Thames & Hudson, 1996); Jeremy A. Sabloff (ed.), *Handbook of Middle American Indians, Supplement 1: Archaeology* (Austin, University of Texas Press, 1981).

22 Elsa M. Redmond, *A Fuego y Sangre: Early Zapotec Imperialism in the Cuicatlán Cañada*, Memoir 16, Museum of Anthropology (Ann Arbor, University of Michigan, 1983); Rice, *Maya Political Science*, p. 259; Charles S. Spencer, *The Cuicatlán Cañada and Monte Albán: A Study of Primary State Formation* (New York, Academic Press, 1982).



FIGURE 7. Monumental depictions of slain war captives from the Middle Formative site of Monte Albán, Oaxaca, Mexico. These *Danzantes* or “dancers” attest to the antiquity of human trophies and war memorials in the Mesoamerican highlands. INAH Monte Albán, Oaxaca, Mexico. Photograph © 2014 Rubén G. Mendoza.

Ultimately, the control of foreign elites captured by way of inter-city and inter-polity raiding activities by such groups as the Maya, Zapotec, and Aztec necessarily assured the subjugation and compliance of rival elites and kingdoms at a distance.²³ During the ascendancy of the native empires of the Late Postclassic, captive taking was extended to encompass the capture of lineage totems and sacred deities from vanquished cities, temples, and palaces. The institutionalization of deity capture by the Aztec ultimately fomented the construction of a massive temple enclosure devoted to the warehousing of said deities at the heart of the main civic-ceremonial precinct of Mexico Tenochtitlan.²⁴ Hassig extends such observations into the realm of “plural marriage” or polygyny as a critical mechanism of imperial social control and cohesion, and

23 William R. Fowler, Jr., “Late Preclassic Mortuary Patterns and Evidence for Human Sacrifice at Chalchuapa, El Salvador,” *American Antiquity* 49.3 (1984), 604.

24 Bernardino de Sahagún, *Historia general de las cosas de Nueva España*, trans. Ángel María Garibay, 4 vols. (Mexico, Editorial Porrúa, 1977).

this by virtue of the selection of brides born of the royal families of subject kingdoms.²⁵

Pohl contends that the “close relationship between warfare, political domination, and the acquisition of wealth inherent in tribute and agricultural labor become logically bound to Precolumbian religion.” He then goes on to acknowledge that this was “manifested through an ideological emphasis on the capture of prisoners for sacrifice dedicated to the promotion of agricultural fertility – the ultimate statement of national wellbeing.”²⁶ It is no wonder therefore that when called upon to lead their armies into the field of battle, where blood tribute and the accoutrements of the War of Heaven were a given, both Classic- and Postclassic-era war cult commanders donned the fanged and goggle-eyed visage of the preeminent underworld Earth Lord and rain deity, Tlaloc.

The inherent political segmentation and growing balkanization of the Mixtec kingdoms of Oaxaca pushed such groups to resolve their differences through the integration of an ideological framework rooted in human sacrifice. Whether by virtue of the ritualized forms of combat inherent in the Xochiyayotl (“Flowery Wars”), or by way of a panoply of combat sports carried on in the so-called “Ballcourts of Creation,” the ultimate aims of such forms of social violence were largely expiatory and propitiatory; the maintenance of the social order was paramount. In fact, where Mixtec political ideology is concerned, it has been argued that the “poetics of sacrifice functioned to integrate a shared ideological framework within a politically segmented context.”²⁷ From such a perspective, human sacrifice is seen to have crosscut the ethnic, religious, and linguistic barriers inherent in the broader Mixtec community structure; and appears to have done so at the broadest scales of analysis. The sacrificial complex, with its attendant forms of political intimidation and inter-elite participation, served to promote coherence within the context of the diverse ethnic, linguistic, and religious polyglot that was the Mexica empire of the late fourteenth through sixteenth centuries C.E. Human sacrifice or blood tribute, more generally, served as an ideological bulwark that transcended a host of competing ethnic, linguistic,

25 Ross Hassig, *Polygamy and the Rise and Demise of the Aztec Empire* (Albuquerque, University of New Mexico Press, 2016).

26 John M. D. Pohl, *Aztec, Mixtec and Zapotec Armies*, illustrated by Angus McBride, *Men-at-Arms* 239 (Oxford, Osprey Publishing, 1991), p. 4.

27 Mark Barnard King, “Mixtec Political Ideology: Historical Metaphors and the Poetics of Political Symbols,” unpublished PhD diss., University of Michigan, Ann Arbor (1988), p. 1.

environmental, and social currents that defined the Mesoamerican cultural landscape.

Maya warfare

The emergence of the glyph-based direct historical perspective in the analysis of Maya civilization has resulted in a renewed focus on Maya warfare and social violence. Once thought to constitute the peaceable kingdoms of Middle America, the Maya have been radically reinterpreted in so far as warfare and conflict are concerned. Recent advances in Maya epigraphy have resulted in the emergence of a long-hidden body of documentation regarding Maya warfare and social conflict; the bulk of this material constitutes a written history of such conflict and intrigue originating with the Maya themselves. Prudence Rice has summarized some of those factors once thought preeminent causal sources for Maya and Mesoamerican warfare. Among these are more highly ideological explanations such as those arising from interpretations pertaining to how such elites engaged in prognosticating and or engaging in warfare on the basis of celestial activity and its augury. The prevailing bias is to define Maya warfare as primarily aristocratic in character. Such interpretations are given weight by the limitations of supplying “easily portable foodstuffs” and the impassibility of the terrain in the rainy season, which hampered massive troop movements.²⁸ The implication, therefore, is that Maya warfare was largely an elite endeavor limited to raiding activities and ritualized combat intended to reify the exploits of the aristocratic leaders in charge.

Such arguments and interpretations are readily challenged when examined in terms of sixteenth-century accounts of conquest statecraft in the northern Maya Lowlands, particularly as they pertain to the plethora of terms used to identify extant military orders and conquest actions. The wealth of names used to identify military orders cited in the books of the *chilam b'alam*, consisting of several sixteenth-century Maya chronicles and sacred lineage books,²⁹ span both peasant-based and aristocratic rankings. Among the *Xiw* peasant contingents identified in *The Book of the Chilam Balam of Chumayel* are noted the Flags, Many Skunks, Possums, and Hanging Rabbits.³⁰ Other pro-Itza contingents of the

28 Rice, *Maya Political Science*, p. 259.

29 Munro S. Edmonson, *The Ancient Future of the Itza: The Book of the Chilam Balam of Tizimin* (Austin, University of Texas Press, 1982), pp. 37, 113–14; cf. Rice, *Maya Political Science*, p. 261.

30 Ralph L. Roys, *The Book of the Chilam Balam of Chumayel*, Civilization of the American Indian Series (Norman, University of Oklahoma Press, 1967).

northern Maya lowlands at Merida included the Snakes, Jaguars, Ants, and Silent Leopards; as well as the Locusts, Chiggers, and Monsters. The Strong Skunks, Rabbits, and Masked Deer were construed “usurpers” in the writings of the *chilam b’alam*. Historic accounts make clear that endemic warfare was the rule rather than the exception in the northern Maya lowlands, despite questions regarding the extent to which internecine warfare was a consequence of Spanish contact with the Maya. Nevertheless, while it is clear that European contact introduced competing symbol systems and thereby reframed the nature of political interactions between Maya elites, it is also clear that both indigenous and European accounts mirror earlier pre-contact patterns of warfare and corresponding military rituals. According to Landa, one unnamed battle alone resulted in some 150,000 casualties, and of the survivors of such conflagrations, many feared the consequences of capture, enslavement, and sacrifice in the event of defeat.³¹ Clearly, the writings of the *chilam b’alam* make clear the bloody nature and political consequences of warfare in both pre-contact and early colonial contexts.³²

The right for any given Maya city or polity to host traditional calendrical and ceremonial events pertaining to the seating of the sacred *k’atun*, or period of 7,200 days in the Maya calendrical cycle, served to foment hostilities between the *Xiw* and *Itza*. According to Edmonson, “katuns not only chronicled the wars of Yucatan but actually caused them.”³³ Interestingly, Prudence Rice has noted the fact that in addition to its role as a calendrical and ceremonial designation, the *k’atun* constitutes a noun and verb that serves as the synonym for such terms as fight, battle, combat, war, or warrior. Rice concludes that such a correspondence between warfare and the calendrical period “suggests a deep and inextricable association.”³⁴ Moreover, Simon and Grube have published one of the more detailed and generally accessible dynastic (conquest) histories yet compiled on the basis of glyphic decipherment and archaeology for the principal kingdoms and polities of the Maya world, and warfare clearly constitutes the *sine qua non* of each respective city’s dynastic history.³⁵ Their accounting makes clear the extensive and

31 Fray Diego de Landa in Rice, *Maya Political Science*, p. 259.

32 Dennis Tedlock (trans.), *Popol Vuh: The Mayan Book of the Dawn of Life* (New York, Touchstone Books, 1996).

33 Munro S. Edmonson, *Heaven Born Merida and Its Destiny: The Book of the Chilam Balam of Chumayel* (Austin, University of Texas Press, 1986), p. 99; cf. Rice, *Maya Political Science*, pp. 260–1.

34 Rice, *Maya Political Science*, pp. 260–1.

35 Martin Simon and Nikolai Grube, *Chronicle of the Maya Kings and Queens: Deciphering the Dynasties of the Ancient Maya* (London, Thames & Hudson, 2000), p. 29.



FIGURE 8. Reproduction of the principal battle scene from the Late Classic seventh-century Maya murals of Bonampak, Chiapas, Mexico. Though antedating the Late Postclassic period under consideration, Maya battlefield comportment and dress changed little in the succeeding centuries, particularly in the Maya lowlands. INAH, Museo Nacional de Antropología e Historia, Mexico City. Photograph © 2017 Rubén G. Mendoza.

pervasive character of Maya warfare, alliance formation, economic and political interaction, and conquest for political and territorial gain.

Mesoamerican weaponry and armor

As much of our knowledge of Mesoamerican weaponry derives from the accounts and collections of Spanish administrators, clerics, and soldiers, much of the bias that exists with respect to armaments is centered on Aztec or other highland central Mexican weapons. Given the widespread proliferation of central Mexican and Oaxacan arms, armor, martial iconography, and cult objects during the Late Postclassic (1250–1521 CE), our emphasis on Aztec and related weaponry is therefore construed as appropriate where the broader Mesoamerican world is concerned for the period stated.

The *macuahuitl* or obsidian-edged hardwood *macana* or wooden broad saw-sword constitutes an institutionalized innovation of the Late Postclassic

and, gauging from its ubiquitous portrayal in period accounts, was far and away the central Mexican warrior's shock weapon of choice.³⁶ Burton's *The Book of the Sword* (1884) depicts a 63.5 cm (25 inch)-long iron wood *macuahuitl* studded with ten razor-edged obsidian blades, each approximately 10.2 cm (4 inches) in length. However, Spanish conquistador Bernal Díaz del Castillo describes such weapons as including one-handed versus two-handed variants that in turn varied in size as per usage. The latter is said to have been as long as a man is tall, and to that end archaeologist John Pohl recently reconstructed a *macuahuitl* measuring 1.52 m in length.³⁷ The one-handed variant, by contrast, ranged between 0.9 and 1.2 m in length, and 0.8 cm in width.³⁸ With a cutting edge crafted from pressure-flaked prismatic (obsidian) blades inserted and affixed with bitumen into the edge of a hardwood plank or *macana*, the cutting edge was so sharp that modern technology can scarcely replicate the 2.0 micron edge-thickness in question. The razor-edged *macuahuitl* was therefore sharp to a fault, and could scarcely retain the sharpness of its edge or the durability of its inset blades upon impact with another object or person. According to Pohl and Hook,³⁹ the *macuahuitl* "appears infrequently if at all in Mesoamerica during earlier times when war was more of an elite activity, so we presume that its widespread use among the Aztecs emerged in response to the need to arm and train large armies of commoners as quickly and efficiently as possible." Even so, early sixteenth-century accounts of the effectiveness of this weapon tell us that Spanish warhorses were often disemboweled or beheaded, and thereby stopped dead in their tracks, by a single blow.

A second shock weapon typically described in Spanish accounts, or depicted in early sixteenth-century codices, is the *tepoztopilli* or wooden polearm or lance.⁴⁰ Approximating the height of an Aztec warrior, the lance-like hardwood *tepoztopilli* was tipped with an ovoid, or palmate, flattened hardwood tip into which were inserted prismatic obsidian blades in a manner reminiscent of the *macuahuitl*. Generally wielded by troops at the rear of the

36 Berdan and Anawalt, *The Essential Codex Mendoza*; John M. D. Pohl, *Aztec Warrior, AD 1325–1521*, illustrations by Adam Hook (Oxford, Osprey Military, 2001); Marco A. Cervera Obregón, "The Macuahuitl: A Probable Weaponry Innovation of the Late Postclassic in Mesoamerica," *Arms and Armour, Journal of the Royal Armouries* 3 (2006), 127–48; Cervera Obregón, "El macuahuitl, un arma del Posclásico Tardío en Mesoamérica," in *Arqueología Mexicana*, 84 (2007), 60–6.

37 Pohl, *Aztec Warrior*, p. 21.

38 Díaz del Castillo, *The Discovery and Conquest of Mexico*, p. 465.

39 Pohl, *Aztec Warrior*, p. 19.

40 Ross Hassig, *Aztec Warfare: Imperial Expansion and Political Control* (Norman, University of Oklahoma Press, 1988), p. 83.

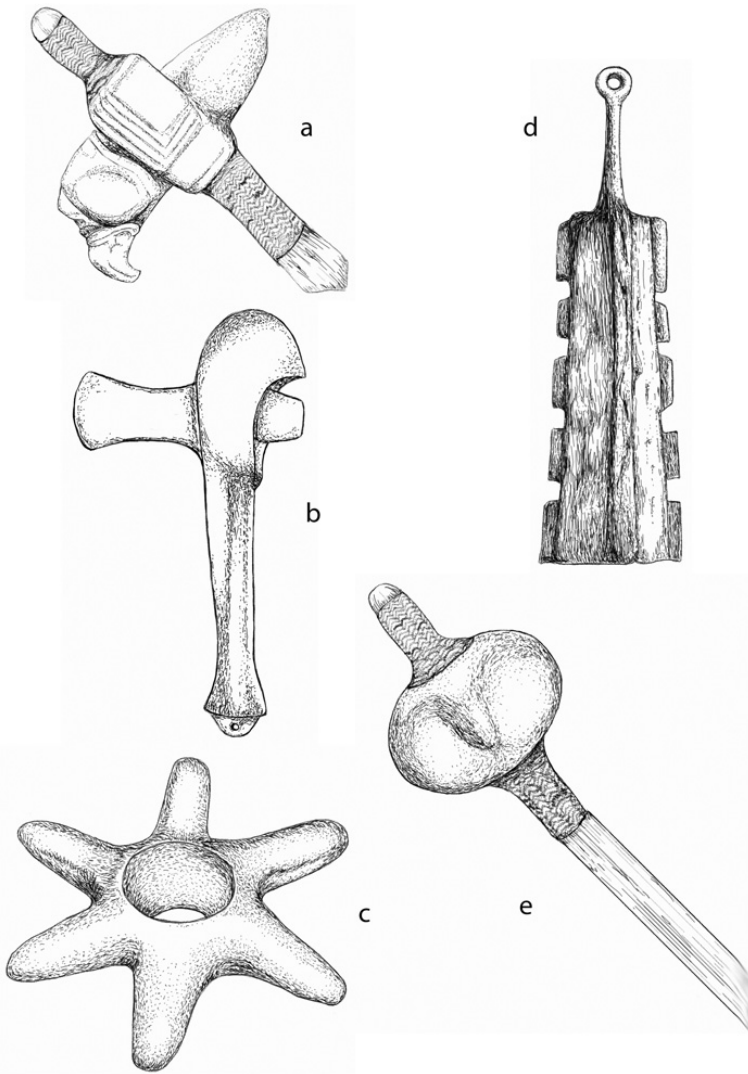


FIGURE 9. Shock weapons, including (a) Costa Rican parrot effigy mace, c.1500 CE; (b) Ceremonial mace, Spiro Mounds, Oklahoma, 700–1450 CE; (c) Inca *macana* or *chaska chiqui* star-headed metal mace; (d) Aztec obsidian-edged *macuahuitl* broad saw-sword; and (e) Costa Rican owl effigy mace, c.1500 CE. Illustrations courtesy Madeline Rapella, 2018.

battle formation, the *tepoztopilli* was used as a thrusting weapon in the manner of a lance, or as a weapon for slashing at the enemy in a fashion akin to the use of the *macuahuitl*.

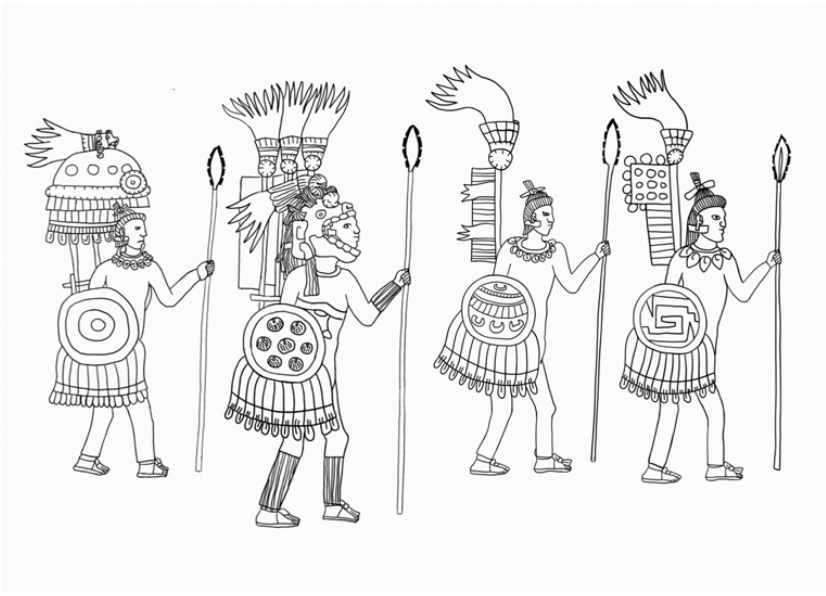


FIGURE 10. Mexica Aztec warriors depicted with the *tepoztopilli* obsidian-edged wooden polearm from the *Codex Mendoza*, Folio 67 r. After Kurt Ross, *Codex Mendoza: Aztec Manuscript* (Barcelona, Espagne, Miller Graphics, 1978), pp. 104–5, with revisions by Madeline Rapella, 2018.

The *tlauitolli* or bow was a traditional hunting weapon of the Chichimec peoples of the northern frontier from whom the Aztec descended, and its use in hunting was clearly a precursor to its use in battle. The use of the bow and arrow in Mesoamerica, however, was a relatively recent introduction, particularly given its diffusion and independent invention in areas throughout North America in the period after 500 CE.⁴¹ The distributions of the bow and the dispersal of Chichimec peoples from the northern deserts into the heartland of Mesoamerica are very likely co-related events. Therefore, the militarized deployment of such weapons in anything but Epiclassic (600–900 CE) or Postclassic era (900–1521 CE) martial contexts is highly unlikely, particularly given the paucity of archaeological or iconographic evidence pertaining to the use of the bow and arrow in Mesoamerica. Given the more traditional use

41 The evidence thereby attests to an early introduction of the bow and arrow fully 1,000 years older than the more commonly accepted early date of 500 CE; Michael S. Nassaney and Kendra Pyle, "The Adoption of the Bow and Arrow in Eastern North America: A View from Central Arkansas," *American Antiquity* 64 (1999), 243–63; Gary S. Webster, "Recent Data Bearing on the Question of the Origins of the Bow and Arrow in the Great Basin," *American Antiquity* 45 (1980), 63–6.

of the bow and arrow in hunting, the weapon's choice in warfare was predicated on the fact that young men were generally quite proficient in the use of this device, and its application in combat necessarily required little additional training. Moreover, though bows varied in dimension as per their intended use in military contexts, the largest of them measured upwards of 1.52 m in length and were crafted from hickory and ash wood.⁴² Arrows were in turn crafted from a variety of materials, including hardwoods, reed, and cottonwood shafts.

Of those weapons cited, the *atlatl* or dart thrower was a weapon with significant antiquity in the Americas, and highland Mesoamerica in particular. Depictions of *atlatl* dart throwers have long been noted from martial contexts in the earliest iconography of the ancient center of Teotihuacan in the Basin of Mexico for the period spanning 100 BCE to 650 CE. As a weapon of war, the *atlatl* attains ubiquity in the art of Teotihuacan during the Middle Classic (c.400–700 CE), and is generally illustrated in the hands of elaborately garbed warriors with round shields and dart shafts with elaborate fletching.

Significantly, while the *atlatl* attained widespread use by the peoples of Teotihuacan, as well as among the Zapotec, Mixtec, and ultimately the Maya, Pohl questions the extent to which the average Aztec soldier used the *atlatl* in battlefield engagements.⁴³ Given the specialized skills and training required to effectively master such a weapon, there remains some question about its practical use for arming the massive armies of the Aztec military.

On the other hand, the introduction of the *atlatl* into the Maya highlands of Guatemala in or about the third or fourth centuries CE corresponds with what has since been deemed a militarized *entrada* or entry into the region by the military and elite of central highland Teotihuacan. The *atlatl*'s introduction into the Guatemalan highlands at Kaminaljuyu was soon followed by its appearance in the Maya lowlands of Guatemala and the Yucatan Peninsula. In each instance, the introduction of the *atlatl* in effect corresponds to the Mexicanization of the elite sectors of the society so affected. Moreover, the *atlatl* is typically depicted in concert with obsidian-tipped darts or dart shafts of nominal length, often appearing truncated or of little more than 1.0 to 1.5 m in length with a wide fletching – much like those depicted in militarized contexts at the central Mexican metropolis of Teotihuacan, Mexico. The abrupt proto-Classic (100–250 CE) and Early Classic (250–450 CE) appearance of Mexicanized iconography, architecture, and material culture in highland and lowland Maya contexts is unmistakable, and clearly correlates with the

42 Pohl, *Aztec Warrior*, p. 17. 43 *Ibid.*, p. 18.

Mexicanized conquest, and burning and destruction of pre-existing Maya settlements and monuments at such sites as Kaminaljuyu, Guatemala.

Mexicanized iconography identified with this era very typically portrays elite warriors and/or commanders in association with cult objects and garb clearly identified with the Earth Lord and rain deity, Tlaloc. The near-universal identification of the central Mexican *atlatl* with the unmistakable constellation of Earth Lord accoutrements, including the donning of goggle-eyed and fanged Tlaloc masks by war cult commanders, indicates the weapon's association with the cult in question. Moreover, representations of the *atlatl* configured to personify the face of Tlaloc in turn hearken to possible origins for the deity in the guise of an anthropomorphic *atlatl*.⁴⁴ In effect, the goggle-eyed face of Tlaloc derives from the looped and hooked configuration of the *atlatl*, and by extension the association of the owl with war and sacrifice.

Cotton armor

The Aztec military devised a tightly fitted tunic of brine-treated quilted cotton armor that was largely impervious to arrows. So effective was quilted armor that the sixteenth-century Spanish, who initially donned traditional steel armor for combat in the tropics, soon traded their heavy steel plate for the quilted cotton armor of the Aztec. Similar quilted cotton armor was manufactured throughout the Americas and was commonplace among the Inca of Peru. Quilted cotton and other battle armors and uniforms were accompanied by deerskin-covered circular hardwood and wicker-framed and collapsible (flex) shields bearing icons specific to military orders, place and deity names or patrons, and battle groups and larger formations. Known as the *chimalli*, the shield consisted of wood or reed armatures covered with deer hide or cotton armor, as well as feathers and other ostentatious and elaborate forms of ornamentation specific to toponyms, or place names, and military orders. Headgear was particularly elaborate, and often bore zoomorphic or anthropomorphic images and the personifications of deities such as the Earth Lord Tlaloc, or the solar deity, Huitzilopochtli. It would appear that the murals of Epiclassic (650–850 CE) Cacaxtla, Tlaxcala, provide illustrations of the forerunners of Postclassic (900–1521 CE) battle attire and specialized forces, such as the Jaguar and Eagle Knights of Aztec fame. Whereas the sixteenth-century *Codex Mendoza* depicts Aztec quilted cotton uniforms,

44 Rubén G. Mendoza, "War Cult Caches of the Central Highland Oloman," paper prepared for an edited volume on Mesoamerican dedicatory caches by Shirley Mock, unpublished manuscript on file with the author.

shields, headgear, and banners, the seventh-century murals at Cacaxtla depict war cult commanders in full battle regalia. These depictions are replete with elaborate backpacks or battle standards, and menacing Tlaloc war cult commander face masks and headgear such as those depicted in later Mixtec screen-fold codices and iconography.

The art of Aztec warfare

The Spanish conquest of the Aztec empire in 1521 necessarily served as the prototype for European conquest of the Americas more generally. In the wake of the conquest, armies of religious descended on Mesoamerica and launched one of the largest documentary undertakings of a vanquished people known to that time. Friars, soldiers, scholars, and merchants all contributed to the description and study of Aztec and other Mesoamerican peoples, cultures, and customs. Among the most prolific of these were Franciscan friars Fray Bernardino de Sahagún, Fray Diego Durán, Fray Diego de Landa, and Toribio de Benavente Motolinía, among others; and Hernán Cortés, Bernal Díaz del Castillo, Fernando de Alva Ixtlilxóchitl, Andrés de Tapia, Hernando Alvarado Tezozomoc, and many, many others too numerous to cite in this context. Given the fact that the capital of the Viceroyalty of New Spain was established amidst the ruins of the former Aztec capital of Mexico Tenochtitlan, or Mexico City, it is perhaps no accident that the most substantive body of literature produced to describe warfare in the American hemisphere was initially devoted to the study of the Aztec empire.⁴⁵ Mesoamerican military specialist Ross Hassig continues to acknowledge that Aztec warfare has long served as the model for our understandings of Mesoamerican warfare more generally.⁴⁶ Given this and related facts, our review of Mesoamerican warfare follows with a review of Aztec imperial warfare, particularly as this pertains to command structures, military tactics, and major battles.

Organization and command

The command structure and organization of the Aztec military was predicated on a hierarchy born of *calpulli*-based lineage (or ward) associations, social status, and ultimately experience, skill, and training. The *huey tlatoani* (emperor or “Great Speaker”), was the ultimate authority and commander of

45 Rubén G. Mendoza, “Mesoamerican Chronology: Periodization,” in Carrasco (ed.), *The Oxford Encyclopedia of Mesoamerican Cultures*, vol. 2, pp. 222–6.

46 Ross Hassig, *Time, History, and Belief in Aztec and Colonial Mexico* (Austin, University of Texas Press, 2001), pp. 34–5.



FIGURE II. Tlaxcallan warriors, equipped with the obsidian-edged *macuahuitl* or hardwood *macana* or saw-sword, in full battle attire from the murals of Desiderio Hernández Xochitiotzin in the Palacio Estatal de Tlaxcala, Tlaxcala, Mexico. Photograph © 2017 Rubén G. Mendoza.

Mexica Aztec forces. The Aztec emperor's prowess on the field of battle was perceived as central to his authority, and it was not uncommon for the field command to harness the authority of the *tlatoani* by way of his physical presence and leadership in such theaters of conflict. Second in command was the *Cihuacoatl*, or "Snake Woman," who was construed as the principal authority of the war council; this was in turn composed of a leadership and command structure born directly of the hereditary nobility and other lords of the kingdom.⁴⁷ Known as the *tetecuh tin*, or *tecuhtli*, these overlords maintained manors and hereditary estates worked by serfs, *mayehqueh*. These serfs also served their overlords in their capacity as conscripts for military ventures. Drawing on the ancient and otherwise traditional clan-based residential wards, or *calpulli*, of the city of Mexico Tenochtitlan, a network of headmen, or *caciques*, was in turn central to the broader organizational matrix that permitted the Aztec to call up tens of thousands of warriors in short order.

The very nature of the organizational configuration of Aztec battlefield formations provides a telling indicator of the effectiveness of this clan-based system of military mobilizations, recruitment, and deployments in times of war. First, the *xiquipilli*, or regiment, consisted of 8,000 men, constituted from units of 400 men each. Squadrons in turn consisted of twenty men each. Interestingly, the vigesimal or traditional Mesoamerican base-twenty counting system figures prominently in the organizational configuration, and is recorded as per the size and configuration of Aztec deployments in given battles as reported in the codices. John Pohl has noted that in order to effectively command such large numbers, the "officer corps was highly ranked, with titles corresponding to general, colonel, captain, and so forth," and their rank was signaled by the elaboration of their uniforms.⁴⁸ *Timatli*, or elaborate capes and protective mantles (*ehuatl*), signaled the identity of officers; and these varied according to rank and status. Accordingly, captains donned a particularly elaborate version of the otherwise basic cotton body armor, or *tlahuizli*, of the foot soldier, but bore the large pendants, back-ornaments, and flags or body standards (*pamitl*) that readily identified them in the field of combat. Like the Japanese *uma-jirushi*, these body standards took many forms and were unique to their bearer's status, rank, and identity.

Folio 64 r of the *Codex Mendoza* provides detailed depictions of the various warrior societies extant at the time of Spanish contact with the Aztec military. The rank and stratification at the lowest levels of the hierarchy proceeded

47 Susan Schroeder, *Tlacaoel Remembered: Mastermind of the Aztec Empire* (Norman, University of Oklahoma Press, 2016).

48 Pohl, *Aztec, Mixtec and Zapotec Armies*, p. 10.

from common porters, or *tlamemeh*, and the youth or students of the schools, or *telpochcalli*, for commoners, through to the *telpochyahque*, or sergeants who commanded the *telpochcalli* youth, and ultimately, the *Yaoquizqueh* and *Tlamanih* commoners. Drawn from among commoners, the *Tlamanih* were distinguished as soldiers who had taken captives in battle, and thereby heralded as superior warriors. The elite soldiers of the *Pipiltin*, and warrior sodalities or societies, were that class of warrior with a pedigree drawn from the elite and noble classes of Mexico Tenochtitlan and allied cities. Among the most celebrated were the knights of the Eagle (*quauhtin*) and Jaguar (*ōcelomeh*) societies who maintained an Eagle House or *Quauhcalli* in the heart of the main civic-ceremonial precinct at Mexico Tenochtitlan. The only such remaining Eagle House was cut from the living rock at Malinalco, Mexico, where the Aztec occupation of the Matlatzinca homeland was celebrated through an array of military iconography. The monolithic temple featured sculpted depictions of Eagle and Jaguar knights, a *Tlaltecuhli* (Earth Lord Portal), a *tlalpanhuehuatl* (war drum), a *xiuhcoatl* (fire serpent), and a now obliterated mural depicting elaborately costumed celestial or Star Warriors.⁴⁹ In just such a structure both Eagle and Jaguar knights conducted elaborate sacrificial rites of initiation and propitiation. Joining these highly ranked and elite warriors were the Otomies, or *Otontin*, and “Shorn Ones,” or *Cuachicqueh*, each of whom were distinguished by their implacable valor and unswerving fearlessness in the face of death.

Aztec military tactics

While battle strategies, tactics, and formations varied with terrain, military objectives, and the relative size of battlefield deployments, Aztec-era battlefield conventions proved formidable. At first encounter with the enemy, the Aztec initially dispatched archers, and sling and javelin throwers, directed to discharge their weapons from the outset, and *en masse*. Having launched a “rain of darts,” javelins, and both rock and ceramic *bola* stones at the enemy, Mexica warriors rushed forward into the fray with obsidian-edged *macuahuitl* broad swords and *chimalli* shields in play. While most authorities continue to tout the primary use of bow and arrow, and *atlatl* darts and dart throwers, it is clear that in Mesoamerica, as in Peru, the use of *bola* stones and slings was a particularly lethal counterpart to the aforementioned weapons. The use of *bola* stones in siegecraft has been observed by the writer in dry moat, or wall

49 Rubén G. Mendoza, “Worldview and the Monolithic Temples of Malinalco, Mexico: Iconography and Analogy in Precolumbian Architecture,” *Journal de la Société des Américanistes* 64 (1977), 63–82.

and ditch, contexts at the Epiclassic site of Xochicalco, Morelos, Mexico, where archaeologists recovered hundreds of such stones. When combined with fire or heat, *bola* stones served as incendiaries, which were quick to ignite the thatched superstructures of temples and villages alike. In fact, the 1536 Inca revolt, and siege of the city of Cuzco, Peru, saw the deployment of incendiaries by Inca forces and the encirclement of the whole of the city by some 100,000 men under the command of Manqu Inka Yupanki. According to military historian Peter Koch, "heated stones were wrapped in cotton and catapulted by slings into the city, a number of which landed on the thatched roofs and, as intended, quickly ignited a brilliant burst of fire . . . the flames spread swiftly from one building to another and before long the entire city was engulfed in fire and smoke."⁵⁰

Where wars of attrition are concerned, perhaps the preeminent form of ritualized warfare aimed at the gradual and systematic annihilation of one's adversary is that identified with the Xochiyayotl, or "Flowery Wars," deployed by the Mexica Aztec against the Tlaxcalteca of the Tlaxcala Block located east of the Basin of Mexico.⁵¹ Clearly, ideological, religious, and political actions and icons were fundamental dimensions of this cross-culturally sanctioned system of captive taking. The unifying mechanism was the "mutually agreed upon" practice of securing captives for sacrifice. While the Xochiyayotl are largely characterized as ritual theater by historians, the fact of the matter is that the Flowery Wars with Tlaxcala constituted a war of attrition. Nevertheless, the Xochiyayotl proved a formidable conflict such that the Tlaxcalteca delivered a devastating blow to Aztec forces when the emperor Motecuhzoma II (r.1502–20) chose to escalate the conflict into what John Pohl has termed a "full-blown war of annihilation."⁵² In the battle of Atlixco, waged as a Flowery War in 1515 CE, 100,000 seasoned Mexica, Texcocan, and Tacuba soldiers were routed by the Tlaxcalteca and Huexotzinca. The Mexica force was ultimately vanquished, its commanding officer captured, and two of the emperor's brothers killed in the ensuing melee. Resolution of the conflict was not achieved, and the war of attrition with Tlaxcala opened the door to the Tlaxcalteca-Spanish alliance that ultimately brought down the Aztec empire.

50 Peter O. Koch, *The Spanish Conquest of the Inca Empire* (Jefferson, NC, McFarland & Company, 2008), p. 175.

51 Frederic Hicks, "'Flowery War' in Aztec History," *American Ethnologist* 6 (1979), 87–92; Barry L. Isaac, "Aztec Warfare: Goals and Battlefield Comportment," *Ethnology* 22 (1983), 121–31.

52 Pohl, *Aztec, Mixtec and Zapotec Armies*, p. 21.

Contrary to prevailing views of indigenous warfare in the Americas,⁵³ Aztec warfare was in effect a lethal engagement intended to inflict casualties from the outset, and thereby, fully subjugate and vanquish the enemy. A secondary goal was to take captives for the lucrative slave trade, and for feeding the voracious deities of the sacrificial altars of Mexico Tenochtitlan. A tertiary objective was the capture and taking of human trophies as a sign of valor, and as an indicator of battlefield kills.⁵⁴ The battle of Atlixco bears out the potential devastation and carnage that might accrue in such ritualized engagements. While it is patently clear that Aztec military objectives documented to date bore both ideological and religious dimensions, the overarching aim of Aztec warfare was largely economic and political in nature. The symbolic and ideological dimensions of Aztec military statecraft may be discerned from how in the final analysis conquest was achieved. In effect, conquest of a city was achieved only by the storming of the principal temple and precinct at the heart of the enemy city, the capture of the principal deity of the temple, and ultimately the torching and destruction of the temple and civic-ceremonial precinct. Once captured, the paramount deity of the defeated alien nation was then spirited off to the Aztec city of Mexico Tenochtitlan for the purposes of being held “captive” within a structure dedicated to the warehousing of alien deities that were from time to time incorporated into the religious practices of the Mexica Aztec themselves. It was thought that by this action the will of Huitzilopochtli was fulfilled; and upon successfully vanquishing the alien nation, the Aztecs would offer peace in exchange for territorial concessions, land, and tribute collections. In this way, the Aztec secured peace by way of enforced tribute payments that were had in exchange for the vanquished nation’s relative autonomy within the empire.

Aztec battles

To identify the essential elements of Aztec warfare, particularly as this pertains to combat protocols, we now turn to a review of but a few of the most significant battles that proved strategic to the early development of the Aztec empire. Much of that which follows is the product of the chronicles of

53 Azar Gat, “The Pattern of Fighting in Simple, Small-Scale, Prestate Societies,” *Journal of Anthropological Research* 55 (1999), 563–83; Azar Gat, “The Causes and Origins of ‘Primitive Warfare,’ Reply to Ferguson,” *Anthropological Quarterly* 73 (2000), 165–8.

54 Rubén G. Mendoza, “Aztec Militarism and Blood Sacrifice: The Archaeology and Ideology of Ritual Violence,” in Richard J. Chacon and Rubén G. Mendoza (eds.), *Latin American Indigenous Warfare and Ritual Violence* (Tucson, University of Arizona Press, 2007), pp. 34–54.

the sixteenth-century friar Diego Durán (1537–8 CE). Among the earliest of the Nahuatl (Aztec)-language chronicles of the time, Mesoamerican ethnohistorian Doris Heyden has deemed Durán's writings nothing less than that which "can properly be called the collection of ethnographic research."⁵⁵ Among the first major Aztec victories in the Valley of Mexico, and perhaps one of the most decisive in the first steps to empire, was that of Azcapotzalco.

The battle of Azcapotzalco

The conquest of the renowned ancient Tepanec city of Azcapotzalco, located on the western shore of Lake Texcoco in the Valley of Mexico, constitutes a defining moment for the emergence of the Aztec empire. The conquest of Azcapotzalco, orchestrated as it was by the then youthful *Cihuacoatl* (Snake Woman) or commander, Tlacaelel, succeeded in vanquishing the Tepanec overlords who had long dominated the Basin of Mexico. In this instance, the war in question was set into motion by the brutal murder of the Aztec *huey tlatoani*, Lord Chimalpopoca and his son by the Lords of Azcapotzalco, who took what they construed as a preemptive action against the Aztec shortly after the death of the tyrannical Tepanec overlord Tezozomoc. Like so many Aztec military ventures, this conflict was a direct response to what the Aztec interpreted as the pending aggression of the Tepanec empire against their nascent city of Mexico Tenochtitlan. Fearing utter annihilation by the Tepanec armies, the Aztec Great Speaker, Itzcoatl (Obsidian Serpent, r.1427–40 CE) dispatched Tlacaelel to Azcapotzalco to sue for peace, or failing that, to throw down the gauntlet for war. As was customary, Tlacaelel declared war by offering an unguent of pitch to the king of Azcapotzalco, and then arming the enemy chieftain with a shield and arrows. This action thereby served as a declaration of war, with Tlacaelel intoning in turn that "my sovereign has sent this pitch, which we use as an ointment of the dead, so that it might be rubbed upon you; in this way you can prepare yourself to die."⁵⁶ With that said, the Lord of Azcapotzalco sent Tlacaelel away, and Tlacaelel proceeded to taunt the sentinels of Azcapotzalco, several of whom he engaged in combat before retreating to shelter within the gates of the city of Tenochtitlan.

Itzcoatl then commanded Tlacaelel to recruit and prepare warriors for combat. Though Durán's accounts leave one with the impression that this first major military action on the part of the Aztec was hastily organized, it is

55 Diego Durán, *Historia de las Indias de Nueva España e islas de Tierra Firme* (Norman, University of Oklahoma, 1994), p. xxviii.

56 Ibid., p. 77.

clear that a command structure was already in place for the defense of the city of Mexico Tenochtitlan. The sons and other immediate relatives of the royal house, past kings, and the elite constituted the armed formation. Squadrons served as the formal structure of the fighting forces, and Itzcoatl then urged his men to “conquer or die.”⁵⁷ The squadrons were commanded to follow their assigned officers, and to present themselves where they were most needed at any given point in the conflict. At no time, however, were the troops to advance unless directed to do so by the officer corps.

Having instructed his officers and soldiers accordingly, Itzcoatl retrieved a small drum (*huehuetl*) tethered to his back and proceeded to beat the drum so as to signal his soldiers to advance on the enemy in coordinated battle formation. Having heard the sound of Itzcoatl’s war drum, “the entire Aztec army let out terrifying yells, whistles, and shrieks, which froze the blood of the enemy.” In this instance, Durán acknowledges that in its zeal to vanquish the enemy, the otherwise orderly Aztec battle formation soon splintered into a fiercely chaotic and disorderly assault on the enemy positions.⁵⁸ Striking the enemy on all sides the Aztec contingents zealously shouted aloud and in unison “Tenochtitlan! Tenochtitlan!” This incited the rearguard to enter into the fray, albeit in disarray. In the chaos and confusion, many of the common soldiers of the rearguard were felled, but despite the losses, the ferocity of the attack forced the Tepanec armies to fall back in similar disarray.

Having routed the enemy, the Aztec stormed the city of Azcapotzalco and proceeded to kill all of those in their path. The elite guard who remained with Itzcoatl leveled the city, proceeding to burn houses and destroy civic-ceremonial structures, killing young and old, and men and women alike. They were in turn encouraged to plunder the city without mercy. Durán says of this victory that “not a house was left standing, not a man, woman, or child was left alive, except a few who had managed to flee to nearby fields and slopes.”⁵⁹ The Aztec pursued the last of the refugees and citizens of the formerly renowned city of Azcapotzalco, who “prostrated upon the earth,” surrendered the last of their weapons, and promised the Aztecs land, service, and tribute in perpetuity, in exchange for mercy. Tlacaelel proved merciful in this instance and spared the pitiful survivors.

In the aftermath of the battle, the vast wealth of the city that had once served as the seat of the Tepanec empire was transferred to Aztec Tenochtitlan. The noblemen who achieved victory at the city of Azcapotzalco were thereby elevated to the status of lords. Itzcoatl then

57 Ibid., p. 78. 58 Ibid., p. 79. 59 Ibid., p. 80.

commanded that they were to be served in perpetuity by the common people and vassals of both Aztec Tenochtitlan and Azcapotzalco. The lands of Azcapotzalco were then parceled out to the victorious noblemen who had orchestrated and led the assault on the city. Eight of the nobles, including Tlacaelel, were granted significant allotments of land in a fashion reminiscent of the later Spanish colonial system of *encomiendas* (or its corollary, the labour tax of the Spanish *repartimiento*).⁶⁰ The Spanish colonial system similarly granted Spanish noblemen allotments of native workers or trustees as part of a system of reward for the *conquistadores* based on a labour tax. In this instance, the “largest and best fields were given to the royal government, as the domain and patrimony of the crown.”⁶¹ The nobles were then granted two parcels apiece, with Tlacaelel having been granted ten parcels for orchestrating the commanding victory against the city of Azcapotzalco. The third such allotment of lands was made to the *barrios* or wards of Tenochtitlan for the purposes of generating those resources necessary for maintaining the cult of the gods. These *calpulli* lands were thereby construed as the communal lands of the *barrios* or *calpulli* of the city of Tenochtitlan. This system of land allotment was used to reward the victorious and, at the same time, castigate the timid of Tenochtitlan.

In the more than forty wars documented in the accounts of Fray Diego Durán, it is apparent that the Aztec military rapidly developed into an imperial juggernaut. This is evident from the increasing regimentation, organization, and formality manifested from battle to battle through the course of Aztec military ascendancy. Improvements in military weaponry, tactics, and strategies are seen through the course of time, although the limitations of the transport systems of the time continued to vex long-distance imperial engagements. Nevertheless, the formalization of command structures and the deployment of ever-larger armies with improved weaponry, protocols, tactics, and strategies would prove decisive for the growth and expansion of the Aztec empire. In less than 100 years, the Aztec conquered the ancient capital city of the Tepanec empire, and then proceeded to fight off a counterattack of Tepanec and other Basin rivals, thereby extending their domain both east to the Gulf coast and south and west into Guerrero and the region of Soconusco on the border with Guatemala.

60 Or by extension, the Inca *mit'a*.

61 Durán, *Historia de las Indias de Nueva España*, p. 82.

The battle of Matlatzinco

While Aztec military conventions and standards are taken to constitute the *sine qua non* of Mesoamerican warfare, the reality is that during the reign of the emperor Axayacatl (1468–81 CE) the imperial juggernaut that was the Aztec empire suffered its most disastrous defeat at the hands of the empire of Michhuacan in the Tarascan campaign. This defeat has been attributed to the challenges of maintaining massive infantry deployments over long distances in enemy territory. While casualty counts vary from source to source,⁶² the defeat of the Aztec military at Matlatzinco, Michoacán, Mexico, is thought to have resulted in the loss of 20,000 to 30,000 war dead for the Aztec military and its allies.⁶³ The majority of those killed in the Tarascan campaign were in effect Aztec warriors, while their allies in turn sustained massive losses. In effect, the whole of the army was decimated in a conflict thought to have pitted some 32,000 Aztec imperial soldiers and their allies against 50,000 Tarascan warriors. While some contend that the Tarascan victory owed more to the inability of the Aztec to sustain supply lines in so remote and volatile a region, it is clear that both an effective network of allied towns and cities and Tarascan metal weaponry played equally significant roles in the Aztec defeat among the peoples of the empire of Michhuacan.

While little to no documentation was produced by the Tarascan peoples of Michoacán to account for their decisive victory against the Aztec at Matlatzinco, the Aztec recount the details of the battle in varying sources such as that of the *Codex Telleriano-Remensis*, the *Crónica Mexicana*, and by way of accounts recorded by Fray Diego Durán. Clearly, the Matlatzinca Valley served as the flashpoint of contention that drew the Aztec to subjugate the region in an attempt both to quell turmoil between the feuding city-states of the region and, at the same time, minimize the potential threat of an alliance between the city-states of the Matlatzinca Valley and the empire of Michhuacan to the west. While the Aztec succeeded in subduing their rivals in the Matlatzinca Valley in relatively short order, their advance against the Tarascan or Michhuaca proved lethal for some of the aforementioned

62 Fernando Alvarado Tezozómoc, *Crónica Mexicana*, 2nd ed. (Mexico, Biblioteca Porrúa, serie 61, 1975), pp. 421–4; Diego Durán, *Historia de las Indias de Nueva España e islas de la tierra firme*, 2 vols. (Mexico, Biblioteca Porrúa, 1967), vol. 2, pp. 281–3; Francisco de San Antón Muñón, *Chimalpahin Cuauhtlehuanitzin, Relaciones originales de Chalco Amaquemecan*, ed. and trans. Silvia Rendón (Mexico City, Fondo de Cultura Económica, 1965), p. 209.

63 Ross Hassig, *Trade, Tribute, and Transportation: The Sixteenth-Century Political Economy of the Valley of Mexico* (Norman, University of Oklahoma Press, 1985), p. 186; Connell and Silverstein, "From Laos to Mesoamerica: Battlegrounds between Superpowers," p. 414.

reasons, particularly those linked to the inability of the Aztec empire to maintain effective supply lines into these otherwise remote and hostile territories. The maintenance of effective supply lines in Mesoamerica clearly posed a formidable obstacle to the emergence and consolidation of imperial formations in that region. By contrast, the Inca empire of Andean South America drew on an extant and ancient network of roads, suspension bridges, hill forts, and storage facilities spanning the whole of Peru. This network bridged both the highlands and coastal lowlands, and was aided and abetted by the availability of pack animals – both llama and alpaca.

South America

During the course of the period extending from 1300 to 1500 CE, the Andean Cordillera of South America saw the rise and fall of both regional kingdoms and vast empires born of internecine warfare. Such ancient kingdoms as Chimor, centered at the massive urban complex of Chan Chan on the north coast of Peru, were eclipsed by the predatory expansion of a group today known as the Inca. Chimor itself had arisen as a coastal expression of imperial might in the wake of the collapse of the early highland expansionist polities of Wari (Peru) and Tiwanaku (Bolivia). Both of the latter traditions came to define those forms of Andean warfare, and associated manifestations of social violence and bloodshed, that ultimately dominated the Late Horizon (1450–1532 CE), and thereby, the evolution of the Inca empire.

Whereas earlier Middle Horizon (600–1000 CE) patterns of conflict interaction on the north-central coast of Peru centered on inter-elite rivalries, those of the Andean highlands took on an expansionist and predatory character. In fact, Middle Horizon patterns identified with Wari and Tiwanaku coincide with the elaboration of militarism and an exponential increase in the evidence for social violence at major Wari centers and colonies in the Cuzco and Moquegua regions in the period from 600 to 1000 CE. Prior to the onset of those catastrophic environmental changes identified with the era, each of these regions exhibited only limited evidence for violent conflict, conquest, or provincial resistance.⁶⁴ Wari interaction and influence nevertheless surged in highland contexts with the emergence of Wari centers in regions once thought the exclusive domain of Tiwanaku.

64 Elizabeth N. Arkush, "Collapse, Conflict, Conquest: The Transformation of Warfare in the Late Prehispanic Andean Highlands," in Elizabeth N. Arkush, and Mark W. Allen, *The Archaeology of Warfare: Prehistories of Raiding and Conquest* (Gainesville, University Press of Florida, 2006), pp. 286–335.



FIGURE 12. Middle Horizon Moche battlefield scene from a ceramic vessel with depictions of the tandem use of shock weapons, slings, and other projectiles used in captive taking. After Donna McClelland, DOAKS, Moche Archive, Drawing 116, by Madeline Rapella, 2018.

Whereas the Wari provincial centers exhibit elaborate defensive features, Wari sites in the core area were only marginally retrofitted, or strategically located with defensive considerations in mind. The provincial hill fort at Pikillakta, Peru, exemplifies this trend. It incorporates a particularly large walled defensive complex, an attendant suite of regional support settlements, and a network of strategically situated hilltop fortifications. The site's location at the juncture of a mountain pass, and within striking distance of key highland exchange routes, speaks directly to its strategic military value.⁶⁵

The Late Intermediate Period (1000–1450 CE) of the Andean Cordillera experienced pervasive warfare, the fragmentation of regional polities, militarized political leadership and/or elite legitimization, and political centralization in the north versus the intensification of regionalism in the south. With the exception of the state of Chimor on Peru's north coast, native

65 T. D. McEwan, "Investigation at the Pikillakta Site: A Provincial Huari Center in the Valley of Cuzco," in W. H. Isbell and G. F. McEwan (eds.), *Huari Administrative Structure: A Prehistoric Monumental Architecture and State Government* (Washington, DC, Dumbarton Oaks, 1991), pp. 93–119.

informants recall the period as that of the *auca runa*, or the time of warriors, fractured polities, and internecine warfare. Pukaras or hilltop forts and redoubts dominated the highlands, with extensive physical evidence for violence and conflict. Nevertheless, the region exhibits little in the way of an iconography of violence or militarized themes, and that despite the intensification of social violence throughout the region.

In a pattern akin to that of Late Intermediate Peru, the Ecuadorian highlands see the proliferation of hilltop settlements and fortifications, and experience a surge in the quantities of stone and bronze mace heads, battle axes, and related shock weapons recovered from such sites. Other highland culture areas experienced the development of fortified hilltop settlements replete with walls, ditches, towers, and terraces. The growth of such defensive works correlates with the increased reliance on the use of sling stones or *bolas*, stone and bronze mace heads, and growing evidence for craniofacial trauma as deduced from the analysis of skeletal remains pertaining to period populations. The proliferation of small, fragmented, raiding polities and the occasional resurgence of expansionist or conquest states define the period in the wake of the decline of both Wari and Tiwanaku in 1000 CE. The smaller, more fragmentary political formations are thought to signal the proliferation of intermittent raids versus siege warfare in this instance. Out of this constellation of conflict interactions emerge *curaca* lords, *sinchi* war leaders, and hereditary warlords. The proliferation of *pukaras*, or hill forts with concentric fieldstone walls, parapets, baffled gates, and an array of weaponry, including stone mace heads, sling stones or *bolas*, and projectile points heralds the fragmentation of the political economy of the region between 1000 and 1450 CE.

The internecine wars and political fragmentation of the Late Intermediate anticipated the emergence of the Inca, an imperial juggernaut that brought order out of the chaos and conflict of the preceding era via an ambitious and determined program of conquest and consolidation. Archaeological evidence corroborates period accounts indicating that target groups that readily submitted to the Inca authority were treated with lenience. By contrast, those groups that challenged Inca authority and control were systematically eliminated through outright conquest, genocide, and deportation. In an effort to minimize the potential of ethnic rebellions within the empire, Inca military strategy included programs of enforced resettlement of ethnic indigenous populations throughout the realm.

The Inca demonstrated an extraordinary ability to rapidly mobilize and deploy vast armies of citizen-soldiers, conscripts and auxiliaries, porters, women, llama pack trains, and related support personnel. Such armies of

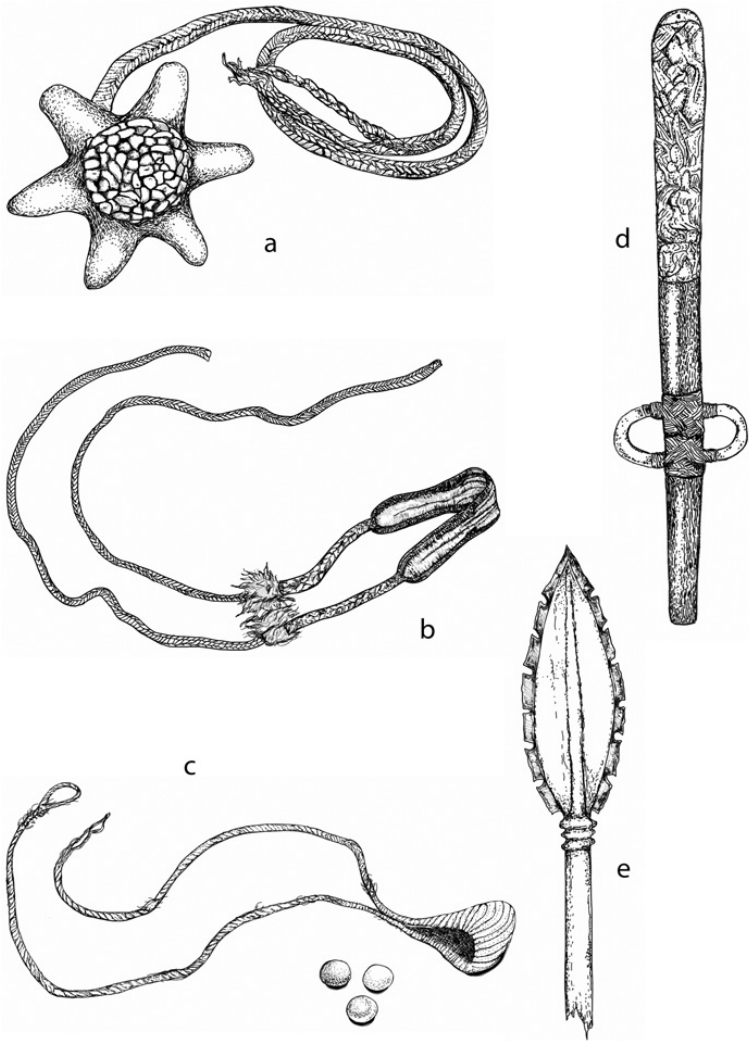


FIGURE 13. (a)–(c) Peruvian sling weapons, including (a) the Inca *liwi*, *maza*, or *boleadora* sling with star-shaped bola stone, and (b)–(c) Andean *huaraca* fiber slings; (d) Mexico Aztec gilded wooden *atl atl* dart thrower; and (e) the obsidian-edged *tepoztopilli* wooden polearm. Illustrations courtesy of Madeline Rapella, 2018.

citizen-soldiers and ethnic conscripts, often numbering into the tens of thousands, and in some cases, hundreds of thousands, were facilitated by both a highly regimented system of bureaucratic controls and a corollary

system of imperial tribute demands, or the *mit'a*, which comprised a labour service or tax demanded of all subjects. Yet, centuries-old Peruvian military traditions and protocols were inherent weaknesses when pitted against that modicum of “asymmetrical” warfare introduced by the sixteenth-century Spanish. In fact, Spanish accounts of victories over the overwhelming force brought to bear by the Inca imperial command indicates that the indigenous forces were predisposed to such large-scale military deployments. These relied on (a) massing, or the overwhelming concentration of armed forces in singular engagements, (b) the physical leadership of the command structure, and thereby, senior leadership, at the helm of major engagements, and (c) tactics and strategies that relied upon flanking movements and a formulaic three-pronged attack. In order to support the massing of overwhelming forces, the Inca effected a system that drew heavily on both highland and coastal resources and access. In order to assure such access over the length and breadth of Peru, roads and transport networks were upgraded, maintained, and expanded, and these were in turn supported by the installation of *tambo* storage facilities numbering into the thousands over the whole of the vast network of roads. Other key Inca strategies included the occupation and/or rebuilding of ancient Wari civic-ceremonial and military installations and related public works, and this within an effective organizational and bureaucratic framework. Invariably, as with other areas of the Americas, the age-old effort to secure the creation and mobilization of allies from across the length and breadth of the Andean Cordillera was of paramount concern. In so doing, the Inca nevertheless launched an effective and overwhelming program of conquest, and did so by way of the formation of alliances born of intermarriage and ultimately, the incorporation of subject provinces by way of differing measures of warfare and diplomacy. Such conjoined strategies ultimately culminated with the formation and consolidation of the Inca empire – the largest such empire in the Americas prior to European contact.

Inca warfare

In a recent study, Terrence D’Altroy affords a thoroughgoing assessment of Inca militarism, particularly as this concerns fortifications, battlefield strategies, organization, battle tactics, and weaponry.⁶⁶ While asserting that warfare dominated the juggernaut that was the Inca empire, he nevertheless acknowledges that diplomacy, reward, and enculturation constituted essential ingredients in the

66 Terence N. D’Altroy, *The Incas* (Malden, MA, Blackwell, 2002).

unfolding panorama of Inca statecraft. *Tawantinsuyu*, or the Land of the Four Parts or Provinces that comprised the Inca empire, encompassed all or most all of the western portions of Peru, Ecuador, and Bolivia, and extended well south into regions today identified with the modern nation-states of Chile and Argentina. Born of a host of major conquest cycles primarily identified with the Inca emperors Pachakuti, Qhapaq Yupanki, Thupa Inka Yupanki, Uturunku Achachi, Wayna Qhapaq, Waskhar, Wanka Awki, Manqu Inka, and Atawallpa, the Inca empire ultimately conquered and enveloped hundreds of distinct ethnic groups through the process of imperial expansion. It was from such a fragmented and fractious social, cultural, and political landscape that the Inca emerged, and in so doing, built a hegemonic system of control established on the threat and/or application of coercive force.

Scale and recruitment

A recurrent feature of both Inca and Spanish accounts regarding the configuration of Inca military deployments centers on their purportedly immense scale. In fact, Contact-era sources cite armies in excess of 100,000 soldiers and support personnel per engagement. While a host of scholars continue to urge caution against accepting such figures at face value, it is apparent that both Inca *quipu* – or knotted-cord numerical counts – and Spanish narratives were for the most part consistent in their cross-references to the numerically formidable scale of such forces.⁶⁷ The evidence is such that Inca specialist Terence D’Altroy has acknowledged that such accounts “give us ample reason to believe that scores of thousands of soldiers could be mobilized for individual campaigns and that more than 100,000 effectives may have been engaged in single battles.”⁶⁸ Cieza de León’s narrative regarding Atawallpa’s army alone cites a total of 87,000 men; with 12,000 of those cited as constituting the vanguard, 5,000 assigned to the capture of Spanish horses, and another 70,000 constituting the main body of the Inca force in question. To that number were added 30,000 servants, including porters, women, and other camp followers, thereby adding to the rather large and unwieldy character of the Inca force. This accords well with documented battle formations and their leadership, with a command structure consisting of some eighteen formal strategic military roles. Such roles include, among others: (a) the *pachac kamayuk* or centurion who commanded 100 soldiers; (b) the *guaranga kamayuk* or battalion leader at the head of 1,000 soldiers; (c) the *hatun apu* or

67 Gary Urton, “From Knots to Narratives: Reconstructing the Art of Historical Record Keeping in the Andes from Spanish Transcriptions of Inka *Quipus*,” *Ethnohistory* 45 (1998), 409–38; Gary Urton, *Inka History in Knots* (Austin, University of Texas Press, 2017).

68 D’Altroy, *The Incas*, p. 217.

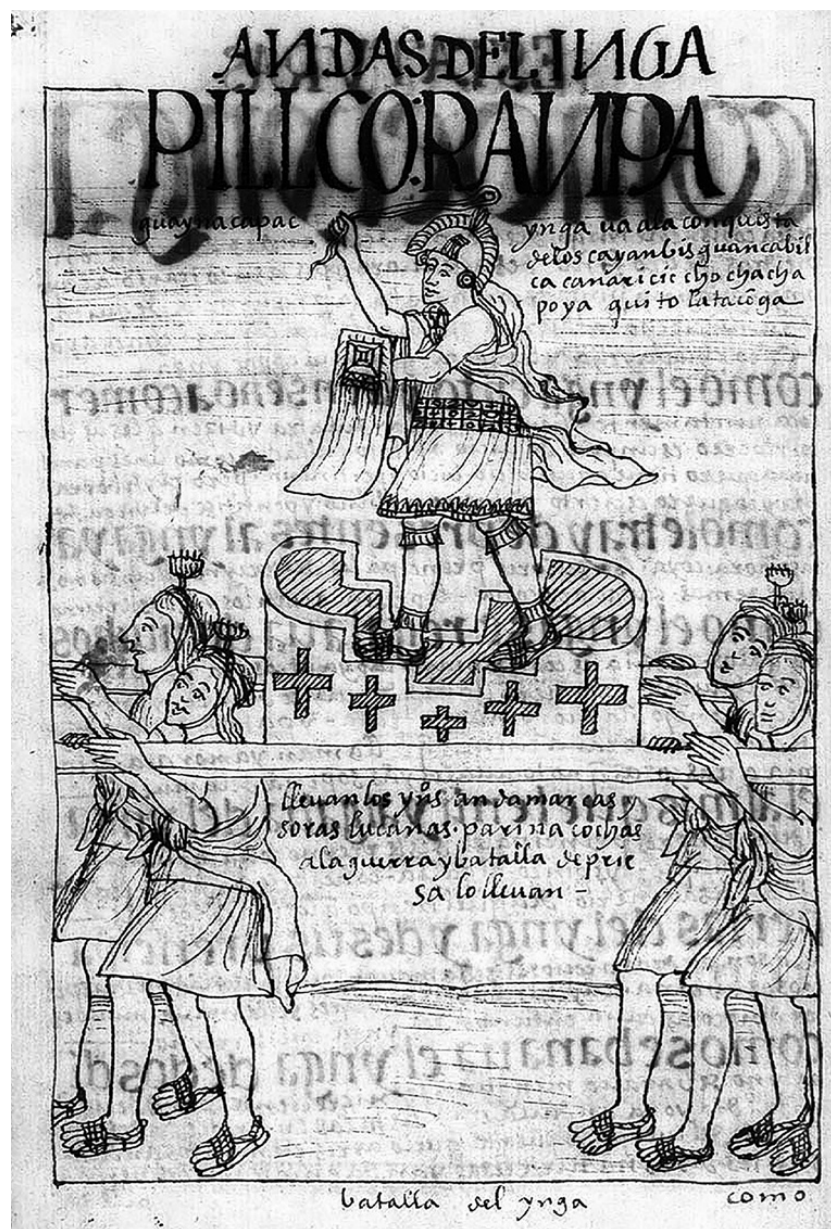


FIGURE 14. Inca war litter depicted in *Batalla del Ynga*, or *Battle of the Inca*. The Royal Danish Library, GKS 2232 kvart: Felipe Guaman Poma de Ayala, *Nueva coronica y buen gobierno* (1615), Dibujo 131. Las andas del Ynga de color rojo, pillku rampa, para la Guerra 333 [335].

brigadier general with 4,000 to 5,000 soldiers; (d) the *apusquin rantin* or major general who in turn commanded a field of 10,000 soldiers; and, finally, (e) the *apusquispay* or army general who commanded the entire field of battle.⁶⁹ Given the effectiveness of ethnic soldiering in subject provinces, and the large-scale recruitment and mobilization of labor and service via the *mit'a* taxation system, it is no wonder that such forces are said to have ranged between 40,000 and 80,000 at Cajamarca to upwards of 200,000 under Manqu Inka's siege of Cuzco in 1536.

Inca battles

Any consideration of the conquest narratives and histories of the Inca must contend with their conflicting and often highly Eurocentric character. Of the fifty or so early Spanish and other European accounts regarding the history of the Inca empire, those of the early sixteenth-century soldier, writer, and historian Pedro de Cieza de León (1553) are among the most detailed, authoritative, and authentic. Other widely cited sources, such as those of the early seventeenth-century Jesuit scholar Bernabé Cobo, were penned nearly a century after the collapse of Inca civilization, and only by virtue of a singular reliance on oral narratives and second-hand sources. The essential accuracy of many of these latter accounts is as such suspect, particularly given the tendency for many to disregard scholarly protocols regarding attribution of sources, accounts, and essential facts. Significantly, Cieza de León's writings are the product of personal experience and battlefield narratives penned by a Spanish soldier who saw such engagements first hand. In addition to his observations regarding Inca warfare and military protocols, Cieza de León's *Crónica del Perú* (1553, 1554) makes clear his fascination with the recording of Inca historical narratives and traditions specific to their many conquests. It is from such accounts that we see the ascendancy of the Inca state by way of the exploits of its kings and emperors. Moreover, Cieza de León's *Crónica del Perú* necessarily mirrors Fray Diego Durán's *Historia de las Indias de Nueva España e Islas de Tierra Firme*, and the latter's treatment of Aztec militarism. As with Durán's accounts of Aztec kings, kingship, and warfare, Cieza de León similarly collected earlier accounts and thereby chronicled centuries of wars and untold conquest actions. Moreover, the writings and illustrations of the Spanish chronicler Felipe Guaman Poma de Ayala's *El primer Nueva corónica y buen gobierno* (1565–1615) have in turn provisioned a fertile landscape for assessing earlier accounts. The following narrative, therefore, provides a glimpse into relatively late developments in Inca battlefield comportment, arms, and fortifications to

69 "Inca Army," Wikipedia, https://en.wikipedia.org/wiki/Inca_army#cite_note-20, citing *Historia del Ejército Ecuatoriano*, p. 14.

contextualize Inca military strategy, tactics, and organization as documented in the writings of both Pedro de Cieza de León and Felipe Guaman Poma de Ayala.

The battle of Pambamarca

Cieza de León's account of the Inca victory over the enemy nations of Quito, Ecuador, addresses the consequences of a series of battles spanning a long-term campaign against the peoples of the region. Those dimensions of the war identified with the Inca hill forts of Pambamarca are particularly instructive for what they have to say about Inca battlefield comportment and the deployment of static defenses in frontier provinces. In effect, while Cieza de León's account leaves the impression that the Inca defended a singular stronghold, the region of Pambamarca maintained a defensive bulwark of some fourteen Inca hill forts, a number of which may well have been retrofitted from pre-existing non-Inca fortifications. Archaeologically, the region is known to have contained some thirty-seven such hill fort localities. The available evidence, therefore, corresponds well with those accounts that make clear that the peoples of this region deployed static defenses, in the form of hill fort settlements with concentric-walled enclosures. This was in response to the encroachment of the Inca during the bloody early sixteenth-century campaigns of Wayna Qhapaq. Despite the information provided, the accounts remain incomplete as to the specific size of battlefield formations, organization, and armaments deployed. Nevertheless, the essential details of the war on the province of Quito remain important for what is revealed of the general outlines of Inca diplomacy, conquest, and the use of coercive force and retribution in facilitating the total subjugation of subject provinces.

In anticipation of the Inca advance, the peoples of the region of Quito consolidated all available forces from among allied villages and towns, thereby mobilizing a sizeable army, built forts and stockades, stockpiled weapons and projectiles, and awaited the onslaught. Wayna Qhapaq's repeated attempts to broker an accord with the "unfriendly" inhabitants of the region north of Quito were rebuffed. Given their longstanding resistance to Inca demands that they capitulate, Wayna Qhapaq ultimately found it necessary to subdue the region through conquest, occupation, and the threat of further violence.

Not anticipating so formidable an opposition from the Otavalo, Cayambe, Cochasqui, Pito, and related peoples, Wayna Qhapaq ordered a contingent of his soldiers and select captains to advance on those pockets of resistance. According to Cieza de León, "thinking to make themselves easily masters of



FIGURE 15. Inca siege of *pucara* or fortress replete with stone-wielding defenders. The Royal Danish Library, GKS 2232 kvart: Felipe Guaman Poma de Ayala, *Nueva corónica y buen gobierno* (1615), Dibujo 57. El séptimo capitán, Maytac Ynga 155 [157].

their fields and lands,” Inca forces were routed and dispersed.⁷⁰ The crushing effectiveness of a surprise attack on the Inca force was accentuated by war cries emanating from the enemy ranks, which, combined with the aggressive pursuit, capture, and systematic killing of the dispersed Inca forces, served to demoralize the command structure of the Inca. Wayna Qhapaq was engaged elsewhere but reports of the catastrophic losses suffered by his forces at the hands of the enemy reached him in short order. Though outraged, he ordered the men of the dispersed and vanquished legions to remain silent, and to move to intercept their retreating comrades for the purpose of regrouping into squadrons. Wayna Qhapaq then announced to the soldiers that he would assemble fresh troops with which to avenge the Inca military. Cieza de León’s account makes clear that the Inca was aware that such a pronouncement so soon after the catastrophic defeat of one of his armies would very likely lure the enemy to pursue the Inca emperor in his moment of vulnerability. Informing his troops that they should make ready for war, he dismounted from his royal litter and commanded his forces at the head of the army. After a day and a half of marching toward the enemy, the Inca army was confronted by the fleeing remnants of the vanquished Inca force. Despite their flight from the enemy, these soldiers halted temporarily at the sight of the advancing Inca force under the command of the emperor. As a result, the enemy force fell upon the Inca fugitives and proceeded to slaughter them despite the advance of Wayna Qhapaq at the head of a formidable new force.

In the melee that ensued, Wayna Qhapaq deployed a flanking maneuver that succeeded in encircling the enemy on three sides. Emboldened by their leader’s maneuver, the vanquished forces regrouped and turned on the enemy, who now found themselves trapped. The conjoined Inca forces then proceeded to annihilate the enemy force. Despite the carnage that ensued, the Inca succeeded in taking many prisoners. In the aftermath, casualties were recovered from the battlefield and the dead were burned with military honors. Statues and stone markers were erected to commemorate the battle and Wayna Qhapaq dispatched word of the victory to the Inca capital at Cuzco. Having addressed such matters, Wayna Qhapaq reorganized his soldiers and marched northward beyond Caranqui.⁷¹ The Inca victory at Pambamarca witnessed each of those tactical and strategic protocols deemed key to describing Inca military maneuvers in the field of combat, namely massing, the physical leadership of the command structure,

⁷⁰ Pedro de Cieza de León, *La Cronica del Perú* (Lima, Promocion Editorial, SA, 1973), p. 48.

⁷¹ *Ibid.*, p. 48.

and the three-pronged flanking maneuver. Despite ongoing hostilities that persisted for decades, the Inca installed an occupation force in the Quito region maintained until the arrival of the Spanish and the collapse of the empire.⁷²

North America

Current understandings of warfare and social violence in native North America for the period extending from 1300 to 1500 CE are largely the product of archaeology, biological anthropology, art history, and – where available – ethnohistory born of native oral traditions and European contact chronicles. Those regions of North America that have produced the most extensive pre-Contact-era evidence for indigenous warfare are those identified with the culture areas of the American Southwest, the Northeast and Southeast, the Great Plains, and the Northwest Coast. To provide a point of contrast and comparison with patterns of organized conflict and violence in Mesoamerica and Peru, North American warfare is reviewed in brief, and only by way of selected case studies. Our preliminary point of departure concerns current understandings of eastern North American, or Mississippian, patterns of warfare and social violence and their implications from the archaeological record. We then turn to a consideration of Ancestral Pueblo or Anasazi warfare, particularly as significant new evidence has emerged to best contextualize the nature and intensity of Ancestral Pueblo conflict and social violence in the pre-Contact era. Both Contact-era accounts and the archaeology of the Northeast in turn serve to inform this review of precursors to Iroquoian, Huron, and related manifestations of war and raiding activity in North America.⁷³ In each of the latter regions, changing technologies and demographic expansion went hand in hand with changing patterns of conflict interaction and warfare, the expansion and deployment of fortifications, and the amalgamation or consolidation of populations with an eye to defensive mobilizations.

72 Rubén G. Mendoza and Shari R. Harder, "Mythologies of Conquest: Demystifying Amerindian Warfare and European Triumphalism in the Americas," in Richard J. Chacon and Rubén G. Mendoza (eds.), *The Ethics of Anthropology and Amerindian Research: Reporting on Environmental Degradation and Warfare* (New York, Springer Press, 2012), pp. 191–234.

73 Craig S. Keener, "An Ethnohistorical Analysis of Iroquois Assault Tactics Used against Fortified Settlements of the Northeast in the Seventeenth Century," *Ethnohistory* 46 (1999), 777–807.

Eastern North America

Early sixteenth-century European Contact-era chronicles pertaining to southeastern North America document the existence of large Mississippian palisaded towns, water-filled moats, ditch/embankment defensive works, bastions, observation towers, incendiaries, and the deployment of shock weapons and bows and arrows. Mississippian militias, sentries and spies, crescent infantry formations, linear battle lines, quilted armor, and canoe-borne warfare further document prevailing patterns of conflict. Human trophies, including scalping, dismemberment, and decapitation, often followed. Chiefly warfare directed at the looting, desecration, and destruction of sacred ancestor temples, shrines, and charnel houses served to reinforce the conquest narratives of the day.⁷⁴ In order to assess the level of investment required for any one or more of these defensive features, in one Mississippian palisaded town alone the ditch/embankment system measured 822.96 m (2,700 feet) long, 3.35 m (11 feet) wide, and approximately 1.52 m (5 feet) high.⁷⁵ The accompanying ditch measured 0.76 m (2.5 feet) deep and 6.70 m (22 feet) wide, and was projected to have required the excavation of some 4,205.05 m³ (148,500 cubic feet) of earth. That much of the defensive pattern in question sees its proliferation in a period of intensified social and political stress coinciding with the period after 1200 CE ⁷⁶ hearkens to other similar patterns affecting villages, towns, and cities throughout much of North, Middle, and South America at this time.

In recent years archaeologists have identified a host of Mississippian sites wherein archaeological evidence serves to attest to the burning and destruction of whole settlements, palisaded towns, and in particular, the desecration, destruction, and looting of chiefly ancestor temples in the Mid-Southern United States. The sites of Toqua, Jonathan Creek, Etowah, Towosahgy, and Chucalissa – all of which were occupied in the period extending from 1250

74 Timothy Earle, *How Chiefs Come to Power: The Political Economy in Prehistory* (Stanford, Stanford University Press, 1997), p. 206; David H. Dye and Adam King, "Desecrating the Sacred Ancestor Temples: Chiefly Conflict and Violence in the American Southeast," in Chacon and Mendoza (eds.), *North American Indigenous Warfare and Ritual Violence*, pp. 179–80.

75 Dye and King, "Desecrating the Sacred Ancestor Temples," p. 177.

76 George R. Holley, "Late Prehistoric Towns in the Southeast," in Jill E. Neitzel (ed.), *Great Towns and Regional Polities in the Prehistoric American Southwest and Southeast* (Albuquerque, University of New Mexico Press, 1999), p. 37; Polly Schaafsma, *Warrior, Shield, and Star: Imagery and Ideology of Pueblo Warfare* (Santa Fe, Western Edge Press, 2000); Polly Schaafsma, "Head Trophies and Scalping: Images in Southwest Rock Art," in Richard J. Chacon and David H. Dye (eds.), *The Taking and Displaying of Human Trophies by Amerindians* (New York, Springer Press, 2007), pp. 90–123.

to 1450 CE – are among those where such destruction was centered on ancestor temples. The destruction of ancestor temples appears to have constituted a major theme, strategic objective, or battle tactic of the Mississippian militias of the period in question. Dye and King conclude that the consequences for the community suffering the desecration and looting of such structures included “loss of social identity, loss of community solidarity, and loss of social control.”⁷⁷ Inter-village raiding, feuding, and large-scale siege events are now thought to have characterized the nature of war and social violence through much of the period extending from 1200 to 1600 CE.

While the archaeological evidence speaks volumes about the scale of destruction at specific sites, and the targeting of chiefly ancestral temples in particular, the osteological evidence from these same sites suggests much about the nature of those wounds and the trauma inflicted on the inhabitants of those sites targeted for destruction. Accordingly, the osteological evidence for intergroup conflict in the Eastern Woodlands has been determined to predate the first appearance of stockades and related fortifications. Projectile wounds, scalping, and limb dismemberment is predominantly identified with males, and can be traced to as early as the Archaic Period of 6000 to 1000 BCE.⁷⁸ Small-scale raiding on the Mississippian periphery of west-central Illinois is similarly documented at Norris Farms. According to Lambert, 43 of 264, or 16 percent, of the inhabitants of this fourteenth-century Oneota community died violently. The evidence from the site consists of embedded projectile points, scalping as discerned from cut marks, decapitation, and carnivore damage due to pre-interment corpse exposure. Many of those individuals dispatched in these ways bore evidence of pre-existing debilitating conditions, thereby indicating that these kills constituted the “opportunistic killings of vulnerable individuals.”⁷⁹ While the archaeological evidence for warfare and social violence in eastern North America is substantial, early sixteenth-century accounts remain a viable bridge to the pre-contact past in so far as indigenous military strategies and battlefield tactics are concerned.

Hernando de Soto’s sixteenth-century narratives of the “conquest” of *La Florida* enumerate a host of battles fought with peoples today identified with the Choctaw, Cherokee, Creek, and Seminole peoples of Florida and the

77 Dye and King, “Desecrating the Sacred Ancestor Temples,” p. 170.

78 Maria O. Smith, “Osteological Indications of Warfare in the Archaic Period of the Western Tennessee Valley,” in Martin and Frayer (eds.), *Troubled Times*, pp. 241–2.

79 Patricia M. Lambert, “The Osteological Evidence for Indigenous Warfare in North America,” in Chacon and Mendoza (eds.), *North American Indigenous Warfare and Ritual Violence*, p. 216.

Southeastern US. One such narrative, penned by Hernando de Soto's personal secretary, Rodrigo Rangel, comes replete with the unvarnished accounts of battlefield losses endured time and again by the Spanish expedition of 1539–41.⁸⁰ Such firsthand narratives serve to elucidate those strategies and battlefield tactics used by the native peoples in their efforts to resist Spanish and other European encroachment of their homeland. The expedition in question first made landfall in *La Florida* on Friday, May 30, 1539, and was met by armed resistance through a host of catastrophic skirmishes. These resulted in the systematic routing of the Spanish and the burning and destruction of their supply stores. From the outset, Indian towns were systematically abandoned in anticipation of the Spanish advance, and “so soon as the Christians appeared in sight of land, they were decried, and all along on the coast many smokes were seen to rise, which the Indians make to warn one another.”⁸¹

The battle of Quigaltam

According to the narratives of the *La Florida* expedition, indigenous battle tactics won the day repeatedly, and the Spanish were forced to retreat or seek shelter or alliances with potential allies. At the battle of Quigaltam, a decisive water-borne victory was had by Chief Huhasene, a subject of the *cacique* of Quigaltam, and his flotilla of one hundred war canoes, against the Spanish under the command of Hernando de Soto. When a contingent of seven brigantines (bearing some 322 Spanish soldiers) ventured beyond the village of Guachoya, Chief Huhasene and his war canoes formed a blockade of the river. After a preemptive strike by the Spanish that resulted in the burning and looting of a village near Quigaltam, the Spanish were barred passage by the flotilla. Maintaining a distance that assured a protective buffer against Spanish crossbow fire, the *cacique* of Quigaltam sent forth a canoe bearing three messengers to meet Hernando de Soto. Each war canoe bore “sixty to seventy persons in them, those of the principal men having awnings, and themselves wearing white and coloured plumes, for distinction.”⁸²

According to the Spanish, the messengers dispatched by the *cacique* of Quigaltam had as their intent the learning of the “character of the vessels, and the weapons that we use.”⁸³ One of them boarded de Soto's brigantine, and proceeded to commend and complement the Spanish commander, and

80 Edward Gaylord Bourne (ed.), *Narratives of the Career of Hernando de Soto in the Conquest of La Florida as told by a Knight of Elvas, and in a Relation by Luys Hernández de Biedma, Factor of the Expedition* (New York, A. S. Barnes, 1904), pp. 196–7.

81 *Ibid.*, p. 22. 82 *Ibid.*, p. 196. 83 *Ibid.*

overtures were thereby made that implied that the *cacique* of Quigaltam would submit to Spanish authority. The ploy in question proved to be a ruse, for upon the messenger's return to the main war party, the warriors of Quigaltam proceeded to yell war cries to menace and threaten the Spanish.

The battle that ensued resulted in the rout of the Spanish, and this by virtue of the coordinated onslaught of canoe-borne archers who proceeded to rain down projectiles on the fleet of brigantines under de Soto's command. The presence of chiefly elites was clearly key to the command structure of the Indian armada, and as noted, both their war canoes and regalia were clearly marked, and were far more elaborate than the mass of war canoes brought into the fray. The defenders strategically drew on deception, disclaimers, and overtures of submission, in addition to messengers and sentries, war cries and or chants, drumming, protective buffer zones (twice the range of a crossbow clear of the brigantines), and a bifurcated formation in which the war canoes of the flotilla were deployed in two groupings. Such tactics in turn saw the deployment of coordinated water and land-based flanking maneuvers, a canoe-borne encirclement of the opposing force, and sustained and strategically targeted projectile fire. The warriors of Quigaltam thereby forced the Spanish to retreat. In this instance, de Soto's attempts to break the canoe blockade by deploying armored Spanish soldiers in an advance party were met by a flanking maneuver and encirclement that resulted in the death and capture of many of the Spanish soldiers.

For days thereafter, canoe-borne warriors, as well as those along the shoreline, continued to taunt the weary Spaniards by targeting the brigantines with repeated volleys of projectiles throughout the day and night. The onslaught both dispirited and exhausted the Spanish forces, so much so that options for a retreat to New Spain were proposed and considered at length. In one such attack alone, some 100 Spaniards sustained over 700 projectile wounds, with Hernando de Soto himself surviving a total of seven potentially life-threatening wounds to his person. While numerical superiority, not to mention an effective array of indigenous field strategies, water-borne warfare, coordinated battle tactics, and weaponry, played a decisive role in Spanish losses at Quigaltam, it is clear that European armor minimized battlefield deaths among the Spanish.

The American Southwest

Masonry cliff dwellings, mesa-top towns or terraced *trincheras*, restricted access features, an iconography of war and violence, bioarchaeological evidence for blunt- and sharp-force trauma and cannibalism, and other more-or-less direct findings in support of the evidence for social conflict and warfare in the ancient

Southwest (Arizona, Utah, Colorado, and New Mexico) continue to be interrogated. Despite over a century of competing inferences regarding the use and deployment of such formidable “defensive” works, scholars continue to debate the significance of such features where questions regarding prehistoric warfare and social violence are concerned.⁸⁴ While scholars continue to question the extent to which Chaco Canyon was the source of a pattern of hegemonic brutality and cannibalism in the region, much of that evidence brought into question is nevertheless seen to more fruitfully correspond to broader patterns of warfare and raiding activity in the Southwest.⁸⁵ Nichols and Crown go to considerable lengths to bring into question, and thereby minimize, extant documentation and interpretations for warfare and social violence in the ancient Southwest.⁸⁶ By contrast, in a recent treatment concerned with Ancestral Pueblo imagery and ideology in the Southwest prior to initial contact with the Spanish in 1542, rock art historian Polly Schaafsma has identified a wealth of evidence to bolster the case for the prehistory of war and violence in the region. She in fact contends that the iconography of war and violence only escalates, and proliferates, in the period after 1300 C.E.⁸⁷ According to Schaafsma, Ancestral Pueblo warfare was such that its depiction in the iconography of the Southwest is largely limited to shields and their designs in the period prior to 1300 C.E. After 1300, the iconography and symbolism of warfare becomes “vastly more complex” and pervasive, with both shields and weapons, and the proliferation of *katsina* supernaturals being a hallmark of the period after 1300. Significantly, depictions of warriors, painted shields, and shield bearers are directly correlated with cliff dwellings, aggregated or defensive settlement configurations, barriers and towers, and restricted-access defensive features in the northwestern portion of the Ancestral Pueblo homeland. Schaafsma notes that the proliferation of “defensive” features is in turn correlated with oft-cited evidence for social stress, drought, and environmental degradation.⁸⁸ Recent investigations have in turn looked at the gender imbalance in the evidence from the Grasshopper region of

84 Christy G. Turner and Jacqueline A. Turner, *Man Corn: Cannibalism and Violence in the Prehistoric American Southwest* (Salt Lake City, University of Utah Press, 1999); Lawrence H. Keeley, *War Before Civilization* (New York, Oxford University Press, 2001); Deborah L. Nichols and Patricia L. Crown (eds.), *Social Violence in the Prehispanic American Southwest* (Tucson, University of Arizona Press, 2008); Schaafsma, “Head Trophies and Scalping,” p. 115.

85 Julia C. Lowell “Women and Men in Warfare and Migration: Implications of Gender Imbalance in the Grasshopper Region of Arizona,” *American Antiquity* 72 (2007), 95–123.

86 Nichols and Crown, *Social Violence in the Prehispanic American Southwest*, pp. 22–38.

87 Polly Schaafsma, “Documenting Conflict in the Prehistoric Pueblo Southwest,” in Chacon and Mendoza (eds.), *North American Indigenous Warfare and Ritual Violence*, pp. 114–15.

88 Schaafsma, *Warrior, Shield, and Star*, pp. 160–1.



FIGURE 16. Dated to between 1190 and 1260 CE, and abandoned by 1300, Cliff Palace, like many Ancestral Pueblo settlements of the period, was constructed with towers situated within massive rock alcoves. Photograph © 2017 Rubén G. Mendoza.

Arizona for the thirteenth and fourteenth centuries, pointing to warfare and the displacement of human (refugee) populations in the region.⁸⁹ Similar archaeological evidence for such patterns of aggregation has been recovered in the form of clusters of Kayenta pueblos thought to represent allied Ancestral Pueblo communities, and some of these clusters are thought to represent warring Ancestral Pueblo factions or communities.⁹⁰

Based on this and broader patterns that enveloped the region in the late thirteenth and early fourteenth centuries CE, it would appear that a common ideology – and iconographic vocabulary – emerged in the wake of a regional crisis that suggests that conflict and warfare were central themes of the era in question. Additional evidence for conflict takes the form of human trophies, specifically “flayed head skins,” with looped cord attachments comparable to

89 Lowell, “Women and Men in Warfare and Migration,” p. 95.

90 Jonathan Haas and Winifred Creamer, *Stress and Warfare among the Kayenta Anasazi of the Thirteenth Century A.D.*, Fieldiana Anthropology, New Series 21 (Chicago, Field Museum of Natural History, 1993).

those identified with the Nazca tradition of southern Peru. Such trophies have been traced to 200 BCE in the American Southwest.⁹¹

Period rock art hosts a thematic emphasis on weapons and the portrayal of warriors brandishing shields from localities throughout the Southwest. Of those weapons depicted in Ancestral Pueblo rock art, the most prominently featured include war clubs, including the bipointed axe of Plains Indian affinity, arrows, long lances, spears, and yucca whips. In addition, quivers fashioned from the skins of mountain lions, projectiles, stone axes, and both the simple or D-bow and the more complex recurved bow – touted as a more powerful weapon that appears after the thirteenth century CE.⁹² The corollary appearance of the bipointed axe in Ancestral Pueblo rock art may well signal an escalation of conflict with Plains Indian raiders in the Four Corners region of the American Southwest after 1250 CE, particularly as such weapons are not known from Ancestral Pueblo archaeological collections.⁹³ It is precisely during the course of the late thirteenth and early fourteenth centuries CE that much of the region originally identified with the apogee of Ancestral Pueblo civilization is abandoned.

It should be noted, however, that social violence and interregional conflict are documented at a much lower frequency over a considerable time depth in the Southwest. This is not to say that violence was minimized, but rather that the evidence for such is nominal at best. Significantly, Milner's study of arrow wounds resulting from casualties of the nineteenth century Indian Wars makes clear that "even low percentages of archaeological skeletons with distinctive conflict-related bone damage indicate that warfare must have had a perceptible impact on ways of life."⁹⁴ This study makes clear that only one in three victims of arrow trauma of the sort identified in the post-500 CE Southwestern US would likely bear direct osteological evidence for such trauma.

Where other Southwestern sources of conflict are concerned, it has been noted time and again that the highest incidence of cannibalism and related social violence documented to date is identified with the Chaco Phenomenon centered on the massive road and settlement hierarchy of Chaco Canyon,

91 Schaafsma, *Warrior, Shield, and Star*, p. 159; Elizabeth P. Benson and Anita G. Cook (eds.), *Ritual Sacrifice in Ancient Peru: New Discoveries and Interpretations* (Austin, University of Texas Press, 2001).

92 Steven A. LeBlanc, "Modelling Warfare in Southwestern Prehistory," *North American Archaeologist* 18 (1997), 246–54.

93 Schaafsma, *Warrior, Shield, and Star*, p. 48.

94 George Milner, "Nineteenth-Century Arrow Wounds and Perceptions of Prehistoric Warfare," *American Antiquity* 70.1 (2005), 144.

New Mexico, c.1100 CE. For Christie and Jacqueline Turner, such evidence is taken to constitute a broader pattern of intimidation and social control emanating from Chaco and allied Ancestral Pueblo communities.⁹⁵ Earlier evidence of burned rooms and villages, unburied bodies, mass burials, osteological evidence for cannibalism, scalping, and dismemberment, head trophies, and the depictions of warriors and militarized iconography, though rather more limited, is nevertheless a factor in the interpretation of such low-intensity violence and intergroup raiding activities.⁹⁶ Clearly, the evidence for heightened levels of conflict and social violence erupts in the period after 1250 to 1300 CE, and these are of a substantively different character and scale. The pattern so noted correlates with a particularly volatile and disruptive period of environmental degradation and intense social violence, conflict-induced population movements, and the escalation of Plains Indian patterns of interaction, acculturation, and conflict.

Implications from the Pueblo Revolt

Despite longstanding ethnographic characterizations of the peaceable Puebloan peoples of northern New Mexico, one of the most telling episodes in the history of Ancestral Pueblo warfare and conflict interaction, and its potential for success, took the form of the Pueblo Revolt of 1680. While lying outside the chronological scope of this treatment, the revolt is nevertheless significant for what it says about the ability of the segmented-lineage and moiety-based political system of the Pueblos to effectively and strategically coordinate and unite an ephemeral multipolity confederation of towns, encompassing some 17,000 people, for the purpose of waging war. While many would contend that a long-term pattern of active, albeit largely clandestine, resistance by the Pueblos against their Spanish overlords ultimately sparked the Pueblo Revolt of August 1680, it is also clear that a host of underlying factors served to precipitate the revolt itself. Among these were a prolonged drought-induced famine, the introduction of European disease, the disruption of traditional trade networks, an escalation of Athapaskan raids on the Pueblos, and the harsh persecution of Puebloan traditional customs and beliefs by Spanish officials.

95 Turner and Turner, *Man Corn*; Christy G. Turner and Jacqueline A. Turner, "Cannibalism in the Prehistoric Southwest: Occurrence, Taphonomy, Explanation, and Suggestions for Standardized World Definition," *Anthropological Science* 103 (1995), 1–22.

96 Schaafsma, "Documenting Conflict in the Prehistoric Pueblo Southwest," pp. 114–15.

The Pueblo Revolt was launched after a series of *juntas*, or tribal council meetings, were convened. The elders and representatives of each of those communities allied for that purpose convened these *juntas*. In order to coordinate the revolt, a lieutenant of the Puebloan leader Pohéyemu sent out a dispatch to all Pueblo communities in northern New Mexico and called upon them to participate in the revolt under the threat of death and the destruction of their respective communities. Two messengers were dispatched with knotted deerskins to indicate to other Pueblo leaders the number of days, indicated by two such knots for two days, remaining prior to the launch of the main revolt. The organized rebellion effectively sought the systematic annihilation of the Spanish, and it proceeded with such haste that the Spanish were soon overwhelmed.

In effect, at each vanquished Spanish settlement the Pueblos systematically dispossessed the remaining Spaniards of access to horses, weapons, and supplies, and similarly disrupted or destroyed access to crucial water sources for each town besieged through the course of the months of August and September 1680. Interestingly, despite the scale of violence that they visited upon the Spanish, the Pueblos nevertheless offered Governor Otermín a choice to go to war, or to “abandon the kingdom,” in the form of a painted red cross, and white cross, respectively.⁹⁷ In the final analysis, the governor’s departure from the beleaguered Santa Fe was met by jeers and taunts from Pueblos along the route, who signaled the transit of the Spanish by way of smoke signals in a fashion long thought to have characterized Ancestral Pueblo way stations, signal towers, and other forms of conflict-related interregional communications.

The Americas in retrospect

In each region examined for the period extending from 1300 to 1500 CE, it is clear that several variables played decisive roles in the nature of warfare and battlefield comportment. First, the extent to which supply lines could foreseeably be maintained in the absence of beasts of burden limited or shaped the nature of imperial incursions in distant provinces. In the American hemisphere, the deployment of garrisons, rural sustaining communities,

97 Andrew L. Knaut, *The Pueblo Revolt of 1680: Conquest and Resistance in Seventeenth-Century New Mexico* (Norman, University of Oklahoma Press, 1997), p. 10.

supply depots consisting of tribute stores, road and bridge construction, and hill forts and provincial acropolis centers all appear in one form or the other along critical frontiers with rival states and kingdoms. To offset the costs of the otherwise costly deployments in question, empire building required the creation of alliance networks with foreign elites, intermarriage, the deployment of emissaries and spies, ports of trade, tributaries, resettlement and colonization, and the targeted destruction of towns and resources construed potential sources of support to the enemy.⁹⁸ The taking of elite captives, including foreign concubines and royal wives, was an ancient and widespread practice, and as noted for the Classic Maya and Postclassic Aztec, the taking of elite captives and the capture of sacred objects or sites served to check the potential aggressions of foreign or subject elites and tributaries. Given the considerable investment in the workforce required to maintain and defend sizeable occupation forces in distant provinces, captive taking and correlated military traditions centered on the deployment of technologies of terror, and thereby intimidation, that ultimately proliferated throughout the Americas. In both Mesoamerica and Peru skull racks, human heart excision, vivisection, decapitation and dismemberment, genocide, and the taking and displaying of human trophies were common in the period extending from 1300 to 1500 C.E.⁹⁹ Significantly, such tactics grew in proportion to the need to subjugate and control an ever larger and more volatile number of provincial populations and potential adversaries.

Environmental circumscription

The highly fractured topographic regime identified with the geologically defined neo-volcanic axis of highland Mesoamerica and the Andean Cordillera of western South America necessarily served to constrain interaction, thereby effectively isolating human societies to the extent that influence and commercial interaction manifested a dendritic, or narrowly defined, pattern of intercultural relationships. At the same time, while the relative isolation and separation of human communities served to exacerbate cultural and linguistic differences, ecological diversity promoted intensified levels of intercultural social and commercial exchange and interaction within and between each region. So pronounced was the nature and extent of highland–lowland interaction in the Americas, and particularly Peru, that anthropologist John Murra defined the cultural dynamics of the region in

98 Such stratagems also sought to enhance the effectiveness of extant command and control features in both proximate localities and distant provinces.

99 Rubén G. Mendoza, "Cabezas-Trofeo y Tzompantlis en los Confines de Mesoamérica," *Arqueología Mexicana* 25 (2017), 64–9.

terms of the “vertical archipelago.”¹⁰⁰ Accordingly, Robert L. Carneiro launched his model for the role of warfare in the evolution of the state, and predicated this on such defining variables as environmental circumscription.¹⁰¹ Unlike Murra’s model, which acknowledged the extent to which diverse resource zones promoted highland–lowland interaction and exchange, Carneiro saw the fractured and circumscribed intermontane basins as ripe for the escalation of conflict and warfare predicated on expanding populations and diminishing resources. Therein lay Carneiro’s identification of those variables as key to the evolution of warfare in highland contexts. As such, Carneiro’s circumscription theory generated widespread scholarly consideration. One more recent perspective, which extends environmental circumscription to ecologically redundant environments, such as that of the Mexican Gulf lowlands, has in turn been posited to account for the epic Chontal and Quichean (diasporic) diffusion out of the Gulf lowlands into the Mexican and Guatemalan highlands in the Postclassic era.¹⁰² In each instance, environmental heterogeneity or redundancy in both Mesoamerica and Peru made explicit ancient and long-lived sources and patterns for war, conflict, and intercultural interaction.

Social proxemics

A key variable that serves to account for both the scale and extent to which violence and destruction were exacted on rivals concerns what might fruitfully be identified in terms of the proxemics of war and violence. In her discussion of warfare in the prehistoric Southwestern United States, archaeologist Julie Solometo has identified a host of variables that “capture the variability of conflict in non-centralized societies.”¹⁰³ Variables that are thought to mediate the outcomes or characteristics of warfare and social violence include (a) social distance, (b) social scale, (c) tactics and goals, (d) frequency and predictability of conflict, and (e) the duration of conflict. Interestingly, social distance, defined as “the strength of the relationship

100 John V. Murra, “El ‘control vertical’ de un máximo de pisos ecológicos en la economía de las sociedades andinas,” in John V. Murra (ed.), *Visita de la Provincia de León de Huánuco en 1562, Inigo Ortiz de Zúñiga, visitador*, 2 vols. (Huánuco, Peru, Universidad Nacional Hermilio Valdizán, 1972), vol. 2, pp. 427–76.

101 R. L. Carneiro, “A Theory of the Origin of the State,” *Science*, 169 (1970), 733–8; Angel García Cook, “The Historical Importance of Tlaxcala in the Cultural Development of the Central Highlands,” in Sabloff (ed.), *Archaeology*, pp. 263–9.

102 John W. Fox, *Quiché Conquest* (Albuquerque, University of New Mexico Press, 1978).

103 Julie Solometo, “The Dimensions of War: Conflict and Culture Change in Central Arizona,” in Elizabeth Arkush and Mark W. Allen (eds.), *The Archaeology of Warfare: Prehistories of Raiding and Conquest* (Gainesville, University Press of Florida, 2006), pp. 27–34, 38.

between groups engaged in hostilities,” plays a vital role in mediating the nature and extent of violence between groups.¹⁰⁴ Solometo goes on to acknowledge that kinship ties, group and ethnic identity, trade relationships, or other mutually beneficial relationships are taken as key to the coherence of such ties and their implications for social violence. Though Solometo restricts her analysis to non-centralized societies, such as those of the conflict-ridden communities of the Mogollon and Sinagua of east-central Arizona, and the Ancestral Pueblo more generally, for the period extending from 850 to 1250 CE, such variables nevertheless play similarly vital roles in state-level contexts. Social distance correlates with the extent to which warring groups or polities seek the wholesale destruction of enemy towns and villages, the indiscriminate mutilation of enemy dead, the torture of captives, and the acquisition of human trophies. It would appear that there exists a relatively strong correlation between social distance and the longevity of episodes of war and social violence. According to Solometo, “with increasing social distance, shared interests decline; among unrelated groups there are fewer reasons to refrain from fighting and few mechanisms to achieve peace.”¹⁰⁵

Human trophies

Human trophies and those technologies of terror deployed to introduce such grisly relics into the broader world of socially sanctioned violence are perhaps the most telling indicators of social enmities and distance between rivals and enemies. Moreover, those awesome technologies of terror deployed by such groups as the Aztec in turn served to heighten social distance and increase competition among rivals, while at the same time escalating enmities between enemy nations. The massive skull rack of Mexico Tenochtitlan was the stuff of legend, and its purported display of some 80,000–135,000 decapitated and skewered human heads in varying states of decomposition clearly served to foment intimidation, command deference, and conjure order out of the potential chaos of an ever-growing cadre of rival kingdoms and nation states.¹⁰⁶ Hence, socially distant group conflicts clearly correlate with heightened levels of trophy taking, the desecration of enemy dead, the indiscriminate killing of civilians, and the burning and destruction of enemy settlements. In sum, evidence from throughout the Americas indicates that

¹⁰⁴ Ibid., p. 27. ¹⁰⁵ Ibid., p. 28.

¹⁰⁶ Rubén G. Mendoza, “The Divine Gourd Tree: Tzompantli Skull Racks, Decapitation Rituals, and Human Trophies in Ancient Mesoamerica,” in Chacon and Dye (eds.), *The Taking and Displaying of Human Body Parts as Trophies*, pp. 400–43; Mendoza, “Cabezas-Trofeo y Tzompantlis en los Confines de Mesoamérica,” pp. 64–9.

increasing social distance is commensurate with the wholesale destruction and decimation of enemy populations. Social distance, therefore, serves as a telling indicator of how and why some New World societies maintained longstanding, albeit controlled, patterns of enmity and conflict versus total wars of extermination and/or the annihilation of whole armies, towns, villages, and civilian populations. Ultimately, each of the aforementioned cultural and environmental variables served to delimit or define both inter-group war and social violence in the American hemisphere on the eve of the European invasion of the late fifteenth and early sixteenth centuries of the Common Era.

Postscript

The incessant drumbeat of war in the American hemisphere necessarily propelled societies at all levels of analysis toward new social formations. For the victors, war was the eternal fount of wealth, subjects, slaves, kingdoms, states, and empires; whereas, for the vanquished, it constituted a dark and seemingly interminable cycle of subjugation, enslavement, desecration, carnage, death, destruction, and displacement. Human populations both feared and extolled the virtues of war and the warrior throughout all times and places in the Americas, while at the same time embracing warfare and social violence as the unifying mechanism by which they sought to renew themselves through the paroxysm of terror and bloodshed. War brought with it the hope and potential for expanding a growing community's agricultural base and resource catchment areas, while at the same time expanding the wealth of nations by way of the incorporation of subject populations destined to toil on behalf of their new overlords. In this way, the opulence of empire and the needs of the citizenry were maintained in seeming perpetuity. Admittedly, the horrors of warfare and social violence resulted in the utter and complete annihilation of whole populations, ethnic groups, and peoples, and in the deployment of an extraordinary corpus of technologies devoted to terror and human sacrifice in the Americas.¹⁰⁷ Nevertheless, Amerindian warfare was also the harbinger of perhaps some of the greatest public works, social technologies and experiments, and extraordinary medical innovations the world has ever known. From battlefield medicine were born a host of medical innovations and technologies that included the intramedullary nail, cranial trepanning, dental fillings and prosthetics, surgery, and

107 Mendoza and Harder, "Mythologies of Conquest."

one of the largest pharmacological repertoires ever assembled.¹⁰⁸ For all of its dire consequences, and its formidable dark side, we are nevertheless left to marvel at the wonders born of this world at war.

- ¹⁰⁸ Rubén G. Mendoza, "Lords of the Medicine Bag: Medical Science and Traditional Practice in Ancient Peru and South America," in Helaine Selin (ed.), *Medicine Across Cultures: History and Practice of Medicine in Non-Western Cultures* (London, Kluwer Academic Publishers, 2003), pp. 225–57; Rubén G. Mendoza, "Los señores de la medicina: Ciencia médica y práctica tradicional en el antiguo Peru y Sudamerica," *Revista del Museo de Arqueología, Antropología e Historia* 14, Universidad Nacional de Trujillo, Facultad de Ciencias Sociales (2019), 253–80.

PART IV

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COMPARISONS:
CROSS-CULTURAL ANALYSIS

Justifications, theories, and customs of war

STEPHEN MORILLO

The ways in which different medieval cultures justified war, theorized about war, and developed different customs that shaped the conduct of warfare varied widely. While the many “cultures of war” that emerged in the medieval world shared some basic characteristics, what is more broadly comparable are the processes or dynamics that shaped military cultures around the world. This chapter will explore, comparatively and as globally as the evidence allows, those dynamics and the cultural patterns they produced. It will argue that cultures of war emerged from a series of intersections between ideas about war on the one hand, and the various contexts within which wars happened – geographic, socioeconomic, and political – on the other. These intersections shaped cultures of war at the broadest level, and more specifically complicated the development of justifications of war, theories about war and its uses, and the customs that influenced the conduct of warfare within individual cultures.

Cultures of war

Definitions

Analysis of cultures of war depends on what we mean by *culture* and how we see cultural boundaries affecting military practices. If we focus pragmatically on aspects of cultures and differences between cultures that made a difference to military practice, we can posit a rough distinction between *Big Cultures* on the one hand and *Subcultures*, component segments of Big Cultures, on the other. The former consist of broad areas sharing major cultural features ranging from basic ecological and subsistence patterns and material culture to broadly shared aspects of world view – religion, philosophy, perhaps even cultures of war. The latter will share some (perhaps many or most) of these features with other subcultures of the same Big Culture but differ from them

in a few respects that (at least in some contexts) appear crucial to the members of the different subcultures.

Subcultures may themselves be divided into further subcultures, and the boundaries between both Big Cultures and subcultures cannot be conceived of as fixed. Rather, cultures must be seen as plastic constructions whose boundaries shift constantly in response to political, ecological, and other circumstances, sometimes through slow processes of identity formation across large parts of the local population, but sometimes in response to active construction of local cultural identities by community leaders or would-be leaders, including not just military commanders but “cultural leaders” – primarily philosophers and religious figures. For our purposes, differing customs of war are one of the major markers of cultural boundaries.

The first major pattern that this definition of culture and its focus on differences and boundaries reveals is that cultural differences between societies mattered almost exclusively for justifications of and theories about *offensive* warfare. Every society recognized and practiced both the right and the necessity of self-defense in the face of external threat. Even ideologies such as Chinggis khan’s, that justified conquest of everything under the sky, assumed that enemies had the right to resist – they simply viewed their potential victims’ decision to resist as pragmatically foolish. Those potential victims, on the other hand, if they did not share the potential conqueror’s culture of war, disputed not just the pragmatics but also the ideological justification of the aggressor’s attack.

Intersections

Further broad patterns emerge when we consider the intersection of the cultures and practices of war first with varying natural environments, and second with common structural aspects of premodern societies and their relationships with each other.

The major divide in military cultures influenced by the natural environment was that separating sedentary and nomadic peoples. At different scales of population density, resource accumulation, and political organization this divide separated village agriculturalists and their hunter-gatherer neighbors, or at a larger scale the clash of agrarian empires and the steppe nomadic chiefdoms and empires of the Eurasian steppes. In broad terms, nomadic peoples’ war aims tended more towards the capture or killing of people and movable goods, especially livestock, and so emphasized mobile raiding and battle-seeking strategies. Sedentary peoples, logically and by contrast, sought control over land and the fixed political mechanisms through which land (and

its inhabitants) could be exploited. This latter usually led to strategic patterns that European medievalists have sometimes called “Vegetian” after the advice of the late Roman military theorist Vegetius, though the similarity of Vegetius’s strategic precepts to those of Sunzi reveals the environmental and logistical constraints that shaped much warfare in the agrarian world: the emphasis is on the defense and control of cities and fortifications, living off the enemy’s land by pillaging and destroying what can’t be taken, and generally avoiding battle except in very favorable circumstances (in which case the enemy was likely to try and avoid it) or as a last resort. Exceptions to this Vegetian pattern among sedentary societies usually existed in conditions where political or cultural “rules” made physical possession of land irrelevant, either because a central state mechanism controlled legitimate access to landed income, or because cultural hierarchies based in honor or some other value universally accepted within the culture determined access to resources. Such exceptions to the broad strategic patterns of nomadic versus sedentary societies remind us that the environment was an influential but not deterministic factor in shaping cultures of war.¹

A second environmental factor that shaped cultures of war, and that reinforced some parts of the nomadic–sedentary divide, was what might be called divides among “horse worlds,” of which there were, broadly, three. The first, corresponding to the Central Asian part of the nomadic world, was the fully horsed world of equine-based pastoralism. Here, the ability of the grasslands to support vast herds of horses and the possession of horses by virtually all members of society contributed to the militarization of such societies. “Horseless worlds,” by contrast, saw no military (or domestic) use of horses, whether because the climate was too harsh, as in the arctic tundra, or disease made maintenance of horses impossible, as in Africa south of the Sahel, where sleeping sickness proved even more deadly to horses than humans, or where evolutionary accident meant there were no horses, as in the Americas, where horses had, ironically, evolved but died out after spreading to Asia. In between, in much of temperate Eurasia and North Africa, were “partially horsed” worlds where horses could be raised in limited numbers and possession of a horse became one of the standard markers of elite status, and often of military elite status, and where limited cavalry forces coexisted tactically and culturally with foot soldiers of varying status.

¹ Stephen Morillo, “Battle Seeking: The Contexts and Limits of Vegetian Strategy,” *Journal of Medieval Military History* 1 (2002), 21–41; see also Clifford Rogers, “The Vegetian ‘Science of Warfare’ in the Middle Ages,” *Journal of Medieval Military History* 1 (2002), 1–20.

Elite horse warriors are a sign of the intersection of cultures of warfare with the social structures of medieval societies, especially in terms of hierarchical stratification and the divergence of interests between states and social groups or individuals. Military cultures were by no means uniform throughout societies, and indeed warrior elites where they existed were almost always marked off not just by their function but by mechanisms of physical distinction, including most obviously their specialized weaponry, armor, and at times possession of horses, as just noted. Warrior elites were naturally the social group most likely to develop military customs, rituals, and codes of behavior, a topic to which we shall return further below. Such class-specific customs could complicate state-oriented theories and justifications of war, as the interests and cultural outlooks of the theorists and policy-makers serving a central state and of the warrior elites within the state were not always congruent. The disjunction between Christian Just War theory on the one hand, with its requirement that war be the prerogative of a just (and theoretically public) authority, and the interests of local warriors in pursuing feuds and other forms of private warfare in Western Europe c.1000, for example, exposes this tension – one that contributed both to the development of the Peace Movement and to some of the rationales for Crusading, which attempted to direct the warriors' energies against more suitable foes.

A similar discontinuity could emerge between state interests or state-oriented justifications of war, or indeed even class-based codes of behavior, and the inclinations of individual ethics or religion. Thus, both medieval European knights and Japanese *bushi* sometimes took monastic vows late in life in attempts to atone for the sins that their duties as warriors had led them to commit. Such behaviors remind us that justifications and theories of war intersected with the internal social and cultural dynamics of societies in ways that were complex and that render any state-centric account of theories, justifications, and customs of war inadequate.

Finally, the practices and cultural beliefs of actual participants in war were in constant dialogue with ideals of war as presented in literary sources that often drew on mythic, religious, and ethical ideals. This dialogue presents its own issues of historical interpretation. The customs or rituals of war presented in literary sources might not accurately reflect actual practice, but depending on how powerful or prestigious the ideals they presented were, they could at times influence practice, and even more could influence warriors' memory of events and their self-representation even in nominally eye-witness narrative accounts of their own exploits, complicating the

historian's effort to uncover "reality" while contributing at the time to the process of construction (and constant reconstruction) of the culture of war itself.

The complexities involved in the construction of cultures of war accounts in part for the existence of subcultures within larger cultures of war, and the last intersection that shaped cultures of war was the dynamic process by which different cultures of war met and influenced each other. If we define wars that occurred within a single culture of war as *intracultural*, then warfare that crossed cultural boundaries may be called *transcultural*.² But this may be too simple. We must account not just for war crossing cultural boundaries, but also for the perception of such crossings by the participants themselves and the effect of these perceptions on warfare. This suggests that transcultural wars were wars in which perceptions of cultural difference influenced the conduct of warfare, altering it significantly from the patterns of intracultural war. Not only does this highlight notions of cultural identity as expressed in words and deeds by the participants, it also implies that not all cultural differences will matter in generating transcultural warfare. Two societies differing in terms of language, ethnicity, or other aspects of culture can share a common diplomatic and military culture, meaning warfare between them will likely not be transcultural.

Combining this understanding with the definition of cultures offered above suggests that there are two types of transcultural wars, in addition to the "base" category of intracultural wars. First, *intercultural wars*: wars between Big Cultures. Secondly, *subcultural wars*: wars between subcultures of the same Big Culture (or indeed between subcultures of a larger subculture). The impact of these types of war on customs and practices of war may be understood by comparison with the usual patterns of intracultural wars.

The opponents in intracultural wars understand each other and by definition share a common culture of war. Intracultural war therefore tends to demonstrate agreed conventions of conflict, limitations on war, and perhaps even ritual or ritualized elements of warfare. Not that the conventionality of intracultural war need make war less bloody; rather, participants' expectations of slaughter (of whom, by whom) or lack thereof are generally predictable. Thus, absent an external shock to the system or broader cultural or social shifts, intracultural warfare tended to be stable and to reinforce, through performance

2 The following section summarizes my article "A General Typology of Transcultural Wars: The Early Middle Ages and Beyond," in Hans-Henning Kortüm (ed.), *Transcultural Wars from the Middle Ages to the 21st Century* (Berlin, Akademie Verlag, 2006), pp. 29–42.

of expected roles, notions of cultural identity embedded in the culture of war. Shifting cultural or social contexts could move intracultural war towards subcultural war, however. Historiographically, intracultural wars have usually been the assumed context of analysis of specific cultures of war.

In intercultural war, or war between members of different Big Cultures, by contrast, the lack of shared cultural assumptions about conflict meant that at least one side and often both simply did not understand the other. In such situations, tacit assumptions about the limitations or customary practices and patterns of war necessarily disappeared, replaced by a pragmatic feeling-out process. Again, the lack of tacit limitations or rituals did not necessarily produce bloodier-than-usual conflict, though it could. Instead, pragmatic limitations, which in conditions of premodern logistics and communication could be considerable, tended to assert themselves. As the parties to an intercultural conflict became acculturated to each other, either through warfare or through broader channels of cultural exchange, the conditions for intercultural war dissipated, and such conflict moved either towards intracultural war or, if an irresolvable cultural difference emerged from the process of acculturation, subcultural war. The sorts of misunderstandings and the issues around which acculturation occurs in intercultural conflicts can reveal some of the tacit assumptions underpinning a culture of war, assumptions otherwise hidden from view in accounts of intracultural wars.

Subcultural war saw not mutual comprehension or non-comprehension between the parties to conflict, but instead what might be called mutual anti-comprehension: the parties understand but demonize each other on the basis of the cultural rift that divides them, a rift usually interpreted as central to cosmic order at some level. In the context of an otherwise shared culture, subcultural warfare thus often produces a heightening of ritual elements deployed now in a competition for legitimacy or mythic power. On the other hand, heightened ritual was accompanied in subcultural warfare by an abandonment of limitations or customs that mitigate violence. Subcultural warfare thereby usually becomes the bloodiest form of warfare, as each side aims to annihilate the other in order to restore order to the universe. Should neither side be able to eliminate the other, subcultural war can result in long-term, low-level but destructive irresolvable conflict, though mutual exhaustion or larger cultural shifts may produce a resolution into intracultural conflict. Subcultural warfare can thus expose very clearly the fundamental cultural assumptions underlying a wider culture of war in ways that may not be clear in either intracultural or intercultural war. Both intercultural and

subcultural war, though not the usual assumed context for analysis of cultures of war, can provide valuable evidence for understanding the range of justifications, theories, and customs of war in the medieval world, as well as for understanding the dynamics by which cultures of war shifted over time.

Justifications of war

Justification and necessity

As noted above, the universally accepted right of communal defense against attack meant that justifications of warfare almost always aimed at offensive wars. Thus, the “justification of necessity” was usually only an issue of practicalities, not of morality or theoretical concerns. Of course, aggressors could do their best to undermine the legitimacy of their target’s defense: William the Conqueror cast Harold Godwinson as an usurper successfully enough to gain papal backing for his attempt at the English throne in 1066. But his efforts had no discernible effect within Anglo-Saxon England, whose thegns followed Harold willingly into several battles in a defense of their kingdom that remained, to them, completely justified.

Rather, when issues arose in defensive wars, they tended to focus on who had the responsibility (or privilege) of leading the defense and who would then receive the credit and rewards of a successful defense. All these issues appeared, for example, during the Kamakura *bakufu*’s resistance to the Mongol invasions of Japan in 1274 and 1281. Though the *bakufu* itself received a good deal of credit for organizing the defense, the burdens fell disproportionately on the samurai of the Southwest. The problem for the *bakufu* of compensating those who fought in a war that gained the government no new land proved problematic over the following decades. The other issue that could face defenders was the choice between standing in defense and simply packing up their whole society and going away. This was a choice that was obviously far more open to nomadic or semi-nomadic societies than to sedentary ones, and was in fact a common strategy when nomadic peoples faced major invasions by settled powers, whether on the steppe frontier of China or on the northern frontier of central Mexican empires facing the nomads of the Gran Chichimec. But again, these were practical decisions that faced defenders, not matters of the justification of warfare (or flight).

Limits on the right to defense could, however, arise in particular legal and political contexts. An agreement between Count William V of Aquitaine

(1095–1030) and his vassal Hugh IV of Lusignan, for example, details the legal and military disputes between them. After an especially egregious threat by the count to Hugh's lands and interests, Hugh declared himself at war with William, "saving the count's city and person." In other words, Hugh could, in his own defense, carry war to the count's lands and vassals, but he could not attack the count himself nor the count's home city.

But such cases point to contexts in which warfare was already carefully circumscribed for both defenders and attackers, which moves us from the relatively unproblematic justification of necessity facing defenders to the potentially more difficult necessity of justification facing wagers of offensive wars.

Of course, the record of human history, in which there is no shortage of warfare (as evidenced, in part, by the existence of encyclopedias of the history of war), suggests that justifying war has not, in fact, been terribly difficult in any place or time. And indeed, it is probably accurate to read many of the more legalistic justifications of war in many cultures in part as post hoc rationalizations, justifying warfare to audiences across cultural boundaries – whether between cultures or between different cultural subgroups and subcultures within a culture, as for instance with warrior elites speaking to religious elites – or as the product of cultural negotiations between such groups. And medieval cultures were undoubtedly as capable as modern ones of disguising less-noble motives in the clothing of acceptable ones ("this war is about spreading democracy, not access to oil"), though we should be cautious of imposing modern conceptions of what "real" motives are on past cultures with very different values. The Crusades, to cite one common world history example, really were, for the vast majority of Western European participants, about religion; religious motivation was not a "democracy for oil" rationalization for "hooking Europe into the lucrative trade circuits of Asia," as is sometimes argued.

But even if post hoc justifications of normality have generated a fair amount of the historical record regarding the justification of war, this should not lead us to dismiss them. Their near-universal existence speaks to the seriousness of war in all cultures, a seriousness that called for the moral backing not just of intracultural conventions but of the sort of principles and arguments that could speak to wider audiences. Furthermore, even post hoc justifications can be proposed and believed sincerely, and we should understand almost all justifications of warfare as expressions of deeply held though not always consistent or explicitly stated beliefs and values.

Viewed from this perspective, medieval justifications of warfare fell roughly into four broad categories. First, warfare could be waged in support of maintaining cosmic order. Secondly, warfare was justified when it defended social order and stability. Thirdly, war was very commonly viewed, in an extension of the notions of cosmic and social order, as a prerogative of the state: if the leaders of the state decided war was necessary, that in itself was justification enough. Finally, some cultural traditions developed more theoretical, philosophical justifications of war. Such “Just War” traditions drew on but systematized some of the assumptions underlying the other forms of justification. The following sections explore each of these types somewhat further.

War and cosmic order

Religious beliefs played a central role in almost every medieval society in constructing both explanations of the origins of the universe and world views through which the universe gained meaning. The universality of warfare in medieval cultures, whatever the actual causes of war, therefore meant that religious explanations, if not justifications, of war were built into most systems of belief. Traditional, usually polytheistic religions often personified war in the person of a war god or god of war. The classical Greek Ares and Roman Mars had many surviving medieval counterparts, most notably Hachiman, the Shinto god of war and divine protector of Japan, who also became a Buddhist bodhisattva during the Kamakura period and was widely worshipped by samurai as well as, for his other powers, by peasants and fishermen. The entire pantheon of the Aesir, one of two sets of gods in medieval Norse paganism, was associated with war and power, most notably in the figures of Odin and Thor, and the war between the Aesir and the Vanir, the other set of gods, was central to Norse mythology. The Aesir and Vanir are representative of ancient Indo-European religious beliefs that were closely tied up with warfare at their origins. Linguistically “aesir” and “vanir” derive from the same Proto-Indo-European roots as the asuras (or ahuras) and devas of Indo-Iranian and early Vedic traditions; in the latter, it is the heroic slaying of the serpent Vritra by Indra that forms the mythic basis for the emergence of civilization. Similarly, war gods and violence were central to the religious and mythological traditions of Mesoamerica, both in the Mayan civilization and in the better-known blood sacrifices of the Aztecs. With warfare often built mythologically into the fabric of the universe, war was easy to construct as a central tool for warband leaders and rulers to use in the maintenance of cosmic order. For example, Chinggis khan and his

immediate successors based their right of conquest and rule on a mandate from Tengri, the unpersonified Sky God, analogous to the Chinese Tian, or Heaven. Thus, it was not just in the Chinese tradition that some version of a Mandate of Heaven justified divinely ordained rulers in pursuing war to maintain the order of the universe.

The Chinese tradition, however, begins to move us away from the realm of polytheistic traditions because of the significant influence, certainly by the medieval period, of other religious and philosophical schools of thought on interpretations of the meaning of the Mandate for conducting warfare. Chief among these, of course, were Confucianism and Buddhism. The former had risen to prominence under the Han dynasty (202 BCE–220 CE), the latter became central for much of the Tang (618–907), and a Neo-Confucian synthesis whose metaphysics were formulated largely in reaction to those of Buddhism revived the former under the Song (960–1279), after which it remained dominant into the nineteenth century. What such religious and philosophical traditions did was to make ethical considerations central to the relationship of the Mandate to war.

This fit with the larger pattern of post-classical Afro-Eurasia and the rise of what have been called the salvation religions, broadly including Devotional Hinduism, Buddhism, especially of the Mahayana variety, Christianity, and Islam, and arguably also their close cousins Judaism and Zoroastrianism. By contrast with most pagan and polytheistic religions, which tended to naturalize war as an inevitable part of the cosmos, the salvation religions tended instead to ethicize war, though certainly not all in the same way. Perhaps the most important result of this tendency was the creation of the notion of “holy war,” definable loosely as a special category of war more closely related to the maintenance of cosmic order than other sorts of warfare. (One could argue that all Aztec wars were a type of holy war, given the use of prisoners for sacrifice for the maintenance of cosmic order, but logically “all” and “none” are indistinguishable, and the universal applicability of war to cosmic order indicates naturalization – war as an inescapable part of the fabric of existence – rather than ethicization.) The relationship of each of the major salvation religions to war in general and holy war in particular varied considerably.

The congeries of beliefs known as Devotional Hinduism, evolving continuously from the earlier Vedic religious tradition, actually straddles the border, fluid in any case, between naturalizing and ethicizing approaches to war. On the naturalizing side, in the creation myth recounted in the Hymn to Purusha, the cosmos and human society are brought into being by the self-sacrifice of Purusha, whose arms become the warrior class, one of the four

great *varna*, or classes, of society. Though warriors are placed below the Brahmin (Purusha's mouth) and above the farmers (legs) and slaves (feet), the image as a whole is of society as an organic unity in which each part has its role to play. On the ethicizing side, however, the sophisticated exploration of the ethics of *dharma*, or class duty, laid out in the *Mahabharata*'s story of the warrior Arjuna's education by his charioteer Krishna (the god Vishnu in disguise), formed the basis for much Hindu ethical thinking throughout the medieval period, turning warfare into a parable of any sort of struggle. Yet a specifically Hindu notion of holy war is difficult to find in the medieval period, even in reaction to the incursions of Islam from the ninth century on; modern militant Hinduism is a variant of nationalism much more than it is a continuation of any classical or medieval Hindu practice of holy war.

Similarly, though the Tibetan kingdom of the eighth and ninth century combined an aggressive foreign policy with official support of Mahayana Buddhism, their wars were not holy wars waged in the name of the religion, and it is even more difficult than with Hinduism, which at least justified the existence of a warrior class, to link Buddhism directly to the waging of war. When it was so linked, as for instance in Buddhist Sri Lanka, the link reflected the common concern highlighted here for cosmic order, expressed as the defense of Dharma, or The Law. More commonly, the Buddhist ethical approach tended towards individual pacifism, or at least quietism on the part of subjects, a tradition traceable to the conversion of the third Mauryan emperor Ásoka (r.269–232 BCE) after his bloody conquest of the province of Kalinga, after which he foreswore offensive warfare (though he continued to maintain a large military establishment for policing and defense, emphasizing the unproblematic nature of defensive warfare in terms of justifications of war). The phenomenon of Buddhist warrior monks, prominent in Japan from late Heian times (twelfth century) until their suppression by Hideyoshi in the 1580s, is not an exception but an oddity, as they fought not for religion but to defend the landed estates of their monasteries: their religious and military functions were effectively separate even when combined in one body.³

Instead, the tradition of holy war seems to be most closely associated with the religious traditions of Southwest Asia, including both Zoroastrianism and Judaism and the latter's Salvationist offspring Christianity and Islam.

Though nominally universalist in theological terms, Judaism and Zoroastrianism included a Chosen People in their cosmic historical scheme.

3 Mikael Adolphson, *The Teeth and Claws of the Buddha: Monastic Warriors and Sōhei in Japanese History* (Honolulu, University of Hawai'i Press, 2007), who points out that most of the fighting men of Japanese Buddhist temples were not, in fact, actually monks.

This paved a broad road to the concept of a war by and for the Chosen People, and thus on behalf of the religion. Jewish opportunities for holy war were scarce after the fall of the biblical kingdoms of Israel and Judah because of the lack of a Jewish political entity capable of waging war; the great Jewish Revolt of 70 CE, however, probably qualifies. (The contrast between the pagan Romans and the Jews is summed up by the Jewish Roman historian Josephus when he has Titus, son of the emperor Vespasian and commander of the Roman army assaulting Jerusalem, exhort his troops by extolling the Romans' "greater motives": the Jews, motivated by their religion, fight for liberty and their country; the Romans fight for glory – and "what can be a greater motive"?)

The Persians, on the other hand, especially the revived Persian empire of the Sasanids, were self-consciously Zoroastrian in "cosmic outlook," and became more so over the course of their wars with the Eastern Roman Empire from the mid fifth century to the early seventh century. Indeed, the climax of the wars under Khusrau against Heraclius's Romans is often called "the first crusade" on the Christian side, and was no less so on the Zoroastrian side (though it also turned out to be the last Zoroastrian crusade). Both sides carried the fight for Truth and cosmic order not just to the enemy beyond its borders, but also sporadically to populations of the enemy's co-religionists who fell under their rule, as well as lending support to heretical factions on the principle of "the enemy of my enemy is my friend." The ideological intensity of this set of wars and indeed all crusades marks them as a variety of subcultural war in which conceptions of cosmic order are directly at stake.

The same wars with Persia stimulated even further a strong tendency in Christianity to promote versions of holy war. Pacifist tendencies in early Christianity were never dominant in the first place, as the religion, drawing on its Jewish heritage, recognized the necessity (or at least the inevitable existence on earth) of states, one of whose tasks was defense and keeping order. Thus, early Christians fought in the Roman army and generally rendered unto Caesar. When Caesar in the person of Constantine favored the religion in the wake of his victory at the Milvian Bridge in 312, eventually converting to it in an interesting negative reimagining of the Aśoka story, the Church made a rapid transition from persecuted minority to persecuting instrument of Truth within the state. Subsequent developments simply reinforced the strong connection between Christianity, states, and the waging of warfare. Given the truly universalist ideology of the religion, this developing history stimulated Augustine's development of theories of Just War (see further below). In

practical terms, persecution of pagans and heretics was the domestic face of a general policy that also looked outwards. In the western half of what had been the Roman Empire, the Franks became the defenders of orthodoxy and the emergent papacy, a stance that led – through Charlemagne’s brutal conquest and forced conversion of the Saxons, theological prohibitions against forced conversion notwithstanding – to the Crusades. The unproblematic nature of warfare in support of cosmic order received perhaps its most characteristic instantiation in the orders of real warrior-monks (not monks who happened to fight, as in Japan) such as the Templars and Hospitallers.

In the East, the Church remained much more closely tied to the continuing Roman state structure, generating “the first crusade” under Heraclius noted above. With the early Islamic conquests paring away the heretical Monophysite provinces of Egypt and Syria, this connection became even stronger. Under siege by a much larger and richer caliphate between 650 and 900, Byzantine culture reinforced this tight linkage of Church and state by casting the Byzantines as a Chosen People. This made for complications when it came to missionary work among the Slavs in the Balkans and caused cultural tensions when Byzantium began retaking formerly Monophysite provinces from the Arabs in the tenth century, but did nothing to loosen the connection between Christianity, warfare, and perceptions of cosmic order in the Greek world.

Finally, holy war, embodied in the concept of *jihād*, demonstrates the obvious connection between religion and warfare in Islam. But how this relates to cosmic order is not as straightforward as it seems at first glance, because medieval Islamic states from the mid eighth century developed along an odd trajectory that increasingly separated the military efforts of the states from most of their own populations. The reasons for this rested in a combination of practical military problems faced by the early ‘Abbāsids and questions of the legitimacy of states themselves in Islamic theory, but the result was that the bulk of Islamic military personnel were either slave soldiers, usually foreign (mostly Turkic steppe nomads) or *ghāzīs*, frontier warriors for the faith; in neither case were they drawn from or connected to the states’ major urban or agricultural rural populations. Meanwhile, the concept of *jihād* could be interpreted in two ways, as external military struggle against infidels or as an internal struggle for self-purification. The latter fit better with the lives of non-military Islamic populations, and competed with the holy war interpretation of *jihād*. All this means that while holy war always remained a legitimate tool for maintaining cosmic order in Islam,

who might legitimately wield that tool remained a remarkably open question over most of the medieval period.

The different interpretations of *jihād* in fact highlight the divergence between predominantly state-centered concerns for cosmic order and individual concerns for salvation and right action in the relationship between religion and warfare. On the state side, conceptions of cosmic order, especially religious arguments for the divine origins of kings and warrior elites, legitimized warfare in the abstract. This could show up not just in holy wars of various types, but also in symbolic presentations of the reasons for war, as when Chola kings of the late eleventh century justified their raids around the Bay of Bengal and as far as Sri Vijaya as expeditions to retrieve holy relics. On the individual side, wars justified to the satisfaction of state authorities could nevertheless create moral issues for individual warriors. The clearest expression of this was the not uncommon choice, already noted above, on the part of both medieval Japanese warriors and European knights of giving up the sword and entering a monastery near the end of their lives to atone for the sins they had accumulated in a life of killing. The potential for conflict between state-level justifications of war, even religiously backed ones, and individuals' worries about their own salvation is indicative of the complexity of justifying war, a problem for which religious belief offered no easier solutions than any other path.

War and social order

Justifications of war also arose out of conceptions of social order, whether such conceptions were religiously justified in explicit terms or not. Warfare and social order connect most easily with religious justification where war, or more particularly victory in war as proof of divine favor, legitimized royal rule, as was common in the barbarian successor kingdoms of early medieval Western Europe. But a ruler's legitimacy could rest on success in war even without religious sanction (or at least any formal or ethical theory of religious legitimacy), as was common among tribal and coalition leaders among Central Asian steppe peoples. The practical justification of a leader's role came in his ability to distribute booty to his followers. Perhaps the most common cultural expression of the connection between rulership and justification of war came in terms of honor, variously defined and including notions of glory and military virtue. Thus, in the context of rulership whose legitimacy rested on largely symbolic bases, affronts to the honor, privilege, or person of the king justified violent responses against the transgressors.

Defense of honor and privilege easily extended to whole classes of warrior elites when such a group existed in a society (warrior elites were not universal, as noted earlier). Since, in most pre-industrial societies, stability derived from hierarchical organization of society and hierarchy rested, ultimately and more or less explicitly, on coercion, warfare could easily be justified as the defense of stability and social cohesion, a bulwark against chaos, especially in cases of internal upheaval. In cases of peasant revolt or urban unrest, for example, defense of warrior privilege and defense of social order were, if not identical, at least easily naturalized as such. Thus, French knights had no compunction about slaughtering their own peasants in response to the Jacquerie of the mid fourteenth century, simply one example of a near-universal phenomenon, at least among sedentary, hierarchical agrarian societies. Of course, peasant rebels were not passive victims either physically or intellectually, even if they usually lost the battles: they usually justified the violence of their revolts in terms of defending social order, in particular protesting against “innovations” to established customs. And sometimes they won, in a sense: the first Ming emperor rose from peasant origins, and Toyotomi Hideyoshi came from obscure, low-born parentage, to cite two well-known examples. But no ruler of peasant background ever adopted a “peasantist” program (whatever that might be): hierarchy and the violent defense of privilege simply continued under new management.

When different elite factions aligned against each other, however, defense of social order could become problematic as a justification for violence. Factional or civil war therefore had the potential to motivate appeals to higher, cosmic principles of order, on the part of different factions. This is one situation in which subcultural warfare could arise, as different factions demonized each other as enemies not just of the state, but of fundamental social and cosmic order. The Albigensian Crusade, which pitted significant segments of the French warrior aristocracy against each other (though to call them all “French” is anachronistic), is a clear example of this.

With warfare within a single state or society, social order as a justification of warfare clearly intersected with common notions about the functions of states. Given that separate, civilianized police forces were virtually unknown in the medieval world, and therefore that armies acted as police, defense of hierarchy and order regularly extended beyond purely self-interested defense of the privileges and honor of kings and warrior elites. While including policing as an aspect of war may seem to stretch the definition of war somewhat, that armies policed was important and affected the composition of armed forces and even societies. For example, Japan’s warrior class, which

rose to political prominence in the late Heian period, was essentially the police arm of the court at Kyoto. In raising armies, rulers always had to balance questions of the social and political influence of armies and warriors with questions of military efficiency. The range of relationships between armies and their societies was vast, from the near-identity of early Roman Republican army and society to the near complete separation of Islamic slave soldiers, through both slave status and foreignness, from the societies they supposedly served. Thus, even practical justifications of war produced no easy answers.

War and state prerogative

The intersection of social structure and status with formal state functions leads to the more general role of states in justifying war. Quite simply, in a great many cases around the world the main justification of war, for all practical purposes, was that the state thought it necessary or desirable to go to war, and that was justification enough. This certainly describes the effective Chinese approach to the justification of war. Despite some theoretical considerations developed from largely Confucian perspectives, if an emperor decided that war was necessary, that was justification enough. Following in the Chinese path, this also describes the medieval Japanese and Korean approaches (the Japanese tradition has been characterized bluntly by one authority as “might makes right”⁴), as well as most of the thinking about the topic in South and Southeast Asia and the practical reality in the Americas. The South Asian tradition, embodied in the *Artha Śāstra* (discussed further below), recognizes this explicitly, as do the immediately post-medieval theories of Machiavelli.

Of course this form of justification rested on a much deeper stratum of justifications for the legitimacy of states that were not only very much alike globally, but that were also often so deeply embedded in cultural assumptions about the organization of the cosmos as to have become naturalized, any real memory of the 99 percent of human existence that had been lived without states having been lost, while peoples who still lived in stateless societies in the medieval world (far more numerous and widespread than today) were usually seen as barbaric and subhuman. Justification of war as a prerogative of states can therefore be seen as a subset of the justification of war as a tool in the maintenance of cosmic order – the emperor making the

4 Karl Friday, “Might Makes Right: Just War and Just Warfare in Early Medieval Japan,” in Torkel Brekke (ed.), *The Ethics of War in Asian Civilizations: A Comparative Perspective* (London, Routledge, 2006), pp. 159–84.

decision to go to war in the Chinese example above, for instance, was after all the Son of Heaven. But this ultimate cosmic justification is distant enough in many cases to warrant separate treatment of state motives for going to war.

The unproblematic nature of war conducted in self-defense, discussed above, provided a convenient starting point for state justifications of war in the context of practical questions of international relations. Faced with threatening neighbors, rulers found little difficulty in justifying not just defensive preparations but offensive wars of conquest that would expand the state's resource base or seize a region with strategic communications value, thereby making the state more secure. The same logic justified pre-emptive strikes directly against the threatening neighbor or its allies.

Much of this sort of logic both predated and extended well beyond the medieval world. What is more specifically medieval, or at least premodern, is the extent to which states were not fully formalized, bureaucratic institutions but instead were the personal possessions and extensions of the king and, to varying degrees, the social elites who supported his rule. As a result, personal motivations, including common factors such as royal glory, honor, and dignity, as well as individual inclinations and ambitions – as, for example, Hideyoshi's vision of conquering all of China – became justified as state, or more accurately royal, prerogative. In this, war was one of a number of tools in the royal diplomatic arsenal, along with marriage alliances, the bestowing of gifts and the payment of tribute, and so forth, that advanced dynastic interests that were effectively inseparable from the formal state.

Theoretical justifications: Just War theory

Nevertheless, even with state prerogative as the underlying reality for most justifications of war (and with concepts of cosmic order underlying state prerogative), in some traditions a more philosophical and abstract analysis of the justification of war in terms of justice arose. Somewhat surprisingly, such theorizing did not tend to arise from the various Buddhist traditions, perhaps because Buddhist thinking did not usually focus on the state enough to bring the paradoxes of the violent exercise of power to the fore. Instead, it was Rome and the Abrahamic religions, especially Christianity and Islam, that fostered the emergence of a truly ethically based theory of Just War, initially in the writings of Cicero and then formulated in Christian terms by Augustine of Hippo. Most of the fairly extensive modern literature on Just War derives from this tradition or takes it as the comparative framework, which tends unfairly to cast other traditions in a negative light for not having conceived of similar categories of analysis. (The unfairness, especially in the medieval

period, comes from the probably undue prominence given to Just War theories in this literature, given the high degree of functional similarity in the justification of war, along the lines just outlined here, across just about every medieval cultural tradition. In other words, the claim here is that, despite its intellectual interest and its somewhat greater practical legal relevance in modern international relations, Just War theory had a fairly minimal practical influence in the medieval world.)

Since Just War theory has received considerable academic attention, the main points can be summarized fairly briefly here. Just War theory falls into two categories, *jus ad bellum*, or the conditions under which it is justifiable to go to war, and *jus in bello*, or the rules governing just conduct during the fighting of a war.

The main criteria for *jus ad bellum* are straightforward. First, there must be a just cause for going to war. Reflecting at least partly its origins in Roman law and the presumption that legal recourse was primary, simple return of stolen goods or land or punishment of criminal acts are insufficient grounds for going to war. Ideally, war should be waged to protect innocent lives from imminent danger. Secondly, war must only be waged by a legitimate authority. In the early medieval West, with its multiple, fractured and contested authority structures, this provision proved more difficult to define than under a strong Roman Empire; medieval Islamic polities, with their problematic relationship to Islamic law and legitimacy, faced problems not of definition but of theoretically acceptable implementation. Thirdly, the necessity for right intention further qualifies the need for a just cause: the intention must be to wage war solely in support of the just cause, not for material gain or other base motives. Fourthly, a just war should have a reasonable probability of success: the loss of life suffered in defending a lost cause is not justifiable, nor are disproportionate desperate measures, for proportionality constitutes another requirement of starting a just war: the anticipated benefits must more than balance the expected evils and harm that waging any war will inevitably cause. Thus, finally, war should be a last resort after all other means have been exhausted.

Three principles govern *jus in bello*. The first is referred to as the principle of distinction. That is, military forces must distinguish between legitimate military targets and personnel on the one hand and civilian non-combatants, which may not be targeted, on the other. The principle of proportionality further restricts the actions that are acceptable in war by saying that attacks on military targets should not be carried out if they will cause a greater loss in civilian life and harm than the military benefits of the attack warrant. Finally,

the principle of military necessity states that such attacks that do occur must be directed at military targets and contribute to the military defeat of enemy forces with the minimum possible loss of non-combatant life. (Just War theory always acknowledged that some collateral damage, to use the modern term, is inevitable).

Augustine's treatment of Just War is echoed fairly closely in early Islamic writings, and was systematized by Thomas Aquinas, whose version became the foundation for later development of international Just War theory and jurisprudence. But again, while that legal tradition eventually did become important in international law (and never more so than at present), Just War theory had little practical effect on the initiation or conduct of war in the medieval world, a world in which conceptions of cosmic and social order, state prerogative (where states existed), and individual honor and glory were the primary factors in the justification of war, and in which more widespread transcultural warfare than exists in our globalized world complicated attempts to apply concepts of Just War that were not universally known or accepted.

Theories of war

Formal theorizing about war was not common in the medieval world. Nevertheless, several cultures had developed some tradition of the analysis of war, either as its own topic or in relation to the state, that did not fall under the category of justifying war.

Military manuals

The most obvious examples of this were military manuals, guidebooks to the effective use of military force. This genre was developed independently in the Greco-Roman world (with an emphasis on the Roman) and in imperial China, and both traditions, established in the classical age, carried on robustly into the medieval era.

The Chinese tradition originated in the Warring States era, as the highly competitive political and philosophical environment encouraged the development of all sorts of techniques for gaining an advantage over one's enemies. The *Sunzi*, named for its semi-mythical author but probably, like other military texts from the era as we have them today, a compilation of various writings on war, is the best-known exemplar of this emergent genre, and continued to have the greatest circulation and influence during and after the Han. It was joined under the Northern Song with six other works, some

of them (at least in part) of Warring States origin, to form the so-called *Seven Military Classics*, compiled by a bureaucrat on orders from the court during a brief period of military crisis. What is curious about this canonical tradition of military manuals, and what suggests that they represent a scholarly tradition about the conduct of war rather than handbooks with real practical value, is that it is completely Sino-centric, or, in the terms advanced here, intracultural. That is, for most of China's history, one of the most visible military threats the empire faced came from the nomadic cavalry of the central Asian steppes, yet the best-known manuals from this tradition never mention this. Though some lesser-known texts, especially under the Tang, do discuss how to deal with the nomads, outside of the Mongol period the nomadic threat was (probably justifiably) considered secondary as a threat to any ruling dynasty compared to potential internal enemies. Thus the intracultural focus of the canonical military manuals.

The Greco-Roman tradition is represented early on by scattered texts such as Xenophon's on commanding cavalry, but it took on systematic form under the later Roman Empire as a reaction to the decline of Roman power and the variety of threats the empire faced. The most famous exemplar of this tradition is the *De Re Militari* of Vegetius, written sometime in the late fourth century. Vegetius stresses reform and a return to the discipline and training methods of the empire's glory days, and as noted earlier his practical prescriptions on the conduct of war bear many similarities to those of the *Sunzi*, reflecting the similar logistical and environmental constraints that most agrarian-based and largely infantry armies faced before the invention of railroads. But like the Chinese manuals, the practical value of Vegetius is open to question. In the Western European successor kingdoms, where it was one of the most copied texts of the entire medieval period, it may well have been better known among its monastic copyists (and their modern academic successors) than among actual military commanders – it is at least hard to prove that anyone used it much in the field.

It was in Byzantium, successor to the Eastern Roman Empire, and in an Arab tradition of military manuals that derived from the Roman one, that one sees clear practical value. Unlike the Chinese manuals and Vegetius, which offer supposedly timeless and universal principles of good military practice, the Arab and, especially, Byzantine manuals offer specific advice on how to fight specific foes on specific terrain – in other words, they recognize the often transcultural nature of their wars, and that such wars require specific advice, not advice that can pretend to universality because it is intracultural and so can take a common cultural frame for granted.

Ironically, therefore, they are much less well known today, as advice on how to deal with the Scyths (the classicizing Byzantine term for steppe nomads) in the Balkans cannot easily be repackaged to a modern reading public as advice on how to run a corporation, as the *Sunzi*'s glittery generalizations sometimes are. What such manuals do tell us is that Byzantine (and Arab) theorizing about warfare was very practical and viewed war within a range of diplomatic options that often preferred diplomacy, including bribery and marriage alliances, to military confrontation, and again that recognized the cultural boundaries across which both conflict and diplomatic exchange had to take place.

War and the state

This last view of Byzantine manuals moves the analysis into the territory of theorizing about the relationship of war to states. In addition to providing a different lens on the Chinese and Greco-Roman traditions, this topic also brings the Indian world into the discussion and allows the Western European successors of the Roman tradition a bit more scope for originality.

The great Indian work on war and the state is the *Artha Śāstra*, often described as the Indian version of Machiavelli. It is a practical handbook on statecraft that covers not just how to raise, maintain, and use an army, but also goes into detail on methods of spying, diplomacy, court politics, and economic management. While assuming the legitimacy of rulers' positions, it also asserts that practical measures must constantly be taken to ensure the survival of a dynasty and its state, including not just the ruthless conduct of foreign affairs but also the just treatment of one's own subjects to maintain their support. Though nominally dating to the Mauryan empire, the *Artha Śāstra* more accurately reflects the usual divided world of Indian politics in which kingship as an abstraction might be divinely sanctioned, but individual kings rarely sat comfortably on their thrones.

Putting the *Sunzi* in the perspective of a manual of statecraft rather than of military practice makes its practical value much clearer. In the context of the Warring States period, it fit into a general rhetorical and policy trend that advanced the cause of monarchical centralization and autocracy against an older culture of warrior aristocratic glory and independence. It therefore consistently downplays and denigrates individual glory, emphasizes the absolute control of the general over his army, a control exercised intellectually on the basis of written texts such as the *Sunzi* itself, and constructs common soldiers as mindless automata. While the military value of this construction is open to question, it fit perfectly with a rhetorical view of

rulership as absolute and, though constrained by cosmic morality, otherwise top-down and centralized. It was probably this theoretical underpinning regarding the centrality of the imperial state that kept the Chinese military manual tradition alive in bureaucratic circles even when it had little direct relevance to actual military practice.

Theorizing about war and the state in the Greco-Roman tradition was both more varied and more implicit than in the Indian or even Chinese tradition, reflecting the greater variety of polities and military systems it came to encompass. Herodotus and Thucydides stand, unsurprisingly, at the fountainhead of this literature, which embedded its theoretical views for a long time in the examination of history. Whether in Herodotus's ethnographic view of conflict or Thucydides's more state-centered view, war was seen as an important motive force and cause of change in historical development. Caesar's skillful works of self-promotion added individual genius to the theoretical mix about how war worked and how it connected to politics.

It was the spread of Christianity that added a more explicit theoretical element to the Roman tradition, an element that continued to develop in different ways in the eastern and western successors of Rome. The key concept was what medieval Europe called the Two Swords Theory. Although the symbolism of the religious and secular swords, representing the two sorts of authority that governed the world, dates back to the early fourth-century *Ecclesiastical History* of Eusebius of Caesarea, the concept became prominent with the rise of the Investiture Controversy in the eleventh century, when advocates for what can be called, anachronistically perhaps, Church and state argued about whether the secular sword was co-equal with or subordinated to the religious sword. While various popes, including Gregory VII with his triumph over Emperor Henry IV and reaching their zenith under Innocent III, seem to have won periodic battles in this symbolic conflict, it is safe to say that states ultimately won the war – a result probably prefigured from the start in the symbolism itself. This was not, after all, a “Two Staffs” theory, but a symbolic conflict whose symbols stressed military might from the very start.

Indeed, East Rome and Byzantium followed a “caesaro-papist” path of development, with the emperor recognized as *de facto* if not fully *de jure* head of the Church as well as the state, much more unproblematically. (The exception is the Iconoclast Controversy, during which various Emperors led the campaign to eradicate icons against Church, especially monastic, opposition – not an unimportant exception, and one whose symbolic frame leans the other way, as icons put the ball in the religious court, as it were.) In

this, eastern Christianity fit with the usual implicit theoretical pattern of most of the medieval world, in which religion might provide the theoretical underpinnings of state legitimacy and cosmic order, but in practical terms the state held all the weapons.

Customs of warfare

It is at the level of customs of warfare that cultural variation is most pronounced and therefore that generalizations are most difficult. Rather than attempt any general survey of interesting customs – principles for selecting which would necessarily be murky, and which would in any case exceed the space available for this chapter by itself – this section will instead briefly explore two general themes within which cultural variation existed, and whose differences were often highlighted by the cultural border crossing of transcultural war.

War and ritual

Historians have distinguished between *ritualized warfare*, which (theoretically) involves intracultural conflict of a sort that lacks deadly intent, warfare instead being a ritual of power distribution, establishment of symbolic hierarchy, and the like, and *ritual in warfare*, or the employment by armies engaged in “real,” deadly warfare, of ritual elements. Closer examination of so-called ritualized warfare has revealed that most of the examples supposedly characterizing it were misinterpreted, and that ritualized warfare was quite rare if it existed at all. Even small-scale tribal conflicts with very low casualties for any individual fight usually added up, over not very long periods of time, to warfare whose casualty rates, given the small populations involved, were quite significant and “real.” Indeed, as an example at a larger scale, Aztec “flower wars,” which used to be seen as examples of ritualized warfare, involved enough killing that, though conducted according to ritual patterns, they were employed by the Aztecs as low-intensity wars of attrition that fit into larger strategic patterns of conquest. They were far from purely symbolic rituals of conflict.

Ritual in warfare, on the other hand, was (and undoubtedly still is) pervasive. Religious rituals at the inception of major wars, campaigns, and battles were nearly universal. Sometimes religious symbolism pervaded entire wars, as in the carrying or wearing of crosses by crusading armies. It might be argued that the entire war had then become a ritual act, but not in the sense that such wars were thereby any less deadly, nor that practical

considerations of strategy, politics, or logistics could be ignored. Chaplains accompanied many medieval European armies even on normal campaigns, carrying the rituals of non-military life with them. Blessings of weapons and armor were common in many cultures.

But religion did not monopolize ritual in war. The construction of warrior honor often took place through ritual rules of conduct. As an example, Bernier, a character in the Norman French epic poem *Raoul of Cambrai*, ritually marks the foreswearing of his fealty to his lord by plucking three hairs from his ermine robe and casting them to the ground in front of his lord and a crowd of witnesses. Diplomatic exchanges within cultural zones were usually governed by ritual procedures, some elements of which often translated even across apparent cultural boundaries. One especially interesting example is the existence of a zone where the ritual investing of followers with ceremonial robes created networks of dependence and allegiance. The zone extended from China across the steppes and into India, much of Southwest Asia, and the eastern Mediterranean, with the robing custom transmitted by steppe rulers and warriors, though it perhaps originated in Chinese tribute relations with their nomadic neighbors. It certainly extended well beyond the steppes and its peoples. In this case, ritual and custom constructed armies and political alliances. More broadly, the representation of tribute as gifts (a common Chinese rhetorical strategy when dealing with steppe powers) and the making of marriage alliances brought ritual and custom into the diplomatic contexts of war and contributed to the role war played in broader patterns of cultural exchange.

Killing in war

Perhaps the most important area where custom established rules and rituals in many areas, though the details of these varied, involved the surrender of garrisons under siege and the constraints imposed on the plundering of surrendered cities, as well as the treatment of soldiers captured in sieges or battles. Such customary and often ritual treatment ranged from the ransoming of noble prisoners, to selling soldiers and civilian populations into slavery, to incorporating them into the victorious army, to slaughtering them – and in cases such as Kamakura-era Japanese warfare, their entire families if possible. The ritual sacrifice of prisoners of war in Aztec warfare is well known. A special case of this question of killing involved ritual suicide by warriors or leaders who otherwise were threatened with capture or death at the hands of their enemies. This practice is best known in the case of medieval Japanese warfare, where suicide (ordered by the authorities) eventually became

a highly ritualized and honorable form of punishment. But less formal versions of the practice existed in other places. Conversely, some cultures, such as Christian Europe, frowned on warrior suicide so strongly that the practice hardly existed as such. Scholarly analysis of the practice is rare and comparative conclusions must be carefully contextualized and remain tentative.

Conclusions

Medieval cultures of war, while probably, in general, less self-conscious and more personalized than those today, dealt with similar concerns about the justification of war, theories of war, and customs in war. Some medieval developments along these lines, especially Just War theory, continue to have influence today. Viewed on their own terms, medieval cultures of war developed within the contested and ever-changing intersections of war with culture, the state, and social structure, and so exhibit both broad patterns and extensive individual variety. Ultimately, whatever the practices of war that developed in different cultures, it was culture that gave meaning to wars, in medieval as much as in modern societies.

Land technologies

KELLY DEVRIES

The ages of humankind are designated by the material with which they made tools and weapons: stone, bronze, and iron. Remnants of these tools and weapons, found in archaeological excavations, are often the earliest evidence of existence in a place, especially before humans were able to express (and depict) themselves in words or art. Artistic depictions would follow, and then written ones, but both several thousands of years later. A wood, stone, or metal club, a stone or metal spearhead or arrowhead, a metal dagger or sword – and this appears to have been the progression – all could be used for hunting, likely their main function in pre-agricultural societies.

It is folly to suggest, however, as so many did before the late twentieth century, that hunting was early man's only purpose in using these weapons, or even, with some of them, their primary purpose.¹ Cave paintings, supported by excavated skeletons showing marks of violence and sometimes the remnants of weapons used in that violence – among others Ötzi, the 5,300 + year old "Iceman" found in the Austro-Italian Alps in 1991 in whose left shoulder was an arrowhead which may have caused his death² – indicate that war and violence was endemic in prehistorical societies.

Nor were offensive weapons the only creations of Stone-, Bronze- or Iron-Age peoples. Personal defenses – body armor, shields, and helmets – are all depicted on cave paintings, although the material they would have been made in – cloth, leather, bark, wood, or early cupric metal – meant that there

1 John Keegan's *A History of Warfare* (New York, Alfred A. Knopf, 1993), pp. 79–123, discusses at length these theories and the arguments against them. See also Ian Armit et al., "Warfare and Violence in Prehistoric Europe: An Introduction," in Tony Pollard and Iain Banks (eds.), *War and Sacrifice: Studies in the Archaeology of Conflict* (Leiden, Brill, 2007), pp. 1–12.

2 The body is currently at the South Tyrol Museum of Archaeology (Südtiroler Archäologiemuseum/Museo Archeologico dell'Alto Adige) and a summary of the researchers' findings, including on the arrowhead and its potentially fatal results, can be found at www.iceman.it/en/.

are no reliable archaeological remains until the late Bronze Age. Societal defenses – city walls, hilltop earthworks, and moated sites – also indicate an early interest in protecting habitations and non-combatants.

Thus, already by the Middle Ages, a time fully graduated from the Bronze to the Iron Age, arms, armor, and fortifications were an integral part of military society. From the Mediterranean Sea to Scandinavia, and from the Iberian Peninsula to Central Asia, there were no fully peaceful states or peoples for any long period of time. On those rare occasions when peace did exist, it was never without its accompanying policies of caution and defense, built on sustaining an active army or militia, keeping arms and armor current, and maintaining fortifications. This was wise, as these periods of peace never lasted for long.

No doubt this ancient military technology influenced, perhaps even determined, tactics, strategy, training, leadership, and recruitment. It may even have determined victory and defeat in battle or at sieges, although, as with all military technology throughout history, without capable users, trainers, and leaders it meant very little. Arms, armor, and fortifications were also costly, so that those who had to decide whether to acquire them also had to find ways to pay for them. Evidence suggests that the Roman bronze *lorica segmentata* was chosen over the iron *lorica squamata* (small plate armor) and *lorica hamata* (metal rings or mail) for centuries, despite the increased protection both armors, but especially the iron armor, would have provided. The reason for this is not known, but one wonders if personal or societal economics did not play a part. Buying innovative weapons, stronger armor, and well-built fortifications demanded economic sacrifices. That arms and armor also had to be maintained and, when needed, replaced, and fortifications constantly maintained and frequently enlarged to cover suburban expansion, demanded further resources. Economics is where military technology may have had its greatest influence on medieval society and history.

Military technology in the late Roman Empire

The Roman Empire may have had superior arms and armor at the time of its greatest geographical extent (third century BCE to third century CE). But by its end, at least two or maybe three centuries before the Western Empire ceased to exist and the European and Mediterranean worlds became, by modern historiographical definition, medieval, its enemies had developed equal if not better military technology. Several reasons for this have been suggested: greater access to natural resources; better manufacturing skills;

a lack of reliance on slaves for labor; smaller economies and less bureaucratic governments; less complacency; etc. It is likely there was no single cause.

Sasanid Persians produced stronger armor, Goths longer and stronger swords, Huns better bows and horses, Franks better throwing weapons, and, although it is not known exactly when they first appeared, Avars and Vandals better catapults. With these came tactics made to use this technology most effectively.

All of these innovations were recognized by the Romans, or at least their existence is indicated by Roman writers. Otherwise, it is likely we would not know about them, as records from Roman opponents are rare. Nor did the Romans seem reluctant or incapable, economically or technologically, to update their own arms and armor, or at least to adapt to those they faced. Yet, at the “Fall of the Roman Empire” Roman soldiers were still outfitted roughly as they had been at the time of Julius Caesar and Marc Antony: armed with *pila* (spears) and *gladii* (short swords); their torsos protected by the *lorica* (breastplates), generally still in bronze, although with more iron-plate or ring armors appearing. But an entire low-carbon iron (or steel, by ancient and medieval definitions) armor was inconceivable for Roman governments, smiths, and soldiers, undoubtedly due to cost, but perhaps also to weight and lack of necessary skill for construction. Other excuses for poor performance of military technology were given. Although there is likely some substance to Vegetius’s complaint that Roman soldiers were not motivated to train, especially in their armor, it also appears suspiciously similar to “the past was better than the present” accusations made over time by older writers commenting on newer practices:

But, because of negligence and laziness, military drills stopped, and armor which soldiers rarely wore seemed heavy. So they petitioned the Emperor that they should set aside first the suits of mail armor and then their full helmets. So our soldiers fought the Goths without protection for chest and head and often were defeated by archers . . . So it was that they thought not about fighting but about fleeing when their unarmored lines were exposed to wounds.³

During the empire’s history the Persians had been Rome’s most capable enemy, with their latest rulers, the Sasanids, boasting not only battlefield and siege victories but also the capture and humiliation of one emperor, Valerian, and the deaths of three or four others, Gordian III, Aurelian, Julian, and,

3 Flavius Vegetius Renatus, *Epitoma Rei Militaris*, ed. M. D. Reeve (Oxford, Clarendon Press, 2004), p. 22 (my translation).

possibly, Marcus Aurelius Carus.⁴ There were a number of reasons for this, and for a continuing military effectiveness of the Byzantines until both were defeated in their contested regions of the Middle East by the seventh-century Arabic Muslims. One cause blamed by contemporary Romans was the Persian use of heavily armored cavalry, the *cataphractii*, which they had apparently introduced to the region. Ammianus Marcellinus describes these Persian troops fighting against Julian: “But when the first light of day shone the radiant armor, surrounded by bands of iron, and glimmering breastplates, seen from a distance, indicated that the king’s forces were there.”⁵

However, it is difficult to know for certain whether this was mail or scale armor – Ammianus’s description of “surrounding bands of iron” aside, as it is uncertain if he ever saw any Persian *cataphractii* – for the difference between rings and small plates of iron is imperceptible in artistic portrayals. Later evidence suggests maybe a combination of both. What is clear is that the Persians had developed a tactical preference for protecting a number of their cavalry at greater expense and a loss of speed and mobility, while perhaps also developing metallurgical techniques which lightened what was borne by soldier and horse. Unfortunately, no archaeological artefacts have been found to confirm this.

Gothic swords were longer, their metallurgy stronger, and their purpose was to be a slashing as well as thrusting weapon. Gothic cavalry, it appears, were able to reach Roman infantry with their swords but not vice versa, and, while slashing swords could not always penetrate armor, they could bruise and stun; against poor or no armor (as Vegetius alleges were becoming customary with Roman soldiers) slashing brought larger wounds and consequently faster exsanguination. Roman sources do not describe how these swords were made but archaeological excavations have most with single blades of varying quality in iron.

Roman writers were understandably interested in Hunnic bows; their ability to be shot with deadly force and accuracy was regarded at the time as novel, if not mysterious. Again, there is little detail on their construction or materials. Archaeological remains have shown that they were a composite construction of wood, sinew, and horn, glued together in such a way that the

4 According to later sources, Carus died of disease, the effects of lightning, or fighting against the Persians.

5 Ammianus Marcellinus, *Rerum Gestarum Libri*, ed. and trans. J. C. Rolfe, 3 vols. (Cambridge, MA, Harvard University Press, 1972), vol. 2, pp. 474–6 (XXV.1). Although Rolfe provides a good translation in general, his terms for arms and armor are often incorrect. The above is my translation.

bow staves curved back on themselves and would need to be “recurved” for stringing. It was from this that they derived their power. Using their bows from horseback, the Huns presented a most formidable foe. In battle the Huns would ride around their opponent, shooting their bows as they passed. The contemporary writer Claudian describes the tactic: “Their double nature fitted not better the twin-formed Centaurs to the horses that were parts of them. Disorderly, but of incredible swiftness . . .”⁶

The Franks were known for their throwing weapons, as well as their use of more conventional infantry arms, spears, and swords. Sidonius Apollinaris describes Frankish soldiers he met in 470: “Their swords hung from their shoulders on baldrics, and round their waists they wore a belt of fur adorned with bosses . . . In their right hands they held barbed spears and throwing-axes, and in their left shields.”⁷ These barbed spears (called *lanceas uncatas* by Apollinaris and *angons* by other contemporaries) and throwing-axes (*secures missibiles* in Apollinaris and *franciscae* elsewhere) were used at the beginning of battle and with a single purpose, as Procopius determines a century later (specifically mentioning the axes): “Now the iron head of this weapon was thick and exceedingly sharp on both sides, while the wooden handle was very short. And they [the Franks] are accustomed always to throw these axes at one signal in the first charge and thus to shatter the shields of the enemy and kill the men.”⁸ Since they were not always facing experienced or well-trained enemies, this tactic sometimes caused a rout of their opponents, giving the Franks victory before any hand-to-hand fighting could occur.

Against both men and fortifications, the Romans followed their Greek predecessors in using torsion artillery, *ballistae*, to which they added their own torsion machines, *onagers* (both of which utilized the force from tightened skeins of rope to generate power to shoot large bolts or stones).⁹ These continued in use into the medieval period, with Procopius having both the Byzantines and the Goths using bolt-throwing catapults at the siege of Rome in 537–8.¹⁰ But some time in the Early Middle Ages armies also began using traction-powered catapults (which required the pull of humans to launch

6 Claudius, “Against Rufinus,” in *Claudian*, trans. Maurice Platnauer, 2 vols. (Cambridge, MA, Harvard University Press, 1922), vol. 1, p. 51.

7 Sidonius Apollinaris, *Epistulae*, bk. 4, xx (translation mine).

8 Procopius, *History of the Wars*, bk. 6, xxv, in *Procopius*, ed. and trans. H. B. Dewing, 7 vols. (Cambridge, MA, Harvard University Press, 1919), vol. 4, p. 85.

9 E. W. Marsden, *Greek and Roman Artillery: Historical Development* (Oxford, Clarendon Press, 1969); and E. W. Marsden, *Greek and Roman Artillery: Technical Treatises* (Oxford, Clarendon Press, 1971).

10 Procopius, *History of the Wars*, bk. 5, xxi, xxiii, in *Procopius*, vol. 3, pp. 205–7, 221.

stones from rotating-beams mounted on wooden towers). This traction artillery may have been what John, the Archbishop of Thessaloniki, describes as *petroboles* or “rock throwers” at the siege of Thessaloniki by the Avars and Slavs in 597:

These were tetragonal and rested on broader bases, tapering to narrower extremities. Attached to them were thick cylinders well clad in iron at the ends, and there were nailed to them timbers like beams from a large house. These timbers had the slings hung from the back side and from the front strong ropes, by which, pulling down and releasing the sling, they propel the stones up high and with a loud noise. And on being fired they sent up many great stones so that neither earth nor human constructions could bear the impacts. They also covered those tetragonal *petroboles* with boards on three sides only, so that those inside firing them might not be wounded with arrows by those on the walls.¹¹

Balistae would never disappear completely from the medieval soldiers’ arsenal, although more frequently appearing as single-armed “mounted crossbows” than the dual-armed artillery more common among the ancients. However, traction artillery (with several names in the Middle Ages, but generically called trebuchets) would quickly replace them as the primary artillery for use in sieges, both to attack fortifications and in defense of them.¹²

Roman town walls continued as the primary urban fortification well into the Carolingian period. Strong and well built in stone and concrete, these walls needed constant maintenance, which not every medieval populace was willing, or had the economic ability, to continue.¹³ In some instances, for example in London and Carthage, succeeding populations found it easier to establish themselves next to the former Roman urban area and use the walls, as well as former buildings, to mine (or recycle) stone for new construction. It was not entirely unusual for new town fortifications to be constructed in stone, for example the so-called Anglian Tower (Tower 19) in York, but these were infrequent.¹⁴

11 Speros Vryonis, Jr., “The Evolution of Slavic Society and the Slavic Invasions in Greece: The First Major Attack on Thessaloniki, AD 597,” *Hesperia* 50 (1981), 384. Translation slightly modified.

12 Paul E. Chevedden, “Artillery in Late Antiquity: Prelude to the Middle Ages,” in I. A. Corfis and M. Wolfe (eds.), *The Medieval City under Siege* (Woodbridge, Boydell, 1995), pp. 131–73; Carroll Gillmor, “The Introduction of the Traction Trebuchet into the Latin West,” *Viator* 12 (1981), 1–8; and W. T. S. Tarver, “The Traction Trebuchet: A Reconstruction of an Early Medieval Siege Engine,” *Technology and Culture* 36 (1995), 136–67.

13 Stephen Johnson, *Late Roman Fortifications* (Totowa, NJ, Barnes & Noble, 1983); and R. M. Butler, “Late Roman Town Walls in Gaul,” *Archaeological Journal* 116 (1959), 25–50.

14 *An Inventory of the Historical Monuments in the City of York*, vol. 2: *The Defences* (London, Royal Commission on Historical Monuments, 1972), pp. 120–1.

Military technology in Carolingian Europe

Charlemagne's domination of Western, Central and Southern Europe brought a standardization of recruitment, training, leadership, and equipping of his soldiers. These are reflected not only in artistic representations or archaeological excavations, but also in many of the numerous laws, capitularies. The *Capitulare Missorum*, issued in 792–3, legislated that all horsemen must wear coats of mail armor (known contemporaneously as byrnies), carry shields, and be equipped with swords, spears, and daggers; they were also to provide their own horses. This capitulary was reaffirmed in the Aachen Capitulary in 802–3 – which also specified the wearing of helmets, missing from the earlier law – and in 811. Infantry in the Aachen Capitulary were required to carry a shield and spear.¹⁵

Shields frequently appear in artistic works and, confirmed by archaeological excavations, show little difference from shields previously used by early medieval soldiers: round and wooden, rimmed with an iron metal band, and decorated with iron pieces and ornaments for added strength, their large, domed iron bosses anchoring the straps for gripping inside the shield. Some shields may have been covered in leather.

Spears differed some: the decidedly Carolingian “Spear of Destiny,” on display in the Kunsthistorische Museum, Kaiserliche Schatzkammer, in Vienna (with a tenth-century provenance, although an earlier date is usually assigned) – once unsheathed of its gold sleeve indicating it to be the Lance of Longinus, and silver sleeve (underneath the gold one) indicating it to be that of St Maurice – is a long, relatively narrow leaf-shaped blade with a crossbar above its socket (perhaps what is referred to in earlier sources as the barb) rising to a sharp tip. It is broken in two, no doubt because of its unusual hollow core, made specially to carry two unidentified relics. (Illustrations of other Carolingian spears do not show a hollow blade, nor do any from archaeological excavations, although the crossbar and shape of the head are common.)

Other Carolingian arms and armor differed more markedly. A Carolingian byrnie was thick mail armor, covering the torso from the shoulders to the groin and upper thighs; only half of the upper arms were protected. Mail to cover the feet, legs, arms, and hands is not seen in artistic works, nor are mail coifs to protect the head. This was the responsibility of the helmet, and, as all artistic depictions show, Carolingian helmets were unique, with no earlier or

¹⁵ Simon Coupland, “Carolingian Arms and Armor in the Ninth Century,” *Viator* 21 (1990), 29–50.

later equivalents known. Made entirely of metal in two pieces with a distinctly raised joint tapering down the middle and ending in a broad brim extending out on both sides and down the neck in the rear, they fitted to the rear and sides of the head closely but did leave much of the face uncovered. A strengthening band across the top and intersecting the brim was sometimes added, perhaps to denote leadership, as some are shown to be decorated or adorned with a feather. That there are no extant or excavated exemplars of these helmets has led some historians to wonder if depictions of them were simply artistic flourishes and in fact only show the more traditional early medieval multi-piece *spangenhelm* form of conical helmet, which continued to be depicted in art and found in excavations into the tenth century.¹⁶ (Yet, the number of different illustrators who depict the unique Carolingian helmets over a two-century period suggests otherwise.)

Some Carolingian swords remained like earlier ones, a single metal blade – although almost always having two edges and with a simple pommel, hilt, and cross-guard. However, increasingly higher-quality swords took their place. These, the so-called “pattern-welded” swords, had a much more complicated and expensive construction. Instead of a single metal blade, rods of iron were joined and forge-welded together edge-to-edge, then twisted, folded, and hammered over and over to provide a solid, multilayered blade. Grinded and polished, the surface appeared to have a fine pattern, compared today with watered silk and giving it the name “pattern-welded,” which is not contemporary. Often added were expensive cross-guards, hilts, and pommels (usually in the shape of a “brazil nut”), sometimes adorned with gold, silver, jewels, or relics. A few pattern-welded blades were inscribed with their makers’ names, with Ulfberht and Ingelrii the most famous.¹⁷ However, pattern-welded swords may not have originated in the Carolingian empire, as they have also been found in England and throughout Scandinavia as well.¹⁸ Sword scabbards were wood covered with leather, also often decorated, and hung on sword-belts around the waist.

16 Kelly DeVries and Robert D. Smith, *Medieval Military Technology*, 2nd ed. (Toronto, University of Toronto Press, 2012), p. 62; and Coupland, “Carolingian Arms and Armor,” pp. 31–4.

17 DeVries and Smith, *Medieval Military Technology*, p. 20; Coupland, “Carolingian Arms and Armor,” pp. 42–6; and Ewart Oakeshott, *The Sword in the Age of Chivalry* (New York, Frederick A. Praeger, 1964), pp. 25–37.

18 Hilda Ellis Davidson, *The Sword in Anglo-Saxon England: Its Archaeology and Literature* (Oxford, Clarendon Press, 1962; rpt. Woodbridge, The Boydell Press, 1994); and Ian Peirce, *Swords of the Viking Age* (Woodbridge, The Boydell Press, 2002).

It is perhaps odd to think of the Vikings having superior swordsmiths to the Carolingians, especially as they have always been more associated, both in the Middle Ages and today, with the battle axe. As a weapon used to terrorize the ill-trained and poorly armored opponents they most often faced on their raids, it was unsurpassed and quickly built a reputation everywhere in Europe. Two types of battle axes were used by the Vikings: the *skeggøx* (or bearded axe), because its blade was drawn down like a beard, and the *breidøx* (or broad axe), with a more wide, triangular-shaped head. Archaeological excavations have shown the *skeggøx* to be the earliest of the two, dating to as early as the eighth century, and probably a tool adapted for warfare, while the *breidøx* does not appear until c.1000 and was almost exclusively a weapon.

The cutting edge of the *breidøx* was often steeled, with lower-carbon iron hardened and welded onto the head; the blade and neck were sometimes decorated with silver or gold inlay.¹⁹ As the Vikings raided and then settled in England, the battle axe became popular among Anglo-Saxon warriors. Anglo-Saxon battle axes, almost exclusively *breidøxæ*, were used by both elite and non-elite troops (the huscarls and the fyrð), both depicted with it in the Bayeux Tapestry, although William the Conqueror is also shown wielding one.²⁰

Military technology during the Crusades

In 791 an epidemic killed around 90 percent of the Carolingian equine stock. By this time cavalry had become a major part of Charlemagne's army, and it was imperative for him to recoup his lost horses. This led to the organization and regulation of stud farms and the introduction of new breeds from outside the empire. From then on, the management of the stables, pasture lands, and fields that supplied the horses' feed was controlled, as was the breeding stock, with the general practice of rotating stallions and mares to prevent inbreeding. Within two years Charlemagne had almost completely replaced his cavalry and logistics horses and resumed active campaigning.²¹

19 Anne Pedersen, "Scandinavian Weaponry in the Tenth Century: The Example of Denmark," in David Nicolle (ed.), *A Companion to Medieval Arms and Armour* (Woodbridge, The Boydell Press, 2002), pp. 29–31.

20 James Mann, "Arms and Armour," in Frank M. Stenton (ed.), *The Bayeux Tapestry: A Comprehensive Survey*, 2nd ed. (London, Phaidon Press, 1957), p. 66; and Heinrich Härke, "'Warrior Graves'? The Background of the Anglo-Saxon Weapon Burial Rite," *Past and Present* 126 (1990), 34.

21 Carroll Gillmor, "The 791 Equine Epidemic and Its Impact on Charlemagne's Army," *Journal of Medieval Military History* 3 (2005), 23–45.

These were the ancestors of the medieval warhorse that would carry the Normans at Hastings and the Crusaders in the Holy Land. When outfitted with stirrups and a high pommel and cantle saddle and carrying fully armored soldiers with lances couched under their arms, there was little to stop these warhorses. Anna Komnena insisted that a mounted European warrior could “bore his way through the walls of Babylon.”²²

Although written and artistic evidence for the couched lance does not appear until the middle of the eleventh century – and even that date is disputed²³ – with the high pommel and cantle saddle invented around the same time, the stirrup was perhaps the most substantial military technological advancement needed before the archetypical medieval “knight in shining armor” could be realized. Modern historians have long moved past Lynn White, Jr.’s provocative thesis that “stirrups led to feudalism, the couched lance and chivalry,”²⁴ although questions as to when they appeared in Europe and who brought them there remain. Unless more substantial archaeological evidence is found, however, it is unlikely that there will be answers to these questions. Until then, only general conclusions can be made: that, prior to the appearance of stirrups, cavalry were used as effective units in ancient and early medieval armies, hence the invention became a crutch from which new maneuvers and skills developed; that stirrups were not adopted by all armies immediately after their appearance, hence they were not the revolutionary technology that some have made them out to be; and that it was several centuries after their appearance that couching the lance became standard practice, hence mounted shock combat became a cavalry tactic much later than has usually been assumed.

The Crusaders Anna Komnena saw as so powerful that they would bring the walls of Babylon down are depicted in art works outfitted in the same arms and armor as the Norman cavalry in the Bayeux Tapestry. They wore Carolingian mail byrnie to cover their torsos, shoulders, upper arms, and thighs, sometimes lengthened to the wrists and ankles, although not yet

22 Anna Komnena, *The Alexiad*, trans. E. R. A. Sewter (Harmondsworth, Penguin Books, 1969), pp. 316–17.

23 For a summary of this scholarly dispute, and its bibliography, see DeVries and Smith, *Medieval Military Technology*, pp. 12–14.

24 White’s thesis appeared as “Stirrup, Mounted Shock Combat, Feudalism, and Chivalry,” in *Medieval Technology and Social Change* (Oxford, Oxford University Press, 1962), pp. 1–38, but was quickly challenged, most completely by Bernard S. Bachrach, “Charles Martel, Mounted Shock Combat, the Stirrup, and Feudalism,” *Studies in Medieval and Renaissance History* 7 (1970), 47–75. A summary of this debate, with more complete bibliography, is found in DeVries and Smith, *Medieval Military Technology*, pp. 99–113.

covering the feet and hands. In these illustrations, and the Bayeux Tapestry, some of the most noble warriors – William the Conqueror and Odo of Bayeux on the Bayeux Tapestry – also have coifs of mail which protect their head.²⁵ They wear nasal helmets: domed, conical helmets that surround the head above the ears, but with a distinct bar descending from the front brim to the bottom of the nose. This small piece of metal may not seem much of an addition to a helmet, but it added considerable protection to the nose and face against a slashing sharp-edged weapon, without cutting off too much eyesight, breathing, or communication. Over time, the helmets would also transform from a *spangenhelm* construction to that of a single piece of metal – as exemplified by the only surviving nasal helm, in the Wapen- und Rustkammer, Kunsthistorische Museum in Vienna.²⁶

Shields were no longer round, as had been in use in Carolingian, Viking, and Anglo-Saxon armies, but had become “kite-shaped” (not a medieval but a modern description). Rounded at the top – although smaller overall than previous round shields – the kite-shaped shield tapered to a rounded point that descended below the knee of a standing or horsed warrior. It is not known when, why or by whom this transformation of shields was made, although it has been suggested that it reflects a greater use of cavalry, whose shields needed to protect the riders’ legs while not inhibiting their control of their horses.²⁷

The weapons remained the same as they had been during the Early Middle Ages, with the sword and spear predominating. However, the quality of swords had declined, with very few pattern-welded swords appearing after 1000, replaced by swords again made of a single piece of iron. Whether this was due to the extreme cost of such a weapon, or because of a decline in the quality of swordsmithing cannot be determined from written, artistic, or archaeological evidence.²⁸

25 The most complete catalog of arms and armor illustrations is found in David C. Nicolle, *Arms and Armour of the Crusading Era, 1050–1350*, 2 vols., 2nd ed. (London, Greenhill Books, 1999).

26 Wapen- und Rustkammer, Kunsthistorische Museum, Vienna, A 41.

27 DeVries and Smith, *Medieval Military Technology*, p. 68; Mann, “Arms and Armour,” pp. 63–5; and Ian Peirce, “The Knight, His Arms and Armour in the Eleventh and Twelfth Centuries,” in C. Harper-Bill and R. Harvey (eds.), *The Ideals and Practice of Medieval Knighthood* (Woodbridge, Boydell, 1986), p. 160.

28 Mann, “Arms and Armour,” pp. 65–6; Peirce, “The Knight, His Arms and Armour,” pp. 154–5, 162–4; Oakeshott, *The Sword in the Age of Chivalry*, pp. 25–55; R. C. Smail, *Crusading Warfare (1097–1193)* (Cambridge, Cambridge University Press, 1956), pp. 112–14; and Ada Bruhn de Hoffmeyer, *Arms and Armour in Spain: A Short Survey*, vol. 1: *The Bronze Age to the End of High Middle Ages* (Madrid, Instituto de Estudios Sobre

These were joined increasingly by maces – shown in the Bayeux Tapestry as throwing weapons, and also perhaps carried by Odo, Bishop of Bayeux.²⁹ The mace would become increasingly favored in medieval warfare into the Early Modern period. It would also become a popular tournament weapon, with William Marshal's contemporary biographer noting that the Marshal had to be cut out of his great helm in more than one tournament as it had become crushed against his head by mace blows. And it was maces which prompted Geoffrey Chaucer's famous phrase, the bones they "to-brest," noting too that it was a mace that "todashed" Troilus's shield.³⁰ The mace might not have caused the exsanguination of a sword, but it is wrong to think that it was not every bit as ruthless a weapon, especially to a soldier whose armor might have turned a sharp-edged weapon's slash, but not a blunt-force weapon's smash.

For the most lethal results, though, medieval soldiers would turn to their daggers. Everyone, cavalry or infantry, carried one. By the High and Late Middle Ages these had transformed from the broad, single-edged blades of earlier to long, sharply pointed, doubled-edged weapons, either flat-bladed or diamond-shaped. They carried many different names: *quillon* (from its cross-guard that resembled a sword's cross-guard or *quillon*); *baselard* (derived, it seems, from a Swiss [Basel] popularity); *rondel* (from its disk-shaped cross-guard); *ballock* (from its resemblance to an erect penis and scrotum); *ear* or *eared* (from a pommel which flayed out in two edges); and *cinquedea* (from its flat blade which tapered from a width measuring five fingers to a sharp point). The thinner-bladed of these found easy openings in the armor of a disabled soldier – John, the Blind King of Bohemia, was dispatched with a dagger to his eye at Crécy in 1346, while one of the lethal blows to Richard III at Bosworth in 1485 was a dagger pounded through the top of the skull when the king was kneeling – with the broader-bladed ones cutting a broad and deep wound with little effort, especially against unarmored victims.³¹ The latter were especially favored for assassinations.

Armas Antiguas, 1972), pp. 5–18. See also the large number of swords from this period illustrated in Nicolle, *Arms and Armour of the Crusading Era*.

29 DeVries and Smith, *Medieval Military Technology*, pp. 30–2; and P. F. Thorne, "Clubs and Maces in the Bayeux Tapestry," *History Today* 32 (October 1982), 48–50.

30 Juliet R. V. Barker, *The Tournament in England, 1100–1400* (Woodbridge, The Boydell Press, 1986), pp. 179–80; and Stephen J. Herben, "Arms and Armor in Chaucer," *Speculum* 12 (1937), 483.

31 There is a need for a detailed study of medieval daggers. For a general introduction see DeVries and Smith, *Medieval Military Technology*, pp. 24–8. For a catalog of wounds on excavated bodies, including those of John of Bohemia and Richard III, see Robert Woosnam-Savage and Kelly DeVries, "Battle Trauma in Medieval Warfare:

The Crusades unified much of European military technology. The greatest influence may have been in fortification construction. Some Roman walls still existed in Europe and were maintained and repaired, providing protection for cities and towns, but few new walls were being built from the fall of Rome to the eleventh century. Viking and Hungarian attacks initiated some fortification construction, but just as many older walls were being pulled down – especially by the late Carolingian kings who worried that they could be used to hide rebellious subjects.³²

Fortifications that had been built, both around urban communities and in rural areas, were not in stone. Earthen ramparts, with deep ditches in front and wooden palisades and towers on top of them, had been a successful deterrent in Europe since the Bronze Age; in fact, some of these very early ring-works had remained in use.³³ Raiders without determination or siege technology were often turned away to find easier prey for their pillaging. Even larger armies could be kept away from protected populations and goods, as Alfred the Great found in constructing his burghal system of earth and wood ring-works in the ninth and tenth centuries, which protected major towns in southern England against would-be Viking conquerors.³⁴ Lengthy rural earthen ramparts behind deep and wide ditches, such as Offa's Dyke near the Welsh border or the Danevirke on the Jutland peninsula, could also be constructed to protect larger regions.³⁵ Unfortunately, not much is known about these extensive defensive projects – other than the archaeological remains – to determine why they, and few others, were undertaken.

Equally successful, especially as rural fortification, was the later earth and wood motte-and-bailey castle. The bailey was a ring-work and ditch, the motte a mound made of earth topped by a superstructure of timber within

Wounds, Weapons and Armor," in Larissa Tracy and Kelly DeVries (eds.), *Wounds and Wound Repair in Medieval Culture* (Leiden, Brill Publishing, 2015), pp. 27–56.

32 Charles L. H. Coulson, "Fortresses and Social Responsibility in Late Carolingian France," *Zeitschrift für Archäologie des Mittelalters* 4 (1976), 29–36.

33 Gabriel Fournier, *Le Château dans la France médiévale* (Paris, Aubier Montaigne, 1978), pp. 27–34, contains the best general discussion of early medieval rural fortifications. A more intensive study is needed.

34 A very good recent study of these fortifications is John Baker and Stuart Brookes, *Beyond the Burghal Hidage: Anglo-Saxon Civil Defence in the Viking Age* (Leiden, Brill, 2013), and there is also a new edition, translation and study of the Burghal Hidage, a contemporary census of these sites: David Hill and Alexander R. Rumble (ed. and trans.), *The Defence of Wessex: The Burghal Hidage and Anglo-Saxon Fortifications* (Manchester, Manchester University Press, 1996).

35 David Hill and Margaret Worthington, *Offa's Dyke* (Stroud, History Press, 2009); and H. Hellmuth Andersen, *Das Danewerk im früh- und hochmittelalter* (Flensburg, Museum am Danemwerk, 1995).

the bailey. The size of the mottes differed, as did the size of the bailey – or, in rare cases, more than one bailey attached to a single motte – and the width and depth of the ditch. Excavations of the Hen Domen motte-and-bailey castle shows that these fortifications could also be used for several centuries.³⁶ That they were an extremely effective fortification is shown by the hundreds of mottes that still dot Northern Europe, Scandinavia, England, and Ireland.³⁷

Yet, almost all motte-and-bailey castles and ring-works were in Northern Europe, which points out a fundamental technological problem in earthen fortification construction: the need for firm soil. Below and in the Pyrenees and the Alps, and in the Balkan Peninsula, Asia Minor and the Middle East, the soil was simply too dry to build the steep ramparts and mounds that earthen fortifications needed to be effective. As the Crusaders discovered once they entered the eastern Mediterranean, this problem had been solved for more than a millennium by building fortifications in stone.

Europeans certainly knew how to build fortifications in stone prior to the Crusades. Small stone towers had previously been built to guard the passes in northern Italy and in the Pyrenees; two of the castles of Fulk Nerra, the late tenth- to early eleventh-century count of Anjou, were in stone – at Langeais and Montbazou – and three stone castles were built during the reign of William the Conqueror – at London (the White Tower), Colchester, and Richmond.³⁸ They could have built more. But, for reasons not recorded – although likely the high cost – they did not. In the Middle East builders had no other choice than stone; and, as Europeans in the Crusader kingdoms were so few, they needed to construct a large number of castles to protect

36 Robert Higham and Philip Barker, *Timber Castles* (Mechanicsburg, PA, Stackpole Books, 1995), which is informed by their excavations as recorded in *Hen Domen Montgomery: A Timber Castle on the English-Welsh Border* (Exeter, University of Exeter Press, 2000).

37 See, among others, Michel Maerten, "Mottes et maisons fortes du Charolais," *Dossiers d'archéologie* 155 (Feb 1991), 32–3; H. Halbertsma, "Les Mottes Frisonnes," *Château Gaillard* 7 (1975), 111–25; Richard Hodges, "The Danish Contribution to the Origin of the English Castle," *Acta archaeologica* 59 (1988), 169–72; Hans Stiesdal, "Die motten in Dänemark: Eine kurze übersicht," *Château Gaillard* 2 (1967), 94–9; T. E. McNeill and M. Pringle, "A Map of Mottes in the British Isles," *Medieval Archaeology* 41 (1997), 220–2; and Kieran O'Connor, "Motte Castles in Ireland: Permanent Fortresses, Residences and Manorial Centres," *Château Gaillard* 20 (2002), 173–82.

38 Katherine Fischer Drew, "The Carolingian Military Frontier in Italy," *Traditio* 20 (1964), 437–47; Philippe Araguas, "Les Châteaux des marches de Catalogne et Ribagorçe (950–1100)," *Bulletin Monumental* 137 (1979), 205–34; Bernard S. Bachrach, "The Angevin Strategy of Castle Building in the Reign of Fulk Nerra, 987–1040," *American Historical Review* 88 (1983), 533–60; and R. Allen Brown, "The Norman Conquest and the Genesis of English Castles," in *Castles, Conquest and Charters: Collected Papers* (Woodbridge, Boydell, 1989), pp. 75–89.

themselves and their conquests. More than 300 would eventually be built, with many started in the first three decades after the fall of Jerusalem, a feat unequaled in the history of premodern military architecture; further castles were built during the twelfth and thirteenth centuries.³⁹

The necessity for stone castles in the Holy Land may have influenced the construction of stone castles which would soon proliferate in Europe. By the end of the twelfth century they had been built throughout every medieval land, and they continued to be built well past the end of the Middle Ages. There were two different styles of these castles. The first was simply a tower or keep. Keeps could be small, accommodating perhaps only a few men in a garrison. Or they could be quite large, comfortably holding a noble and his family – even a king, in the case of the White Tower. They could be rectangular, multangular, or round. Most were tall, three or four storeys at least, sufficient to see an approaching army or raiding party and warn those they needed to protect. A second style of castle was the concentric castle or castle complex. Rather than relying primarily on a tower for defense, these were built with single or double walls, protected at intervals by a number of crenellated towers, surrounding a large bailey. Entrances into these castles were through large gatehouses equipped often with heavy wooden doors, portcullises, and occasionally a drawbridge. Buildings in the bailey served a variety of purposes: halls, barracks, kitchens, magazines, stables, baths, latrines, storehouses, cisterns, and chapels. In many castles there were keeps, built as residences or barracks, but also meant to stand as a final line of defense should the outer walls fail.⁴⁰

Due to the constant warfare of the Crusades and the increased warfare between kingdoms in Europe, armor had become stronger and more protective by 1200. As so beautifully depicted by the Crusader in the Westminster Psalter dated to around 1200 and the cavalry in the Morgan Picture Bible, mail now covered the soldier from head to toe.⁴¹ The byrnie still covered the torso and groin, but was joined by mail arm and leg coverings that wrapped around the feet and, in the form of mittens, the hands. An extra covering of mail

39 Studies on Crusader castles include Hugh Kennedy, *Crusader Castles* (Cambridge, Cambridge University Press, 1994); and Ronnie Ellenblum, *Crusader Castles and Modern Histories* (Cambridge, Cambridge University Press, 2007).

40 Castles studies are too numerous to be listed here. For bibliographies see Kelly DeVries, *A Cumulative Bibliography of Medieval Military History and Technology*, 3 vols. (Leiden, Brill, 2002–8); and John R. Kenyon, *Castles, Town Defences and Artillery Fortifications in the United Kingdom and Ireland: A Bibliography, 1945–2006* (Donington, Shaun Tyas, 2008).

41 Westminster Psalter: British Library, MS Royal 2 A XXII, f. 220. Morgan Picture Bible: Pierpont Morgan Library, Ms M. 638, numerous folios.

protected the thighs. Mail to cover the neck, chin and lower face was attached to the coifs over the head.

Also seen in these illustrations, helmets completely covered the head. These were the great helms, cylindrical in shape with a flat top and openings for sight and breathing cut into the front. They were worn over a coif and required an extra quilted arming cap on top of the head and under the helmet to hold it firmly onto the middle of the soldier's head. They were heavy and uncomfortable to wear, and breathing and sight were lessened considerably in comparison to earlier helmets. But they were extremely protective, making the head virtually invulnerable. As such, they were quickly adopted by the knights and men-at-arms, and they soon became the predominant armor for the head in Europe.⁴²

Shields were still carried, but had become triangular in shape, smaller and lighter than either early medieval round shields or the high medieval kite-shaped shields. These are sometimes referred to as "heater shields," although that is a Victorian name. Heraldry covered them.⁴³

Military technology of infantry and archers

Infantry always played an important role in medieval warfare. If they could afford it, or were able to procure it from fallen enemy, they wore the armor and carried the swords of the more elite cavalry. But they also developed their own arms and armor more suitable to fighting on foot. These included staff weapons or polearms, long-handled weapons with an axe-head, blade, or hammer at the end. The earliest mention of a staff weapon is a Catalan document of 977 which refers to a *guisarme*, described as a long-hafted weapon with an extremely long, axe-shaped head.⁴⁴ Several artistic depictions follow over the next three centuries.⁴⁵ However, the greatest number and variety of staff weapons appeared after 1300. These included the halberd,

42 A large number of great helms can be found in Nicolle, *Arms and Armour of the Crusading Era*, including many extant helms from both the thirteenth and the fourteenth centuries: #761, 1179, 1219, 1220, 1222, 1223, 1225, 1318. For illustrations of the arming cap, see *ibid.*: #926, 933, 934, 1187, 1321.

43 Once again, Nicolle, *Arms and Armour of the Crusading Era*, has a very large number of illustrations showing these shields throughout Europe.

44 Bruhn de Hoffmeyer, *Arms and Armour in Spain*, p. 170.

45 As examples see Nicolle, *Arms and Armour of the Crusading Era*, #676, 686, 707, 788, 819, 1416. The best studies of staff weapons are Mario Trosio, *Le armi in asta: delle fanterie europee (1000–1500)* (Novara, Istituto Geografico de Agostini, 1988); and John Waldman, *Hafted Weapons in Medieval and Renaissance Europe: The Evolution of European Staff Weapons between 1200 and 1650* (Leiden, Brill, 2005).

glaive, bill, partizan, *goedendag*, *morgenstern* (or morning star), holy water sprinkler, *goupillon*, and pollaxe.⁴⁶ Staff weapons led to the tactic of large formations of soldiers working together as a coordinated group, resulting in Flemish successes over the French at the battles of Courtrai in 1302 and Arques in 1303 and the Swiss over the Austrians at Mortgarten in 1315 and Laupen in 1339.

Large formations of infantry using bows also proved very effective in the fourteenth and fifteenth centuries. Of course, bows had been used since prehistoric times. The Romans used them, as did all the invaders of the empire. However, other than the Huns, archers never appeared in large numbers and rarely in coordinated units. There was even an Anglo-Saxon riddle written about the bow – although this may actually signify how infrequently it was used during the period, as the author reverses the Old English word for bow, *boga*, as the first word of the riddle in order to give an internal clue to its answer.⁴⁷ In the Aachen Capitulary of 802–3 Charlemagne ordered a bow, spare string, and quiver of twelve arrows be carried by all infantry, but evidently with little effect in forming a concerted archer force even during his own time.⁴⁸ Insisting infantry carry bows did not give them the skill to use them.

The crossbow became popular in the twelfth century. Although operating along the same principles as the traditional bow, it was a much more complex and technologically sophisticated weapon: a short, heavy bow stave attached to a stock fitted with release mechanism (usually a nut of horn or ivory) to which the string could be pulled, a bolt laid within and launched by pulling on a trigger (a lever attached to the release). Some crossbows could be spanned by hand, but most had the archer placing his foot into a stirrup at the end of the bow and the string on a hook secured to his belt or, later, using mechanical means with a cranequin or windlass.⁴⁹ The crossbow was more powerful than the bow; with a steel bow it delivered several hundred pounds of force by the end of the Middle Ages. Anna Komnena showed ignorance of the weapon when seeing it used by the First Crusaders – as she could have found crossbows in Constantinople's arsenals – but she probably only exaggerated slightly when she claimed that they could

46 Waldman goes into detail on all of these weapons, but for a short summary see DeVries and Smith, *Medieval Military Technology*, pp. 28–30.

47 Kevin Crossley-Holland (ed. and trans.), *The Exeter Book Riddles* (Harmondsworth, Penguin Books, 1979), #23.

48 Coupland, "Carolingian Arms and Armor," pp. 48–50.

49 The best study of the crossbow is Josef Alm, *European Crossbows: A Survey*, trans. H. Bartlett Wells, ed. G. M. Wilson (Leeds, Royal Armouries, 1994).

transfix a shield, cut through a heavy iron breastplate and resume their flight on the far side . . . An arrow of this type has been known to make its way right through a bronze statue, and when shot at the wall of a very great town its point either protruded from the inner side or buried itself in the wall and disappeared altogether. Such is the crossbow, a truly diabolical machine. The unfortunate man who is struck by it dies without feeling the blow; however strong the impact he knows nothing of it.⁵⁰

This power led a pope, Urban II (1096–7) and the Second Lateran Council (1139) to condemn its use among Christians,⁵¹ which nevertheless seems not to have curbed its use in Europe. The crossbow also required less skill and training than the bow. As long as they could load it, anyone could shoot it. The crossbowman with the fatal shot of Richard the Lionheart at Châlus in 1199 is identified in sources as a “cook.” Yet, with a number of crossbowmen shooting in unison, skill was less necessary. Knowing this, mercenary crossbow units (Gascons and Genoese primarily) specializing in the weapon were frequently employed in late medieval wars. A crossbow could also be used in the defense of a fortification or a ship.⁵² To protect crossbowmen while loading, a large shield, the *pavise*, was invented – likely in Pavia during the thirteenth century, hence its name. Pavises could be carried by attendants (*pavesari*) or set up with a brace similar to an easel.⁵³

But the longbow is justly the most famous archery weapon of the Late Middle Ages. Although it is not exactly known why, in the beginning of the fourteenth century English kings started to recruit large numbers of archers. These were equipped with a long-staved flexible bow – hence the name – made of yew or ash which allowed an arrow to be pulled back to the cheek instead of the chest, delivering more power and distance than a shorter bow. Unlike the crossbow, skill in shooting the longbow made a difference. Longbowmen were raised shooting the weapon, and this lifetime of training brought almost immediate success to the battlefield. English archers became an important part of armies, instrumental in victories over the Scots at Dupplin Moor in 1332, Halidon Hill in 1333, and Neville’s Cross in 1346, and

50 Comnena, *The Alexiad*, pp. 316–17.

51 Philippe Contamine, *War in the Middle Ages*, trans. Michael Jones (Oxford, Basil Blackwell, 1984), pp. 71–2, 274. In 1200, the Church reinstated its use against infidels, pagans, and Cathars, and in the case of a “just war.”

52 Contamine, *War in the Middle Ages*, p. 110; and Frederic C. Lane, “The Crossbow in the Nautical Revolution of the Middle Ages,” *Explorations in Economic History* 7 (1969–70), 161–71.

53 Kelly DeVries, “The Introduction and Use of the Pavise in the Hundred Years War,” *Arms and Armour* 4 (2007), 93–100; and Thom Richardson, “Pavises in the Royal Armouries Collection,” *Arms and Armour* 4 (2007), 101–8.

the French at Sluys in 1340, Morlaix in 1342, Crécy in 1346, Poitiers in 1356, and Agincourt in 1415.⁵⁴

Military technology of the Late Middle Ages

The power of the crossbow and longbow have been offered as reasons for the adoption of plate armor.⁵⁵ The opposite has also been claimed – that plate armor preceded and provoked the need for more powerful weapons to defeat it. Written references to iron plates being added to armor date to the late thirteenth and early fourteenth centuries, with effigies and brasses memorializing the deaths of soldiers depicting plates at around the same time.⁵⁶ Privy Wardrobe accounts from the Tower of London's arsenal show a progression: in 1326 Sir Roger Trumpington has plate *poleyns* (knee armor) added to his mail; in 1330 John Cromwell, constable of the Tower of London, turned over fifty "feeble" plate gauntlets, among other armor, to his under-constable, John Hacton; in 1337 an indenture was issued from the Tower for 127 plate gauntlets, thirteen aketons (elbow armor) of plates, four cloth aketons "en suite with pairs of plates" and more than 167 "pairs of plates" (specific use unknown), among other mail armor; in 1344 Robert Mildenhall, who worked at the Tower arsenal and would soon become Keeper of Jewels, Armour and Other Goods, collected twenty pairs of plate, eighty-two corsets of plate and eighteen plate gauntlets from the English newly occupied Brittany. Mildenhall's account of the arsenal's holdings in 1344–51 lists 124 plate cuisses (thigh armor), poleyns and greaves (shin armor) – evidently connected to each other – sixty-two pairs of cuisses and poleyns, 342 pairs of plates, and ten pairs of plate gauntlets, among other

54 The best work on the longbow is Matthew Strickland and Robert Hardy, *The Great Warbow: From Hastings to the Mary Rose* (Stroud, Sutton Publishing, 2005); although see the criticism of some points by Clifford J. Rogers, "The Development of the Longbow in Late Medieval England and 'Technological Determinism,'" *Journal of Medieval History* 37 (2011), 321–41. These authors give more credit to the weapon than either Claude Gaier or I do. See Gaier, "L'Invincibilité anglaise et le grande arc après la guerre de cent ans: un mythe tenace," *Tijdschrift voor geschiedenis* 91 (1978), 378–85; and Kelly DeVries, "Catapults Are Not Atomic Bombs: Towards a Redefinition of 'Effectiveness' in Premodern Military Technology," *War in History* 4 (1997), 475–91.

55 Thom Richardson, "The Introduction of Plate Armour in Medieval Europe," *Royal Armouries Yearbook* 2 (1997), 40–5. Richardson's more complete analysis of these records is *The Tower Armoury in the Fourteenth Century* (Leeds, Trustees of the Royal Armouries, 2016).

56 Claude Blair, *European Armour: circa 1066 to circa 1700* (London, B. T. Batsford, 1958); Lionella Giorgio Boccia and Mario Scalini (eds.), *Guerre e assoldati in Toscana, 1260–1364* (Florence, Museo Stibbert, 1982); and Malcolm Norris, *Monumental Brasses: The Memorials* (London, Philip and Page, 1977).

armor, helmets, and shields; and in 1360 “complete armour” of plates are mentioned.⁵⁷ This “complete armour” included a cuirass consisting of a breast and backplates, a gorget for the neck, vambraces and gauntlets for the arms and hands, cuisses and greaves for the thighs and legs, and sabatons for the feet. Over this, the soldier usually wore a surcoat, which added no extra protection but allowed for his heraldry to be displayed.⁵⁸

It would be some time before mail armor was superseded, but the added defensibility of plate armor meant that soldiers who could afford it sought it out. By the early fifteenth century, armor industries everywhere in Europe produced excellent, usually very expensive plate armors, in different but distinct styles, the “Italian” and “German” the most prevalent.⁵⁹ New carburizing processes and the use of the blast furnace allowed steel to become the principal metal for armor construction. Befitting his status, the wearer of plate armor could also polish it to a high shine, so brilliant that plate armor became known as “white armor.”⁶⁰ The weight of plate armor was considerable, but armorers countered this by making it very flexible, with all pieces articulated to move easily and relatively comfortably, and by distributing its weight across the body. It was also more time-consuming to put on; the wearer could not do so by himself.⁶¹

Of course, the cost of plate prohibited its ownership by all soldiers or town arsenals. Infantry continued to use mail longer than cavalry, and also adopted cloth-covered armors (cloth coats onto which plates of metal were sewn). Excavations of the burial pits from the battle of Visby in 1361 have shown the popularity of these armors, and also their variety – twenty-five full or partial cloth-covered armors were found with other mail and plate armors.⁶² Cloth-covered armors similar to these, made of coarse materials and sewn or laced

57 Thom Richardson, “Armour in England, 1325–99,” *Journal of Medieval History* 37 (2011), 304–20.

58 Blair, *European Armour*, p. 54; and DeVries and Smith, *Medieval Military Technology*, pp. 78–85.

59 On the cost of plate armor see Contamine, *War in the Middle Ages*, pp. 95, 116–17; Malcolm Vale, *War and Chivalry: Warfare and Aristocratic Culture in England, France and Burgundy at the End of the Middle Ages* (Athens, University of Georgia Press, 1981), pp. 125–6; and Claude Gaier, *L'Industrie et le commerce des armes dans les anciennes principautés belges du XIII^e à la fin du XV^e siècle* (Paris, Société d'Édition “Les Belles Lettres,” 1973), pp. 67–9, 73, 89, 343–52. On the different styles see Blair, *European Armour*, pp. 77–111.

60 Alan Williams, *The Knight and the Blast Furnace: A History of the Metallurgy of Armour in the Middle Ages and the Early Modern Period* (Leiden, Brill, 2003).

61 See the charts of armor weights in Vale, *War and Chivalry*, pp. 184–5; and Blair, *European Armour*, pp. 191–2.

62 Bengt Thordemann, *Armour from the Battle of Wisby, 1361* (Stockholm, Almqvist & Wiksells Boktryckeri, 1939; rpt. Union City, CA, Chivalry Bookshelf, 2001).

together, were used in England as “jacks of plates.” An evolution of these was the late medieval brigandine, made of overlapping small rectangular plates of iron with a coating of molten lead and tin (to prohibit rusting) riveted to a sleeveless fabric jacket. Although initially used by infantry, archers, and other poorer soldiers, several extant brigandines covered in silks and brocades show that they appealed also to more wealthy wearers, who, because they were light enough, could wear them outside of military duties.⁶³

The great helm continued to be worn until the end of the fourteenth century, but by that time cavalry soldiers had taken to wearing helmets which continued to cover their entire head and face but fit more closely, often with an extended ridge added to the top of the helmet for strength and stability – and to which crests and heraldic devices could be placed. These were called “frog-mouthed” helmets because of the shape of the set visor, which had been stretched out at the nose and mouth to allow for greater ease of breathing.⁶⁴ Late medieval infantry preferred more visibility and breathing, and most wore either a simple conical, domed helmet or the kettle-hat, a domed helmet with an extended brim that flared out from the head and offered some protection from cavalry blows and arrows. A form of kettle-hat, the *morion*, would become the archetypal helmet of the Spanish conquistadors.⁶⁵ The most popular helmet of the Late Middle Ages for both cavalry and infantry was the bascinet. Although there were variations, most bascinets were tall helmets covering the head, neck, and cheeks to which a visor could be attached. These visors also came in different shapes, from those fitting relatively close to the face (the *Klappvisiers*) to those that stretched out away from the face (the “pig-faced” – although that is a modern term). Variations of the bascinet included *barbute*, *sallet* (or *salade*), and *armet*.⁶⁶

However, the late medieval military technology that would endure for the longest and eventually bring the greatest number of changes to warfare was gunpowder weapons. Neither gunpowder nor the weapons that used it were European in origin. Gunpowder was invented in China, probably in the eighth or ninth century, with its military potential soon recognized, leading

63 Ian Eaves, “On the Remains of a Jack of Plate Excavated from Beeston Castle in Cheshire,” *Journal of the Arms and Armour Society* 13 (1989–91), 81–154. Despite the title of this article, it is the best study of both jacks and brigandines.

64 Blair, *European Armour*, pp. 47–8, 73. Early examples can be found in Nicolle, *Arms and Armour of the Crusading Era*, #611, 970, 1222, 1223, 1225, 1276.

65 Blair, *European Armour*, pp. 52, 70, 91, 105, 110–11, 198–9; and Nicolle, *Arms and Armour of the Crusading Era*, #661, 976, 1074, 1075, 1245, 1274, 1276.

66 Blair, *European Armour*, pp. 51–2, 67–70, 73–4, 85–91, 102–7, 109–10, 194–5, 200–3.

to bombs, grenades, rockets, and fireworks. Artillery followed, although not for many centuries.⁶⁷ Routes to Europe for these inventions are not known. Gunpowder recipes – combining saltpeter, sulfur, and charcoal in a mixture that when lit combusted with a forceful explosion – began to be written from the mid thirteenth century, the earliest credited to Roger Bacon, Albert the Great, and the pseudonymous Marcus Graecus. Gunpowder weapons came later, with the illuminations of a vase-shaped cannon in Walter de Milemete's *De Notabilibus, Sapientibus et Prudentibus Regum* and the anonymous *De Secretis Secretorum Aristotelis*, illustrated in London in 1326–7, the most certain early evidence. Over the next 150 years guns were made larger, and they were made smaller; eventually they also became hand-held. They could be made on a forge (wrought iron) or at the foundry (bronze), with many armies armed with both types. Most had removable chambers to hold the gunpowder which fitted in an opening near the breech, and they fired projectiles of stone, lead, or iron. Transportation methods, mounts, metallurgical quality, and powder chemistry were continually improved. More importantly, gunpowder weapons led to changes on the battlefield, at sieges, and in naval engagements. By the middle of the fifteenth century, every military engagement included gunpowder weapons.⁶⁸

67 Joseph Needham, *Science and Civilisation in China*, vol. 5(7): *Military Technology: The Gunpowder Epic* (Cambridge, Cambridge University Press, 1986).

68 The introduction of gunpowder and proliferation of gunpowder weapons in late medieval Europe is one of the most vibrant areas of military technological study. See especially Bert S. Hall, *Weapons and Warfare in Renaissance Europe: Gunpowder, Technology, and Tactics* (Baltimore, MD, Johns Hopkins University Press, 1997); Robert Douglas Smith, *Rewriting the History of Gunpowder* (Nykøbing, Middelaldercentret, 2010); and Robert Douglas Smith and Kelly DeVries, *The Artillery of the Dukes of Burgundy, 1363–1477* (Woodbridge, The Boydell Press, 2005).

Maritime technologies

JOHN H. PRYOR^{*}

In the Northern Seas we may take as our starting point ships of the type probably used by the Anglo-Saxons in their invasions of the British Isles from the early fifth century.¹ The double-ended, long oak ship excavated at Nydam Moss on the island of Als in the Baltic Sea, southern Denmark, is dated to c.310–20 CE. It was originally around 25 m long, 4.3 m in the beam amidships, around 1.35 m deep in the hull amidships, rising to around 2.25 m at the bow and stern. It was an open rowing boat, clinker built, hull first, with only a bottom plank and five strakes per side. The strakes, which were single planks carved from whole trees, were fastened to each other with iron nails clenched through square iron washers. Cleats were left on the inside of the carved strakes roughly every 1.25 m and ribs cut from naturally curved branches were lashed to them later. Fifteen thole pins for oars were lashed to the top strakes or gunwales on either side. A large quarter rudder was found at one end. There is no evidence that the ship carried a mast or sail, and it appears to have been purely a rowing boat.

The ship whose remains were found at Sutton Hoo in Suffolk in a burial mound dated to the early Anglo-Saxon period around 625,² the ship itself

^{*} This chapter considers only those aspects of maritime technology that were related to naval warfare. Thus, maritime traffic in general and commercial shipping are considered only in passing. It also focuses on the main types of ships for lack of length to discuss everything.

¹ In particular, A. W. Brøgger and Haakon Shetelig, *The Viking Ships, Their Ancestry and Evolution*, trans. Katherine John (1951; rpt. New York, Twayne Publishers, 1971), pp. 34–6; John Haywood, *Dark Age Naval Power: A Re-assessment of Frankish and Anglo-Saxon Seafaring Activity* (London and New York, Routledge, 1991), pp. 51–76; Arne E. Christensen, “Scandinavian Ships from Earliest Times to the Vikings,” in George F. Bass (ed.), *A History of Seafaring Based on Underwater Archaeology* (London, Thames and Hudson, 1972), pp. 162–4; J. Richard Steffy, *Wooden Ship Building and the Interpretation of Shipwrecks* (College Station, Texas A&M University Press, 1994), pp. 100–1; Richard W. Unger, *The Ship in the Medieval Economy, 600–1600* (London and Montreal, Croom Helm and McGill-Queen’s University Press, 1980), pp. 58, 62–3.

² In particular, Haywood, *Dark Age Naval Power*, pp. 66–9; Peter Marsden, “Ships of the Roman Period and After in Britain,” in Bass (ed.), *History of Seafaring*, pp. 123–4; Steffy, *Wooden Ship Building*, pp. 100–1; Unger, *The Ship in the Medieval Economy*, p. 63; Rupert

being dated to the late sixth century, was not dissimilar: around 27.3 m long, 4.4 m beam amidships, and 1.5 m deep rising to 3.8 m at bow and stern. Unlike the Nydam ship, which must have been built somewhere where tall trees were abundant, the strakes of the Sutton Hoo ship were composed of shorter planks scarfed together. Clinker built with nine strakes per side, and again fastened with iron nails, its twenty-six ribs had been added after the hull had been completed, but the strakes were fastened to them, rather than they being lashed to cleats. There had been a single quarter rudder on the starboard side and the ship probably carried twenty oars per side. Whether it carried a sail is unknown since the burial chamber was amidships, where any mast-step would have been, and that may have been removed prior to burial.

In fact, the Saxons and others had been using sails since at least the fourth century CE, as Roman authors such as Ammianus Marcellinus, Sidonius Apollinaris, and others make perfectly clear. Julius Caesar had described the sailing ships of the Veneti in the first century BCE and no doubt other Northern peoples also continued to use them. For archaeological evidence, however, we have to wait until the Viking age. Even the Kvalsund ship from western Norway of c.700 CE was still a rowing boat showing no evidence of mast and sail.³ Archaeological evidence for sail appears first in the Utrecht ship, radio carbon dated to 790 CE $\pm$ forty-five years.⁴ This, however, was not a ship of war. Neither, strictly speaking, was the Oseberg ship from Oslo fjord, usually dated to c.800.⁵ Rather this is considered to have been a queen's pleasure barge. Nevertheless, it is of the type of the famous Norse long ships, *langskip*, measuring 19.5 x 4.5 m, with a deep keel, fifteen pairs of oars, and the mast step still in place.

By the ninth century Norse ship types were clearly becoming differentiated into two types. On the one hand there was the *knörr*, the earliest known of which is the Äskekär ship from the end of the eighth century found near Göteborg, Sweden. Two such *knörrir* dated to around 1000 CE were excavated

L. S. Bruce-Mitford, *The Sutton-Hoo Ship Burial*, vol. 1: *Excavation, Background, the Ship, Dating and Inventory* (London, British Museum, 1975), pp. 350–410.

- 3 Brøgger and Shetelig, *The Viking Ships*, pp. 39–43; Christensen, "Scandinavian Ships from Earliest Times to the Vikings," pp. 164–6; Archibald R. Lewis and Timothy J. Runyan, *European Naval and Maritime History, 300–1500* (Bloomington, Indiana University Press, 1985), pp. 87–9; Unger, *The Ship in the Medieval Economy*, p. 63.
- 4 Ole Crumlin-Pedersen, "The Vikings and the Hanseatic Merchants: 900–1450," in Bass (ed.), *History of Seafaring*, pp. 186–7; Haywood, *Dark Age Naval Power*, pp. 130–2; Unger, *The Ship in the Medieval Economy*, pp. 58–60.
- 5 Brøgger and Shetelig, *The Viking Ships*, pp. 108–15; Christensen, "Scandinavian Ships from Earliest Times to the Vikings," pp. 166–8; Lewis and Runyan, *European Naval and Maritime History*, pp. 94–101; Steffy, *Wooden Ship Building*, pp. 106–9; Unger, *The Ship in the Medieval Economy*, pp. 88–9.

off Skuldelev village in Roskilde fjord, Denmark, in 1969.⁶ The smaller (Skuldelev Three) was around 13.8 m long, 3.4 m in beam, and 1.3 m in depth; the larger (Skuldelev One) around 16.3 m long, 4.5 m in beam, and 2.1 m in depth, with a deadweight tonnage of around 24 tonnes. Both had half decks forward and aft but were open amidships. The larger was heavily built with sturdy frames. An even larger eleventh-century *knørr*, Roskilde Three, measuring 18.0 x 4.40 m x 1.0 [sic!] m was found in Roskilde fjord in 1997. Larger *knerrir* such as Skuldelev One were sailing ships, using the few oars they carried only for close maneuvering and in emergencies, and were perfectly capable of reaching the Mediterranean Levant as well as crossing the Atlantic. *Knerrir* were, however, primarily sailing and commercial vessels, not intended for military purposes.

For the earliest of the great *langskip* built for the purposes of war we have to wait until c.860–70 and the Gokstad ship found near Sandefjord in Oslo fjord.⁷ This beautiful ship of around 23.3 m in length, 5.2 m beam amidships, and 1.4 m depth in hull to the tops of the floor timbers, had a deep keel, fourteen strakes per side to the strake in which the sixteen oar ports were cut, which had covers to close them when the ship heeled under sail, and then a further two strakes added above that for seaworthiness. Clinker built, of oak, the strake planks were nailed to each other with iron nails but the ribs were lashed to cleats left on the inside of the carved planks. They were not fastened to the keel. Internal strength was provided by floor timbers carried up to the eleventh strake, cross members to the same point, and then hanging knees up to strake 14. She also had small half-decks at the bow and stern. She carried a mast around 13 m high, a yard 10–11 m wide, oars of around 5.3 m, and a quarter rudder of 3.3 m. A rack on the gunwale strake carried shields, probably for display rather than defense.

Also found at Skuldelev were two *langskip* approximately 17.4 m in length, 2.6 m in beam, 1.1 m depth in the hull (Skuldelev Five, dated to 1030–50); and 29 m in length, 3.5–4 m in beam, and unknown depth in hold (Skuldelev Two,

6 Crumlin-Pedersen, "The Vikings and the Hanseatic Merchants," pp. 183–6; Lewis and Runyan, *European Naval and Maritime History*, pp. 94–101; Steffy, *Wooden Ship Building*, pp. 108–13; Unger, *The Ship in the Medieval Economy*, pp. 89–93; Ole Crumlin-Pedersen and Olaf Olsen, "The Skuldelev ships," *Acta Archaeologica* 29 (1958), 161–75, and 38 (1967), 73–174; Olaf Olsen and Ole Crumlin-Pedersen, *Five Viking Ships from Roskilde Fjord*, trans. Barbara Bluestone (1969; rpt. Copenhagen, National Museum, 1978), pp. 113–24; The NAVIS I Project at www2.rgzm.de/Navis/home/frames.htm, Ship No. 190.

7 Brøgger and Shetelig, *The Viking Ships*, pp. 79–103; Christensen, "Scandinavian Ships from Earliest Times to the Vikings," pp. 166–8; Lewis and Runyan, *European Naval and Maritime History*, p. 95; Steffy, *Wooden Ship Building*, pp. 102–6; Unger, *Ship in the Medieval Economy*, pp. 88–91.



FIGURE 17. Gokstad ship, Viking Ship Museum, Oslo. Omar Marques/ Anadolu Agency via Getty Images.

dated to post 1055) respectively. Roskilde fjord Ship Six, found in 1997 and dated to post 1025, is the largest ever found, 36.0 x 3.5 x 1.7 m.⁸ The Skuldelev Five ship had twelve pairs of oars, the Skuldelev Two ship between twenty and thirty pairs, and Roskilde Six up to thirty-nine. The length of long ships increased over time, the largest becoming known as *drekar*, “dragon ships.” Perhaps the most famous was the *Long Serpent* of Olaf Trygvasson, king of Norway, built just before 1000 CE. With thirty-four oar benches, it may have had an overall length of a little over 40 m, just about at the limit of what the technology of working in wood could achieve.

These were the Norse ships of war of the ninth to eleventh centuries. They were the type of ship in which the Danes terrorized England in the ninth century and which inspired Alfred the Great to build new and larger warships in 897, no doubt of the same type in spite of what the *Anglo-Saxon Chronicle* said.⁹ Such ships also sailed to the Frankish empire from the end of the eighth century, causing Charlemagne to establish naval defenses against them, particularly at the mouths of rivers. Whether the Carolingians also emulated them is unknown.

8 Olsen and Crumlin-Pedersen, *Five Viking Ships*, pp. 104–12; Steffy, *Wooden Ship Building*, pp. 112–13; The NAVIS I Project, Ship No. 92.

9 *Anglo-Saxon Chronicles*, The Winchester manuscript, A 897 [896] (p. 90).

After the collapse of the Frankish empire, they carried Rollo and his companions to the mouth of the Seine to establish the new state of Normandy. They also carried Vikings to the Iberian Peninsula, terrorized the coast of the Umayyad amirate (later caliphate), and entered the Mediterranean and pillaged as far as Italy. They were also the main components of the battle fleets of the great Scandinavian kings of the period such as Olaf Trygvasson of Norway and Sveinn I Haraldsson (Svend Forkbeard) of Denmark, whose fleets engaged at the battle of Svolder (Svǫldr) in 1000 CE.

There is no evidence for the development of any other types of warships in the Northern Seas before the end of the eleventh century. Indeed, the Bayeux Tapestry clearly showed the fleet of William of Normandy as being composed of Norse *langskip* and *knerir*.¹⁰ Those carrying horses were undoubtedly *knerir*. There were royal fleets in post-Alfredian Anglo-Saxon England but virtually nothing is known about the types of ships used. The few revealing comments found in the *Anglo-Saxon Chronicle* and in historians such as Florence of Worcester suggest *langskip* of the traditional Norse type.¹¹ Indeed, in 1052 Edward the Confessor sent forty *snaca*, from the Old Norse *snekkja*, out on patrol in the Channel. Harold also managed to raise a fleet to guard the south coast of England in 1066, but of what it was composed is unknown. The English ships depicted on the Bayeux Tapestry are in no way different to those built for William of Normandy except that all but one have a curious break amidships in the gunwale strake in which the oarports are cut. Nor do we know anything at all about any warships that may have been built by the later Carolingians, the German emperors, or the Capetian kings of France.

In an interesting comment on the preparations for the battle of Nisaa, north of København, in 1062, Snorri Sturluson wrote of Harald Hardrada of Norway that: "In the winter King Harald stayed at Nidaros. He had a ship built out at Öre. It was a *bússuskip*. The ship was built after the size of the *Long Serpent*."¹² It is clear from the description that follows that the ship was in fact a dragon ship. Now, Snorri was writing much later and that he should call it a "*buss-ship*" – the word is English not Old Norse – is very interesting. It suggests that the main type of warship was a *buss* by his age (1179–1241). During the twelfth century the Norse *langskip* gradually became obsolete. Henry II had a royal galley called an

10 Lucien Musset, *The Bayeux Tapestry*, new ed., trans. Richard Rex (Woodbridge, The Boydell Press, 2005).

11 C. Warren Hollister, *Anglo-Saxon Military Institutions on the Eve of the Norman Conquest* (Oxford, Clarendon Press, 1962), pp. 103–26.

12 Upphaf Haralds konungs harðráða, §59, in Snorri Sturluson, *Heimskringla*, ed. Bergljót S. Kristjánsdóttir et al., 3 vols. (Reykjavík, Mál og Menning, 1991), vol. 2, p. 650.

esnecca, which had a crew of sixty, and which went to the Holy Land with Richard the Lionheart in 1190–1. This, however, was the last known ship referred to by this name. Richard's fleet, although numbered variously in the different sources, was composed mainly of a large number of *busses*. There is confusion and disagreement over what type of ship the *buss* was as a result of there being no extant description of them and no pictorial illustration positively identified as a *buss*.¹³ They were, however, almost certainly that type of sailing ship clearly descended from Norse *knerrir*, which appears in illustrations and on town seals from the twelfth century as being clinker-built ships of a *knerrir* type with free-standing castles added at the bow and stern. Whether they should properly be considered as ships of war is debatable; however, illustrations do show them being used in naval warfare. They must certainly have figured large in the naval struggle in the Channel that accompanied the invasion of England by Prince Louis of France from 1215 and which culminated in the English victory at the battle of Dover on 24 August 1217.

We are on much surer ground when we consider the last of the major types of Northern ships to be used for military purposes in the period: the cog.¹⁴ Varieties of the word were used much earlier and *coggonas* were said to have gone to the Mediterranean with the Third Crusade. Many sailed to Damietta for the Fifth Crusade. The first extant depictions, however, are in a German Apocalypse manuscript and on the first seal of the town of Elbing, both dated to 1242 CE.

Cogs were clinker built, with wide, flat floors, straight stem and stern posts, and stern-post rudders. They were clearly designed to be run in to shore on a high tide, loaded or unloaded when the tide fell, and then refloated with another high tide. Early forms of them may have been developed in the Low Countries. Early depictions show that the problem of passing the rudder's tiller over the sternpost had not been solved and it was curved around it. They also show early cogs without stern- and fore-castles, but these were soon added. The most important wreck of a medieval cog is that found in the bed of the river Weser at Bremen in 1962 and now in the Deutsches Schiffartsmuseum in Bremerhaven.¹⁵ Its timbers were felled in 1378 and it had

13 Owain T. P. Roberts, "Descendants of Viking Boats," in Richard W. Unger (ed.), *Cogs, Caravels, and Galleons: The Sailing Ship 1000–1650* (London, Conway Maritime Press, 1994), pp. 19–25; Unger, *The Ship in the Medieval Economy*, p. 136.

14 Crumlin-Pedersen, "The Vikings and the Hanseatic Merchants," pp. 196–7; Detlev Ellmers, "The Cog as Cargo Carrier," in Unger (ed.), *Cogs, Caravels, and Galleons*, pp. 29–46; Steffy, *Wooden Ship Building*, pp. 114–18; Unger, *The Ship in the Medieval Economy*, pp. 163–81.

15 Crumlin-Pederson, "The Vikings and the Hanseatic Merchants," pp. 197–8; Ellmers, "The Cog as Cargo Carrier," pp. 37–44; Klaus-Peter Kiedel and Uwe Schnall (eds.), *The Hanse Cog of 1380*, trans. Norma Wieland, ed. Richard W. Unger (Bremerhaven,

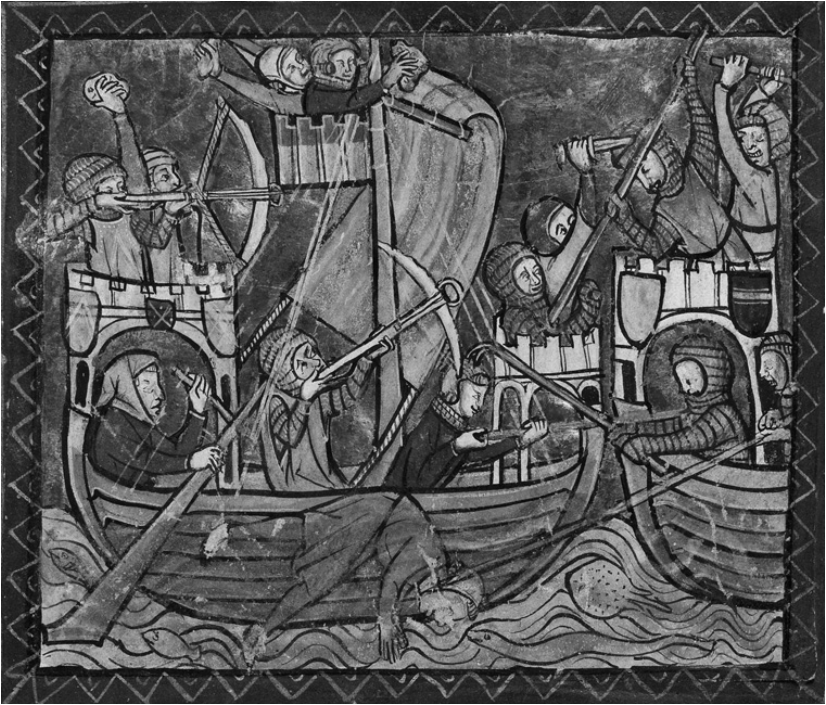


FIGURE 18. Buss with warriors. MS Marlay Add 1 folio 86r. Illuminated manuscript image. © The Fitzwilliam Museum, Cambridge.

probably been swept off its slip by a flood during building; its fore-castle was never completed. Its four floor strakes were carvel-joined edge to edge, with the eight massive side strakes above measuring 24 m x 50 cm being clinker joined. It was 24 m long and 7.6 m in the beam amidships, with a height from keel to gunwale of 4.2 m.

Cogs became adapted for war from an early date.¹⁶ It is possible, indeed even probable, that the addition of castles to cogs at bow and stern was a function of their adaption for war. King John himself had acquired a cog by 1210 and this may have been the same one that led the English fleet at the battle of Dover and engaged the ship of Eustace the Monk. Lubeck used its cogs against the Danes as early as 1234 and 1239 and their large size, in

Förderverein Deutsches Schiffahrtsmuseum, 1985); Steffy, *Wooden Ship Building*, pp. 118–21.

¹⁶ Timothy J. Runyan, "The Cog as Warship," in Unger (ed.), *Cogs, Caravels, and Galleons*, pp. 47–58.

particular their high freeboard, made them increasingly invulnerable to Norse *langskip*. In 1304 the Danes converted their naval defenses from *langskip* to cogs.

A statement of the royal fleet for 1205 [Rot. Cl., I, p. 33] lists fifty-one *galeae*. This is the first known use of the term in English administrative sources and thereafter it remained in constant use up until 1272. But what were these ships?¹⁷ They were certainly not *galee* of the Mediterranean type. It appears that English Crusaders brought the word back with them from the Third Crusade and applied it to the oared ships of England. Around 1213 King John is said to have given Eustace the Monk thirty galleys to harry the Channel Islands. Such galleys continued to be built in England through into the fourteenth century,¹⁸ but little is known about them except that they continued to be clinker built with a single mast and square sail and could carry up to 120 oars, which must mean that at least some had some sort of bireme oarage system, which is supported by specifications for oars of different lengths. Some had castles at bow and stern. *Barges* and *ballingers* were smaller variations on the *galee*.

When the French established a royal arsenal, the *Clos des galées*, at Rouen from 1294, this was for both galleys of a Mediterranean type and also for oared clinker rowing barges of a Channel type, again descended from Norse *langskip* but now given decks and stern- and fore-castles. But the French relied greatly on Genoese seamen and shipbuilders and the galleys they built at Rouen until 1419.

What actual duties English galleys performed is somewhat obscure, although some *barges* and *ballingers* did sail with English fleets during the Hundred Years War. Presumably, their purpose was to be able to engage galleys of a Mediterranean type in French service. Yet during the first phase of the war from 1337 to 1360, of 325 ships in royal service identified by type, 187 were called cogs.¹⁹ There were only twelve *barges* and six *galee*. By the fourteenth century the cog had become the standard ship of war in the

17 Frederick W. Brooks, *The English Naval Forces 1199–1272* (1933; rpt. London, H. Pordes, 1962), pp. 128–58.

18 Roger C. Anderson, *Oared Fighting Ships from Classical Times to the Coming of Steam* (new ed., Kings Langley, Argus, 1976), pp. 42–51; J. T. Tinniswood, "English Galleys, 1272–1377," *The Mariner's Mirror* 35 (1949), 276–315.

19 Timothy J. Runyan, "Naval Power and Maritime Technology during the Hundred Years War," in John B. Hattendorf and Richard W. Unger (eds.), *War at Sea in the Middle Ages and the Renaissance* (Woodbridge, The Boydell Press, 2003), pp. 53–67; Timothy J. Runyan, "Naval Logistics in the Late Middle Ages: The Example of the Hundred Years' War," in John A. Lynn (ed.), *Feeding Mars: Logistics in Western Warfare from the Middle Ages to the Present* (Boulder, Westview Press, 1993), pp. 79–100.

North. The fleet that Edward III took to France in 1340 and which defeated the French at the battle of Sluys included a number of cogs. English cogs were also engaged in the battle of L'Espagnols-sur-mer against the Castilians off Winchelsea in 1350.

Amongst the 325 ships identified by type, six were also called carracks.²⁰ These were a product of a fusion of the Northern cog with the Mediterranean round ship in which, by the early fifteenth century, the ships had cogs' hulls grown larger, stern-post rudders, large castles at bow and stern, and three masts, the mizzen mast at the stern carrying a lateen sail and the main mast and foremast square sails. Henry V's *Gracedieu* of around 1,270 tonnes, laid down at Southampton in 1416, had three masts. By the late fifteenth century, carracks had assumed the form of the great *Kraek* of the Flemish master W. A., assigned to around 1468.

In the Mediterranean there was always a more marked separation between ships designed for war and those designed for maritime traffic than there was in the North, with the exception of the differentiation of Norse ships into *knerrir* and *langskip* and with the qualification that Mediterranean war galleys could also be used for maritime commerce where high-value but low-volume commodities were involved.

In the Mediterranean the warship *par excellence* from the sixth to late eleventh centuries was the Byzantine δρόμων/*dromōn* and its Muslim and Latin imitations, although the Byzantine χελανδριόν/*chelandion* was also imitated in the Muslim world and the Latin West.²¹ Beginning as small monoremes in the sixth century, by the tenth century *dromōns* were biremes with two banks of twenty-five oars per side, one below and one above deck. A standard ship's complement, *ousia*, was 108 oarsmen, but only 100 oars seem to have been used at any one time. Oarsmen were seated and the distance between any two tholes, the *interscalmium*, was around 90–95 cm.²²

20 Ian Friel, "The Carrack: The Advent of the Full Rigged Ship," in Unger (ed.), *Cogs, Caravels, and Galleons*, pp. 77–90; Alexander McKee, "The Influence of British Naval Strategy on Ship Design: 1400–1850," in Bass (ed.), *History of Seafaring*, pp. 226–8.

21 John H. Pryor and Elizabeth M. Jeffreys, *The Age of the APOMΩN: The Byzantine Navy ca 500–1204* (Leiden and Boston, Brill, 2006), esp. pp. 255–64, 288–304, 607–3; John H. Pryor, "From *Dromōn* to *Galea*: Mediterranean Bireme Galleys AD 500–1300," in John Morrison (ed.), *The Age of the Galley: Mediterranean Oared Vessels since Pre-classical Times* (London, Conway Maritime Press, 1995), pp. 101–6.

22 The *interscalmium* or distance between the centres of the oar ports of the eleventh-century galley found in Istanbul in 2005 and known as Yenikapı Ship No. 4, which was excavated by the Institute of Nautical Archaeology, is approximately 94.5 cm, almost exactly three Byzantine feet, πόδες. Information courtesy of Cemal Pulak, INA. Another galley, Yenikapı Ship No. 16, which was excavated by the Istanbul University Yenikapı Shipwrecks Project, had distances of between 90 and 97 cm

Around 31.5 m long, 4.48 m in beam amidships at the deck, and around 1.80 m deep in hold, they had two masts with lateen sails, two stern quarter rudders, and an estimated deadweight tonnage of around 29.5 tonnes. They had fighting castles each side just aft of the foremast and a foredeck at the prow, below which was their *siphōn* for Greek Fire. This used a two-piston force pump to eject semi-vaporized petroleum naphtha fuel, creating a tongue of flame that could destroy enemy ships if the conditions were right. They also had a spur – a long, wooden, forward-projecting beam – at the prow designed to smash enemy ships' oars. These had replaced the waterline rams of antiquity, most probably because changes in hull construction made the ram ineffective. In antiquity hulls had been constructed with strakes edge-joined by closely spaced and tight-fitting mortises and tenons. Frames were added only after the hulls had been completed. Over the centuries, shipbuilding evolved gradually towards frame-first or skeletal construction, the strakes being nailed to the frames afterwards. This would have decreased the effectiveness of a ram to shatter the strakes and open a breach that could not be plugged.

By the tenth century, Byzantines also had fifty-oared monoreme *dromōns* known as γαλέαι/*galeai*. The four galleys found so far at Yenikapı are all monoremes. Yenikapı Ship No. 16 had twenty-five thwarts per side. The Western *galea* was most probably developed in south Italy from Byzantine *galeai* seen there, the earliest uses of the Latin term being by late eleventh-century Italo-Norman chroniclers. References to *galee* proliferated rapidly and they are known to have had fine lines and to have been fast. The earliest surviving documents with construction details, however, are from the Kingdom of Sicily between 1269 and 1284.²³

The critical innovation of the *galea* was to configure the oarage system so that two oarsmen rowed from one bench position above deck, rather than one below and one above deck. This freed the holds for equipment, armaments, provisions, and water. Oarsmen now used a stand-and-sit stroke instead of a seated stroke, and this increased their

between the centers of any two thwarts. Ufuk Kocabaş (ed.), *The "Old Ships" of the "New Gate", Yenikapı Shipwrecks/Yenikapı batıkları I* (Istanbul, Egeyayınları, 2008), p. 180.

²³ Pryor and Jeffreys, *Age of the ΔΡΟΜΩΝ*, esp. pp. 423–4; John H. Pryor, "The Galleys of Charles I of Anjou, King of Sicily: ca. 1269–84," *Studies in Medieval and Renaissance History* 14 [Old Series 24] (1993), 33–103; Pryor, "From *Dromōn* to *Galea*," pp. 110–15.

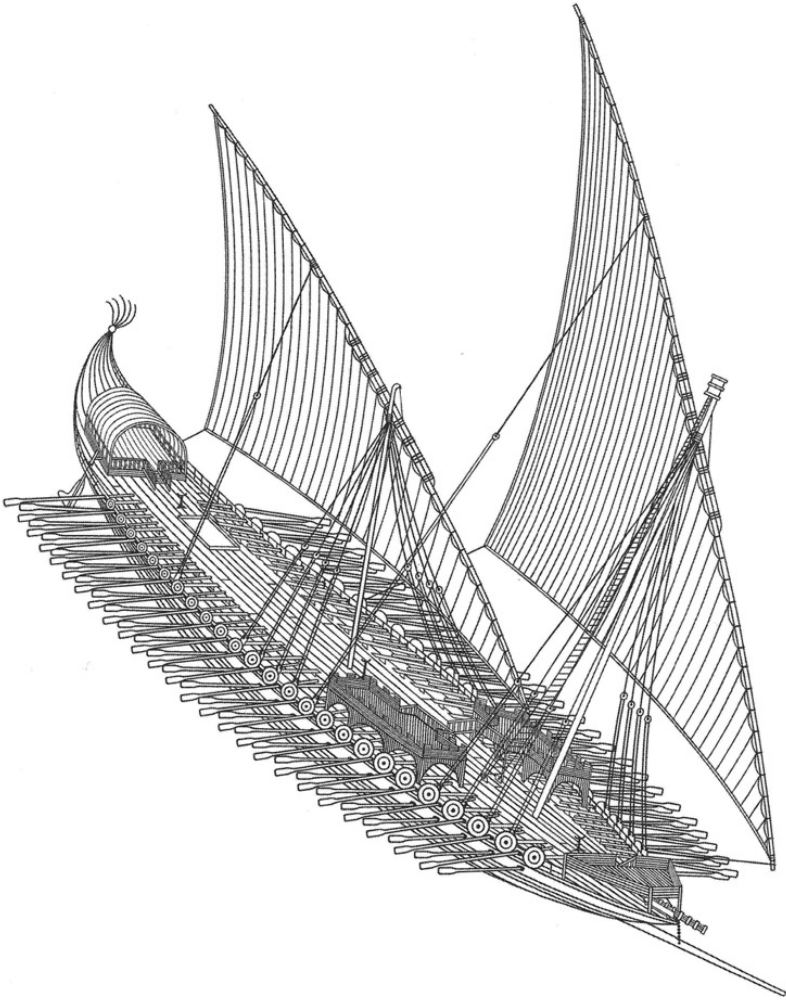


FIGURE 19. Reconstruction of a bireme *dromōn* of the tenth century. © 2006 John H. Pryor.

power delivery and the length of the pull by 20 percent. The *interscalmum* became around 1.20 m. Moreover, no longer did one bank row below deck in darkness and foul air. This oarage system spread rapidly in the West and was emulated by both Byzantines and Muslims, although, curiously, the word *galea* itself was adopted into neither Arabic nor Greek. From the end of the twelfth century, when the

word *dromōn* became disused in Byzantine sources, the new Greek word for a war galley became *κάτεργον*/*katergon*. The oarage system was depicted clearly in the early thirteenth-century manuscript of the *Carmen ad Honorem Augusti* of Peter of Eboli.

The increase in the length of the pull for stand-and-sit oarsmen and the two additional benches increased the overall length of Angevin *galee* to around 39.5 m, their beam amidships at the deck being around 4.6 m, depth in hold 2.04 m, and deadweight tonnage estimated at 40 tonnes. The oarsmen pulled single-man oars of 8.68 m in length; the outboard oar against a tholepin set in the *apostis* and the inboard oar through an oarport cut through the *telaro*. They still had two stern quarter rudders and two masts with lateen sails, the foremasts being almost 16 m high with yards nearly 27 m and the midships masts being 11 m high with

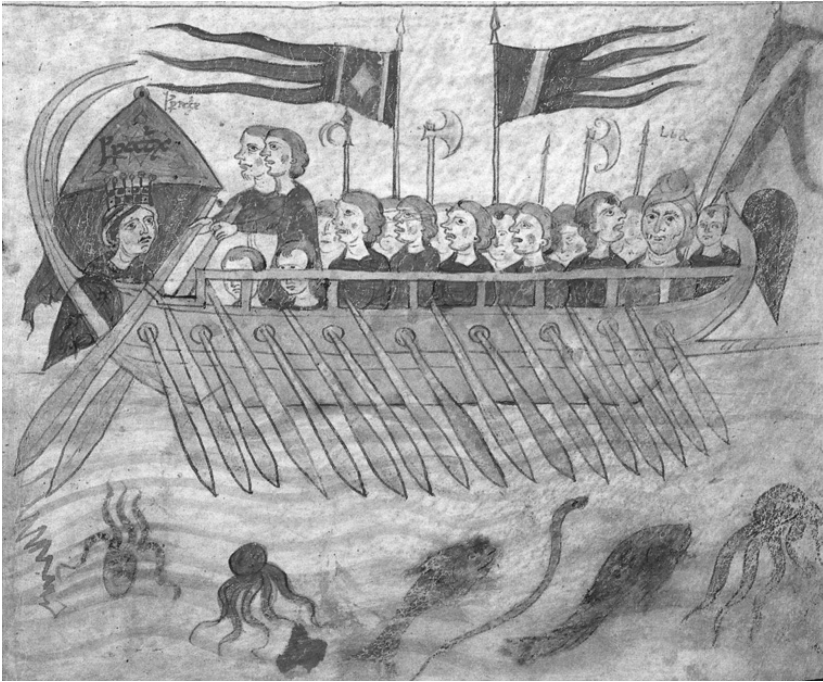


FIGURE 20. Bireme *galea*, from Petrus de Ebulo, *Liber ad Honorem Augusti Sive de Rebus Siculis*. Burgerbibliothek Bern, Cod. 120, f. 119r. Photograph: Codices Electronici AG, www.e-codices.ch.

yards of 20.5 m. Officers, marines, ships' boys, and others brought their total crews to around 150.²⁴

These bireme *galee* remained the warships par excellence in the Mediterranean from the late eleventh until the late thirteenth century, when triremes replaced them. Marino Sanudo Torsello wrote, "It should be known that in the year of the Lord 1290, two oarsmen used to row on a bench on almost all galleys which sailed the sea. Later more perceptive men realized that three oarsmen could row on each of the aforesaid [benches]. Almost everyone uses this nowadays."²⁵ Here Sanudo referred to the trireme *alla sensile* oarage system that replaced the bireme one of the twelfth and thirteenth centuries because he clearly stated that three oarsmen shared the same bench.²⁶ The stand-and-sit stroke was still used but the oars had different lengths and gearings. It was this that made it possible for three oarsmen to share the same bench, all rowing from holes set in the *apostis* and none through oar ports in the fabric of the *telaro*. The *alla sensile* oarage system remained the norm for all Mediterranean galleys until the sixteenth century, when it was superseded by the *a scaloccio* system in which multiple oarsmen pulled on a single oar.

At various times the most important Muslim naval powers in the Mediterranean were the Umayyad and then 'Abbāsid caliphs, the Umayyads of Spain (756–1031), the Aghlabids of Tunisia (800–909), the Ṭūlunids of Egypt (868–905), the Fāṭimids of Tunisia and then Egypt (909–1171), the Zīrids of Tunisia, the Almoravids of Spain and the Maghreb (1056–1147), and their successors the Almohads (1130–1269). All of these at times had important fleets.²⁷ In the fourteenth and fifteenth centuries, the Turkish *ghāzī* amirs of western Asia Minor and their successors, the Ottomans or Osmanlıs, both established naval forces of very considerable importance. The state of research

24 Pryor, "Galleys of Charles I of Anjou," pp. 81–3 and Table 3; Pryor, "From *Dromōn* to *Galea*," pp. 110–11.

25 Marino Sanudo Torsello, *Liber Secretorum Fidelium Crucis*, II.iv.5 (p. 57): "Sciendum quod in M.CCXC. anno Domini, quasi in omnibus galeis quae transfretabant per mare, duo in banco remiges remigabant: postmodum perspicaciores homines, cognoverunt quod tres possent remigare remiges super quolibet praedictorum, quasi omnes ad praesens hoc utuntur."

26 Ulrich Alertz, "The Naval Architecture and Oar Systems of Medieval and Later Galleys," in Morrison (ed.), *Age of the Galley*, pp. 142–60; Anderson, *Oared Fighting Ships*, pp. 52–60; Mauro Bondioli et al., "Oar Mechanics and Oar Power in Medieval and Later Galleys," in Morrison (ed.), *Age of the Galley*, ch. 12 (esp. pp. 172–89); Graziano Arici et al., *La galea ritrovata: origine delle cose di Venezia* (Venice, Consorzio Venezia Nuova, 2002–3); Enrico Scandurra, "The Maritime Republics: Medieval and Renaissance Ships in Italy," in Bass (ed.), *History of Seafaring*, ch. 9 (esp. pp. 205–13).

27 To the end of the twelfth century, see most conveniently Pryor and Jeffreys, *Age of the APOMON*, pp. 24–98.



FIGURE 21. Venetian trireme light galley *alla sensile*. Detail from Vittore Carpaccio's *The Return of the Ambassadors*. Hulton Fine Art Collection. Leemage/UIG via Getty Images.

on Muslim naval activity is, however, patchy and limited and for convenience we limit ourselves here to Fāṭimid Egypt and the Turks. The terminology found in the sources for Fāṭimid Egypt includes most terms also found elsewhere for the earlier period. For the most part, very little is known about early medieval Muslim warships beyond the names.²⁸

28 For source references see John H. Pryor, "A View from a Masthead: The First Crusade from the Sea," *Crusades* 7 (2008), 122–4, 132–4. See also Aly Mohammed Fahmy, *Muslim Naval Organization in the Eastern Mediterranean from the Seventh to the Tenth Century A.D.*, 2nd ed. (Cairo, National Publication and Printing House, 1966), esp. pp. 115–37.

The most common Arabic terms for galleys in the Fāṭimid period were *shawānī*, *aghriba* (sing. *ghūrab*), and *musattahāt*, but details of standard sizes and construction are almost entirely unknown. Abū Shāma wrote that each of 200 Sicilian *shawānī* of a fleet that attacked Alexandria in 1174 carried 150 men, corroborating Western evidence for the size of crews of bireme *galee* being around 150. Ibn al-Mammātī, who was in charge of the Office of the Army under Ṣalāḥ al-Dīn (Saladin), wrote that *shawānī* were the same as *aghriba* and that they had 140 oarsmen as well as marines. *Ghurāb* may have come from the Greek κάραβος, although the Greek term is in fact first attested in Muslim Egypt. Finally, *musattahāt* may have been larger than standard *shawānī*. The Fāṭimids also had specialized galleys known as *ḥarārīq* (sing. *ḥarrāqa*) for hurling incendiaries, said by Ibn al-Mammātī to be smaller than *shawānī* and to have around a hundred oars.

Ibn al-Mammātī also reported other vessels including *shalandiyyāt*, said to be “roofed” or decked, on which warriors fought while oarsmen rowed below, *a’zārī*, ancillary ships following the fleet with provisions, and, extremely interestingly, *marākīsh* (sing. *markūsh*), light ships of shallow draft for carrying water. This is the only report known in medieval literature of using water “tankers” to address the problem of supplying galleys with water. But large sailing ships, to which the galleys could tie up, would be expected rather than light ships of shallow draft.

Qīṭ’a (pl. *aqtā’*) may have had a more specific meaning than a generic for “vessel” or “unit” in some cases and may have given rise to Albert of Aachen’s word *cazh* or *cattus*, which he used for Fāṭimid war galleys that he said were castellated and were “*triremes*” – that is, having three files of oars per side. Whether any Mediterranean galleys actually had three files of oars before the late thirteenth century is highly improbable, however, and Albert was probably just using an approved classical Latin word. Nevertheless, the word was also used in other late eleventh- and twelfth-century Latin sources as *cat(t)us*/*gat(t)us* and variants. Whether it actually meant a galley larger than the norm in the West is unclear, but the Fāṭimids may certainly have had galleys larger than the norm and referred to as *aqtā’*.

The oarage system of Fāṭimid galleys is unknown, but they are unlikely to have had the new system of Western *galee* and probably had banks of oars above and below deck in the traditional configuration of Byzantine *dromōns*. Ibn al-Mammātī’s statement that *shalandiyyāt* had marines fighting above deck while oarsmen rowed below suggests that some Egyptian galleys had superimposed oar banks as late as the reign of Ṣalāḥ al-Dīn. Of the only three depictions of galleys known with a possible provenance in twelfth- or

thirteenth-century Egypt, two, and possibly all three, show oars rowed from below deck. That being said, nothing suggests that Fāṭimid war galleys were technologically inferior to Western or Byzantine ones of the traditional type of the *dromōn*, although they were almost certainly inferior to the new *galee* in terms of range and endurance. Even if so, they were still capable of engaging Western naval forces in battle, as the historical record shows.

When the Turks took to the sea in the Aegean from the fourteenth century, they adopted the late Byzantine term for a war galley, *katargon*, into Turkish as *kadırga*.²⁹ They also had smaller galleys known as *kaliyota*, a Turkicization of the Italian *galiotta*, and larger galleys known as *bastardas*. Turkish galleys were reputed to be somewhat smaller and lower in the water than Christian ones, faster under sail but slower under oars.

Byzantines had inherited the ability to transport horses by sea from antiquity. Theophanes the Confessor reported that in the eighth century transport galleys known as *chelandia* could carry twelve horses each. By the early ninth century at the latest they had ports at the stern and ramps by which cavalry could be landed directly onto beaches.³⁰ In 821 the rebel Thomas the Slav assembled horse transports and other ships at Mitylene before advancing on Abydos. John Skylitzes repeated the same text almost verbatim and at folio 31 verso of the Madrid manuscript of his *Synopsis historiōn* an artist working in a Byzantine style drew a galley carrying horses.³¹ The picture was copied from a Byzantine original and is indirectly the only known illustration of a Byzantine horse transport. The artist depicted the horses' heads above the gunwale in order to show them, thus suggesting an open boat, but not necessarily revealing by that anything more than artistic license.

Horse transport *chelandia* must have been beamier and deeper in hold than battle *dromōns*: around 4.85 m in beam at the deck amidships and around 1.95 m deep in hold with floors of around 1.20 m. That agrees with known dimensions of Angevin battle *galee* and horse-transport *taride*; the latter were beamier and deeper in hold than *galee*.³² Byzantines must have shipped horses on sailing ships also, but no known source refers to them doing so.

29 John H. Pryor, *Geography, Technology, and War: Studies in the Maritime History of the Mediterranean, 649–1571* (Cambridge, Cambridge University Press, 1988), pp. 67–8 and ch. 7 (pp. 165–92) and references therein.

30 Pryor and Jeffreys, *Age of the ΔΡΟΜΩΝ*, esp. pp. 16–17, 304–33.

31 John Skylitzes, *Ἰωάννου Σκυλιτζῆ Σύνοψις ἱστοριῶν*, fol. 31v.

32 Pryor, "From *Dromōn* to *Galea*," Table 7/2 (p. 115).

Muslims emulated Byzantine *chelandia* as *shalandiyyāt* for horse transports quite early.³³ Al-Ṭabarī reported under the year 238 AH (852–3 CE) that a Byzantine fleet of a hundred *marāqib* of the *shalandiyya* type, each carrying between fifty and a hundred men, attacked Damietta. Ibn Ḥawqal used the word in the same sense and al-Maqrīzī wrote that the Fāṭimid al-Muʿizz had *shalandiyyāt* constructed to use against the Byzantines. Muslims also had their own Arabic words for horse transports, *ṭarīda* (pl. *ṭarāʿid*) and *ʿushārī* (pl. *ʿushāriyyāt*), both of which passed into Latin and Western vernaculars as *tariida* and *uscerius* and variants, and Ibn al-Mammāṭī wrote that *ṭarāʿid* could carry up to forty horses. The Turks also developed the capability to transport horses by sea.

Horses transported by sea need food, water, and air.³⁴ Food was not a significant problem. Medieval Western evidence suggests around 1.5–2 kg of barley and 3–4 liters of hay per horse per day and water rations of 21–28 liters per horse per day on large sailing ships. On small galleys horses would need more than this because the holds would have been hotter. Around 35 liters per day is probable.

Horses suffer badly from cramped conditions and poor ventilation. Most illnesses aboard ship were caused by hot weather, immobility, overcrowding, and inadequate ventilation. Lack of adequate oxygen will cause horses to go blue and they may die of suffocation. Each horse would need 425 m³ (15,000 ft³), of fresh air per hour to keep critical inorganic impurities in the air in an enclosed space at 0.02 percent. In the open boats of the North, transporting horses by sea was no problem, at least in this respect. But below deck in the holds of Mediterranean ships it was another story.

Even at the height of Byzantine naval expeditions in the ninth and tenth centuries, they could transport large numbers of horses for short distances only. For the ninth- and tenth-century expeditions against Muslim Crete, cavalry went overland to *aplēkta*, staging areas, on the southwest coast of Asia Minor and only there embarked for the short crossing to Crete. Up to the eleventh century, Western maritime powers also could ship horses for short distances only. Crusaders crossed the Adriatic with their horses without problem, but no attempt was made to take them to Constantinople by sea. That was beyond the technological capabilities of the time. Water requirements and the problem of providing sufficient air lay behind this lack of long-distance capability.

33 Pryor, "A View from a Masthead," p. 140; and Pryor and Jeffreys, *Age of the ΔPOMΩN*, pp. 117, 169, 190, 308 and the references therein.

34 Pryor and Jeffreys, *Age of the ΔPOMΩN*, pp. 304–33.

During the twelfth century, however, a maritime revolution took place. Western powers developed the capability to transport large numbers of horses by sea for long distances. In 1123 the Venetians sent a new fleet to the Holy Land carrying 300 horses, which as far as is known was the first attempt by a Western power to transport horses by sea across the length of the Mediterranean. In 1174, the Sicilians sent a fleet against Alexandria that the *qāḍi* al-Fāḍil numbered at thirty-six horse-transport *taride*, 200 galleys, forty transports, and six ships carrying siege equipment. After Ḥaṭṭīn, William II of Sicily sent his admiral Margaritus of Brindisi, most probably with fifty or sixty galleys and 500 knights, to the Levant in the spring of 1188. The way in which Margaritus operated makes it clear that the knights and their horses were carried on oared horse transports, not sailing ships. For the Third Crusade Philip II of France contracted with Genoa to transport 650 knights, 1,300 squires, and 1,300 horses. The type and number of ships was, unfortunately, not specified. But no sources mention him arriving with galleys, so they were probably large sailing ships. Philip's fleet reached Acre from Messina in twenty-one days, from March 30 to April 20. The size of Richard the Lionheart's fleet is reported very variedly but it probably numbered when it sailed from Messina around 100–150 sailing ships, around twenty-five very large sailing ships, and forty to fifty galleys. It was also carrying an unknown number of horses. It reached Limassol from Messina in around nineteen to twenty days, from April 10 to May 6, but a week was spent on Rhodes when Richard took ill. By 1201 Enrico Dandolo could commit Venice to transport 4,500 horses by sea to Egypt for the Fourth Crusade. Even if the Doge stretched Venetian resources to the limits, it is nevertheless clear that there had been a major revolution in transporting horses by sea between 1096 and 1204. Maritime powers could not transport horses by sea for long distances at the time of the First Crusade but developed the ability to do so for large numbers during the twelfth century, both on galleys and on sailing ships. The parameters of this revolution, however, are unknown. There must have been advances in the technology but what they were are unknown.³⁵

In the Mediterranean the disappearance of the waterline ram of classical antiquity and its replacement by both Greek Fire and the spur of *dromōns* led to a sea change in maritime warfare. The various tactical maneuvers

35 John H. Pryor, "A Medieval Mediterranean Maritime Revolution: Crusading by Sea ca 1096–1204," in *Tradition and Transition: Maritime Studies in the Wake of the Byzantine Shipwreck at Yassi Ada, Turkey* (College Station, Texas A&M University Press, 2015), pp. 174–88.

described by historians such as Thucydides and Polybios disappeared. In their place battle tactics evolved that would remain the standard until the last days of galley warfare in the Mediterranean in the sixteenth century. Fleets were drawn up in line abreast in a crescent moon formation and came in to engage by the bows. Larger fleets with a longer line might attempt to use their extra ships to envelop the flanks of the enemy line and attack the vulnerable beams of ships exposed at the end of the line. The spurs could smash up the oars of an enemy galley and render it powerless. Hostilities opened with exchanges of missiles, including arrows, crossbow bolts, javelins, bow-ballistae, incendiaries in pots thrown by hand or by catapult, and, from the fifteenth century, artillery. When this phase was ended the ships engaged by the prow and crews attempted to board and to overthrow the enemy in hand-to-hand combat. In some circumstances Greek Fire fired from the *siphōns* could prove decisive but the use of the weapon required the right conditions: calm seas and following winds. Unlike with the waterline ram of antiquity, no set of battle maneuvers ever evolved around the Greek Fire weapon.³⁶



FIGURE 22. The fleet of Thomas the Slav destroyed by Greek Fire. From the Madrid Skylitzes manuscript, collection of the Biblioteca Nacional, Madrid. Hulton Archive/ Stringer via Getty Images.

³⁶ Pryor and Jeffreys, *Age of the ΔΡΟΜΩΝ*, pp. 378–406.

In the North there was even less structure to naval warfare than there was in the Mediterranean. In fact, there were comparatively few actual battles such as that of Svolder; of those recorded in skaldic poetry, there were eleven between Hjørungavágr (ca 980) and 1098. In the Viking age, naval warfare consisted much more of raiding and harrying of coasts and shipping. But when fleets did clash in battle, they usually engaged in much the same way as in the South. The ships were roped together in a line and the lines came in to engage, hurling javelins and rocks and firing arrows at each other. Battles were won and lost in the hand-to-hand fighting with axes and swords that ensued after boarding. There was little or no tactical maneuvering, no attempt to use the action of ramming in itself to overturn enemy ships or break up their oars. The objective was to lay one's ship alongside an enemy ship and to board it. Svolder was lost when jarl Eiríkr Hákonarson attacked Olaf Trygvasson's line from abeam and fought his way from ship to ship down the line towards the king's flagship.

From the early thirteenth century, when we begin to have accounts of engagements at sea between the English and the French and Castilians, such engagements appear to have been entirely between sailing ships. There appears to have been no developed system of tactics. No doubt fleets attempted to gain the wind gauge and then to run down on the enemy with the wind astern and to grapple and board. Although some forms of guns or cannons made an appearance as early as the 1330s, there is nothing to suggest that they were of any importance much before the sixteenth century, except perhaps for repelling boarders. Ships carried bows, bills, and hand weapons such as swords, weapons with which the boarding actions that decided battles were fought. Most battles of the Hundred Years War were either attacks on fleets at rest by an enemy coming in with the wind and sun behind them, such as Sluys in 1340, or running fights between convoys and their attackers, such as L'Espagnols-sur-mer in 1350.

Both in the Mediterranean and also in the North, the technologies of naval warfare remained constrained throughout the entire Middle Ages by the limitations of shipbuilding in wood and the lack of any "ship-killing" weapon. In the Mediterranean, galleys remained limited to no more than around 40 m throughout, almost certainly because problems of hogging and sagging became insurmountable if their length was increased beyond that. Long, narrow vessels built with a plastic material such as wood inevitably encountered problems of structural integrity. The longitudinal stringers of the decks of Mediterranean galleys worked in combination with the keel and stem- and stern-posts to create a sort of truss that created longitudinal rigidity, but this

had its limitations. Consequently, ships of war of all powers were much the same. In the North the *langskip* of the Vikings did not have decks and their longitudinal integrity was created by their clinker construction, but that also had its limitations. Probably because changes in hull construction made it ineffective, in the Mediterranean the waterline ram of antiquity disappeared during the Roman Empire. Its successors, the spur and Greek Fire, never had the ability to sink ships in the same way, as is made clear by the failure to develop any new system of tactics for their use. Battles remained determined by missile exchanges followed by grappling and boarding; and the same was true in the North. This had to remain the norm until a new ship-killing weapon was developed from the later sixteenth century: the cannon.

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The reconquest and the Spanish monarchies

A note on historiography. The study of medieval military history in general and Iberian military history in particular has increased greatly in the last half-century. As should be obvious from the notes to this chapter, American and European scholars, such as Antonio Ballesteros y Beretta, Francisco García Fitz, Julio González, Manuel González Jiménez, Hilda Grassotti, Miguel Ángel Ladero Quesada, Angus MacKay, Lawrence J. McCrank, Miguel Ángel Manzano Rodríguez, Joseph F. O'Callaghan, James Powers, Manuel Rojas Gabriel, Manuel Sánchez Martínez, Antonio Torremocha Silva, Juan Torres Fontes, and many others, have produced a great amount of work on Iberian military affairs during the Middle Ages. Scholarly publications, such as *Al-Qantir*, *Aljaranda*, *Ejército*, *The Journal of Military History (Military Affairs)*, *The Journal of Medieval Military History*, and *Revista de Historia Militar* among many others, have provided opportunities for the dissemination of such works. Many of these articles are now available on line through websites such as *Dialnet* (dialnet.unirioja.es) and *Revistes Catalanes amb Accés Obert (RACO)* [www.raco.cat].

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Index

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 Abagha, Mongol Ilkhan, 301, 304, 316
 Abaoji, Khitan leader, 327
 'Abbāsīd caliphate, 6, 7, 10, 18, 24, 31, 39, 41–9,
 112, 186, 674
 Abbo of St. Germain-des-Près, 83
 'Abd Allāh al-Ma'mūn, 'Abbāsīd caliph,
 45–7, 178
 'Abd Allāh ibn al-Zubayr, 32, 40
 'Abd al-Malik ibn Marwān, Umayyad caliph,
 39–41, 49
 'Abd al-Rahmān ibn Mu'āwiya, 410
 Abe Yoritoki, 234
Abnā', 43–5, 46
 Abū Bakr, 30
 Abū Ishāq al-Mu'taṣim, 'Abbāsīd caliph, 37,
 46, 47, 48, 178
 Abū'l-Hasan 'Alī, ruler of Granada, 427
 Abū Muslim al-Khurāsānī, 'Abbāsīd
 general, 42–3
 Abū Sa'īd, Mongol Ilkhan, 304
 Abū Shāma, 676
 Abū 'Ubayda ibn al-Jarrāḥ, 32
 Abū Yūsuf, Marinid sultan, 424
 Achaia, 430, 432
 Acre, siege of, 269, 276, 281, 283, 287, 294–6
 Adachi Yasumori, 532
 Adam of Bremen, 102, 142
adiutorium (a system of "assistance"), 74
 Adrianople
 battle of, 431
 Ottoman conquest of, 435, 451
 Aesir (Norse gods and goddesses), 623
 Æthelbald, Mercian king, 64
 Æthelwulf, West Saxon king, 75
 Afghanistan, 470, 485
 Mongol attacks on, 298, 304, 317, 320
 Afonso I Henriques, king of Portugal, 412,
 422, 423
 Aghlabids, 674
 Agincourt, battle of, 350, 352, 382
 Aḥmad Shah II, Bahmani sultan, 498
 Ajnadayn, battle of, 32
 Aki Tokason of Fyn, 102
akıncı (Ottoman raiding army), 456, 460–2
 'Alā' al-Dīn Khaljī, Delhi sultan, 485, 494
 Alans, 131, 299, 315, 442, 445
 Alarcos, battle of, 419
 Albania, Ottoman conquest of, 468
 Albert the Great, 661
 Alberti, Leon Battista, 406
 Albigensian Crusade, 8, 421, 629
 Alborno, Gil, 391
 Albuquerque, Alfonso de, 505
 Alcuin, 83
 Aleksandr Nevskii, prince of Novgorod, 306
 Alexios I Komnenos, Byzantine emperor, 109,
 118, 122, 130–2, 272, 275, 278–9, 282, 284,
 437–8, 440, 446
 Alexios III Angelos, Byzantine emperor, 431
 Alfonso I, king of Aragon, 417, 420
 Alfonso II, king of Aragon, 421
 Alfonso IV, king of Portugal, 426
 Alfonso V, king of Aragon (and later of
 Naples), 402, 405
 Alfonso VI, king of León and Castile, 418, 422
 Alfonso VII, king of Castile, 419, 421, 422
 Alfonso VIII, king of Castile, 419
 Alfonso IX, king of León, 419
 Alfonso X, king of Castile, 384, 420, 422, 424
 Alfonso XI, king of Castile, 426
 Alfred the Great, 76–7, 78, 93, 96–7
 burghal system, 652
 ship building, 665
 Algirdas, Grand Duke of Lithuania, 307
 Alhama de Granada, 427
 Alhambra palace, 428
 Alighieri, Dante, 391

- Aljubarrota, battle of, 356
almogaveres (Christian frontier fighters), 414
 Almohads, 410, 419, 423–4, 674
 Almoravids, 410, 418, 420, 674
 Alp Arslan, Seljuq sultan, 112
 Amidamine castle, 547
 Amīr Khusrāu, 493
 amphibious warfare, 261
 An Lushan, Tang general, 178, 186–8, 189,
 190–1, 192, 194, 201, 205–6, 209–10,
 218, 324
 Anadolu Hisarı (Anatolian castle), 452, 454
 Anatolia. *See also* Asia Minor
 Ottoman conquest of, 469
 Tamerlane's conquest of, 310, 452–3
 Anatolian light infantry, 131
 Ancestral Pueblo, 598, 603–7, 610
Ancient South-East Asian Warfare (Wales,
 1952), 1
 Andrei II of Vladimir, 306
 Andrei III Aleksandrovich, Russian prince, 306
 Andrew II, Hungarian king, 270
 Andronikos II Palaiologos, Byzantine
 emperor, 432–4, 441, 444
 Andronikos III Palaiologos, Byzantine
 emperor, 306, 433, 444
 Angevin rulers, 392, 393
 Angkor, 507, 508
 Anglian Tower (Tower 19, York), 645
Anglo-Saxon Chronicle, 91, 93, 665–6
 Anglo-Saxons
 cadastral system of military service, 75, 77
 fortifications, 652
 maritime technology, 662–3, 665
 mercenaries in the Byzantine army, 131
 patterns of warfare, 67
 political impact of Viking invasions, 97
 responses to Viking raids, 95, 96, 97
 weaponry, 648
 Ankara, battle of, 310, 436
 Anna Komnena, Byzantine princess, 282,
 649, 656
 Anna of Savoy, Byzantine empress
 consort, 451
Annals of St Bertin, 92
Annals of Ulster, 91, 95
 Anshicheng, siege of, 208, 209
 Antalya, siege of, 467
Antiche Berner Chronik (Schilling), 369
 Antioch, 278–9, 290, 294
 battle of, 441
 expansion of, 288–9
 siege of, 272, 275, 281, 282–3
 Antoku, Japanese emperor, 235, 236
 Anzen, battle of, 158, 167
 Apollinaris, Sidonius, 644
 Apros, battle of, 445
 Aq Qoyunlu (“White Sheep”) Türkmen
 confederation, 469
 Aquitaine, 51, 58, 94
 eighth-century campaigns, 68
 Viking attacks on, 88
 Arabia, pre-Islamic,
 patterns of violence, 22
 threats from the Byzantines and
 Sasanids, 23–4
 tribal system, 21
 Arabian/ Islamic campaigns, 17–20, 30–9
 amṣār (garrison towns), 38
 dīwān system, 37
 military service system, 36–8
 results of, 35–6
 Ridda wars, 30, 32
 Arabs, 18, 158, 172, 178
 conflict with the Tang, 186
 in Mongol armies, 9
 wars with the Byzantines, 126, 627
 Aragon, 411, 420–2
 archaeological evidence
 Arab/ Islamic campaigns, 31
 battle injuries, 367–8
 boundary of the Uighur empire, 170
 early medieval Indian fortifications, 482
 expansion of the Delhi sultanate, 501
 Great Moravian armies, 144
 Inca fortifications, 595
 Maya militarism, 560
 Mesoamerican fortifications, 562
 Mesoamerican/ American transport
 network architecture, 565
 military service in Anglo-Saxon
 England, 60
 Mississippian warfare, 599–600
 North American cultures, 554
 patterns in Ancestral Pueblo
 communities, 604
 personal defense items, 641
 Romans in Scandinavia, 85–6
 Scandinavian boathouses, 104
 shields, 646
 ships, 55, 90, 662–5
 Slavonic forts, 141
 Turkish armor, 158, 162
 war and violence in the American
 Southwest, 602
 weaponry, 54, 640, 643–4

- archaeological evidence (cont.)
 Ancestral Pueblo, 605
 Japanese, 546
 seventh-century European, 65
 Turkish, 154, 156–7
 Viking, 648
- archers/archery. *See also* horse archers;
 longbowmen
 armies of the Delhi sultanate, 491, 495
 armor, 538, 660
 battle of Bourghéroulde, 249
 contests, 382, 526
 crusader armies, 270
 damp climates and, 138
 English armies, 372, 373–4, 379
 English at Crécy, 350
 English mercenary, 377–8
francs, 375–7
 Hindu, 497–8
 injuries caused by, 367
 Japanese, 216, 529
 Mongol, 314, 318
 mounted on elephants, 479, 514
 native American, 602
 naval warfare, 357
 Ottoman, 466–7, 468
 protection of, 368
 ratio of in English armies, 360, 366
 Scottish, 379
 Tang, 196
 training, 163, 369, 383, 487–8, 520
 Western European, 255
- Arghun, Mongol Ilkhan, 304, 316
- Arigh Böke, 301
- arimanni*, 61–2
- Armagnac–Burgundian civil war, 353, 374
- armet* (bascinet helmet), 660
- Armies of the Caliphs, The: Military and Society in the Early Islamic State* (Kennedy, 2001), 4
- Armillas, Pedro, 561
- armor, 55
 Avar, 158
 Aztec, 576–7, 579
 Byzantine, 445
 Carolingian, 646, 649
 cloth-covered, 659–60
 Delhi sultanate, 490
 early medieval Indian, 479–80
 European, 1000–1300, 253–6
 French, 376
 horse. *See* horse armor
 Japanese, 223, 225–6, 538–9, 551
 knights, 253–5, 649, 654–5
 Mongol, 313
 plate, 367, 658–9
 prehistoric, 640
 Roman *lorica*, 641, 642
 Slavonic, 147
 Southeast Asian, 521
 Tang, 204–5
 Turkish, 158–60
 Uighur, 159
 Vijayanagara, 499–500
- Arnulf, king of East Francia, 76
- Arpa Ke'ün khan, 303
- arquebuses, 380, 447, 467, 468
- Arques, battle of, 656
- 'arrāda* (torsion catapults), 493
- arrows/arrowheads
 enhanced with gunpowder, 335
 fire, 340, 503, 545, 546–7
 Japanese, 227, 529, 537
 Mesoamerican, 575
 Mongol, 313
 poison, 139
 Turkish, 156, 157
 wounds caused by, 367, 549–50
- Arsuf, battle of, 269, 277, 293
- Artha Śāstra*, 476, 630, 635
- artillery. *See also* ballistae; cannon; catapults;
 gunpowder; mangonels; trebuchets
 Japanese, 216
 Ottoman, 467, 468
 revolution, 350, 387
 Roman, 644–5
 traction, 258
- Arundel, earl of, 373
- Ascalon, battle of, 276, 283, 286
- ashigaru* (Japanese skirmishers), 545
- Ashikaga Takauji, Japanese general, 524, 535, 536, 537, 540, 541
- Ashikaga Yoshimasa, Japanese shōgun, 543
- Ashikaga Yoshitane, Japanese shōgun, 548
- Ashikaga Yoshiteru, Japanese shōgun, 551
- Ashikaga Yoshizume, Japanese shōgun, 548
- Ashinas, 152, 179
- Ashinas Helu, Shaboluo qaghan, 184
- Ashinas She'er, Turkish prince, 177
- Asia Minor, 112, 114, 124–5, 130, 131–2, *See also*
 Anatolia
- Äskekär ship, 663
- Asoka, Mauryan emperor, 625
- al-Ashraf-Khalil, Mamlūk sultan, 295
- Asturias, 80
- Atawallpa, Inca emperor, 592

- Athlit castle, 292, 295
 Atlantic naval operations, 575–6
atlatl (Mesoamerican weapon or dart thrower), 575–6, 590
 Atlixco, battle of, 581–2
 Attila, ruler of the Huns, 133, 137–8
 Aubigny, William d', 251
 Augustine of Hippo, 631, 633
 Aurelian, Roman emperor, 642
 Ava, 508, 519
 Avars, 12, 110, 133–8, 141, 149, 154
 armor, 159
 catapults, 642
 use of petroboles (rock throwers), 645
 Axayacatl, Aztec emperor, 586
 axes. *See* battle axes; throwing axes
 Ayachi, son of Qubilai khan, 309
 Ayala, Felipe Guaman Poma de, 594
 Ayaz, Ahmad bin, 495
 'Ayn Jālūt, battle of, 12, 294, 300
 Ayudhya, 508
 Ayyubids, 279, 293–4, 429
azabs (Ottoman infantry), 456–7, 458
 Azcapotzalco, battle of, 583–4
 Aztecs, 558, 559, 577, 623
 armor and battledress, 576–7, 579
 battles, 582–7
 captive taking, 567
 development of the military, 585
 fortifications, 561–3
 human trophies, 610
 land allotment system, 584–5
 military organization and command structure, 577–80
 military tactics, 580–2
 transport networks, 565–6
 weaponry, 580–1
 Xochiyayotl ("Flowery Wars"), 568, 581
Azuma kagami, 526, 528

 Bacon, Roger, 661
 Badr, battle of, 25, 29
 Baghdad, siege of, 179
 Bahmani sultanate, 496–8, 500
 Baidar, Mongol general, 301
 Baiju, Mongol commander, 300
 Baldwin I, king of Jerusalem (Baldwin of Edessa), 105, 287, 289–90
 Baldwin II, king of Jerusalem, 278, 289–90
 ballistae, 122, 217, 644–5, 680
 Mongol, 319
 Baltic Crusades, 105
 Bannockburn, battle of, 350, 371, 378

 Bansala fort, siege of, 483
 Banū Thaqīf, 30
 Bapheus, battle of, 433
 Baranī, 485, 493
 Baraq, Chaghatayid khan, 303
 Barbastro, attack on, 417
 Barbosa, Duarte, 498
barbuta (bascinet helmet), 660
barche (rowboats), 401
 Barua, Pradeep, 3
 Basil II, Byzantine emperor, 100, 109, 110, 111, 115, 128–30, 143
 battle axes, 147, 157, 159
 Anglo-Saxon, 648
 bipointed, 605
 early medieval Indian, 479
 of the nomadic tribes, 135
 stone, 589
 Viking, 648
 battle hammers, 135, 367
 "Battle of Maldon, The" (Anglo-Saxon poem), 93
 battle tactics
 Atztec, 580–2
 Byzantine, 447
 Delhi sultanate, 488, 491
 early medieval Indian, 480–3
 English, 358–61
 fighting march of the crusaders, 292–3
 Italian, 399, 401–2
 Japanese, 229–35, 238–9, 524, 537–8
 Mongol, 317–19
 nomadic tribes, 135–6
 Ottoman, 468
 Turkish, 164–8, 284–7
 encirclement, 165
 pitched battle, 166–7
 Western European
 600–800, 55
 1300–1500, 368–70
 early medieval, 71–2
 battledress. *See also* armor
 Aztec, 576–7, 579
 Byzantine, 445
 English, mid thirteenth century, 255
 Irish, 379
 Batu khan, 138, 299–300, 307, 317
 Bavarian Geographer, 141
 Baybars, Mamlūk sultan, 301, 315
 Bayeux Tapestry, 253, 648, 649, 666
 Bayezid I, Ottoman sultan, 310, 315, 436, 446, 449, 452–3, 454, 461, 467
 Bedreddin (Muslim mystic), 453

- Beg, İsa, 461
 Béla, Hungarian king, 300
 Belgrade, 468
 Ottoman campaign against, 462
 siege of, 467
 Bellême, Robert de, 258
 Belvoir fortress, 258, 291
 Benedict XII, pope, 426
beneficium, 57–8
 Benevento, battle of, 271
Beowulf, 87
 Berbers, 409–10
 Berdibek khan, 307
 Berke, Golden Horde ruler, 303, 304, 315
 Berkeley, Sir Thomas, 384
 Bernard of Clairvaux, 264
 Bernard of Septimania, 73
bharigild, 75
 Bilgä, Turkic leader, 152
 bills, 367, 656, 681
 Björn, Viking leader, 98
 Black Death, 9, 391, 450
 Black Prince, 356, 360
 Blore Heath, battle of, 385
 Blue Waters, battle of the, 307
 Boccaccio, Giovanni, 393
 Bohemond I of Antioch, 258, 268, 275, 278, 285, 288
 Bohemond II of Antioch, 289
 Bohemond VI of Antioch, 294
 bola stones, 580–1
 Bolesław Chrobry, Polish duke, 145
 bombs, 335, 339, 661
 Bongars, Jacques, 266
 Boniface of Montferrat, 430
Book of the Sword, The (Burton, 1994), 572
 booty, 69–71, 72, 145, 158, 171, 360, 456, 466, 628
 as a form of payment, 175
 Mongol distribution of, 312
 Borgia, Pier Liuigi, 405
 Boruma, Brian, 95
 Bosnia, 148
 manufacture of cannon, 446
 Ottoman conquest of, 460, 468
 sancak of, 461, 464
 Bosworth, battle of, 651
 Bourghéroulde, battle of, 249
 Bouvines, battle of, 271
 bows. *See also* longbows
 Ancestral Pueblo, 605
 Byzantine, 446
 compound, 149
 Delhi sultanate, 490
 early medieval Indian, 479
 Hunnic, 642, 643
 infantry, 656
 Japanese, 226–7, 529
 Mesoamerican, 574–5
 Mongol, 313
 Ottoman, 466–7
 recurved, 466
 reflex, 149, 466
 short, 379
 Turkish, 157–8, 163, 284
 Uighur, 159
bracceschi, 401–2
 Branković, Vuc, 436
breidæx (Viking broad axe), 648
 Brémule, battle of, 258–9
 Brétigny, Treaty of, 352
 Bretons, 136
 British empire, 7
 Brocquière, Bertrandon de la, 462
 Brønsted, Johannes, 88
 bubonic plague, 426
 Buddhism, 624, 625, 631
 spread of, 7
 Buddhist warrior monks, 625
 Bulgaria, Ottoman conquest of, 452
 Bulgarian forest (*Bulgarewalt*), 144
 Bulgarians, 134, 305, 431, 434, 441, 447–8, 463–4
 light infantry, 131
 Bulgars, 109, 111, 114–16, 127
 Bumin Qaghan, Turkic khagan, 152
 Burford, battle (752), 64
Burghal Hidage, 78
 Burgundians, 51, 107, 350, 353–6, 358–9, 362–3, 368, 374, 380, 388
 military system, 377–9
burhs, 76–7, 78, 80
 Burundai, Jochid prince, 304–5, 317
bushi. *See* samurai
buss (type of ship), 666–7
 Butuga, Ganga ruler, 481
 Byzantium/Byzantines, 6
 alliance with the Ottomans, 450
 attitudes to warfare, 112–13
 Avars' assaults on, 138
 battle tactics, 447
 campaigns, 444–5
 Christianity, 108, 627
 civil war era, 1321–57, 433–5
 culture, 107–8
 dominion over Antioch, 290
 era of, 107
 geopolitics, 109–12

- last century of, 435–7
 - military compensation, 12, 441–3
 - military strategies and tactics, 128–32
 - military systems, 123–8, 437–41, 447–8
 - Nicaean period, 430–2
 - Norse contact with, 98–100
 - offensive warfare, 114–18
 - provision of military resources, 118–23
 - raids by the Slavs, 140–1
 - reign of Andronikos II Palaiologos, 432–4
 - reign of Michael VIII Palaiologos, 432
 - relations with pre-Islamic Arabia, 23–4
 - relations with the Golden Horde, 305–6
 - reliance on mercenaries, 10
 - transportation of horses by sea, 677
 - use of catapults, 644
 - use of firearms, 467
 - warships, 670–3
 - weaponry and equipment, 445–7
 - withdrawal from North Africa, Egypt, and Syria, 17
- Caerphilly castle, 244
- Caffa, Ottoman campaign against, 462, 469
- Cajamarca, battle of, 594
- čakar*, 175, 178, 179
- Calais, siege of, 351
- Caldora, Jacopo, 402
- Calixtus III, pope, 405
- Campaldino, battle of, 399
- Cañada de Cuicatlán, 566
- cannibalism, 273, 602–3, 605–6
- cannon, 13, 342, 369, 395, 406
 - berços*, 503–4
 - Bosnian, 446
 - introduction and use of in India, 502–6
 - Malik-i Maidan, 503
 - Ottoman, 447, 467
 - Serbian, 446
 - used in Southeast Asia, 512
- Cap Colonne, battle of, 79
- captive taking, 566–9, 582, 608
- Carafa, Diomedes, 405
- Carcano, battle of, 271
- Carib, 555
- Carloman II, Frankish king, 96
- Carmen ad honorem Augusti* (Peter of Eboli), 673
- Carobert, Hungarian king, 305
- Carolingians, 78, 79–81, 88, 89
 - end to the expansion of, 72–5
 - military technology, 646–8
 - political impact of Viking invasions, 97
 - regulation and management of horses, 648
 - responses to Viking raids, 95
 - rise of, 56–9
- carracks, 13, 670
 - Genoese, 358
 - Ottoman *barzotti*, 463
- Casimir III, Polish king, 305
- Castagnaro, battle of, 396, 397
- Castile, 411, 425–8
- Castile-León, 418–20
- Castilians, 356, 358, 418
- Castillo, Bernal Diaz del, 572
- castles, 11, 81, 243–4, 467
 - design of defenses, 257–8
 - Holy Land, 291–2
 - Japanese, 11, 539–40, 546, 553
 - motte and bailey, 652–3
 - Ordensburgen, 147
 - Ottoman, 452, 454
 - stone built, 147, 653–4
 - concentric, 654
 - keeps, 654
- Castracane, Castruccio, 391
- Catalan Grand Company, 440, 441
- Catalans, 447, 450
- Catalonia, 411, 420–2
- cataphractii* (Persian armored cavalry), 643
- catapults, 258, 320, 642, 644
 - early medieval Indian, 483
 - Hindu, 493
 - Japanese, 217, 545
 - traction powered, 644
 - used in Japanese–Mongol conflicts, 533
- Cathars, 252, 265
- cavalry, 11–12, *See also* horse archers
 - armored, 78–9, 81
 - Byzantine, 445
 - Chinese, 322
 - Delhi sultanate, 488–91
 - Gothic, 643
 - Iberian Peninsula, 414
 - Indian, 501
 - Italian, 399
 - Mongol, 313–14
 - nomadic tribes, 161–2
 - Ottoman (*sipahi*), 457
 - Persian, 643
 - Southeast Asian, 11–12, 522
 - Steppe, 328
 - Tang, 203, 204–5
 - Turkish, 159, 161–2
 - Western European 1300–1500, 366
- Caxton, William, 266, 385

- Cellachan of Cashel, 94
 Černomen, battle of, 435
 Chaco Canyon, 603, 605
 Chaghatai khan, 301, 320
 Chalukyias, 481
changdao (hybrid Tang weapon), 204, 205
 Chanyuan Covenant, 330, 334
 chapel-de-fer (broad-brimmed iron cap), 255
 Charlemagne (Charles the Great), 6, 62, 68,
 72–3, 74, 89, 97, 101, 110, 142, 627, 646,
 648, 656, 665
 Charles II “the Bald”, emperor, 65, 73–4, 75, 76,
 77–8, 92, 93, 95–6, 98
 Charles III “the Fat”, emperor, 64, 74, 96
 Charles V, king of France, 352
 Charles VI, king of France, 353, 385
 Charles VII, king of France, 353, 375–6, 377
 Charles VIII, king of France, 355, 356, 377, 389
 Charles of Anjou, 271, 432
 Charles the Bold, duke of Burgundy, 355, 362,
 364, 369, 377–8, 380, 385, 387
 Charney, Michael, 3
 Charny, Geoffrey (Geoffroi) de, 248, 349
 Chaucer, Geoffrey, 651
 Chavli of Mosul, 290
 Cherokee, 600
chevauchée (medieval raiding method), 358–61,
 372, 374
 Chihaya castle, 535
chilam b’alam, 569–70
 Childebert II, Frankish king, 64
chimalli (Mesoamerican shields), 576, 580
 Chimalpopoca, Aztec emperor, 583
 Chimor, 587, 588
Chinese Ways in Warfare (Kierman and
 Fairbank, 1974), 2
 Chinggis khan, 174, 297, 311–12, 315, 616, 623
 conquests in the period of the united
 empire, 297–8
 raids on the Jin, 340
 strategy, 317–18
 use of intelligence, 316
 Chitor, siege of, 493
chivaler, 245, 247
 chivalry, 246–7, 349–50, 386
 Arabian pre-Islamic, 21
 Chlochilaich, king of the Danes, 87
 Choban, Ilkhanate leader, 303
 Choctaw, 600
 Cholas, 473, 477–8, 481, 485, 628
 Chol-khan, cousin of Özbek khan, 306
 Chong’ur, Yuan prince, 309
 Chormaqan, Mongol commander, 300
 Christian kingdoms, emergence of, 9
 Christianity, 624, 625, 626–7, 631, 636
 attitudes to warfare and, 112–13
 Byzantium, 108
 expansion of, 7
 Vikings’ adoption of, 9
 Chucalissa, 599
 Cicero, 631
 Cid, the (Rodrigo Díaz de Vivar), 413, 418,
 420, 423
 Cieza de León, Pedro de, 592, 594–7
 circumscription theory, 608–9
 Citeaux Bible, 253–4
civitates, 141
Cligès (de Troyes), 247
 Clontarf, battle of (1014), 95
Clos des Gallées, 358
 Cnut IV, Danish king, 261
 Cnut the Great, Danish king, 78, 80, 100, 102
 Cobo, Bernabé, 594
Codex Mendoza, 579
 cogs, 262, 667–70
 Columbus, Christopher, 428, 555
 companies of adventure (*compagnie di
 ventura*), 389
*Comprehensive Essentials from the Military
 Classics* (Song encyclopedia), 335
condottieri, 389, 402, 403–4, 405, 408
 Confucianism, 624
 Coniers, Hugues, Agincourt prisoner, 381
 Conlan, Thomas, 3
 Conrad III, German emperor, 269, 273, 274,
 276, 279
 Conrad of Montferrat, 277
 Constantine I, “the Great”, 107, 113
 Constantine V, Byzantine emperor, 109, 115, 126
 Constantine VII Porphyrogenitus, Byzantine
 emperor, 99, 144
 Constantinople, 107, 429, 430
 Avar siege, 135
 Byzantine reconquest of, 429, 431–2, 439
 Ottoman conquest of, 437, 449, 454–5, 462
 Ottoman sieges of, 436–7, 446, 452,
 461–2, 467
 sieges during the crusades, 283
 Constitution of Medina, 28
 Contamine, Philippe, 2
 “Conventum” (Hugh of Lusignan), 244
 Cordoba, 410
 Cortenova, battle of, 271
 Courtrai, battle of, 350, 379, 656
 Crac des Chevaliers, 289, 291, 292, 294
 Crécy, battle of, 350, 351, 372, 651

- Creek, 600
 Crema, siege of, 271
 Crimea, 469
 Ottoman conquest of, 462
 siege of 860, 170
 Croatians, 144, 459
Crónica del Perú (de León), 594
 crossbowmen, 216, 252–3, 255, 260, 357, 370, 657
 Byzantine military, 445
 French military, 370, 375, 376, 380
 Genoese, 397
 Italian military, 399
 Wagenburg tactic, 468
 crossbows, 13, 139, 145, 366, 376, 414, 656–7
 guilds, 382
 Russian, 147
 Tang, 189, 203, 204, 206
 use by Byzantines, 446
 crusades, 627
 battles against the Turks, 283–6
 diplomacy, 278–80
 Fourth Crusade, 229
 justification of, 622
 logistical problems, 272–4
 mercenaries, 272
 military equipment, 649–50, 654–5
 motivations for, 266–7
 problem of leadership, 274–8
 risks for the crusaders, 286–7
 role of naval power, 280–2
 siege warfare, 272–3, 282–3
 size of armies
 compared with other European campaigns, 271–2
 First Crusade, 267–9
 Second Crusade, 269
 Third Crusade, 269
 Fourth Crusade, 269–70
 Fifth Crusade, 270–1
 transportation of horses to, 679
 Viking participation in, 105–6
 warhorses, 649
 weaponry, 650–1
 cultures of war
 definitions, 615–16
 intersections, 616–21
 Cumans, 111, 131, 133, 134, 149, 441, 445, *See also* Polovtsians
 customs of war, 616, 618–19
 killing, 638–9
 ritual, 637–8
 Cuzco, siege of, 581, 594
 daggers, 367, 651
 ballock, 651
 baselard, 651
 cinquedeas, 651
 double-edged, 378
 early medieval Indian, 479
 quillon, 651
 rondel, 651
 scramasax, 54–5
 Turkish, 157
 Dai Viet, 507, 508
daimyō (Japanese regional warlords), 13, 523, 524, 547, 548, 550, 553
 Damietta, siege of, 283
 Dandolo, Enrico, Doge of Venice, 277, 679
 Danegeld, 101
 Danevirke, 88, 101, 103, 652
 Dannoura, battle of, 237
 dart-thrower, 575–6
De bello (Legnano), 385
De Krijgskunst in West-Europa in de Middeleeuwen (Verbruggen, 1954), 2
De officio militari (Upton), 385
De re militari (Vegetius), 257, 384–5
Decameron (Boccaccio), 393
 Dečanski, Stefan, 434
 decapitation, 599, 600, 608
 Delbrück, Hans, 1
 Delhi sultanate, 7, 470–1
 cultural influence on Vijayanagara, 496–501
 establishment, 483–4
 fortresses and fortification, 494–6
 helmets, 499
 ideological and economic motives for war, 484–6
 military training, 487–8
 technology and tactics, 488–96
 use of military slavery, 486–7
 Desiderius, Lombard king, 62
 Devaraya II, emperor of Vijayanagara, 497–9
 Dezong, Tang emperor, 187, 189, 192, 207
 Didymoteichon, fall of, 435
dig-vijaya (“conquest of the four quarters”), 474–5
 disciplinary ordinances, 382, 385–7
 discuss, 479
 dismemberment, 566, 599, 600, 606, 608
 Dmitrii Alexandrovich, prince of Vladimir, 306
 Dmitrii Ivanovich, Moscow prince, 307
dōmaru (Japanese armor), 225, 538

- Domesday Book, 245
 Domnall ua Néill, Irish king, 94
 Dorasamudra, siege of, 493
 Dornach, battle of, 368
 Dorylaeum, battle of, 267, 275, 283, 284–6
 Doukas rulers of Epiros, 430–2
 Dover, battle of, 667
 Dragaš, Constantine, Serbian prince, 436
drekar (“dragon ships”), 665
 Dreyer, Edward L., 3
druzhina (Slavic retinue), 145–9
 Du’a khan, 304, 309
 Duarte I, king of Portugal, 383
 Dudo of St-Quentin, 88, 98
 Duqaq of Damascus, 273, 284
 Durán, Diego, 577, 583–4, 585, 586, 594
 Dušan, Stefan, 434, 435, 447

 Ebbe Sunesen, 104
Ecclesiastical History (Eusebius of Caesarea), 636
 Ecgberht, king of Wessex, 64n
 Ecija, 420
 Ecuadorian highlands, 589
 Edessa, 279, 287
 Edigü, *Beklerbeği* (chief commander), 308
 Edward I, king of England, 250, 251, 264, 294, 296, 351, 352, 371, 374, 384
 Edward III, king of England, 351–3, 357, 359–60, 371–2
 Edward IV, king of England, 355, 374
 Edward the Confessor, 666
 Egica, Visigothic king, 59
 Egyptians, 259–60, 279, 283
 Eiríkr Hákonarson, 681
 Elbistan, battle of, 301, 318
 elephants, 12, 478–9, 480–2, 484, 510
 used in Southeast Asia, 512–15, 520–1, 522
encomiendas (Spanish colonial system), 585
 English. *See* Hundred Years War; Western European warfare, 1300–1500
 English Channel, 261
 Enrique IV, king of Castile, 427
Enseignements paternels (Lannoy), 383
 Epiros, Despotate of, 431
 Erik Ejegod, Danish king, 105
 Ermenfrid of Zion, 263
 Ervig, Visigothic king, 59
esmecca (English royal galley), 667
 Este rulers of Ferrara, 392
 Etowah, 599
 Eustace the Monk, 669, *See also* Moine, Eustace le

 Evrenos Beg, 455–6
exercitalis, 61

 Fairbank, John King, 2
 Farāghina, 46
 Faraj, Mamlūk sultan, 315
 Farris, William Wayne, 3
 Fāṭimids, 115, 276, 279, 283, 284, 290
 naval force, 674–7
 Federigo da Montefeltro, lord of Urbino, 408
 Ferdinand (Fernando) II, king of Aragon, 356, 427, 428
 Ferdinand (Fernando) II, king of León, 423
 Ferdinand (Fernando) III, king of Castile, 411, 419, 424
 Ferdinand (Ferrante) I, king of Naples, 405
 Ferguson, R. Brian, 4
 Feudal Revolution, 80
 feudalism, 56–8, 81
 Field of Blood, battle of the, 289
 Fiḥl, battle of, 32
 Firishta, 497–8
 Five Dynasties and Ten Kingdoms period, 325–9
 Han dynasty, 329
 Jin dynasty, 328–9
 Liang dynasty, 327–8
 Northern Han dynasty, 331–2
 Tang dynasty, 328
 Zhou dynasty, 329–31
 “Five-Hundred Swamis of Ayyavole” (trading group), 476
 Flemish, 352, 367, 656
 battle formations and tactics, 378
 guilds, 382
 Flodden, battle of, 379
 Flor, Roger de, 440
 Florence of Worcester, 666
 Florentines, 393, 394
 attack on Milan, 396
 retention of mercenaries, 399
 Foraging Battle (First Crusade), 283
 Former Nine Years’ War, 234
 fortifications, 11
 Anglo Saxon, 652
 built during the Crusades, 652–4
 built by the Delhi sultanate, 494–6
 built by settlers in the Holy Land, 291
 early medieval Indian, 482–3
 French, 81
 Inca, 595
 influence of gunpowder revolution in Italy, 406
 Japanese, 234–5, 539–40, 553

- Mesoamerican, 561–3
 Mississippian palisaded towns, 599
 prehistoric, 641
 propugnacula, 243
 Roman, 645
 Scandinavian, 80
 Slavonic, 141–2
 South American, 588, 589
 Southeast Asian, 517
 Tang, 206
 Fougères, Stephen de, preacher, 248
 Francis I, king of France, 356
francisca (throwing axe), 54, 55, 644
 Franks, 51, 62, 64, 107, 111, 627, *See also*
 Carolingians
 mercenaries in the Byzantine army, 131
 military service systems, 59
 responses to Viking attacks, 92, 94–8
 settlement in the Holy Land, 287, 290–2
 throwing weapons, 642
 victory over the Avars, 137
 weaponry, 644
 Fredegar, 137
 Frederick I (Frederick Barbarossa), Holy
 Roman Emperor, 269, 271, 274,
 279, 393
 Frederick II, Holy Roman Emperor, 256, 270,
 271, 277, 280, 294, 295, 391
 French. *See* Franks; Hundred Years War;
 Western European warfare, 1300–1500
 French invasion of Italy, 389, 406
 Friday, Karl, 3
 Frisians, 270
 Froissart, Jean, 349
 Frontinus, Julius, 384
 Fulcher of Chartres, 267
 Fulk, king of Jerusalem, 289
 Fulk Nerra, count of Anjou, 653
Futūḥ al-buldān (Aḥmad ibn Yaḥyā al-Bal
 ādhurī), 19
 galleys, 13
 English, 358, 669–70
 Fāṭimid, 674–7
 French, 669
 Mediterranean, 670–4
 alla sensile oarage system, 674
 Ottoman, 462–3, 677
 Gallipoli, 435, 451, 460, 461
 Gao Xianzhi, Tang general, 186, 209
 Gaozong, Tang emperor, 184–5, 189
 Garshasp Malik, Khaljī prince, 485
 Gasmouloi (Byzantine military division), 439
 Gattamelata, 402, 403
 Gedik Ahmed Pasha, 462
 genocide, 589, 608
 Genoese
 alliance with the Ottomans, 450, 461
 attack on Tortosa, 421
 crossbowmen, 397, 657
 defense of Constantinople, 437
 disputes with the Venetians, 399, 435
 seizure of Ceuta, 261
 ships, 358, 669
 support for the crusades, 269, 272, 281, 283
 support at the siege of Acre, 287
 Genpei War, 235–9
 George IV, king of Georgia, 299
 George Branković, Serbian ruler, 453
 Georgians, 131, 299, 319, 441, 459
 Gerald, Gerald “the Fearless”, 413, 423
 German knights, 131
 Germans, 130, 146–7, 149, 269–70, 276, 392, 436
*Geschichte der Kriegskunst im Rahmen der
 politischen Geschichte* (Delbrück,
 1900–20), 1
 Gesu Han, Tang general, 209
Gesta Francorum, 285
 Ghana, 7, 10
 Ghassānids, 23
 Ghazan, Mongol Ilkhan, 301, 314
 Ghibellines, 391
 Ghiyāth al-Dīn Tughluq, Delhi sultan, 494
 Ghurids, 470, 483, 484–5, 488, 491
 Ghuzz tribes, 153, 180
 Gibraltar, fifth siege of, 426
 Gilbert de Clare, earl of Gloucester, 244
 Giray dynasty, 469
 gisarmes, 255
gladii (short swords), 642
 glaives, 228, 656
 global networks, 13–14
 Głogów castle, 146
 Go-Daigo, Japanese emperor, 524, 535–6,
 537, 541
 Godfred, Danish king, 101
 Godfred Haraldsson, Danish prince, 93, 96
 Godfrey de Bouillon, 268, 279
goedendag (type of polearm), 367, 656
gokenin (Japanese vassal), 523, 524, 528, 529,
 530–2, 535, 536–7, 541
 Gokstad ship, 664
 Göktürks, 134
 Golubac, siege of, 462
 Gordian III, Roman emperor, 642
 Gorm, Viking commander, 96

- Go-Shirakawa, Japanese emperor, 236–7
 Goths, 51, 642
 catapults, 644
 swords, 642
 weaponry and cavalry, 643
 Go-Toba, Japanese emperor, 524, 525–7, 534
goupillon (infantry weapon), 656
Grace Dieu (English warship), 358, 670
 Graecus, Marcus, 661
 Graff, David, 3
 Granada, Nasrid kingdom of, 410, 424–8
 Granson, battle of, 350
 Great Company, 393
 Great Moravia, 144
 Greek Fire, 13, 123, 671, 679–80, 682
 Gregory VII, pope, 636
 Gregory VIII, pope, 106
 Gregory of Tours, 87
 grenades, 323, 335, 339–40, 661
guastatori, 399
 Güchülüg, ruler of Qara Khitai, 315
 Guelfs, 391, 393
Guerre au Moyen Age, La (Contamine, 1980), 2
 guerrilla warfare, 114, 116, 127
 Guicciardini, Francesco, 406
 Guinegate, battle of, 376
guisarme (staff-weapon), 655
gundan (Japanese regiments), 215
 gunpowder, 13, 321, 323
 artillery, 350, 660–1
 effect on fifteenth-century Italian warfare, 406–7
 Hundred Years War, 363
 introduction to India, 502–6
 early-stage weapons, 335–6, 339–40, 660
 recipes, 335, 547, 661
 guns
 first developed for siege and naval warfare, 340
 handguns, 13, 323, 342, 369–70, 406, 447
 impact on warfare in Southeast Asia, 511–13
 introduction and use in Japanese warfare, 545–8, 549–50, 552
 introduction to Southeast Asia, 521
 invention and production of, 323
 Ottoman, 467
 warships, 357
 Guntram, Viking chieftain, 92, 96
 Guo Ziyi, Tang general, 209
 Gustavus Adolphus, Swedish king, 251
 Guy of Lusignan, 276, 292–3
 Güyüg khan, 297
 Haakon Haakonsson, 104
 Haas, Jonathan, 4
 Hachiman, Shinto god of war, 541, 623
 al-Ḥajjāj ibn Yūsuf, Iraqi governor, 41
 halberds, 159, 228, 368, 377, 380, 655
 Halil Pasha, grand vizier, 454
 Han dynasty, 7, 181
 Hapsburgs, 355, 356–7, 359, 364, 378, 379, 388
hara-ate (Japanese armor), 225, 538
 Harald, Danish king, 96
 Harald Bluetooth, 101–2, 104
 Harald Hardrada, 100, 666
haramaki (Japanese armor), 225, 538
haramaki-yoroi (Japanese armor), 225
 Harold Godwinson (Harold II, king of England), 271, 621
 Harran, battle of, 288
 Hasan, Uzun, 460, 469
 Hassig, Ross, 4
 Hasting, Viking leader, 98
 Hatakeyama Masanaga, 543–4
 Hatakeyama Yasaburō, 543
 Hatakeyama Yoshinari, 543
 Hattin, battle of, 269, 276, 286, 292–3, 296
 haubergeons, 255
 Hawkwood, John, 392, 394, 396, 399
 headhunting, 510, 518
 Heiji Incident, 235
 helmets, 55
 bascinet, 660
 Byzantine, 445
 Carolingian, 646–7
 curved, 367
 frog-mouthed, 660
 Japanese, 226, 551
 kettle-hats, 660
 late medieval, 660
 prehistoric, 640
 Russian, 149
 salade, 376
 Slavonic, 147
 Turkish, 159
 Vijayanagara, 499–500
 Western European, 254–5
 worn by crusaders, 650, 655
 Hen Domen castle, 653
 Henry, Duke of Bavaria, 79
 Henry I, king of England, 252
 Henry I, king of Germany, 139
 Henry II, duke of Silesia, 300

- Henry II, king of England, 255, 666
 Henry III, king of England, 247, 264
 Henry IV, Holy Roman Emperor, 636
 Henry V, Holy Roman Emperor, 146
 Henry V, king of England, 352, 353, 358, 360–2,
 363, 379, 386, 387, 670
 Henry VI, king of England, 355, 385
 Henry VIII, king of England, 374, 387, 388
 Henry of Burgundy, count of Portugal, 412, 422
 Henry of Lancaster, earl of Derby, 372
 Henry of Livonia, 147
 Henry Tudor (VII), king of England, 355
 Heraclius, Byzantine emperor, 24, 626, 627
 heraldry, 254
 Herat, battle of, 304
 Herluin of Bec, Norman *miles*, 245
 Herodotus, 636
 Herzegovina, Ottoman conquest of, 468
 Hetoum of Cilician Armenia, 294
hides (Anglo-Saxon unit of assessment), 75, 78
 Hideyoshi. *See* Toyotomi Hideyoshi
Hijra, 28
 Hims, battle of, 301, 314, 318
 Himyarites, 23
 Hindu warrior elites, 496–8
 Hinduism, 8, 624–5
*Historia de las Indias de Nueva España e Islas de
 Tierra Firme* (Durán), 594
History of the Art of War in the Middle Ages
 (Oman, 1884), 1
hiya (fire arrows), 546–7
 Hjortspring Bog excavations, 86
 Hōjō clan, 548, 550–1
 Hōjō Sōun, 548
 Hōjō Ujitsuna, 550
 Hōjō Yasutoki, regent of Kamakura, 525,
 526, 527
hoko (spear), 228
 Holy Land settlers, warfare of, 287–96
 holy war, 113, 484, 624–8
 Scandinavian participation in, 105–6
 holy water sprinkler (type of flail), 656
 Honganji temple, 552
 Horik, “king of the Northmen”, 92
 horse archers, 11, 134
 Byzantine armies, 131, 445, 446
 Hunnish, 10
 Japanese, 238–9, 523, 527, 538, 553
 Polish, 149
 Tang, 183, 200, 218, 226
 Turkish, 166–7, 284, 285
 horse armor, 255, 501
 bargustuwan, 490
 metal chamfrons, 499
 Tang, 189
 Turkish, 158
 horsemanship, 179, 230, 487, 488, 520
 horses, 617–18
 Carolingian management of, 648
 importance of to the Tang, 191
 Indian military, 478–9, 484, 488–90, 497
 Irish, 379
 Japanese, 223
 Khitans, 161
 Mongols, 313–14
 reintroduction to the Americas, 14
 Southeast Asian, 11–12
 transportation by sea, 677–9
 Turkish, 160–2
 Vijayanagara military, 498–9
 warhorses of the crusaders, 648–9
 Western Europe, 600–800, 55
 Hosokawa clan, 542, 543–4, 548, 551
 Hosokawa Harumoto, 547, 551
 Hosokawa Katsumoto, 543–4, 545
 Hosokawa Kiyouji, 540
 Hosokawa Masamoto, 548
 Hospitallers, 292, 421
 Hoysala kingdom, 501–2
 Hsiao Ch’i-ch’ing, 3
 Huang Chao, 188, 194, 322, 324, 327
 al-Hudaybiya, truce of, 29
 Huexotzinca, 581
 Hugh I and III, king of Jerusalem and
 Cyprus, 294
 Hugh IV of Lusignan, 244, 622
 Hugh of Vermandois, 268
 Huhasene, Native American chief,
 294, 601
 Hülegü khan, 300–1, 303, 314, 316, 321
 human heart excision, 608
 human sacrifice, 554–5, 561, 568–9, 581, 611, 623,
 624, 638
 human trophies, 582, 599, 604, 606, 608, 610–11
 Hunayn, battle of, 30
 Hundred Years War, 351–3, 356, 357, 393, 681
 civil–military relations, 364–5
 English raiding tactics, 358–61
 siege warfare, 361–2
 weaponry, 363
 Hungarian–Ottoman wars, 468
 Hungarians, 134, 136–9, 142, 144–5, 453–4, 459,
 462, 467
 Hungarian–Serbian–Ottoman peace treaty
 (1444), 453
 Hungary, 111

- Huns, 133–4, 137, 162, 642, 644, 656
 Hunyadi, János, Hungarian general, 454, 468
 Huron, 598
 Hussite tactics, 380, 468
 Hussite wars, 468
 Hygelac, king of the Geats, 87
- Iberian Peninsula
 Christian and Muslim armies, 414–15
 frontier warfare, 416
 papal influence, 417–18
 reconquest
 Aragon and Catalonia, 420–2
 Castile-León, 418–20
 expansion into the crusades and military orders, 417
 Granada, 425–8
 Portugal, 422–4
 Umayyad control, 410
 Visigothic control, 409
 Ibn al-Mammāṭī, 676, 678
 Ibn Battuta, 9
 Ibn Fadlan, 99
 Ichikawa Rokurō, 527
 Ichinotani, battle of, 237
 Iconoclast Controversy, 636
 Iga Mitsusue, 527
 Il-Ghazi of Mardin, 289
Iliad, 85
 Illerup artefacts, 85
Illuminated Chronicle, 149
 Ilutmish, Shams al-Dīn, sultan of Delhi, 470, 484, 487
 Inca, 558, 587, 589–91
 armor, 576
 battles, 594–8
 command structure, 592
 mobilization and recruitment of armies, 592–4
 warfare, 591–2
 weaponry, 581
 India. *See also* Delhi sultanate
 early medieval period
 battlefield tactics, 480–3
 motives for war, 471–5
 social organization of armies, 475–9
 weaponry, 479
 influence on Southeast Asia, 518–20
 introduction of gunpowder artillery, 502–6
Indiculus Loricatorum (981), 78
 Innocent III, pope, 419, 636
 intercultural wars, 619–21
 international armies, 387–8
 intracultural wars, 619–21, 634, 637
 Investiture Controversy, 636
 iqta' (land-holding institution), 485–7, 500
 Ireland
 longphuirt Scandinavian encampment, 93
 military systems, 379
 participation of Vikings in conflicts, 95
 Viking raids on, 88
Irk Bitig (*Book of Omen*), 163
 Iroquois, 598
 Isaac I Komnenos, Byzantine emperor, 130
 Isaac II Angelos, Byzantine emperor, 429
 Isabella I, queen of Castile, 356, 427
 'Iṣāmī, 485, 493
 Ishibashiyama, battle of, 236
 Iskender Beg. *See* Skanderbeg rebellion
 Islam, 624, 625, 627–8, 631. *See also* Arabian/
 Islamic campaigns
 influence on Southeast Asia, 519–20
 origins of, 17
 spread of, 7
 Islamic states, 10
 Ismā'īl Sāmānī, Samanid amir, 168
 İstemi, Turkic leader, 152
istimalet (accommodation), Islamic principle, 464
 Italian warfare
 battlefield tactics, 399, 401–2
 effect on society, 407–8
 French invasion of Italy, 389, 406–7
 leadership, 396–7
 mercenary companies, 389–95
 military service systems, 397–9, 402–6
 naval, 399–401
 pitched battles, 396
 sieges, 395–6
 size and composition of armies, 397, 402
 weaponry, 406–7
 Itzcoatl, Aztec king, 583–5
 Iwakiri Tsunetaka, 552
- Jackson, Peter, 3
jacques (reinforced jacket), 376
 Jāḥīz, 160, 179
 Jaipala, king of Bhatinda, 478
 Jalāl al-Dīn Firūz Shāh Khaljī, sultan, 485
 Jalāl al-Dīn Khaljī, Delhi sultan, 494
 Jalāl al-Dīn, Khwārazmian prince, 298, 317, 492
 Jalayir tribe, 304
 James (Jaime) I, king of Aragon, 253, 256, 258, 262, 418, 421–2, 424
 Janah ad-Dawlah, emir of Homs, 284
 Janibeg khan, 303, 305

- janissaries, 10, 437, 456–7, 458–60, 467, 468
 Erdine rebellion, 454
- Japan
 armor, 538–9
 Ashikaga *bakufu*, 525, 540–1, 544
 battle strategies and tactics, 229–34, 238–9
 developments in warfare, 523–5
 fortifications, 11, 234–5
 Genpei War, 235–9, 524
hanzei edict, 524, 541, 542, 553
 Heian period, 220
 imperial state, 213–14
 Jōkyū War, 524, 525–8
 Kamakura *bakufu*, 523–4, 525, 528, 621
 military accoutrements, 223–9
 military systems and organizations, 220–3
 mobilization of warrior families, 523
 Mongol invasion of 1274, 529–30, 621
 Mongol invasion of 1281, 532–4, 621
 origins of the samurai, 217–20
 private/civil warfare, 524–5
 religion and warfare, 534–5, 552
 responses to Mongol invasions, 530–2
 rewards for warriors, 12, 232, 524, 528
 ritsuryō military system, 215–17
 ritual suicide, 638
 Warring States era, 548
 improvements in mobilization, 550–2
 patterns of warfare, 548–50
 wars of the fourteenth century, 535–6
 armies, 536–7
 battle tactics, 537–8
 casualty statistics, 291–2
 fortifications, 539–40
 judicial violence, 540–1
 logistics and supply, 541–2
 wars of the fifteenth century, 542
 introduction and use of guns, 545–8
 massed infantry formations and pikes, 542–3
 Ōnin War, 543–5
- Jarrow monastery, 91
- Java, 508
- javelin, 139, 378, 479, 580, 680
ango, 54
 Roman *pila*, 642
- Jayasimha II, Chalukyan king, 481
- Jean II, count of Armagnac, 396, 399
- Jebe, Mongol general, 298–9, 315
- Jerez, conquest of, 420
- Jerusalem, 277–8
 Arab occupation, 32
 axes of expansion, 289–90
 siege of, 272–3, 281, 283
- Jewish Revolt (70 CE), 626
- Jews, 28, 424, 626
 loans from, 250
- jihād*, 19, 26–7, 36, 484, 627–8
- Jin dynasty, 298
- jitō* (land steward), 12, 524, 528, 535
- Jiu Tangshu*, 163
- Joan of Arc, 353
- João I, king of Portugal, 356, 380
- Jochi, son of Chinggis khan, 298, 301
- John II Komnenos, Byzantine emperor, 118, 132
- John II, king of France, 375
- John III Vatatzes, emperor of Nicaea, 431, 433, 441, 444
- John V Palaiologos, Byzantine emperor, 433, 435–6, 451
- John VI Kantakouzenos, Byzantine emperor, 433–5, 444, 451
- John, king of England, 251, 258, 669
- John Alexander, king of Bulgaria, 434
- John the Blind, king of Bohemia, 651
- John of Brienne, king of Jerusalem, 277, 295
- John of Ephesus, 140
- John the Fearless, duke of Burgundy, 353, 385
- John of Ibelin, 291
- John Stracimir, emperor of Bulgaria, 436
- Joinville, Jean de, 259–60, 286
- Jōkyū War, 524, 525–6
 battle of Uji river, 526
 limited command authority, 527–8
 records of actions and granting of rewards, 528
 sources of battle, 526–7
- Jōkyūki*, 526
- Jōmon, 211
- Jonathan Creek, 599
- Josephus, 626
- Judaism, 35, 624, 625
- Julian, count of Ceuta, 409
- Julius Caesar, Roman leader, 663
- Jurchen, 153, 337–8
- Jurchen Jin dynasty, 322
- jus ad bellum*, 632
- jus in bello*, 632–3
- just war theory, 618, 621–3, 626
- justification of war
 conceptions of social order and, 628–30
 justification and necessity, 621–3
 role of states in, 630–1
 theoretical, 631–3
 war and cosmic order, 623–8

- Justinian I, Byzantine emperor, 63, 107, 140
 Justinian II, Byzantine emperor, 136
- kaballarika themata* (cavalry armies), 126
 Kabars, 137
 Kāfūr, Malik, 493
kaikkolars (Indian slave troops), 477–8
 Kakatiya dynasty, 475, 481, 501
 Kalka River, battle of the, 299, 319
 Kalojan, tsar of Bulgaria, 431
kaman-i ra'd (type of weapon), 502
 Kammala, grandson of Qubilai khan, 309
 Kantakouzenos, Matthew, 433
kapukulu (Ottoman salaried household troops), 458
 Karaman, emir of, 469
 Karamanids, 452
 Kastrioti, George, 465
Katamaraju-katha, 472–3
katana (Japanese sword), 227, 539, 553
 Katsurenjō castle, 546
kavacha (steel plate armor), 480
 Kedbuqa, Mongol general, 300
 Kenilworth castle, 258
 Kennedy, Hugh, 4
 Keraites, 311
 Kerbogah of Mosul, 268, 283, 285
 Khālid ibn al-Walīd, 32
 Khaljīs, 485, 493, 501
 Khan, Iqtidar Alam, 3
 Khaydar ibn Kāwus al-Afshīn, 46
 Khazars, 111, 151, 152–3, 154, 155, 160, 167, 175–6
 fortifications built by, 170
 horses of the, 161
 military organization, 173
 Khitans, 151, 153–4, 164, 178, 179, 185, 325, 327–9, 338
 armor worn by, 159
 horses used by, 161
 organization of the army, 176–7
 Khmers, 7
 Khri-srong-lde-brtsan, Tibetan king, 186
 Khurāsāni, 42–5
 Khusrau, Sasanian king, 626
 Khusrau khan, Indian military leader, 493
 Khwārazmian empire, 297, 298
 Kierman, Jr., Frank A., 2
 Kievan, 134
 killing, customs of, 638–9
 Kimaks, 159
 Kinda, 23
King's Mirror, 104
 kingship and warfare, 63–5
- Kirghiz, 153, 159, 168, 170, 188
 Kisō Yoshinaka, Minamoto leader, 236–7, 294
 knights/knighthood, 243–8
 chivalry, 248
 equipment and armor, 253–5, 649–50, 654–5
 mobilization, 247–8
 number of in Western European armies, 252–3
 summonsed for service, 249–51
 tournaments, 245–6
 weaponry, 650–1
knqrr (Viking ship), 663–4
 Knud the Great. *See* Cnut the Great
 Koguryō, 182, 184–5, 199, 205, 208, 213
 Kölgen, son of Chinggis khan, 320
 Königsberg castle, 147
 Kōno Michinao, 552
 Kōno Michinobu, 526, 528
 Köpek, Chaghatayid prince, 304
 Koreans, 208
 Köse Mihal, 455
 Kosovo Polje
 first battle of, 436, 452
 second battle of, 454, 458, 468
Kraek (type of ship), 670
 Kraljević, Marko, Serbian prince, 436
 Krishna III, Rashtrakuta king, 481
 Krishnaraya, emperor of Vijayanagara, 505
 Krum khan, 109
kshatriya (Indian social order), 475–6, 518–19
kul (Ottoman slave or servitor), 457, 459, 460
 Kulikovo Field, battle of, 307
 Kusunoki Masashige, samurai, 535
 Kutrigurs, 133
 Kvalsund ship, 663
 Kwanggaet'o, Manchurian king, 213
- L'Aquila, war of, 402
L'art militaire et les armées au Moyen Age en Europe et dans le Proche Orient (Lot, 1946), 1
 L'Espagnols-sur-mer, battle of, 681
 La Forbie, battle of, 293
 Lahore, siege of, 492
 Lai Tian, Tang general, 209
 Lake Battle (First Crusade), 283
 Lakhmids, 23
 Lalitaditya Muktapida, Karkota king of Kashmir, 474–5
 Lamb, Harold, 3
 Lancastrian Normandy, 359, 364–5
 Lancastrians, 355
 lances, 414, 491, 497

- Ancestral Pueblo, 605
 couched, 649
 early medieval Indian, 479
 Egyptian, 260
 Mesoamerican, 572
 protection against, 255
 Tang, 189
 long (*shuo*), 204
 Turkish, 157
 Uighur, 159
 lances (military unit), 375, 376–8, 380, 397, 399, 405
lands knechts (German mercenary companies), 356, 380, 388
 Lannoy, Ghillbert de, 383
lanze spezzate (broken lances), 403
 László IV, Hungarian king, 305
 Later Zhou Dynasty, 327
 Laupen, battle of, 656
Laws of the Janissaries, 459
 Lazar, Branko, 455
 Lazar, prince of Serbia, 436, 452
leding/leidang (military obligation), 80, 102–4
 Legnano, Giovanni, 385
lenkas (Indian slaves), 477–8
 Leo III, Byzantine emperor, 115
 Leo the Deacon, 99
 León, 411, *See also* Castile-León
 León, Cieza de, 594
 Leopold VI, Austrian king, 270
 Leszek II the Black, High Duke of Poland, 305
 Li Cunxu, general, 327–8
 Liddell Hart, Basil, 3
 Li Jing, Tang general, 204, 205
 Li Keyong, Shatuo Turk leader, 188, 327
 Li Shimin, Tang emperor, 182, 183–5, 189, 191, 205, 207, 209
 Li Yuan, Tang emperor, 166, 169, 182–3, 198
 Liao dynasty, 329, 330, 331–5
Liaoshi, 154, 161
 Lincoln, battle of, 253
 Lindsfarne, 83, 87
 Lisbon, siege of, 422
 Liu Zhiyuan, Shatuo Turk leader, 329
 Liutprand, Lombard king, 61, 62, 64
Livre de Chevalerie (de Charny), 248, 349
Livre des fais d'armes et de chevalerie (Pisan), 385
Livre des faits du marechal boucicaud, 382
 logistics
 Japanese (fourteenth century), 541–2
 Mesoamerican, 565–6
 Mongol warfare, 314–15
 Southeast Asian, 516
 Tang, 207–8
 Lombards, 78, 110, 111
 military gatherings, 64
 military service system, 61–3
 longbowmen, 372, 376, 657
 longbows, 145, 227, 366, 376, 379, 414, 479, 529, 657–8
 guilds, 382
 treatise on, 384
 longships (*langskip*), 90, 663–6, 682
 Russian use of, 149
 Lorge, Peter, 3
 Lori fortress, 320
loricati (armored horsemen), 79
 Lot, Ferdinand, 1
 Lothar I, emperor, 73
 Louis, king of Hungary, 149
 Louis I “the Pious”, emperor, 73, 95–6
 Louis II of Italy, 74, 75, 77
 Louis VI, king of France, 258–9
 Louis VII, king of France, 273–4, 276, 279
 Louis VIII, king of France, 264
 Louis IX, king of France, 259–60, 271, 280, 283, 286, 287, 293, 294, 295, 316
 Louis XI, king of France, 355, 376–7
 Louis “the German”, East Frankish king, 73
 Loulou the Eunuch, 289
 Lucca, 98
 Ludwig IV, Holy Roman Emperor, 352, 391
 Lupi, Diotisalvi, Venetian captain, 406

 Ma'arra, siege of, 273
 Ma'bar sultanate, 496
macana. *See macuahuitl*
 maces, 147, 367, 479, 651
 Machiavelli, Niccolò, 389, 402, 630, 635
macuahuitl (Mesoamerican weapon), 571–3, 580
 Maghāriba, 46
 Maghreb, 674
 Magyars, 73, 111, 133–4, 137, 139
 Maḥmūd Gawan, Bahmani vazir, 505n
 Maḥmūd Kāšgharī, 165
 Malatesta, Sigismondo, lord of Rimini, 408
 Malatesta clan of Rimini, 392
 Malavolti family, 396
 Mali, 7, 10
 Malik Shah, Turkish sultan, 284
 Mamai, Blue Horde leader, 307
 Mamlūks, 12, 179, 294–6, 300, 301–3, 314, 449, 504
 Manalera, retainer of Butuga, 481
 Manfred, Sicilian king, 271, 432

- mangonel, 147
 Manqu Inka Yupanki, Inca emperor, 581,
 592, 594
mansî (Frankish unit of assessment), 74,
 75
 al-Manşūr, 'Abbāsid caliph, 43
 Mansūra, battle of, 259–60, 278, 286
 Mantzikert, battle of, 112, 118, 122, 128, 130
 Manuel I, Portuguese king, 505
 Manuel I Komnenos, Byzantine emperor, 111,
 118, 122, 132, 272, 274, 280, 290, 438
 Manuel II Palaiologos, Byzantine emperor,
 436, 453
 Marchfields, annual gatherings, 61, 64
 Marcomannian Wars, 85
 Marcus Aurelius Carus, Roman emperor,
 643
 Margaritus of Brindisi, 679
 Margat castle, 292
 Marica, battle of, 435
 Marienburg castle, 147
 Marignano, battle of, 356
 Marinids, 411, 424–6
 marital alliances, 463
 marksmanship, 230, 520
 Marsan, Arnaut-Guilhem de, 255
 Marshal, Richard, earl of Pembroke, 262
 Marshal, William, first earl of Pembroke,
 253, 256
 Marshal, William, second earl of
 Pembroke, 263
 Marsiglio of Padua, 391
 Martel, Charles, 58–9
 Martin V, pope, 402
martoloses (Ottoman security force), 466
 Marwān I, Umayyad caliph, 40
 Marwān II, Umayyad caliph, 41
 Mary, duchess of Burgundy, 355
Mary Rose (English warship), 358
 masculinity and warfare, 65–6
 Matlatzinco, battle of, 586–7
 Maurice, Byzantine emperor, 135, 137, 139, 141,
 153, 165
 Maximilian I of Hapsburg, 355, 376
 May, Timothy, 3
 Maya, 560, 563
 captive taking, 566, 567
 military orders, 569–70
 mythological traditions, 623
 warfare, 569–71
 Medina, 28–9
 Mediterranean
 naval warfare in the, 260–1
 Viking expansion in the, 98–100
megala allagia ("Grand Allagia", Byzantine
 military division), 439
 Mehmed I, Ottoman sultan, 453
 Mehmed II, Ottoman sultan, 436–7, 449, 452,
 453–4, 460–1, 462, 463, 468–9
 Meingre dit Boucicaut, Jean le, 382
 Melaka, 512
 Mendoza, Rubén, 4
 Mengü Temür, Mongol commander, 301
 mercenaries, 10, 13, 76, 78, 85, 251
 Byzantine armies, 116, 130–1, 441
 Fifth crusade, 272
 Hungarians, 138
 Italian warfare, 389–92
 mercenary companies, 392–5
 Japanese, 229
 Serbian armies, 149
 Southeast Asia, 521
 Turkish, 177–9
 Mercia, 64
 Merkid tribe, 298
 Merovingian dynasty, 51, 57, 58, 63
 Mesih Pasha, 462
 Mesoamerica, 554, *See also* Aztecs; Maya
 armor, 576–7
 asymmetrical political and military
 formations, 558–61
 captive-taking, 566–9, 582
 environmental circumscription, 608–9
 fortifications, 561–3
 motivations for war, 555–8
 mythological traditions, 623
 transport networks, 564–6
 weaponry, 571–6
 Meun, Jean de, 384
 Michael I Doukas, ruler of Epiros, 431
 Michael II Doukas, ruler of Epiros, 432
 Michael III, Byzantine emperor, 99
 Michael VIII Palaiologos, Nicaean and
 Byzantine emperor, 305, 429, 432, 439,
 441, 442, 444–5, 447
 Mieszko I, Polish duke, 146
 Migita family, 537
 Mihaloglu dynasty (Ottoman marcher
 lords), 461
 Milanese, 271, 399, 401, 402–4, 406, 407
 Milemete, Walter de, 661
 military compensation, 12–13
 benefices, 57–9
 Byzantine, 441–3
 Japanese, 232, 524, 528
 land offered to knights, 244–5, 249

- payment of mercenaries, 398
- payment of Tang soldiers, 202
- state payment of soldiers, 349, 364–5, 370–3, 376, 377, 378, 380
- military handbooks, 257, 383–6, 633–5
 - Byzantine, 444
- military service systems
 - Anglo-Saxon, 60, 75, 77
 - Arabic Islamic, 36–8
 - Byzantine, 123–8, 437–41
 - cadastral, 74, 75, 77–8
 - Christian and Muslim armies of the Iberian Peninsula, 414–15
 - early medieval Indian, 475–9
 - English, 371–4
 - French, 370–1, 374–7
 - Inca, 589–91
 - Irish, 379
 - Italian, 397–9, 402–6
 - Japanese, 215–17, 220–3, 537
 - Khitan, 176–7
 - Lombard, 61–3
 - Mongol, 311–13
 - Ottoman, 455–63
 - Scottish, 378–9
 - Slavic, 145–6
 - Song dynasty, 339
 - Southeast Asian, 520–1
 - Tang, 185, 187, 192–203
 - Turkish, 173–6
 - Visigothic Spain, 59–60
 - Western European
 - 600–800, 50–4, 56–9
 - 800–1000 CE, 72–5
 - changes, c.600 CE, 50–6
 - changes c.1000 CE, 78–81
- military slavery
 - early medieval India, 477–8
 - Islamic, 18, 41–9, 112, 627, 630
 - Ottoman. *See* janissaries
 - Turkish used by the Delhi sultanate, 486–7
 - Visigothic, 59–60
- military training
 - Delhi sultanate, 487–8
 - early medieval Indian, 476–7
 - Japanese, 231
 - Ming, 343
 - Mongol, 318
 - Ottoman, 466
 - pike formation, 369
 - Southeast Asian, 520–1
 - Tang, 196, 205
 - Turkish, 487–8
 - Vegetian, 634
 - Western European, 382–4
- milites* (horse-soldiers), 243, 245, 247
- Milvian Bridge, battle of, 626
- Minamoto Yoritomo, Japanese shōgun, 235–7
- Minamoto Yoriyoshi, Japanese leader, 234
- Minamoto Yoshitomo, Japanese leader, 235
- Minemoto Yoshitsune, Japanese commander, 237
- Ming dynasty, 9, 322
 - founding of, 341–4
- Mīrān Shāh, Chaghatayid commander, 307
- Mircea I, ruler of Wallachia, 436
- Mississippians, 598–600
- Mixtec, 559–60, 568, 575
- Miyoshi Nagayoshi, 547, 551–2
- Mochihito, Japanese prince, 235
- modao* (hybrid Tang weapon), 204
- Modon, battle of, 463
- Mogollon, 610
- Moine, Eustace le, French admiral, 262, *See also* Eustace the Monk
- Möngke khan, 300, 316
- Mongols, 3, 7, 8, 12, 139, 149, 151, 436
 - armor, 313
 - battle strategies, 317–19
 - battles against the Burmese, 514–15
 - conflict with the Mamlūks, 294
 - conflict with the Ming, 341–3
 - conquests in the period of the United empire, 297–301
 - destruction of Kiev, 149
 - exploitation of enemy discord and use of intelligence, 315–17
 - invasions of Japan, 529–30, 532–4, 621
 - Khwārazmian campaign, 298–9, 315, 316–17
 - military organization, 311–13
 - provisions, 314–15
 - raids on the Jin, 340–1
 - siege warfare, 319–21, 492
 - Ulus* of Chaghatay, campaigns and conflicts, 308–11
 - Ulus* of Hülegü (the Ilkhanate), battles and invasions, 301–4
 - Ulus* of Jochi (the Golden Horde), battles and invasions, 304–8
 - use of horses, 313–14
 - warfare with the Song, 341
- Monstrelet, Enguerran de, 349
- Monte Albán, 565, 566
- Montfort, Simon de, 252, 421
- Montone, Braccio da, 401, 403, 405, 408
- Morea, Ottoman conquest of, 468

- Morgan, David, 3
morgenstern (morning star), 656
morion (type of kettle-hat), 660
 Morocco, Marinid kingdom of, 424
 Mortgarten, battle of, 656
 Motecuhzoma II, Aztec emperor, 581
 Mount Cadmus, battle of, 276
 Mount Hiei temple, 552
 Mount Kōya temple, 552
 Mu'āwiya I, Umayyad caliph, 39
 Mudéjar revolt, 422, 424
 Mudgal fortress, 498
 Muḥammad, prophet, 17–18, 27–30, 298
 Muḥammad II, Khwārazmshah, 298, 315, 316–17
 Muḥammad XII of Granada (Boabdil), 427
 Muḥammad XIII of Granada, 428
 Muḥammad al-Amīn, 'Abbāsīd caliph, 45
 Muḥammad bin Bhaktiyār Khalji, Ghurid commander, 484
 Muḥammad bin Sām, Ghurid sultan, 484
 Muḥammad ibn Ismā'īl al-Bukhārī, 27
 Muḥammad Shah III, Bahmani sultan, 505n
 Mu'izz al-Dīn Kai Qubād, 494
 Mu'izz al-Dīn Muḥammad bin Sām, Ghurid sultan, 470
 Muqan Qaghan, Turkic khagan, 152
 Murad I, Ottoman sultan, 435–6, 449, 451–2, 455, 456, 457–8, 461
 Murad II, Ottoman sultan, 435–6, 446, 453–4, 465
 Muralla de León, 560
 Murten, battle of, 350
 muskets/musketeers, 512, 514, 521
 Mustafa (brother of Mehmed I), 453
 Mustafa (brother of Murad II), 453
 al-Musta'šim, 'Abbāsīd caliph, 300, 321
 al-Mutawakkil, 'Abbāsīd caliph, 46
 Muzaffarids, 310
 Muzaki family, 465
 Myōchin Nobuie, 551
 Myōtsūji temple, 552
 Myriocephalon, battle of, 118, 122, 132

 Nadīr, 28
 Nāfels, battle of, 356
naginata (polearm), 228–9
 Naimans, 311, 318
 Nájera, battle of, 356
 Nancy, battle of, 350, 355
 Nandabayin, king of Pegu, 514n, 522
 Narni, Erasmo da (Gattamelata), 402, 403
 naval architecture, 13
 naval warfare, 679–82, *See also* ships

 Atlantic, 261–3
 English and French, 357–8
 Italian, 399–401
 Mediterranean, 260–1
 Mongol–Japanese, 532–4
 Song–Mongol, 341
 Southeast Asian, 510–11
 weaponry, 340, 342, 467
 Navas de Tolosa, battle of Las, 419, 421, 424
nāwak (arrow guide), 490, 498
 Nawrūz, Mongol amir, 304
nayamkara (Vijayanagar land-holding system), 500–1
 Nayan, Mongol prince, 309
 Negoroji temple, 552
 Negroponte, Ottoman capture of, 468
 Neuss, siege of, 362–3
 Nevrūi, Jochid prince, 306
 New Spain, 577, 602
 Nicaea, 430–2, 438
 siege of, 267–8
 Nicopolis, battle of, 368
 Niebla, conquest of, 420
 Niger, Ralph, 255
 Niger River region, 7
 Nikephoros I, Byzantine emperor, 109, 115, 124
 Niki Yorinaga, 540
 Nikopol fortress, 467
 Nikopolis, battle of, 436, 452
 Nisaa, battle of, 666
 Noghai, Jochid prince, 303, 305, 306
nöker (Ottoman companion, client, retainer), 458
 Nomoghan, son of Qubilai khan, 308
 Normans, 364, 377
 expulsion from Epirus and Albania, 131
 Hastings campaign, 245, 649
 mercenaries in the Byzantine army, 131
 threat to Byzantines, 109–10, 437
 Norris Farms, 600
 North American warfare, 554, 598
 American Southwest, 602–6
 Eastern North America, 599–602
 Northern Zhou dynasty, 183, 192
 Novara, battle of, 356
 Novo Brdo, siege of, 467
 Nur ad-Din, 290, 293
 Nydam Moss ship, 662

 Obodrites, 89, 96
ōdachi (Japanese sword), 539
 Odo, bishop of Bayeux, 650, 651
 Odo of Deuil, 276

- Odoacer, 137
 Offa, king of Mercia, 98
 Offa's Dyke, 652
 Ögödei khan, 299, 300, 341
 Oirat tribe, 304
 Olaf Haraldsson, king of Norway, 104
 Olaf Trygvasson, king of Norway, 100, 104, 666, 681
 Long Serpent (*drekar* "dragon ship"), 665
 Oleg, prince of Novgorod, 99
 Öljeitü, Mongol Ilkhan, 303, 304
 Olmec tradition, 560, 561
 Oman, Sir Charles, 1, 4
 Omurtag, Onogur Bulgar leader, 142
 On Oq, 152, 174
On the Governance of the Palace (Hincmar of Reims), 75
 Oneota, 600
 Ōnin War, 524, 543–5
 Onogur-Bulgars, 134, 136, 139, 142–3
 Onogurs, 133–4, 137, 141
 Orda khan, 299
Ordene de Chevalerie, 248
 Order of the Garter, 349
 Order of the Holy Sepulchre, 417
 Order of the Knights Hospital, 417
 Order of the Temple, 417
 Orhan, second Ottoman ruler, 434, 449, 451, 458, 463
 Orsini family, 392
 Oseberg ship, 663
 Osman, house of, 449
 Osman I, Ottoman sultan, 433, 449, 450, 455
 Ostrogoths, 107, 133
 Otto, bishop of Bamberg, 142
 Otto I, Holy Roman Emperor, 79
 Otto II, Holy Roman Emperor, 79, 101
 Otto of Freising, 138
 Ottomans, 149, 429, 433, 434, 449–51
 conquest of the Balkans, 435
 development of the military, 455–63
 devşirme system (forced levy of Christian boys), 458–60
 dynastic marriages as a tool of subjugation and conquest, 463
 expansion and setbacks, 450–5
 ghaza theory, 450
 gunfoundry, 503
 marcher lords, 455–6, 460–1
 navy, 461–3, 674
 prebendal system, 457
 sieges and capture of Constantinople, 436–7
 strategy and incorporation of conquered lands, 464–6
 use of the Wagenburg tactic, 468
 weaponry, 466–7
 Ottoman–Venetian war, 463
 Ottonians, 6, 78–80, 101, 111
 Ötzi (Iceman), 640
 Ōuchi clan, 548, 549
 Ōuchi Masahiro, 544
 Ōuchi Yoshioki, 548, 549
ōyoroi (Japanese "great armor"), 225–6, 228, 538
ōyumi/do (Japanese artillery), 216
 Özbek khan, 303, 306
 Oztuma, fortress of, 562
 Pachakuti, Inca emperor, 592
 Paekche, 184, 213
 Paes, Domingo, 499
 Pagan (Burma), 507
 Pambamarca, battle of, 595–8
 partisan (type of polearm), 656
 Parwān, battle of, 317
 Pavia, battle of, 356
 Peace of Lodi, 402
 Pechenegs, 111, 131, 133–5, 137, 139, 142, 153, 170, 437
 Pedro I, king of Aragon, 420
 Pedro II (Pere I), king of Aragon, 419, 421
 Pedro III, king of Aragon, 422
 Pegu, 508, 519
 Prome-Toungoo-Arakan siege of, 517
 Pei Du, Tang chancellor, 209
 Pelagius, papal legate, 277, 279
 Pelagonia, battle of, 432, 441
 Pelayo, 417
 Pelekanos, battle of, 434
pentattis (Indian palace slaves), 477–8
 Persians, 9, 135, 626, 643
 Peru, 587–91. *See also* Inca
 Peter of Eboli, 673
 Peter the Hermit, 275
petroboles (rock throwers), 645
 Petronilla, Aragonese queen, 411, 420
 Philip II (Philip Augustus), king of France, 252, 262, 269, 679
 Philip III, duke of Burgundy, 353
 Philip IV, king of France, 316, 384
 Philippopolis, 435
 Phokas, Bardas, 99
 Piccinino, Niccolò, 403
 Piccolomini, Antonio, 405
 pikes/pikemen, 369–70, 378
 early medieval Indian, 479

- pikes/pikemen (cont.)
 Japanese, 523, 524, 539, 542–3, 544–5, 549–50, 551, 553
 Swiss, 350, 369, 376, 380, 405
 Pikillacta hill fort, 588
 Pimenta, Father Nicolas, 514n
 Pipino, Francesco, 266
 Pippin I, Carolingian king, 62, 73
 Pippin II, king of Aquitaine, 95
 Pīr Muḥammad, grandson of Tamerlane, 310
 Pisan, Christine de, 385
 Pisans, 281, 287
pitture infamante (defamatory paintings), 395
 Pius II, pope, 405
 Pledges of al-Aqaba, 27
 Po, battle on the, 401
 Poitiers, battle of, 350, 352, 397
 polearms, 231, 655–6
 goedendag, 367, 656
 Japanese, 228–9
 Mesoamerican, 572–3
 Tang, 203–4
 voulge, 376
 pole-axe, 255, 383, 656
 Polo, Marco, 514
 Polovtsians, 299, 315, *See also* Cumans
 Polybios, 680
 Portland (Wessex), 87
 Portugal, 411
 reconquest of, 422–4
 Portuguese
 campaigns in Southeast Asia, 512
 gunfoundry, 503
 influence in India, 498–9, 503–5
 Poujet, Bertrand du, 391
precaria, 57–8
primer Nueva coronica y buen gobierno, *El* (Ayala), 594
 Priorsløkke fort, 86
 prisoners of war, 26, 38, 263, 312, 458
 ransoming of, 246, 381–2, 398, 638
 sacrifice of. *See* human sacrifice
 Procopius of Caesarea, 139
 pronōia (Byzantine military institution), 12, 438–40, 441, 442–3, 444, 447, 457, 465
 Prosalentai (“rowers”), 439
 Prousa, Ottoman capture of, 434, 451, 455
 Provence, 58
 Pueblo Revolt, 606–7

 Qādir-Birdī, son of Toqtamish, 308
 al-Qādisiyya, battle of, 32
 qaghans, 173

 Qaidu, Chaghatayid ruler, 308–9, 316, 318
 Qaishan, Mongol prince, 295, 309
 Qalāwūn, Mamlūk sultan, 301
 Qapaghan, Turkic leader, 152
 Qara Khitai, 153, 175, 298, 315
 Qara Qoyunlu Türkmén, 311
 Qarakhanids, 152, 159, 166
 Qarluqs, 152, 153, 168, 298, 312
 Qaynuqa, 28
 Qays, 40–1
 Qhapaq Yupanki, Inca emperor, 592
 Qi Taigong, advisor for the Zhou, 210
 Qing dynasty, 181
 Qipchaq tribe, 298
 Qubilai khan, 301, 308–9, 318, 341, 529
 Quigaltam, battle of, 601–2
 quivers, 227, 605
 Qur’an, 24–8, 29, 36
 Quraysh, 17, 18, 25, 28–9, 35
 Quṭb al-Dīn Aybeg, Turkish slave commander, 470, 484, 487
 Qutlugh, Turkic leader, 152

 Radulf, Thuringian *dux*, 64
 rain-stone magic, 167
 Rajadhiraja, Chola king, 481
 Rajadhirat, king of Pegu, 511
 Rajaditya, Chola crown prince, 481
 Rajendradeva, brother of Rajadhiraja, 481
 Rajput, 475, 488–9, 491, 496
 Ramiro I, king of Aragon, 420
 Ramla
 second battle of, 278
 third battle of, 290
 Ramon of Amous (Raymond of Burgundy), 422
 Ramon Berenguer IV, count of Barcelona, 411, 417, 420–1
 ramparts
 earthen, 88, 142–4, 234, 652
 wooden, 142
 Rangel, Rodrigo, 601
 Ranthambor, siege of, 493
Raoul of Cambrai, 638
 Rashidun (“Rightly-Guided”) caliphs, 18
 Rat, Diego de La, 393
 Ravning Enge bridge, 101
 Raymond IV, count of Toulouse, 268, 282, 289
 Raymond VI, count of Toulouse, 421
 Raymond of Aguilers, 285
 Rechru, 87
 Red Tower (al-Burj al-Ahmar), 291

- Regino of Prüm, 94, 136
 Reid, Richard, 4
 Reis, Kemal, 463
 religion, spread of, 7–8
 Richard, illegitimate son of Henry I, 259
 Richard I, the Lionheart, king of England, 256, 269, 272, 276–8, 279, 286, 292, 657, 667
 fleet, 679
 Richard III, king of England, 651
 Richard of Cornwall, 295
 Ridwan of Aleppo, 284, 289, 290
Risorgimento (Italian unification), 389
 ritual in warfare, 637–8
 ritualized warfare, 637
 Riurik, Viking chieftain, 98
 Robert, count of Flanders, 268
 Robert of Anjou, king of Naples, 391
 Robert the Monk, 266
 Robert of Normandy, 268, 282, 285
 Robertians, 80
 Roche, Otto de la, 430
 rockets, 339, 661
 Roderick, Visigothic king of Spain, 409
 Roger of Antioch, 289
 Roger, king of Sicily, 260
 Rollo, Viking ruler of Normandy, 666
Roman de Thèbes, 254
 Roman Empire, 7
 Romans
 in Scandinavia, 84–7
 influence on military systems, 50–3
 military technology, 641–5
 Rome, siege of, 644
 Romulus Augustulus, Roman emperor, 137
 Roskilde ships
 knorr, 663–4
 langskip, 665
 Rouen, siege of, 362, 379
 Rouran, 152, 155, 159, 162, 170, 173
 armor, 158
 Rovine, battle of, 436
 Roy, Kaushik, 3
Royal Frankish Annals, 97
 Rudra, Kakatiya king, 481
 Rudramadevi, Kakatiya ruler, 501
 Rumeli Hisarı (Rumelian castle), 454
 Runciman, Sir Stephen, 267
 Rus', 99–100, 110–11, 116
 Mongol invasion of, 299, 306–7, 317
 Russian empire, 7
 Russians, 139, 146, 147, 153
 sabres, 135, 138, 149, 159, 490
 Byzantine, 446
 early medieval Indian, 479
 Tang, 189, 203–4
 Turkish, 156–7
 Sackville, Bartholomew de, Buckinghamshire knight, 263
 Sa'd ibn Abi Waqqāṣ, 32
 saddles, 12, 243
 high pommel and cantle, 501, 649
 rigid, 162
 saddle and harness systems, 489–90
Saga of the Jomsvikings, 102
 Sahagun, treaty of, 423
 Sahel region, 7
 St Inglevert tournament, 382
 St Louis, king of France. *See* Louis IX, king of France
 St Stephen, Hungarian king, 138
saiones (military officials), 80
 Sajó River, battle of the, 300
 Saladin, Muslim leader, 269, 277, 279, 281, 286, 290, 292–3, 676
sallet (bascinet helmet), 660
 Samel, battle of, 489
 Samuel, tsar of Bulgaria, 109
 samurai (*bushi*), 216, 219, 220–3, 621, 623
 battle strategies and tactics, 229–35
 weaponry, 223, 225
sancak (Ottoman administrative unit), 460–1, 464, 465
 Sancho I, king of Portugal, 423
 Sancho I Ramirez, king of Aragon, 420
 Sancho II, king of Portugal, 424
 Sancho III "the Great", king of Navarre, 411
 Sancho IV, king of Castile, 425
 Sancho VII, king of Navarre, 419
 Sandwich, battle of, 262
 Sanudo, Marino, the Elder of Torsello, 674
 Sanudo, Marino, the younger, 404, 463
 sappers, 399, 416
 Saragurs, 133
 Sasanian state, 111
 Sasanids, 17, 23–4, 32–5, 155, 165, 626, 642
 armor, 642
 Sassoferato, Bartolus da, 385
 Savelli family, 392
 Scaligeri rulers of Verona, 391
 scalping, 599, 600, 606
 Scandinavia
 military engineering projects, 88–9
 Roman period, 84–7
 shipbuilding, 90

- Scandinavia (cont.)
 trade centers, 89–90
scarae (“select” levies), 52
 Schilling, Diebold, 369
schiltron (battle formation), 378
schloppetieri (handgun infantry units), 406
 Schöneck, Hüglin von, 408
 Sci, 88
 scorched earth policy, 114
 Scots, 351
 English raids on, 357
 French alliance with, 352, 356
 military service system, 378–9
scramasax, 54–5
Scrolls of the Mongol Invasions, 532
 scutage (“shield-money”), 250
 sea links, formation of, 13
 Sebüktegin, founder of the Ghaznavid
 dynasty, 172
 Selim I, Ottoman sultan, 449
 Seljuqs, 111, 112, 118, 131, 300, 417, 431, 438, 446,
 449, 450
 Seminole, 600
 Sempach, battle of, 356, 368
 Serbia, 145, 429, 434, 435–6, 453
 army, 149
 Ottoman conquest of, 468
 serjeants, 251, 252, 259
Seven Military Classics, The (*Wujing qishu*), 337
 Seville, siege of, 420
 Sforza, Francesco, 403, 404
 Sforza, Muzio Attendolo, 401–2
sförzechi, 401–2
 Shāh Rukh, son of Tamerlane, 310
 Shahr-i Nau, 494
 Shatuo Turks, 188, 205, 327–8, 329, 331
 Shēr Shah Sūri, Indian emperor, 489
 Shi Jingtang, founder of Later Jin dynasty, 328
 shield bearers, 399, 603
 shields
 Byzantine, 446
 Carolingian, 646
 depicted in the Cîteaux Bible, 254
 depicted in Southwest American rock art,
 603, 605
 early medieval Indian, 479
 Eastern European, 149
 Japanese, 216, 234
 Mesoamerican (*chimalli*), 576–7, 580
 Mongol, 530
 “Norman”, 446
 Ottoman, 458, 468
 pavise, 657
 prehistoric, 640
 ships, 664
 Slavonic, 139, 147
 Tang, 204
 used by crusaders, 650, 655
 Western European, fifth/sixth century, 54
 shieldwall, 55, 66
 Shi’ites, 279, 284, 289
 shipbuilding, 13
 ships
 Anglo-Saxon, 662–3, 665
 Byzantine *chelandion*, 670
 Byzantine *dromōn*, 670–3, 676, 677, 679
 fifty-oared monoreme (*galeai*), 671–3
 English, 358, 666–7, 669–70
 Fātimid, 674–7
 French, 669
 Italian, 399
 Mediterranean warships, 670–4
 oar-powered, 261
 Ottoman, 461–3, 677
 spurs, 671, 679–80, 682
 Viking, 90, 663–6, 682
 waterline ram, 671, 679, 680, 682
 Shiroishi Michihide, 530
 Shōni Kagesuke, 530
 Shōni Kakuei, 529
shugo (Japanese provincial protectors), 524,
 525–6, 529, 535, 536, 540, 541–4, 545, 548,
 549, 550, 553
 siege warfare, 11
 Delhi sultanate, 491–3
 during the crusades, 272–3, 282–3
 early medieval Indian, 482–3
 Eastern European, 146–7
 Iberian Peninsular, 415–16
 Italian, 395–6
 Mongol, 319–21
 Ottoman, 467
 role of janissaries, 458
 role of townspeople, 363–4
 Southeast Asian, 516–17
 Tang, 206–7
 weaponry, 147, 340, 342, 467
 Western European, 1000–1300, 258
 Sigfred, Viking commander, 96
 Sigibert III, Frankish king, 63
 Sigismund, king of Hungary, 436, 452, 468
 Sigurd “the Crusader”, Norwegian king, 105
 Sigurd Magnusson, Norwegian king, 261
 Silla, 184, 186, 213
 Sinagua, 610
 Sindh, conquest of, 483

- Siri, 494
 Šišman, Michael, 434
 Siwana, siege of, 493
 "six-fold army" (*shad-anga-bala*), 476
 Skanderbeg rebellion, 453, 465
skeggøx (Viking bearded axe), 648
 Skuldelev ships, 663–5
 skull racks, 566, 608, 610
 Skylitzes, John, 677
 slaves, 10, 22, 521, 611, 638. *See also* military slavery
 captured by Vikings ("blue men"), 98
 Ottoman, 457, 459, 460, 463
 Turkish, 171–2
 slave-trading, 416, 456, 582
 Slavs, 139–41, 142, 441, 627
 military service system, 145–6
 use of *petroboles* (rock throwers), 645
 slings, 446, 580–1, 589, 645
 Sluys, battle of, 351, 357, 670, 681
 Smederevo fortress, 147, 467
 Smederevo, siege of, 467
 Smith, Jr., John Masson, 3
 Snare, Esbern, 106
 Snorri Sturluson, 105, 666
 social proxemics, 609–10
 social status and class identity, 10–11
 social violence, 554–5, 568
 Sogdians, 175, 178
 Song dynasty, 7, 322
 conflict with the Jurchen, 337–8
 founding of, 330–4
 governmental reforms, 336
 gunpowder recipe, 335
 gunpowder weapons, 335–6, 339–40
 military thought, 336–7
 system of military recruitment and supervision, 339
 war with the Tanguts, 334–5
 warfare with the Mongols, 341
 Song Shenzong, emperor, 336–7
 Song Taizong, emperor, 332–3
 Song Taizu, emperor, 330, 331–2
 Song Zhenzong, emperor, 333–4
 Soto, Hernando de, 600–2
 South America, 587–91
 environmental circumscription, 608–9
 Southeast Asia, 7
 campaign logistics, 516
 Chinese rule, 518
 elephants used in warfare, 512–15
 European influence, 522
 female participation in warfare, 510
 Indian influences, 518–20
 introduction and impact of firearms, 511–13
 land-based warfare, 516–17
 military systems, 520–1
 motivations for warfare, 508–10, 517–18
 sea and river battles, 510–11
 societal effects of warfare, 521–2
 Southwest Asia, holy war, 625
 Spain
 alliance with the Tlaxcalteca, 581
 colonial system in the Americas, 585
 conquest of the Aztecs, 577
 La Florida expedition, 600–2
 North American expeditions, 601
 spearmen, 115, 252
 Scottish, 350, 378
 Welsh, 371, 378
 spears, 255, 520. *See also* javelin
 Ancestral Pueblo, 605
 Carolingian, 646
 Crusades, 650
 developments in Western European, c.
 75–625 CE, 54
 fire spears, 336, 339, 546
 Frankish barbed, 644
 Japanese, 228–9
 nomadic tribes, 135
 short, 159, 489
 "Spears of Destiny", 646
 Tang, 204
 squires, 247
 Sri Vijaya, 7, 474, 507, 510, 628
 Srong-btsan-sgampo, Tibetan king, 185
 staff weapons, 367. *See also* polearms
 Stapleton, Timothy, 4
 state formation, 9–10
 Steenstrup, Johannes, 88
 Stefan Lazarević, Serbian ruler, 436, 452
 Stephen, king of England (Stephen of Blois),
 252, 263, 268, 275
 stirrups, 243, 489–90, 649
 adoption by Arabian/Muslim armies, 37
 appearance in the Hoysala kingdom, 501
 influence on Tang warfare, 203
 invention of, 12
 used by nomadic tribes, 134
 westward transmission of, 13, 162
 Strabo, 84
stradiots (Albanian light cavalry), 405
Strategemata (Frontinus), 384
Strategikon, 135, 153, 154, 156, 158, 161, 163,
 164, 169
 subcultural wars, 619–21

- Sübe'edei, Mongol general, 298–9, 312, 315
 Suevi, 409
 Sui dynasty, 5, 7, 152, 181, 189, 192
 end of, 182–3
 suicide, 638
 Sukothai, 508
 Suldu tribe, 304
 Süleyman I, Ottoman sultan, 449
 Süleyman Pasha, son of second Ottoman ruler, 451
 Sulu, 154, 158, 159, 167, 179
 Sumatra, 7
 Sunni Islam, 27, 284, 290, 294
 Sunni Turks, 279
Sunzi, 635
 Sunzian warfare, 11, 617, 635
 Sutton Hoo ship, 55, 662
 Svend Aggesen, 102
 Svend Forkbeard. *See* Swein I, king of Denmark
 Svend, legendary prince of Denmark, 105
 Sverker the Younger, 104
 Sviatoslav, prince of Kiev, 99
 Svolder (Svǫlðr), battle of, 666
 Swein I (Svend Forkbeard), king of Denmark, 78, 80, 100, 102, 666
 Swiss, 355–7, 368–9, 376–7, 656
 military service system, 379–80
 pikemen, 350, 369, 380, 405
 swords. *See also* sabres
 broad swords, 138, 147–9, 414, 580
 Byzantine, 446
 Carolingian, 647
 Crusades, 650
 early medieval Indian, 479
 Frankish, 644
 Gothic, 642, 643
 Japanese, 227–8, 539, 545, 553
 Mesoamerican, 571–3, 580
 Roman short swords, 642
 Slavonic, 147
 Southeast Asian, 521
 Swiss, 380
 Turkish, 156
 two-edged (*jian*), 203
 Ulfberht, 94
 Western European, 1300–1500, 367
 Symeon, tsar of Bulgaria, 109, 113
 Ṭabarī, Muḥammad ibn Jarīr al, 19, 45, 46, 47, 154, 163, 172, 678
tabur (arrangement of war wagons), 468
tachi (Japanese sword), 227–8, 539
tagmata (Byzantine military corps), 126, 127, 130, 438, 440
 Ṭāhir ibn al-Ḥusayn, 45
 Taíno, 555
 Taira defense works, 234
 Taira Kiyomori, Japanese leader, 235–7
 Taira Munemori, Japanese commander, 236
 Taira Shigehira, Japanese commander, 236
 Taira Tomomori, Japanese commander, 236
 Taizong, Khitan emperor, 164
 Takezaki Suenaga, 530, 532, 533
 Takkolam, battle of, 481
 Talas River, battle of the, 186
 Tama Toqta, Golden Horde prince, 303
 Tamerlane (Temür), Chaghatayid commander, 307–8, 309–11, 313–15, 316, 319, 436, 452–3
 Tamīm ibn Baḥr, 168, 170
 Tancred of Antioch, 289, 290
 Tang dynasty, 5, 6, 7, 152, 181–2
 alliances with the Turks, 177–8
 An Lushan rebellion, 178, 186–7, 188, 189, 190–1, 192, 194, 201, 205–6, 209–10, 218, 324
 attacks on Koguryō, 182, 184–5, 208
 battle tactics, 205–6
 causes of conflict, 188–92
 end of, 188
 expeditionary armies system, 185, 192–4
 fall of the, 324–5
 fortifications and siegecraft, 206–7
 fubing system, 195–203
 Huang Chao rebellion, 188, 194, 322, 324, 327
 imperial palace armies, 194–5
 influence on Japan, 213
 jiedushi system, 187, 188
 military governors system, 185, 193–4
 military institutions, 192–5
 military logistics, 207–8
 perceptions of war and the military, 587–91
 reliance on foreign contingents, 10
 revolt against the Sui dynasty, 182–3
 subjugation of the Eastern Turks, 183–4
 supply of military provisions, 207
 threat from Tibet, 185–8
 threat from the Western Turks, 185
 victories in Inner Asia, 184
 Tanguts, 334–5, 336, 337, 339, 341
tanutrana (quilted cloth armor), 480
 Tarā, battle of, 484, 491
 Tarascan, 586
 Tarik ibn Zīyad, 409

- Ta'rikh al-rusul wa'l-mulūk* (Muḥammad ibn Jarīr al-Ṭabarī), 19
- Tatars, 149, 311, 312, 321
- tawashi*, 286
- Tell Bashir fortress, 287
- Templars, 264, 276, 292, 627
- Temür. *See* Tamerlane
- Temür Öljeitü, Yuan emperor, 309
- Tengri (Sky God), 624
- Tenji, Japanese emperor, 213
- Tenochtitlan, 561, 567, 577, 579, 580, 582, 583–5 skull rack, 610
- Teotihuacan, 558, 563, 565, 575
- Tepanec, 572–3
- tepoztopilli* (Mesoamerican polearm), 572–3, 590
- Terek River, battle of the, 303, 308, 314, 319
- Teutonic Order, 292
- Tezozomoc, Tepanec leader, 583
- thegns*, 75
- Thelematarioi (Byzantine military division), 439, 445
- themata* (Byzantine military/administrative divisions), 125, 131, 439
- Theobald, count of Champagne, 270
- Theodore I Laskaris, emperor of Nicaea, 431
- Theodore II Laskaris, emperor of Nicaea, 439
- Theodore of Champagne, 295
- Theodore Doukas, ruler of Epirus, 431
- Theodore Palaiologos, marquis of Montferrat, 444
- Theophanes the Confessor, 677
- Thessaloniki, sieges of, 436, 467, 645
- Theudis, Visigothic king, 60
- Thietmar of Merseberg, 141
- Thirty Years War, 251
- Thomas the Slav, 677
- throwing axes, 54, 55, 644
- Thucydides, 636, 680
- Thupa Inka Yupanki, Inca emperor, 592
- Tibetans, 152, 191, 193, 200 challenges to the Tang, 185–8
- timar* system, 443, 457, 460, 464–5, 466
- tir-i atish* (type of arrow), 503
- tir-i nāwak* (type of arrow), 491
- Tiwanaku, 587–8, 589
- Tlacaēl, Aztec commander, 583, 584–5
- Tlaloc masks, 576
- tlauitolli* (Mesoamerican bow), 574
- Tlaxcala, 563
- Tlaxcalteca, 559, 581
- Töde Mengü khan, 306
- Tögen Ei'an, 530
- Töle Buqa, Jochid prince, 305
- Tolentino, Niccoló, 402
- Tolui khan, 301
 - ulus* of (Yuanempire), 308
- Toqtamish, Jochid khan, 307–8, 310, 313, 314, 315, 319
- Toqto'a khan, 306–7
- Toqto'a, Yuan chancellor, 342
- Toqua, 599
- Tortosa, siege of, 421
- tōsei gusoku* (Japanese armor), 551
- Toulouse, Count of, 273
- Tourkopouloi, 445
- tournaments, 139, 146, 245–6, 382
- Towosahgy, 599
- Towton, battle of, 367
- Toyotomi Hideyoshi, 525, 625, 629
- trade routes, 8–9
- transcultural wars, 619, 633, 634, 637
 - subcultural, 619–21
- Treaty of Venice, 270
- Trebizond, 430, 437, 446, 464
 - Ottoman capture of, 469
- trebuchets, 9, 13, 123, 206, 258, 395, 399, 406, 645
 - Delhi sultanate (*manjaniq-i maghrabi*), 485, 491–6
 - Mongol, 319, 501
 - Ottoman, 446
 - Russians, 147
- Trench, battle of the, 29
- tridents, 521
- Tripoli, 289
- Troyes, Chrétien de, 247
- Troyes, treaty of, 353
- Tsuchimochi Nobuhide, 540
- Tsutsui, 543
- Tudan, Golden Horde leader, 306
- Tudawun, Mongol general, 301
- Tughluqabad, 494–5
- Tughluqs, 493, 496
- Tuirgeis (Thorgils), Viking chieftain, 92
- Ṭūlunids, 674
- Turcoples, 270, 291
- Türgesh, 152, 154, 179
- Turks
 - aims of war, 170–3
 - armor, 158–60
 - battle tactics, 164–8, 284–7
 - crusader battles against, 284–6
 - horses used by, 160–2
 - military organization, 173–6

- Turks (cont.)
 military training, 487–8
 mobility and encampments, 168–70
 natural warriors, 154–6, 162, 164, 177–80
 naval force, 674
 service to the settled empires, 177–80
 Tang campaign against the Eastern Turks,
 183–4, 191
 used as slaves in the Indian military, 486–7
 weapons, 156–60
- Turnbull, Stephen, 3
- Tutush Shah, Turkish sultan, 284
- Tuyuhun, 185
- Tver¹ uprising, 306
- Tvrtko I, king of Bosnia, 436
- Two Swords Theory, 636
- Tyre, 277, 281
- Udayadityadeva, Nolamba chief, 477
- Uesugi Kenshin, 547
- Uglješa, John, 435
- ‘Uhud, battle of, 25, 29
- Uighurs, 151, 152–3, 161, 167–8, 169–70, 174, 186,
 187, 188, 191, 192, 312
 armor and weaponry, 159
 cavalry, 205
 military organization, 175–6
 submission to the Mongols, 298
- Ujigawa, battle of, 237
- Ulugh khan, 493
- ‘Umar I, Muslim caliph, 32, 37–8
- ‘Umar Shaikh, Chaghatayid commander, 307
- Umayyad caliphate, 6, 18, 24, 32, 39–41, 112,
 410, 674
- Umayyads of Spain, 674
- Upton, Nicholas, 385
- Urals, 153
- Urban II, pope, 264, 266, 275, 417, 657
- Urraca, Queen of León, 418, 422
- Ushrūsaniya, 46
- Ustad Muḥammad bin Husain Rūmi, 503
- Utrecht ship, 663
- Uturunku Achachi, Inca emperor, 592
- Valdemars, 103, 105
- Valerian, Roman emperor, 642
- Valsgårde ship burials, 55
- Vandals, 133, 409
 catapults, 642
- Vanir (Norse gods), 623
- Varangian guard, 10, 99–100, 111, 116, 131, 440–1
- Varangian mercenaries, 153
- Varna, battle of, 454, 458, 468
- Vegetian warfare, 11, 617
- Vegetius, 2, 257, 384–5, 617, 634, 642, 643
- Velbužd, battle of, 434
- Vendel ship burials, 55
- Venetians, 399–401, 407, 453, 467
 defense of Constantinople, 437
 disputes with the Genoese, 399–401, 435
 fleet, 432
 military system, 402–6
 role in the fourth crusade, 110, 270, 281, 283
 shipbuilding, 407
 transportation of horses by sea, 679
 war with the Ottomans, 461, 463, 468
- Verbruggen, J. F., 2
- Vermadois, count of, 248
- Verneuil, battle of, 350
- Veronese, 396–7
- Vestiaritai, 440
- Vidin fortress, 467
- Vietnam, 518
- Vijayanagara, 496–501, 505
- Vikings, 73
 activity in Frankia, 89, 96
 aims, organization and methods, 91–4
 casualties in battle, 96–7
 Christianization of leaders, 96
 defensive strategies against, 87–8
 earliest strikes by, 87–8
 expansion into the Mediterranean and the
 East, 98–100, 261
 participation in Holy Wars, 105–6
 political impact of raids from, 97–8
 political influence in raided lands, 95
 responses to raids from, 95–7
 royal control of power in the High-Middle
 Ages, 100–4
 ships, 90, 94, 663–6
 theories on reasons for predatory
 behaviour, 88
 use of horses, 12
 weaponry, 648
- Villehardouin, Geoffrey, 430
- Vinci, Leonardo da, 406
- Vira-Shaivas, 476
- Virtues of the Turks and the Army of the Khalifate
 in General (Jāhīz)*, 155
- Visby, battle of, 368
- Visconti rulers of Milan, 391
 Bernabò, 404
 Filippo Maria, 403
- Visigoths, 107, 133, 409, 411
 military service systems, 59–60
- Vitalis, Orderic, 252

- vivisection, 608
- vlachs* (Christian nomads), 466
- Vladimir I, prince of Kiev, 100, 111, 141
- Vochang, battle of, 514
- Volga Bulgars, 299, 319
- Vorskla River, battle of the, 308, 321
- voulge* (type of polearm), 376
- voynuk* (Ottoman social organization), 465–6
- Vukašin, king of Serbia, 435
- Vytautas, Grand Duke of Lithuania, 308
- Wagenburg tactic, 468
- wagon laager (*tabur*), 468
- Waleran II, count of Meulan, 249
- Wales, Quaritch, 1
- Wallachians, 436, 453
- Walprand, bishop of Lucca, 62
- Waltharius*, 66
- Wang Anshi, Song politician, 336
- Wanka Awki, Inca emperor, 592
- wappinshaws*, 378
- war cries, 167, 597, 602
- war drums, 167, 602
- war and the state, theories of, 635–7
- Warangal, siege of, 493
- warfare, definitions of, 555
- Wari, 558, 587–8, 589, 591
- war-paint, 167
- Warring States era, 339, 524, 548–52, 633, 635
- Wars of the Roses, 355, 385
- Waskhar, Inca emperor, 592
- Watiza, Visigothic king of Spain, 409
- Waurin, Jean de, 386
- Wayna Qhapaq, Inca emperor, 592, 595–7
- weapon sacrifice, 85–6
- weaponry, 13, *See also* gunpowder
 - Ancestral Pueblo, 605
 - Anglo-Saxon, 648
 - Arabian pre-Islamic, 22
 - Byzantine, 446–7
 - Chinese, 323
 - Delhi sultanate, 490–1
 - Frankish throwing, 644
 - French infantry, 376
 - Gothic, 643
 - Hundred Years War, 363
 - Hungarian, 138, 149
 - Iberian Peninsular, 414
 - Indian, early medieval period, 479
 - infantry and archers, 655–8
 - Irish, 379
 - Italian, 399, 406–7
 - Japanese, 216, 223–9, 529, 539, 544–8, 549–50
 - Mesoamerican, 580–1
 - Mongol, 313, 321
 - nomadic tribes, 134–5
 - Ottoman, 466–7
 - prehistoric, 640
 - Rus', 99
 - Russian, 149
 - Slavs, 139, 147–9
 - Song dynasty, 335–6
 - South American, 589
 - Southeast Asian, 511–13, 520–1
 - Tang, 189, 203–4
 - Turkish, 156–60
 - used in the Crusades, 539
 - Viking, 94, 648
 - warships, 358
 - Western European, 600–800, 54–5
 - Western European, 1000–1300, 253–6
 - Western European, 1300–1500, 366–9, 380, 387
- Wei Zheng, Confucian scholar, 209
- Weland, Viking chieftain, 78, 92
- Welsh, 351
 - battle formations and tactics, 378
- Wends, 105, 137
- West Africa, 7
- Western European warfare, 600–800, *See also*
 - Anglo-Saxons; Carolingians; Franks; Vikings
 - battle tactics, 55, 71–2
 - campaign objectives, 69–71
 - “heroic” nature of, 66
 - masculinity, 65–6
 - military kingship, 63–5
 - military service systems, 50–4, 78–81
 - Anglo-Saxon England, 60
 - Francia, 56–9
 - Lombard, 61–3
 - Visigothic Spain, 59–60
 - scale, 67–9
 - weaponry and armor, 54–5
- Western European warfare, 1000–1300
 - armor and weaponry, 253–6
 - laws of, 263–5
 - mobilization of armies, 249–53
- Western European warfare, 1300–1500, 349–51
 - armies
 - Britannic, 377
 - Burgundian, 377–8
 - English, 371–4
 - French, 370–1, 374–7
 - Irish, 379
 - Scottish, 378–9

- Western European warfare (cont.)
 Swiss, 379–80
 armor and weaponry, 367–8
 battle tactics, 368–70
 English expansionism, 351–2
 frequency and intensity of battles, 365–7
 gunpowder artillery, 363
 military culture, 380–8
 naval warfare, 357–8
 siege warfare, 361–4
 war and politics, 351–7
 Western Jin dynasty, 181, 189
 White Company, 392, 394
 Whittington, Richard, 381
 Wibald of Corvey, 273
 Wielice, 146
 Wihenoc of Monmouth, Norman *miles*,
 245
 William, duke of Normandy (later William I,
 the Conqueror), 245, 262, 263, 271, 621,
 648, 650
 fleet, 666
 William II, king of Sicily, 679
 William II Villehardouin, prince of
 Achaia, 432
 William V, count of Aquitaine, 621
 William Atheling, son of Henry I, 259
 William d'Aubigny, Earl of Sussex, 250
 William of Beaujeu, Grand Master of the
 Temple, 295
 William of Champlitte, 430
 William fitz Empress, brother of Henry II,
 255
 William of Tyre, 105, 266, 286, 287
 Wladislas, king of Hungary and Poland, 454
 Woliniani, 146
 women, participation in warfare, 510

 Xi tribe, 185
 Xianzong, Tang emperor, 187–8,
 189
 Xieli, Turkish qaghan, 158, 169
Xin Tangshu, 158

 Xiongnu, 151–2, 161, 167, 170, 171, 173, 174,
 179, 183
 Xuanzang, Chinese monk, 163
 Xuanzong, Tang emperor, 185–6, 188, 192, 202
 al-Ya' qūbī, 46

 Yaghi Siyan, Turkish govenor, 284
 Yahudu, Yuan prince, 309
 Yaishan, battle of, 341
 Yamana Sözen, 543–4, 545
 Yamato, 9, 212, 213–14
 Yangdi, Sui emperor, 182, 184, 189, 205, 208
 Yāqūt, 164
yari (spear), 229
 Yarmūk River, battle of the, 32
 Yasa'ur, Chaghatayid prince, 304
 Yayoi, 211–12, 228
 Yuan dynasty, 181, 308–9, 322, 341–2
 yucca whips, 605
yunti (“cloud ladders”), 206
 Yurii Vsevolodovich, prince of Vladimir,
 299
 Yūryaku, Japanese emperor, 212

 Zāb River, battle of the, 41
 Zapotec, 566–7, 575
 Zengi of Mosul and Aleppo, 289, 293
 Zennōji temple, 552
 Zhao Pu, advisor to Song Taizu, 331
 Zheng He, admiral, 9
Zhoushu, 156, 157, 158
 Zhu Di, prince of Yan, 343–4
 Zhu Quanzhong, warlord and future Liang
 emperor. *See* Zhu Wen
 Zhu Wen, Tang commander and emperor of
 Liang, 327–8
 Zhu Yuanzhang, Ming founder, 327–8, 343
 Zīrids, 674
 Zonchio, battle of, 463
 Zoroastrianism, 35, 624, 625–6
 Zubayrids, 40
zunari kabuto (Japanese helmet), 551
 Zvornik fortress, 467