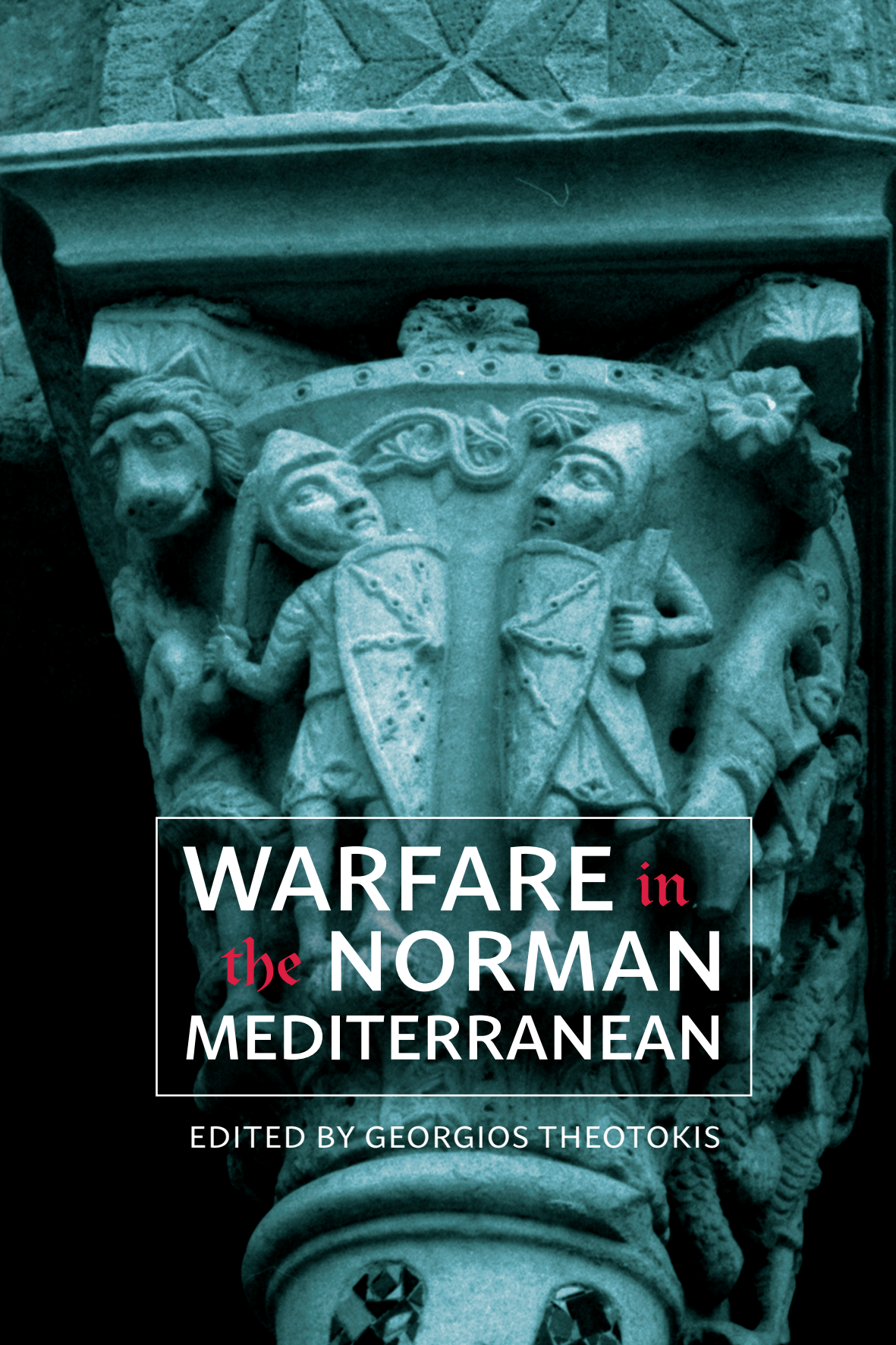

WARFARE in the NORMAN MEDITERRANEAN

EDITED BY GEORGIOS THEOTOKIS

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Warfare in the Norman Mediterranean

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Edited by

Georgios Theotokis

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*Cover image: carved capital depicting two Norman soldiers, in the
Cloisters of the Cathedral of Monreale, Palermo.
Photo courtesy of Dr David Nicolle (photo taken in 1976).*

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A Gift to the Normans: the Military Legacy of Sicilian Islam

David Nicolle

It is well known that the Norman rulers of Sicily and southern Italy employed and made very effective use of Muslim troops from Sicily. Certain aspects of their recruitment, organisation, skills, and motivation are also well understood. But the only aspect of their tactics, and by extension their equipment, which has so far been studied in detail concerns archery.[1] However, these Sicilian "Saracens" served as other types of infantry and as light cavalry, as well as providing the Normans with highly regarded military engineers. It has also been suggested that the Muslims of Sicily and southern Italy played a part in the spread of early medieval Islamic military technology to western Europe.[2] As is well known, even after the forcible transfer of Muslims from Sicily to the Italian mainland by the Normans' successors, this community continued to play a significant role for many decades (fig. 37a–b).

This chapter hopes to explain quite what the Muslims of Sicily had to offer their eleventh-century Norman conquerors in terms of military technology, military organisation, and tactics. Where and how these aspects of Siculo-Muslim military tradition evolved are also important questions, because Islamic Sicily – though prosperous and culturally flourishing – remained a relatively small frontier province of the early medieval Islamic world. How much of what the Normans inherited was a local development, how much from the neighbouring Maghrib (North Africa), and how much from most distant regions of the Islamic world – to east and west? This remains an unanswered question. What is clear is that the military traditions

1 Giovanni Amatuccio, "Saracen Archers in Southern Italy" (https://bit.ly/2RYe1lG).

2 David Nicolle, "Jawshan, Cuirie and Coat-of-Plates: An Alternative Line of Development for Hardened Leather Armour", in *A Companion to Medieval Arms and Armour*, ed. David Nicolle (Woodbridge, 2002), pp. 179–221 and pls. XIII-1 to XIII-45.

of Islamic Sicily were rooted in the first two centuries of Islamic history in North Africa, the Middle Eastern heartlands, and even Iran.

The Muslim army which invaded Sicily in 827 AD is said to have consisted of ten thousand infantrymen and seven hundred cavalry in about one hundred ships.[3] Its leadership was largely Arab, and Arabs formed the elite of this force.[4] However, the majority were Berbers, mainly from the Huwwarah tribe. Other soldiers included political exiles from Al-Andalus in the West and Khurasanis from the East.[5] Berbers continued to play the major military role throughout what proved to be a hard-fought and prolonged campaign;[6] however, chroniclers also emphasised the role of scholars and religious figures who accompanied the first invading army.[7] Setting off from Sousse in Ifriqiya (now largely Tunisia), this Muslim army established a bridgehead at Mazara, on the western tip of Sicily, after a crossing which supposedly took three days. This might, in fact, mean that transporting the army to Sicily took three days, rather than the fleet being at sea for three days.[8]

The invasion of Sicily has been described as an early and ambitious example of a major campaign of conquest launched by a provincial governor, in this case the Aghlabid ruler of Ifriqiya, rather than by the caliph. It also provided an outlet for the aggressive enthusiasm of the *jund* army in Ifriqiya, while bringing a satisfactory amount of loot to the Aghlabid government and giving that newly established dynasty political and religious legitimacy.[9] Unlike the conquest of the Iberian peninsula over a century earlier, the conquest of Sicily took a long time and largely consisted of sieges, but once the main city of Palermo was taken in 831 AD,[10] Sicily became an *amirate* or province of the Aghlabid state. Yet, the last bastions of Byzantine resistance were not taken until 965 AD, by which time Sicily had passed from Aghlabid to Fatimid and then to local Kalbite rule. Just under a century later, the first Norman raid landed on the island.

Islamic invasion was followed by Arab and Berber colonisation. Initially, Muslim settlement in Sicily was military and administrative. Meanwhile, many Christian prisoners, Byzantine and Sicilian, were reportedly sent to Islamic territories. Subsequently, the Muslim settlement of Sicily became

3 William E. Granara, "Political Legitimacy and Jihad in Muslim Sicily 217/827–445/1053", PhD thesis (University of Pennsylvania, 1986), p. 62.

4 Granara, "Political Legitimacy", pp. 67–68.

5 Michele Amari, *Storia dei Musulmani di Sicilia*, 2 vols. (Catania, 1933), vol. I, pp. 394–95.

6 Aziz Ahmad, *A History of Islamic Sicily* (Edinburgh, 1975), p. 22.

7 Granara, "Political Legitimacy", pp. 94–96.

8 Granara, "Political Legitimacy", pp. 62–63.

9 Granara, "Political Legitimacy", p. 65.

10 Haven C. Krueger, "The Italian cities and the Arabs before 1095", in *A History of the Crusades*, ed. Kenneth M. Setton (Madison, 1969), vol. I, p. 44.

agricultural, with archaeological evidence indicating that the process was not only substantial but also systematic, resulting in a revival of both agriculture and urbanisation during the Islamic period,[11] while the evidence of surviving place names indicates that Muslim settlement was heaviest south-west of a line between Cefalu and Catania. The newcomers included Andalusians, Egyptians, Khurasanis and black, sub-Saharan Africans as well as people from Ifriqiya.[12]

Within a short space of time substantial numbers of local Sicilians converted to Islam, and the new province of Siqiliya eventually had a notably mixed population including the existing Orthodox Christian Sicilians and ex-Byzantine Greeks, Latin Catholic "Lombards" or mainland Italians, and a substantial Jewish community.[13] Furthermore, there is evidence that the Arabic-speaking settlers included Arab Christians from Egypt and Al-Andalus.[14] Here it should also be borne in mind that the Islamic armies of Al-Andalus included both local Andalusians equipped in essentially western European style and more recently arrived Berber troops dressed and equipped in North African style (fig. 60a–e). By the time of the Norman invasion in the second half of the eleventh century, an estimated two-thirds of the population of Sicily had converted to Islam, with most of the Christian minority living in the north-east.[15] Even so, the remaining Christians seem to have become *musta'rib*, or Arabised, and hence suspect in the eyes of Norman and subsequent Christian settlers from the European mainland.[16]

Nor was Sicilian Islam particularly orthodox or mainstream. According to Ibn Hawqal writing in the ninth century, knowledge of Islam among most Sicilian Muslims was rudimentary.[17] Even in the later tenth century there were complaints that Sicilians often appeared in their mosques armed, which more educated believers regarded as reprehensible,[18] while the "folk" character in Sicilian Islam may have increased under Norman rule during the twelfth century. In the meantime Shi'a Muslims had found refuge in

[11] Leonard C. Chiarelli, "Sicily during the Fatimid Age", PhD thesis (University of Utah, 1986), pp. 89–90.

[12] Henri Bresc, "Mudejars des Pays de la Couronne d'Aragon et Sarrasin de la Sicile Normande: Le Problème d'Acculturation", in *Jaime I y su época (X Congreso de Historia de la Corona de Aragón)* (Zaragoza 1975), vol. III (Zaragoza 1980), pp. 52–53.

[13] Ahmad, *Islamic Sicily*, p. 22.

[14] Bresc, "Mudejars des Pays", p. 58.

[15] Graham A. Loud, *The Age of Robert Guiscard: Southern Italy and the Norman Conquest* (London, 2000), p. 147.

[16] Chiarelli, "Sicily during the Fatimid Age", p. 114.

[17] Bresc, "Mudejars des Pays", p. 53.

[18] Judhari, Abu 'Ali Mansur al-, *Vie de l'Ustadh Jaudhar [Sirat al-ustadh Judhar]*, trans. Marius Canard (Algiers, 1958), p. 102.

Sicily during a time of persecution in North Africa,[19] when the Hammadid dynasty of eastern Algeria threw off its allegiance to the Shi'a Fatimid caliphate in Egypt. Within a few decades there were also serious tensions between established Sicilian Muslims, including local converts, and recent arrivals from North Africa.[20] Such divisions within Sicilian society would, of course, greatly assist the Norman invaders.

For most of the time the political leadership of Muslim Sicily was dependent upon Ifriqiya in North Africa, or upon Egypt. Indeed politically, economically, and culturally, Siqiliya was part of the Maghrib. Although small, Islamic Sicily also influenced Islamic North Africa, particularly during the era of Fatimid rule (909–48 AD), which was, paradoxically, also a time of internal strife.[21] Although the political situation worsened in Sicily under the Fatimids' successors, this last century also saw a cultural flowering which carried over into the Norman era.[22]

Underpinning the urban and cultural achievements of Islamic Sicily were major changes in rural areas. The great *latifundia* estates were broken up into smaller farms by the Muslim conquerors, opening up opportunities for the servile rural population, if they converted to Islam.[23] Free, and now able to defend their new status, the soon largely Muslim rural population of western Sicily nevertheless mostly lived in undefended villages in the valleys.[24] Sicilian cities and towns similarly expanded considerably under Islamic rule.[25] In these urban centres, Muslims and Christians normally lived in separate or at least distinct quarters,[26] with Christians continuing to play a prominent role in local government.[27]

In fact Sicily had a distinctly military character under Islamic rule, as the geographer al-Muqqadasi wrote in the later tenth century; "Sicily, the fertile island whose people never tire of fighting the jihad".[28] Perhaps the most famous military leader to come out of Sicily during this period was the Fatimid general Abu al-Hasan Jawhar ibn 'Abd Allah. His family background remains obscure, but according to the chronicler al-Taghri Birdi,

[19] Graham A. Loud, "The Norman Conquest of Sicily", in *A History of the Crusades*, ed. Kenneth M. Setton (Madison, 1969), vol. 1, p. 57.

[20] Loud, *The Age of Robert Guiscard*, p. 147.

[21] Chiarelli, "Sicily during the Fatimid Age", abstract ii.

[22] Chiarelli, "Sicily during the Fatimid Age", pp. 60–64.

[23] Chiarelli, "Sicily during the Fatimid Age", p. 101.

[24] Loud, *The Age of Robert Guiscard*, p. 183.

[25] Gina Fasoli, "Le Città Siciliane dall'Istituzione del Tema Byzantino alla Conquista Normanna", *Archivio Storico Siracusano* 2 (1956), 61–81, also in G. Fasoli (ed.), *Scritti di Storia Medievale* (Bologna 1974), pp. 342–43.

[26] Fasoli, "Le Città Siciliane", p. 352.

[27] Chiarelli, "Sicily during the Fatimid Age", p. 60.

[28] Loud, "The Norman Conquest of Sicily", p. 58.

writing in the fifteenth century but drawing upon earlier sources, Jawhar was a freedman of the Fatimid caliph and was known by various epithets including al-Siqilli (the Sicilian). Others have suggested that Jawhar might have been of Armenian origin but raised as a slave in Sicily.[29] After Sicily ceased to be part of the Shi'a Fatimid caliphate in 948 AD, its people's enthusiasm for military exploits declined.[30] Nevertheless, by the time of the Norman invasion, Sicily was strongly fortified.[31]

Sicily being strategically located, the military history of the Islamic island had an important naval dimension, largely consisting of coastal raiding rather than attacking merchant ships at sea.[32] Whether the armed man found in the wreck of a small Islamic vessel off the coast of Provence and dated to this period was such a raider, or *jihadi* (fig. 7), remains unknown, of course.[33] What is clear is that Muslim shipbuilders developed a significantly greater horse-transporting capability than their European and Byzantine rivals. The large size of some Andalusian and Fatimid ships caused astonishment at the time, so it is not surprising to read that Arab *tarida* specialist horse-transporting galleys could carry up to forty horses by the late tenth century.[34]

Only nineteen years after invading Sicily, another substantial force of western Muslims attacked Rome. According to Bishop Prudenzio of Troyes they came in sixty-three ships which landed at Ostia carrying five hundred horses. This was a major assault and is said to have wiped out the pope's *Scholae* – a Byzantine term for an elite military force.[35] Later a different

[29] Seta B. Dadoyan, *The Fatimid Armenians: Culture and Political Interaction in the Middle East* (Leiden, 1997), p. 83.

[30] Chiarelli, "Sicily during the Fatimid Age", pp. 60–64.

[31] Fasoli, "Le Città Siciliane", p. 348; for a study of the sort of fortification that the Muslims themselves faced during campaigns against the southern Italian mainland, see Jean-Marie Martin and Ghislaine Noyé, "Guerre, fortifications et habitats en Italie méridionale du Ve au Xe siècle", in *Guerre, fortification et habitat dans le monde méditerranéen au Moyen Âge. Colloque organisé par la Casa de Velázquez et l'Ecole Française de Rome, Madrid, 24–27 novembre 1985*, ed. André Bazzana (Madrid, 1988), pp. 225–36, and Carlo G. Mor, "La Difesa militare della Capitanata ed i Confini della Regione al Principio de Secolo XI", in *Studies in Italian Medieval History Presented to Miss E. M. Jamison, Papers of the British School at Rome*, ed. Philip Grierson, John Bryan Ward-Perkins (Rome, 1956), pp. 29–36.

[32] Pierre Guichard, "Animation maritime et developpement urbains des côtes de l'Espagne orientale et du Languedoc au Xe siècle", in *Occident et Orient au Xe siècle: Actes du IXe Congrès de la Société des historiens médiévistes de l'enseignement supérieur public (Dijon, 2–4 juin 1978)* (Paris, 1979), pp. 187–207.

[33] Guichard, "Animation maritime", pp. 206–7.

[34] Matthew Bennett, "Norman Naval Activity in the Mediterranean c.1060–1108", *Anglo-Norman Studies* XV (1993), 49; John H. Pryor, "From Dromon to Galea: Mediterranean Bireme Galleys AD 500–1300", in *The Age of the Galley*, ed. Ralph Gardiner (London, 1995), p. 107.

[35] Nicola Cilento, "I Saraceni nell'Italia Meridionale nei Secoli IX e X", *Archivio Storico per la Province Napoletane* 38 (1959), 111.

term, *masnada*, was used for the papacy's small standing army, which then consisted of mercenaries and others, led by Rome's aristocracy.[36] The term *masnada*, as it was used in Italy and the Iberian peninsula, remains problematical, although it is usually thought to share the same Latin root as the medieval French word *mesnie* meaning a lord's military retinue. However, it might be linked to the Arab words *misnad* or *musanada* meaning a support, or *mustanid* meaning trust or reliance upon.

Arab and Islamic influence upon military terminology in southern Italy would not be surprising. By the 840s AD there were increasing numbers of Arabs and other Muslims in southern Italy, most notably in Apulia on the Adriatic coast, but also on the south-western coast of the mainland.[37] They included raiders, settlers, and mercenaries. Local rulers like the Lombard prince of Salerno and Duke Benevento seemed unable to protect the area's wealthy monasteries, perhaps because, once the Lombard elite established itself in southern Italy after being defeated by Charlemagne in the North, they ceased to be warrior leaders and instead became "guardians of the law".[38]

While the conquest of Sicily pressed ahead, there were repeated Islamic attacks on the Italian mainland. In 925 and 928 AD raids launched from Sicily struck Byzantine-ruled Otranto, and in 994 AD another group attacked Matera. In 1002 AD Bari was targeted yet again, this time by "Saracen" raiders who may not all have been Muslim, but were commanded by an ex-Christian renegade called Luca who was known as *Qa'id* (commander) Safi.[39] Medieval Christian sources usually give the impression that Muslim colonists on the European mainland were simply belligerent *ghazis*, raiding far and wide and taking advantage of quarrels between local Christian powers. In fact, some of these Islamic enclaves became centres of trade and of economic production, particularly timber for shipbuilding.[40]

During this turbulent period the, so-called, Saracens started establishing colonies on the south Italian mainland, including an autonomous *amirate* around Bari from 847 to 871 AD.[41] Despite the destruction of this outpost in south-eastern Italy, a smaller but longer-lasting Muslim colony was estab-

[36] Peter Partner, *The Lands of St Peter* (London, 1972), p. 195.

[37] Barbara M. Kreutz, *Before the Normans, Southern Italy in the Ninth and Tenth Centuries* (Philadelphia, 1991), pp. 24–25.

[38] Huguette Taviani-Carozzi, *La Principauté Lombarde de Salerne, IXe–XIe siècle* (Rome, 1991), p. 442.

[39] Cristian Guzzo, *L'arrivo dei Normanni nel Meridione d'Italia tra fonti d'epoca e storiografia contemporanea* (Tuscania, 2014), p. 25.

[40] Philippe Sénac, *Musulmans et Sarrasins dans le sud de la Gaule (VIIIe–XIe siècle)* (Paris, 1980), pp. 101–6.

[41] Paolo Cammarosano, *Storia dell' Italia medievale dal VI all' XI secolo* (Rome, 2001), p. 210; a detailed history of this little-known outpost of early medieval Islamic power on the mainland of Europe was written by Giosué Musca, *L'Emirate di Bari 847–871* (Bari, 1992).

lished on the west coast, at the mouth of the river Garigliano, around 881 AD.[42] Its inhabitants acknowledged the authority of the Aghlabid rulers of Ifriqiya and also established good relations with the Christian Italian coastal cities of Gaeta, Amalfi, and Naples. In fact the rulers of Gaeta had initially welcomed them as a buffer against the ambitions of the Lombard Count Lando III of Capua.

The role of Muslim mercenaries in mainland southern Italy during the ninth and tenth centuries is an interesting phenomenon (fig. 49). The first local leader to summon Muslim assistance seems to have been Duke Andrea of Naples when, during his dispute with the prince of Benevento in 827 AD, he invited so-called Saracens to defend his city as auxiliaries.[43] Eight years later Naples again hired Arab mercenaries, or perhaps more correctly "paid allies", who seem to have come from Sicily.[44] While this almost became an established policy, the harbours of Naples, Gaeta, and Amalfi were said to have served as safe havens from which Muslim *ghazis* could launch their naval *jihad* of *razzia* raids.[45] At one time there even appears to have been an alliance, although not necessarily a formal one, between the Italian cities of Naples, Amalfi, Gaeta, Sorrento, Conza, Acerenza, and Saracens who almost certainly came mostly from Sicily.[46]

Later in the ninth century significant numbers of Muslim troops were in the service of Bishop Athanasius II of Naples, who later became Duke Athanasius of Naples from 848 until his death in 898 AD, serving alongside local Neapolitan troops and sometimes a small force sent by the Byzantine emperor in Constantinople.[47] It was during the time of Bishop-Duke Athanasius that a Muslim community lived between the harbour and fortified walls of Naples, causing the papal chronicler Anastasius the Librarian (c.810–c.875 AD) to complain that Christian Naples had become a refuge for predatory Saracens, just like Palermo and "Africa" (Ifriqiya).[48] Outside Salerno, Saracens were even raising crops at those times of year when naval raiding was not possible,[49] and around the year 900 AD they were clearly permitted to enter Salerno if unarmed.[50]

[42] Graham A. Loud, "Southern Italy in the Tenth Century", in *The New Cambridge Medieval History*, ed. Timothy Reuter (Cambridge, 1999), vol. 3, p. 626.

[43] Cilento, "I Saraceni", p. 111.

[44] Kreutz, *Before the Normans*, p. 20.

[45] Armand O. Citarella, "The Relations of Amalfi with the Arab World before the Crusades", *Speculum* 42 (1967), 305.

[46] Cammarosano, *Storia dell' Italia medievale*, p. 209.

[47] Jules Gay, *L'Italie Meridionale et l'Empire Byzantin* (Paris, 1904), p. 137.

[48] Bruno Figliuolo, "Amalfi e il Levante nel Medioevo", in *I comuni italiani nel Regno Crociato di Gerusalemme*, ed. Benjamin Kedar (Genoa, 1986), p. 579.

[49] Figliuolo, "Amalfi", pp. 579–80.

[50] F. Hirsch and M. Schipa, *La Longobardia Meridionale (570–1077). Il Ducato di Benevento, Il Principato di Salerno* (Rome, 1968), p. 151.

Radelchis, prince of Benevento, is said to have been the first Lombard ruler to recruit Saracen mercenaries in the 840s, although Siconulf the Lombard ruler of Salerno also did so a little later. The first troops involved came from North Africa but were not those who attacked Rome and Ostia in 846 AD.[51] Later recruits included men from Al-Andalus and all seem to have been described as *auxiliatores*.[52] The background to such recruitment was a civil war which had broken out following the death of Prince Sicard of Benevento in 839 AD. His former treasurer, Radelchis, retained control of the city of Benevento while Sicard's surviving brother, Siconulf, established his authority in Salerno. Both men soon lost control of their Muslim allies or mercenaries, who thereupon seized a coastal base for themselves.[53] The military influence of Siconulf's Saracen troops was such that there was a fear that he might himself convert to Islam; a fear earlier expressed about his brother Sicard.[54] These stories were probably hostile propaganda, yet Siconulf of Salerno apparently permitted his Muslim supporters to establish a colony called Agliarini, not far from Latina, from where they campaigned against Radelchis of Benevento and Landulf of Capua.[55]

Also in the 840s AD, some Saracen mercenaries arrived in Apulia,[56] raided far afield, then seized Bari and established an Islamic government which offered a somewhat tenuous allegiance to the 'Abbasid caliph's governor of Egypt. It survived for almost quarter of a century as an Islamic *amirate*. Indeed Bari and Taranto soon had significant Muslim populations, served by the usual Islamic facilities including mosques and markets. With the fall of the *amirate* of Bari and the rise of the Shi'a Fatimid caliphate in North Africa during the first decade of the tenth century, campaigning by Sunni Muslims on the Italian mainland was virtually cut off from rest of the Sunni world, especially after the loss of the colony at the mouth of the river Garigliano in 915 AD. Subsequent actions on the Italian mainland were on a smaller scale and few of those people involved came from Islamic Sicily.[57]

The failure of the Muslims' colonies on the Italian mainland is less surprising than the fact that they endured for as long as they did. This was partly because of the Muslims' high military and naval capabilities, but also because campaigns against them were largely undertaken by small Italian states with little help from outside.[58] For example, the first assault upon the

[51] Kreutz, *Before the Normans*, p. 30.

[52] Musca, *L'Emirate di Bari*, pp. 23–24.

[53] Loud, *The Age of Robert Guiscard*, p. 16.

[54] Cammarosano, *Storia dell' Italia medievale*, p. 208.

[55] Cristian Guzzo, *L' Esercito Normanno nel Meridione d' Italia: Battaglie, Assedi ed Armamenti del Cavalieri del Nord (1016–1194)* (Brindisi, 2013), p. 20.

[56] Cilento, "I Saraceni", p. 113.

[57] Granara, "Political Legitimacy", p. 91.

[58] Norman Daniel, *The Arabs and Medieval Europe* (London, 1975), pp. 76–77.

Muslim colony at the mouth of river Garigliano in 903 AD was by Prince Atenulf I of Capua. It failed, not least because these settlers were helped by forces sent by the *Hypatus* or duke Docibilis I of Gaeta.[59] Twelve years later it took a broad coalition of the papacy, the Byzantines, the northern Italian Kingdom of Italy, the local Lombard states, plus the cities of Naples, Salerno, and Gaeta, to overcome the fortified Garigliano colony.

Thereafter Muslim raiding continued on a smaller scale into the early tenth century, but by this time many of the raiders – Arabs and Berbers – began to settle down in various parts of southern Italy. According to local traditions and some written records, they married local women, adopted local customs and eventually converted to Christianity.[60] In fact, there were still communities of identifiable Saracen origin in southern Italy when the Normans first appeared in the early eleventh century.[61] In Reggio di Calabria about 13 per cent of the names in fifty documents from the bishopric of Oppido Mamertina, dating from after 1050 AD, were of Arab origin.[62] Although these individuals were now Christian, they are likely to have been descended from earlier settlers rather than being recent arrivals from Sicily.

The Italian mainland was not, of course, alone in being targeted by revived Islamic raiding in the late tenth and eleventh centuries. Thus, in 1019 AD some Muslim raiders were captured during an unsuccessful attack near Narbonne in southern France. Twenty notably tall captives were sent to Limoges, where the abbot kept two in his own service while giving away the rest as slaves. According to a chronicler, these prisoners did not speak Saracenic (Arabic) but a dialect which sounded like the barking of puppies.[63] Perhaps the unfortunates were Berbers. Meanwhile there was a revival of maritime *jihad* targeting Italy, even attacking the Saracens' old ally Amalfi.[64] This culminated in an assault upon Salerno in 1016 AD which prompted the Lombard Prince Gaimar III of Salerno (sometimes confusingly referred to as Gaimar IV) to continue his recruitment of warriors from northern France. The Normans had arrived.

During this period local aristocracies were taking control across much of southern Italy. Some focused on mercantile matters, others on controlling agricultural productions, while a few had significant political ambitions.[65] A similar process was taking place within Islamic Sicily, which saw fragmen-

[59] Loud, "Southern Italy in the Tenth Century", p. 627.

[60] Haroun K. Sherwani, "Incursions of the Muslims into France, Piedmont and Switzerland", *Islamic Culture* 5 (1931), 85.

[61] Cristian Guzzo, *L' Esercito Normanno nel Meridione d' Italia*, p. 20.

[62] Loud, *The Age of Robert Guiscard*, p. 52; Jeremy Johns, *Arabic Administration in Norman Sicily. The Royal Diwan* (Cambridge, 2002), p. 31.

[63] Sherwani, "Incursions of the Muslims", p. 109.

[64] Loud, *The Age of Robert Guiscard*, pp. 28–29.

[65] Giuseppe Galasso, "Social and Political Developments in the Eleventh and Twelfth

tation verging on anarchy. Writing over two centuries later, the Arab chronicler Ibn al-Athir described a Sicilian crisis which started in 388 AH (the Islamic year from 3 January to 23 December 998 AD), when the *amir*, who ruled the island under Fatimid suzerainty, fell victim to partial paralysis. He put one of his sons, Ja'far, in charge but another brother, 'Ali, rose in revolt, "supported by the Berbers and 'abid (black slave troops)". Ja'far sent a *jund* (local army corps) against 'Ali (1015 AD), killing many Berbers and *'abid*. Ja'far then expelled all Berber troops to Ifriqiya and slaughtered the *'abid* "without exception" (nevertheless, soldiers with exaggerated African features still appeared in Siculo-Norman art; figs. 33c and perhaps 64b).

From then on Ja'far's *jund* (provincial army) was recruited exclusively from Sicilians, greatly reducing its size, which "lighted the lusts of its inhabitants against the rulers". Within a short time Ja'far was besieged within his own palace, in 1019 AD. The situation became progressively worse, with several changes in ruler, until a group of Sicilian notables went to al-Mu'izz, the Zirid ruler of Ifriqiya, demanding that he take responsibility for Sicily, otherwise they would hand the island over to the Christians. But other Sicilian leaders opposed a Zirid takeover, saying, "you have called in a stranger to govern you. By God, all this cannot end well", and decided to fight. Al-Mu'izz's army was defeated, lost eight hundred men and re-embarked for Ifriqiya. This was followed by the fragmentation of Sicily, as several regional senior *qa'id* army officers proclaimed their independence and set about fighting each other.[66] A Byzantine attempt to take advantage of the chaos and reconquer the island narrowly failed in 1037 AD. Thereafter none of the competing *qa'ids* were strong enough to dominate all Sicily and a few years later one of them sought assistance from the Norman, Roger of Calabria.[67] Worse was to come and, in the light of such turbulent events, the Sicilian Muslims' failure against the Norman invaders seems hardly surprising.[68]

Even in battle there was more to the Normans' success and the Sicilians' failure than differences in tactics and military equipment, although these did play a significant role.[69] Islamic armies of this period were not all recruited and organised in the same ways, although there were established ideals, largely based upon 'Abbasid practices in Islam's Middle Eastern heartlands. In distant or frontier provinces such as North Africa or Sicily, financial constraints and

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Centuries", in *The Normans in Sicily and Southern Italy. Lincei Lectures 1974* (Oxford 1977), pp. 48–49.

66 Pierre Guichard, *L' Espagne et la Sicile Musulmanes aux XIe et XIIe siècles* (Lyon, 1991), pp. 46–47.

67 Loud, *The Age of Robert Guiscard*, p. 148.

68 Chiarelli, "Sicily during the Fatimid Age", pp. 67–69.

69 Giovanni Amatuccio, "Fino alle mura di Babilonia, Aspetti militari della conquista normanna del Sud", *Rassegna Storica Salernitana* 30 (1998) (https://bit.ly/2TmrJeP).

a more limited pool of potential recruitment meant that such 'Abbasid ideals could not be achieved. Hence the Aghlabids of Ifriqiya sometimes had to resort to press-gangs to enlist sufficient men for their local *jund*.[70]

Armies and recruitment had also changed over time. For example, the force which invaded Spain in the eighth century was largely illiterate and only superficially Muslim, whereas the army which invaded Sicily in the ninth century included many who could read and write, alongside recognised scholars.[71] Indeed, this Aghlabid force was a microcosm of North African Islamic society, being very mixed but dominated by the trained *jund*, religiously motivated but also including mercenaries.[72] The larger number were Berbers, although Arabs formed the elite. It also seems that many of the *gazi* volunteers left Sicily after its conquest appeared secure, seeking outlets for their religious enthusiasm elsewhere. Meanwhile Aghlabid Sicily, as a centre of *jihad*, saw the instillation of a new military elite.

The organisation of the Aghlabid army was largely based upon the Arab tribes who had settled in Ifriqiya in the late seventh and eighth centuries.[73] Its troops were probably paid at clearly defined times, with cavalry receiving twice as much as infantry because of the greater cost of their horses and equipment.[74] In addition to Berbers and Arabs there were other troops such as the *saqaliba* and *'abid*. The former were of supposedly Slav origin and came from Europe. Other "white" troops included the *fata* and the *mawali*, although the latter would be disbanded by Ibrahim II (875–902 AD) because they rebelled, reportedly being replaced by the *'abid*, black soldiers mostly of sub-Saharan African slave origin. Black African troops had long been recruited into Islamic armies, for example by the Tulunid governors of Egypt (868–905 AD),[75] under whose rule they played a major role which continued to a lesser extent under the Ikhshidid governors of Egypt (936–969 AD).[76] However, the establishment of the Aghlabid dynasty in Ifriqiya diverted much of the trans-Saharan trade in such slave recruits.[77]

[70] John F. P. Hopkins, *Medieval Muslim Government in Barbary, until the Sixth Century of the Hijra* (London, 1958), p. 72.

[71] Granara, "Political Legitimacy", p. 105.

[72] Granara, "Political Legitimacy", pp. 94–96.

[73] Mohamed Talbi, *L'Emirat Aghlabide 184–296, 800–909. Histoire Politique* (Paris, 1966), passim. This provides a detailed study of the Aghlabid army, though focusing on political events and recruitment rather than on details of structure or equipment.

[74] Hopkins, *Medieval Muslim Government in Barbary*, pp. 71–72.

[75] Beshir Ibrahim Beshir, "The Fatimid Caliphate 386/996–487/1094" (PhD thesis, London University 1970) 38–44; Beshir Ibrahim Beshir, "Fatimid Military Organization", *Der Islam* 55 (1978), 40–41.

[76] Kizobo O'Bweng-Okwess, "Le Recrutement des Soldats Négro-Africains par les Musulmans du VIIIe au XIIe Siècle", *Journal of Oriental and African Studies* 1 (1989), 25.

[77] Daniel Pipes, "Black Soldiers in Early Muslim Armies", *International Journal of African Historical Studies* 13 (1980), 94.

Initially the *'abid* appear to have been employed as sword bearers and bodyguards by the first Aghlabid governor.[78] Later these ultra-loyal black Africans became an infantry elite in the Aghlabid army from the later ninth century onwards,[79] and were also found in positions of high command.

The early Fatimid dynasty, which had its capital and powerbase in Ifriqiya from 909 to 973 AD, fielded an army largely consisting of Berbers, mainly from the Kutama tribe (figs. 56 and 57). Almost for the first time, and to the surprise of their opponents, the previously fragmented clans or extended families of the Berber tribes were moulded into an army divided into seven parts. These *asba'* (sing. *sub'*) "sevenths" each formed an *askar* regiment under a *muqaddam* officer.[80] This still basically tribal system persisted until shortly after the Fatimid conquest of Egypt, with only a relatively small number of household troops forming an elite formation close to the person of the Fatimid caliph.[81]

Like their Aghlabid predecessors, the Fatimids recruited substantial numbers of sub-Saharan African soldiers of slave origin. These *'abid* are said to have normally been armed with swords but, as foot soldiers, must surely have used spears and perhaps other weapons during battle.[82] Other troops whom the early Fatimids either inherited from the Aghlabids or continued to recruit in small numbers included the *rum*, who are usually interpreted as Anatolian, ex-Byzantine Greeks or other Orthodox Christians,[83] and the *saqaliba* white slave-recruited *ghulams*, supposedly of Slav or at least northern European origin. Their numbers were always small, forming an elite body of administrators and military commanders,[84] their previous role as a ruler's bodyguard having been given to Kutama Berbers.[85] Subsequently, the Fatimids also recruited Arab soldiers from Syria, many of them veterans of the effective and well-equipped Hamdanid forces of what are now the Syrian–Turkish frontier provinces.[86] Of tribal although not necessarily genuinely Bedouin origin, such Arabs included fast-moving and manoeuvrable, fully trained, spear- and sword-armed cavalry (fig. 46),[87] some of whom were fully armoured (figs. 43 and 45a).

[78] Hopkins, *Medieval Muslim Government*, p. 72.

[79] O'Bweng-Okwess, "Le Recrutement", p. 25.

[80] Michael Brett, *The Rise of the Fatimids: The World of the Mediterranean and the Middle East in the Fourth Century of the Hijra, Tenth Century CE* (Leiden, 2001), p. 90.

[81] Beshir, *The Fatimid Caliphate*, pp. 74–76.

[82] Beshir, "Fatimid Military Organization", p. 38.

[83] Yaacov Lev, "The Fatimid Army, A.H. 358–427/968–1036 C.E.: Military and Social Aspects", *Asian and African Studies* 14 (1980), 169–71.

[84] Beshir, *The Fatimid Caliphate*, pp. 34–38; Beshir, "Fatimid Military Organization", p. 41.

[85] Hopkins, *Medieval Muslim Government*, p. 73.

[86] Lev, "The Fatimid Army", pp. 171–72, 176–79.

[87] Beshir, *The Fatimid Caliphate*, p. 52.

All these types of troops served in greater or lesser numbers in Sicily when the island was under Fatimid rule. Similarly, Sicilians served in the Fatimid army outside their own island. Indeed a substantial Christian contingent campaigned under Jawhar, who himself had a Sicilian background, during the Fatimid conquest of Egypt in 969 AD. Although the Fatimids would lose control of Sicily, they were occasionally recognised as overlords by the island's competing war-lords and undoubtedly remained a major source of influence, not least in military matters. As the Fatimid army changed following the conquest of Egypt, so its influence upon Sicily surely also changed.

The army of the Zirid dynasty in Ifriqiya (972–1152 AD), which played a major role in Sicilian affairs during the last century of Islamic rule, was at first much the same as the preceding Fatimid regional army or *jund*. Its main elements were Berbers of the Sanhaja tribe, who also formed the senior officer corps, plus the local *jund* militia and "black" *'abid*.[88] Within the Zirid military establishment the *habashi* may have been Abyssinians of unfree origin, while their close association with the largely Byzantine Orthodox Christian *rum* might indicate that they may themselves have been of Christian Ethiopian origin.[89] To add further confusion, the much smaller number of white European slave-recruited soldiers were also sometimes referred to as *'abid*.[90] Meanwhile, on the Italian mainland during the tenth century, numbers of Greek-speaking ex-Byzantine soldiers also converted to Islam, perhaps the most significant group being led by a man recorded as "Bomar" (Abu Amir?) and operating in the Basilicata where, for some considerable time, they held the stronghold of Pietrapertosa near Tricarico.[91]

Across the straits in Sicily, the island was nominally ruled by the Kalbite dynasty from 948 to 1053 AD. Here, as elsewhere, elites changed over time. Hence the original Arab military elite had, to some extent, been replaced by Kutama and other Berbers following the overthrow of the Aghlabids by the Fatimids. They, in turn, would later lose their dominant position. In general, however, the tenth century saw a remarkable fusion of Arabs, Berbers, and Sicilian converts in Sicilian Islamic society,[92] and in Sicilian armies (figs. 15–20 and 26–27).

Ibn Hawqal, who visited Kalbite Sicily in the mid-tenth century, stated that the largest quarter of Palermo was inhabited by *saqalibah*.[93] He was,

[88] Hady R. Idris, *La Berbérie Orientale sous les Zirides Xe–XIIIe siècles* (Paris, 1962), p. 529.

[89] Idris, *La Berbérie Orientale*, p. 530 n. 98.

[90] Idris, *La Berbérie Orientale*, p. 530.

[91] André Guillou, "Inchiesta sulla popolazione greca della Sicilia e della Calabria nel Medio Evo", *Rivista Storica Italiana* 75 (1963), 56.

[92] Chiarelli, "Sicily during the Fatimid Age", p. 123.

[93] Chiarelli, "Sicily during the Fatimid Age", pp. 56–57.

however, shocked by what he regarded as the poor behaviour of those volunteers who garrisoned or perhaps merely inhabited the coastal defence *ribats*. Rather than being centres of piety and *jihad*, Ibn Hawqal wrote that they were full of hypocrisy, fractious idlers, evildoers, men of bad conduct, people of sedition, and trash.[94] Perhaps these *ribats* were actually centres of Sunni Islam, and thus suspect to the Shi'a Fatimid caliphate who were still the Kalbite governors' suzerains, their inhabitants mostly being ascetics rather than warriors.[95] Interestingly, Ibn Hawqal also complained that these men ate too many onions, which harmed their brains and confused their senses[96] – a passion for onions having similarly been noted a decade or so earlier among the northern Iranian infantry of Buwayhid Iran and Iraq.[97] There may also have been continuing tensions and jealousies between the Arabised Sicilian converts to Islam and a still identifiable "old Arab" elite.

During the Kalbite period the Greek-speaking Orthodox Christians were rarely mentioned in a military context, but the early years of the Norman invasion showed that they were still willing to fight. For example, Geoffrey Malaterra described how the Greeks of Troina turned upon the Normans and received help from their Muslim neighbours:

> With the city now cut in two [Count Roger's troops having won control of part of it], the Greeks built a barricade for their protection between themselves and the Normans. The Saracens from the neighbouring castra [the garrison of the fortified citadel], who were about 5,000 in number, were overjoyed to hear that the Greeks were fighting with our troops and moved rapidly to help them. Their assistance greatly benefited the Greeks.[98]

New eyes brought a fresh view of Sicily's distinctive culture at the time of the Norman invasion, as when the garrison of Messina confidently emerged from its fortified city to confront the first Norman invaders in 1061 AD. They were nevertheless defeated with apparent ease. Again according to Geoffrey Malaterra:

> The people of Messina thought that because some of his [Count Roger's] men had re-embarked on the ships they could easily defeat his divided forces. Cavalry and infantry left the city and marched out to attack him ... When Count Roger realised that they were

[94] Loud, *The Age of Robert Guiscard*, p. 17 n. 11.

[95] Chiarelli, "Sicily during the Fatimid Age", pp. 56–57.

[96] Chiarelli, "Sicily during the Fatimid Age", pp. 56–57.

[97] Tanukhi, Muhassin Ibn 'Ali al-, *The Table-Talk of a Mesopotamian Judge*, trans. and ed. David S. Margoliouth (London, 1922), pp. 95–96.

[98] Geoffroi Malaterra [Gaufredo Malaterra], *De Rebus Gestis Rogerii Calabriae et Siciliae Comitis et Roberti Guiscardi Ducis fratris eius, Rerum Italicarum Scriptores. Raccolta degli Storici Italiani*, ed. Ernesto Pontieri, vol. 5 (Bologna, 1927–28), Book 2, part 29.

> advancing against him, he sent out ahead his nephew Serlo ... with instructions that if they wished to flee, as indeed they did, they should be allowed to do so. He himself pursued them [the Muslims] at great speed while they attempted to flee, and intercepted them to such effect that scarcely one among the whole multitude escaped.[99]

Subsequently Roger "set off to attack the city at daybreak, knowing its forces to be much depleted. But although those who now survived in Messina were few in number, they and their women along with them defended their towers and ramparts as though for life itself."[100] Faced with such determined resistance, Roger sailed back to Calabria.

The organisation of local military forces in Sicily had been traditional, with the island divided into *iqlim* districts, each with its own *jund* or a sub-unit of the *jund*, particularly in the most Islamised western part of the island.[101] After defeating those Byzantines still holding out in north-western Sicily, the Fatimid Caliph al-Mu'izz ordered the island's Muslim authorities to build fortified places, either citadels or castles, in every district as a defence against Byzantine counter-attacks. He also tried to get "all Muslims" – by whom he probably meant all members of the *jund* – to live in these fortifications.[102] In 975 AD a new governor named Abu'l-Qasim had the recently abandoned Byzantine citadel of Rometta restored and installed one of his black slaves, perhaps one of the elite *'abid*, as its commander.[103] Next, Abu'l-Qasim expelled the last Byzantine defenders from Messina and followed them across the Straits to Calabria, while his brother took another force to raid Byzantine Apulia.

Meanwhile the German Emperor Otto III had been trying to replace Byzantine authority in southern Italy with his own. This resulted in a clash with the Muslim raiders, forcing the latter to pull back. The next meeting between the Siculo-Muslim army and Otto's imperial army, at the battle of Capo Colonna (14 July 982 AD), had a different outcome. Initially the Germans broke through the Muslim lines, causing disorder and near panic when the *amir* Abu'l-Qasim was killed. Yet the Sicilians regrouped, counter-attacked and forced Emperor Otto to withdraw to Rome, while Otto's allies, Landulf IV of Capua and Pandulf, the deposed prince of Salerno, were both killed.[104] Regrouping and then achieving victory after the death of a commander was extremely rare in medieval warfare, so the

[99] Malaterra, *De Rebus*, Book 2, part 5.
[100] Malaterra, *De Rebus*, Book 2, part 6.
[101] Ahmad, *Islamic Sicily*, p. 38.
[102] Chiarelli, "Sicily during the Fatimid Age", pp. 51–52.
[103] Chiarelli, "Sicily during the Fatimid Age", p. 58.
[104] Chiarelli, "Sicily during the Fatimid Age", p. 60; Loud, "Southern Italy in the Tenth Century", p. 643.

battle of Capo Colonna was a tribute to Siculo-Muslim and Fatimid discipline and military cohesion.

The local units established in Sicily around this time, each under its own *qa'id* commander-governor, were still in existence when the Normans invaded the island. In fact they continued to exist under Norman rule.[105] Another feature which would survive into the Norman period was the *iqta'*, a sort of fief, which had been introduced into Sicily by the Aghlabids.[106] It would be further refined by the Fatimids in Egypt, where the *iqta' jayshi* or "army *iqta'*" eventually had two forms. The older was linked to individual soldiers of various origins,[107] whereas a newer form of *iqta'* was, according to the later medieval Egyptian historian al-Maqrizi, given to someone who collected revenues from a specified area.[108] This money then went directly to the government. Then there was the Fatimid *iqta' i'tidad*, which was not attached to an individual soldier but was administered through an officer, with its revenues intended for a specified number of troops.[109] Whether these systems were used in Fatimid and Kalbite Sicily is unclear, but their similarity with aspects of Siculo-Norman military administration, costume, and equipment (fig. 14) suggests that they were. The similarity between Fatimid Egyptian and Norman Sicilian military structures was also apparent in the later Fatimid *diwan al-juyush* "army ministry". This was a lesser organ of government, having limited but defined duties, including responsibility for the *jara'id* register of the names and fiefs of *iqta'* holders following the Norman reforms of 1074 AD.

Mustering an army obviously varied according to the urgency of a situation. Nevertheless, when Islam was on the offensive and *jihad* campaigns or *ghaza* raiding were an almost annual occurrence, traditional patterns developed. For example, the *Kitab al-Anwa*, an Andalusian agricultural manual written in Arabic and Latin in 961 AD, stated that enlistment for summer campaigns normally began on 28 February, while it was considered safe for ships go to sea from 13 April onwards.

Rulers and military commanders were identified by emblems of sovereignty or rank. Those for subordinate rulers and governors were given by those more senior, such as when the Fatimid caliphs of Cairo continued to send drums and banners to Zirid governors of Ifriqiya and Sicily.[110] The military rank of *qa'id* has already been mentioned, while within armies such as those of the Zirids each *'irafa* unit was led by an *'arif* or lower ranking officer.

[105] Bresc, "Mudejars des Pays", p. 53.

[106] Ahmad, *Islamic Sicily*, pp. 23 and 38.

[107] Caude Cahen, "L'Administration Financière de l'armée Fatimide d'après al-Makhzumi", *Journal of the Economic and Social History of the Orient* 15 (1972), 171–73.

[108] Cahen, "L'Administration Financière", 172–73.

[109] Cahen, "L'Administration Financière", 172–73.

[110] Idris, *La Berbérie Orientale*, pp. 516, 522.

The more specific term of *'anbar* seems to have been used for an officer of *'abid*, black African origin.[111] Detailed information is largely missing for the armies of Islamic Sicily, but it seems highly likely that they would have been essentially the same as better-documented forces in the Middle East, such as the garrison of Tarsus in Cilicia shortly before it fell to the Byzantines in 965 AD. Here resident cavalry units had infantry units attached to them while the trainee *ghulams* (elite soldiers of unfree origin) were under the charge of a respected older man referred to as their *shaykh*.[112] Meanwhile, within the Fatimid military system, men could move from cavalry to infantry and vice versa, with resulting changes to their status and pay being noted in the registers of the *diwan al-jaysh*.[113]

There is an abundance of information about military training in medieval Islamic armies, but some of it was merely to provide an educated reader with the sort of knowledge that a pious Muslim ought to have. Thus the highly traditional manual written by Badr al-Din Ibn Juma'h early in the fourteenth century harks back to an ideal of military training and weaponry from the earliest decades of Islam. He therefore maintained that when a ruler organised archery competitions and horse races he was merely wasting money from the public treasury.[114] The whole subject of medieval Islamic *furusiyya* military training manuals is also complicated by the fact that authors from the thirteenth to fifteenth centuries often copied, simplified, or slightly updated earlier texts which had been written for 'Abbasid caliphs in the ninth and tenth centuries.

Nevertheless, modern scholarship is identifying early texts embedded within later works.[115] Thus we have a reasonable idea of what was taught in the Fatimid Caliphate's *hujariyya* training barracks,[116] this being based upon 'Abbasid *hujariyya* training establishments – at least as far as the Fatimids' more constrained resources would allow.[117] Some even more limited versions of this training would also have been found in provincial capitals. Non-military texts, such as works on geography and commerce, also include military information. That is how we know that in tenth-century Tarsus some *sibyan* younger soldiers under training were equipped with weapons suitable to their age and physical size. This included crossbows as well Persian bows

[111] Idris, *La Berbérie Orientale*, pp. 529–30.

[112] Clifford E. Bosworth, "Abu 'Amr 'Uthman al-Tarsusi's *Siyar al Thughur* and the Last Years of Arab Rule in Tarsus (Fourth/Tenth Century)", *Graeco-Arabica* 5 (1993), 191–94.

[113] Cahen, "L'Administration Financière", p. 168.

[114] Badr al-Din Ibn Juma'h Muhammad Ibn Ibrahim, *Mustanad al-Ajnad fi 'Alat al-Harb*, ed. Usamah Nasir al-Naqshbandi (Baghdad, 1983), p. 115.

[115] Shihab al-Sarraf, "Mamluk Furusiyah Literature and its Antecedents", *Mamluk Studies Review* 8 (2004), 141–200.

[116] Cahen, "L'Administration Financière", p. 170.

[117] Beshir, "Fatimid Military Organization", pp. 46–48.

of composite construction. Meanwhile *sibyan* of supposedly Yemeni tribal origin were issued with Arab bows, which were probably larger, all-wood weapons for infantry use.[118] Around the same time in neighbouring Syria the poet Kushajim al-Sindi, born in Palestine of Indo-Persian parents, described how hunters learned how to hit a moving target by shooting at a stuffed animal mounted on a cart which was then rolled downhill.[119]

Another feature which demonstrated the authority of Islamic governments was the fact that carrying weapons, even by soldiers, was strictly controlled inside towns. Thus, when the man who would become the first Fatimid caliph had to flee across North Africa early in the tenth century, he and his party reached Setif in what is now eastern Algeria. Here they were refused entry until they deposited their weapons with the gate guardians. They feared that the weapons would be lost or seized by the Aghlabid authorities, but in fact they were handed back when the travellers left after a few days.[120] A century or so later the Zirid authorities in Ifriqiya attempted to maintain a similar degree of control over their towns where an urban police, militia, or gendarmerie called the *hars* patrolled at night with dogs and trumpets. They enforced "lights out" after the town gates were closed. It was also illegal to leave town after dark.[121] Perhaps even more astonishing for north European visitors to Norman Sicily was the *barid* postal service which the Normans had inherited from their Muslim predecessors. It included a pigeon-post between Sicily and Ifriqiya, via the island of Pantellaria.[122]

Not all fighting men in Islamic Sicily were professional soldiers, the *ghazi* volunteers ranging from religiously motivated enthusiasts to booty-seeking adventurers. In fact some historians suggest that many of those who raided the Italian mainland were already on the margins of "respectable" Islamic society, because of either their ethnic origins or previous lives. The motivation of Muslim mercenaries recruited by various southern Italian rulers is similarly unknown. They came from many areas including Sicily, Libya, Crete, and Al-Andalus.[123] Were they looking money – which seems unlikely, given the traditionally higher pay given to professional soldiers in the medieval Islamic world than in western Europe or the Byzantine Empire?[124] Were

[118] Bosworth, "al-Tarsusi's *Siyar al Thughur*", p. 193.

[119] Muhammad M. Ahsan, *Social Life under the Abbasids 176–289 AH, 786–902 AD* (London, 1979), p. 223.

[120] Marius Canard, "L'autobiographie d'un chamberllan du Mahdi 'Obeidallah le Fatimide", *Hesperis* (1952), 300.

[121] Idris, *La Berbérie Orientale*, p. 527.

[122] Idris, *La Berbérie Orientale*, p. 527.

[123] Lindsay S. G. Matheson, "The Norman Principality of Capua (1058–1098) with particular reference to Richard I (1058–1078)" (PhD thesis, Oxford University 1974), p. 9.

[124] Eliyahu Ashtor, *Histoire des Prix et des Salaires dans l'orient médiéval* (Paris 1969), passim.

some of them disgraced men who needed to find military employment outside Islamic territory? Or had some of them been sent by Islamic governments seeking an alliance with one of the south Italian states? Those who remained in southern Italy eventually integrated into local society,[125] which suggests that they already felt themselves to be exiles.

By the ninth and tenth centuries there were clear differences in the military equipment used in the western and eastern regions of the Islamic world, partly because of the survival of local traditions and partly because earlier styles of combat persisted in the West. There was also an exchange of ideas, fashions, and weapons across the frontier with Christian Europe. Nevertheless, the eastern, central, and western regions of the early medieval Islamic world shared a conscious Muslim identity, so that newer Middle Eastern fashions carried high status in many aspects of Islamic culture. Long-distance trade in weapons, armour, and horse harness was also a notable feature of Islamic civilisation during this period.

In such a culturally conservative society it is not surprising that there was continuing interest in the tactics, skills and military gear of early Islamic heroes. Thus, according to Badr al-Din Ibn Juma'h, the Prophet Muhammad had both a *dir'* mail hauberk and a *jubbah*, which is usually interpreted as a mail-lined, cloth-covered garment with integral padding.[126] He also mentioned that two *dir'* hauberks could be worn at once, which was confirmed in *furusiyya* training manuals.[127] During the period under consideration the poet Ibn Hani', writing for the Fatimid caliph al-Mu'iz (953–975 AD), was scathing about the military of his own Andalusian homeland:

> They do not know how to charge their well-bred horses
> and they are unable to endure the melée and the intercrossing of lances.
> They pull out of its scabbard a sword with a fearsome point,
> but in their hands the steel becomes white iron [soft iron].
> Their mail coats never get smeared with blood in war,
> but they are on the battlefield like servants with the shits ...
> Their blades do not come out of the scabbards of their swords
> and their dynasty waddles softly, like a flirty woman with a flexible waist ...
> The difference between them and you is like the difference between
> the hard lances of nab' [wood] and the feeble reeds of breakable flutes.[128]

[125] Matheson, *The Norman Principality of Capua*, p. 9.

[126] Badr al-Din Ibn Juma'h, *Mustanad al-Ajnad*, p. 58.

[127] Badr al-Din Ibn Juma'h, *Mustanad al-Ajnad*, pp. 62–63.

[128] Marius Canard, "L'Impérialisme des Fatimides et leur propagane", in *L'Expansion Arabo-Islamiques et ses Repercussions*, ed. Marius Canard (London, 1974), p. 167.

Ibn Hani' then praised Fatimid forces who march "*fi washi al-dilas suwaighan* (in sparkling long mail hauberks, covered with embroidered cloth" (figs. 43 and 46).[129]

The Muslim armies which conquered Sicily were said to be more like those of the Middle East than of Al-Andalus, while Latin European sources suggest that most of these troops had rather light equipment.[130] However, other evidence points to something different where the elite or professional soldiers were concerned. Thus, during the initial Islamic conquest of Mazara, the Muslim general Asad asked his renegade Byzantine ally Euphemius to keep his men separate from the Muslims and to use "certain signs" by which they could be distinguished in battle.[131] This could mean that Asad feared that his own men might attack all Byzantine soldiers, being unable to distinguish friend from foe, or that he wanted to be able to distinguish between his own Muslim troops and Euphemius' followers, who might look quite similar (fig. 53).

A combat between Muhammad Ibn Sahnun Ibn Sa'id and a Byzantine champion around the time of the Muslim invasion of Sicily also provides details about military equipment. The enemy horseman was armed with a sword, spear, and leather shield, whereas Ibn Sahnun, although riding only a mule, had a mail hauberk, sword, and spear.[132] Towards the end of the tenth century, in a poetic source, another hero was said to have two swords.[133] This might be a poetic fancy, but there is evidence from slightly later in the Middle East that elite Muslim cavalry could carry one sword in a belted scabbard and a second, sometimes longer sword in a scabbard attached to their saddle. In Zirid Ifriqiya only military leaders and the highest-status troops were equipped with *dir'* mail hauberks and *baydah* helmets, while the most common weapons were sword, long slender spear, and probably javelins, plus daggers (fig. 56 and 57a). All, or the great majority, of archers fought on foot with *qaws* bow and *siham* arrows (fig. 57b). It seems unlikely that crossbows had yet reached the area from the Middle East or Europe, but the *qaws al-bunduq* pellet bow was used for hunting birds.[134]

[129] Alfred F. Von Kremer, "Uber detn Shi'itischen Dichter Abu'l Kasim Moh. Ibn Hani", *Zeitschrift der Deutschen Morgenlandischen Gesellschaft* 24 (1870), 485–86; Canard, "L'Impérialisme des Fatimides", p. 168.

[130] Francesco Gabrieli, "Gli Arabi in Spagna e in Italia", in *Ordinamenti Militari in Occidente nell'alto Medioèvo, Settimane di Studio del Centro Italiano di Studi sull'alto Medioèvo 15/2* (Spoleto, 1968), pp. 717–18.

[131] M. A. Ageil, "Naval Policy and the Rise of the Fleet in Ifriqiyyah from the 1st to 3rd Centuries A.H. (7th to 9th Centuries A.D.)", PhD thesis (University of Michigan, 1985), p. 5.

[132] Michele Amari, *Biblioteca Arabo-Sicula* (Turin-Rome, 1880–81), 1:310–11, Arabic text p. 187; Michele Amari, *Storia dei Musulmani di Sicilia* (Catania, 1933), 1:408.

[133] Amari, *Storia dei Musulmani di Sicilia*, 2:392.

[134] Idris, *La Berbérie Orientale*, pp. 532–3.

Other evidence for the use of armour in Islamic Sicily, and in some cases the lack of it, is found in European accounts of the Norman conquest. For example, Geoffrey Malaterra described a fight between Count Roger and a Muslim leader from Messina:

> Count Roger rode ... in front of his companions, eyes intently scanning all around him. He was unarmed except for his shield and the sword hanging from his belt – an armiger [squire] followed with his armour [armour normally being put on only when battle was imminent]. When by the light of the moon he observed the enemy's arrival, he had gone too far in front of his squire to take his armour from him, indeed it was possible that the latter ... had fled. So he [Roger] put on speed and charged his enemy, armed only with a sword. He killed him with a single blow, cutting him in half. The [obviously unarmoured] body lay in two pieces – the [slain enemy's] horse and personal effects he gave to one of his men.[135]

While a lack of armour might prove fatal, so could the wearing of it, as when Ibn al-Wird was drowned in Syracuse harbour in 1085 AD during a sea battle with the Normans. Ibn al-Wird was first hit by a javelin, then faced a Norman boarding party. As the wounded man attempted to leap aboard a neighbouring Islamic ship he fell into the sea and sank,[136] pulled down by the iron of his otherwise unspecified armour; "*in mare cum pondere ferri demurgitur*" (figs. 15–20, 26 and 27).[137]

Geoffrey Malaterra offers a more detailed insight into the sort of armour worn by the Sicilian Islamic military elite when describing the death of "Arcadius of Palermo" during the battle of Cerami in 1063 AD. This man is usually assumed to be the *qadi* or chief judge of Palermo, although I think him more likely to have one of the senior *qa'id* military officers. Whoever "Arcadius" was, he was clearly wearing more armour than most others in the Sicilian army. Supposedly he was also slain by Count Roger in person:

> Comes [Roger] ergo, aciei suae praevius exhortator, Archadium de Palerna, suam aciem nostris exprobando prompissime antecedentem et splendenti clamucio – quo pro lorica utuntus – armatum, certamine inito, fortissimo congressu hastili robore dejectum, ceteris metum incutiens, interfecit. Erat enim inter suas militia praeclarissimus, cui etiam neminem armis resistere posse putabant; et clamucium quo undutus etar nullis armis poterat violari, nisi ab imo in superius impingendo inter duo ferrea, quo per juncturas concatenata sunt, ingenio potius quam vi vitiaretur.[138]

[135] Malaterra, *De Rebus*, Book 2, part 4.

[136] Gabrieli, "Gli Arabi in Spagna", pp. 717–18; Loud, *The Age of Robert Guiscard*, p. 172; Malaterra, *De Rebus*, Book 4, part 2.

[137] Malaterra, *De Rebus*, Book 4, part 2, lines 19–20.

[138] Geoffroi Malaterra, *Histoire du Grand Comte Roger et son frère Robert Guiscard*, ed.

The French translation by M.-A. Lucas-Avenel, who also edited the text, rendered the difficult terminology of the Muslim champion's armour as follows:

> Archadius ... etain arme d'un clamusium etincelant, qui tient lieu de broigne a ces gens ... on pensait meme que personne ne pouvait jui resister au combat; et aucune arme ne pouvait forces le clamusium dont il etait revetu, a moins de le disloquer en usant plus d'habilete que le force, par des coups de bas en haut, entre deux plaques en fer, a l'endroit ou elles etaient fixees par des rivets.[139]

Lucas-Avenel suggests that the word *clamusium* may have been altered by copyists of the manuscript, but might have stemmed from the Greek *klamis*. However, I believe that the editor is probably incorrect in following earlier scholars in assuming that the armour in question was a leather jerkin covered with riveted metal scales.[140] Most apparent illustrations of scale armour in this period are, in reality, either forms of lamellar cuirass (fig. 24a–b, 31, 33d–f and 53a) or simple renderings of mail (figs. 14a, 50). There is little evidence of such scale cuirasses being used in the Islamic world at this date, while the evidence for their use in earlier centuries is dubious. Similarly, evidence for scale-lined armour in the later medieval Islamic armoury does not predate the fourteenth or, at most, the thirteenth century.[141] Furthermore, the original Latin text merely states that the iron elements are linked to one another. Only the mention of an upwards thrust getting between the elements might suggest downwards overlapping scales, rather than the normally upwards overlapping elements of a lamellar cuirass. In any case, an upwards thrust could also have slid between the horizontally overlapping lamellar elements. Taking all this evidence into consideration, it seems likely that the unfortunate Arcadius of Palermo was wearing a normal lamellar *jawshan* of the type worn across the eastern and central regions of medieval Islam and which, though rarer in the western regions (fig. 30a left, 30b and 30d–f), is known to have been exported as far as Al-Andalus in the tenth century

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and trans. Marie-Agnés Lucas-Avenel, Vol. 1, Books I and II (Caen, 2016), Cap. XXXIII, 341 and 343.

139 Malaterra, *Histoire*, Cap. XXXIII, 340 and 342.

140 Philippe Contamine, *La Guerre au Moyen Age* (2nd edn, Paris, 1986), pp. 320–25; Flori, J., *Chevaliers et chevalerie au Moyen Age* (Paris, 1998), p. 102; Olivier Renaudeau, "Problèmes d'interpretation du costume d'après du costume d'après la Broderie de Bayeux", in *La Tapisserie de Bayeux: l'art de broder l'histoire. Actes du colloque de Cerisy-la-Salle*, ed. Pierre Bouet, François Neveux and Brian J. Levy (Caen, 2004), pp. 243–53.

141 David Nicolle, *Late Mamluk Military Equipment. Collection Travaux et Études de la Mission Archéologique Syro-Française, Citadelle de Damas (1999–2006): Volume III* (Damascus, 2011), pp. 42–86; Nicolle, "Jawshan, Cuirie and Coat-of-Plates", passim.

Here, the mention of *al-jawashin al-tinsiyah wa al-khurasaniyah sab'miya'h qata'at* (*jawshans* from Tinis/Tinnis and Khurasan [eastern Iran] of seven hundred elements) is particularly interesting.[142] Seven hundred elements are too few for the rings of even a small mail hauberk, and are probably too many for a leather lamellar cuirass, in which the lamellae are normally large. So it seems likely to refer to a metallic lamellar cuirass. Taking the average dimensions of a single metal lamel from this period, as well as the normal overlap of each horizontally and vertically, perhaps with some additional lamellae for upper-arm protection, seven hundred seems be a suitable number of elements for a full-length cavalry cuirass as shown in eastern Islamic art of the ninth to eleventh centuries. Similarly it would be too many for the limited, abdomen and upper-body covering type more common in twelfth to thirteenth century Islamic art.[143]

Another form of armour of eastern Islamic origin was also spreading westward during this period: the mail-lined, quilted, and fabric-covered *kazaghand*, which may have differed from the *jubbah* primarily in shape, size, and weight. It was described as being like a *khaftan* in shape, although padded with *qaz* or *kazh* silk waste for use in war, when it was worn beneath mail armour. Only a few years later the *kazaghand* was specifically stated to be both padded and lined with mail.[144] It reached the Middle East by the late eleventh or very early twelfth century,[145] perhaps reaching Sicily and maybe even southern Italy before the Norman invasion. Thereafter the mail-lined and quilted armour was known in central and western Europe as the *jazrain* hauberk, *jazerant*, *gasigan, jazerenc*, and other variations on the term.[146] Unfortunately the theory of a Sicilian role in the spread of this form of mail armour is weakened by the fact that the first mention of a *ghiazzerina* in

[142] Ibn al-Khatib, Lisan al-Din, *Kitab 'Amal al-'Alam. Histoire de l'Espagne Musulmane*, ed. Évariste Lévi-Provençal (Rabat, 1934), pp. 118–19; Sayyid M. Imamuddin, "Commercial Relations of Spain with Iraq, Persia, Khurasan, China and India in the Tenth Century AC", *Islamic Culture* 35 (1961), 179; Sayyid M. Imamuddin, *Some Aspects of the Socio-Economic and Cultural History of Muslim Spain, 711–1492 AD* (Leiden, 1965), p. 130.

[143] Maqqari, Ahmad Ibn Muhammad al-, *Analectes sur l'Histoire et la Litterature des Arabes d'Espagne*, ed. Reinhart Dozy, Gustave Dugat, Ludolf Krehl, and William Wright, vol. 2 (Leiden, 1858–61), p. 382; Maqqari, Ahmad Ibn Muhammad al-, *The History of the Mohammedan Dynasties in Spain*, trans. Pascual de Gayangos (London, 1840–43; reprinted: London, 2002), p. 158 [also as "Muslims Accounts on Warfare in al-Andalus (Spain)" (https://bit.ly/2CQYvNW)]; Sayyid M. Imamuddin, "Commercial Relations of Spain with Ifriqiyah and Egypt in the Tenth Century AD", *Islamic Culture* 38 (1964), 12.

[144] Assadullah S. Melikian-Chirvani, "The Westward Journey of the Kazhagand", *Journal of the Arms and Armour Society* 11 (1983), 9.

[145] Melikian-Chirvani, "Westward Journey", 16–18.

[146] Melikian-Chirvani, "Westward Journey", 25–8.

central Italy dates from the very early fourteenth century, being found in the *Nuova Cronica* history of Florence by Messer Filippo Villani.[147]

There is similarly traditional and contemporary information about helmets. Badr al-Din Ibn Juma'h writes of the Prophet's *baydah* "egg-shaped" helmet and his *mighfar* mail coif as two separate items,[148] while there is enough pictorial evidence to suggest that the hood or large hat associated with Muslim troops during the early centuries may have been protective, either being thickly padded or even lined with mail (figs. 26a–b and 39; perhaps figs. 21, 22a–b and 23a–c,). This form of headgear was widespread enough for it to seemingly be used as a means of identifying "infidels" in much early medieval Christian art (figs. 25, 33b and 51a–b). Later an account of the battle of Haydaran between the Zirid army and the Banu Hilal, written by Ibn al-Athir over a century after the event, recorded that the Zirid *'abid* infantry were so well armoured that they seemed invulnerable. So the leader of the Banu Hilal told his men to "aim for their eyes", which suggests that the *'abid* wore mail coifs or aventails which covered their faces except for the eyes, precisely as shown in eastern Islamic art of the period.[149]

Shields might be the area where there is the strongest evidence for a mutual influence in military styles between the Islamic world and Italy, including or via Sicily. Once again Badr al-Din Ibn Juma'h provides traditional information, although even this can be surprising, as when he states that a *turs* shield, which was normally of wood, could either be made of, or more likely could include, elements of steel.[150] Metal shields are normally thought to have been developed in later centuries as a defence against firearms, although one shield entirely covered with metal segments was found in a perhaps twelfth-century context in Islamic central Asia. Meanwhile the *daraqa* shield was traditionally made of leather or rawhide, while a larger form of leather shield of Saharan origin, widely used in North Africa and Al-Andalus, was the *lamt*, traditionally made of antelope skin.[151]

Some shields would better be described as mantlets, designed to be rested on the ground (figs. 36 right, 61a and probably 61b), although they could also be carried in battle. Whether the *tariqa* form of elongated shield was really known in the days of the Prophet, as sometimes claimed, seems unlikely. Or perhaps the term *tariqa*, which came to mean the so-called "Norman" shield with an elongated lower part tapering to a point or rounded tip (figs. 13, 14a, 26a, 30b–f, 33b, 36 left, possible 41, 45a–c, 58 and perhaps 52), was

[147] Mario Scalini (private correspondence on the form of armour known in medieval Italian sources as the ghiazzerina, May 1983).

[148] Badr al-Din Ibn Juma'h, *Mustanad al-Ajnad*, pp. 58 and 62.

[149] Michael Brett, *Fitnat al Qayrawan. A Study of Traditional Arabic Historiography* (PhD thesis, London University, 1970), pp. 17–18.

[150] Badr al-Din Ibn Juma'h, *Mustanad al-Ajnad*, p. 61 n. 1850.

[151] Idris, *La Berbérie Orientale*, p. 533.

used for any form of elongated shield in earlier centuries. Infantry lined up with their shields formed into a shield wall had, according to tradition, been used since the days of the Prophet, and by the eleventh century, if not earlier, *tariqa* shields (pl. *tawariq*) were used by Fatimid infantry to form such a shield wall.[152] Indeed, by the twelfth century the Middle Eastern *januwiyya* "Genoese" shield was a particularly large shield with a flattened base, designed to rest upon the ground as a mantlet, but could also be held like an ordinary shield (figs. 14b–d, 28a–b, 36 right, 40a, 48b–c, 59, 61a and probably 61b).[153]

The spear was a ubiquitous weapon which came in various lengths and had shafts of various materials, although the Arabs were still apparently known for long spears (figs. 42 and 46) with bamboo shafts. Javelins similarly came in a variety of weights or lengths, with an assortment of heads or blades (figs. 16b, 44, 48a and d–f). Swords and daggers were almost as ubiquitous, although an almost chance account of an assassination attempt in the early eleventh century provides unexpected information. Here the would-be killer used a specifically Berber form of slender, pointed dagger called a *yafurt* or *yafrut*, a weapon which may have survived into modern times as the Berber *tafrut*.[154] The only difference between the written Arabic letters "y" and "t" is that the former has two dots below the stroke of the letter while the latter has two dots above. Might a transcriber writing a technical term of Berber origin have simply made a mistake?

The mace was a more widespread weapon in the early medieval Islamic world than in most of Europe, where it came into common use only as a result of the adoption of more rigid armour from the late thirteenth century onwards. Perhaps the greater role of maces, as distinct from simple clubs, in wealthier or more sophisticated early medieval Islamic armies also pointed to a wider used of semi-rigid lamellar cuirasses, as suggested in art from the eastern and central Islamic lands. Here the earliest form of true mace was the *dabus*, which, again according to tradition, was already known in the seventh century,[155] although in reality it may have been adopted a century or so later. Thereafter the *dabus* became widespread across almost the entire medieval Islamic world (figs. 18, 32, 33a and c, 34b–d, 35a and 64b). Other, heavier types were in common use in the eastern and central regions by at least the ninth century (figs. 55 and 62a–b) and in southern Italy by the

[152] Beshir, *The Fatimid Caliphate*, p. 74 n. 210.

[153] Tarsusi, Murda Ibn 'Ali Murda al- [Mardi Ibn 'Ali Mardi al-], "Un traité d'armurerie composé pour Saladin", *Bulletin d'Etudes Orientales* 12 (1947–48), ed. and trans. Claude Cahen, 137 [trans.], 114 [Arab.]; David Jacoby, "The Supply of War Materials to Egypt in the Crusader Period", *Jerusalem Studies in Arabic and Islam* 25 (2001), 106–7.

[154] Denise Jacques-Meunié, "Le Nom Berbère d'un poignard Maghrébin au XIe siècle d'après un texte Arabe de l'Egypte", *Journal Asiatique* 250 (1962), 614.

[155] Badr al-Din Ibn Juma'h, *Mustanad al-Ajnad*, passim.

ninth or tenth century (fig. 65), in some cases being specifically associated with a capability to break lamellar armour.[156]

Although archery was almost entirely an infantry affair in Islamic Sicily, there were references to archers on horseback who probably formed a small elite of mounted infantry who would still dismount to fight (fig. 33f). The early tradition of Arab-Islamic archery was on foot in support of, and while protected by, other infantrymen with spears and shields. This even had religious sanction, with religious scholars like Badr al-Din Ibn Juma'h praising the pre-eminence of archery "in the way of God".[157] Bows of composite construction were the usual forms for warfare (figs. 33f, 35b, 38a, 54a left and perhaps right, 57b, 63 and 64a), and an early form, incorporating deer or wild goat horn as well as wood and sinew, was used in Al-Andalus, and almost certainly also North Africa and Sicily. Simple wooden bows continued to be used in several parts of the medieval Islamic world, although mainly for hunting,[158] and it seems that the bows of Saharan, sub-Saharan African, and Nubian peoples were of simple construction. They may also have been large and, in the case of Nubian bows, were probably descended from the type of bow used in ancient Egypt.[159] The large wooden bows used by "Ethiopian" troops in Islamic Egyptian forces probably fell into this category.[160]

The question of the crossbow is more complicated (figs. 47a–c, 54b and 54c, and 66). Such weapons had been known in late Roman times and survived as hunting weapons in southern Europe and a few other places through the early medieval period. Large crossbows spanned by winches and other mechanical devices also continued to be known, not just in theoretical treatises but in the reality of siege warfare in the post-Roman states. These, however, were probably frame mounted, or at least were too heavy to be operated by one man. It is the reappearance of hand-held crossbows as war weapons, carried and operated by one man or by a team of shooter, loader, and shield carrier, that has most attracted the attention of medieval military historians.

Normally known in the Islamic world as the *qars al-rijl* "foot bow" or *qaws al-rikab* "stirrup bow", these war weapons would lead to a revolution in armour, and naval and siege warfare during the late medieval period. Contrary to what is generally believed, they reappeared in signifi-

[156] Shihab al-Sarraf, "Close Combat Weapons in the Early 'Abbasid Period: Maces, Axes and Swords", in *Companion to Medieval Arms and Armour*, ed. David Nicolle (Woodbridge, 2002), pp. 152–67, figs. XII 1–9, 53–73.

[157] Badr al-Din Ibn Juma'h, *Mustanad al-Ajnad*, pp. 53–54.

[158] William F. Paterson (private correspondence on Nubian, Seljuk and Italian bows, Jan. 1983).

[159] Ibid.

[160] Leo VI, *The Taktika of Leo VI*, ed. and trans. George T. Dennis (Washington DC, 2010), p. 477.

cant numbers in the Islamic world before they did in Europe. Also, they first reappeared in the eastern or central provinces, primarily in defences of fortified places, most notably in tenth-century Tarsus, where over half of the city's towers were defended by *qisiyy al-rijl* (sing. *qaws al-rijl*).[161] The earliest evidence of the use of crossbows in the western regions of Islam was during the siege of Barbastro in northern Spain by Ibn Hud al-Judhami, ruler of Saragossa, in 1046 AD. According to Ibn 'Idhari, this siege involved a corps of six hundred *rumat 'akkara* or archers using the *'akkara*, a type of crossbow which became typical of the westernmost regions of medieval Islam.[162]

There is little military archaeological evidence from the western Islamic regions during this period, and what does exist shows both similarities with and differences from the equally sparse archaeological evidence from further east. Perhaps the best known, though still debatable, object is a helmet from Chamosen in Switzerland (fig. 1). Scholars have suggested that its decoration appears to be ninth- to tenth-century Carolingian, while the helmet itself has little in common with late Roman or early Byzantine helmets,[163] being forged from a single piece of iron or steel. For these reasons an Islamic origin was suggested for the basic helmet, not because others of similar construction were then known from the Islamic world, but because of its technological sophistication and the close trading contacts between western Europe and the Islamic world.[164] This theory also relied upon iconographic evidence for the spread and use of such round, one-piece helmets, not least in the probably eleventh-century Sicilian carved ivory chess pieces now in the Bibliotheque Nationale's cabinet des Medailles in Paris (fig. 27a–b).

Documentary evidence for one-piece domed helmets in the early Islamic world is relatively abundant. They were known as *baydah*, "egg" or "egg shaped" helmets and were described in some detail in the early Arabic *Taj al-'Arus* dictionary. However, the early *baydah* could also be made from segments riveted together or to a frame. Taken as a whole, the term *baydah* probably referred to a shape rather than a method of construction, being differentiated from pointed helmets, which, at this period, seem all to have been of segmented construction.[165]

Since the study of the Chamosen helmet was published in 1930, two or perhaps three comparable helmets have been identified. The most obviously similar comes from Ifriqiya and is now in the Museum of Islamic Studies at Raqada, near Kayrawan (fig. 2). Unfortunately there is no further information which could help with its dating, although it was at one time labelled as

[161] Bosworth, "al-Tarsusi's *Siyar al Thughur*", 188.

[162] Évariste Lévi-Provençal, *Histoire de l'Espagne Musulmane* (Paris, 1950–67) 3:93 n. 3.

[163] Eduard A. Gessler, "Der Kalotten-Helm von Chamoson", *Zeitschrift für Historische Waffen- und Kostümkunde* 3 (1930), 122.

[164] Gessler, "Der Kalotten-Helm", p. 123.

[165] Gessler, "Der Kalotten-Helm", p. 127.

possibly Hafsid (1229–1574 AD). The helmet, with a low-domed, one-piece bowl and chiselled decoration, from Iran and dated to the eighth to ninth centuries, is quite well known (fig. 3), but more recently a highly decorated helmet appeared on the international antiques market where it was initially dismissed as a fake (fig. 5). Reportedly found in eastern Iran or Afghanistan, its decoration is certainly "exotic", probably rooted in the Buddhist culture of pre-Islamic Afghanistan, but with an Arabic inscription. The basic steel helmet within the decoration is straightforward and I have provisionally dated this helmet to the end of the tenth century.[166] More recently still, the excavation of an early medieval ship found off the south-western coast of Iran produced a helmet (fig. 4), a probable decorative finial from this helmet, a fragment of mail armour, and other items including ceramic jars. Provisionally dated to the late Sassanian period,[167] I nevertheless suggest that the decoration of the helmet and finial are so similar to those on the above-mentioned helmet from eastern Iran or Afghanistan that the wreck and its contents are more like date from the early Islamic period.[168] Sadly, another helmet from Tunisia which was once thought to be medieval Islamic is, in fact, almost certainly a later medieval European great helm, but with its face-plate removed (fig. 6a–b).

Swords found in early medieval Islamic contexts in the western Islamic regions seem to combine features from the early Islamic Middle East and early medieval Europe. For example, a sword and the bronze chape from its scabbard were found with a hoard of ninth-century Umayyad Andalusian coins at an unspecified location near Cordova. The tang of the hilt has been "restored" incorrectly in modern times, making the grip longer than it probably was originally. However, the blade is 79 cm long, 5.5 cm wide for most of length, with a flattened diamond section and no fuller groove.[169]

Perhaps more relevant to the history of Islamic Sicily are a sword and the remains of a leather dagger sheath found in the wreck of two ships, one an Islamic merchant vessel dating from the tenth century, the second a small boat which probably sank at the same time as the larger ship (fig. 7). The sword was actually found on the remains of a man in the

[166] David Nicolle, unpublished report for the owner of this helmet.

[167] Hossein Tofighian, "Pazushi dar bar-rasi bastanshenasi zir ab suwahil Bandar-e Rig (Ganaveh)", *Pazhohesh-ha-ye Bastanshenasi Iran (Archaeological Researches of Iran, Journal of Department of Archaeology, Faculty of Art and Architecture, Bu-Ali Sina University)* 4/6 (2014), 121–38 and 16–17 [English Abstract]; Hossein Tofighian, Farhang K. Nadooshan, and Seyyed M. Mousavi, "Sasanians in the Persian Gulf According to Archaeological Data", *Sasanika Archaeology 4* (https://bit.ly/2sYEMYa), 1–5.

[168] David Nicolle, "One-piece Sasanian and Early Islamic Helmets", in *Crowns, Hats, Turbans and Helmets. The Headgear in Iranian History, Volume 1: Pre-Islamic Period*, ed. K. Maksymiuk and G. Karamian (Siedlice-Tehran 2017), pp. 223–53.

[169] Alberto Canto García, "Una Espada de Época Omeya del Siglo IX D.C.", *Gladius* 21 (2001), 183.

smaller boat. These wrecks lay off the coast of Agay, near Saint-Raphael, and, given the dating, may have been associated with the nearby Islamic colony at Fraxinetum.[170] The closest parallels with the objects on board are found in eastern and southern Spain,[171] in what was the Mashriq region of Al-Andalus. The sword is 0.88 m long and appears to incorporate a broadened extension to the tang, which would have mirrored the shape of the pommel. If this is so, then this sword, dating from the ninth to the very early eleventh century, is technologically akin to two twelfth-century Islamic swords from a cave in Gibraltar which I believe to date from the mid-twelfth century.[172]

The shaping of the end of a sword's tang to be the same as that of the overall pommel might be a specifically western Islamic fashion. It might subsequently be seen during and perhaps after the Norman Kingdom of Sicily, firstly in a short sword from the twelfth or early thirteenth century which has an ivory-covered guard, grip, and pommel (fig. 8). The total length of this weapon is 61 cm, the blade being 44 cm long.[173] Again, the tang appears to expand into a disc within the pommel. An earlier, even shorter short sword was found during the excavation of Lietor in Al-Andalus, and dates from the ninth or tenth centuries (fig. 9). Here the blade is approximately 34 cm long and has an ordinary tang without any disc or otherwise shaped expansion.[174] Both these short blades may be evidence that early Arab-Islamic infantry, as distinct from cavalry, continued the tradition of the short Roman *gladius* stabbing sword.[175] Al-Jahiz actually criticised the Arabs for their pride in such weapons; "You also boast of the length of your rumh [spear] and the shortness of the sayf [sword], yet it is vainglorious of the infantryman to boast of the shortness of his sword ...".[176]

[170] A. G. Visquis, "Présence Sarrazine en rade d'Agay au Xme Siècle", in *Rencontre d'Archéologie Sous-Marine de Fréjus, Saint-Raphael* (Saint-Raphael, 1975) no page numbers.

[171] Daniel Brentchaloff, Philippe Sénac, "Note sur l'épave sarrasine de la rade d'Agay (Saint-Raphaël, Var)", *Archéologie islamique* 2 (1991), 71.

[172] David Nicolle, "Two Swords from the Foundation of Gibraltar", *Gladius* 22 (2002), 147–200; David Nicolle, "Talismanic Swords from the 12th Century Maghrib", *Graeco-Arabica* 7–8 (1999–2000), 421–32; David Nicolle, "Medieval Swords of Morocco and al-Andalus: History, Construction and Decoration", *Graeco-Arabica* 7–8 (1999–2000), 413–20.

[173] Bashir Mohamed (ed.), *L'art des chevaliers en pays d'Islam: collection de la Furusiyya Art Foundation* (Paris 2007), pp. 40–41.

[174] Julio Navaro Palazón and A. Robles Fernandéz, *Liétor* (Murcia 1996), pp. 91–93, pl. 147.

[175] Marius Canard, "L'Expansion Arabe: le problème militaire", in *Settimane di Studio del Centro Italiano di Studi sull'alto Medioèvo, XII* (Spoleto, 1965), p. 47; also in Marius Canard, *L'Expansion Arabo-Islamique et ses répercussions* (London, 1974).

[176] Jahiz, Abu 'Uthman 'Amr Ibn Bahr al-, *Al-Bayan wa'l-Tabyin*, ed. Hasan al-Sundubi (Cairo, 1947), p. 14.

The blade of a second sword with a tang which expands into a disc also exists in a private collection and has yet to be published (fig. 10). It has an undeciphered Arabic or pseudo-Arabic inscription stamped into the blade and is, in my opinion, probably from Sicily, dating from shortly after the fall of the Norman kingdom. Its total length is 89.4 cm, the blade being 73.7 cm long with a maximum width of 5.6 cm. The disc which would have formed part of the pommel had a maximum width of 5.9 cm, with one rivet through it, while a lower rivet almost goes through the top of the fuller groove. A sword pommel, which, judging by its decoration, could be from twelfth- or early thirteenth-century Sicily or al-Andalus, would clearly not have been intended for a sword with such an broadened disc-shaped tang (fig. 11).

More dubious is a double-headed axe with a pseudo-Arabic inscription that was found near Toulon (fig. 12). According to J. Lacam it was uncovered by a local inhabitant when planting fruit trees, and was lying beneath a stone slab which was itself 80 cm below ground level. The axe had the fragmentary remains of a handle, approximately 85 cm long, which was said to look like acacia wood, and the centre of the blade was pointing east. According to the Departmental Archaeological Centre, the Arabic inscription on the blade made no sense and was described as being in decorative pseudo-Kufic, presumably designed by someone who did not fully understand Arabic.[177] Nevertheless, J. Lacam suggested that the axe might be a *tabarzin* axe from the early Fatimid period.[178] Here it is perhaps worth noting that the Persian term *tabarzin*, which is now normally translated as "saddle-axe", may originally have simply meant "large axe".[179]

Conclusions

Following the Norman conquest of Sicily, Sicilian Muslim troops were employed in substantial numbers throughout and beyond the Norman period. These men included elite guardsmen who served close to the ruler and were entrusted with highly significant duties such as guarding the Treasury. Other men were summoned as and when required, some serving as lightly armoured cavalry, others as "mounted infantry" archers, although not, apparently, as true "horse-archers" in the style of steppe nomads. A greater number served as ordinary infantry archers, again highly mobile and lightly armoured, if armoured at all. Siege engineers and military engineers in general formed a different sort of elite.

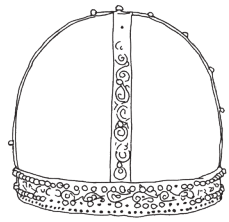
[177] Jean Lacam, *Les Sarrazins dans le haut Moyen-Age français (Histoire et archéologie)* (Paris, 1965), pp. 163–64.

[178] Lacam, *Les Sarrazins*, p. 166.

[179] Sarraf, "Close Combat Weapons", pp. 162–67.

The relatively little documentary evidence from the Norman, Hohenstaufen, and Angevin twelfth and thirteenth centuries suggests that such troops continued to be equipped in distinctive styles, which were rooted into their own Siculo-Muslim military heritage. However, this also changed over the decades. Such changes or developments largely seem to have resulted from the increasing isolation of Sicilian Muslim troops from the wider Islamic world, especially after this community was exiled to the southern Italian mainland. Nevertheless, even here the Italian Muslims – as they should now be more properly called – retained their distinctive military culture, tactics, equipment, and perhaps even costume to a remarkable degree, until the destruction of the so-called Lucera colony at the close of the thirteenth century.

The fact that descendants of the pre-Norman Sicilian Muslim military classes continued to be enlisted for so long, and continued to campaign in such a traditional manner, surely stands as testimony to the effectiveness of their military traditions. Running parallel to this story was the influence that Sicilian Muslim traditions of arms, armour and tactics had upon the development of such aspects of military culture within medieval Italy. They were themselves, of course, rooted in and to some extent continuing to reflect on-going technological developments from the broader Islamic world. Tenuous as it might seem, there was thus some degree of Sicilian Muslim influence upon the evolution of medieval European arms and armour as a whole, simply because Italy would exert such a profound military-technological influence north of the Alps from the thirteenth to the fifteenth centuries AD.



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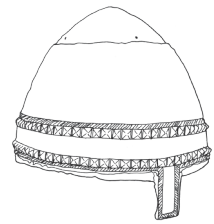

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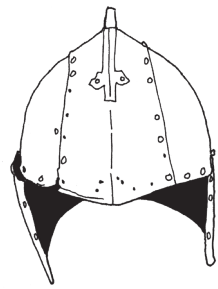
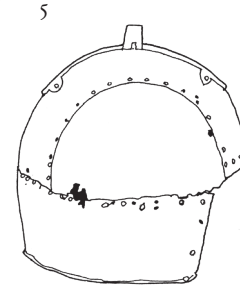


6a



6b

Helmets

1 Helmet with one-piece bowl and riveted cross-frame, reportedly found at Chamosen in Switzerland, Islamic early tenth to twelfth century, although the cross-pieces and brow band may have been added later in Europe (Schweizerisches Landes Museum, Zurich)

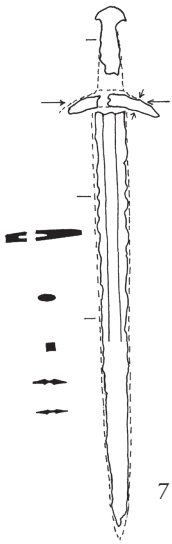
2 Helmet with one-piece bowl, Islamic early tenth to twelfth century, reportedly found at Raqada in central Tunisia (Museum of Islamic Studies, Raqada)

3 Helmet with one-piece bowl and chiselled decoration, Iran, eighth–ninth century (Furusiyah Art Foundation, inv. R-815, London)

4 Helmet found in the wreck of a Sassanian or early Islamic merchant ship off Bandar Rig on the Persian Gulf coast of Iran (Museum of Islamic Archaeology, Tehran)

5 Helmet reportedly found in eastern Iran or Afghanistan, probably late tenth century AD, shown without its decorative finial (private collection)

6a-b Helmet made from at least four riveted plates; at one time regarded as Fatimid tenth to twelfth century, but more likely a later medieval European great helm but with its face-plate removed (Museum of Islamic Archaeology, Kayrawan)



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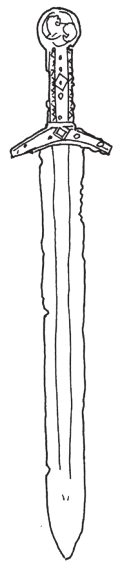

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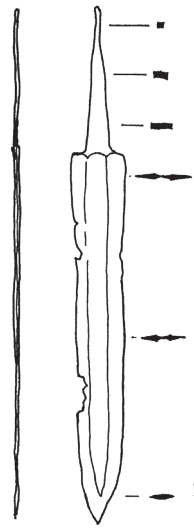

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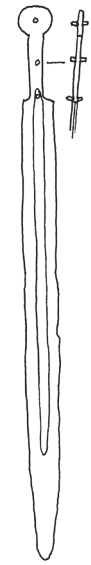


10

11

12

Weapons

7 Sword from the wreck of an Islamic ship, found off Agay, western Islamic, tenth century (Museum of Underwater Archaeology, Saint-Raphael)

8 Short sword with ivory-covered hilt, Sicily twelfth–thirteenth century (Furusiyya Art Foundation, inv RB-133, London)

9 Short sword excavated at Liétor, Andalusian, ninth–tenth century (after Navaro Palazon)

10 Short sword with an illegible Arabic inscription on the blade, probably Sicily, twelfth–thirteenth century (private collection)

11 Sword pommel, Sicily or al-Andalus, twelfth–early thirteenth century (Furusiyya Art Foundation, inv RB-93, London)

12 Bronze double-headed axe, reportedly found near Toulon and initially thought to be early medieval Islamic; but probably a fake (after Lacam)

13

14a

14b

14c

14d

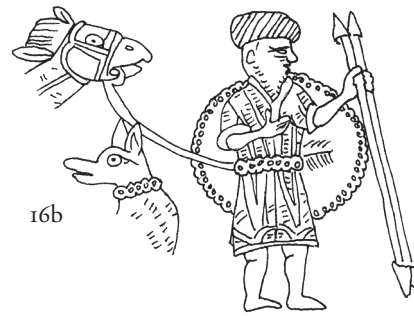
Panel Painting

13 Painted ceiling panel of a cavalryman with a kite-shaped shield, Siculo Islamic, c.1140–43 AD (*in situ* over the southern side-aisle of the Capella Palatina, Palermo)

14a-d Painted panels of mounted warriors, three with elongated but flat-bottomed shields, Siculo Islamic, c.1140–43 AD (*in situ* in the muqarnas ceiling of the Capella Palatina in Palermo)

15

16a



16b

17

18

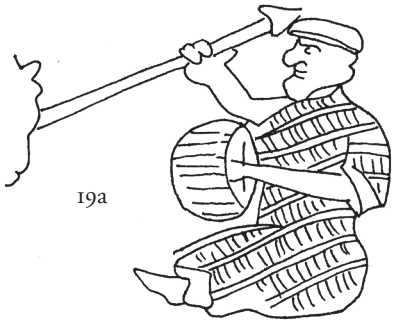
Ivory Panels

15 Warrior with a short-sleeved mail shirt or hauberk on a carved ivory oliphant, partially covered by a later silver rim, Sicily, late eleventh century (on loan to the Victoria & Albert Museum, London)

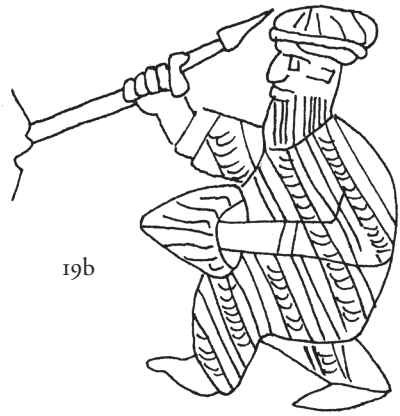
16a-b Carved ivory box showing armed men with short-sleeved mail shirts or hauberks, Sicily, eleventh century (Museum für Islamische Kunst, Berlin)

17 Carved ivory oliphant showing a warrior with a full-length mail hauberk, Sicily, late eleventh century (Musée Crozatier, Le Puy-en-Velay)

18 Carved ivory oliphant showing a man wielding a mace, southern Italy or Sicily, eleventh century (Museum of Fine Arts, inv. 57.58L, Boston)



19a



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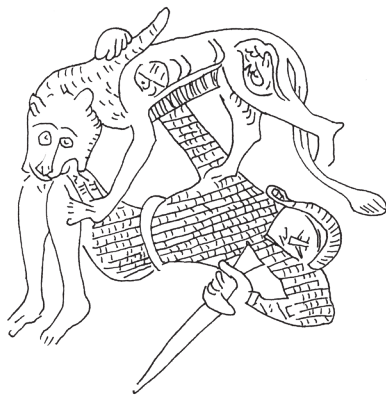


21

19a-c Carved ivory box showing armed men with short-sleeved mail shirts or hauberks, Sicily, 1050–1100 AD (Metropolitan Museum of Art, inv. 17.190.241, New York)

20 Carved ivory oliphant showing a warrior with a mail shirt, Sicily, late eleventh century (Metropolitan Museum of Art, inv. 04.3.177, New York)

21 Carved ivory plaque showing a man wearing a full mail hauberk with long sleeves and perhaps a mail coif, Sicily, southern Italy or Andalusia, late twelfth century (National Museum of Antiquities, Ravenna)

22a

22b

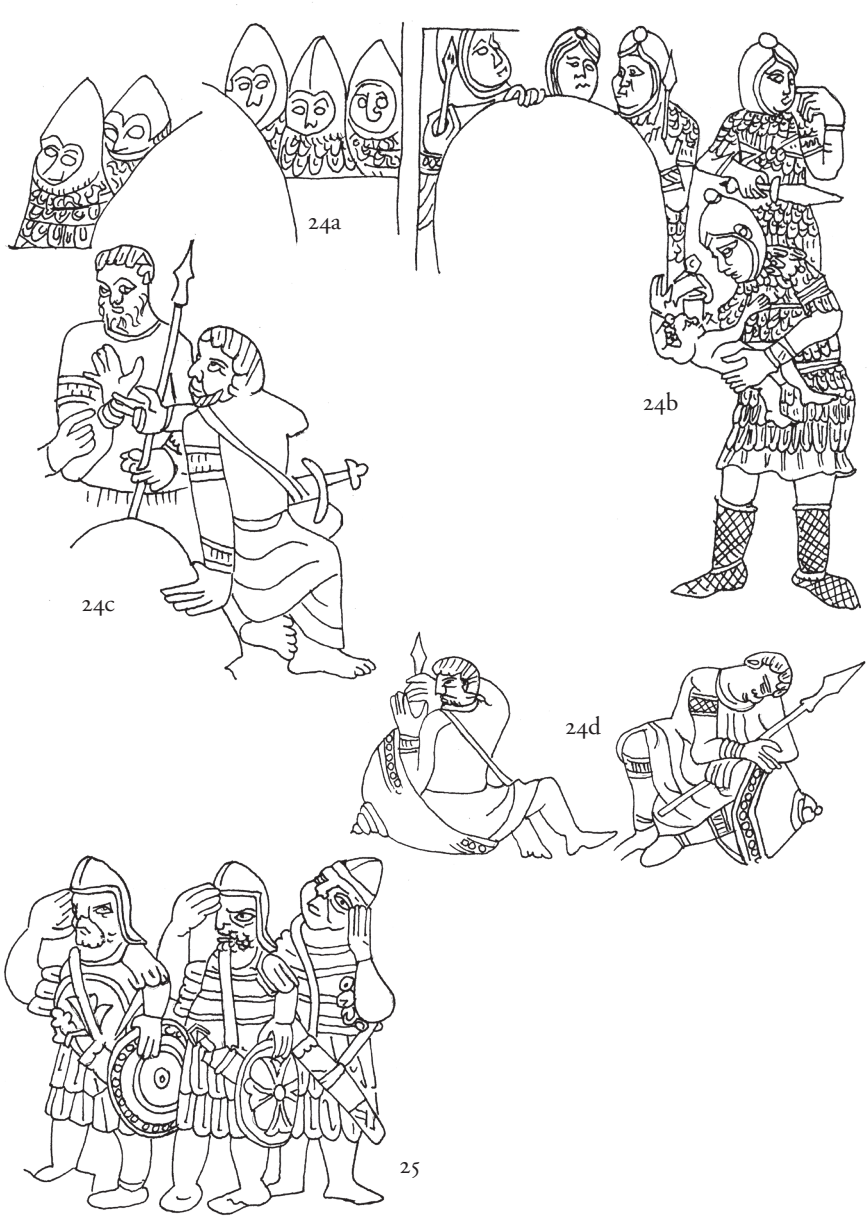
23a

23b

23c

22a-b Carved ivory plaques showing men wearing full mail hauberks with long sleeves and perhaps separate mail coifs, Sicily, southern Italy or Andalusia, late twelfth-early thirteenth century (Hermitage Museum, St. Petersburg)

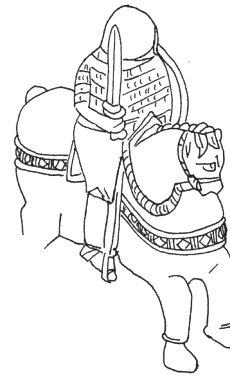
23a-c Carved ivory plaques showing guardsmen with separate mail coifs and probably armour-lined and fabric-covered coats, from al-Humayma, Jordan, probably made in Khurasan, before 750 AD (Archaeological Musuem, Aqaba)



24a-d Carved ivory plaques showing scenes from the Life of Christ with armoured men in largely Byzantine style [a and d] and armed but unarmoured men with Islamic-style tiraz bands around their upper sleeves [b–c], from Cathedral Altar, first half of twelfth century, southern Italy: a) Herod's guards; b) guards at Holy Sepulchre; c) guards at Crucifixion; d) Massacre of the Innocents (Cathedral Museum, Salerno)

25 Philistines shown in provincial Byzantine style, one apparently with a form of breastplate [left], on "Rome Casket", carved ivory box, Sicily or southern Italy, late twelfth century (Palazzo di Venezia Museum, Rome)

26a



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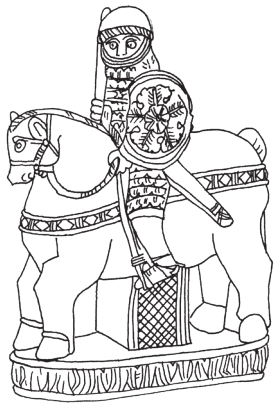


27a

27b

28a

28b

Ivory Chess Pieces

26a–b "Charlemagne's chess set", carved ivory chess knight with kite-shaped shield, Sicily or southern Italy, eleventh century (Bibliothèque Nationale Cabinet des Medailles, Paris)

27a–b "Charlemagne's chess set", carved ivory chess knight with round shield, Sicily or southern Italy, eleventh century (Bibliothèque Nationale Cabinet des Medailles, Paris)

28a–b "Charlemagne's chess set", carved ivory chess pawn or infantryman with a long but flat-bottomed shield, Sicily or southern Italy, eleventh century (Bibliothèque Nationale Cabinet des Medailles, Paris)

Stone and Stucco Carvings

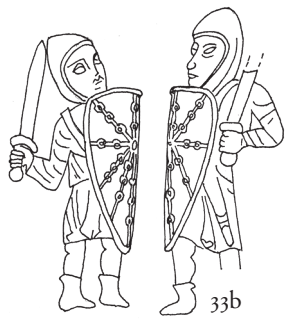
29a–c Carved relief of huntsmen, one clearly wearing a form of quilted "soft" armour [a], southern Italy, late eleventh century (*in situ* above southern portal, Church of San Benedetto, Brindisi)

30a–f Carved relief showing siege of a city, southern Italy, very late eleventh or very early twelfth century: a–c) defenders; d–f) attackers from the right wearing lamellar armour. Note that the attackers from the left wear mail armour (*in situ* above north door, Church of San Nicola, Bari)

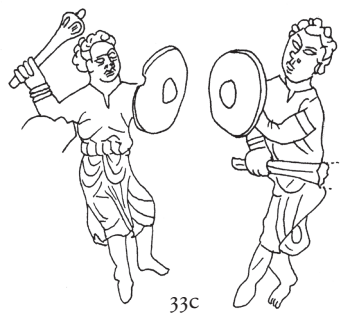
31

32

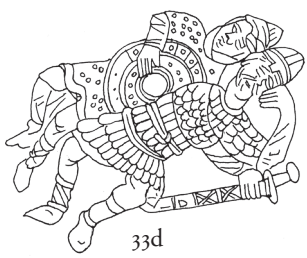
33a



33b



33c



33d

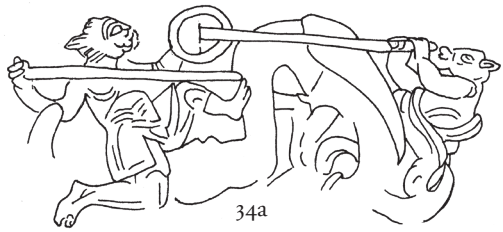
33e

33f

31 Carved relief of a horseman wearing a small lamellar cuirass, probably part of Pharoah's army, southern Italy, very late eleventh or very early twelfth century (*in situ* west front, Church of San Nicola, Bari)

32 Carving of a merman with a mace and round shield, southern Italy, 1175–1200 AD (*in situ* on a column inside the Cathedral, Bitonto)

33a–f Carved capitals showing a variety of warriors, some with African features, and with a variety of European, Byzantine, and Islamic styles of weaponry, armour, and costume, Sicily, c.1189 AD (*in situ* Cathedral Cloisters, Monreale)



34a

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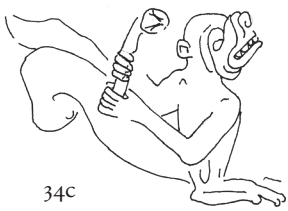
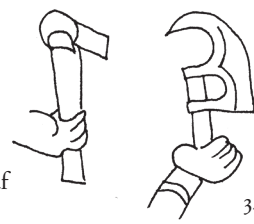


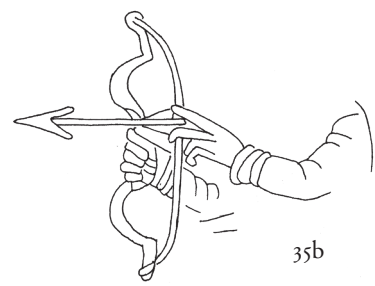
34c

34d 34e



34f 34g

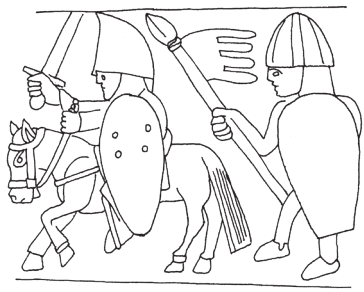
35a



35b

34a–g Carved reliefs showing assorted demons in combat with spears, maces, and an early form of guisarme axe [d], southern Italy, late twelfth century (*in situ* Cathedral, Barletta)

35a–b Ambone di Nicodemo showing huntsmen or warriors with a mace and a composite bow, stone and stucco relief carving on pulpit, southern Italy, first half of twelfth century (*in situ* church of Santa Maria in Valle Porclaneta, Rosciolo dei Marsi)

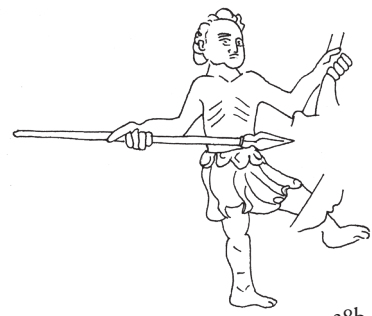


36

37a

37b

38a



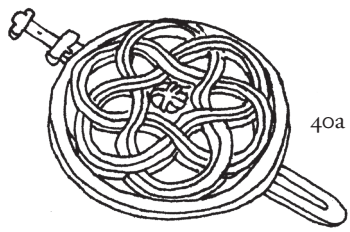
38b

36 Carved capital showing a typical northern Italian cavalryman and an infantryman with a segmented helmet plus long but flat-bottomed shield, northern Italy, mid-twelfth century (*in situ* Cathedral, Parma)

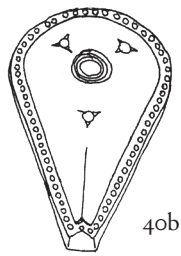
37a–b Figures on carved capitals, identified as Islamic by the embroidered tiraz bands on their upper sleeves, southern Italy, early thirteenth century (*in situ* Cathedral, Matera)

38a–b Carved relief of huntsmen, one with a long-sleeved mail hauberk, helmet, and composite bow [a] and one wearing only a kilt-like garment [b], either Siculo-Islamic eleventh century from an earlier building or Christian Sicily early twelfth century (*in situ* above north door, Church of La Martorana, Palermo)

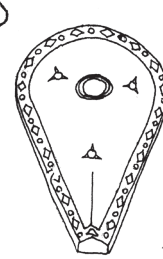
39



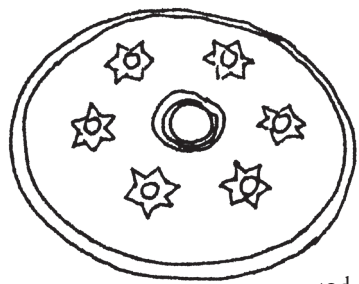
40a



40b



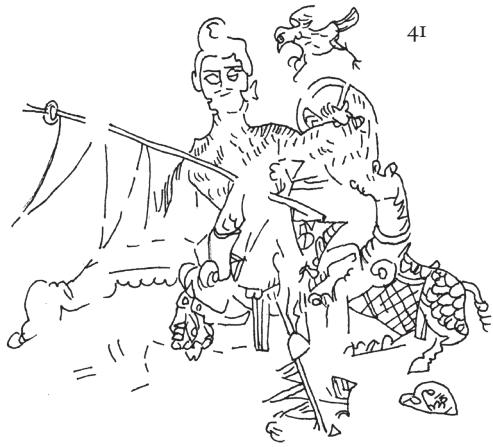
40c



40d

39 Painted stucco statuette of a guardsman wearing a quilted qalansawah hat and a mail hauberk, from the Umayyad Palace at Khirbat al-Mafjir, Palestine, early eighth century (Rockefeller Museum, Jerusalem)

40a–d Relief carvings of shields symbolising elements of the Fatimid army, decorated plus a sword for the caliphal guards [a], elongated with flat bases for the infantry [b–c] and round for the cavalry [d], Egypt c.1087 AD (*in situ* Bab al-Nasr, Cairo)


41


42


43


44

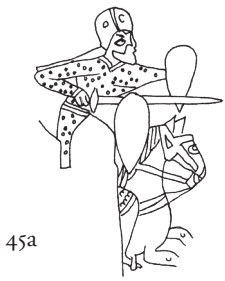
Manuscripts and Manuscript Fragments

41 Painted papyrus fragment of a cavalrymen with an apparently kite-shaped shield, probably from Fustat, Egypt, tenth or eleventh century (Musée du Louvre, inv. MA 0125, Paris)

42 Drawing on paper of a faris cavalryman with a small round shield, from Fustat, Egypt, probably tenth century (Österreichische Nationalbibliothek, Ms. ACh. Vindob. 11416, Vienna)

43 Painted paper fragment showing horsemen greeting above the carnage of battle [note shield and severed limbs], the visible horsemen apparently wearing a lamellar cuirass, from Fustat, Egypt, probably early twelfth century (Keir Collection, inv. I.8, London)

44 Painted paper fragment of a turbaned warrior with a large shield and two javelins, from Fustat, Egypt, probably early twelfth century (Museum of Islamic Art, inv. 13801, Cairo)



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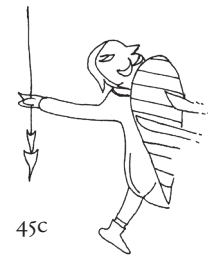

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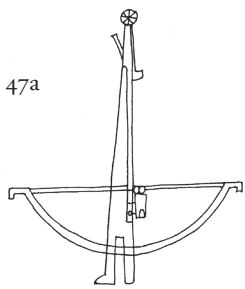
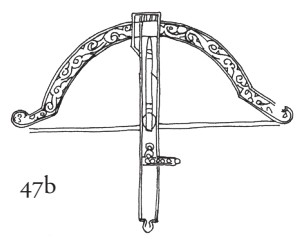
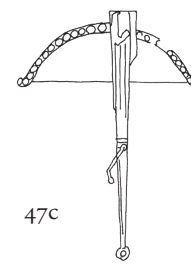


47a



47b



47c

45a–c Painted paper believed to show the Fatimid garrison of Asqalon emerging to confront Crusader foes who are wearing clearly identifiable European military equipment [not shown here], from Fustat, Egypt, probably mid-twelfth century (British Museum, Department of Oriental Antiquities, London)

46 Painted paper showing unarmoured Arab or Berber cavalrymen, from Fustat, Egypt, probably mid-twelfth century (private collection; present location unknown)

47a–c Manuscript illustrations in the Tabsira by Mardi Ibn ʻAli Ibn Mardi al-Tarsusi, Egypt, c.1171 AD: a) crossbow forming part of the release mechanism of a counterweight trebuchet; b) crossbow mounted inside a shield; c) crossbow modified to shoot incendiary grenades (Bodleian Library, Ms. Hunt 264, Oxford)

48a–f Gospels made in Damietta, Coptic Egypt, 1179/80 AD: a) guard of Pilate with a pair of javelins; b) soldiers at Crucifixion with round and elongated flat-based shields; c) the Betrayal showing swords, a probably mace, small round and elongated flat-bottomed shield; d) Herod's guards, one with a pair of javelins; e) soldier before Joseph of Arimathea, with bow, quiver, shield, sword, and pair of javelins; f)- soldier with a pair of javelins casting lots for Christ's clothes (Bibliothèque Nationale, Ms. Copte 13, ff. 82v, 83v, 79r, 5r, 131r, 274v, Paris)

49

50a

50b

51a

51b

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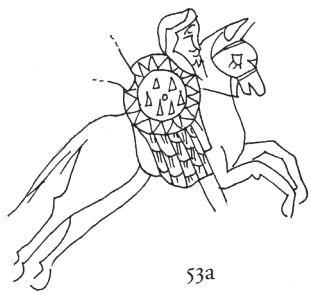
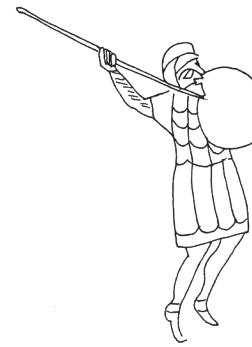


53a



53b

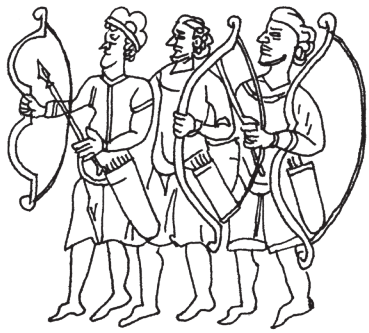
49 Ruler's guard, perhaps a Muslim, judging by the tiraz bands around his upper sleeves, Leges Langobardorum from Benevento, southern Italy, eleventh century (Archives of Badia della Santissima Trinità, Abbey of La Cava, Subiaco)

50a–b Pharoah's army in the Red Sea, including these cavalrymen with long-hemmed, long-sleeved mail hauberks, Exultet Roll, southern Italy, eleventh century (Cathedral Archives, Roll 2, Gaeta)

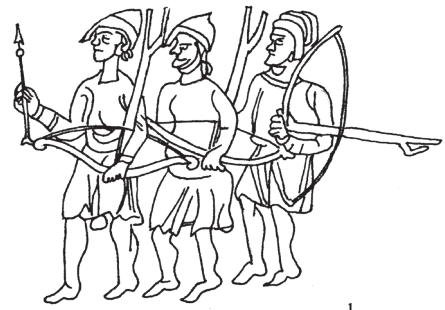
51a–b Guards with probable small forms of lamellar cuirass, at Dedication to Duke and Emperor, Exultet Roll, southern Italy, eleventh century (Museo Civico, Pisa)

52 Guard of the Norman ruler, perhaps identified as a Muslim by his beard and pointed hat, and with a large elongated shield, Regestum di Sant Angelo in Formis, southern Italy, c.1150 AD (Library, Ms. Reg. 4, Abbey of Monte Cassino)

53a–b Synopsis of Histories by John Skylitzes, Sicily, late twelfth–early thirteenth century: a) Arab emir wearing long-skirted lamellar cuirass fleeing from Bardas Phocas; b) one of the Arab soldiers attacking Edessa, wearing small form of lamellar cuirass (Biblioteca Nacional, Cod. 005-3. N2, ff. 136v & 208r, Madrid



54a



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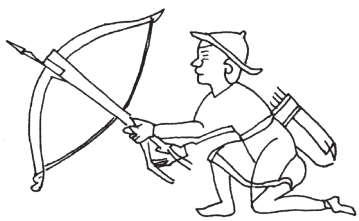


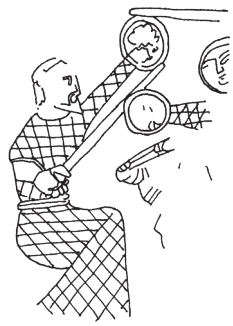
54c

54d

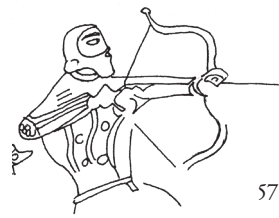
54a–d Liber ad homorem Augusti by Peter of Eboli, Sicily or southern Italy, very late twelfth or early thirteenth century: a) unarmoured Muslim and Christian archers; b) Christian and Muslim crossbowmen, two with helmets, one with a turban; c) archer with a composite bow and a quiver at the siege of Salerno; d) crossbowman with brimmed hat or helmet at the siege of Naples (Burgerbibliothek, Cod. 120, ff. 131r, 117r and 109r, Bern)

55

56



57a



57b

58

59

Ceramics

55 Ceramic fragment showing a soldier with a long-hafted mace and perhaps mail beneath his coat or tunic, Egypt or Iraq, ninth-tenth century (Benaki museum, inv. 227, Athens)

56 Ceramic bowl showing horsemen with small round shields and one with a sword, from Sabra al-Mansuriyah, Tunisia, 950–1050 AD (Museum of Islamic Arts, Kayrawan)

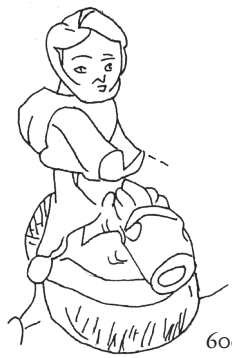
57a–b Ceramic plaques from Sabra palace showing bearded Arab or Berber soldiers on foot and an apparently "moon faced" cavalryman, perhaps indicating a Turk, Tunisia, mid-eleventh century (Bardo Museum, Tunis)

58 Lustre-ware ceramic fragment showing a turbaned infantryman with a spear, an elongated kite-shaped shield and perhaps indicating mail or other protection over his left arm, from Fustat, Egypt, tenth–eleventh century (Victoria & Albert Museum ceramic study collection, London)

59 Turbaned soldier with a straight sword and a large, elongated but flat-bottomed shield, on a lustre-ware ceramic bowl, Egypt or Iran, twelfth century (Keir Collection, inv. 151, London)

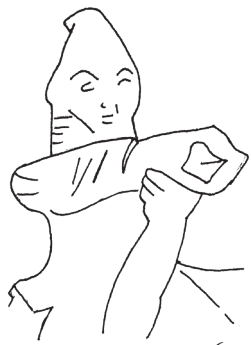
60a

60b



60c

60d



60e

60f

60a–b Figure of horseman with a helmet, shield, and sword, on the rim of the Vaso de Tavira terracotta bowl, Islamic-Andalusian southern Portugal, eleventh century (Museu Municipal, Tavira)

60c–d Figure of horseman with a turban and spear, on the rim of the Vaso de Tavira terracotta bowl, Islamic-Andalusian southern Portugal, eleventh century (Museu Municipal, Tavira)

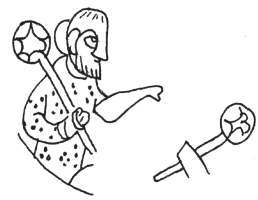
60e Figure of probable infantryman with a large shield, on the rim of the Vaso de Tavira terracotta bowl, Islamic-Andalusian southern Portugal, eleventh century (Museu Municipal, Tavira)

61a

61b

62a

62b



62c 62d

61 Wall painting

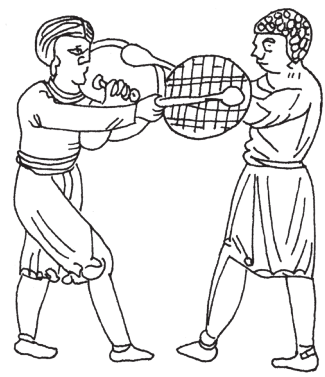
61a–b Soldiers with long but in one case clearly flat-bottomed shields [a] at the Crucifixion, wall painting, central Italy, twelfth century (*in situ* San Paolo fuori la Mura, Rome)

62–64 Metalwork

62a–d Silver plate found at Perm-Molotov in Siberia, Christian Iraq, Iran or Central Asia, probably seventh century: a) angel with a mace guarding the Holy Sepulchre, either wearing a full mail hauberk or covered with feathers; b) shepherd armed with a mace; c–d) soldiers armed with maces at the Crucifixion (Hermitage Museum, St Petersburg)

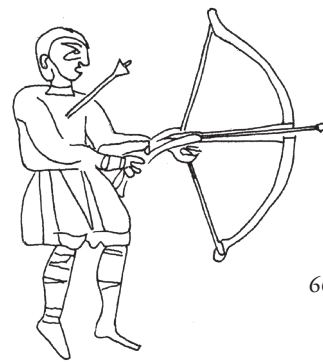
63

64a



64b

65



66

63 Soldier or huntsman with a composite bow on a bronze door panel, southern Italy, c.1179 AD (*in situ* Cathedral, Ravello)

64a–b Men armed with shields and maces, perhaps engaged in a judicial duel, on a bronze door panel, southern Italy, late twelfth century (*in situ* Cathedral, Trani)

65–66 Mosaics

65 Man apparently armed with a long-handled mace in the Legend of King Arthur, mosaic, southern Italy, ninth–tenth century (*in situ* Church of the Pantocrator, Otranto)

66 Crossbowman struck down by an opponent's arrow during Turkish attack on crusader-held Antioch, northern Italy, early eleventh century (*in situ* Church of San Colombano, Bobbio)