

NUOVA **ANTOLOGIA** 
MILITARE
RIVISTA INTERDISCIPLINARE DELLA SOCIETÀ ITALIANA DI STORIA MILITARE

N. 6
2025

Fascicolo 21. Marzo 2025
Storia Militare Medievale

a cura di
MARCO MERLO, FABIO ROMANONI E PETER SPOSATO



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Nuova Antologia Militare

Rivista interdisciplinare della Società Italiana di Storia Militare
Periodico telematico open-access annuale (www.nam-sism.org)
Registrazione del Tribunale Ordinario di Roma n. 06 del 30 Gennaio 2020
Scopus List of Accepted Titles October 2022 (No. 597)
Rivista scientifica ANVUR (5/9/2023) Area 11



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(www.societaitalianastoriamilitare@org)

Grafica: Nadir Media Srl - Via Giuseppe Veronese, 22 - 00146 Roma
info@nadirmedia.it

Gruppo Editoriale Tab Srl -Viale Manzoni 24/c - 00185 Roma
www.tabedizioni.it

ISSN: 2704-9795

ISBN Fascicolo 979-12-5669-106-7

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Sigillo di Leszek I di Polonia detto il Bianco (Leszek Bialego)
Grafika pochodzi z książki: *Poczet królów i książąt polskich*, Czytelnik,
pod red. Andrzeja Garlickiego, Warszawa 1984.
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Eastern Roman military equipment in the Western provinces (6th - 7th century)

di MATTIA CAPRIOLI

ABSTRACT: This paper investigates the military equipment of Eastern Roman armies in the Western provinces during the 6th and 7th centuries, analyzing archaeological remains, historical accounts, and visual representations. The study focuses on regions such as Africa, Sardinia, Dalmatia, Italy, and Spain to evaluate the degree of regional variation in armaments due to external cultural influences and local conditions. Emphasis is placed on understanding the adaptation of Byzantine military practices to peripheral territories far from Constantinople.

KEYWORDS: BYZANTINE MILITARY EQUIPMENT, WESTERN PROVINCES, LATE ANTIQUITY, BYZANTINE ARMY, MILITARY ARCHAEOLOGY, BYZANTINE-WEST INTERACTIONS, EASTERN ROMAN EMPIRE

The Romans, as is well known, were the people who perhaps more than any other in History were able to imitate and make their own the military equipment of the various external enemies they faced. This is a feature which of course continued throughout Late Antiquity and the Middle Ages, in the so called „Byzantine period“.

The interest of scholars in Byzantine military equipment is relatively recent, especially when compared with the countless studies on Roman armaments of the ancient era and on European medieval military equipment. This is certainly partly due to the scarcity, or difficult accessibility, of sources on the subject until recent past.

Such a situation naturally has left room for studies and insights that have not yet been addressed in sufficient detail for the Eastern Roman military world, but which are already present and under development for the Classical Roman world.

One of such themes, for instance, is the degree of variation in military equipment on a regional basis and as a result of various external cultural influences,

against the idea, certainly anachronistic, of ancient and medieval armies equipped with real „uniforms“ (this term is, in modern literature, often used perhaps inappropriately, in otherwise excellent academic works that also deal with armaments).¹

A certain degree of equipment uniformity during Late Antiquity cannot be denied of course, since standards were probably needed in regular armies and since armaments were produced mostly by the few state-owned factories active on imperial territory. During military campaigns, such military equipment could be sent, on imperial directive, from the imperial arsenals to the war theaters in the peripheries, like the West.

However, the increasingly frequent contact with populations of external invaders and raiders – between the 6th and 7th centuries, in particular, the Avars – and the lack of both reinforcements and perhaps supplies of equipment from Constantinople, may have led armies stationed in the peripheral areas to increasingly adopt types of armament foreign to the late ancient Roman tradition, with a consequent greater diversification of military equipment.

The present study aims to examine the evidence relating to military equipment and its possible diversity at the regional level in those regions that in the 6th and 7th centuries (and even more so in the following centuries) were the Western peripheries of the empire.

The archaeological, literary and iconographic evidence relating to the armaments present in the territories of Africa (and the subject Tyrrhenian islands of Corsica and Sardinia), Dalmatia, Italy and southern Spain will be examined and compared, to verify to what extent the relative „isolation“ from the centre of the empire after the Justinian reconquest actually influenced their production, diffusion and morphology, compared to the contemporary equipment of the eastern half of the empire and compared to the Roman military tradition.

It is not the aim of this study to compose a real catalogue of the sources cur-

1 E.g. the term „uniforms“ used in RAVEGNANI G., *Soldati e guerre a Bisanzio. Il secolo di Giustiniano*, Bologna 2009, p. 68. On the specific theme of the regional differentiation of Roman military equipment, I would like to point out the two recent works D'AMATO R., *Roman Army Units in the Western Provinces (1). 31 BC–AD 195*, Oxford 2016; D'AMATO R., *Roman Army Units in the Eastern Provinces (1). 31 BC–AD 195*, Oxford 2017, which have already been followed by works by the same author devoted to the following centuries, to the 3rd up to the end of the 5th century.

rently known on Byzantine military equipment in the West, nor to propose new classifications or typologies of armaments.

This contribution mainly aims to provide an accurate picture of the subject discussed, although probably not as complete as it may be wished, and the hope to offer an easily accessible „database“ for future research.

SOURCES

1. CHRONOLOGICAL LIMITS

Although Byzantine military artefacts are present in the West since the end of the 5th century², the earlier chronological limit of the present study will be placed between the 30s and the 50s of the 6th century: the period in which the Eastern Roman armies arrived in the West, with Justinian's campaigns to reconquer the old imperial territories.

In particular, it will be necessary to consider the final period of the various reconquest campaigns, evaluating region by region, since this period of time normally corresponds to both the settlement in the territory conquered by the Byzantine troops and the virtual end of the sending of reinforcements from Constantinople – thus placing, if not an end, at least a limit to the introduction of military material from the eastern part of the empire.

The latest chronological limit will be set between within the first half of the 7th century, since in this period some important events mark, in some way, turning points for many of the territories involved in this study: for instance, the loss of the Spanish territories by 624, the battle of Scultenna in 643 in Italy.

Moreover, on a more general level, we must also consider the Arab invasion and the introduction of the thematic system³, which gradually determined the end of the weapon production system of state factories.

2 See for instance KAZANSKI M., MASTYKOVA A., PÉRIN P., *Byzance et le royaumes barbares d'Occident au debut de l'époque mérovingienne*, in *Probleme der fruhen Merowingerzeit im Mitteldonauraum*, ed. J. Terjal, Brno 2002, pp. 159-1931, in particular pp. 166-181.

3 Whether the system of themes was actually introduced by Heraclius or by his son Constans II, or if it was the result of a more gradual series of reforms, is not relevant to the present study. For these issues, see OSTROGORSKY G., *Storia dell'impero bizantino*, Torino 1993, pp. 88-89 and TREADGOLD W., *A History of the Byzantine State and Society*, Stanford 1997, pp. 314-322.

It will clearly be useful to draw comparisons with both earlier and later Roman sources, as they can help in better understanding and interpreting the sources of the 6th-7th centuries.

2. ARCHAEOLOGICAL SOURCES

Archaeological finds clearly constitute the primary sources under study, as they are direct evidence of the armament used in the past.

However, for the present study, two main issues must be dealt with.

First of all, although finds and studies on the subject are becoming more and more relevant in recent years, it is necessary to deal with the still relative scarcity of finds relating to 6th and 7th century Byzantine panoplies, especially when compared with the much more numerous military finds of previous periods⁴.

Secondly, it must be considered that often it's almost impossible to make a distinction of military equipment on an ethnic basis, especially for the period between 5th and 7th centuries, which would allow us to define which objects are in all respects Eastern Romans (or used by the Romans) and which are not.

In fact, we can note a tendency towards a rather wide-ranging use of almost identical types of armament (for example, the lamellar armour, identical in shape to the finds from Crimea, the Balkans, and Italy⁵). Furthermore, not only were Eastern Roman armies always composed largely of troops from foreign allies⁶, but the Byzantines themselves during the 6th-7th centuries consistently adopted the use of military equipment typical of external populations, such as the Avars⁷.

4 GROTOWSKI P. L., *Arms and Armour of the Warrior Saints. Tradition and Innovation in Byzantine Iconography (843 – 1261)*, Leiden 2010, p. 19

5 BUGARSKI I., *A Contribution to the Study of Lamellar Armour*, in „Starinar“, 55, 2005, p. 163, figg 2; 4; KUBAREV G.V., ZUHRAVLEV D.V., *Armour From The Catacomb Grave From Gospital'naya Street in Kerch (Excavation 1891 of Professor Y. A. Kulakovskiy)*, in „Vestnik NGU. Seriiā Istoriiā, filologiiā“, vol. 11, 5, 2012, p. 137, fig. 1; NICOLLE D., *Arms of the Umayyad Era: Military Technology in a Time of Change*, in *War and Society in the Eastern Mediterranean: 7th - 15th Centuries*, a cura di Y. Lev, Leiden 1997, p. 100, fig. 201.

6 COSENTINO S., *Storia dell'Italia bizantina (VI-IX secolo)*, Bologna 2008, pp. 84, 150-155; WOŁOSZYN M., *Byzantine Archaeology: selected problems*, in „Analecta archaeologica resoviensis“, 1, 2006, pp. 275-276.

7 *Strategikon* I, 2: the majority of the elements of the panoply and of the clothing recommended to Eastern Roman horsemen must be „according to the custom of the Avars“ (πρὸς τὸ σχῆμα τῶν Ἀβάρων; κατὰ τὸ τῶν Ἀβάρων σχῆμα).

Finally, we must take into consideration a further aspect, linked to the objects that probably constituted imperial gifts for the barbarian elites (an exemplary case of this is the various examples of Baldenheim-type *spangenhelme* found in „princely“ burials in the *Barbaricum*, but produced in Byzantine territory⁸): even when such objects are found in Byzantine contexts, it will be objectively difficult to establish whether they belonged to a Eastern Roman officer or to a barbarian leader enrolled in the imperial army.

In order to avoid that the aforementioned problems may lead to paradoxical or scientifically unacceptable choices (for example, not being able to consider any armament of the period under examination as properly Byzantine, or taking into consideration all the armaments of the period to reconstruct the imperial armament), it will therefore be appropriate to set limits and parameters, however arbitrary, to decide which finds to examine.

For the present study, the main parameter chosen is then the geographical one. Although it may have its limits and may present issues, it has been considered the safest. The object of the research will be, on one hand, those finds of military equipment discovered in territories that were certainly part of the Eastern Roman Empire in the West. On the other hand, also those finds from neighboring areas of the empire that have been classified by scholars as Byzantine artifacts, and therefore have a good probability of coming from the geographical areas under examination, will be taken into consideration.

Finally, artifacts coming from the eastern half of the empire, or from barbarian territories not bordering the empire, will in any case be taken into consideration to draw useful and indispensable comparisons.

3. WRITTEN SOURCES⁹

The relative scarcity of archaeological material can be partly compensated by written sources, which often contain useful information for reconstructing the appearance of Eastern Roman soldiers and their military equipment.

8 D'AMATO R., *Old and new evidence on the East-Roman helmets from the 9th to the 12th centuries*, in „Acta Militaria Mediaevalia“, 11, Kraków-Sanok-Wrocław 2015, pp. 95-96; VOGT M., *Spangenhelme*, Mainz 2006, pp. 182-189.

9 See the section *Sources* at the end of this study, for the list of the main written sources used for the present study.

However, for the specific study of Byzantine armaments in the West, some not insignificant problems must be faced – among them, the fact that all the main written sources of the period make very few references to the West and to the armaments used by soldiers specifically in the Western territories.

3.1 *Literary and historiographical sources*

Among the authors of the 6th-7th centuries, the Byzantine historiographer Procopius of Caesarea is obviously the one who deals more with the West than others, and who often dwells on the details relating to military equipment, but his *History of the Wars* cannot be used too freely as a source for the present study. In his work, in fact, he mainly describes the armies of the eastern part of the empire in action in the West. However, the use of Procopius' descriptions can be useful for making comparisons between the equipment in the West and in the East, and at least what concerns the final phase of the Vandalic and Gothic wars can be taken into account.

To a lesser extent, the same problems arise for Agathias Scholasticus, „continuer“ of Procopius, and for the poet Flavius Cresconius Corippus and his *De Bellis Lybicis*: both in fact refer, in describing the Byzantine soldiers, to armies sent from Constantinople. Unlike the armies mentioned in Procopius' work, however, those of Agathias and Corippus remain stationed in the territories in which they had operated (Italy and Africa respectively), effectively constituting the new Western armies of the reconquered regions.

The other Byzantine historiographical sources of the 6th-7th centuries, such as Theophylact Simocatta, as well as the later ones that deal with this period, for example the chronicle of Theophanes the Confessor¹⁰, are not useful for the present study since not only do they rarely describe military equipment, but above all they never mention events in the West, excluding the events of Byzantine Africa.

Other non-Byzantine historiographical sources, such as the *Historia Langobardorum* of Paul the Deacon and the chronicle of Isidore of Seville, are instead useful only for reconstructing events in the West but not armaments, about which they do not go into detail.

¹⁰ Consulted edition: *The Chronicle of Theophanes Confessor*, tr. C. Mango, R. Scott, Oxford 1997.

3.2 *Laws, military treaties and other sources*

Like literary and historiographical sources, military laws and treaties do not often provide direct information regarding military equipment. However, they do contain several useful pieces of information.

The laws, in particular the *Novellae* of emperor Justinian, for instance provide an indispensable vocabulary relating to military equipment.

As for military treaties¹¹, the main reference text is the *Strategikon*, probably written by Emperor Maurice (582-602). The treaty provides a series of terms indicating the names of different pieces of equipment, but also precise and timely descriptions of military equipment, as well as the appearance of Byzantine soldiers of the period examined in this paper, allowing precise comparisons with archaeological and iconographic sources.

Finally, a further type of written source that provides lexicons and material descriptions regarding armaments is constituted by lexicographical or encyclopedic works, the most important example of which is provided by the *Etymologiae* of Isidore of Seville, which although not a Byzantine source also contains some data useful for the reconstruction of the imperial armament.

4. ICONOGRAPHIC SOURCES

The iconographic sources relating to Eastern Roman soldiers in the West are, like other types of sources, rather scarce.

However, they constitute a very precious testimony that may corroborate the material and written sources and, in some cases, provides additional elements.

The visual sources chosen for the present study, like the archaeological ones, are those coming from and also produced (at least with a certain degree of certainty) in the Byzantine territories of the West. Artistic testimonies from the eastern part of the empire must however be taken into consideration to verify any

11 For the purposes of this study, the anonymous treatise known as *De re strategica* (Περὶ Στρατηγίας) has been deliberately not used since, although it was initially dated to the 6th century, more recent studies seem to demonstrate a later dating of the 9th century. For this treatise, see: *The Anonymous Byzantine Treatise on Strategy*, in *Three Byzantine Military Treatises*, ed. and tr. G.T. Dennis, Washington D.C. 1985, pp. 1-136; COSENTINO S., *The Syrianos' "Strategikon": a 9th century source?*, in "Bizantinistica: rivista di studi bizantini e slavi", 2, 2000, pp. 243-280.

similarities or differences, like the archaeological sources.

The Byzantine iconographic sources from the West are of various nature (illuminated texts, engravings on sarcophagi, silverware, ivory plaques for pyxes and triptychs), but it must be kept in mind that the final recipients of the majority of these works almost certainly belonged to the upper classes of society. This means, as will be seen in the course of the discussion, that the military figures represented often belong to these high social classes or to their circles (e.g. officers, bodyguards, etc.).

Another issue that seems to affect Byzantine art in general, as well as late antique art, should be the tendency towards conventional and unrealistic representation, particularly in terms of military equipment. In reality, as also demonstrated by new trends and recent studies (while clearly taking into account a certain degree of stylization and effective use of artistic conventions), Byzantine and late antique art is in many cases a reliable source for the reconstruction of military costume and equipment¹².

Africa and Thyrrhenian Isles

The territories that constituted, from the reign of Emperor Maurice onwards (582-602), the Exarchate of Africa – North Africa and the Tyrrhenian islands of Sardinia and Corsica – were the first objective of Justinian's reconquest.

As narrated by Procopius of Caesarea in the two books of the Vandalic War, Africa was reconquered for the empire by General Belisarius, with a rapid campaign between 533 and 534, following which Corsica and Sardinia were also subjugated, with troops sent from Africa under the command of Cyril¹³.

After Belisarius' campaign, these territories could not be considered completely pacified for some time.

12 See in this regard D'AMATO R., *A Prôtospatharios, Magistros, and Strategos Autokrator of 11th cent.: the equipment of Georgios Maniakes and his army according to the Skylitzes Matritensis miniatures and other artistic sources of the middle Byzantine period*, Porphyra, Supplemento 4 (<http://www.porphyra.it/Supplemento4.htm>), 2005., pp. 5-7; SYVÄNNE I., *A Note on the Methodology regarding the Reconstruction of the Late Roman Helmets in Art, Archaeology and Analysis in Crown, hats, turbans and helmets. The headgear in Iranian history. Volume I: Pre-Islamic Period*, ed. K. Maksymiuk, G. Karamian, Siedlce-Teheran 2017, pp. 165-174.

13 *Wars* IV, 5.

In Africa, the empire had to sustain continuous wars against the neighboring Moors and serious episodes of mutiny from the very beginning¹⁴. The Mauri were confronted and heavily defeated on several occasions by Eastern Roman armies, first by John Troglita – whose victory was exalted in Corippus' *De Bellis Lybicus* – between 546 and 548, and finally definitively by the patrician and exarch Gennadius, in a series of clashes between the 70s and the 90s of the 6th century¹⁵.

The two Tyrrhenian islands instead suffered, with the outbreak of the Gothic War, the invasion of the Goths of Totila in 552. After a failed attempt at reconquest by John Troglita¹⁶, Sardinia and Corsica were recovered by the empire only at the end of the conflict. Furthermore, already in the years immediately following the reconquest, Sardinia was the scene of a clash between the Byzantines and the *Barbaricini*, pagan inhabitants of the Sardinian hinterland. A clash that, at least on a religious level, from an letter by Gregory the Great, seems not yet resolved in the 90s of the 6th century¹⁷.

Sources about Eastern Roman military equipment in the territories corresponding to the Exarchate of Carthage – particularly in Africa and Sardinia – are relatively extensive.

Archaeological finds, however, constitute the smallest part of these testimonies. Not even in the large fortresses built or restored during the period of Byzantine occupation, there seems to be any trace of finds relating to armament – one of the most striking cases in this sense is the largest *castrum* in the territory of Byzantine Africa, the fort of Thamugadi, even if this could be due to the involvement of the fortress in the military vicissitudes between the Byzantines and the Moors at the end of the 30s of the 6th century¹⁸.

The only notable piece of military equipment from the 6th-7th centuries that

14 In particular, *Wars* IV, 15-17 for the revolt of Stotzas; IV, 25-28 for the mutiny of Gontharis.

15 For the wars of Gennadius against the Moors: *Chronica*, year 578; *Teophylact Simocatta* VII, 6, 6.

16 *Wars* VIII, 24.

17 *Gregory the Great* V, 41. For a more complete discussion of the *Barbaricini*, see also SERRA P. B., *I Barbaricini di Gregorio Magno*, in *Per longa maris intervalla. Gregorio Magno e l'Occidente Mediterraneo tra tardoantico e altomedioevo*, ed. L. Casula, G. Mele, A. Piras, Cagliari 2006, pp. 289-361.

18 *Wars* IV 13; IV, 19. For a detailed study of the site of Thamugadi, see LASSUS J., *La forteresse byzantine de Thamugadi*, 1. *Fouilles a Timgad 1938-1956*, Paris 1981.

has been found so far in Byzantine Africa (at least as emerges from the consulted bibliography), is a well-known gilded, richly decorated bronze Baldenheim-type *spangenhelm* from the Roman theatre of Leptis Magna – one of the very few examples found outside Europe¹⁹.

In addition to a crest holder on the apical plate, the Leptis Magna helmet sports a very pronounced „pseudo nose guard“, a feature shared with only very few other Baldenheim-type spangenhelms, such as the helmet found near Lake Geneva, in Switzerland. A „pseudo nose guard“ of this type has been interpreted by some scholars as a sign indicating the original presence of an actual nose guard fixed to the front of the helmet. The helmet from Leptis Magna lacks a neck guard and cheek guards, but since they are typical of almost all other Baldenheim-type spangenhelms found to date, it is almost certain that it sported them²⁰.

Golden helmets, perhaps like the one from Leptis Magna, are clearly mentioned, belonging to the *duces* of the Byzantine army, also in Corippus' *De Bellis Libicis*, our main written source on military equipment in Africa in the years immediately following Justinian's reconquest. In a grandiose scene of the poem where the Byzantine army is lined up, ready to give battle to the Moors, Corippus virtually reviews the entire Eastern Roman line, focusing on the officers.

In particular detail is described the equipment of Geisirith, one of the commanders of the right wing of the Imperial army: „Geisirith [...] bore long javelins. With his whole body covered in steel, he was a glittering vision, for he adorned the armor plates with a mesh of gold. And he wore a golden helmet dazzling with

19 Notably, the only other two known Baldenheim type spangenhelms possibly found outside of Europe are both from the Caucasus, one apparently found in the 1920s and now exhibited in the Metropolitan Museum of Arts (SOTHEBY'S, *Arts of the Islamic World: Including Fine Carpets and Textiles*, London, 2010. pp. 102–105, n. 123; BANTZ J., ELAM K., BLOOD MANN A., PARKER B., eds. *Gifts of Art: The Met's 150th Anniversary*, New York, 2020. pp. 14, 181) and the other one from the Mardjani Foundation collection, the provenance of which from the Caucasus was proposed on the basis of the rich and unique decoration of the helmet (NEGIN E.A., D'AMATO R., *Spangenhelme Type Helmet from the Mardjani Foundation Collection*, in „МАИАСП“, 12, 2020, pp. 512-523).

20 STEUER H., *Helm und Ringschwert. Prunkbewaffnung und Rangabzeichen germanischer Krieger*, in „Studien zur Sachsenforschung“, 6, 1987, pp. 191-197; VOGT M. 2006, pp. 62, 231-232. For a graphical reconstruction of the helmet of Leptis Magna with a nose guard, D'AMATO R., *The Eastern Romans 330-1461 AD*, Hong Kong 2007, p.13. For the helmet from Lake Geneva, VINSKI Z., *Šljem epohe seobe naroda nađen u Sinju*, „SHP“, 3.s., 12, Split 1982, Tav. XIII, 1.

inlaid steel whose peak and crest he had decked with a horse's mane. He drew in a belt that gleamed with bejewelled knobs and a sword in an ivory sheath adorned his side²¹

The equipment of the other officers is described more summarily. Almost all are „shining“ in their armor and helmets, clearly indicating the metal composing their defensive gear (iron, in most cases). Some helmets are gilded, and the use of the crest is widespread, sometimes embellished with the addition of horsehair – thus indicating that the crest is made of another material, probably feathers. In addition to long spears, some commanders carry javelins and light shields (probably small cavalry shields), while others are armed with bows and arrows.²²

In *De Bellis Lybicus* there is no lack of references to the equipment of the soldiers in the ranks, even if Corippus almost never seems to distinguish between Byzantine soldiers and any foreign or troops of *foederatoi*, with the exception of the allied Moors, just as he does not make too many distinctions between infantry and cavalry.

Thus Corippus outlines the Byzantine army of John Troglita just out of Carthage: „Some carried bows and quivers, while on the broad shoulders of others shining armor resounded. Spears and shields glistened along with heavy breastplates and towering crests“.²³

Further details on the soldiers' equipment are provided in another passage, where the arrangement of the camp is described: „[...] some [of the soldiers]

21 *Iohannis IV*, 489-497: „*Geisirith [...] ardua tela gerit. ferrato corpore toto / ipse nitet. squamas maculis distinguit in auro. / aurea cassis inest commisto flammea ferro. / inde apicem cristasque iuba componit equina. / cingula gemmiferis stringit fulgentia bullis. / vagina gladius latus exornarat eburna.*“

22 *Iohannis IV*, 473-477: „*Gentius [...] cristisque decens auroque coruscus*“; 478-486: „*Putzintulus ingens arma movet [...] belliger ipse supercristata casside celsus / loricaque micans et longa pulchrior hasta [...]*“; 487-488: „*tertius ille furens rapta Gregorius hasta / atque levi clipeo et telo fulgebat Iberis*“; 525-530: „*Fronimuth [...] ipse licet medius cristis et casside fulgens / emineat [...]*“; 532-540: „*Marcentius [...] illius et fulvos cassis premit aurea crines / aere rigens cristisque gravis, thoraxque tremendos / suspendens humeros squamis fulgentibus ambit [...]. lumbis tela gerit pharetramque arcumque sonantem / cinctus, et aeratas referens in bella sagittas [...]*“; 541-543: „*hinc Liberatus erat longa praestantior hasta, / hinc Vliton pulcher, variis depictus in armis, / hic melior pilo, curvo nec segnior arcu.*“

23 *Iohannis I*, 440-443: „*hi pharetras arcusque ferunt, his lucida latis / arma sonant umeris. hastae clipeique refulgent / loricaeque graves et stantes vertice cristae.*“

stacked their towering arms in place again, others refilled quivers and restrung bows. [...] Then they fixed their spears in order on the soft ground and, as soldiers do, rest their shields against them in the grassy area of the camp. They fitted heavy breastplates and helmets with fastened thongs, as some piled up missiles and other weapons of all sorts²⁴.

This second passage is extremely significant, since it is one of the very rare testimonies of the period relating to the use of the sling (we discover this indirectly from the mention of the projectiles, *glandes*).²⁵ Furthermore, in addition to shedding light on the habits of the soldiers regarding the arrangement of personal equipment in military camps, the passage highlights the presence of leather laces by which helmets and armour are hung, laces that probably also serve to secure these pieces once worn.

Quivers are described in another passage as „hanging from the neck“. This immediately reminds of the *Strategikon* of Maurice in which, in reference to light infantry, quivers „hanging from the shoulders“ for light infantry are mentioned – they are probably to be understood as hanging so as to have the quivers resting on the soldier’s side, at hip height.²⁶

In addition to spears, other weapons for melee combat mentioned by Corippus are swords and axes.²⁷ The latter are wielded by a contingent of heavy infantry, which the commander Tarasius has lined up with „joined“ shields and „connected“ shield bosses – a description that is repeated in other passages of the poem,

24 *Iohannis* II, 275-281: „[...] *pars arma reponit / alta locis, pensat pharetras arcusque retendit. [...] ordine configunt pratis in mollibus hastas, / atque hastis solite per campos scuta reclinant, / loricasque graves et conos pellibus aptant / suppositis, glandes et cetera tela reponunt.*“

25 The only other mentions of slings in sources of the period are in *Strategikon* XII, B, 3-5, 18 (σφενδοβόλα) and, perhaps, in *Agathias* II, 8, 5, who may be mentioning slingers (έκβόλον).

26 *Iohannis* II, 443-444: „[...] *pharetrasque alii cervicibus aptant / suppositas* [...]“. *Strategikon* XII, B, 5: „Τοξοφάρετρα ἐπὶ τῶν ὤμων ἀναβασταζόμενα [...]“.

27 *Iohannis* IV, 560. The mention of the axe (*bipennis*) as a weapon used by Byzantine soldiers on the battlefield is currently the only one existing in written sources. The axe (πέλεκυς) in a military context appears again only in *Wars*, II, 21, but it is not associated with a battle action. Furthermore, in the scene described by Procopius we know that, in addition to Eastern Roman troops, there are also allies and federates of Germanic ethnicity (e.g. Goths, Heruli, Vandals). The sword (*gladius*) is mentioned several times in Corippus, as an example may suffice *Iohannis* I, 424.

always in reference to heavy infantry units engaged in battle –, shields that cover the soldiers in such a way as to show only the raised weapons and the crests of the helmets: all indications of the large size of these shields, perhaps to be understood as oval.²⁸

Not only the heavy infantry, but also the cavalry had to be equipped with shields, as would also appear from at least one passage of Procopius describing an action of the praetorian prefect of Africa, Solomon, against the Moors. No descriptions are provided regarding the size of the shields, but it is significant that they were used by the horsemen once dismounted²⁹, which leads to the hypothesis that they could be of at least medium size.

As for the officers, also among the soldiers the use of crests and helmets seems to be widespread – almost certainly in feathers, as recommended in the *Strategikon*. It's maybe possible that the addition of horsehair was a prerogative of the commanders.³⁰

The figure of the soldiers that emerges from the *De Bellis Lybicus* is largely corroborated by the few iconographic sources of Byzantine Africa.

On a bone comb from Hippo Regius, today Annaba in Algeria, and preserved in the Louvre, a dignitary is depicted alongside an armed figure on foot, probably a bodyguard. Although he is unarmored, he is armed like an infantryman, with a spear as tall as himself and a large oval shield with a central umbo, which covers him from the neck to the knees.

Much more significant are the miniatures of the Ashburnham (or Tours) Pentateuch.

Neither the period nor the place of production of the manuscript are certainly known. There is agreement from many sides that the Ashburnham Pentateuch was made between the 6th and 7th centuries, and it is hypothesized that it may have been made in Africa, in Italy, or even in Spain.³¹

Nicolle rightly notes that the author of the miniatures seems to be quite famil-

28 *Iohannis* IV, 555-561.

29 *Wars* IV, 11.

30 For feathers as helmet decorations, see *Strategikon* I, 2; XII, B, 4.

31 Section „Informations détaillées“, Gallica, <http://gallica.bnf.fr/ark:/12148/btv1b53019392c>, last accessed on 23/12/2024.

iar with camels and Bedouin tents³². This quite strongly supports an African production of the manuscript – both in Procopius and in Corippus, the use of camels by the Moors, even in war situations³³, is mentioned several times – as is maybe the conspicuous presence of dark-skinned characters depicted in the manuscript.

Two illuminated pages in particular contain interesting details relating to military equipment.

On page 25r, some scenes involving Esau, in the guise of a hunter, are depicted. He is armed with a large composite bow of Scythian origin and, hanging from his belt, he has a quiver and a case to store the unloaded bow.³⁴

These types of quiver (rigid and made of leather and wood), and case (probably of soft leather), are completely similar to types that are also attested in the Sassanid world, for example in the famous relief of the cataphract of Taq-e Bostan, dated to the 7th century – also in this relief, the quiver and case are hanging from the belt, which would seem to be in contrast with the quivers hanging „from the neck“ and „from the shoulders“ cited by Corippus and emperor Maurice.

On pages 50r and 56r we have some examples, even if not very clear, of sword scabbards (the hilt of the swords is instead completely illegible). Given the inclination with which they are represented, and given the apparent lack of baldrics for suspension, these scabbards maybe hanged from a belt, through two suspension points – which would again refer to the contemporary Sassanid world, but also to the Avar world, where this type of suspension of the sword scabbard was common³⁵. As an alternative, the soldiers may be depicted merely carrying the sword scabbard in their hand, so making it impossible to exactly understand the type of suspension system used on these pieces.

Finally, on page 68r, the crossing of the Red Sea is represented, with the pharaoh's soldiers depicted as Eastern Roman mounted archers.

In addition to the large composite bows and quivers already visible in the pre-

32 NICOLLE D. 1997, p. 35-36, figg. 63 A-D.

33 For instance *Wars* IV, 11

34 For a complete study about the Byzantine war bow, see AMATUCCIO G., *Peri toxeias. L'arco da guerra nel mondo bizantino e tardoantico*, Bologna 1996

35 CSYKI G., *Avar-Age Polearms and Edged Weapons. Classification, Typology, Chronology and Technology*, Boston-Leiden, 2015, pp. 273-288; NICKEL H., *About the Sword of the Huns and the „Urepos“ of the Steppe*, in „Metropolitan Museum Journal“, 7, 1973, pp. 131-142.

vious miniatures, shields are visible, both round and oval, of medium size – they apparently protect from the shoulder to the hip – with a central shield boss.

The soldiers' armour consists of simple scale corselets, made out of scales of bronze or iron. Each scale is characterised, in the centre of the lower part, by a darker coloured dot (a graphic solution similar to that also adopted in one of the later, well-known silver plates of the emperor Heraclius): this could represent, in a stylised way, part of the system for fixing the scales to the underlying support. However, it's maybe more likely that it may rather be a concavity or protuberance of the scales: in fact, the visual similarity with the armour of the well-known gold medallion of the Ostrogoth king Theodoric is notable, where the scales more clearly sport a sort of ridge.

The protection of the upper arms of the soldiers in the miniature is not easy to understand: in addition to possible pteryges, or alternatively half sleeves in padded material (in both cases almost certainly belonging to an underlying protective garment), the spiral graphic sign present on the shoulders seems to indicate the possible presence of pauldrons. The colouring of these elements, painted with the colours used for bronze and iron, is almost certainly wrong, and moreover it should be noted that this error is also widespread on the belts or bands that wrap the armour (which certainly cannot be made of metal) and, as will be seen later, on the crests of the helmets.

The armours on page 68r do not sport protection for the upper, and this is in line with the image that Procopius gives us of the Byzantine horsemen of the Justinianic period: in an episode of the Gothic war, a *bucellarius* of Belisarius is seriously wounded by a cut to his thigh, something that would have been very difficult if a thigh guard of some kind had been present.³⁶

The helmets of the pharaoh's soldiers, made of bronze or iron, are probably helmets with a two-piece skull, perhaps ridge helmets. Except for one, every helmet sports cheekpieces and a neck guard, the latter apparently in a single piece of material (maybe metal), separate from the skull (which is indeed in line with the ridge helmets of the previous two centuries).³⁷

36 *Wars* VI, 2.

37 LUSUARDI SIENA S., PERASSI C., FACCHINETTI G., BIANCHI B., *Gli elmi tardoantichi (IV-VI sec.) alla luce delle fonti letterarie, numismatiche, archeologiche. Alcune considerazioni*, in *Miles Romanus. Dal Po al Danubio nel Tardoantico*, ed. M. Buora, Pordenone 2002,

The interpretation of the crest is problematic: although a real metal crest cannot be ruled out a priori³⁸, the most likely hypothesis is that it is a crest of feathers or horsehair, simply coloured incorrectly – as already seen, there are other evident colouring errors in the same miniature.

A crest in organic material would be more in line with the available written sources, both referring to Byzantine Africa and elsewhere. In particular, the similarity between the helmets of the Ashburnham Pentateuch and the helmets depicted in a fragmentary fresco from Abu-Hennis, in Egypt, almost identical to those on page 68r and sporting crests of red feathers, is notable.³⁹

The armaments outlined so far for Byzantine Africa give us the image of armies extremely similar to those operating during the Justinian reconquest. This is not surprising, if we consider that both the army of Belisarius and that of John Troglita were made up of troops coming from the eastern half of the empire.

The Moors, less advanced than the Byzantines in the field of war, probably had little material that the Byzantines were interested in imitating⁴⁰, and the sources do not show that there were any more movements of troops towards Africa after the wars of John Troglita.

We may then assume that, in the following decades, there shouldn't have been substantial changes to imperial military equipment in the region.

However, in addition to the possible hint given by the scabbards from the Pentateuch of Tours, a very particular iconographic source seems to deny this

tavv. 7-9; JAMES S., *Evidence from Dura Europos for the origins of late roman Helmets*, in „Syria“, vol. 63, 1-2, 1986, pp. 111-113 and figg. 1-4.

38 Metal crests were quite common on Late Antique ridge helmets between the 4th and 5th centuries: MIKS C., *Spätromische Kammhelme mit Hoher Kammscheibe*, in „Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz“, 55, 2008, pp. 449-482; VUJOVIC M., *Few Contributions on the Late Roman Helmets from Iron Gates*, in „ВЕСНИК“, 12, 2012, pp. 29-43, in particular figs. 5; 8; 9, 6. For a hypothetical graphic reconstruction of the equipment of the soldiers of the Ashburnham Pentateuch, including the helmet with metal crest, D'AMATO R., *Roman Military Clothing (3). AD 400-640*, Oxford 2005, Pl. E, 1.

39 A complete analysis of the military equipment depicted in the Abu Hennis fresco, helmets included, can be found in D'AMATO R., *A Sixth or Early Seventh Century Ad Iconography of Roman Military Equipment in Egypt: The Deir Abou Hennis Frescoes*, in *A Military History of the Mediterranean Sea*, ed. G. Theotokios and A. Yıldız, Leiden 2018, pp. 105-152.

40 A clear example of this is the description of the armament of the Moors in *Wars IV*, 11. The Moors are described without any armour, armed only with javelins and small „not well-made“ shields, and furthermore the Roman military equipment is explicitly declared superior.

reasoning: a small mold for a statuette in the form of a cavalryman, found in Tunisia, now preserved in the Archäologische Staatssammlung Museum in Munich, dating to the 6th century.

Interpretations of the equipment are varied⁴¹, but the horseman in the mould seems to be a copy of the horseman outlined in the first book of the *Strategikon*: he wears a lamellar helmet and, apparently, a mail armour with a hood, probably covered by a garment in the form of a caftan, held closed by a belt.⁴²

Although we only have this single evidence, this statuette probably implies that armies of Byzantine Africa were fully involved in the evolution of armaments that can be seen during the second half of the 6th century (after all, this is what seems to be going on in Sardinia, see below).

The troops that occupied Sardinia and Corsica, as well as those who attempted to retake them from the Goths in 552, must have been equipped in a very similar way to that outlined above.

Following the definitive reconquest, Sardinia and Corsica were not invaded by enemies of the empire until the Arab raids. The protection of the two islands must have been entrusted mainly to *limitanei* troops, who in Sardinia had to control and fight against the native *Barbaricini*.⁴³

As for Sardinia – Corsica does not seem to offer significant data, with regard to military equipment –, the available finds, coming from various necropolises, can be dated approximately to the 7th century⁴⁴, and offer us a fairly precise image of the troops stationed on the island, which however seems to refer more to contemporary contexts in Italy, rather than to Africa.

41 KUBIK A., *Helmy Azji Południowo-Zachodniej pomiędzy VI - VIII w.n.e. Zarys problematyki*, Siedlce 2017, p. 204.

42 *Strategikon* I, 2.

43 SERRA P. B., *Popolazioni rurali di ambito tardoromano e altomedievale in Sardegna*, in *L'Africa Romana. Mobilità delle persone e dei popoli, dinamiche migratorie, emigrazioni ed immigrazioni nelle province occidentali dell'Impero romano*, ed. A. Akerraz, P. Ruggeri, A. Siraj, C. Vismara, Roma 2006, p. 1279; for the evolution and the role of the *limitanei* in Byzantine Sardinia, see also SERRA P. B., *Ricerche e scavi di Antonio Taramelli nell'ambito della Sardegna bizantina*, in „Theologica & Historica. Annali della Pontificia Facoltà Teologica della Sardegna“, XXVIII, 2019, pp. 493-518.

44 SERRA P. B., *Corredi tombali: oggetti dell'abbigliamento; equipaggiamento dei guerrieri*, in *Corredi tombali e oreficerie nella Sardegna altomedievale* („Quaderni didattici“, 3), Cagliari 1990, p. 1

The image given to us by the finds is that of, apparently, mostly light troops – if we exclude the possibility that they may have had defensive equipment made of organic material –, armed with swords, *scramasaxes*, spears and shields with bronze studs, all weapons of the same type and morphology as those found in Roman sites and various Lombard necropolises in Italy⁴⁵. Among cutting weapons, of particular interest is a *spatha* found in the site of Laerru, which has been variously dated between the Justinianic period and the 8th century but that is indeed coherent with Byzantine productions of the 7th century.⁴⁶ Some peculiar javelin tips have also been found, defined as „spiedi“ by scholars, with a quadrangular shaft between 25 and 40 cm long and a flat olive leaf-shaped tip, or with a conical tip, typologies that seem to find parallels only in the territory near the necropolis of Avicenna del Piano di Carpino (Foggia)⁴⁷.

The portrait of the warriors in the service of Byzantium stationed in Sardinia is also confirmed by the only significant iconographic testimony, and in reality earlier than the finds cited above. This is a bronze belt plaque from the Justinianic context of the nuraghe „Su Nuraxi“ of Siurgus Donigala (Cagliari).

The plaque depicts an armed man who is hunting a wild boar, without armor and equipped with a spear and a medium-small shield.⁴⁸

Dalmatia

The Roman conquest of Dalmatia occurred in parallel with the first years of the conquest of Italy, during the war against the Goths.

Procopius narrates the crucial moments of the conflict. After an initial failed expedition, at the end of 535 Justinian sent an army from Illyricum under the

45 *Ibid.*, pp. 6-8

46 MANIOTIS E., MAEIR A.M., *The weapons hoard from Mamila, Jerusalem, and its contribution in the study of the Early Byzantine spathae*, in „Journal of Military Equipment Studies“, 22, 2021, pp. 86-87, 88, fig.13; SERRA P. B., *Le ricerche di Antonio Taramelli nell'ambito bizantino*, in Casagrande M., Picciau M., Salis G. (eds.), *Antonio Taramelli e l'archeologia della Sardegna, Atti delle giornate di studio, Abbasanta 17-18 maggio 2019*, Nuora 2019, pp. 117-24; SERRA P. B., *Ricerche e scavi etc.*, 2019, pp. 493-518

47 SERRA P. B. 1990, p. 8

48 UGAS G., *Complesso sepolcrale bizantino nel mastio del Nuraghe Su Nuraxi di Siurgus Donigala*, in *Le sepolture in Sardegna dal IV al VII secolo* („Mediterraneo tardoantico e medievale, 8), Oristano 1990, pp. 110, 114, fig.4.

command of Constantianus to occupy Salona (today Solin, near Split).⁴⁹ From that moment on, Dalmatia became, during the Gothic War, essentially a place of transit for the imperial armies coming from the Balkans headed for Italy, and Salona its main urban and port center – the Byzantine commanders, in Procopius' narration, wintered there several times, and it was from Salona that General Narses set out with his troops towards *Venetia et Histria*.⁵⁰

Dalmatia, as a crossroads between the eastern and western parts of the empire, could also become a gathering place for troops awaiting reinforcements. Procopius writes that in 550, upon hearing the news that the army of Germanus, Justinian's cousin, had gathered an army and was marching to reconquer Italy, the disbanded Eastern Roman troops gathered to await him in Istria.⁵¹

The Dalmatian territory was not, however, free from threats: in addition to the threat of the Goths who, during the war with Byzantium, under Totila had claimed it and had launched an attack near Salona, Dalmatia suffered heavy raids by Slavic populations and the Avars.⁵²

The only region among those covered by this study, Dalmatia offers only archaeological sources regarding Byzantine military equipment.

In fact, there are no references to armaments in the literary sources, and there seem to be no significant iconographic sources in this regard.

However, the archaeological finds available for the study of Byzantine armaments in this area (taking also into account the Eastern part of nowadays Slovenia, the then border region between ancient Dalmatia, Italy and Pannonia) are relatively numerous, although in multiple occasions a certain difficulty in dating them may be found.

The most significant case is represented by the large deposit of materials found in ancient Narona (near the current settlements of St. Vid and Metković), in the area of the church of St. Vid.

The military finds of the „St. Vid-Narona“ group include two precious *spangenhelme* of the Baldenheim type made of iron, copper alloy and gold (St. Vid-Narona

49 *Wars* V, 7.

50 *Wars* VII, 10; VII, 40; VIII, 26.

51 *Wars* VII, 39.

52 *Wars* VII, 35; VIII, 25; *Teophylact Simocatta* VII, 12, 1.

I and II, the first with four *spangen*, the second with six), two almost identical iron bandhelm (St. Vid-Narona III and IV) and three long iron spearheads.⁵³

This set of finds was not found together with dating elements, so the datings proposed by various scholars usually varies between the end of the 5th and the beginning of the 6th century.⁵⁴

However, in light of several factors, I believe that a dating between the 30s of the 6th century and the beginning of the 7th century, at least of the deposit, may be more appropriate.

The St. Vid-Narona I helmet, which also preserves the remains of a mail neck guard, presents a very strong similarity – in terms of shape, proportions and decorative apparatus – with the skull of another Baldenheim-type *spangenhelm* found in Dalmatia, in Salona (dating at least to the Justinian period, due to the presence of some Justinian coins), and with the fragments of a helmet from Iustiniana Prima, certainly from the Justinianic period.⁵⁵ The decorations of the St. Vid-Narona II helmet, however, as well as the shape of the vertical struts and the fact that it is composed of six *spangen*, are similar to those of the Planig *spangenhelm*, in Germany, which can actually be dated to the first decades of the 6th century.⁵⁶

The two bandhelms Narona III and IV cannot provide, in themselves, a dating, being a type of helmet used already from the 5th century, but it is significant that almost identical helmets datable to the 7th century have been found in Turkey.⁵⁷ Furthermore, it is almost certainly a bandhelm that is worn by the personification of March, in a mosaic of the seasons in Argos.⁵⁸

A possible dating between the end of the 6th and the beginning of the 7th century is also provided by the spears. At least one of these, in fact, finds a comparison

53 VOGT M. 2006, pp. 257-261, 280-281.

54 For instance THOMAS B., GAMBER O., *Katalog der Leibrückkammer. Der Zeitraum von 500 bis 1530 (Führer durch das Kunsthistorische Museum. Nr. 13)*, Wien 1976, pp. 34-36.

55 VOGT M. 2006, pp. 248-249 for the helmet from Salona; for comparisons of the decorations between the St. Vid-Narona I and Salona helmets, see *ibid.*, Plates 27; 32-33.

56 *Ibid.*, pp. 50-54, 280-281 for the Planig helmet; see also *Ibid.* Plates 24-26; 34-35 for visual comparisons.

57 D'AMATO R., *Old and new evidence on the East-Roman helmets from the 9th to the 12th centuries*, in "Acta Militaria Mediaevalia", 11, Kraków-Sanok-Wrocław 2015, p. 120

58 MACDOWALL S., *Late Roman Infantryman 236-565*, London 1994, p.51, digitized image of March and caption. The author incorrectly attributes the helmet to a „pseudo-Attic“ form.

in tomb 1 of the necropolis of Hódmezővásárhely-Kishomok, dated to the first decades of the Avar period (whether the necropolis is actually to be attributed to the Avars or the Gepids, is debated).⁵⁹

Another helmet, a fragmentary iron spangenhelm (St. Vid-Narona V), also comes from St. Vid, from an area corresponding to one of the entrances to the ancient settlement. Like the other pieces from Narona, this helmet was not associated with any dating element, and it has been sometimes dated to the 4th or 5th century, based on the similarity of shape and construction with helmets usually dated to that period from Egypt. However, I believe that later datings cannot be ruled out, also in light of the discoveries of a group of iron spangenhelme from Novae, in ancient Thrace, dated to the 6th-7th century, and a helmet from Jerusalem, almost certainly datable to 614, completely similar in shape and construction.⁶⁰

Another iron spangenhelm, but of completely different shapes – in particular the very narrow vertical struts – comes from Sinj in Croatia. Like the finds from Narona, the helmet was not found in association with datable finds, but Z. Vinski, thanks to a comparative analysis with other late antique helmets, hypothesizes a dating of the helmet to the 6th century, as well as a possible Byzantine manufacture.⁶¹

Outside of the centers of Narona and Salona, other evidence relating to Baldenheim-type spangenhelms for the Dalmatian territory comes from the fragments from Rifnik and Zidani, in Slovenia – remains that unfortunately are not definitely datable but which, due to their decorations, seem to have points of contact with the helmets of Narona and Salona–, and the fragmentary cheekpiece from the Biogradi fort.⁶²

59 ALPÁR D., *Gepidák vagy Avarok? Az erdélyi kora avar kori soros temetők kutatásának kérdéseiről*, in „Dolgozatok az Erdélyi Múzeum érem- és régiségtárából“, 6-7 (16-17), Kolozsvár/Cluj-Napoca 2013, pp. 99, 117; VOGT M. 2006, p. 62.

60 VOGT M. 2006, pp. 77, 277. For the *spangenhelm* from Jerusalem, see STIEBEL G. D., *A Spangenhelm Type Helmet*, in *The Temple Mount Excavations in Jerusalem 1968-1978 Directed by Daniel Mazar. Final Reports Volume III. The Byzantine Period*, ed. E. Mazar, Jerusalem 2007, pp. 43-46.

61 VINSKI Z., *Šljem epohe seobe naroda nađen u Sinju*, „SHP“, 3.s., 12, Split 1982, pp. 15-28. See also the summary in VOGT M. 2006, pp.78, 278-279

62 VOGT M. 2006, pp. 196, 247-248, 272. Due to their geographical proximity to the territories under examination, we should also mention the fragments of the Baldenheim-type spangenhelm from Jadersdorf, Austria, *ibid.* p. 223.

The Slovenian territory has yielded numerous and important testimonies of military equipment from the period under examination, almost certainly relating to the Eastern Romans – despite the proven presence of elements of Lombard ethnicity, including undoubtedly warriors, in at least some of the Slovenian sites.⁶³ Parts of lamellar armour, entirely consistent with finds from areas such as Italy and the Balkans, come from the sites of Gradišče above Bašelj, from Gora above Polhov Gradec, from Tonovcov Grad (near Kobarid) and from Rifnik near Šentjur.⁶⁴ More certainly attributable to soldiers of the Byzantine army are the two lamellar armours, one of which is almost entirely preserved, found in Kranj, ancient Carnium. The lamellae of both armours, although showing a sub-rectangular shape completely similar to other similar finds, are of considerable size.⁶⁵ Added to these armour finds from Slovenia are a 6th century *spatha* from Kranj, identified as probably Byzantine⁶⁶, iron arrowheads from Zidani gaber nad Mihovim and again Kranj, and two iron *angones*, one once again from Kranj and the other from Gradec near Velika Strmica. This kind of throwing weapon is usually associated with the Franks, but at least the one from Kranj could be associated with Germanic élites fighting for the Roman Empire, and is actually much more similar to earlier Late Roman *spicula*, so suggesting a possible Byzantine manufacture of the weapon, which would align well with the probable Byzantine production of the armours from the same site.⁶⁷

Finally, from the ancient province of Dalmatia there are two more finds that deserve to be mentioned, although their datation is quite debated and complicated.

63 On the archaeological traces of Lombards in Slovenia, meaning also Lombard troops, see for instance CIGLENEČKI S., *Langobardische Präsenz im Südostalpenraum im Lichte neuer Forschung*, in *Die Langobarden. Herrschaft und Identität*, eds. W. Pohl, P. Erhart, Forschungen zur Geschichte des Mittelalters 9, Wien 2005, pp. 265-280

64 D'AMATO R., PFLAUM V., *Two Suites of Lamellar Armour from Kranj (Carnium), Slovenia, in the Light of Archaeological Analogies, Written Sources and Contemporary Iconography*, in „Acta Militaria Mediaevalia“, XV, 2019, p. 38, figg. 38-39; p. 39, n. 30

65 D'AMATO R., PFLAUM V. 2019, pp. 8-13; p. 42.

66 MANIOTIS E., MAEIR A.M. 2021, p. 87; p. 88, fig.14. Other importante assemblages of 6th-7th weapons were found in Kranj, in Lahj cemetery (D'AMATO R., PFLAUM V. 2019 p.40, fig.40; p. 41), but for these latters the identification as weapons belonging to Roman troops, Lombard warriors or in any case the local elite is quite problematic.

67 D'AMATO R., PFLAUM V. 2019, p. 38, figg. 38; p. 40, fig.41; p. 42. For Late Roman *spicula*, see for instance FEUGÈRE M., *Tra Costantino e Teodosio (IV-V sec. d.C.). Osservazioni sui militaria di Aquileia*, in „Aquileia Nostra“, 83/84, 2012, pp. 321, Tav.1, 8-10.

One of such finds is the helmet from Legrad, near Lake Šoderica in northern Croatia, on the border with Hungary. This helmet is extremely difficult to date and to interpret (also due to the fact that, at present and as far as I managed to research, we only have the photographs of Z. Vinski, who edited the only publication of it).⁶⁸ It is certainly a lamellar helmet, but the shape of the lamellae is very different from that of other helmets found in Byzantine, Sassanid or Avar territory: the lamellae are in fact almost rectangular in shape, making it impossible to reconstruct them similarly to other known lamellar helmets.

I believe that the most plausible interpretative hypotheses is that these lamellae, somehow resting on the skullcap during deposition, are actually part of the neck guard, as in some examples of contemporary lamellar helmets from Korea.⁶⁹ In his work, Vinski proposed a datation to the 7th century, but a later datation, to the Carolingian period, is also possible.⁷⁰

A final testimony of possible Byzantine military equipment from Dalmatia is represented by the very particular umbo found in Breza, now preserved in Sarajevo. It is an iron umbo, of a shape consistent with other umbos of the 6th and 7th centuries, covered with a decorated sheet of copper alloy and additional silver decorations. The attribution to 6th-7th Byzantine workshops, advanced by Vinski, is mainly due to the comparison of the decorations of the umbo with those of the Baldenheim-type spangenhelms, as well as to the comparison with the umbo from tomb 1 of the Lombard necropolis of Nocera Umbra (Italy), which presents an equally precious and complex decoration.⁷¹ However, also in this case, the datation and attribution of the shield boss is highly debatable, and a later datation to the Carolingian period is maybe more probable.⁷²

68 VINSKI Z. 1982, p. 14; Tav. XV.

69 See for example WERNER J., *Adelsgräber von Niederstotzingen bei Ulmund von Bokchondong in Südkorea: Jenseitsvorstellungen vor Rezeption von Christentum u. Buddhismus im Lichte vergleichender Archäologie*, München 1988, Plate 18. The topic of the relationships and similarities of the military material culture between Korea and the Avar world are still maybe little studied, at least in Western Europe, and certainly deserve more in-depth studies.

70 For the datation of the helmet from Legrad, whose lamellae are interpreted as part of the skull itself rather than a neckguard, to the 6th-7th centuries, see also BUGARSKI I. 2005, p. 169. I would like to thank Dr. Raffaele D'Amato for pointing out to me the possible later datation of the Legrad helmet.

71 VINSKI Z. 1982, pp. 28-29

72 MILOŠEVIĆ A., *The Products of the 'Tetgis Style' from the Eastern Adriatic Hinterland*, in

In addition to the finds from the ancient Dalmatian territory, it is worth taking into consideration a certain number of finds discovered not in Byzantine Dalmatia, Istria and Slovenia, but in the Carpathian basin, a territory that between the 6th and 7th centuries was occupied by Gepids, Lombards and Avars.

In particular, some double-edged swords dated to the beginning of the 7th century, with a lenticular blade, were recognized as Roman productions, both because of the copper alloy guard – a feature apparently absent in Avar weapons of the same period – and because of the similarity with examples that certainly came from the eastern half of the empire (e.g. Corinth and Pergamon).⁷³

It is clearly impossible to determine whether such equipment actually comes from Dalmatia, but it is plausible to assume that the imperial soldiers stationed there used similar weapons.

Italy

Among the theaters of war in the western territories subject to Justinian's reconquest, Italy can certainly be said to have proved to be the hardest for the Eastern Roman armies.

The first phase of the conflicts in Italy was marked by the Gothic War, the almost twenty-year conflict (535-554) narrated in the last four books of the History of the Wars by Procopius of Caesarea and in the historiographical work of Agathias Scholasticus.

The first phase of the war, from 535 to 540, saw the total subjugation of Italy by the Byzantine troops of Belisarius, who had moved from Africa to Sicily after the conquest of Vandal Africa (and were variously reinforced by other contingents sent from the East during the conflict), following very harsh clashes and sieges – the siege of Naples in 536, which lasted twenty days, and above all the defense of Rome from the overwhelming forces of the Goths, which lasted a year between

D. Dzino et al. (eds.). *Migration, Integration and Connectivity on the Southeastern Frontier of the Carolingian Empire*, Boston – Leiden 2018, p. 72, n. 46; p.81, fig. 5.10

73 CSYKI G. 2015, pp. 164-171. For more complete dissertations of this type of *spatha* in the Eastern Roman Empire, see EGER C., *Swords with Massive Bronze Guards of the Aradac-Kölked-Corinth Type*, in Yotov V., T.G. Koliass, C. Eger (eds.), *Swords in Byzantium*, Varna 2021, pp. 83-133; YOTOV V., *A New Byzantine Type of Swords (7th - 11th centuries)*, in „Ниш и Византија“, 9, 2011, pp. 113-114.

537 and 538⁷⁴, proved particularly demanding – which ended with the capture of Ravenna and the capture of the Gothic king Vitiges, who together with Theodoric's treasure was taken to Constantinople.⁷⁵ In this first period there was also the first penetration of a third contender in the conflict, the kingdom of the Franks, whose troops invaded and devastated north-western Italy between 539 and 540.⁷⁶

The second phase of the conflict was marked by the complete reversal of the situation left by Belisarius. After the brief leadership of Ildibal, in 541 the Goths elected Totila as their new king, who in about ten years reconquered almost all of the Italian territory, with the exception of Ravenna and other coastal cities, and even went so far as to occupy Corsica and Sardinia. The attempt at reconquest by Belisarius, between 544 and 548, given the very small number of men and the virtually non-existent support from Constantinople, was completely useless.⁷⁷

In the third and final phase of the Gothic War, the command of the Byzantine army for Italy was finally assigned to Narses. After the naval battle of Sena Gallica in 551, the Goths were heavily defeated first in the battle of Tagina in 552, during which Totila died, and finally in the clash at Mons Lactarius in 553, where Teia, the last king of the Goths, was killed.⁷⁸

The period of conflict did not end with the death of Teia. Called by the Ostrogoths who still refused to surrender, a large Frankish-Alamannic army led by Butilin and Leutari descended into Italy, but was partly destroyed by disease along the way back, and by the army of Narses at the battle of Voltturnus river in 554.⁷⁹

Although the war could be considered definitively concluded, the last pockets of Ostrogothic and Frankish resistance were defeated only at a later time.⁸⁰ Around 565-566 Narses finally had to face and suppress the attempted sedition by his general Sinduald and his Heruli.⁸¹

Just two years after the pacification of Italy, the Peninsula suffered the inva-

74 *Wars* V, 8-10 for the siege of Naples; V, 16-29 and VI, 1-10 for the siege of Rome.

75 *Wars* VII, 1.

76 *Wars* VI, 25.

77 Totila's rise and reign are narrated throughout Books VII-VIII of the *Wars*. For the failed campaign of Belisarius, *Wars* VII 10-30, 35.

78 *Wars* VIII, 23, for Sena Gallica; VIII, 29-32, for Tagina; VIII, 35, for Mons Lactarius.

79 *Agathias* II, 3; II, 8-9 for the battle of the Voltturnus river.

80 *Historia Langobardorum*, II, 2

81 *Historia Langobardorum*, II, 3

sion of the Lombards. The latter, who had already been in contact with the Byzantines for a long time and after having participated in the final phase of the Gothic War with their own contingent, as allies of the empire⁸², in 568-569 left Pannonia led by King Alboin and occupied northern Italy, to then conquer in rapid succession Tuscany and a large part of central-southern Italy.

The only and last organized attempt, during the 6th century, to reconquer the lost territories by sending armies from the eastern part of the empire took place in 575-576, with the failed expedition of Baduarius, who perished in the enterprise.⁸³ Further attempts to oust the Lombards by the Romans in Italy, in agreement with the Franks, took place between the 6th and 7th centuries by the emperor Maurice and the Exarchs of Ravenna, but they were all failures.⁸⁴

The 7th century saw a further expansion by the Lombards against the imperial territories in northern Italy, led by King Rothari, which culminated with the Byzantine defeat at the Scultenna river in 643, in which the Exarch of Ravenna Isaac probably also lost his life.⁸⁵

Of the territories covered by this study, Italy is certainly the richest in sources relating to Byzantine military equipment of the 6th-7th centuries.

The starting point, as regards the military equipment of the 6th century, is constituted by the testimonies relating to the army commanded by Narses, being the last contingent to be sent from the East to Italy (with the exception of that of Baduarius, presumably dissolved with the failure of his expedition).

The military equipment of the Byzantine soldiers during the battle of the Voltumnus in 554 is well described by Agathias.

Most of Narses' Byzantine horsemen are armed with javelins, small shields, bows and swords hung on their sides, while apparently only a small part are equipped with long spears.⁸⁶ The heavy melee infantry is described as „armored

82 *Wars* VIII, 25. The Lombard contingent that fought at Tagina was removed from Italian territory shortly after the battle, due to the devastation and looting committed, *Wars* VIII, 33.

83 *Chronica*, year 576.

84 *Historia Langobardorum* III, 18; 29; 31, for the attempts during the reign of Emperor Maurice.

85 *Historia Langobardorum* IV, 45; RAVEGNANI G., *Gli esarchi d'Italia*, Roma 2011, p. 74.

86 *Agathias* II, 8, 1: [...] δорάτια φέροντες, καὶ πέλτας, τόξα τε καὶ ξίφη παρηωρημένα. ἦσαν δὲ οἱ καὶ σαρίσσας ἐκράτουν.

to the feet“ (which in my opinion more likely indicates the presence of greaves, rather than long armor), equipped with particularly resistant helmets and shields, with which they create a tight formation, therefore certainly of large size, round or oval.⁸⁷ The light infantry, deployed behind the heavy infantry, is not described in detail, but it seems possible that they are armed with bows and slings, while in a passage relating to the conclusion of the battle javelins are mentioned.⁸⁸

Horse archers and light infantry mixed with heavy infantry, this latter armed with spears and large shields, are also mentioned by Procopius in the previous battle of Taginae.⁸⁹

The Byzantine army outlined by Agathias and Procopius, at least in its deployment on the battlefield, is practically identical to that which emerges from the later *Strategikon* of the emperor Maurice: the horsemen of the treatise, equipped with armor and helmet, are armed with bows, javelins, swords, spears; heavy infantrymen of the front lines must have breastplates and greaves, and all heavy infantry must be equipped with shields, helmets, swords and spears; light infantrymen are archers, or alternatively are armed with javelins and slings.⁹⁰

Although relatively scarce, archaeological and iconographic sources relating to the 6th century also illustrate more clearly some aspects of the military equipment of Narses' soldiers and, in part, of the period of emperor Maurice.

A Baldenheim-type spangenhelm, from Torricella Peligna, and a now lost cheekpiece of a helmet of the same type, from Frasassi in the Marche region (not far from the probable location where the battle of Tagina took place), were

87 Agathias II, 8, 4: οἱ πρωτοστάται θώρακας ποδήρεις ἐνεμένοι καὶ κράνη καρτερώτατα τὸν συνασπισμὸν ἐπεποίητο. As for the ankle-length armor, it is worth noting a similar hint in *Strategikon* I, 2, referring however to cavalry and not to heavy infantry. Even in this second case, it seems more realistic to hypothesize the presence of greaves since for both an infantryman and a horseman, an armor that actually reached the feet would risk constituting a considerable weight and hindrance. However, it should be taken into consideration that armor actually so long, in no way connected to the Byzantines, they were used in ancient times by Scythian populations (DAWSON T., *Armour Never Wearies. Scale and Lamellar Armour in the West, from the Bronze Age to the 19th Century*, Stroud, Gloucestershire 2013, pp. 27-28).

88 Agathias II, 8, 5: τὸ δε ψιλὸν ἅπαν καὶ ἐκβόλον [...]; II, 9, 10: δοράτια.

89 E.g. in *Wars* VIII, 29, where a small infantry formation resists the assaults of the Gothic cavalry with ἀσπίδα and δοράτια (unlike Agathias, Procopius means real spears), and in which at least two infantrymen are also armed with bows (τόξον).

90 *Strategikon* I, 2; XII, B, 4-5.

both linked by scholars to the period of the Gothic War.⁹¹ The decorations of the Torricella Peligna helmet seem to refer to those present on the helmets found in Byzantine Dalmatia. A third Italian spangenhelm, from Montepagano, bears a different kind decorative apparatus, that may find parallels with other Baldenheim type *spangenhelme*, such as the ones coming from the Caucasus.⁹²

The Roman horseman depicted on the Isola Rizza silver dish, datable to around the middle of the 6th century, also wears a spangenhelm, perhaps with a nasal guard.⁹³ The warrior, who wears a lamellar armor with sleeves and tassels, with front and side slit, holds a long spear with two hands, a feature that overlaps with the descriptions of Agathias.

For the 6th century there are no specific iconographies depicting Byzantine infantry in Italy. One of the most famous mosaics from the Basilica of San Vitale in Ravenna, depicting Justinian and his court, may however provide some details that can be also valid for Eastern Roman heavy infantry. The emperor's guards are holding spears with painted shafts⁹⁴ in their hands, with the tip pointing upwards: considering that they are held raised from the ground and the bottom of

91 VOGT M. 2006, pp. 265-267 and plate 36 for the Torricella Peligna helmet; p. 212 for the Frasassi cheekpiece.

92 VOGT M. 2006, pp. 232-235, tavv. 20-22. For the helmets from Caucasus, SOTHEYB'S, 2010 and NEGIN E.A., D'AMATO R., 2020.

93 BOLLA M., *Il „tesoro“ di Isola Rizza: osservazioni in occasione del restauro*, in „Numismatica e antichità classiche“, 28, 1999, p. 292 suggests an earlier dating to the 5th century, but there are multiple elements pointing to a dating to the 6th century, in particular the lamellar armor of the horseman and the T-shaped decorations on the tunics of the two warriors on foot (D'AMATO R., *Roman Military Clothing (3). AD 400-640*, Oxford 2005, pp. 10-11). The dish may also be dated chronologically before the writing of the *Strategikon*, given that the stirrups are already mentioned in the treatise (*Strategikon* I, 2), while the rider on the plate does not have them. It must be noted, however, that the presence or absence of stirrups, given their quite slow initial use, is not per se a that strong dating element (for this particular subject, see CAPRIOLI M., *Equestrian Military Equipment of the Eastern Roman Armies in the Sixth and Seventh Centuries*, in Bibby M.A., Scott B.G. (eds.), *The Materiality of the Horse*, Budapest 2020, pp. 230-232).

94 The practice of decorating spear shafts appears to have been quite widespread during the Late Antique period, both in the Roman-Byzantine world (some miniatures relating to the *fabricae* in *Not. Dig.*, Oc., IX and *Not. Dig.*, Or., XI, would suggest a spiral decoration, while for example the 5th century mosaics from S.ta Maria Maggiore in Rome seem to often show monochrome painted shafts) and in the *Barbaricum* (MORTIMER P., *Woden's Warriors: Warriors and Warfare in 6th-7th century Northern Europe*, Ely (Cambridgeshire) 2011, p. 141).

the spears cannot be seen emerging from the lower edge of the shields, they are probably as long or less than the height of the guards themselves. Their large shields cover approximately from the shoulder to the knee.

As for the military equipment of the late 6th and the first half of the 7th century, unlike the previous period, the specific literary and iconographic sources are rather scant, but we have a greater number of archaeological sources, the most significant examples of which are the finds from the workshop in the *Crypta Balbi* in Rome.⁹⁵

The cache of armaments from the *Crypta Balbi* is incredibly varied, allowing us to reconstruct a fairly accurate picture not only of imperial soldiers, but also of the military elite of the period.

As for the armor parts, we notice an increasing use of the lamellar construction method – already known in Byzantium, but probably used with increasing frequency after contact with the Avars from the mid-6th century, and probably transmitted to the Lombards precisely through Avar and Byzantine mediation⁹⁶ –, evidenced in Rome by parts of helmets and armor. Although fragmentary, the helmet lamellae from Rome do not appear to have curved lines, indicating a possible similarity with at least one Avar or Byzantine lamellar helmet from Kerch, Crimea, while the armor lamellae, in shape and arrangement of the holes, recall the lamellar armor from the German site of Krefeld-Gellep.⁹⁷ Of the armor, in addition to the metal plates, the buckles and the tips of the straps that served to close the armor itself, once worn, are also preserved.

Particularly significant among the finds from Rome are the remains of gaunt-

95 For the complete catalog of military finds from the *Crypta Balbi*, see Roma. *Dall'antichità al medioevo. Archeologia e Storia. Nel Museo Nazionale Romano Crypta Balbi*, ed. M.S.Arena, P. Delogu, L.Paroli, M.Ricci, L.Sagui, L. Vendittelli, Milano, 2012, pp. 395-402. Not coming from the area of the 7th century workshop, also a sword was present, with the blade in good conditions and still part of the suspension system of the scabbard (see for instance MANIOTIS E., MAEIR A.M. 2021, p.86; fig. 10). It has been however excluded from this study, both because of the difficulty of its datation (broadly 5th - 7th century) and because it most probably has to be linked with the Ostrogoths and possibly with a local, non Byzantine production.

96 DAWSON 2013, p. 75; *I Longobardi. Dalla caduta dell'Impero all'alba dell'Italia*, ed. G.P. Brogiolo, A. Chavarría Arnau, Milano 2007, p. 57, cat. 1.1.16.

97 For the lamellar helmets from Kerch, KUBAREV G.V., ZUHRVLEV D.V., 2012, p. 139; fig. 3; VINSKI Z. 1982, p. 13; pl. V, 3. For the Krefeld-Gellep cuirass and its reconstruction, DAWSON 2013, pp. 75-79.

lets, represented by both gilded bronze and iron plates. These plates, sewn onto a leather glove, protected the back of the hand. This piece of armor, otherwise known only from Lombard necropolises (in Sovizzo the metal part of the glove is made of iron plates, while from Castel Trosino comes a square of mail attributable to a gauntlet⁹⁸), is almost certainly attributable to the „iron gloves“ mentioned in the *Strategikon*, as part of the equipment of the *bucellarii*.⁹⁹

Elements of shields are also preserved from Rome, in particular parts of bosses and handles, as well as shield „studs“ in gilded bronze. The „studs“ find parallels in numerous so-called „parade“ shields from various Lombard necropolises, suggesting a common use of this type of shield by the Eastern Roman and Lombard elites in Italy.¹⁰⁰

The *Crypta Balbi* also provides evidence, albeit mostly indirect, of cutting weapons, namely swords (a possible part of the hilt and elements of the suspension of the scabbard are preserved) and *scramasax*, the latter known in the Byzantine world with the Greek term *paramerion*¹⁰¹, recognized thanks to the presence

98 CINI S., RICCI M., *I longobardi nel territorio vicentino*, Vicenza, 1979, p. 24 for the gauntlet from Sovizzo; *La necropoli altomedievale di Castel Trosino. Bizantini e longobardi nelle Marche*, ed. L. Paroli, Ascoli Piceno, 1995., pp. 217-218 for the one from Castel Trosino.

99 *Strategikon* I, 2: χειρομάνικα σιδηρᾶ. The term is actually not clear whether it indicates „iron gloves“ or, rather, forearm protections (the term derives from the Latin *manica*), known in Byzantine sources of the following centuries with the terms χειρομάνικα, μανικέλλια, χειρὸψελλα (GROTOWSKI P. 2010, pp. 183-187; n. 228). Moreover, such protections in the 7th century, made of iron rods, were probably known to the Romans, given their use by Germanic populations and the Avars (MORTIMER P. 2011. pp. 163-164; NICOLLE D. 1997 pp. 40, 87, fig. 74 A. The dating of the horseman from the Nagyszentmiklos treasure remains uncertain, but the correspondence with the descriptions of the Avar horsemen in *Strategikon* XI, 2 and of the Eastern Roman cavalrymen armed in the manner of the Avars in *Strategikon* I, 2 is undeniable).

100 For example, see the decorated bosses and bronze studs from Castel Trosino, *Castel Trosino* 1995, pp. 218-219, 249-250, 252-254. M. Ricci hypothesizes that certain shields with wooden boards decorated with gilded bronze plaques of various shapes (e.g. lions, horsemen, peacocks, etc.) are also of Byzantine manufacture (*Crypta Balbi*, pp. 401-402), which made their appearance in the first decades of the 7th century and which indeed show stylistic and iconographic influences foreign to Germanic figurative art, but of which there are, to date, no reliable finds in Byzantine contexts. For some of the most significant examples of this type of shield, see *I Longobardi* 2007, p. 77, cat. 1.2.14; Magistra barbaritas. *I Barbari in Italia*, ed. G. Pugliese Carratelli, Milano 1984, pp. 235-236, 244-245, figs. 118-121; VON HESSEN O. (ed.), *I ritrovamenti longobardi*, Firenze 1981, pp. 16-19.

101 *Novellae* 85, 4: παραμήρια. In sources of the Middle Byzantine period, the παραμήριον is

of metal rings, which formed the connection between the blade and the hilt of the weapon, and bronze studs that were fixed to the upper edge of the scabbards.

Finally, from Rome we have finds relating to archery: iron arrowheads of various shapes (with a lanceolate leaf tip, with a rhomboid tip, trilobate), bone reinforcements and tips for composite bows, and a perforated plate in inlaid iron with a double hooked appendage, which scholars believe can be interpreted as the hook for suspending the quiver and which finds parallels in the necropolises of Castel Trosino and Nocera Umbra.¹⁰²

Precisely from the large Lombard necropolises of Castel Trosino and Nocera Umbra, from the grave goods of some particularly rich tombs, come some finds of armament probably attributable to Byzantine production or, at least, influences.

In addition to substantial remains of lamellar helmets, mistakenly identified in the past as metal parts of leather helmets¹⁰³, and lamellar cuirasses composed of lamellae identical to those found both in the Alamannic burial of Niederstotzingen and in contexts that are certainly Byzantine¹⁰⁴, of particular interest are

a single-edged bladed weapon, a sort of sabre (McGEER E., *Sowing the Dragon's Teeth: Byzantine Warfare in the Tenth Century*, Washington D.C. 2008, p.71), which could derive from the scramasax/παραμήριον of the 6th-7th century. The Byzantine scramasax is possibly a weapon of oriental origin, already used by the Byzantines in the first part of the 6th century, as also demonstrated by a fragmentary single-edged blade from Sardis in Turkey (QUAST D., *Einige alte und neue waffenfunde aus dem fruhbyzantinischen reich*, in *Thesaurus Avarorum. Archaeological Studies in Honour of Éva Garam*, ed. V. Tivadar, Budapest 2012, p. 361). The scramasax in the Lombard context (practically absent in the Pannonian phase, but immediately adopted after the settlement in Italy) does not probably derive so much from these models, but from late Roman knife typologies (CAPRIOLI M., „Scramasax e armi da taglio nell'esercito bizantino tra VI e VII secolo“, BA degree thesis, Università degli studi di Genova, 2015, pp. 26-27).

102 Castel Trosino 1995, p. 226; MENGARELLI R., *La necropoli barbarica di Castel Trosino*, in „Monumenti antichi“, vol. 12, 1902, p. 266, fig. 141; NICOLLE D. 1997, p. 70; fig. 201; PASQUI A., PARIBENI R., *La necropoli barbarica di Nocera Umbra*, in „Monumenti Antichi“, 25, 1918, p. 248, fig. 97.

103 MENGARELLI R. 1902, p. 282, figs. 160, 161; PASQUI A., PARIBENI R. 1918, pp. 177-178, fig. 21. It should be noted, however, that if the interpretation of these helmets was incorrect, leather helmets were almost certainly used between the 6th and 7th centuries (*Etymologies* XVIII, 14, 1: *Cassidum de lamina est, galea de coreo*; MORTIMER P. 2011, p. 46).

104 DAWSON T. 2013, pp. 75-79; WERNER J. 1988, fig. 12; BUGARSKI I. 2005. According to some scholars, these similarities with the productions from Italy, as well as with those present in the rest of the imperial territory, would make it very probable that the armour and helmet of Niederstotzingen also may have an Italian origin (*I Longobardi*, p. 57, cat. 1.1.16).

some small single-edged daggers equipped with P-shaped sheath suspension elements. These daggers, given their small size (less than 30 cm) and rather narrow blade, cannot be classified as *scramasaxes*, and it is in fact very likely that they derive from previous late Roman models of single-edged „military“ knives. The P-shaped suspension elements, in addition to having decorations that certainly refer to Roman workmanship, are attested for daggers only by the Sassanids (the Avars also used P-shaped suspension elements, but at the moment we only have evidence of this for swords).¹⁰⁵

In tomb 1 of Nocera Umbra an extraordinary decorated umbo was found that can be dated to the 6th-7th century, certainly the product of a Byzantine workshop, as attested by the iconographic apparatus of the decoration. The shield boss, exceptionally made of two bronze plates nailed together (respectively the cap and the brim), has an applied decoration in gilded bronze, depicting battle and hunting scenes. The umbo was found together with thirteen gilded bronze studs with hemispherical heads, which served both to fix the umbo to the shield and as a decoration of the wooden board of the shield itself.¹⁰⁶

Finally, also from the necropolis of Nocera Umbra, from tomb 59, comes a fragment of an ivory plaque depicting an attacking horseman armed with a spear, clearly a Roman soldier, as can be deduced from his armament and the decorations on his horse.¹⁰⁷ In addition to the *pteryges* on the shoulder and legs, part of a probable protective garment, a scale armour corselet is clearly visible, perhaps surmounted by some form of *zona militaris*, probably in leather or textile material¹⁰⁸, and a helmet with a crest, possibly made of horsehair and provided with

105 CAPRIOLI M. 2015, pp. 26-34.

106 DE PASCA V., *Un umbone di scudo da parata in bronzo dorato da Nocera Umbra: nuove considerazioni su un manufatto venuto da lontano*, in „Gilgameš“, 1, 2016, pp. 114-118; PASQUI A., PARIBENI R. 1918, p. 156. De Pasca proposes a very early dating of the umbo, even to the 4th century (DE PASCA V. 2016, p. 121), but there are many elements against this theory, in particular the close parallels between the poses and the clothing of the warriors depicted on the umbo and those represented in Byzantine mosaics in the Levant dated to the 6th century (for example see ASSAR M., *The Art Of Decorative Mosaics (Hunting Scenes) From Madaba Area During Byzantine Period (5th-6th C. AD)*, in „Mediterranean Archaeology and Archaeometry“, Vol. 13, 1, 2013, pp. 69-72.

107 *Magistra barbaritas* 1984, p. 252, fig. 143; PASQUI A., PARIBENI R. 1918, p. 254. For the horse's trappings, see above, n. 98, regarding the observations of the horseman of Nagyszentmiklos, and CAPRIOLI M. 2020, p. 232

108 In the Roman and Byzantine world, the *zona militaris* was an officer's textile band, knot-

a long „tail“ (which recalls the crests of the officers described by Corippus), and apparently having only a neck guard and not cheek guards, although these latter may just be stylized. The typology of the helmet is not clear, but some lines present on the skull may suggest some type of *spangenhelm*.

The helmet of the ivory plaque finds a possible parallel in another iconographic source, one of the 7th century silver phalerae from Ittenheim, now preserved in Strasbourg, almost certainly produced in Italy and taken into Merovingian territory probably after the wars waged in Northern Italy between 6th and 7th centuries.¹⁰⁹ The Ittenheim phalera depicts a warrior, whose identification is unclear, equipped as a Roman officer (given the *zona militaris* knotted on the chest), whose helmet, maybe a spangenhelm, shows a certain similarity to that of the Nocera Umbra ivory, especially in regard of the crest. The warrior of the Ittenheim phalera wears, in addition to a protective garment equipped with two rows of *pteryges*, a corselet of some kind. Although an anatomical metal armour cannot be excluded¹¹⁰, the straight line on the abdomen and the absence of graphic signs simulating

ted on the chest, a symbol of rank (GROTOWSKI P. 2010, pp. 277-281). The one worn by the horseman of the ivory of Nocera Umbra is sometimes known in modern literature as „Varangian bra“ (D'AMATO R., *The Varangian Guard 988-1453*, Oxford 2010, p. 34), equipped with „shoulder pads“, could be a variant of the *zona militaris*, considering that in late antique iconography in general, and contemporary in particular, it often appears worn by figures corresponding to officers (e.g. NICOLLE D., „The Military Technology of Classical Islam“, Voll. I-III, PhD thesis, University of Edinburgh 1982, figs. 19; 46).

109 About the Ittenheim phalera and its place of production, see QUAST D., *Merovingian Period Equestrians in Figural Art*, in *The Horse and Man in European Antiquity (Worldview, Burial Rites, and Military and Everyday Life)*, „Archaeologia Baltica“, 11, 2009, p. 332; WAMERS E., *Behind Animals, Plants and Interlace: Salin's Style II on Christian Objects*, in „Proceedings of the British Academy“, 157, 2009, p. 175.

110 The anatomical metal armour was almost certainly still in use in the 6th-7th century, as some iconographic sources would testify, such as for example the personification of March from a mosaic of the seasons from Argos (MACDOWALL S. 1994, p.51, digitized image of March and related caption). There is also an interesting passage by Procopius in which, during a duel between a Byzantine officer and an Ostrogothic warrior, the latter's spear, planted with its shaft in the ground, slides from the bottom to the top on the opponent's armour, without any impediment (*Wars VII, 5*): something very difficult to happen with a mail armour (the tip of the spear could be stopped in the rings of the armour) or with a scale or lamellar armour (in one case the tip would have to penetrate under the scales, in the other the spear could at least find some impediment in the leather laces that make up the armour), but decidedly plausible if the Byzantine officer's armour had been an anatomical metal armour. Obviously, however, a perhaps more common corselet of lamellar armour cannot be excluded: the overlapping of the lamellae from the bottom to the top could in

the „muscles“ of the armour may suggest another interpretation: as hypothesized by some scholars, it could be a leather corselet, or perhaps even made of textile material.¹¹¹ The panoply of the warrior of the Ittenheim phalera is completed by a large round shield and a spear approximately as tall as the infantryman himself.

As regards the period between the end of the 6th and the first half of the 7th century, archaeological sources provide, in addition to the armaments of the field armies seen so far, also evidence relating to the *limitanei* troops, stationed mainly in border fortresses. A good example is provided by the equipment found in the *castrum* of S. Antonino di Perti, in western Liguria (North-West Italy). Both finds from the *castrum* belonging to weapons for ranged combat¹¹² – iron and bone arrowheads of various shapes (trilobate, dovetailed, pyramid-tipped, lanceolate-tipped), a javelin point with a pyramidal tip that finds parallels in some finds from the Balkans¹¹³–, and parts of weapons for close combat – parts of the suspension system of cutting weapons, a fragment of a large single-edged blade, parts of daggers and metal scramasax ferrules, iron „studs“ that served to fix the bosses on shields.¹¹⁴ The equipment of the *limitanei* stationed in S. Antonino is quite clearly outlined as light infantry armament, similar to the equipment of the *limitanei* who, around the same time, were stationed in Sardinia.

fact favour the movement of the spear as described by Procopius.

- 111 A leather armour, perhaps an anatomical armour, would be attested by the metal plates, which, positioned on the shoulders, acted as a connection between the back and the front of the armour, coming from the Anglo-Saxon burial of Sutton Hoo; even if some scholars seem to lean towards a more modest corselet in textile material, a leather armour would be perfectly plausible (ADAMS N., *Rethinking the Sutton Hoo Shoulder Clasps and Armour*, in *Intelligible Beauty: Recent Research on Byzantine Jewellery*, ed. Adams N., Entwistle C., London 2010, pp. 95-101; MORTIMER P. 2011, p. 167). For a graphic hypothetical reconstruction of the corselet of the Ittenheim infantryman, interpreted as being made of leather, D'AMATO R. 2007, p. 17.
- 112 *S. Antonino. Un insediamento fortificato nella Liguria bizantina*, ed. T. Mannoni, G. Muri- aldo, Bordighera 2001, pp. 531-540.
- 113 BUGARSKI I., *Sixth century Rhomaioi javelins and findings from the Vsrenice hilltop and Liska Cava*, in „Zbornik narodnog muzeja“, vol. 19, 1, 2009, tavv. I-V.
- 114 *S. Antonino* 2001, pp. 484-486 for the elements for the suspension of weapons; 541-544 for the cutting weapons and the ferrules; 554-556 for the shield „studs“.

Spain

The southern part of Spain was the last, and most ephemeral, conquest of the Eastern Romans in the West.

Called for help by one of the Visigoth lords who claimed the throne of the kingdom (sources disagree whether it was Agila or Athanagild¹¹⁵), Justinian sent an army around 554 and occupied the southern part of the Iberian peninsula, bringing his empire to its maximum expansion.

The subsequent events of Byzantine Spain are outlined by Isidore of Seville, our main source on the events. Part of the occupied territories was lost to the Visigoths as early as 568, after a victorious campaign by King Leovigild, who continued to wage war on the Byzantines in the following years.¹¹⁶

After some campaigns under Viteric and Gundemar, which apparently did not lead to territorial annexations, there was a new expansionist push against the Eastern Romans in 612, under King Sisebutus, and finally under his successor Suinthila, who between 621 and 624 subjected the remaining Byzantine cities of the Iberian peninsula to Visigothic rule.¹¹⁷

Sources relating to Eastern Roman military equipment in Spain are rather scarce, limited to a few archaeological and iconographic sources. Important archaeological finds come from ancient *Carthago Spartaria* (now Cartagena), which together with *Malaca* (Málaga) and *Septem* (Ceuta) constituted one of the main Byzantine urban centers in Spain.¹¹⁸

The most significant find is a group of rectangular metal plates, part of a scale or lamellar armour, dated to conquest of the city by the Visigoths in 625.¹¹⁹ In terms of construction and size does not seem to be similar to any type of lamellae found in Byzantine territories, rather being more similar to a 7th century scale armour from Kunszentmárton (Hungary).¹²⁰ From *Carthago Spartaria* also come

115 *Getica*, LVIII, 303; *Historia Isidori*, 46-47

116 *Historia Isidori*, 49, 50.

117 *Historia Isidori*, 58-62

118 VIZCAÍNO SANCHEZ J., *Early Byzantine lamellar armour from Carthago Spartaria (Cartagena, Spain)*, in „Gladius“, 28, 2008, p. 195

119 D'AMATO R., PFLAUM V. 2019, p. 32

120 VIZCAÍNO SANCHEZ J., *Contra hostes barbaros. Armamento de época bizantina en Carthago Spartaria*, in „AnMurcia“, 21, 2005, pp. 180-188; VIZCAÍNO SANCHEZ J. 2008, pp. 199-

two trilobate iron arrowheads and a decorated horn tip, part of the reinforcement of a bow.¹²¹ All these elements find parallels in other areas of the empire, particularly in Italy.

The iconographic sources from Byzantine Spain are particularly interesting, although they raise several questions regarding interpretation.

A small stone slab from Cordoba, probably some kind of mould, bears the image of an attacking horseman. It is difficult to establish whether it is a Visigoth or Eastern Roman warrior, but several clues suggest that at least the equipment may be considered Byzantine. The warrior wears a helmet with a nose guard and a crest, of which it seems possible to recognize a „tail“, perhaps in horsehair (if we exclude that it could be a poor rendering of the neck guard), a feature that refers to the descriptions of the helmets of the officers described by Corippus in *De Bellis Lybicus*. Furthermore, although the helmet with nasal can also be found in some coins of the Visigoth kings¹²², it is probably found in Eastern Roman iconographic sources, such as the terracottas from the fort of Vinicko Kale, in Macedonia, and helmets depicted in the Abu Hennis fresco from Egypt – hinting that the helmet of the horseman may be a kind of ridge helmet.

Almost identical to that of the Joshua of the Macedonian terracottas is also the armor of the horseman of Cordoba, composed of a corselet with sleeves and a skirt, apparently separated by a belt – but it could also be the lower line of the corselet, if we assume the armour was in two pieces. R. Prieto identifies the cavalryman armor as a chain mail, but the graphic rendering seems more likely to indicate a scale or lamellar armor.¹²³ The warrior's sword, which presents, perhaps

208. The author draws appropriate parallels with other finds of lamellar armour (e.g. *Crypta Balbi*, Niederstotzingen, etc.), but the difference in shape of the lamellae, number and most importantly arrangement of the holes is quite visible. A reconstruction of the method of construction of the armour as lamellar can be found in DAWSON T. 2013, p.73, fig. 19. but it cannot be excluded that the armour from Carthago Spartaria could actually be a scale armour (of the entire deposit, only one of the lamellae has a hole in the lower part). For the similar armour of Kunszemarton, see CSALLÁNY D., *Panzer im Karpatenbecken aus der Awarenzeit*, in *A nyíregyházi jósa andrás múzeum. Évkönyve XV-XVII (1972-1974)*, ed. Németh P., 1982, pp. 12-35.

121 VIZCAÍNO SANCHEZ J. 2005, pp. 188-192.

122 HIDALGO PRIETO R., *Casting mould with relief with armed horseman from Cordoba*, in „*Gladius*“, 32, 2012, pp. 79-81.

123 HIDALGO PRIETO R. 2012, n. 20. For the terracottas of Vinicko Kale see GJORGJEVSKI D., *Contribution to the dating of the Vinica terracotas*, in „*Patrimonium.mk*“, 10, 2012, pp.

erroneously, a rather elongated hilt, refers to typologies I and II of E. Oakeshott's classification of spathae from the period of the Great Migrations.¹²⁴ Finally, the horseman's round shield, probably held by a central grip, reminds of various iconographic sources of Byzantine origin and to at least one Lombard source, in which warriors on horseback armed with small shields are depicted.¹²⁵

The second iconographic source of the Spanish Byzantine territory is a relief on a stone sarcophagus from Alcaudete, in Andalusia. In particular, the second order of decorations shows a scene with the fight between David and Goliath and a group of soldiers, armed with large oval shields and spears. The fragmentary state of the relief has led D. Nicolle to interpret the warriors as possibly Arabs, by the apparent presence of turbans and long tunics, so to a very later datation¹²⁶. Upon closer analysis, however, it becomes clear that the warriors of the Alcaudete sarcophagus are almost certainly equipped as Eastern Roman soldiers: their clothes are not in fact too long, but of the very same length as those of the men represented in the upper order (it must be noted, in fact, that the feet of the armed men are simply missing, due to a part of the sarcophagus that detached in ancient times).

Furthermore, the lines on their heads do not seem to represent turbans so much as actual helmets, almost certainly belonging to the category of ridge helmets (perhaps even of a so-called „pseudo-Attic“ typology, given the extension of the skullcap to protect the nape of the neck, if it's not only a simplification by the artisan¹²⁷). There is in fact a notable similarity with the representations in older visual sources which for sure represent helmets of this type, such as the illuminated manuscript known as *Vergilius Romanus*.

117-126, in particular p. 118, fig. 2.

124 OAKESHOTT E., *Archaeology of the weapons. Arms and Armour from Prehistory to the Age of Chivalry*, London 1960., pp. 107-109.

125 For Byzantine sources, see NICOLLE D. 1997, figs. 49, 84, 85, 87. For the Lombard source, *I Longobardi* 2007, p. 74, cat. 1.2.9.

126 NICOLLE D. 1997, pp. 46-47, fig. 88.

127 On the possible existence in the late antique period and the evolution in the Byzantine period of this „pseudo-Attic“ typology, see for instance D'AMATO R. 2015, p. 87.

Conclusions

The analyzed collection of sources of Eastern Roman military equipment from the Western provinces gives us quite clear, although varied, picture.

On the one hand we can fully witness the maintenance of forms of late antique military equipment, as inherited from the first part of the 6th century AD and from the Justinianic period, with a persistence of elements such as ridge helmets, spangenhelms and scale armour, clearly visible also in the eastern half of the empire.

Also the rank symbols of the officers remain consistent with what is seen in the earlier period and in the eastern part of the empire. We see a wide diffusion of the rich Baldenheim-type spangenhelm, a wide use of shields adorned with gilded bronze elements and bosses with elaborate decorations, the gold plating of various parts of the defensive armament, and we find widespread, in almost all the territories considered, the use of placing a „tail“ of horsehair on the terminal part of the crests of the officers.

On the other hand, we witness, more or less directly depending on the territories examined, the proliferation of new military equipment in all the territories considered in this study, particularly armaments of Avar origin (e.g. lamellar armor and helmets), as outlined in the *Strategikon* of Emperor Maurice Tiberius, and a certain uniformity in military equipment, both that clearly used by the *limitanei* and that of the field troops.

In conclusion, we may determine that, despite the relative „military isolation“, due to which, from what we can reconstruct, troops and military equipment were not frequently sent from the East to the West, the latter, in addition to continuing already well-established Roman traditions, was fully and very rapidly invested by the renewals in the field of armaments that took place in other areas of the empire, particularly the Balkans.

This, combined with the evidently non casual production of a military manual such as the *Strategikon*, is probably an indication of the will, and the undoubted effort, by the central authority in Constantinople, to maintain the same qualitative and updated standard of equipment of the Roman armies throughout the imperial territory, up to what, between the 6th and 7th centuries, had become the extreme western peripheries of the empire.

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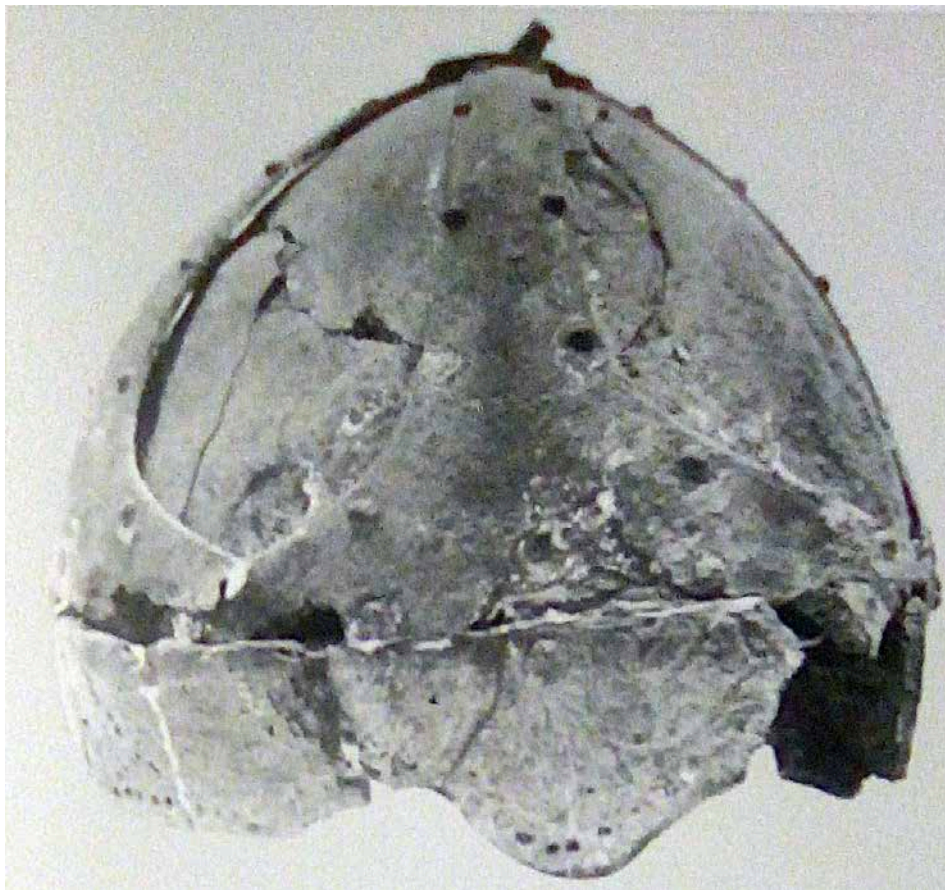
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1. Helmet from Leptis Magna, front view (after VOGT M. 2006, t. 19).



2. Details from page 25^r of the Pentateuch of Ashburnham, depicting Esau as an hunter with bow.



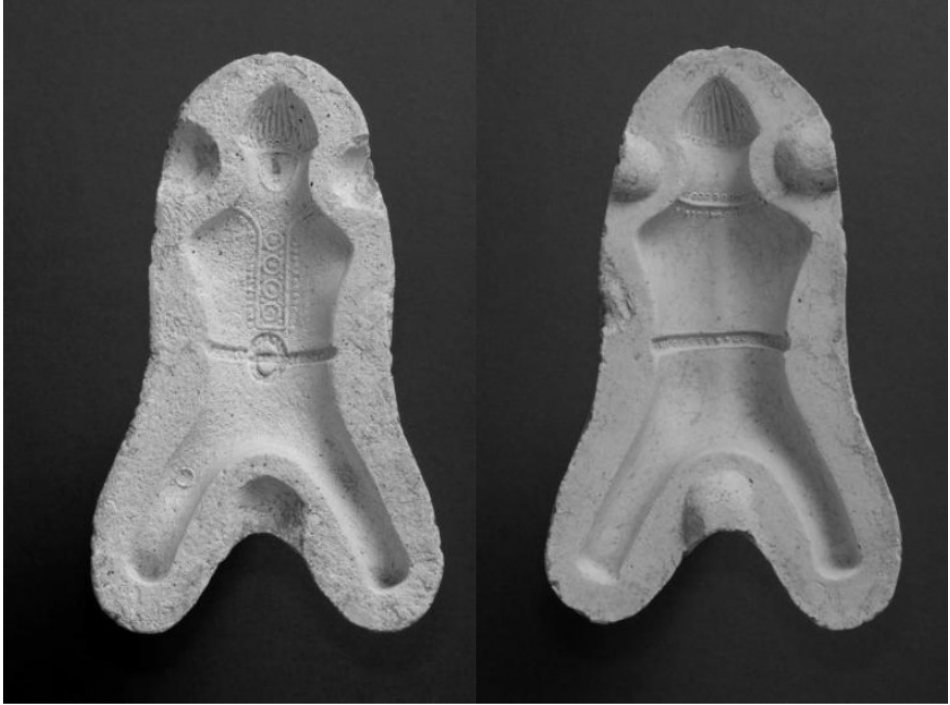
3. Details from page 50^r of the Pentateuch of Ashburnham. Note the swords suspended on the side and their angle.



4. Details from page 68r of the Pentateuch of Ashburnham, depicting the crossing of the Red Sea. Soldiers of the Pharaoh are depicted as Roman troops.



5. Detail of a comb from *Hippo Regius* (after MODÉLAN 2003, p. 79).



6. Mold of a statuette depicting a horseman from Tunisia (after KUBIK 2017b, p. 204, fig. 7).



7. Buckle with a depiction of a hunter equipped with spear, from nuraghe Su Nuraxi (after UGAS 1990, p. 113, fig. 4).



8. Spangenhelm from Salona (after VOGT M. 2006, t. 27, 1).



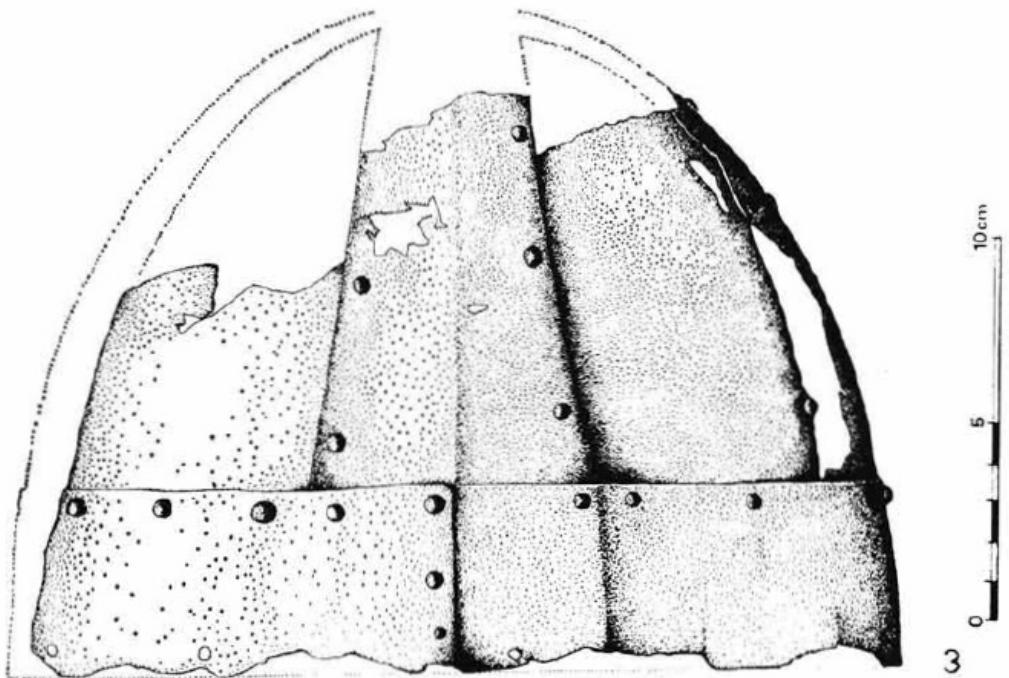
9. Spangenhelm St. Vid-Narona II (after VOGT M. 2006, t.34, 3).



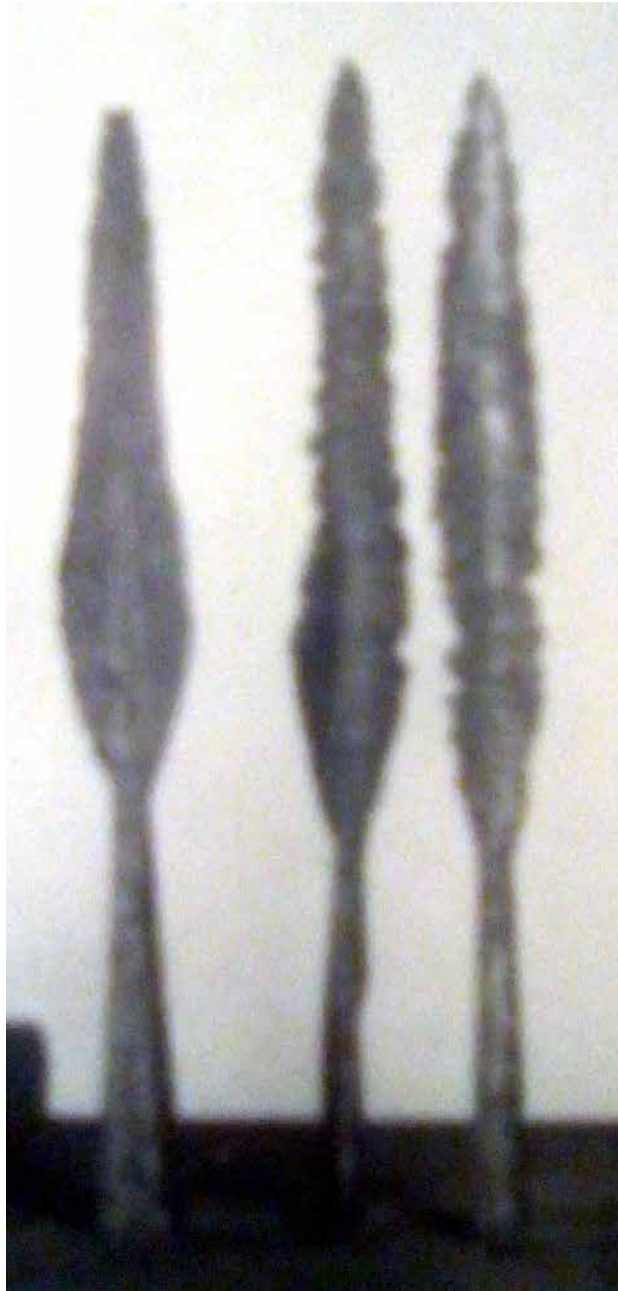
10. Spangenhelm St. Vid-Narona I (after VOGT M. 2006, t. 32, 2).



11. Bandhelm St.Vid-Narona III-IV (after VINSKI 1982, t. II, 3-4).



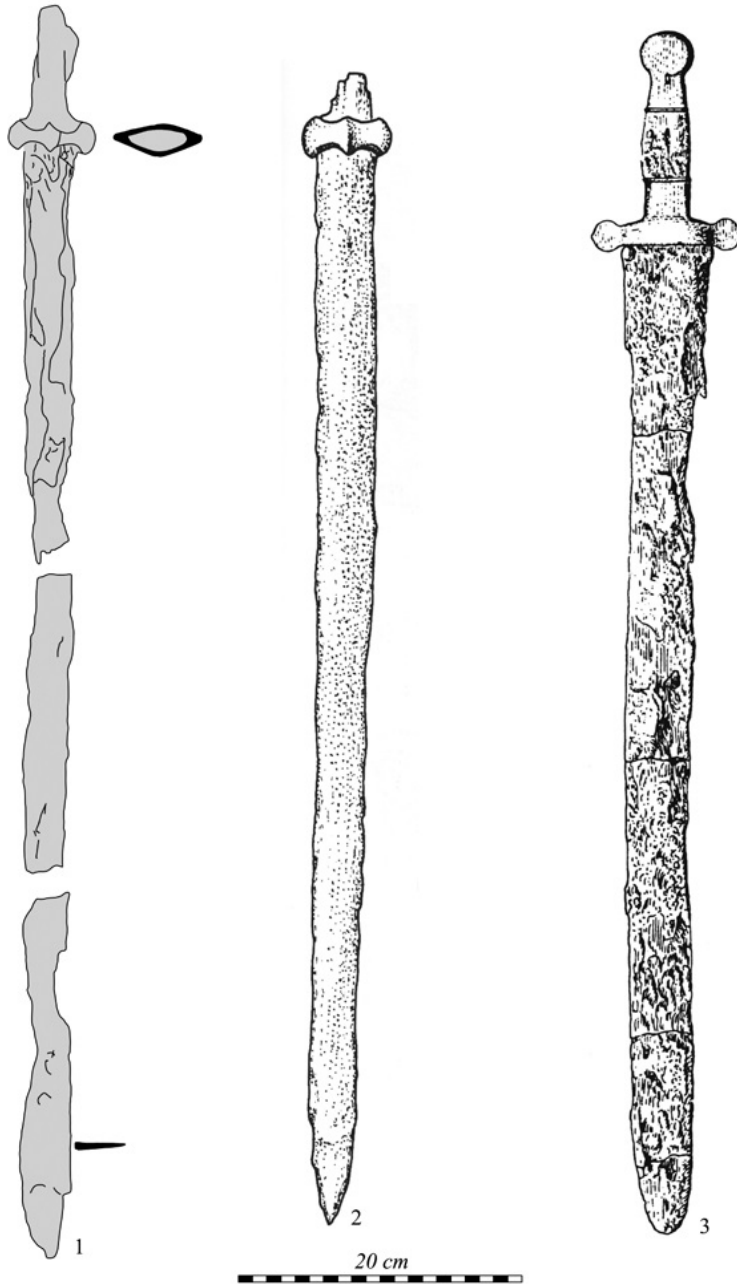
12. Spangenhelm St.Vid-Narona V (after VINSKI 1982, tav. IV, 3).



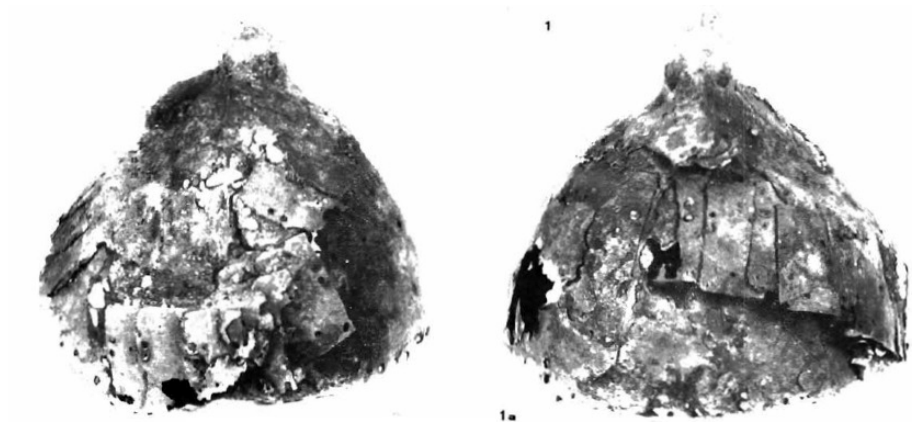
13. Three spear heads from Naron (after THOMAS, GAMBER 1976, t. 1, detail).



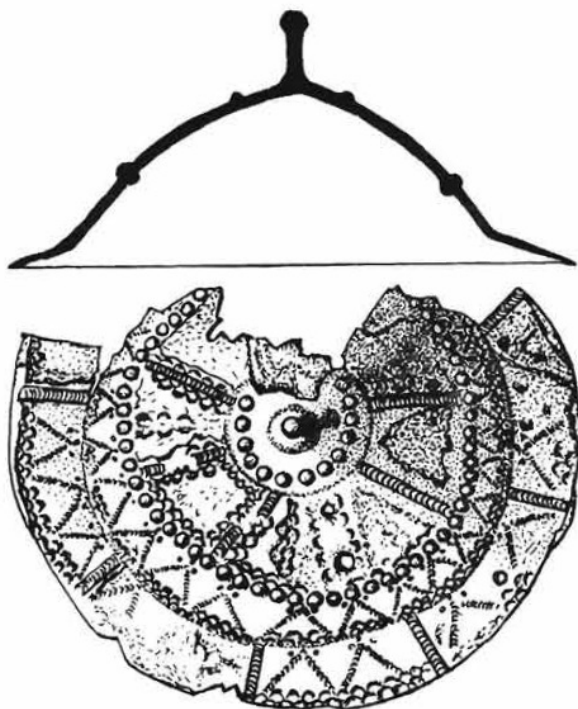
14. Spangenhelm from Sinj (after VINSKI 1982, tav. I).



15. Byzantine swords from the Carpathian basin (after CSYKI 2015, p. 166, fig. 62).



16. Helmet from Legrad-Šoderica (after VINSKI 1982, tav. XV).



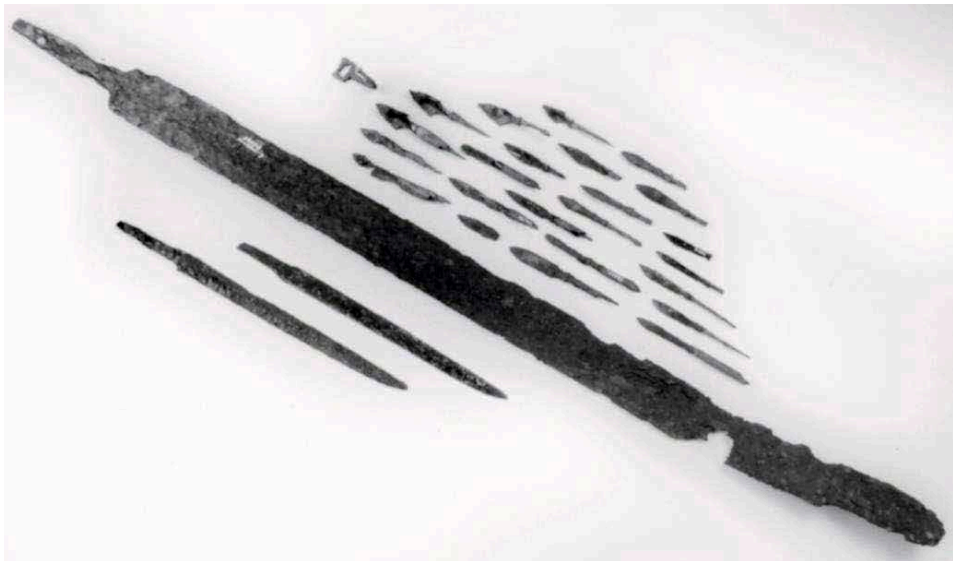
17. Decorated shield boss from Breza (after VINSKI 1982, tav. XIV, 3).



18. One of the nearly complete armours from Kranj (after D'AMATO R., PFLAUM V. 2019, p.10, fig.3).



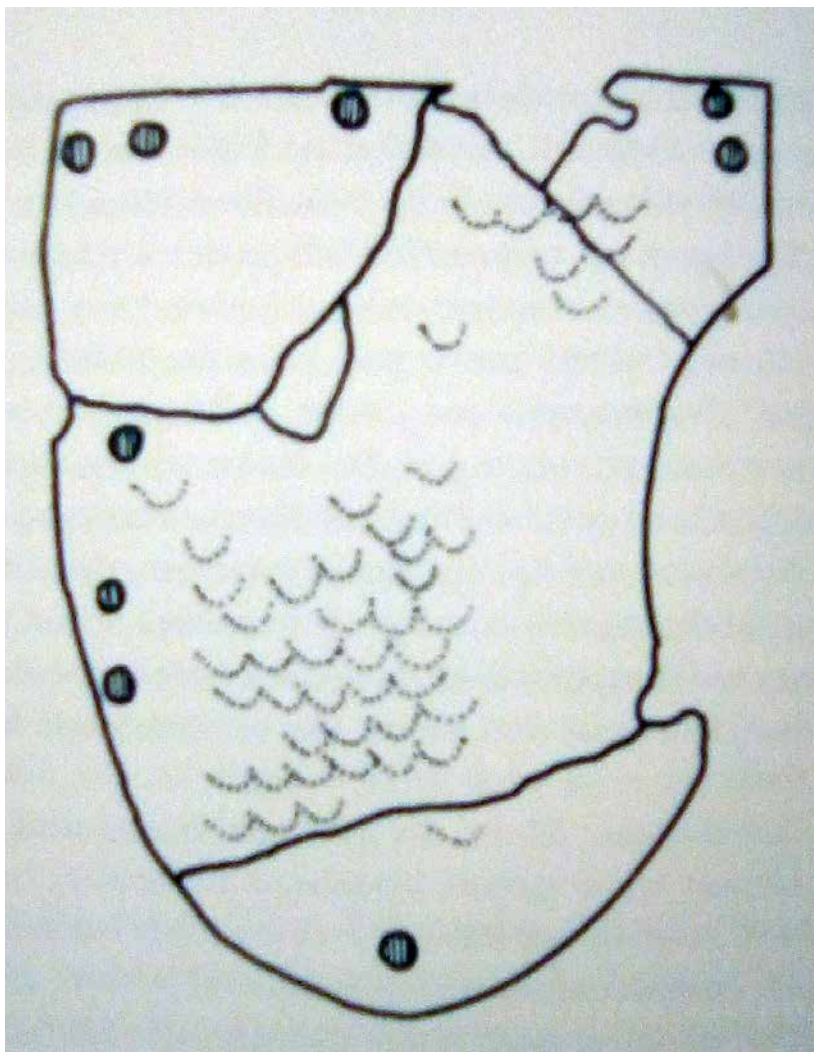
19. Angon from Kranj (after D'AMATO R., PFLAUM V. 2019, p.40, fig.41).



20. *Spatha*, possibly of Byzantine manufacture, from Kranj (after MANIOTIS E., MAEIR A.M. 2021, p. 88, fig.14).



21. *Spangenhelm* from Torricella Peligna (after VOGT M. 2006, t.36, 2)



22. *Spangenhelm* cheekpiece from Frassasi (after VOGT M. 2006, p. 212, fig. 77).



23. *Spangenhelm* from Montepagano (drawing by the author).



24. Decoration of the silver dish from Isola Rizza (drawing by the author).



25. Detail from the Justinian mosaic in St. Vitale, Ravenna (source: https://commons.wikimedia.org/wiki/File:Justinian_mosaik_ravenna.jpg, detail)



26. Fragments of lamellar helmets from the *Crypta Balbi* (after *Crypta Balbi* 2012, p. 400, cat. II.4.760-763).



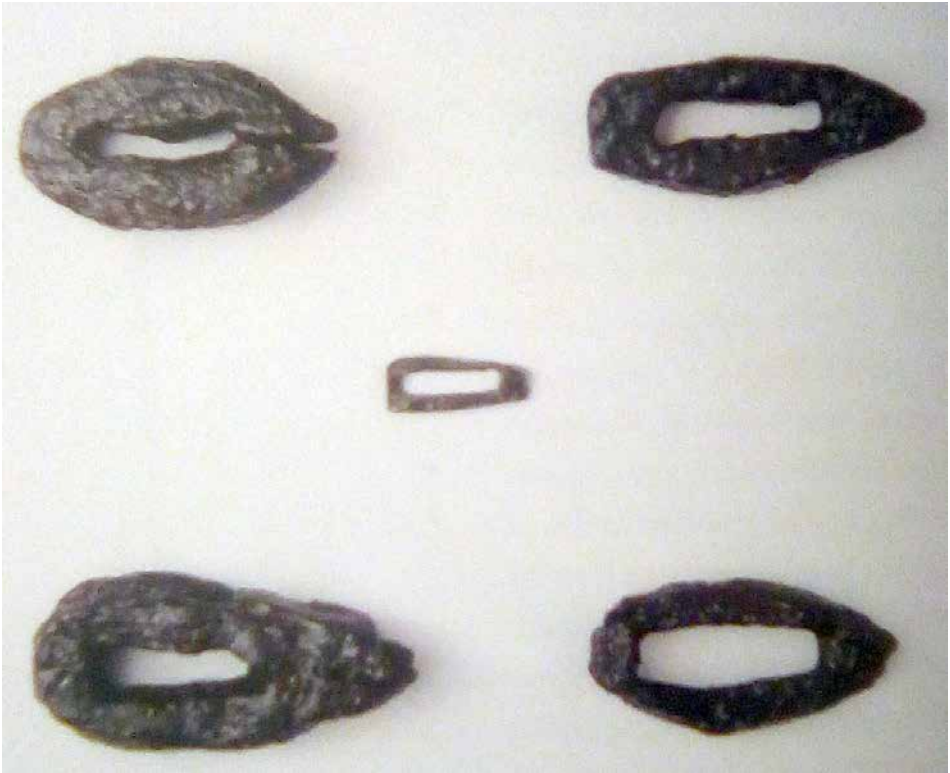
27. Lamellar plates for armour, with buckles and strap ends, from the *Crypta Balbi* (after *Crypta Balbi* 2012, p. 401, cat. II.4.764-779).



28. Lamellar plates for armoured glove, from the *Crypta Balbi* (after *Crypta Balbi* 2012, p. 400, cat. II.4.755-759).



29. Square of mail armour for armoured glove, from the Lombard necropolis of Castel Trosino (after *Castel Trosino* 1995, p. 218, fig. 168).



30. Iron ferrules for *scramasaxes*, from the *Crypta Balbi* (after *Crypta Balbi* 2012, p. 396, cat. II.4.723-727)



31. Possible sword pommel from the *Crypta Balbi* (after *Crypta Balbi* 2012, p. 396, cat. II.4.772;



32. Parts of the suspension system for swords made in bronze and bone, from the *Crypta Balbi* (after *Crypta Balbi* 2012, p. 398, cat. II.4.736-740).



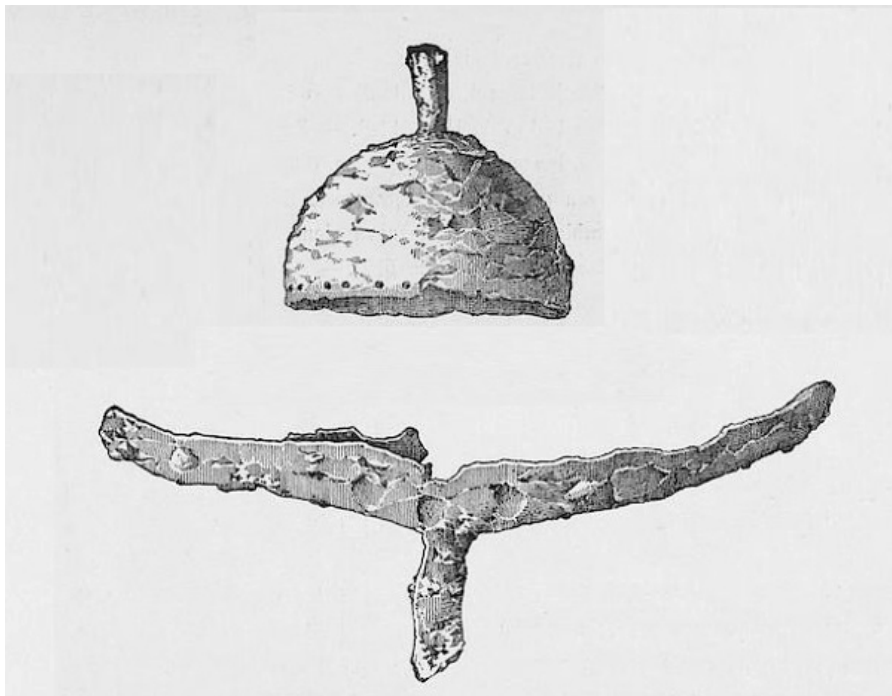
33. Arrowheads and reinforcements in bone and horn for composite bow from the *Crypta Balbi* (after *Crypta Balbi* 2012, p. 399, cat. II.4.742-754).



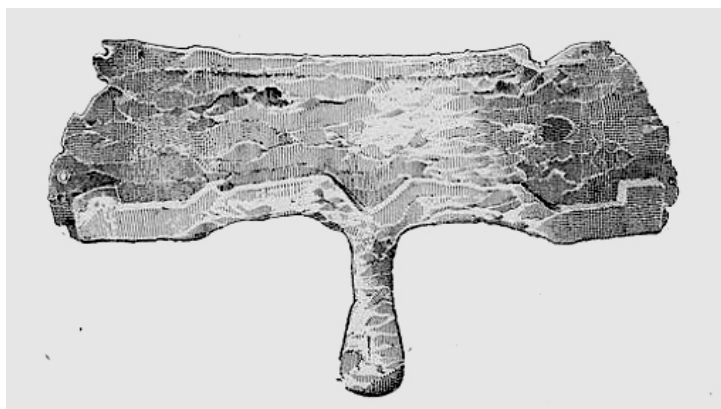
34. Perforated plate, probably related to the attachment system of a quiver, from the *Crypta Balbi* (after *Crypta Balbi* 2012, p. 398, cat. II.4.741).



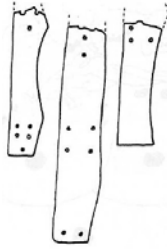
35. Gilded bronze shield “studs”, fragments of an umbo and an iron handle from the *Crypta Balbi* (after *Crypta Balbi* 2012, p. 401, cat. II.4.780-785).



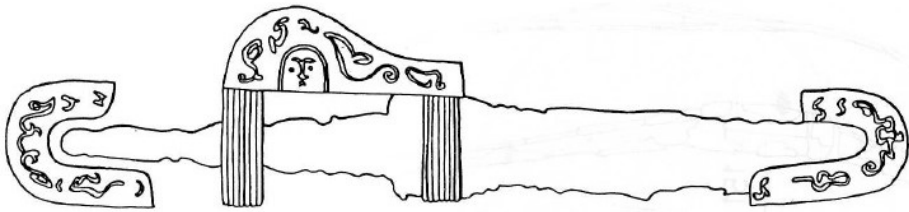
36. Top and part of the front plate of the lamellar helmet from Castel Trosino (after MENGARELLI 1902, p. 282, figg. 160, 161).



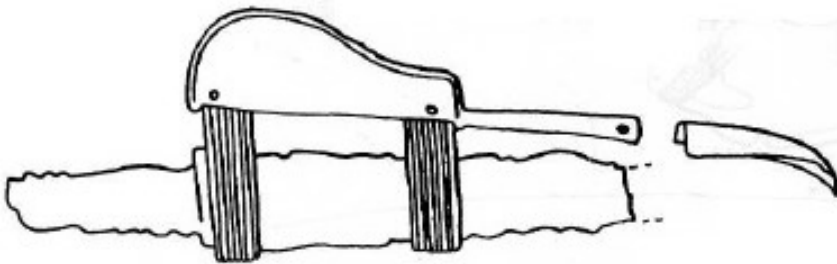
37. Front plate of the lamellar helmet from Nocera Umbra (after PASQUI, PARIBENI 1918, pp. 177-178, fig. 21).



38. Types of lamellar plates from the lamellar armour from Castel Trosino (after NICOLLE 1997, p. 100, fig. 201).



39. Byzantine knife from the necropolis of Nocera Umbra (after NICOLLE 1997, p. 93, fig. 139).



40. Byzantine knife from the necropolis of Nocera Umbra (after NICOLLE 1997, p. 93, fig. 143).



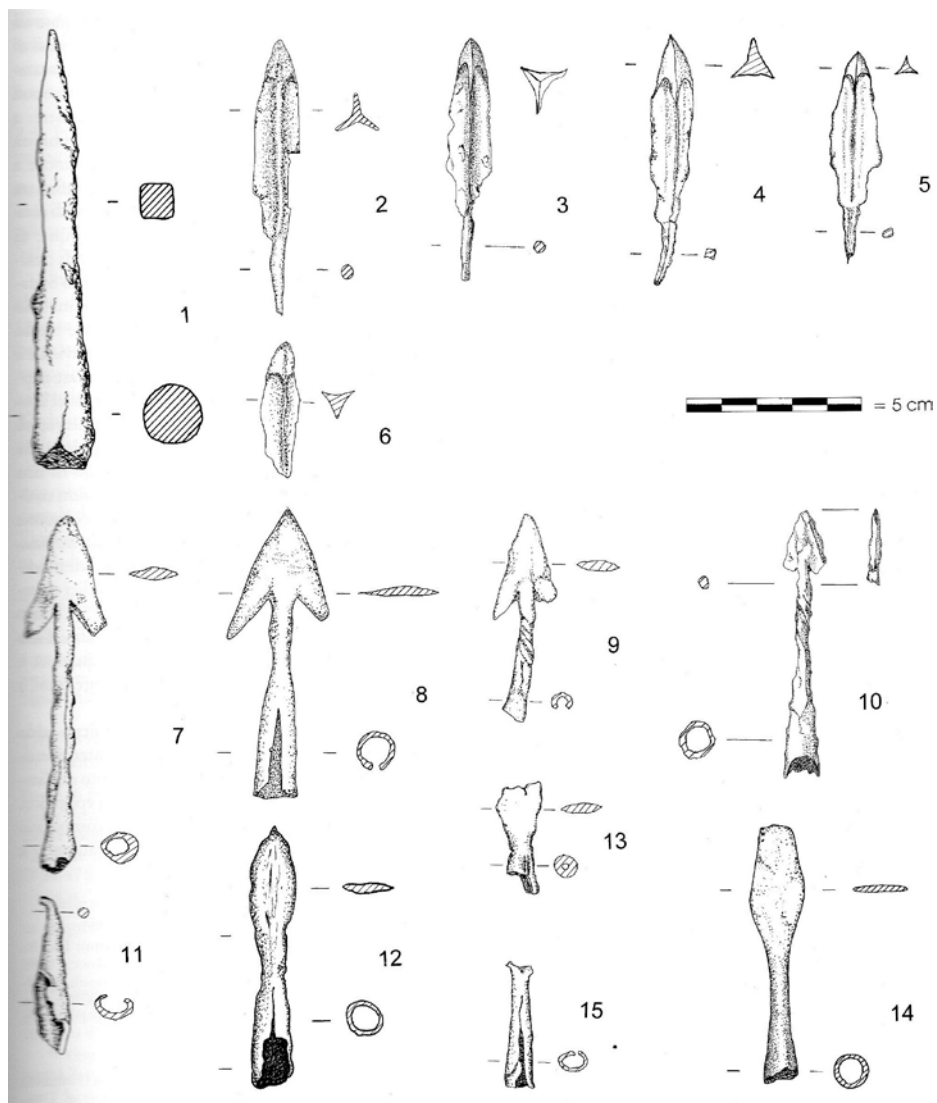
41. Decorated shield boss from the necropolis of Necropoli di Nocera Umbra (after DE PASCA 2016, p. 115, fig. 1).



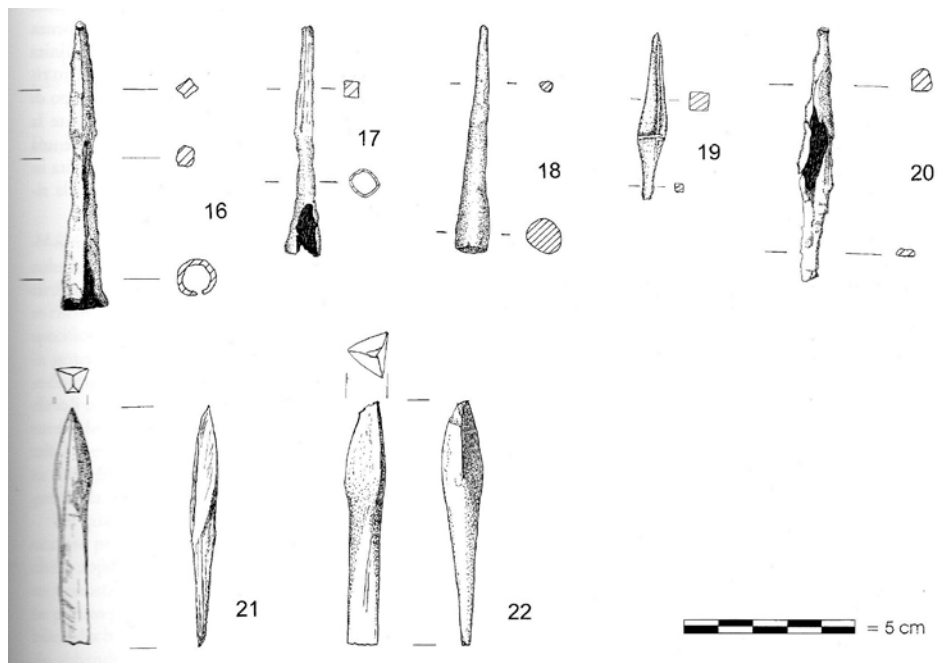
42. Ivory plaque depicting a horseman from Nocera Umbra (after *Magistra Barbaritas* 1984, p. 252, fig. 143).



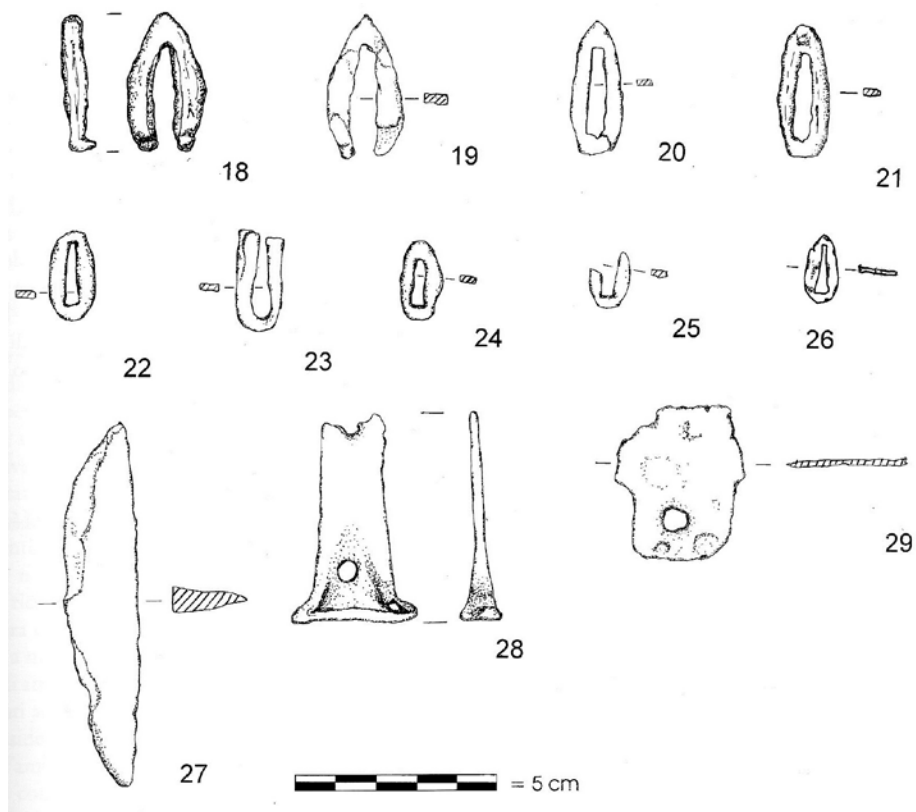
43. Phalera from Ittenheim depicting an armed figure (drawing by the author).



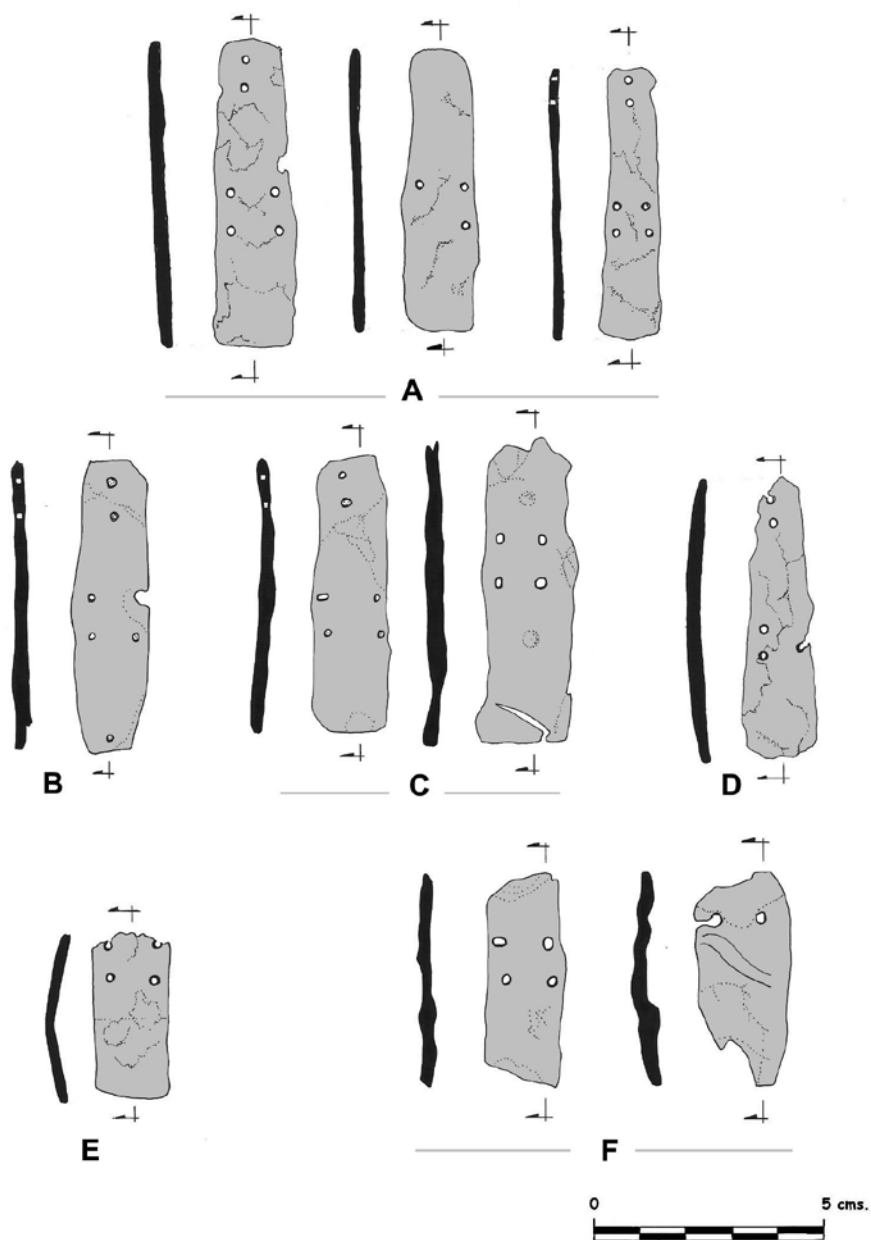
44. Javelin head (1) and arrowheads in iron (2-20) and bone (21-22) from the *castrum* of S. Antonino di Perti (after *S. Antonino* 2001, pp. 535, 539, tavv. 75-76).



45. Arrowheads in iron (16-20) and bone (21-22) from the *castrum* of S. Antonino di Perti (after *S. Antonino* 2001, pp. 535, 539, tavv. 75-76).



46. Iron ferrules, fragments of *scramasax* blade (27) and daggers (28-29) from S. Antonino di Perti (after *S. Antonino* 2001, p. 545, tav. 78, 18-27).



47. Types of lamellar plates from *Carthago Spartaria* (after VIZCAÍNO SANCHEZ 2005, p. 184, fig. 2).



48. Depiction of a horseman from Corduba (after HIDALGO PRIETO 2012, p.71, fig. 1).



49. Detail of warriors from the sarcophagus of Alcaudete (drawing by the author).



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(Venus und Mars. Das mittelalterliche Hausbuch aus der Sammlung
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