NUOVA ANTOLOGIA MILITARE
RIVISTA INTERDISCIPLINARE DELLA SOCIETÀ ITALIANA DI STORIA MILITARE

N. 5
2024

Fascicolo 17. Febbraio 2024

# Storia Militare Medievale

a cura di
Marco Merlo, Antonio Musarra, Fabio Romanoni e Peter Sposato

*Società Italiana di Storia Militare*

*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)

Direzione, Via Bosco degli Arvali 24, 00148 Roma
Contatti: direzione@nam-sigm.org ; virgilio.ilari@gmail.com



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 9788892958623

NUOVA ANTOLOGIA MILITARE
RIVISTA INTERDISCIPLINARE DELLA SOCIETÀ ITALIANA DI STORIA MILITARE

N. 5
2024

Fascicolo 17. Febbraio 2024

# Storia Militare Medievale

a cura di
Marco Merlo, Antonio Musarra, Fabio Romanoni e Peter Sposato

*Società Italiana di Storia Militare*

Bombardella in ferro fucinato, Italia centro-settentrionale, fine XIV secolo.
Brescia, Museo delle armi “Luigi Marzoli”, inv. 101 (Fotostudio Rapuzzi).

# The Art of Single Combat in the Eastern Roman Empire

di Mattia Caprioli

Abstract: Though we do not usually associate the art of single combat with the Eastern Roman Empire, we know from the sources that Eastern Roman soldiers were well trained for single fight – indeed, a needed skill in any professional army – and that they often engaged in duels, both with enemy's "champions" or in the heat of battle. This article has the aim to analyze the extant evidence concerning training, feats of arms and the evidence of single combat itself in the Eastern Roman Empire (from Late Antiquity to the Middle Ages).
Keywords: Single combat, duel, Eastern Roman Empire, Fencing, Eastern Roman army

When we think about "single combat", usually we do not associate it with the Eastern Roman Empire (or with the Romans in general). Indeed, this is reflected also on the studies about Byzantine armies, military equipment, and military subjects in general – military training is of course acknowledged and studied, but often the focus is on tactics, maneuvers, fights on a "regimental" level, etc.

However, to understand all the above, we must keep in mind that soldiers of the Eastern Roman empire also did train, first and foremost, in the use of their weapons in single combat, since being able to use and control their own weapons was essential for soldiers to fight effectively along their comrades.

Apart from this, Eastern Roman soldiers were also capable to use their weapons in single combats, duels, and various feats of arms, making them capable and feared warriors also when fighting on their own, being this because they accepted the challenge of an enemy "champion" or because they remained isolated on the battlefield.

NAM, Anno 5 – n. 17
DOI: 10.36158/97888929586231
Febbraio 2024

*Sources*

No Eastern Roman fencing treatise, upon which it could be possible to reconstruct a fencing system used by the Byzantines, survives to these days.

Our knowledge (and a sensible reconstruction) of the use of weapons in single combat by soldiers and warriors must then lie on other kind of sources and on experimentation – a well-known approach, used in various studies and by modern HEMA (Historical European Martial Arts) scholars to reconstruct fighting systems and techniques which predates the first, proper fencing manuals from the Late Middle Ages.[1]

Archaeological specimens of actual weapons are of course among the most important sources for this kind of study. The shape itself of the objects, along with their size and weight when available, are crucial to understand properly how the weapons were handled, carried, and used – though data such as weight are susceptible to changes due to the natural consumption of the material during the centuries, corrosion etc.

Considering our research, archaeological finds are not usually enough to allow a proper analysis and reconstruction of single combat in the Eastern Roman Empire – particularly if we consider specimen from the Middle Byzantine (9th-13th century) and Late Byzantine (13th-15th century).

Though nothing comparable to a fencing manual is extant, and if we exclude the rare mentions of Eastern Roman techniques and fencing masters from manuals foreign to the empire, we can however rely on other types of written sources. Several Eastern Roman historians and authors, throughout all the centuries concerning this study, describe, often quite vividly, hits, actions, duels, feats of arms, etc. These descriptions are of course to be interpreted and taken with caution in many cases (the combat experience and actual understanding of those who write may have not been on the same level of those they were writing about), but they're of utmost importance to understand how Eastern Roman soldiers handled their weapons – though rarely we find a level of detail like in the descriptions of

1 See for instance Alessandro Atzeni, *Dal combattimento alla Lesione: Ricerca di Indicatori in Reperti Scheletrici di Età Nuragica*, MA degree thesis, Cagliari 2014; Lara Comis, Corrado Re, «Riti guerrieri nel contesto funerario della cultura Villanoviana/Orientalizzante. Una ricerca integrata», *Pagani e Cristiani*, VIII, 2009, pp. 47-95; Rolf Warming, *Round Shields and Body Techniques: Experimental Archaeology with a Viking Age Round Shield Reconstruction*, on *academia.edu*, online

Fighting scene from the Ilias Ambrosiana (Milan, Biblioteca Ambrosiana, Cod. F. 205 inf.). Notice the fighting stance of the central figure, Diomedes, with the shield held near the body and the sword at hip height, the blade parallel to the ground.
Source: Wikimedia commons

Republican and Early Imperial Roman soldiers in combat by Polybius, Dionysius of Halicarnassus or Livy[2]. Also, written sources give us in various occurrences also descriptions of weapons which are not usually found in the archaeological record (e.g., shields from the Middle Byzantine period onwards, generally speaking), and such description may be crossed with extant visual sources.

Visual sources are, however, often much more problematic, since on many occasions they may be subject to the period style, stylization, and simplification,

2 See for instance *Roman antiquities* XIV, 10; *Histories* II, 33; XVIII, 30; *Ab Urbe Condita* VII, 10.

not showing totally accurate depictions, etc. Concerning weapons, we may often find discrepancies between the descriptions of written sources and the represented size and shape.[3]

On the other hand, we may often find warriors in position, repeated multiple times, sometimes over the centuries, which may be identified as "guards" (that is, suitable positions from which attack and defend), though we have to be aware of the fact that, in many cases, we are maybe looking at a pose which is repeated because it's part of the iconography of the particular character depicted or because it's the best way to represent a particular kind of action. For instance, the representation of a powerful blow that is going to be delivered, even against victims more than opponents, is usually best represented with what we would call a "high guard", with the weapon held high, ready to violently fall on the target: this is indeed a real guard, in many known fencing systems, but we must be aware that its overrepresentation, for instance, may be misleading in understanding how weapons were actually used in single combat.

## *Individual training. Instructors, tools, and methods.*

While we do find a large body of literature devolving around the general training of the troops (drills, maneuvers, etc.)[4] instances concerning the individual training of the fighters and how it was done are much rarer, and usually not that detailed.

The 5th century author Vegetius mentions drill masters and "weapons masters" - in modern terms, when we refer to those devoted in teaching the handling of melee weapons, we could be tempted to label these latter figures as fencing instructors. These figures are mentioned in various instances, known as *campidoctores* and *doctores armorum*.[5] Though Vegetius usually refers to personnel and practices of the Roman army of the past, *campidoctores* are also mentioned by

3 For this specific topic, see for instance Timothy Dawson, «Fit for the Task: Equipments Sizes and the Transmission of Military Lore, Sixth to Tenth Centuries», *Byzantine and Modern Greek Studies*, 31, 2007, pp. 1-12

4 See for instance Philip Rance, «*Simulacra Pugnae*: The Literary and Historical Tradition of Mock Battles in the Roman and Early Byzantine Army», *Greek, Roman and Byzantine Studies*, 41, 2002, pp. 223-275 for a study of the subject dealing specifically with Late Antiquity.

5 *Epitoma Rei Militaris* I, 13; II, 7; III, 8; 26.

the 4th century author Ammianus Marcellinus and by the author of the 6th century *Strategikon*, possibly emperor Maurice (r. 582-602).[6]

After Late Antiquity, drill and combat masters are not usually mentioned anymore. Even in the *Taktika* of Leo VI the Wise, in which drills and soldier's training is treated quite in detail, these figures are missing. From Procopius of Caesarea, who wrote during the reign of Justinian, we know the existence of private instructors of martial arts like the *pankration*, but it is not possible to conclude that there could also have been private fencing instructors.[7]

Private teachings in single combat were more probably a reality during the later period, at least starting from the 11th century - and, during the Late Byzantine era, also under the influence of Latin practices. We know that continuous military (and, most probably, also fencing) training became a private issue, mostly destined the élite.[8] Soldiers and fighters may also make themselves ready for combat guided by their relatives or parents, and they could exercise (though, for sure, not in a very specialized way) by hunting, as it's for instance described for the epic hero Basil Digenes Akrites.[9]

For the Late Medieval period, we find the undirect mention of fencing masters from Greece in the *New Zettel* by Martin Syber, a short treatise dedicated to the two-handed sword, the most ancient copy of which is dated 1491, but that it could have been composed earlier. Syber, among the places he visited in which he learned his art, also mentions Greece. If Syber meant that he trained under native Byzantine masters, or with Western fencing instructors still living in Greece, this is completely unknown.[10]

Sources are more specific when it comes to the tools used for training for single combat.

Wooden swords and sticks are widely attested for sword training: they're called *claves* in Latin, usually *rabdia* and *bergia* in Greek.[11] They appear to be

6 *Res Gestae* XV, 3, 10; *Strategikon* XII, B, 7

7 *Wars* I, 13, 30

8 Savvas Kyriakidis, *Warfare in Late Byzantium. 1204-1453*, Leiden-Boston, 2011, pp. 61-62

9 *Digenes Akrites* IV, 70-71

10 See Jeffrey Hull, Jeffrey, *Mertin Siber's Longsword Fight-Lore of 1491 AD*, on *thearma.org*, 2005, online

11 *Epitoma Rei Militaris* I, 11; *Strategikon* XII, B, 2; *Taktika* VII, 3

simple wooden rods or swords made of wood, like the ones already described by Livy and Polybius concerning the training of Roman troops by Scipio in 211 BC – but we find neither mention about a leather edge, an enhancement which could have prevented the wood from breaking and splintering, nor about a safe, rounded tip, both described by the ancient sources.[12] These wooden training weapons are not to be confused with the *spathorabdion*, a kind of wooden sword and true weapon mentioned in the Digenes Akrites – in which also staffs are used multiple times as proper, deadly weapons.[13] Small rods (*petit bastons*) are also used by unarmored horsemen in Constantinople in late 1432, in a sort of tournament or wargame, as described in the account by Bertrandon de la Broquière, but they almost surely must be considered as tools useful for that kind of occasion, more than training tools[14].

Concerning sword training, both the *Strategikon* and the *Taktika* of Leo the Wise suggest letting the soldiers train sometimes with *gymnà spathià* instead of sticks.[15]

The meaning of this expression is not totally clear, as the most direct translation as "naked swords" (that is, unsheathed swords) would mean that soldiers were also allowed to train with real weapons. However, such a practice would have been dangerous, with a high probability of serious injuries (if not deadly ones) and doesn't seem sensible. Though it cannot be proven, I therefore support the translation by G. Dennis in his edition of the *Taktika* of Leo the Wise: this expression may rather indicate a kind of training sword, made of iron and most probably not sharp.

The use of a metal training sword, which is in any case more dangerous than a wooden one or made of other non-metallic material in any case (as also any modern HEMA practitioner may testify), may have been useful to make the soldiers more accustomed to the features, such as weight and balance, of the weapons they had to use in actual combat against the enemy.[16]

12 *Histories* II, 20

13 For instance, *Digenes Akrites*, III, 736; IV, 95. The *spathorabdion* is mentioned in various occasions in the poem, for instance IV, 378.

14 *Le voyage d'outremer*, p. 166

15 *Strategikon* XII, B, 24; *Taktika* VII, 48.

16 Vegetius mentions the practice of training with heavier training swords and shields (*Epitoma Rei Militaris*, I, 12), but his mention is linked not only to older practices, but mainly

Training with the spear was executed by using spear shafts without metal spearhead, staves, or reeds, as described in the *Tactica* of Leo the Wise – we do not find precise information about training spears neither in Vegetius nor in the *Strategikon*. Emperor Leo is describing training weapons for a mock battle, but there's little doubt that such kind of training spears were also used to train soldiers in single combat.[17] Also in this case, we can trace the use of training spears and shafted weapons back the Classical period.[18]

The shield was an indispensable piece of equipment, but there is no sign that indicates the use of a particular training shield – if we exclude the mention of Vegetius of heavier, round wicker shields, which are to be linked to older Roman practices in any case. Soldiers of the Eastern Roman Empire used their own military shields to train in formation and in single combat.[19]

Finally, another tool used during combat training by soldiers, though we do not know if used exclusively in mock battles or also for single combat training, is the *charzanion*, attested again in the *Taktika* of Leo the Wise[20]. What exactly is a *charzanion* (usually interpreted as a kind of leather strap or band), which can also be found in non-military contexts, is still unclear.[21] We can already find the same use of a probably similar object in the 2nd century author Onasander, who specifies it as being of bull hide.[22] At least in a Middle Byzantine context, one of the most sensible explanations of this *charzanion* (clearly not a tool specifically designed for training, though also used for this purpose), is that it's a whip or "lazo" of some kind – a piece of equipment of horsemen in the late 6th century *Strategikon*,[23] but that makes no much sense in the hands of legionaries of the Classical period, like the ones described by Onasander. It's actual use in a training scenario, however, is unclear, and our sources do not dwell in giving an explanation.

If the sources give us hints at least on the training weapons of Late Antiquity

---

to solo drills, which are much more useful in developing, for instance, stamina and muscle strength.

17 *Taktika* VII, 10

18 *Ab Urbe Condita* XXVI, 51, 4; *Histories* II, 20

19 *Epitoma Rei Militaris* I, 12; *Strategikon* XII, B, 2; *Taktika* VII, 3

20 *Taktika* VII, 10

21 *De Ceremoniis* II, 24

22 *Strategikos* X, 4-6; *Jewish War* III, 5,5.

23 *Strategikon* I, 2

and the Middle Byzantine period (which most probably were not too different during the Late Byzantine period), we don't have much information regarding specific training methods for single combat.

Vegetius dwells at length in explaining solo drills using standing poles, but he's referring to older Roman training methods, copied directly from the gladiatorial practice – and that indeed is testified in sources from the Classical period, but nowhere in Late Antiquity sources or later ones.[24]

Most of the training for single combat, both in Late Antiquity and the Middle Byzantine period, was based on sparring between single soldiers (*monomachia*), while we don't know if fighters also practiced solo drills.[25] The importance of handling weapons against another opponent is made clear in the training method theorized by the anonymous author of the 6th century *Dialogue on Political Science* (though, also in this case, the author is dealing with mock battles and not with proper single combat training): the tip of the "green staves" used as training spears should be dipped in ruddle, so to leave a sign on the opponent, or on his shield, when hit. Outside the *Dialogue*, however, this method cannot be found anywhere else.[26]

Concerning Late Antiquity, Vegetius also mentions another kind of peculiar and superior military training, which was not practiced by all the troops (unlike in the Classical period, according to him), called *armatura*. This term can also be found in the 4th century authors Ammianus Marcellinus and Firmicus Maternus. Maternus reports of a *militaris armatura*, while dealing with horsemen maneuvers, while Ammianus writes about an *armatura pedestris* practiced by emperors like Costantius II and Julian, and by the son of the *magister equitum* Ursicinus.[27] Unfortunately, what this *armatura* could have consisted of is unknown, since our sources do not explain it, and it's unclear whether this may have been a single combat training or, as it could be probable, a unit training, maybe consisting of more complicated maneuvers.

In the Later Byzantine period, when tournaments and jousts were introduced by the Westerners in the territories of the empire, we may expect these practices to

24 *Epitoma Rei Militaris*, I, 11

25 *Strategikon* XII, B, 2; *Taktika*

26 *Dialogue* IV, 14.

27 *Res Gestae* XIV, 11; XVI 5; 21; *Mathesis* VIII, 6; *Epitoma Rei Militaris* I, 13; II, 14; II, 23


Fighting scene from the Ilias Ambrosiana (Milan, Biblioteca Ambrosiana, Cod. F. 205 inf.). Various fighting stances, with both sword and shield and spear and shield, can be identified. Source: Wikimedia commons

be used as a mean to train in combat, as the Latins did. However, they were meant more as social occasions and as means to show the military prowess of the individual (a member of the aristocracy), while any aspect concerning training is not present in the sources.[28]

Finally, we have hints about the possible existence of proper fencing systems, particularly in the Middle and Later Byzantine period. This would have allowed for teaching through a structured method, by instructing about specific guards,

28 Savvas Kyriakidis, *Warfare in Late Byzantium. 1204-1453*, Leiden-Boston, 2011, p. 54

hits, techniques etc., in a way that could have resembled the later Western tradition of fencing schools and manuals.

One hint is the actual existence of what could be regarded as a proper guard in written sources: the *prokopon* position, an offensive (or threatening) position of the sword, hold by the hand and partially unsheathed, with the guard and pommel towards the enemy. This "*prokopon* guard" is mentioned (and represented) in several sources across the centuries, starting from Homer down to Constantine VII and Photius, so it's possible that it was indeed part of an established fencing tradition and system.[29]

Another hint is the possible connection between Constantinople and the first recorded Medieval fencing manual, the 14th century *Walpurgis Fechtbuch* (or Royal Armouries I.33), which deals with the use of sword and buckler. Though it's impossible to establish if the Western author (or tradition of Western authors) has simply given order and names to techniques from the Eastern Roman Empire, or if a proper fencing system devolving around the use of the sword and buckler (a combination of weapons well known to the Byzantines) was already extant in Constantinople, the second option seems like the most probable.[30]

In a similar fashion, we know the existence of a Byzantine combat technique from a famous Mamluk *furusiyya* ("knighthood" or "horsemanship") treatise dated to 1371, the *Nihayat al-su'l*. This is a defensive technique with the spear, known as the "Syrian block or deflection", meant to violently deflect the opponent's weapon with a strike and then having the tip of the spear in a position to deliver a blow. We don't know if this technique was taught with this name in the Eastern Roman Empire, but the fact that it was copied and explained in a foreign treatise (something not unfamiliar also with the later Renaissance Western tradition) may mean that it was indeed part of a structured Byzantine fencing system and tradition.[31]

---

29 George Georgas, *'The Sword at Prokopon guard': The name of a Byzantine Fencing Guard uncovered,* on *byzantinehoplomachia.wordpress.com*, 2016, online

30 Though is indeed also impossible to establish the actual connection between the *Walpurgis Fechtbuch* and the Byzantine Empire, the Timothy Dawson has drawn many sensible conclusions about this possible Western "import" from the Eastern Roman Empire (see Timothy Dawson, «The *Walpurgis Fechtbuch*: An Inheritance of Constantinople?», *Arms and Armour*, 6, 1, 2009, pp. 79-92).

31 George Georgas, *Byzantine Martial Arts: The Syrian Block, the attack of the Kat-*

*From training to combat. The use of weapons.*

Late Antiquity (4th-7th centuries) offers the widest array of sources related to the use of weapons in melee and single combat. Some of the "principles" which can be extracted from the sources could also be applicable to the Early Middle Ages (8th-9th century), considering the similarity of many weapons used by Eastern Roman soldiers of these two periods.

The focus of the described fights and duels mostly depends on the type of warrior that, so to speak, is considered more important in the specific time frame and is most involved in actions on the battlefield. So, if for instance during the 4th century Ammianus Marcellinus dedicates long descriptions to the actions of infantrymen, Procopius of Caesarea, who writes almost two centuries later, describes in much more detail feats of arms and duels performed by horsemen.

As it could be expected, descriptions available in the sources concerning the handling of weapons usually dwell with the combined use of sword (*spatha*, *gladius*, *spathion*) and shield (*scutum*, *clipeus*, *skoutarion*, *aspis*).[32]

The sword of Late Antiquity, used both by infantrymen and cavalrymen, is usually a double-edged weapon ca. 100 cm long, with a ca. 5 cm wide blade, not tapered towards the tip. Sometimes the blade sports a fuller, but in most cases, it has a lenticular or flat section. Depending on the specific period and geographical context, we cannot establish a rule concerning the shape of the handle, apart from the fact that is seems to allow just the right amount of space for the hand of the soldier. However, during the period 4th-7th century, the most common type of handle seems to have been roughly "H shaped", with the horizontal bar as the proper grip and the vertical ones as the lower and upper guard (we usually do not find proper pommels yet).[33]

---

*aphracts,* on *byzantinehoplomachia.wordpress.com*, 2020, online; George Georgas, George, *Byzantine Martial Arts: The Syrian Block, Part 2*, on *byzantinehoplomachia.wordpress.com*, 2020, online; Adam H. C. Myrie, *The Mamluk Project – March 28, 2021 Update*, on *hamaassociation.wordpress.com*, 2021, online

32 Taxiarchis G. Kolias, *Byzantinische Waffen*, Wien, 1988, pp. 88-92; 133-135

33 Taxiarchis G. Kolias, *Byzantinische Waffen*, Wien, 1988, p. 135; Ewart Oakeshott, *The Archaeology of Weapons: Arms and Armour from Prehistory to the Age of Chivalry*, London 1960, pp.107-109; Guy D. Stiebel, «Arms from the Large Byzantine Structure in Area XV», in Eilat Mazar (Ed.), *The Temple Mount Excavations in Jerusalem 1968-1978. Directed by Daniel Mazar. Final Reports Volume II. The Byzantine and Early Islamic Period*, Jerusalem, 2007, pp. 43-46 (for typical 7th century *spathae* of Byzantine production

Having these general features, the sword of Late Antiquity was a weapon with a quite advanced point of balance. This means that, although thrusts with these weapons were possible, they were mostly meant to deliver powerful cuts, most probably using the elbow and the shoulder as nodes – as suggested in modern fencing manuals dealing with a different weapon but with similar features and use, the cavalry sabre.[34] The use of the wrist as node may have been possible, but practical experience with replicas (though not totally precise ones, so this judgment may be partially biased) suggests that at least "H shaped" handles impede the use of the wrist, both because the lower guard may hit and injure the lower part of the wrist itself, and because to prevent this from happening there's a tendency to lose the alignment of the sword with the arm – a crucial element to deliver effective blows.

Written sources seem to confirm this picture. Vegetius' stress about teaching to deliver thrusts instead of cuts, like in the old times, may be a consequence of the main use of cutting blows by contemporary soldiers.[35] More importantly, the vivid descriptions of Ammianus Marcellinus about the fights during the 4th century (in particular, the pieces about the battles of Ad Salices and Adrianople) confirm the use of powerful cutting blows – although also thrusts to the chest are attested –, for which not only swords are used, but also weapons like axes, which shares with contemporary *spathas* a really advanced point of balance, and they add percussion damages to the slashing ones caused by blades.[36] The later Procopius of Caesarea describes too the use of swords, axes, and secondary one-edged weapons (*paramerion, machaira, xiphidion*), all these mainly but not exclusively as cutting weapons[37].

In a fight with sword and shield, the defense of the armed hand and the body relies mainly on the latter – particularly in the ancient world, before the development of proper crossguards on sword, although on one occasion in Ammianus we

from Jerusalem).

34 *Maneggio*, p. 10.

35 *Epitoma Rei Militaris* I, 12.

36 *Res Gestae*, XXXI, 7, 12-14; 13, 2-5.

37 *Wars* I, 7, 28; II, 11, 9; IV, 28, 8; IV, 28, 27; VI, 8, 3; VI, 8, 15; VIII, 29, 23-26; Mattia Caprioli, *Scramasax e armi da taglio nell'esercito bizantino tra VI e VII secolo*, BA degree thesis, Genova 2015, pp. 7-16; Taxiarchis G. Kolias, *Byzantinische Waffen*, Wien, 1988 pp. 136-137

do find a possible reference to crossing swords.[38] Large infantry shields from the 4th to the 8th century are usually oval or round with a domed shape, up to just over 100 cm in diameter, less than 1 cm thick, made of planks, covered with hide and with a sewn leather edge, sporting a central handle and a metallic shield boss to protect the left hand.[39] Light infantry was equipped with smaller shields, though probably not as small as later bucklers/*cheiroskoutaria*, but we do not know the precise size.[40] In Late Antiquity, and probably also during the Early Middle Ages, Eastern Roman soldiers also did use their shields in an aggressive way, particularly by hitting the enemy with the pointy shield boss – archaeological remains show that bosses from the 4th century were really protruding, almost sharp, while the point of 6th and 7th century ones was far less pronounced.[41] Practical experience with replicas of shields from this period suggests that also attacks with the lower edge of the shield could be done, as recorded in visual and written sources for instance in the Classical period, but this practice doesn't seem to be testified in sources from Late Antiquity and Early Middle Ages.[42]

If a soldier wasn't able to deflect an attack with his shield – because he didn't see the blow coming, his shield was damaged or if it was not present –, still his defense didn't apparently rely on his weapon but mainly on his armour or even, if armour cannot be worn, on improvised defensive pieces (e.g., an instance of a concealed vambrace made out of arrow shafts, described by Procopius[43]).

Given the size of the shield, which protected at least from shoulder to knee, when not to ankle, favored targets in sword and shield combat of this time were the head, the side (probably the right one) and lower legs. The right arm could

38 *Res Gestae* XVI, 12, 37

39 Raffaele D'Amato, «A Sixth or Early Seventh Century AD Iconography of Roman Military Equipment in Egypt: The Deir Abou Hennis Frescoes», in George Theotokis and Aysel Yildiz (Eds.), *A Military History of the Mediterranean Sea*, Leiden, 2018, pp. 130-131 (there's a typo in the mentioned article: the shields are described as 7cm think, but they're actually 7 mm; 7 cm would be an impossible thickness measure)

40 *Strategikon* XII B, 5

41 For a visual comparison between earlier and later shield bosses of Late Antiquity: Alexandru Rațiu and Ioan Carol Opriș, «A Roman-Byzantine Shield Boss from Capidava», *Cercetări Arheologice*, XXI, Bucarest, 2014, Pl. III-IV

42 For the aggressive use of the lower edge of the shield by legionaries of the Republican period, see for instance *Ab Urbe Condita* VII, 10.

43 *Wars* IV, 28, 10

happen to be a target too, resulting in severed limbs. In cavalry combat, thighs could be hit by sword cuts too.[44]

Visual sources can also give us hints about the stances used at least in sword and shield combat on foot. The two main "stances" that may be identified are a "high guard", with the sword over the head and the point facing upwards backwards (a well-known stance in Medieval and Renaissance fencing manuals, described as an aggressive position); and a lower guard, with the sword parallel to the ground, the tip of the blade pointing towards the enemy, the hand at hip-height. This latter stance is useful both for delivering cuts and thrusts. In both instances, the shield is put in front, attached to the body, or slightly held forward, so creating a wider cone of defense.

Unlike sword and shield, not that much is known about the use of the spear in single combat, also since it was meant mainly as a weapon to be used by soldiers in a formation, and due to its basic simplicity of use. The exact length of the spears used by Eastern Roman soldiers during Late Antiquity is unknown. Vegetius states that the length of the *spiculum*, a heavy javelin that could be used also as a melee weapon, is of five feet and a half (185 cm)[45], while the evidence from visual sources varies from man-height to around ca. 2.5 m, with possibly even bigger size for two-handed cavalry spears.[46]

As far as we can tell from the written sources, main targets when using the spear were the chest, when fighting on foot, and the sides when on horseback; also, those parts of the body which were not well protected by the armour, like the armpit or the side, were favoured targets, particularly in fights between cavalrymen[47]. Oftentimes, spears are mentioned because they were broken, maybe by impact but mainly because the shafts were cut down by sword blows; spear shafts could also be grabbed in the heat of combat, to disarm one's opponent.[48]

When fighting on foot, the spear was used with the shield – although we see instances of spears used with two hands, usually in visual sources representing

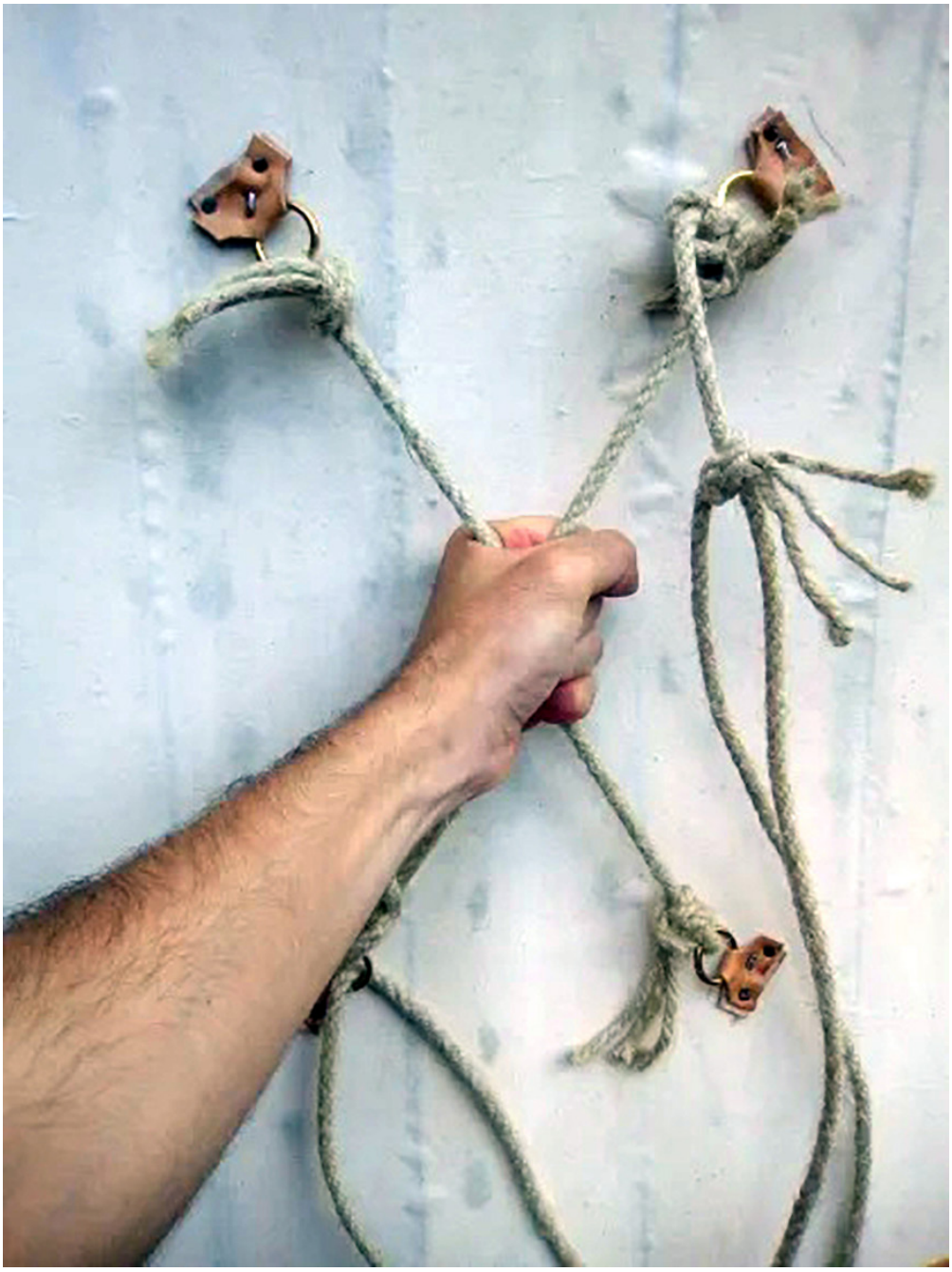
44 *Res Gestae*, XXXI, 7, 12-14; 13, 2-5; *Wars* VI, 2, 23.

45 *Epitoma Rei Militaris* II, 15

46 Taxiarchis G. Kolias, *Byzantinische Waffen*, Wien, 1988, p. 193; Andrey Negin, Raffaele D'Amato, *Roman Heavy Cavalry (1)*, Oxford, 2018, p. 36.

47 *Wars* VI, 2, 22; VIII, 31, 16.

48 *Res Gestae*, XXXI, 13, 5; *Wars* VIII, 29, 27



Reconstruction of the chiasma grip. Reconstruction and picture by the author.

hunts. For mounted combat, we know cavalrymen of Late Antiquity may either use a two-handed spear (*contus*, *kontos*) or either a one-handed spear or javelin with a shield.[49] We also have a unique occurrence of dual-wielding shafted weapons, during a battle outside the walls of Rome in 537 but, given the peculiar situation, it must not have been the norm, nor a show of prowess (as in a later, unrelated episode during the 9th century), but mostly a choice out of necessity, maybe because the shield was lost. We can imagine that the shafted weapon held in the left hand could have been used not only as a second weapon, but also as a mean of defense, similarly to the techniques of staff and dagger shown in the Late Medieval treatise *Flos Duellatorum*[50].

Among historical reenactors there's still a debate whether the spear should be held in the overarm or underarm grip. Visual sources show us the spear held in both ways (the overarm one also useful to throw the spear, a possibility we know it could occurre[51]), both in single combat and melee, and there's little doubt that the grip could be simply changed, if needed, without losing control on the weapon. Such a technique can for instance be found in much later treatise *Opera Nova* by 16th century Bolognese master Achille Marozzo, while describing the use of partisan (a shafted weapon with a long blade) and rotella (a round shield held by means of straps).[52]

Although we don't have such a wide array of detailed evidence from the Middle Byzantine period, the available information can allow us to draw a sensible picture of how weapons were used for single combat.

Offensive weapons don't seem to change drastically from the previous period, although swords are usually slender (and more often sporting a fuller, as reported by some sources) and the new shapes of the handle would have allowed also a more efficient use of the wrist.[53] Crossguards don't seem to develop that much, at least until the later part of this period, so it's not surprising that the defense of the right hand relies mainly on the shield and on iron gauntlets – a device that

49 *Strategikon* I, 2; III, 5

50 *Wars* V, 29, 42; *Flos Duellatorum* pp. 70-73

51 *Strategikon* XII, A, 7; XII, B, 16.

52 *Opera Nova*, p. 100

53 For the most typical Byzantine swords of the 7th-11th centuries, see Valery Yotov, «A New Byzantine Type of Swords (7th-11th Centuries)», *Ниш и Византија*, 9, 2011, pp. 113-124.

was already testified in the 6th century *Strategikon*, but that in the *Taktika* of Leo the Wise is suggested to both cavalrymen and infantrymen. Such a suggestion is instead absent in later treatises.[54]

The tendency about the type of preferred blows seems to be in continuity with Late Antiquity, with a type of combat that relies mostly on swings and cuts. Alongside double-edged swords and various types of axes, now infantrymen are also equipped with maces, and cavalrymen with both maces and sabers.[55]

As other melee weapons, spears do not seem either to undergo drastic changes from the previous period, although we do have mentions in treatises of very long shafted weapons used by infantry (considering modern calculations and estimates, such infantry spears could have been up to 4 meters long, probably to be used two-handed) and a specialized anti-cavalry thick spear, the *menavlion*. However, these weapons are specifically thought to be used in formation, so they're probably not that relevant for the present study.[56]

Contrary to offensive weapons, shields used by Eastern Roman soldiers were subject to major changes than the previous period. Shields with a central grip and a shield boss are gradually replaced, although we still find round shields with a grip made of two straps or cords which must be held together with the left hand, known as "chiasma grip". This kind of grip can both be seen on larger round shields, mainly used by the cavalry, and smaller bucklers. These latter ones are quite often, though not always, represented in the hands of officers (and warrior saints equipped as military leaders) in visual sources, used together with straight swords and sabers. Considering that the effective use of sword and buckler usually requires a quite specific knowledge and practice of this combination of weapons, it's indeed sensible to find it used by the élite of the military, which had access to specialized weapon training.

The other main kind of shield of this period, used mainly by infantrymen is

54 *Strategikon* I, 2; *Taktika* V, 3; VI, 3; 21. It's indeed difficult to establish if the mentioned pieces (*cheiromanika siderà, cheiropsella, manikellia*) are actually armoured gloves or a combination of a gauntlet with a vambrace.

55 Eric McGeer, *Sowing the Dragon's Teeth. Byzantine Warfare in the Tenth Century*, Washington D.C., 1995, pp. 37; 206; 213.

56 Taxiarchis G. Kolias, *Byzantinische Waffen*, Wien, 1988, p.196; Eric McGeer, *Sowing the Dragon's Teeth. Byzantine Warfare in the Tenth Century*, Washington D.C., 1995, pp. 19; 203-204; 206;

elongated, larger at the top and narrower at the bottom, called *thyreos* and often described in the written sources as "triangular" (although we do see also an "almond" or "kite" shape in visual sources) and "as tall as a man", probably meaning a shield ca. 120-130 cm in length, protecting from the shoulder to the ankle.[57]

This latter type of shield was strapped to the vambrace of the fighter, with the consequence of reducing the mobility of the shield, its offensive use, and the possible cone of protection, while favouring keeping the shield closer to the body and a more static defense and type of combat. This is indeed perfectly described in an instance of a duel between a Byzantine and an Armenian champion: the latter has a round shield with a central grip and is mobile and dynamic, while the Eastern Roman, having a shield "as tall as a man" (and, quite interestingly, a newly made sword; maybe a sword made purposely for a duel?[58]), doesn't move much, waiting for his opponent to approach before striking.[59]

For the Late Byzantine period we face, like for the Middle Byzantine period, the lack of a wider array of sources for the specific subject of this paper, but we can at least make some considerations.

We still do find all the types of weapons described for the Middle Byzantine period (straight sword and sabers; medium and small round shields, and elongated shields), which indicates a similar use of the weapons of this later period. A major change is due to the introduction of Western practices, weapons, and armours, particularly during the final decades of the Late Byzantine period – and particularly among the élites.[60]

In fact we see the introduction of plate armours, along with weapons like the two-handed sword, as could be testified by the later *New Zettel* by Martin Syber. Most probably, the use of two-handed sword in the Eastern Roman empire was taught by following the established fencing tradition that we do see in treatises

57 Taxiarchis G. Kolias, *Byzantinische Waffen*, Wien, 1988, p. 91; Eric McGeer, *Sowing the Dragon's Teeth. Byzantine Warfare in the Tenth Century*, Washington D.C., 1995, pp. 15, 205-206; 212.

58 George Georgas, *Were there any chivalrous duels between the Byzantine soldiers?*, on *byzantinehoplomachia.wordpress.com*, 2020, online

59 *Historia* I, 23-25

60 Mark C. Bartusis *The Late Byzantine Army. Arms and Society, 1204-1453*, Philadelphia 1992, pp. 322-328; Andrey Negin, Raffaele D'Amato *Roman Heavy Cavalry (2)*, Oxford, 2020, pp. 39-42

written by both Italian and German masters during 14th and 15th century – Fiore dei Liberi, Filippo Vadi, Johannes Liechtenahuer, Hans Talhoffer, etc.

## *Duels and feats of arms*

Fighting capabilities of Eastern Roman soldiers in single combat is well described on various occasions in sources throughout the centuries.

For the sake of the present study, we'll examine a selection from the sources dealing with two different scenarios of what may be called "single combat": proper duels, and occasions during a battle in which a single Eastern Roman fighter shows his individual fighting skills against one or more opponents.

Duels – that is, combats previously agreed among only two persons, with usually the same kind of weapons – usually did take place between two "champions", before the start of a battle (or, more rarely, during a pause during the battle, or during a siege) and in front of the armies. A "champion" shows up and challenges the other army to single combat, with a great effect on the morale of the entire armies depending on the outcome of the duel.

Although we do not always associate duels with Roman and Byzantine armies, this practice had an already long and established tradition, at least during the monarchic and through all the Republican period – although is of course difficult to say if this practice continued without interruption, or if it was revived during Late Antiquity.

Ammianus Marcellinus mentions some skirmishes fought between small groups of soldiers of the Roman and Gothic armies (probably infantrymen) in the initial stage of the battle of Ad Salices, but unfortunately does not describe them in detail, and so it's difficult to say if these first engagements may have involved also proper duels.[61]

Procopius of Caesarea is by far the most prolific author when it comes to accounts of duels and feats of arms during Late Antiquity. Considering the period in which he is writing, it should be of no surprise that all the duels he describes are on horseback and are usually performed (on the Byzantine side) by the élite warriors of his period, the *bucellarii*[62].

61 *Res Gestae* XXXI, 7, 11

62 *Wars* V, 18, 14; V, 18, 18; VI, 1, 20; VI, 1, 21-34; VIII, 31, 16.

The Arab captive displays his skill in using two spears while galloping during Theophilos' triumph in Constantinople, from the *Madrid Skylites,* Fol. 55ra.
Source: Wikimedia commons

There are two notable exceptions to this. Before the battle of Dara in 530, the challenge of two Sasanid champions is taken up by Andreas, an instructor of *pankration* in the following of a Byzantine officer and not an actual soldier. Nonetheless, Andreas is able to beat both his opponents, thanks to his strength in

delivering a spear thrust and because of his experience in wrestling.[63] Also, before the battle of Faenza in 542, the commander of the Eastern Roman army, the Armenian commander Artabazos faces the Ostrogothic champion Walaris, out of shame because none of his soldiers dared to accept the challenge.[64]

These engagements are usually solved with a single, effective thrust with the

63 *Wars* I, 13, 30-39
64 *Wars* VII, 4, 22-29

spear, delivered to the side of the opponent (both the right and left are described by Procopius) after having avoided the enemy's attack with a sudden change of direction commanded to the horse.

If the case of Artabazos was almost isolated in the time of Justinian, the importance of commanders being able to accept and win challenges of champions from the opposing army is accentuated during the 7th century. Before the beginning of the battle of Nineveh in 627, emperor Heraclius takes up the challenge (or challenges; this is not entirely clear) of the commander of the Sasanid army, Rhazates, and of two other champions, and is able to strike the three of them down. The duels are not described in detail by Theophanes the Confessor, but he mentions the use of a spear by at least one of the Sasanid champions, and most probably these duels were fought in the same manner as the ones described by Procopius.[65] During the opening stages of the battle of Yarmuk in 636, many Byzantine officers were taken down in duels against several *mubarizun*, Arab specialized single fighters (swordsmen and lancers), with a demoralizing effect on the Eastern Roman army.[66]

Not all duels were fought before two armies, but still they could be fought in front of a large audience. For instance, John Skylitzes records of the mounted duel fought in the hippodrome of Constantinople, before a crowd and before the emperor, between an Arab captive and the *protospatharios* Theodore Krateros, during the triumph of emperor Theophilos in year 837. The Arab horseman was showing his ability in wielding two spears while on horseback and was challenged by Theodore Krateros to show to Theophilos that the captive had no real special ability (nor useful, since Krateros considered dual wielding spears on horseback not useful in war). Krateros, using only one spear, was able to beat his opponent, most probably again with a single blow, and to unhorse him.[67]

All the duels listed above, described in detail by the sources, are fought by cavalrymen, but we have at least one instance of a single combat fought by two soldiers on foot for the Middle Byzantine period, described by Niketas Choniates, and mentioned in the previous chapter. During the siege of Baka in 1138, the imperial soldier of Macedonian origin Eustratios accepted the challenge of

65 *Chronographia,* p. 449

66 David Nicolle, *Yarmuk 636. The Muslim Conquest of Syria*, London 1994, pp. 36-37

67 *Synopsis Historiarum*, Theophilos, 17

an Armenian opponent, Constantine. The latter is equipped with a round shield with a central grip, while Eustratios has a big infantry shield – both are armed with swords. Eustratios acts really static, keeping his sword high above the head and waiting for his opponent to come close: the duel ends when finally Eustratios delivers a powerful cutting blow, damaging the shield of Constantine and forcing his opponent to flee – though, as he reveals to his comrades, that he actually hoped to cut down with a single blow both the shield and his opponent.[68]

Warriors on horse, coming from cavalry regiments, are the main protagonists also of various feats of arms during battles, but we also find at least a couple of cases of infantrymen showing their abilities in single combat.

As mentioned in the previous chapter, during a battle between the Byzantines and the Ostrogoths before the walls of Rome in 537, the Isaurian warrior Tarmutos, while fighting on foot, is able to repel several enemy attacks while using two javelins as melee weapons, one per hand – surely not the norm, and not something taught by any drill instructor of the period (as similarly noted three centuries later by Theodore Krateros), but probably a use out of necessity.[69]

Two lone infantrymen, Paul and Ausila, during the battle of Taginae in 552 come out from the ranks to face the Ostrogothic cavalry – both are probably light infantrymen, since they also use bows in the first part of the fight. They are also equipped with shields, though the size of these latter is not specified. Using their swords (maybe single-edged weapons), they truncate the spears of the opponents, at least until Paul's weapon bends. At this point, Paul use his bare hands to disarm four enemies, and for this deed is chosen by Narses to be one of his *bucellarii*.[70]

Another deed of arms performed on foot, but by a professional cavalryman of the imperial *tagmata*, is described by John Skylitzes. During the battle of Dorostolon in 970, the commander of cataphracts Theodore of Mistheia is unhorsed, his mount hit by an enemy spear. Theodore proceeds to grab one of his Rus' opponents with a wrestling technique, catching him by the belt and probably killing him, and he uses the body of the enemy as a shield (he's described as very strong, and Skylitzes says that the body of the enemy is like a "light shield"), protecting

68 *Historia* I, 23-25
69 *Wars* V, 29, 42
70 *Wars* VIII, 29, 22-28

himself from Rus' blows and slowly retreating to Byzantine lines.[71]

Finally, one of the most impressive feats of arms in single combat described by the sources is performed by emperor Alexios Komnenos, on horseback, during the battle of Dyrrachium in 1081 against the Normans. The fight is described by Anna Komnene, daughter of Alexios. The emperor is in the center of the imperial array, which is finally destroyed by a Norman charge, and so Alexios remains alone, equipped with ahis sword, and probably also with a shield, against three opponents, all on horseback. The first Norman horseman charges Alexios but simply misses his target, while the emperor deflects the spear of the second warrior with the sword and delivers a powerful blow to the shoulder of the enemy as a response, cutting the entire arm off in Anna's account (quite surely an exaggeration, considering that a Norman mounted warrior would have worn a padded vest and a chainmail). The third Norman horseman finally charges in, and Alexios Komnenos quickly lies down on the saddle to avoid being hit: the spear of his opponent catches only the helmet, and the violence of the spear thrust breaks the leather thong keeping this latter on the head of the emperor (who, in fact, loses the helmet and continues the fight without it).[72]

## *Conclusions: the Eastern Roman way of single combat*

Dealing with the subject of the art of single combat as performed by Eastern Roman fighters throughout the centuries, at least some observations may be done.

First, at least two distinct types of fencing systems (i.e. the combination of weapons and the way to use them properly, also according to a specific tradition), at least talking about the use of sword and shield on foot, can be probably identified. The first, related to Late Antiquity and to the first part of the Middle Ages, is a more aggressive approach, mainly based on powerful cutting blows and the active use of the shield, particularly by striking the opponent with the shield boss – a type of action that probably fell out of use with time, or it became at least less important, as the shapes of shield bosses suggest. A second fencing system, that we can link to the Middle Byzantine period and to the later period, was based mostly on cutting blows too but was much more static in nature, cause

71 *Synopsis Historiarum*, John Tzimiskes, 15

72 *Alexiad* IV, 6

of the shape and the strapping system of the new, elongated shields of the period. We may also add, at least, a fencing system for the use of the sword and buckler, some hints for which may be perhaps found in the first European medieval tradition, and probably the later addition of a fencing system (maybe with some Byzantine peculiarities?) related to the use of the two-handed sword. However, at least for the later period we do not have enough sources, or at least not enough has been studied yet, to draw real conclusions.

Also, almost surely, we can talk about fencing systems for the fight on horseback but, given the inexperience of the author in mounted combat, the hints given by the sources couldn't be grasped in all their entirety. So, more studies about this particular subject will have to follow in the future.

A second remark that quite clearly emerges from the study of the sources, is that if we can indeed talk about the art of single combat, we cannot probably talk about an "art of duel". In fact, even though Byzantine soldiers quite often engaged in duels against enemy "champions", such duels were only performed in war, usually before battles, or in public shows of prowess. The habit of duels outside the military context seems to have been non-existent, contrary to what happened in Europe at least starting from the Middle Ages.

This is even more evident if we consider that there was not, as far as we can find, a fencing tradition aimed properly for the practice of the duel (like for instance in the European fencing tradition). Eastern Roman soldiers, officers and even rulers, performed their duels and shows of prowess using the techniques and weapons that they were taught to use for the battlefield – and this, on many occasions, also helped them survive battles and single combats during a larger engagement. In this sense, we should not be surprised that the recorded duels and most notable feats of arms are performed by the most skilled and trained soldiers: if during the 4th century the infantryman could engage in a duel, and if occasionally this could happen also during the Middle Byzantine period, starting already from the 6th century we do see mostly horsemen (particularly the real professionals, like the *bucellarii* and members of the imperial *tagmata*), officers and even emperors – that is, those who had access to more specialized and frequent training – performing real feats of arms.

Given these conclusive remarks, the present article doesn't aim to be at all conclusive on the subject of the art of single combat in the Eastern Roman Em-

pire. As the research done for drafting this paper revealed, this article has only scratched the surface of a wider subject.

The hope of this article is rather to shed light on this peculiar and not studied enough theme and to give hints and future inspiration both to military history scholars and HEMA practitioners – two quite different types of scholars, that nonetheless on the matter of studying the art of single combat, particularly before the introduction of fencing treatises, need each other to reach fully satisfactory results.

## Bibliography

*Sources*

Achille Marozzo, *Opera Nova* = Achille Marozzo, *Opera Nova Dell'arte delle armi*, ed. G. Rapisardi, on *accademianazionaledischerma.it,* online

Ammianus Marcellinus, *Res Gestae* = Ammiano Marcellino, *Le Storie*, ed. A. Selem, Novara, 1993.

Anna Komnene, *Alexiad* = Anna Comnena, *The Alexiad*, tr. E.A.S. Dawes, Cambridge Ontario, 2000.

Anonymous, *Dialogue = Dialogue on Political Science*, in *Three Political Voices from the Age of Justinian*, ed. and tr. P.N. Bell, Liverpool, 2009, pp. 123-188.

Bertrandon de la Broquière, *Le voyage d'outremer = Le Voyage d'Outremer de Bertrandon de la Broquière*, ed. C. Schefer, Paris, 1892.

Constantine VII Porphyrogenitos, *De Ceremoniis = Constantine Porphyrogennetos: The Book of the Ceremonies*, ed. and tr. A. Moffatt, M. Tall, Leiden-Boston 2012.

*Digenes Akrites = Digenes Akrites*, ed. and tr. J. Mavrogordato, Oxford, 1956.

Dionysius of Halicarnassus, *Roman antiquities* = Dionigi di Alicarnasso, *Le antichità romane*, a cura di F. Donai e G. Pedullà, traduzione di E. Guzzi, Torino, 2010.

Firmicus Maternus, *Mathesis* = Iulii Firmici Materni, *Mathesis*, ed. and tr. Pierre Monat, Paris 2002

Fiore dei Liberi, *Flos Duellatorum* = Fiore de' Liberi, *Flos Duellatorum in armis, sine armis, equester et pedester*, ed. G. Rapisardi, Padova, 1998.

John Skylitzes*, Synopsis Historiarum* = John Skylitzes, *A Synopsis of Byzantine History 811-1057*, tr. J. Wortle, Cambridge 2010.

Leo the Wise, *Taktika = The Taktika of Leo VI*, ed. and tr. G. Dennis, Washington D.C., 2010

Livy, *Ab Urbe Condita* = Livio, *Storia di Roma dalla sua fondazione. Volume primo (libri I-II)*, traduzione di Mario Scandola, Milano 1982.

Maurice Tiberius emperor, *Strategikon = Das Strategikon des Maurikios*, ed. G.T. Dennis,

tr. Ernst Gamillscheg, Wien, 1981; *Strategikon. Il Manuale di Arte Militare dell'Impero Romano d'Oriente*, ed. and tr. Giuseppe Cascarino, Città di Castello (PG), 2016.

Niketas Choniates, *Historia = O City of Byzantium*, *Annals of Niketas Choniates*, tr. H. J. Magoulias, Detroit 1984.

Onasander, *Strategikos* = Onasandro, *Il generale*. *Manuale per l'esercizio del comando*, ed. e tr. Corrado Petrocelli, Bari, 2008.

Polybius, *Histories* = Polibio, *Storie*, I-VI, ed. D. Musti, tr. M. Mari, F. Canali De Rossi, Milano, 2001-2018.

Procopius of Caesarea, *Wars = La guerra gotica di Procopio di Cesarea*, I-II, ed. and tr. D. Comparetti, Roma, 1895; *Procopius Bella*, 2 voll. Ed. J. Haury, Leipzig, 1963; *Procopius, with an English translation by H. B. Dewing*, I-V, ed. T.E. Page, W.H.D. Rouse, tr. H. B. Dewing, London-New-York, 1914-1928.

Settimo Del Frate, *Maneggio = Istruzione per maneggio e scherma della sciabola del capitano Settimo del Frate*, Firenze, 1868.

Theophanes Confessor, *Chronographia = The Chronicle of Theophanes the Confessor*, ed. and tr. C. Mango, R. Scott, Oxford, 1997.

Vegetius, *Epitoma Rei Militaris = Vegetius: Epitome of Military Science*, ed. and tr. N.P. Milner, Liverpool, 1996; Vegezio, *L'arte della guerra romana*, ed. M. Formisano, Milano, 2003.

*Modern studies*

Atzeni, Alessandro*, Dal combattimento alla Lesione: Ricerca di Indicatori in Reperti Scheletrici di Età Nuragica*, MA degree thesis, Cagliari 2014.

Bartusis, Mark C., *The Late Byzantine Army. Arms and Society, 1204-1453*, Philadelphia 1992.

Caprioli, Mattia, *Scramasax e armi da taglio nell'esercito bizantino tra VI e VII secolo*, BA degree thesis, Genova, 2015.

Comis, Lara, Re, Corrado, «Riti guerrieri nel contesto funerario della cultura Villanoviana/Orientalizzante. Una ricerca integrata», *Pagani e Cristiani*, VIII, 2009, pp. 47-95

D'Amato, Raffaele, «A Sixth or Early Seventh Century AD Iconography of Roman Military Equipment in Egypt: The Deir Abou Hennis Frescoes», in George Theotokis and Aysel Yildiz (Eds.), *A Military History of the Mediterranean Sea*, Leiden, 2018, pp. 105-152.

Dawson, Timothy, «Fit for the Task: Equipments Sizes and the Transmission of Military Lore, Sixth to Tenth Centuries», *Byzantine and Modern Greek Studies*, 31, 2007, pp. 1-12.

Dawson, Timothy, «The *Walpurgis Fechtbuch:* An Inheritance of Constantinople?», *Arms and Armour*, 6, 1, 2009, pp. 79-92.

Kolias, Taxiarchis G., *Byzantinische Waffen*, Wien, 1988.

Kyriakidis, Savvas, *Warfare in Late Byzantium. 1204-1453*, Leiden-Boston, 2011.

McGeer, Eric, *Sowing the Dragon's Teeth. Byzantine Warfare in the Tenth Century*, Washington D.C., 1995.

Negin, Andrey, D'Amato, Raffaele, *Roman Heavy Cavalry (1)*, Oxford, 2018.

Negin, Andrey, D'Amato, Raffaele, *Roman Heavy Cavalry (2)*, Oxford, 2020.

Nicolle, David, *Yarmuk 636. The Muslim Conquest of Syria*, London, 1994.

Oakeshott, Ewart, *The Archaeology of Weapons: Arms and Armour from Prehistory to the Age of Chivalry*, London 1960

Rance, Philip, «*Simulacra Pugnae:* The Literary and Historical Tradition of Mock Battles in the Roman and Early Byzantine Army», *Greek, Roman and Byzantine Studies*, 41, 2002, pp. 223-275

Rațiu, Alexandru, Opriș, Ioan Carol, «A Roman-Byzantine Shield Boss from Capidava», *Cercetări Arheologice*, XXI, Bucarest, 2014, pp. 425-440.

Stiebel, Guy D., «Arms from the Large Byzantine Structure in Area XV», in Eilat Mazar (Ed.), *The Temple Mount Excavations in Jerusalem 1968-1978. Directed by Daniel Mazar. Final Reports Volume II. The Byzantine and Early Islamic Period*, Jerusalem, 2007, pp. 43-46

Yotov, Valery, «A New Byzantine Type of Swords (7th-11th Centuries)», *Ниш и Византија*, 9, 2011, pp. 113-124.

*Websites*

Georgas, George, *'The Sword at Prokopon guard': The name of a Byzantine Fencing Guard uncovered,* on *byzantinehoplomachia.wordpress.com*, 2016, online

Georgas, George, *Byzantine Martial Arts: The Syrian Block, the attack of the Kataphracts,* on *byzantinehoplomachia.wordpress.com*, 2020, online

Georgas, George, *Byzantine Martial Arts: The Syrian Block, Part 2*, on *byzantinehoplomachia.wordpress.com*, 2020, online

Georgas, George, *Were there any chivalrous duels between the Byzantine soldiers?*, on *byzantinehoplomachia.wordpress.com*, 2020, online

Hull, Jeffrey, *Mertin Siber's Longsword Fight-Lore of 1491 AD*, on *thearma.org*, 2005, online

Myrie, Adam H.C., *The Mamluk Project – March 28, 2021 Update*, on *hamaassociation.wordpress.com*, 2021, online

Warming, Rolf, *Round Shields and Body Techniques: Experimental Archaeology with a Viking Age Round Shield Reconstruction*, on *academia.edu*, online

Altorilievo su pannello di alabastro, Spagna, XIII secolo,
Metropolitan Museum, Fondo Dodge 1913. Public Domain.

# *Storia Militare Medievale*

## *Articoli / Articles*



## *Recensioni / Reviews*