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# THE INVISIBLES ACHAEMENID HEAVY CAVALRY DURING THE GRECOPERSIAN WARS

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Abstract: Today, the Persian empires of Antiquity are still remembered as being famous for their expert use of cavalry forces. However, the textual, pictorial and archaeological evidence shows a slightly different picture, especially when the early Achaemenid period is considered. During the Greco-Persian wars, Persian riders had little chance to shine and were not able to show their full military potential against the Greeks. This paper examines the available sources and, through the evaluation of data, tries to answer some questions about the origins of (Persian) heavy cavalry and their presumed "invisibility" during this time. Their actual capabilities and close combat effectiveness are investigated, emphasising the parameters we associate with heavy cavalry and the use of body protection in combat. The primary question is, though, whether we can talk about "heavy cavalry" as a separate category during this period or not.

Keywords: heavy cavalry, Achaemenids, Herodotus, body armour, 5th century BC

Cavalrymen clad in shining suits of armour, armed to the teeth, have always been one of the most exciting and spectacular military history topics.

During Late Antiquity, the Sassanid Empire was known for its cavalry, especially for their outstandingly effective use of heavy cavalry units. One could even say that by this period, the phenomenon was becoming some Persian trope reflected not just in historical works (e.g. Ammianus Marcellinus¹) but also in the more "popular" genres. We should only think, for example, of Heliodorus' *Aethiopica*, where there is one of the most well-known literary descriptions² of the Neo-Persian heavy cavalry. The *cataphract* – heavily armed and armoured cavalry fighting with a long lance – had become so popular by this time that even

 $^2$  Although its reliability is at least very questionable. See Skupniewicz–Maksymiuk 2018, 102–108.

<sup>&</sup>lt;sup>1</sup> Amm. Marc., XVI 10, 8. being the most cited *locus*. On Sassanid Persian heavy cavalry, see Anderson 2016, 79–102.

the Romans, formerly not known for their cavalry prowess, started to deploy such types of equestrians in large numbers.<sup>3</sup>

In my paper, I will seek to answer the question: how far back can this tradition be traced in Persian history? Do we find its roots in the Achaemenid Empire? What was the evolutionary trajectory and role of the cavalry, especially the heavy-armed variant, during the Greco-Persian wars? Can we definitively consider the close combat cavalry formations in Xerxes' army as proper heavy cavalry? And what is the reason behind their apparent "invisibility" in the sources?

#### 1. Before the Persians

Actually, what do we call *heavy cavalry*? It is, of course, a categorisation used in modern military history. However, this does not mean we cannot apply its parameters – to an extent at least – to the Achaemenid army. First of all, we should define the term! There are a few specific properties connected to the role and appearance of heavy cavalry:

- *Battlefield application*: heavy cavalry usually has no use as a surveil-lance or skirmish force; they are applied solely on the field of battle.
- *Charge!*: the primary function of heavy cavalry is to charge an enemy unit, break the cohesion and disrupt formations. In an ideal situation, one perfectly timed and executed cavalry charge can rout an entire army.
- Shock effect: heavy cavalry might not be able to crush well armed, armoured and disciplined infantry but still can create such a blow to the enemy morale that compromises the effectiveness of the forces still standing on the battlefield.
- Specific tactics and equipment: heavy cavalry usually employ unique fighting tactics and formations, deploy warhorses specifically bread for this purpose and are equipped with characteristic weapons. The use of armour sometimes both for the rider and his horse is also very prevalent.

The origins of armoured, close-combat cavalry are a bit shrouded. We do know that the spread of equestrian warfare – i.e. fighting from the back of the horse and not from a platform towed by horses – must have happened after the Bronze Age collapse and the steep decline of military chariotry. For the sake of this study, we should concentrate on the developments happening in the Near East. However, it is noted that cavalry warfare probably evolved on the Eurasian

<sup>&</sup>lt;sup>3</sup> Anderson 2016, 106–125. Cf. Mielczarek 1993, 73–85.

steppes & in Central Asia, even though we have evidence of true cavalrymen from the Near East dated to as early as the end of the second millennium BC.<sup>4</sup>

The first large-scale deployers of (native) cavalry forces were most probably the Neo-Assyrian Empire. As early as the mid-9th century BC, horseback units emerged and were fully developed not later than the early-mid 8th century. Attested by documentary sources and depictions, like the Nimrud reliefs<sup>5</sup>, dated to c. 728 BC, armoured close-combat cavalry was indeed deployed by the Assyrians. These soldiers depicted are wearing metal helmets and cuirasses made of scales and are fighting with swords and lances held in one hand (as they used the other hand to control the horse). Although their equipment is definitely that of the heavy cavalry, their combat capabilities must have been severely limited: without a proper, stable saddle, horseshoes and horses bred for war, they could not perform the specific heavy cavalry military actions described earlier. They can be called "armoured" or "close-combat" cavalry, but their battlefield roles were closer to those of light cavalry.<sup>6</sup>

Another important note is that traditionally, the Persians, unlike the Medes, were not explicitly known for their horsemanship. The most prestigious elite units were fighting on foot, like the famous Immortals, at least in Herodotus' time; but elite cavalry formations also existed. In fact, the most significant element of Early Achaemenid warfare was probably a continuation of the "archer pair" combat system, in which shield-bearing spearmen defended the missile troops. The Persian *sparabara* ("shield-bearer") represented the evolutionary peak of this combat tactic. It is still debated what type (or types) of shield(s) they deployed: it seems Greek sources use the term *gerrhon* to describe several different variations. At the same time, the "true" *spara* was a *pavise*-like construction capable of defending standing & kneeling archers alike. Why did the Persians raise a cavalry force, then? What was the inspiration behind their decision of supplementing the very effective infantry units with mounted troops? The answer is at least threefold.

First, as we saw with the Assyrians, there was an aspiring cavalry tradition in the region that the new conquerors inherited. Second, the most significant challenge the Achaemenid Empire faced in the early decades of its existence was the

<sup>&</sup>lt;sup>4</sup> See Anderson 2016, 2–3.

<sup>&</sup>lt;sup>5</sup> Now in the collection of British Museum, BM 118907.

<sup>&</sup>lt;sup>6</sup> Dezső 2012, 21–23. Cf. Anderson 2016, 4–7. and Sidnell 2006, 15–17.

<sup>&</sup>lt;sup>7</sup> Although the actual status and effectiveness of the "King's horsemen" possibly changed over time, but not dramatically. See Tulpin 2010, 179–182.

<sup>&</sup>lt;sup>8</sup> Sekunda 1992, 16–18.

<sup>&</sup>lt;sup>9</sup> See Head 1992, 22–27. Cf. Tulpin–Jacobs 2021, 1169–1170.

<sup>&</sup>lt;sup>10</sup> It seems the Persian army was the most well-organized and structured during its time, see Hassan 2021, 1156–1158.

nomadic horsemen of the Massagetae (against Cyrus in 530–529 BC) and the Scythians of the Pontic steppes (against Darius, 513–512 BC), both of whom defeated the so-far invincible Persian war machine. In both cases, their cavalry was the key to success. The early native cavalrymen of the Persians proved to be significantly inferior to the Scythians: as Herodotus wrote, "The Scythian horse ever routed the Persian horse, and the Persian horsemen falling back in flight on their footmen, the foot would come to their aid". (Hdt., IV 128.)<sup>11</sup> Also, note that this description implies close combat. And the third reason must have been their encounter with hoplite warfare, first in western Asia Minor and later in Hellas proper, which – amongst other effects – led to the significant improvement of Persian equestrian forces.

## 2. Achaemenid cavalry<sup>13</sup> during the Greco-Persian wars

Before we continue, it is essential to clarify what sources are available for a researcher of weaponry & military technology of this particular topic. Persian references are generally not very informative. Documentary sources are scarce and usually do not detail military matters; pictorial sources are mostly schematic and capture soldiers in an inactive, ceremonial style, although there are some notable exceptions, like the Munich painted wooden beams. More useful are the royal inscriptions and the depictions on surviving pieces of material culture, seals, for example. The Non-Greek textual references, although helpful, can only complement the whole picture drawn by the more numerous classical texts: some of which, like those of Herodotus and Xenophon, contain complete narratives of Persian imperial history. Greco-Roman imagery of Persian soldiers and their allies is also the most widespread; however, its reliability is still questionable thanks to the heavy presence of artistic traditions & tropes. Archaeology has also provided some significant relics from this period.

We should also clarify the focus of the present paper. If we want to understand the later developments of Persian (and, in general, Eastern) cavalry warfare, we should concentrate on the first significant step of its evolution, which is well-documented: the Greco-Persian Wars. Especially Xerxes' invasion of 480–479

 $<sup>^{11}</sup>$  All translations were taken from the respective Loeb Classical Library Volumes; translations by A. D. Godley.

<sup>&</sup>lt;sup>12</sup> Sidnell 2006, 19–20. See also Anderson 2016, 15–16.

<sup>&</sup>lt;sup>13</sup> For a general discussion on 5th century BC Persian cavalry, see Testi 2013, passim.

<sup>&</sup>lt;sup>14</sup> Summerer 2007, 16–17.

<sup>&</sup>lt;sup>15</sup> Tulpin–Jacobs 2021, 1161–1163. Cf. Head 1992, 7–8.

BC may be of interest to us. <sup>16</sup> As the King of Kings' army was a massive conglomerate of various forces, including many foreign cavalry units, this research narrows its scope to the native Persian horsemen wherever it's possible.

#### 2.1 General characteristics

There is an almost complete agreement in the sources regarding the tactics of the Persian cavalry of the period. They were usually lightly armed, mostly with missile weapons (bows & javelins), and they primarily played a flanking and pursing role.<sup>17</sup> Harassing, raiding enemy forces, and fully exploiting their superior mobility against infantry was their forte. When they attacked the Greeks, they encircled them and then "...they rode at them as if were to slay them, and drew their bows to shoot", and if they encountered disciplined infantry, which closed the ranks and was capable of defending itself, "the horsemen wheeled about and rode back and away." (Hdt., IX 18.) They took up tasks typical to light cavalry: capturing enemy supplies was a vital occupation of them, given the extra speed and mobility they had thanks to their horses (Hdt., IX 39. e.g.). Pursuing the Greeks was also an important occupation of Persian cavalry, like at Argiopium, where "...the foreigners' cavalry attacked the army [...] when they saw no enemy on the ground where the Greek array had been on the days before this, they rode ever forward and attacked the Greeks as soon as they overtook them." (Hdt., IX 57.) In open battle, "The horsemen rode at them and shot arrows and javelins among the whole Greek army to its great hurt, inasmuch as they were mounted archers and ill to close with..." (Hdt., IX 49.) Also, at IX 49., Herodotus describes how effective Persian cavalry was in guarding critical chokepoints, like the Gargaphian spring – depriving the Greeks of water in that case. 18

How were these Persian cavalrymen equipped? According to the father of Greek historiography, "...the Persians, equipped like their foot, save that some of them wore headgear of hammered bronze or iron." (Hdt., VII 84.). The referred description of the footmen is a bit more informative: "...they wore on their heads loose caps called *tiaras*, and on their bodies sleeved tunics of divers colours, with scales of iron like in appearance to the scales of fish, and breeches on their legs; for shields they had wicker bucklers, their quivers hanging beneath these; they carried short spears, long bows, and arrows of reed, and daggers

<sup>&</sup>lt;sup>16</sup> A recent and comprehensive analysis of the campaign can be found in Shepherd 2019, 137–434.

<sup>&</sup>lt;sup>17</sup> Shepherd 2019, 38.; Gaebel 2002., 53. Cf. Tulpin 2010, 164–165. who views Persian cavalry tactics more confrontative.

 $<sup>^{18}</sup>$  For a more elaborate description of Persian cavalry tactics – with primary sources included –, see Tulpin 2010, 160–162.

withal that hung from the girdle by the right thigh." (Hdt., VII 61.) Apart from the question of armour (what we will discuss later in length), we can summarise that ethnic Persian forces were equipped pretty lightly. <sup>19</sup> However, it is important to note the appearance of extra protective equipment for the horsemen (i.e. metal helmets, like the one held in Olympia, maybe part of the *spolia* from Marathon<sup>20</sup>) and the employment of close-combat weapons. The short spears mentioned could and were used in horseback fighting; even Darius himself thought it essential to excel with the spear while riding (DNb, 9,44-45.) Herodotus also wrote about longer spears used on a horse when talking about the Lydians (I 79.). Daggers and short swords – e.g. the emblematic Persian akinaka<sup>21</sup> – are also very common in documentary sources and pictorial evidence. Some depictions, like that of the Clazomenae sarcophagi (dated to c. 500-475 BC), even attest to the probable usage of *kopis*-style slashing swords by Persian cavalry as early as this period.<sup>22</sup> However, contemporary (5th-4th century BC) Greek art<sup>23</sup> usually presents Persian cavalrymen as horse archers in a "Scythian" style, or even as mythological characters, like the Amazons.<sup>24</sup>

## 2.2 Close-combat role - the cavalry charge

All in all, even though our primary textual source mainly describes Persian horsemen as a typical light cavalry force, a few significant clues could point to a more nuanced picture. The first one is that the widespread use of close-combat weapons indicates the capabilities of Xerxes' riders. There are a few descriptions of a cavalry charge. For example, during the Plataea campaign<sup>25</sup>, "[When] the Greeks not coming down into the plain, Mardonius sent against them all his horse, whose commander was Masistius (whom the Greeks call Macistius), a man much honoured among the Persians; he rode a Nesaean horse that had a golden bit and was

<sup>&</sup>lt;sup>19</sup> For a general description of the equipment of Xerxes' Persian cavalry, see Head 1992, 31–33. Cf. Tulpin–Jacobs 2021, 1167–1169.; Littauer–Crouwel 1979, 157.

<sup>&</sup>lt;sup>20</sup> Sekunda 1992, 22.; Head 1992, 30. Cf. Tulpin–Jacobs 2021, 1171.

<sup>&</sup>lt;sup>21</sup> Confer Moshtagh Khorasani 2006, 87–88. for more on Persian weapons and their sources. Also Farrokh 2021, 22–23.

<sup>&</sup>lt;sup>22</sup> Tulpin–Jacobs 2021, 1165–1166. For a possible reconstruction, see Head 1992, 34.

<sup>&</sup>lt;sup>23</sup> The Greek view on the Achaemenid Empire was, of course, heavily distorted; and our sources are fragmentary at best. The general trope of them being Eastern "barbarians" was popular. Morgan 2016, 126–129.; 138–144.

<sup>&</sup>lt;sup>24</sup> One of the more realistic Greek depiction of a – probably Saka – horse archer in Persian service is on the so-called Orvieto plate (Faina 48. DAI, Roma, neg.1935–887–89.) See Sekunda 1992. 15.

 $<sup>^{25}</sup>$  On the campaign, see Shepherd 2019, 348–410.; also, Waters 2014, 152–154. & Brosius 2020, 290–291.

at all points gaily adorned. Thereupon the horsemen rode up to the Greeks and charged them by squadrons, doing them much hurt thereby and calling them women." (Hdt., IX 20.) These are a couple of highly informative sentences. First, we should remember the name of the Persian commander, Masistius, because he is crucial for our narrative, and he will reappear shortly. But this description clearly represents a full-fledged close-combat cavalry charge, indicating that the Persians were attacking in some variation of a formation. The presence of "squadrons", instead of a charge *en masse*, shows order and practice in cavalry fighting. (Hdt., IX 22. is also mentions cavalry squadrons.)

Another telling fact is the mention of a Nesaean horse. This breed appears to be of Median origin and is considered one of the first true breeds of warhorses. In fact, even Herodotus refers to their fame at VII 40., deeming important to write down the name of the breed: "...after them, [came] ten horses of the breed called Nesaean, equipped with all splendour. The horses are called Nesaean, because there is in Media a wide plain of that name, where the great horses are bred." They were reasonably tall, with their height surpassing 16hh (approx. 162 centimetres). According to Arrian, around 334 BC, the royal stables had at least 150,000 mares on-site to breed more horses (*Anab*. VII 13, 1.).<sup>26</sup>

There is another cavalry charge Herodotus mentions, and this time, it is a crushing one: the defeat of the Miletians at Malene in 494 BC. (Hdt., VI 29.) Unfortunately, the classical author does not describe the battle in detail, but, as "for a long time, the armies battled foot to foot, till the Persian horse charged and fell upon the Greeks", we can assume that this was a flanking manoeuvre or a side attack by the cavalry reserve – still, not a minor feat against a hoplite force.

## 2.3 Personal protection - the debate over body armour

Most probably, ethnic Persian cavalry did not use shields during the Greco-Persian Wars, although some slightly later sources, like the Gadal-Yama tablet, may or may not attest to the presence of these defensive items in their inventory.<sup>27</sup> The question of whether they used body armour or not is a way more complex one.

As we have already seen, close-quarters fighting must not have been alien to the Persian cavalry of the period. In such circumstances, the defence of the body

 $<sup>^{26}</sup>$  Anderson 2016, 17. The Bactrian and Sogdian warhorses were also very famous, cf. Sidnell 2006, 86–87.

<sup>&</sup>lt;sup>27</sup> Sekunda 1992, 21–22.; 24–26. and Littauer–Crouwel 1979, 157. mention shields; Head 1992, 33–39. and Manning 2016, *passim*. questions their presence, especially through the interpretation of the Gadal-Yama contract. Cf. Anderson 2016, 16–17.; Tulpin–Jacobs 2021, 1170. and Tulpin 2010, 169–170. (On the shield-bearing Amazon-trope.)

seems obvious. However, Herodotus does not mention such equipment when writing about the cavalry's appearance (Hdt. VII 84.). In his circumlocutory way, he refers to the description of infantry at VII 62., but even there, we cannot find the explicit mention of armour (i.e. *thorax*, as "cuirass"), only saying that their garment (*khiton*) was sewn with "scales of iron like in appearance to the scales of fish". The obvious explanation of this sentence is that he refers to body armour, although a dress adorned with metal scales can be of decorative purpose only.<sup>28</sup>

Actually, there are two reasons why we might question the usage of such protective equipment: first, because the *Histories* refer to the phenomenon on multiple occasions. Like at the *locus* IX 62., where it says that the Persian "...were neither the less valorous nor the weaker [than the Spartans]; but they had no armour." At another place (IX 63.), Herodotus even attributes their defeat to this faulty: "For what chiefly wrought them harm was that they wore no armour over their raiment, and fought as it were naked against men fully armed." Pausanias also refer to unarmoured Persian soldiers massacred by armoured Greeks during the same campaign culminating at Plataea (Paus., 1, 40.).<sup>29</sup> The second possible reason for questioning the Persians' widespread use of body armour is its apparent absence from the corpus of pictorial evidence. Especially the sculptural record, with its monumental representations of Persian soldiers at Susa and Persepolis, is lacklustre from this regard.<sup>30</sup>

However, there is another *locus* of Herodotus, which evokes particular interest. We should remember the name of the Persian noblemen, commander of the cavalry, Masistius. The Greek author describes his demise as follows: "The horsemen charged by squadrons; and Masistius' horse, being at the head of the rest, was smitten in the side by an arrow, and rearing up in its pain it threw Masistius; who when he fell was straightway set upon by the Athenians. His horse they took then and there, and he himself was slain fighting, though at first they could not kill him; for the fashion of his armour was such, that he wore a purple tunic over a cuirass of golden scales that was within it; and it was all in vain that they smote at the cuirass, till someone saw what they did and stabbed him in the eye, so that he fell dead." (Hdt., IX 22.)

What can we learn from this description? The horses were probably still unarmoured or had only a protective faceplate (chamfron) for the most, as Masistius' steed was wounded with an arrow on its side. More importantly, Herodotus refers to the cavalry commander wearing a *thórax*, proper body armour made of

<sup>&</sup>lt;sup>28</sup> Shepherd 2019, 38. subscribes to this view, for example.

<sup>&</sup>lt;sup>29</sup> Charles 2012, 258–259. Cf. Tulpin 2010, 167–168.

<sup>&</sup>lt;sup>30</sup> Tulpin–Jacobs 2021, 1170–1171.

gilded scales.<sup>31</sup> We have to admit that this is not the only mention of breast protection in the *Histories*: Herodotus wrote of "cuirass-wearing troops" when talking about the thousand elite cavalrymen of Mardonius during the Plataea campaign (*thorekophoroi*, VIII 113.).<sup>32</sup> Egyptian marines were also wearing armour (VII 89.) – in general, he considers the Egyptian cuirass an expensive and goodquality item. (I 135.) When he describes the Assyrian contingent of Xerxes' army, he also mentions armour made of linen: an early form of *linothorax*, most probably. (Hdt., VII 63.)

Maybe the most exciting part of the *locus* cited above is not the fact that Masistius was wearing armour – although this is the only detailed description of a Persian horseman's armour in the whole text –, but the way how he wears it. Having some protective clothing, like a light tunic, over metal armour is never a bad idea, especially not when we live under the scorching Near Eastern sun. (It is not an accident that the popularity of the medieval surcoat worn over mail also boomed during the era of the Crusades.) In addition to decreasing the chance of overheating, such garments can also be used to signal the wearer's opulence and to show belonging, a level of uniformity before the invention of proper uniforms. We have some textual evidence to support this theory. When writing about the battle of Cunaxa in 401 BC, Xenophon describes the heavy cavalry of King Artaxerxes as wearing "white cuirasses" (An. VIII 9.). Plutarch elaborates this by saying they had white tunics over their breastplates, while the cavalry of Cyrus the Younger was wearing crimson instead (Vit. Artax. 11, 6.) Incidentally, Xenophon also describes Cyrus the Great's cavalry in his Cyropaedia as having "purple tunics", although it's unclear whether they were wearing them over or under their breastplates. (Cyr. VII 1, 2.)<sup>33</sup>

We should also note that the existence of metal armour in the Persian context is archaeologically proven. There were individual scales and small fragments riveted together, made of either iron or bronze, found in Persepolis. At least one iron piece is gilded. Other similar founds were recovered from Pasargadae.<sup>34</sup> The imagery record of such "scale cuirasses" are even more scarce, the most prominent being the so-called "Oxford Brygos cup". In contrast, the "Bassagio cup" shows Persian archers in (probably) quilted linen armour.<sup>35</sup>

So, did Persian cavalry use body armour during the Greco-Persian Wars? The answer is complicated. Evidently, protection for the chest was not unknown for the Persians. We have seen it appear both in textual sources and in the material

<sup>&</sup>lt;sup>31</sup> Charles 2012, 260. Cf. Tulpin 2010, 157.

<sup>&</sup>lt;sup>32</sup> Sekunda 1992, 7.; Charles 2012, 263–264. Cf. Tulpin 2010, 163.

<sup>33</sup> Head 1992, 21.; Sekunda 1992, 10.

<sup>&</sup>lt;sup>34</sup> Head 1992, 30. Cf. Tulpin–Jacobs 2021, 1170.

<sup>&</sup>lt;sup>35</sup> For line-drawings, see Head 1992, 23. Cf. Sekunda 1992, 19.

record. For the sake of this argument, we should accept that Herodotus' description of Masistius' death has at least some authenticity. From this, we can deduce that at least *some* Persian cavalrymen wore armour; and at least *some* of them wore it under a tunic – a custom that other historical writers attest. Who wore armour, then, and how widespread this habit could have been? Given by Herodotus' description, such a gilded corset must have been expensive, so we can assume that the wealthy – officers, noblemen, like Masistius – had a greater chance to possess one than the average soldiery. If we accept that in all historical societies, cavalry usually have a higher prestige and are wealthier than the infantrymen (as they are expected to be able to afford to have multiple horses), we might suspect that the proportion of expensive protecting gear like metal body armour was higher amongst cavalrymen than amongst the infantry. This assumption does not even consider the exact role the cavalry force is taking – those who are more expected to fight in close combat<sup>38</sup> are more probably equipped themselves with body armour.

Based on all the evidence referred to before and on the logic of this argument, it is quite possible that at least some cavalrymen did actually use body armour. The fact of wearing clothing over the cuirass would also partly explain the lack of pictorial sources presenting armoured warriors. (Not to mention the possibility that they might have had an artistic tradition not to depict soldiers in actual battlefield gear, like the Romans on their funerary monuments.) However, we should be cautious with declaring that Persian cavalry was generally using body armour during the war. Judging by the Greek reaction to Masistius' presumed invincibility – given *if* it is not an exaggeration by the author –, this could not have been a widespread occurrence. Otherwise, the Athenian hoplites would have anticipated it.

### 3. Aftermath - Evolution or a change of narrative?

If we take a closer look at the evidence – both the textual, documentary sources and the artistic representations – from the next hundred or so years of Achaemenid history following the Greco-Persian Wars, we might find the visibility of "heavy" cavalry had significantly increased. Some Eastern sources, like the Gadal-Yama tablet mentioned above and passages from the *Vendidad*, hint about

<sup>&</sup>lt;sup>36</sup> The lack of body armour Herodotus mentions might have only been an indicator how worndown and ill-supplied was the Persian army during that late stage of the war. See Charles 2012, 266–267.

 $<sup>^{37}</sup>$  Cf. Evans 1993, 297., who consider the case of Masistius an isolated example.

<sup>&</sup>lt;sup>38</sup> Of which Persian cavalry might have been reluctant in this period; see Gaebel 2002, 53–55.

cavalry armour.<sup>39</sup> Pictorial evidence, e.g. the sarcophagi of Yeniceköy and Altıkulaç, Çan in today's Turkey, dated to around 400 BC, also feature armoured cavalry presented in a type of armour not seen before.<sup>40</sup> Greek authors, Xenophon primarily, devotes a lot of time immortalising the appearance & equipment of Persian cavalry. He writes about cuirasses (*An.* I 8, 3.; VIII 6–9.; *Cyr.* VII 1, 2.; *Peri h.* 12, 1–3.) made of bronze or iron, sometimes gilded (*Cyr.* VI 1, 5.) – some of them might even be of Greek origin (Diod. Sic., XIV 22, 6.). Additional pieces of armour, protecting the rider and sometimes his steed, were also recorded by him, like the thigh protector (*parameridia*), the armguard (*kheir*) and something usually referred to as "armoured saddle" (*parapleuridia*).<sup>41</sup> (*An.* I 8, 6–9.; *Cyr.* VI 1, 5.; 4, 1.; *Peri h.* 12, 4–11.) Greek helmets, especially the Boiotian type, was widespread. (At least by the early-mid 4th century BC, see *Peri h.* 12, 3–4.)<sup>42</sup>

The offensive accessories available to Persian cavalry also seemed to be more varied during the later Achaemenid period. The palton, a mid-length spear that could be used both in close combat and as a throwing weapon, usually made of cornel wood, of which the horsemen carried two was prevalent. (Xen., Hell. III 4, 13–14.; Cyr. VI 2, 16.; VII 1, 2. He also advises the Greek to use it: Peri h. 12, 12.) The kopis, the sabre-like slashing shortsword, also called makhaira by Xenophon, had become widespread, not just in the written record (e.g. Cyr. VII 1, 13.; An. I 8, 3.; 8, 7.; Peri h. 12, 11.) but also on pictorial representations (like the mentioned "Bassagio cup" or the krater from Basel, BS 480). 43 Armoured Persian riders clashing with each other in close quarters started to be featured in different types of written sources, like the works of Ctesias. Warlords and, sometimes, even the King of Kings fought in this style. (Pers. 20, 9.; 11.)<sup>44</sup> Battle tactics also changed, with new cavalry formations, like the column, 12-man wide but very deep, used frequently and with significant effect, for example, against the Spartan cavalry at Dascylium in 396 BC (Xen., Hell. III 4, 13-14.). Apparently, the Persians improved their capabilities in combined-arms operations and sometimes deployed their close combat cavalry mixed with the famous "scythed" chariots. (*Hell*. IV 1, 17–19.)

All of this suggests a logical evolution of Persian cavalry tactics and equipment, with more and more emphasis on the close-quarters capabilities of these

<sup>&</sup>lt;sup>39</sup> Anderson 2016, 16–17.; Sekunda 1992, 21–23.; Head 1992, 33–39. Cf. Tulpin 2010, 123–139. on sources from the former Achaemenid Empire.

<sup>&</sup>lt;sup>40</sup> See Tulpin–Jacobs 2021, 1170.; Head 1992, 35–38. (with reconstructed line-drawings of the now lost stele.)

<sup>&</sup>lt;sup>41</sup> Head 1992, 34–37. Cf. Jacobs–Tulpin 2021, 1170–1171.; Littauer–Crouwel 1979, 157.

<sup>&</sup>lt;sup>42</sup> On the specific types and the appearance of Persian military equipment: Testi 2013, 29–37.

<sup>&</sup>lt;sup>43</sup> Sekunda 1992, 15.; 19.; Head 1992, 23.; 25.

<sup>&</sup>lt;sup>44</sup> Tulpin 2011, 463–467. For a detailed analysis of Ctesias' description of the battle of Cunaxa: *Ibid.*, 467–479.

riders. Suppose we also include the descriptions of Alexander's battles by Arrian, Curtius Rufus and Diodorus. In that case, we are getting an impression that by the mid-4th century BC, proper heavy cavalry was the preeminent arm of Darius III's army. 45 However, we should also keep in mind that our sources, at best, are very fragmentary; and heavily biased at worst. The track record of Achaemenid cavalry is mostly mediocre throughout the whole period, and there could be other reasons why it was not deployed or used to its full potential other than their capabilities, like geography (in the case of Greece) for example. There is a possibility that this presumed evolution of Persian cavalry has more to do with a change of narrative than with an actual change in tactics & equipment. 46

## 4. Persian Cavalry at Marathon

Maybe the most glaring example of the narrative bias against cavalry in Herodotus' account is his treatment of the Battle of Marathon in 490 BC. Before concluding this research, we should take a closer look at this case, which might help us get a better glimpse of how the Greeks perceived the threat of Persian cavalry!

We have no information on what the Persian cavalry was doing during the battle, although Herodotus makes evident that there was a cavalry contingent of the expeditionary force (e.g. Hdt., VI 58.; 95.)<sup>47</sup> In a sense, by his account, Persian horsemen were indeed "invisible", at least during this critical battle. However, how much this opinion reflects what the Greeks had been thinking about them in the time of the Greco-Persian Wars? Is it an authentic representation of their views or the bias of one particular historian?

There is one much-debated & controversial piece of evidence regarding Persian cavalry – or, more precisely, its absence – at the battle: the famous *khoris hippeis* entry of Suda. Most scholars accept that its origins are at least dubious and, its authenticity is very questionable. Some consider it credible to an extent, others not. In his remarkable monograph of the battle, Peter Krentz goes on to say that this "Suda passage is best put aside." While I accept that the cited entry is highly problematic, I still argue that it is worth being mentioned here, as it

<sup>&</sup>lt;sup>45</sup> Anderson 2016, 21–27.; Sidnell 2006, 92–126. Cf. Sekunda 1992, 28–30. For the troop numbers: Head 1992, 62–67.)

<sup>&</sup>lt;sup>46</sup> Tulpin 2010, 176–178.; 180–182.

<sup>&</sup>lt;sup>47</sup> Evans 1993, 293.

<sup>&</sup>lt;sup>48</sup> γ 444; SOL: http://www.cs.uky.edu/~raphael/sol/sol-entries/chi/444

<sup>&</sup>lt;sup>49</sup> See Hammond 1988, 501.; Rhodes 2013, 4.

<sup>&</sup>lt;sup>50</sup> Krentz 2010, 142.

might provide us with some helpful information in a more indirect way. Let me elaborate on this!

- Other written sources (e.g. Diod. Sic., XI 3, 9.; Paus., 1, 32. 3.) and pictorial evidence, like the famous sarcophagus of Brescia, <sup>51</sup> hints at the fact that the Persians had a probably not too numerous cavalry contingent at Marathon. <sup>52</sup>
- Cornelius Nepos' biography of Miltiades the only source explicitly mentioning that Persian cavalry took part in the battle indicates that Greek commanders indeed considered Persian (close combat) equestrians a real threat: they ordered some kind of stockade or obstacle to be built against them, protecting the flanks. (Nep. *Milt.*, 5, 3.)<sup>53</sup>
- The origin of the Suda entry may be a proverb based on Ionian propaganda<sup>54</sup>, but at its heart, there lies the same idea that Nepos, and in other places Herodotus' work, reveal: that the Greeks were afraid of the Persian cavalry charge. In other words, they saw this Persian "proto-heavy cavalry" as a real threat, regardless of how much combat value it might have in reality or how effectively it could take on the phalanx.

The "invisibility" of (close combat) Persian cavalry is therefore significantly influenced by the extent to which some authors, such as Herodotus in this case, considered it essential to "make them visible". It is almost certain that the Persian cavalry did fight at Marathon. They could not have been able to alter the outcome of the battle – otherwise, presumably, Herodotus could not have ignored their role either. However, the fact that the narrative in some cases is so profoundly silent about this role can be sharply contrasted with the circumstantial evidence that suggests that in the Greek public consciousness of the time, Persian cavalrymen were perceived as formidable enemies to be wary of – their behaviour at Marathon being a good example, among many others.

#### 5. Conclusion

After dissecting the available sources on our chosen topic, it is still tricky to definitively answer our starting questions. We have seen that most descriptions of cavalry action from the Greco-Persian Wars – primarily given by Herodotus –

<sup>&</sup>lt;sup>51</sup> Evans 1993, 293–294.; Krentz 2010, 141.

<sup>&</sup>lt;sup>52</sup> James A. S. Evans' convincing argument takes their number around 200. See Evans 1993. 299.

<sup>&</sup>lt;sup>53</sup> Hammond 1988, 507–508.; Evans 1993, 294–295.

<sup>&</sup>lt;sup>54</sup> Evans 1993, 295–297.

are not exceptionally detailed nor informative. Other sources are scarce and incomplete. With all of these taken into account, though, we can still try to sum up what we gathered and provide some acceptable answers.

Close combat was not unknown to Persian cavalry during the conflict, even if they tried to avoid it whenever they could. Cavalrymen had weaponry to use in hand to hand fighting and also had some protective equipment. In battle, they preferred flanking actions and primarily relied on their superior speed and mobility. Still, cavalry charges were also ordered if needed and if the properties of the battlefield allowed it to happen. Cavalry appeared as an independent military arm, but it seems cavalry roles have not differentiated yet, or at least the differences had not been significant enough to be recorded in the sources. So, can we call the riders of Xerxes heavy cavalry? They at least partly fit the criteria from above, with having specific equipment and cultivating close combat tactics (squadrons, charge); they also understood the shock value of a well-executed attack. However, there is no sign of any particular heavy cavalry formations in the army, nor the concept of a distinct military unit for that purpose. Add to this the fact that some critical components of heavy cavalry warfare, like the use of proper saddles (instead of a saddle cloth), horseshoes and stirrups, are either absent from the sources or had not yet been invented.<sup>55</sup>

Arguably, Persian cavalry, its tradition and development, have their place in the evolution of the heavily armoured cavalrymen of the famous *kataphraktos*-type so popular during the later centuries. Some horsemen of the Late Achaemenid era, especially from the army of Darius III, can even be called "proto-cataphracts" both because of their equipment and tactics. With all of this acknowledged, talking about heavy cavalry during the Early Achaemenid period, especially during the Greco-Persian Wars, is still debatable. The sources available do not present enough data to classify any types of cavalry fighting in Greece; in fact, they paint a picture of a general cavalry force with a limited range of capabilities – which was probably further diminished because of the unsuitable terrain.

Horsemen fought in close combat occasionally, but proper heavy cavalry is indeed almost totally "invisible" during this time, as they are not recorded in the sources. Whether this is because there had not yet been such a category or because the chroniclers' apparent lack of interest and opportunity to write about them, though, is a question for another day.

<sup>&</sup>lt;sup>55</sup> Littauer–Crouwel 1979, 156.; Sidnell 2006, 20–21.

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