

NIKOLA STEFANOVSKI
PhD in Archaeology
stefanovski.a.nikola@gmail.com

UDC: 355.1:355.4(381)“638/652”

WARFARE IN ARCHAIC MACEDONIA: FIGHTING STYLES ROOTED IN HISTORICAL AND CULTURAL CONTEXTS

Abstract. – Martial styles and systems are much more than a way of fighting. They are embedded in a cultural and historical context that makes their understanding a complex topic. It is especially important to avoid contemporary biases of looking at warfare as a field where there is a constant pursuit of optimum efficacy. War is waged in a specific historical and cultural context, meaning changes and transformation of tactics are much more than an intellectual endeavour of finding the optimal way of fighting or a search for superior equipment.

This paper will outline some traps of technological determinism and offer a way forward. It will be argued that there is no overarching understanding of how warfare is conducted, and a tactic is put in place. While it is possible to draw basic conclusions about how equipment is being used, further interpretations regarding the people using the equipment, and the cultural expressions of that process, requires a better understanding of a spatio-temporal context. Such an analysis will be conducted on warfare in Macedonia during the Late Iron Age and Archaic Period. Material data will be confronted with historical context and an argument regarding possible ways warfare was conducted during those periods will be put forward.

Key words. – Warfare, tactics, weaponry, technological determinism, warriorhood.

The primary focus in much of the research related to warrior equipment pertains to its categorization, manufacture, and distribution. These investigations serve as the basis for any study that seeks to understand the significance of weapons and their users within a society, as well as their contributions to ongoing processes within communities. Broadly speaking, studies of the instruments of warfare are inherently concerned with weaponry and the conduct of warfare, often adopting an evolutionary perspective when examining shifts in arms production over time. Typological studies generally assume that newer weapons have an inherent superiority, replacing older and less effective iterations. They also emphasise the impact of new weapon types on

changes in warrior practices, attributing technological advances to corresponding cultural changes. It is important to note, however, that this is not the only approach, as a number of influential works have addressed this issue for some time now, adopting a more nuanced stance that incorporates additional facets of weapon use into their analysis.¹

While technological determinism is not an established approach in itself, it is a prominent element in many studies in the field. Echeverria Rey identifies the ways in which technological determinism operates at three different levels:

1. At the “battlefield level”, there exists a direct correlation drawn between specific types of weaponry and particular tactics, with the diffusion of weapons perceived as a natural selection process favouring equipment that leads to triumph on the battlefield. In this context, technological advancements equate to progress.

2. The “political level” places military matters at the forefront of ancient political agendas, underscoring the pivotal role that weapons play in determining the outcomes of conflicts.

3. The “structural level” signifies the socio-cultural transformations witnessed within societies following the occurrence of the two preceding phases. In this context, war and warrior equipment serve as catalysts for historical evolution.²

Consequently, examinations of ancient warfare offer a glimpse into the past, revealing a scenario where warriors engage in deliberate experimentation with their equipment and enact modifications to achieve optimal effectiveness.³ These studies often project contemporary concepts of progress from the present onto historical contexts, even though such perspectives were seldom present in the historical texts of that era. The majority of these historical accounts tend to glorify the past and perceive the present as a period of decline, with only infrequent considerations of the future.⁴ Additionally, it is crucial to investigate the timing and emergence of a more widespread practice of active learning from the past.

Moreover, the outcome of a war, whether in victory or defeat, encompasses a complexity that extends far beyond the choice of weaponry employed. This complexity also applies to the adoption of novel armaments. Martial systems are deeply ingrained within the fabric of a culture, and their transformation is never solely driven by the introduction of a new weapon; rather, it is the interplay of a multitude of

¹ Harding 2007; 2011; Molloy 2016; 2018.

² Echeverria Rey 2010, 22.

³ Echeverria Rey 2010, 52.

⁴ Echeverria Rey 2010, 27–28.

factors that ultimately secure success on the battlefield. Factors such as training, the active participation of the population, motivation, economic circumstances, political stability, and public health all wield a substantial influence on the development of martial styles within a particular region. While weaponry undeniably plays a crucial role, it is merely one component intricately interwoven with all these other influential factors.

Nonetheless, evading battlefield determinism remains a difficult challenge, particularly when confronted with prehistoric periods where textual evidence regarding warrior practices is conspicuously absent. An illustrative case can be found in the Naue II sword. This weapon introduced novel characteristics that gradually began to surface in other sword designs, as evidenced by the integration of these features into Mycenaean combat blades, as demonstrated by Jung and Mehofer.⁵ These new attributes not only altered the weapon's handling but also conferred distinct advantages that, under suitable circumstances, could change the outcome of combat.⁶ This leads to a fundamental question: How can we interpret the steady progression ending in the preference of one weapon type over others? One perspective on interpretation can be seen from the work of Jung and Mehofer:

“These swords (Naue II), with their remarkable slashing power which changed the whole style of Aegean and Levantine combat, must have arrived via the Adriatic Sea from the central Mediterranean (as opposed to a frequently discussed Balkan origin).”⁷

*“Clearly, it is a matter of military necessity to equip one's army with new types of weapons if the neighbours possess more deadly weapons than oneself. Long slashing swords were unknown in the eastern Mediterranean prior to their introduction from Italy. This makes it highly likely that the Mycenaean armies, who seem to have been the first to adopt the new sword type, were precisely **under the pressure of western warriors equipped with such weapons**. Once they had integrated some contingents of those modern fighters, they were able to participate in the new combat technology of Italian and Central European origin.”⁸*

The diffusion of this new sword type, which significantly expanded the combat capabilities of its users, seems straightforward. It progressively supplanted other sword forms until it became the sole double-edged sword in circulation during the Iron Age in the Balkan

⁵ Jung and Mehofer 2013; Mehofer and Jung 2017.

⁶ The role of these new weapons in the changes in warfare and society are well researched: Jung and Mehofer 2013; Mehofer and Jung 2017; Kristiansen 2002; Molloy 2010; 2016.

⁷ Jung and Mehofer 2009, 133.

⁸ Jung and Mehofer 2013, 185.

Peninsula. However, it has been contended that a perspective solely rooted in technology (i.e., the introduction of a new weapon) gives a disproportionate degree of agency upon the object itself.⁹ Jung and Mehofer themselves have acknowledged the need to grasp the broader historical processes at play.¹⁰ Therefore, a slight modification in the approach is needed to comprehend the various contributing factors influencing the spread of weapon types and their associated practices.

“I can certainly agree with Jung and Mehoefer that the addition of the Naue II sword extended the range of choices within local system, and its impact on the changing martial arts milieu appears to have been contributory rather than causal.”¹¹

Although seemingly a minor adjustment, treating weaponry as a contributory rather than a causal factor in changes within martial systems represents a pivotal step in avoiding the pitfalls of battlefield determinism. This shift in perspective allows for a more comprehensive understanding of a complex process marked by a multitude of variables. Swordsmen employing these weapons still needed to be assimilated into pre-existing tactics, albeit with suitable modifications. The alteration extended beyond just battle tactics, as the new role of these swordsmen had to be harmoniously integrated into an already established cultural and political landscape. Therefore, the transformation was not solely due to the weapons themselves; rather, the weapons, in conjunction with other factors, found their place within a new context, and their local evolution continued to be influenced by a myriad of factors. In different circumstances, this same weapon and tactic might not have been adopted at all.

Rather than expectations of a pursuit for optimal efficiency and progress, grounded in arguments regarding the superiority of weapons, it may prove advantageous to shift the discourse towards the concept of a “good fit.” In this perspective, technologies are embraced because they address extant issues and harmonize with the existing structures, encompassing economic, resource-based, and cultural traits. Martial tactics are introduced and inevitably undergo transformation and adaptation when certain prerequisites for their sustainability are met, including aspects such as population, equipment, and terrain, among others. Subsequent changes in weaponry materialize when novel challenges emerge and are resolved through the utilization of available resources, thereby giving rise to more suitable forms that address existing issues. This does not necessarily imply that older forms and features of weaponry are inherently inferior, as they can often resurface to accommodate new needs. A prominent illustration of this phenomenon is the

⁹ Molloy 2016, 349.

¹⁰ Mehofer and Jung 2017, 397.

¹¹ Molloy 2016, 349.

recurring resurgence, albeit within distinct cultural contexts, of the forward-bent and curved single-edged sword (e.g., makhaira/kopis, yatagan, falcata, kampilan).

This also does not mean that instances of deliberate learning from the past in ancient societies never took place; however, it is important not to overestimate such occurrences and assume them as the sole driving force behind every material change. Furthermore, when dealing with prehistoric societies, it is vital to recognize the inherent limitations in our comprehension of these transformations. Notably, conceptions of progress can be expected to evolve over time, and rigid, all-encompassing theories of the past will invariably impede our efforts to gain insights into localized developments.

A well-known and familiar instance of conscious efforts to reshape martial styles, particularly pertinent to the region under scrutiny, can be found in the military reforms enacted by Phillip II and Alexander III in Classical Macedonia. The Macedonians occupied a unique position that allowed them to draw knowledge and insights from both the Greeks and the northern peoples. Furthermore, they possessed their own military heritage, characterized by cavalry and light infantry. The outcome was a synthesis of strategies from both the southern and northern Balkan regions.

Nonetheless, this endeavour was relatively short-lived, both in terms of military achievements and the sustained capacity for learning. The successor states failed to carry forward these reforms and even discarded certain logistical aspects instituted by Philip II and Alexander III. Furthermore, the Macedonian phalanx did not emerge as the predominant tactical formation, as Greek city-states and neighbouring regions continued to adhere to their distinct methods of warfare. Lastly, Aristotle's optimism regarding human advancement was, to varying degrees, forsaken by his own students, who perpetuated the belief in a simpler past as a time of contentment.¹²

These aspects related to historical learning practices and our reflection on how our own perceptions of progress influence our analysis should constitute an integral component of our future efforts. As Echeverria Rey aptly articulates:

*“Deterministic arguments, therefore, are a rational attempt to compose a logical and simple history, the search for a mechanical explanation to irrational experiences.”*¹³

Avoiding the pitfall of technological determinism is especially critical when dealing with societies about whom there is limited written documentation, and when texts do exist, they are often authored by

¹² Echeverria Rey 2010.

¹³ Echeverria Rey 2010, 56.

complete outsiders. This presents a twofold risk of accepting some of their biases into our own understanding.

Considering all the aforementioned considerations, it is crucial to recognize that the tools available to us are by no means restricted. Additionally, this does not imply that a universal understanding of how to manipulate an object is impossible to attain. The cautionary tale of the “battlefield level” of determinism is more pertinent to tactics and martial style rather than the actual use of an object. Take, for example, the aspis, which is handled with one hand by making use of the leather strap on the shield’s interior. It is logical to assume that a shield is wielded by the hand corresponding to the leading leg. Considering the predominance of right-handedness in most populations, it is reasonable to assume that the shield is held with the left hand, leaving the right hand free for the chosen assault weapon. However, this universal handling definition should not automatically lead to assumptions about tactical formations. The discovery of multiple aspises in a given area does not inherently signify the adoption of the hoplite phalanx formation. It is important to note that variants of “shield wall” tactics were likely employed by other groups as well, and a large shield such as the aspis could have been incorporated into such a formation even in an environment not adhering to a strict phalanx structure.

The perplexities surrounding potential cultural practices related to shields are not the only source of confusion; translations and interpretations of texts also play a significant role. An illustrative example of such misinterpretations would be the following:

*“When Perdikkas and Brasidas invaded Lynkos they found the forces of Arrhabaeus waiting for them. In the ensuing battle, won by the Macedonians, the Lynkestians employed hoplites which the Macedonians proper did not have—at least, none are specifically referred to by Thucydides..... There were apparently villages in Lynkos but no towns, and given that hoplites tend to be associated with poleis, it is highly surprising that there should have been Lynkestian hoplites; nevertheless, we have to accept this.”*¹⁴

What Zahrnt alludes to in this context is an excerpt from Thucydides¹⁵, where he recounts the armed conflict between Arrhabaeus of Lynceus and Perdikkas of Argead Macedonia, who received assistance from Brasidas, the Spartan. Thucydides notes that the Lyncestians fielded hoplites, and the text references villages in Lynceus. Zahrnt finds this surprising since hoplites are typically associated with the poleis, which exemplifies a persistent instance of technological determinism that is

¹⁴ Zahrnt 2006, 595.

¹⁵ Thuc. 4.124.2

present in research on ancient Greek warfare, allowing certain misconceptions ample room to distort our understanding of the subject.

The mere presence of an aspis does not automatically imply the existence of a hoplite phalanx, and the presence of heavily armed warriors likewise does not necessarily allow an interpretation of the society and its power or economic dynamics (e.g., hoplite = citizen = urban development). When examining specific regional developments, it is essential to be open to observing numerous diverse variations and scenarios where the same equipment is applied in different manners by individuals who organize themselves in distinct ways. While the practical use of these objects can be deduced through material analysis, unravelling the cultural context behind the use of these weapons is considerably more intricate.

Striking the right balance between avoiding determinism and drawing logical conclusions based on careful observation is an imperative aspect of archaeological work. This will be guiding principle in this paper, by scrutinizing the ways weaponry was used. The goal is to present an analysis of the plausible tactics and combat styles employed by the inhabitants of the covered region.

Weapon Handling

A crucial avenue of research revolves around comprehending the diverse methods of handling an object. This line of inquiry is extensively pursued within the domain of experimental archaeology, sometimes referred to as combat archaeology.¹⁶ It is a form of a phenomenological study, inquiring into how an object is used, the range of actions it enables, the requisite training for proficiency, and it provides insights into its durability, all while offering clues regarding its production. The focus here is on reviewing some of these analyses and assessing how the weapons discovered in the region align with the arguments put forth in this field.

The current interest will revolve around the Naue II, xiphos, and kopis swords, as well as the utilization of spears, javelins, and the bow and arrow. Furthermore, helmets possess distinct attributes arising from the trade-off between visibility and protection. This aspect warrants particular attention since it can help highlight why certain types of helmets were favoured in some regions but not in others.¹⁷

¹⁶ Molloy 2008.

¹⁷ The weaponry and the broader spatio-temporal context it existed in is analysed in greater detail in the PhD dissertation by the author, which is where the themes of this paper originate from (Stefanovski 2023).

Double edged blade

The studies related to Naue II swords considered here primarily focused on the bronze versions of this weapon, conducted by Molloy and Kristiansen.¹⁸ It is essential to note that bronze possesses distinct properties compared to its iron counterpart, affecting how the weapon reacts to strikes. For this discussion, we will solely consider how the grip and the blade's shape influence the types of attacks that can be executed.

The hilt of the Naue II sword is designed for single-handed use, allowing for a robust grip known as the “hammer grip”. This grip involves the hand's fingers resting firmly between the pommel and the hilt's shoulders.¹⁹ Other methods of holding this weapon, such as the “saber”, “thumb”, and “pommel” grip, also align with what is known about the handling of bronze swords.²⁰ The hilts of the bronze versions of the sword can be categorized into two types: full-hilted and flange-hilted. However, iron swords of this type are invariably of the latter category. The organic material fitted along the flanges served to dampen the impact when strikes were executed.

The leaf-shaped design of the blade, which was more pronounced in certain bronze swords, was not as prominent a feature in the iron versions. The curvature of a leaf-shaped blade facilitated deeper cuts when the blade was moved along the body part being targeted. This curvature also altered the weight distribution, which is particularly noticeable in shorter swords. These weapons were intended for close-quarters combat, allowing for stabbing, close-range strikes, and pulling motions when cutting. Iron Naue II swords, generally exceeding 60 cm in length, appear to have been employed differently. However, their effectiveness in close quarters should not be underestimated. In fact, the presence of a hammer grip, a feature shared with some earlier bronze swords and later iron ones, is associated with effectiveness in close combat situations.²¹

The Naue II sword is versatile and capable of executing all three fundamental types of sword attacks: hacking, slashing, and stabbing. However, it excels primarily as a slashing and stabbing weapon, particularly with its longer variations. While it can certainly be used for hacking or chopping, employing chopping motions with this sword can lead to considerable wear and tear. Identifying use and wear patterns is challenging through basic inspection in a museum setting. Corrosion and subsequent conservation efforts further complicate the ability to make detailed observations. Nevertheless, on some of the

¹⁸ Molloy 2010 and Kristiansen 2002.

¹⁹ Kristiansen 2002, 320.

²⁰ Hermann et al. 2020, 1074.

²¹ Molloy 2010, 419.

better-preserved swords, a range of notches and dents is visible, serving as evidence that these weapons were indeed utilized in combat scenarios before their placement in burial contexts.

Regarding the martial arts into which these swords were integrated, it is reasonable to assume that they represent a continuation of earlier Bronze Age combat styles that were themselves entrenched in an already complex system.²² In line with the earlier emphasis on avoiding determinism, it is essential not to expect a singular system that was universally employed throughout Europe and wherever these swords are encountered. Furthermore, apart from spatial variations, there is also a temporal aspect of diversity attributable to the centuries-long circulation of the Naue II sword.

The transition from bronze to iron entailed numerous adaptations to the regionally and temporally specific fighting styles that incorporated the Naue II sword. However, the detailed understanding of how these techniques were executed and the exact movements involved remains a challenging task. Archaeologists can, at best, replicate fundamental movements and strikes by relying on a methodology that considers wear and tear patterns, along with knowledge of various weapon-based martial systems used as a basis for comparison. This approach has been employed in previous research on Bronze Age swords.²³

A few conclusive observations can be made regarding the Naue II sword. It likely served as a side-arm, akin to the later xiphos, but there is a possibility it was also used in duels. In fact, it might be one of the last swords in the Balkans at the time that did not have a sole role as a side-arm. This can be attributed to its length, which made it suitable for use in looser formations where one-on-one combat was feasible. This aspect is also linked to certain observations made about its bronze predecessors, which were believed to have been associated with such activities. The potential use of this sword on horseback is also conceivable, especially with specimens longer than 75 cm. Moreover, shields were likely a well-established component of the Balkan people's armament even before the aspis appeared. However, due to the use of organic materials in their production, it is difficult to determine which specific type was most prevalent and how they were paired with various types of weapons, including the Naue II sword.

The xiphos is considered a successor to the Naue II,²⁴ not only in its shape but also in its prevalence in the archaeological record. Its use was likely similar, with a tendency to favour the hammer grip and the utilization of its shorter length in close combat. Notable features such as the pronounced flame-shaped blade, which allowed for deeper

²² Molloy 2010; Hermann et al. 2020.

²³ Kristiansen 2002; Molloy 2010; 2012; Hermann et al. 2020.

²⁴ Rover 2020, 12.

cuts when slashing along soft tissue, and the cross guard that protected the hand, can be expected to have been taken full advantage of. The cross guard is particularly useful in densely packed formations and close combat scenarios where locking and repeated strikes were common. However, it is important not to view the guard as a driving force for changes in combat techniques, nor as a direct response to battlefield needs. Rather, this was a mutual process, and what we find in the archaeological record represents, in a way, an echo of this transformation.

The average length of the xiphos is approximately 50 cm, with smaller samples measuring just below 40 cm and the largest ones approaching 60 cm. It displays a relatively high degree of standardization, especially when compared to earlier sword types, with the majority falling around the half-meter mark, including the handle. As mentioned earlier, the xiphos primarily served as a side-arm for combatants wielding spears and shields. This is supported by artistic depictions and some of its features, such as its length and form, which make it well-suited for close quarters combat in tighter formations. Its primary use was for cutting and stabbing, although it could be used for hacking, albeit less effectively due to the presence of a pommel. Some depictions show an overhead strike as a form of attack employed by some warriors, and such an attack could indeed be executed, especially in looser formations.

A primary advantage of a cutting and stabbing sword like the xiphos, when used in conjunction with a shield, is that the guard can remain relatively unchanged when executing cutting and stabbing strikes. The overhead strike poses more of a challenge, unless it is delivered in the form of a crosscut (when wielding the sword in the right hand, the attack should drop from above the left shoulder, moving to the right).

Single edged swords

Several types of curved, single-edged swords exist in the spatio-temporal context studied here. Each with distinct features pertaining to their blades and hilts. Consequently, it is reasonable to expect variations in their handling. The most pronounced differences are anticipated between the sica and the kopis.²⁵ The former is seldom discovered with its hilt, which was predominantly made of organic materials and typically lacked a tang. However, exceptions have been noted in specific instances around Ohrid Lake, with Kuci I Zi being particularly noteworthy. In contrast, the kopis typically possesses either a tang or a solid metal hilt. An important exception comes from Krivi Dol, where a variety of sicas and two kopides were found, all of which were mis-

²⁵ The nomenclature varies from study to study. More on the typology of these weapons in other works from the author: Stefanovski 2023.

sing their hilts. In cases where an organic handle was utilized, it was typically attached with one or two rivets. Given that these swords were predominantly used for hacking, this method of usage likely posed challenges for their wielders, as the powerful chops would lead to rapid deterioration of the hilt's integrity.

The issue of hilt integrity primarily affects the *sicas*; however, it is important to note that they were not the same chopping powerhouses as the *kopides*, given that they lack the same blade thickness. *Sicas* were more commonly used for slashing and finishing off opponents. These combat-blades are distributed in regions described by scholars as inhabited by warrior groups that favoured skirmishing over frontal attacks. Consequently, their equipment was likely designed to be light and suitable for hit-and-run tactics. The *sica* appears to be an excellent choice for such a fighting style. It also serves effectively as a sidearm in other scenarios, although it is reasonable to assume that its stabbing capabilities were limited to a reverse grip. The handle and the tip of the blade are not aligned in a manner conducive to stabbing with a conventional grip. However, using a reverse grip allows for overhead stabbing motions (e.g., attacking the shoulder and throat area from above).

In contrast, the *kopis* is not a weapon that can be used with a reverse grip, although it is not necessary to use one, as all attacks can be executed effectively with an orthodox grip. While stabbing and slashing may not be its primary strengths, they are still feasible. As previously mentioned, hacking was the primary intention behind the design of this weapon. The design of the handle played a pivotal role in enabling powerful chops. Its protrusion near the middle allowed the wielder to leverage the thicker part of the blade, where the point of percussion is located. The hilt features a curved pommel that secures the lower part of the hand, while the guard protects the thumb and index finger, ensuring a strong grip even during heavy attacks. This feature might also prove beneficial when wielding the weapon on horseback, allowing the wielder to swing more broadly while maintaining a secure grip.

When considering combat on horseback, for which this sword was recommended by Xenophon²⁶, longer blades are typically more effective when attacking combatants, especially those on foot. The average length of the *kopis* is approximately 45 cm, but some longer examples like the *Zhdanets* and *Prodromoi* swords can reach lengths of 50 cm or more.²⁷ This does not necessarily imply that shorter *kopides* cannot be used on horseback, as we must also consider factors such as the size of the horse and envision scenarios that diverge from our traditional understanding of mounted warfare.

²⁶ Xen. *Horsemanship*. 12.11.

²⁷ Stefanovski 2023.

When using the kopis in combination with a shield, it imposes certain limitations on the types of attacks that can be effectively performed. The crosscut or hack is a commonly depicted attack in pottery, and it appears to be the only hacking motion that can be executed without compromising one's guard.²⁸ Additionally, the sword can be employed to deflect both spears and swords, followed by an immediate counterattack in the form of a crosscut or hack, or a stab directed toward the opponent's head. Weapons like the kopis, the falcata, and other similar single-edged weapons from contemporary or near-past fighting systems are often used to target an opponent's hands. This underscores the importance of hand protection, as seen in some of these weapons with a protective strip extending from the guard down to the curved pommel. Other attacks could also be directed toward the forearms.

Spears

The primary weapon of the Iron Age and Archaic Macedonia was part of the standard equipment for most warriors. While the handling of this weapon in terms of holding it and attacking with it is relatively straightforward, there are several points that need discussion. One of these points pertains to the distinction between thrusting and throwing spears. Scholars have noted that warriors employed both types simultaneously, carried more than one type of spear, or used the same type for both thrusting and throwing actions.²⁹ Even in closely packed formations, it is expected that projectile weapons played a significant role.³⁰ However, certain groups favoured a more skirmish-based approach, while others leaned toward a more frontal and heavy assault strategy. It is exceedingly difficult to determine, based on archaeological evidence alone, which approach was implemented in specific regions. This is primarily due to the state of preservation of the weapons, especially the sockets, and the fact that most dimensions fall within a range that could accommodate either type of use. This might offer further evidence of the versatility of these spears, which were employed for both thrusting and throwing attacks.

Some spears from the Archaic period stand out due to their distinctive form and size, which indicate their use as pikes or lances. Notably, certain spears exhibit elongated leaves, while others possess exceptionally broad leaves and sockets. These characteristics clearly suggest their function as pikes or lances. For example, a spear from Gorna Porta features a socket that is 3.5 cm wide and is the heaviest

²⁸ Rover 2020.

²⁹ Angelovski and Kuzman 2015.

³⁰ Van Wees 2004.

among those found at the site.³¹ These features obviously disqualify it as a throwing spear.

In terms of pikes, it appears that the Archaic period in Macedonia marked the emergence of longer shafts with extended spearheads, which became increasingly prevalent. Early signs of the development of larger spears, or pikes, can be noted in the late 5th century. The extensive use of pikes was likely attributed to hybrid combatants who employed a fighting style and tactics drawing from multiple traditions. This included the influence of northern, lightly armed warriors who used peltas and the shield wall tactics of southern hoplites, which were transformed into a spear wall. It is possible that the longer spearheads were not an entirely new concept in the time of Philip II. Instead, his reforms may have been inspired by existing systems that he adapted and incorporated into his military strategies.

Protective gear

The preservation status of shields is generally quite low, and in most cases, detection is only possible for samples with the most decorative elements. Shields from the Early, Full, and Late Iron Age are not typically recorded in the available data, most likely due to the organic materials from which they were constructed. However, a few Argive shields from the Archaic Period have been discovered. The understanding of how these shields were used and their significance has been extensively discussed and is primarily driven by the analysis of text and iconography, as seen in several works.³²

Argive shields from the Archaic Period were typically held in the left, or inactive arm, oriented forward to protect the body from the chin to the shin. These shields featured a leather strap on the inside, which allowed the user to secure it around the forearm while maintaining a stable grip with their hand. These shields were effective for deflecting spears, stopping arrows and sling bullets, and withstanding attacks with a sword. They were versatile and suitable for various tactical formations, including the hoplite phalanx, as well as other shield-wall tactics.

Bronze greaves were used to protect the shins, wherever they could be obtained. These metal shin-guards were designed to cover the area below the knee down to the ankles. They were individually crafted for specific legs, considering the user's unique dimensions and leg shape. This can be observed from the various shapes of greaves found in tombs, although universal shapes are also discovered in other burials.³³

³¹ Angelovski and Kuzman 2015.

³² By scholars such as Snodgrass (1999), Van Wees (2004), and Matthew (2009).

³³ Vasic 1982.

The thin bronze layer snapped onto the leg, and a strap was used to securely fasten it. Greaves were considered valuable pieces of armor as they protected a vulnerable part of the body that was easily accessible, especially in more static formations.

As mentioned earlier, body armour made of organic materials was of course not detected in the archaeological record, but it is likely that warriors of that time used such armour. The linothorax or a similar variety, would have been lighter and provided more mobility. It can also be expected that metal cuirasses were used, but these may have been intentionally excluded from burial assemblages, as there was a practice of offering them in sanctuaries or other religious contexts.

Helmets in this era were designed with a straightforward purpose, facilitated by the inclusion of organic inside lining that made wearing the headgear more comfortable and provided some cushioning for protection against blows. The Corinthian helmet was a trade-off between the visual field and protection. It covered the front of the head with only some openings for the eyes and a narrow downward strip for the mouth. This design made it an excellent choice for protection but a poor one for visibility. However, its use in tight formations was advantageous, as it offered protection to the head from unseen attacks coming from various directions.

The helmet that was predominantly used in Macedonia, often referred to as the “Illyrian” helmet, did not suffer from the visibility issues of the Corinthian helmet. While it may have caused some hearing impairment, as is the case with most helmets, it was generally practical. The rectangular face opening provided a good field of vision, and the paragnithidae (cheek guards) offered adequate protection for the face. It is also likely that the “Illyrian helmet” allowed for an open field of view while on horseback, which would have been beneficial since the populations in Macedonia are often described as horsemen. This open field of view on horseback is why Xenophon recommends the later Boeotian helmet for horse-riding³⁴, and it is reasonable to assume that the “Illyrian” helmet provided a similar advantage.

The Chalcidian helmet, in terms of the protection it offered and the impairment of the senses, is similar to the “Illyrian” helmet. It became popular across the Southern Balkans, including Macedonia, especially in the Late Classical and Hellenistic Period. An important aspect of these helmets is the crest that adorned the top. In addition to serving as decoration, the crest also had a practical purpose – it offered a level of intimidation and served as a heraldic device for displaying one’s status.³⁵

³⁴ Xen. *Horsemanship*. 12.3.

³⁵ Van Wees 2004, 53.

Historical context

The mention of Asteropaios and Pyraechmes in the *Iliad*, two individuals who came from the hills of Paeonia and the area around Axios, is one of the oldest warfare references relevant to the region. Asteropaios, equipped with a long sword and two spears, is also connected to Pelagonia as the son of the eponymous Pelagon.³⁶ The description of the weapons and the details about the location of Paeonia are not further elaborated in the text. This might be because, to the audience of the time, these details were not necessary as Paeonia was already a familiar area dating back to the 8th century, and it is likely that its proximity and possible interactions with the Hellenes were established matters.

The mention of Asteropaios and Pyraechmes, along with their weapons, is important because it corresponds with the archaeological evidence in the region, both from the time of the supposed Trojan War and the 8th century when the *Iliad* was composed. The mention of long swords and spears aligns with the predominant types of weapons found in the area during those periods.

It is worth remembering that the *Iliad*, although set in a time supposedly around the 13th century, was composed by a poet in the 8th century who likely incorporated his knowledge of the contemporary world into the epic. The mention of these weapons in the context of the *Iliad* reflects the actual archaeological record and suggests that long swords and spears were indeed prevalent in the region during the Late Bronze Age and Early Iron Age.

This observation is significant because it supports the idea that Paeonians and other warriors in the region were indeed lightly armed skirmishers, a trend that is consistent in later texts as well. So, the mention of these Paeonians and their weaponry helps provide a more accurate picture of the arms and armour used by warriors in the region during those periods and reinforces the idea that they were primarily equipped with long swords and spears.

The descriptions of Thracian peltasts and Agrianians as effective javelin-throwing skirmishers align with the historical accounts of these warriors as skilled in guerilla warfare and familiar with mountainous terrain (as will be discussed below). Their reputation as formidable skirmishers was well-known in the ancient world, and they were often employed as mercenaries by various Greek polities and later by the Macedonian armies.

Herodotus provides further insights into the Paeonians and their southern neighbours, the Macedonians, in his writings. He mentions the siege of Perinthos by the Paeonians, where they managed to enter the

³⁶ Hom. Il. 21.136.

city and treat the inhabitants ruthlessly. However, Herodotus does not offer specific details on how they broke the city's defences, only noting the involvement of infantry, cavalry, and fighting dogs on both sides.³⁷ The use of war dogs is also mentioned in other contexts. Herodotus mentions Indian hounds in the Persian army,³⁸ and Aelian provides accounts of dogs fighting alongside Greek forces.³⁹

These references to the use of dogs of war suggest that they played a role in ancient warfare, including in the regions of Thrace and Macedonia. These historical accounts offer valuable insights into the martial practices and tactics of the peoples in the region, shedding light on their methods of warfare and the diversity of their military assets, including skirmishers, cavalry, and even war dogs.

Herodotus' accounts of the Paeonians suggest that they held significant influence in the region, with control over a territory situated between the Axios and Strymon rivers. The texts imply the existence of various Paeonian groups, some of whom were subjugated by the Persians, while others, such as the Agrianians, resisted their advances. Following the Persian retreat, the Paeonians likely lost control over these territories and were potentially forced back towards the northern regions.⁴⁰

These historical developments underscore the complex geopolitical landscape of the region during that period, characterized by the presence of diverse Paeonian factions and their interactions with other powers, including the Persians.

Macedonian armies are not extensively detailed in historical accounts, and it appears that they were primarily assigned to guard duty in various Persian military operations.⁴¹ One of the few documented instance of Macedonians participating in the Greco-Persian Wars was during the Battle of Plataea, where they formed one segment of the battle line alongside Paeonians, Thracians (likely lightly-armoured troops), and other European subjects of the Persian king, including Greeks who had supported the Persians.⁴² The specific commander of these units is not mentioned in the historical records and was probably not Alexander himself.⁴³

These accounts provide insights into the involvement of Macedonian forces within the larger context of the Greco-Persian Wars and highlight the diversity of troops and their roles in these conflicts.

³⁷ Hdt. 5.1.

³⁸ Hdt. 3.187.

³⁹ Aelian, *On the Nature of Animals* 7.38.

⁴⁰ Sarakinski 2013, 77-80.

⁴¹ Anson 2010, 53.

⁴² Hdt. 9.32.

⁴³ Sarakinski 2013: 281, 350.

Thucydides' detailed account of the Peloponnesian War provides additional information about the Macedonians and their neighbouring regions, along with some passing comments about the threats faced by the Paeonians during the war against Sitalces of the Odrysian Kingdom. Thucydides' narrative places a greater emphasis on the dynamics of the conflicts, including the movements of armies and military strategies. Two notable events in his account are Sitalces' invasion of Paeonia and Macedonia, as well as Brasidas' campaign in the northern regions, where he allied with Perdiccas of Macedonia against Arrhabaeus of Lyncestis. These events, along with some descriptions of Thracians and Illyrians, provide valuable insights into the historical context and military activities of the region during the Peloponnesian War.

The invasion of Sitalces involved not only Thracians but also some Paeonians, including the Agrianians and Laeaeans. It is noteworthy that these different groups, often described as having distinct collective identities, found themselves in the same conflict. However, Thucydides does not provide a detailed description of their armament during this campaign.

It is interesting to note that neighbouring Thracians, specifically the Dii, are referred to as “machairophoroi” in Thucydides' account.⁴⁴ This term implies the use of large knives or machaira-type swords. While the archaeological evidence from the Upper Vardar region does not directly connect it to the Dii, who were typically located further east, the prevalence of curved blades in the Upper Vardar region suggests that such weapons were popular among the warriors there. It is possible that the “machairophoroi” description might also apply to the warriors living in the Upper Vardar region, even if they were not the Dii themselves.

During the invasion of Sitalces, the Macedonians' response was somewhat chaotic, and they struggled to contend with the large Thracian host. However, they managed to put up resistance, relying heavily on horsemen who were armed with a thorax, as mentioned by Thucydides.⁴⁵ The effectiveness of these horsemen can be attributed to their armament and the disorganization of the Thracian forces, making them easy targets for Perdiccas' cavalry.

The Macedonian cavalry was reinforced by warriors from Upper Macedonia, who were previously described as owing allegiance to the Argeads of Lower Macedonia but also having their own kings.⁴⁶ Macedonians, along with Thessalians, were often praised for their skill as horsemen. Although it is challenging to establish this from an archaeological perspective, numismatic evidence seems to confirm the preva-

⁴⁴ Thuc. 2.96.

⁴⁵ Thuc. 2.100.

⁴⁶ Thuc. 2.99.2.

lence of horsemen in Makedonia, as they are frequently depicted on coins.⁴⁷ These horsemen on coins are often shown holding two spears, a consistent trend seen in Archaic burials in Macedonia as well.⁴⁸

In the context of Brasidas' campaign, Perdiccas and his army are mentioned again. This campaign aimed to address a conflict between one of the Upper Macedonian houses that did not accept Perdiccas' authority. Initially, Brasidas attempted to resolve the dispute diplomatically, much to Perdiccas' dismay, but it eventually escalated into a war. Once more, it was the Macedonian horsemen who played a role in Perdiccas' army, along with hoplites from some of his Greek subjects who lived among the Macedonians, and Brasidas' Spartan forces.⁴⁹

On the opposing side, the Lyncestians also fielded their own cavalry and "hoplites", which can be better understood as heavily armed infantry. This provides insights into the types of troops involved in this conflict in the region.

Both armies initially took positions on opposite hills, and the battle began with an engagement of cavalry forces, followed by the entry of Lyncestian infantry. Perdiccas and Brasidas then brought their infantry into the fight.⁵⁰ Arrhabaeus' army was eventually forced to flee, resulting in their defeat and retreat to a high ground where they remained inactive. The text does not provide further details about the battle, such as whether it was a clash of tightly packed formations.

After the battle, the Illyrians, who had initially been hired by Perdiccas but switched sides, joined Arrhabaeus. This prompted the Macedonians to make the decision to withdraw, leaving Brasidas and his warriors alone in a foreign land. They attempted a tactical retreat to Perdiccas' territory. The Illyrians, who likely came from a neighbouring region, were described as armed with spears which they brandished high in the air, employing a terrifying war cry, at least from the perspective of the inexperienced, as relayed by Brasidas to his warriors.

Your enemies are barbarians, and you in your inexperience fear them. But you ought to know, from your late conflicts with the Makedonian portion of them—and any estimate which I can form, or account of them which I receive from others, would lead me to infer—that they will not prove so very formidable. An enemy often has weak points which wear the appearance of strength; and these, when their nature is explained, encourage rather than frighten their opponents. As, on the other hand, where an army has a real advantage, the adver-

⁴⁷ Sheldarov, Lilchikj 1994.

⁴⁸ Stefanovski 2023.

⁴⁹ Thuc. 4.124.

⁵⁰ Thuc. 4.124.3.

*sary who is the most ignorant is also the most foolhardy. The Illyrians, to those who have no experience of them, do indeed at first sight present a threatening aspect. The spectacle of their numbers is terrible, their cries are intolerable, and the brandishing of their spears in the air has a menacing effect. But in action they are not the men they look, if their opponents will only stand their ground; for they have no regular order, and therefore are not ashamed of leaving any post in which they are hard pressed; to fly and to advance being alike honourable, no imputation can be thrown on their courage. When every man is his own master in battle he will readily find a decent excuse for saving himself.*⁵¹

Brasidas' speech conveys the notion of a disorganized barbarian infantry, drawing a connection between the barbarous Lyncestian Macedonians, who were not formidable opponents, and the new barbarian threat he expected to be the same – the Illyrians. The comment regarding disorganized infantry, where every man fights for himself, primarily applies to the Illyrians in this instance, although it implies a more general characterization of all Barbarians, including Arrhabaeus' Lyncestians.

After being driven out of Lyncus, Brasidas successfully employed a tactical withdrawal strategy that allowed him to endure waves of attacks by his opponents and retreat to Perdiccas' territory. His warriors used both tight and loose formations during the battle, forming tight defensive stances and lunging out in short bursts to repel groups of attackers.

This showcases the versatility of hoplite tactics, extending beyond the typical tightly formed shield wall. It also highlights the vulnerability of hoplites when defending against lighter opponents in hilly terrain.⁵²

The passage provides valuable insights into the significant impact of posturing and presentation on opponents during battles. Actions such as brandishing spears, war cries, and appearing as larger groups than they might be all intended to terrify the enemy. Brasidas recognized the psychological warfare aspect of pre-battle tactics and had to address this issue before the fighting began. It is likely that pre-battle practices, including war cries and the clanging of numerous spears, were a deliberate strategy employed by warriors to gain a psychological edge over their foes. Effective speeches and careful planning, as demonstrated in this account, could serve as the antidote to such psychological tactics, assuming the events transpired as described.⁵³

⁵¹ Thuc. 4.126.

⁵² Echeveria Rey 2010, 40.

⁵³ It is also very likely that Brasidas' speech, at least partially, serves as tool to convey Thucydides' opinion on warfare and this particular battle.

The excerpt implies a distinct approach to warfare between Perdiccas' Macedonians and Arrhabaeus' Lyncestians. Perdiccas' forces seem to have been primarily cavalry-oriented, whereas the Lyncestians adopted a more balanced approach, deploying heavy infantry as well. However, it is important to note that Perdiccas may have relied on hoplites from his Hellenic subjects, which does not necessarily imply an absolute lack of Macedonian infantry. The campaign described highlights the complex political landscape of the region, featuring multiple communities with differing aspirations. These complexities often led to conflicts and created intricate webs of loyalties and power dynamics that were continually negotiated—sometimes through the use of violence.

Derdas, who was a ruler in the Upper Macedonian region, also had a complex relationship with the Macedonian Argead kingdom. At times, he changed his loyalties and even allied himself with the enemies of the Argeads.⁵⁴ For instance, he participated in military operations around Olynthos as part of the Peloponnesian forces led by Teleutias.⁵⁵ On another occasion, he fought alongside the Argead king Amyntas under the command of Agesipolis of Sparta.⁵⁶

Derdas' warriors were described as skilled horsemen who were capable of undertaking complex operations during the fighting near Olynthos.⁵⁷ This demonstrates the multifaceted relationships and power dynamics within the Upper Macedonian region, with local rulers like Derdas manoeuvring between various allegiances and alliances.

Unfortunately, not much textual information can be found about the warfare capabilities on other polities existing in the area, such as: the Bottians, other Paeonian groups, and even the neighbouring Illyrians.

Fighting styles

Following the discussion on technological determinism above, it should be stressed again that interpreting the material remains of war in order to ascertain what tactics were used in the Iron Age is a slippery slope. This can be done to a certain degree, where the local terrain coupled with the armament can provide some clues as to what the preferred way of combat could be; however, it is far from a detailed overview of martial styles and tactics. Although information regarding the handling of an object can be obtained by experimental archaeology, there is still the danger of looking for the optimal way of using a weapon, while past users might not have found it or simply ignored opti-

⁵⁴ Thuc. 1.57.

⁵⁵ Xen. *Hell.* 5.2.38.

⁵⁶ Xen. *Hell.* 5.3.9.

⁵⁷ Xen. *Hell.* 5.2.38–41; 5.3.1–2.

mum performance by adhering to their own set of rules of engagement rooted in cultural practices.

It is important to note that our contemporary perspectives on what constitutes the correct way to use objects and achieve optimal results might diverge significantly from the viewpoints of people in the past. Throughout history, there have been numerous instances where modern scholars have recognized the advantages of particular practices over others. This recognition is made possible by our broader historical understanding and the benefits of hindsight, which were not available to those living during the events in question.

While training and the ideals of warriorhood likely played a substantial role in the lives of people in the past, we must be cognizant of the often sharp distinction between these ideals and the actual practices followed during those times.⁵⁸ This dichotomy highlights the importance of considering the historical context and the limitations that individuals in the past may have faced in their own perceptions and implementations of various strategies and tactics.

However, certain armies that embraced extensive weapon training, advanced tactical formations, and sophisticated logistics, like the Macedonian and Roman forces during the Classical and Hellenistic periods, gained a significant advantage over their counterparts. It is crucial to note that their innovative methods were often not readily accepted as the standard. Change in military tactics and strategies was generally gradual, and even when it occurred, it often fell short of defeating these advanced armies. Additionally, the effectiveness of a tactical formation could vary significantly depending on the specific adversaries an army faced.

The historical texts from the Archaic Period are invaluable resources for gaining insights into ancient warfare, particularly when they describe events preceding the authors' lifetimes. However, the scarcity of these texts and their limitations in providing cultural context for the events they describe can hinder our ability to draw comprehensive conclusions about ancient warfare. Consequently, we must rely on a more fundamental approach to understanding fighting styles and tactics during the Balkan Iron Age and Archaic Period.

Some of the essential aspects to consider when examining these fighting styles and tactics include identifying preferences for particular forms of engagement, such as skirmishing, frontal attacks, and shield wall tactics. Additionally, it is essential to determine whether there was a preference for mobility, speed, and flexibility versus tight formations and defensive stances. Evaluating the use of cavalry, the extent of missile utilization, and the types of weapons used are also

⁵⁸ Van Wees 1994, 46.

crucial aspects of this analysis. These fundamental elements help us form a clearer picture of how warfare was conducted in this region during that historical period, despite the limitations of historical texts.⁵⁹

This paper reviews weaponry and data regarding warfare from four regions of Upper Vardar, Lower Vardar, and Pelagonia-Ohrid and Haliacmon-Axios. While similarities in terms of fighting styles and tactics are quite present, there are some distinctions. These differences arise from the specific societal developments and the varied terrains in these regions. It is reasonable to anticipate some degree of variation even within these micro-regions, particularly in cases where different polities may have coexisted, further underscoring the complexities of understanding the historical context of ancient warfare.⁶⁰

An example of such complexity can be found in the case of Pelagonia and the area around Lake Ohrid. Historically, the Pelagonia plain was home to two potential polities: the Lyncestians and the Pelagonians.⁶¹ However, the precise nature of their relationship, whether marked by animosity or cooperation, remains unknown. Eventually, both regions became part of the Argead Macedonian kingdom during the 4th century BC.

In contrast, the Ohrid area is believed to have been inhabited by the Dessaretians or Encheleans. These two communities had a different historical context compared to the Lyncestians and Pelagonians. The Dessaretians and Encheleans were often integrated into the broader “Illyrian” political landscape, implying that they were under the influence of kings who were described as having Illyrian origins. These Illyrian centres of power were located to the north and northwest of Ohrid.⁶² The varying historical affiliations of these regions further highlight the intricate web of political dynamics in ancient times.

The level of shared military practices and fighting styles among these neighbouring polities remains uncertain. While it is evident from the database of weaponry in this study that they used similar equipment, this should not automatically lead to the assumption of matching fighting styles. Cultural practices and regional differences in how warfare was approached need to be considered.

Nonetheless, the alignment of certain cultural practices, such as funerary arrangements, along with the similarities in weapon typology,

⁵⁹ One significant gap in the dataset is the absence of information regarding the cultural practices associated with warfare. This includes a lack of accounts detailing how these ancient communities perceived war and the loss of life, how they managed grief and aggression towards others, and the economic context within which warrior practices were situated.

⁶⁰ The proposed regional division is strictly taxonomical and was utilized in a broader study of weaponry by the author: Stefanovski 2023.

⁶¹ Hatzopoulos 2020, 47.

⁶² Proeva 2006, 561; 2018; Delev 2018.

suggests the possibility of shared praxis in warfare. Additionally, historical texts describing extensive interactions between these regions further support the idea that some commonalities in their military approaches could have existed.

In the context of the Archaic Period, the Upper Vardar region appears to continue the combat-blade-oriented style of the Late Iron Age. Conversely, Lower Vardar seems to adopt some aspects of the fighting styles found in its southern Haliacmon-Axios and western Pelagonia-Ohrid regional counterparts. What unites these regions is the absence of heavy body armour, particularly for torso protection. This absence is reflected both in the archaeological record and in known descriptions, except for cavalry. There is a mention in one of the excerpts from Thucydides regarding a thorax, which was sported by Perdikkas' cavalry. However, metal thoraxes have not been found in the area, and it is reasonable to assume that linen or leather variants, like the later linothorax, were used in earlier periods, even though they are not easily traceable.

Another significant distinction to consider is the temporal aspect. These regions would likely have undergone several changes during the extensive period spanning from the 8th to the 5th centuries BC. Furthermore, it is reasonable to expect divergences among them. Unfortunately, due to the current state of research and the scarcity of historical sources that cover this entire timeframe, we are limited to a broad understanding of how developments occurred. The conclusions drawn from such a diachronic overview are as follows.

Cavalry played a role in all these regions, with a potentially more prominent presence in the comparative region of Haliacmon-Axios. The other three regions likely also utilized cavalry, with the greatest similarity between Pelagonia-Ohrid and Haliacmon-Axios. In the Lower and in Upper Vardar region, we may have encountered lightly armed mounted skirmishers, similar to the Thracian and later Paeonian cavalry that served in the armies of Philip and Alexander of Macedon.

Infantry formed the backbone of the armies in all these regions, with lightly armed troops being the predominant force. A comparison between the Lower and in Upper Vardar region suggests that the former may have leaned more toward spears, while the latter incorporated more machairphoroi troops. The pelte shield appears to have been a popular choice, as it is often associated with the Thracians and the modified use of this shield by early Macedonian armies in the Classical Period. In many ways, the early Macedonian phalangites resembled peltasts armed with pikes. In the case of the Lyncestians in the Pelagonia-Ohrid region, there is a possibility that these warriors used round shields and helmets, which aligns with the available archaeological data.

The Lyncestians in the Pelagonia-Ohrid region were likely armed with an Illyrian helmet, an aspis (shield), a xiphos (short sword), and one or two spears. Their formation may have resembled a shield wall, which is inferred from the passage describing the battle between Brasidas, Perdiccas, and Arrhabaius.

Helmets are predominantly found in the Pelagonia-Ohrid and Haliacmon-Axios regions, with some examples in the Lower Vardar region, and only one suspected helmet from the Upper Vardar region. The presence of helmets in these regions could suggest a preference for heavier armament, with potentially more prevalence in the southern regions. However, further data and research are needed to draw more definitive conclusions.

The tactics employed by the warriors in these regions likely encompassed a variety of offensive and defensive stances. Thucydides' account of northern Barbarians being mostly unorganized raises questions about the validity of such claims, considering the ancient Greek authors pronounced Hellenic bias in their judgment of other cultural modes based on their own perspectives.⁶³ It is possible that what was perceived as disorganized by Hellenic standards could have been a looser formation with more variety and movement in northern armies. The reality may have fallen somewhere between the tight organization of southern Hellenic counterparts and looser formations in the north.

The cavalry units in these regions likely utilized a combination of shock attacks, targeting weak points in enemy infantry lines, and direct engagement with other cavalry units. During the Late Archaic Period, these cavalry units appeared to be more organized than their infantry counterparts. Xenophon's account of Teleutias' fascination with the Elimean cavalry units, organized similarly to the companion cavalry of the later Macedonian kingdom, provides some insight into this.⁶⁴ While the level of organization in neighbouring polities bordering the Elimeans cannot be definitively determined, it is reasonable to assume that compact bands of warriors, such as Derdas' 400 horsemen, had similarities to Perdiccas' Macedonian cavalry.

Skirmishing, which may have been more common in the Lower and Upper Vardar regions, was a characteristic of lightly armed infantrymen and was particularly effective in hilly terrain. It is not surprising that warriors from these regions, as well as neighbouring Rhodope regions, introduced this specialization to the armies of the Balkan Peninsula during Classical antiquity. There is also no reason to believe that these traditions did not exist in the Archaic Period. Guerrilla warfare, often used in this context, is not conducive to frontal assaults. It relies on mobility, precision strikes against weak points, and well-timed

⁶³ Thuc. 4.126.

⁶⁴ Xen. *Hell.* 5.2.40.

attacks, often taking advantage of ambush tactics. This is how the Agrianians, for example, managed to ambush parts of the large Persian army in the 5th century, or how Thracian warriors could withdraw to safety in mountainous regions.⁶⁵

In conclusion, the fighting styles of the regions studied here were notably diverse, reflecting the political, demographic, and geographical heterogeneity of the area. Warriors employed a wide array of weaponry and tactics, often influencing and being influenced by their neighbouring regions. Martial practices were adopted and adapted when deemed suitable, and weapons were used within the new cultural contexts. Understanding the historical development of these martial styles during the Iron Age and Archaic Period is challenging due to the limited available data but becomes clearer with the wealth of information from the Hellenistic Period. It is apparent that the patterns identifiable in the earlier periods persist into the later one, indicating a relatively uninterrupted development of fighting styles.

CLASSICAL SOURCES:

- Aelian. *On the Nature of Animals*. English translation by A. F. Scholfield. Loeb Classical Library. 1958.
- Herodotus. *Histories*. English translation by A. D. Godley. Cambridge. Harvard University Press. 1920.
- Homer. *The Iliad*. English translation by A.T. Murray, Vol. 1 and 2. Cambridge, MA., Harvard University Press; London, William Heinemann, Ltd. 1924.
- Thucydides. *The Peloponnesian War*. English translation By Richard Crawley. London, J. M. Dent; New York, E. P. Dutton. 1910.
- Xenophon. *Hellenica*. Xenophon in Seven - Vol. 1 and 2, English translation by Carleton L. Brownson. Harvard University Press, Cambridge, MA; William Heinemann, Ltd., London. vol. 1918; vol. 2: 1921.
- Xenophon. *Horsemanship*, “Xenophon in Seven Volumes, 7”. E. C. Marchant, G. W. Bowersock, tr. Constitution of the Athenians. Harvard University Press, Cambridge, MA; William Heinemann, Ltd., London. 1925.

⁶⁵ Hdt. 8.116

BIBLIOGRAPHY:

- Angelovski, Boško. “Оружје во Античкото Кралство Македонија.” Институт за Старословенска култура, Прилеп, 2018.
- Angelovski, Boško, and Kuzman Pasko. “Копја за бодeње и фрлање и осврт на наодите од Самоиловата Тврдина - Охрид и Исар – Марвинци.” *Гласник год. 59, Бр. 1-2*, Институт за Национална Историја, Скопје, 2015, pp. 7-14.
- Anson, E. M. “The Introduction of the Sarisa in Macedonian Warfare.” *Ancient Society*, vol. 40, 2010, pp. 51-68.
- Echeveria-Rey, Fernando. “Weapons, Technological Determinism, and Ancient Warfare.” In *New Perspectives on Ancient Warfare*, edited by G. Fagan and M. Trundle, Boston, 2010, pp. 21-56.
- Hatzopoulos, M. B. “Ancient Macedonia.” *Trends in Classics – Key Perspectives on Classical Research*, vol. 1, De Gruyter, 2020.
- Harding, Anthony. “Warriors and Weapons in Bronze Age Europe.” Archaeolingua Foundation, Budapest, 2007.
- Harding, Anthony. “Prestige Swords in the Bronze Age.” In *Exotica in the Prehistoric Mediterranean*, edited by A. Vianelo, Oxbow Books, 2011, pp. 194-198.
- Hermann, R., Dolfini, A., Crellin R. J., Wang Q, and Uckelmann M. “Bronze Age Swordsmanship: New Insights from Experiments and Wear Analysis.” *Journal of Archaeological Method and Theory*, vol. 27, 2020, pp. 1040-1083.
- Jung, Reinhardt and Mehofer, Mathias. “A Sword of Naue II Type from Ugarit and the Historical Significance of Italian-type Weaponry in the Eastern Mediterranean.” *Aegean Archaeology*, vol. 8, 2009, pp. 111-136.
- Jung, Reinhardt and Mehofer, Mathias. “Mycenaean Greece and Bronze Age Italy: Cooperation, Trade, and War.” *Archäologisches Korrespondenzblatt Jahrgang 43*, Mainz, 2013, pp. 175-193.
- Kristiansen, Kristian. “The Tale of the Sword – Swords and Swordfighters.” *Oxford Journal of Archaeology*, vol. 21, 2002, pp. 319-332.
- Matthew, C. “When Push Comes to Shove: What Was the ‘Othismos’ of Hoplite Combat?” *Historia: Zeitschrift für Alte Geschichte*, vol. 58, no. 4, 2009, pp. 395-415.
- Mehofer, Mathias and Jung, Reinhardt. “Weapons and Metal: Interregional Contacts between Italy and the Eastern Mediterranean during the Late Bronze Age.” In *Contributions to the Chronology of the Eastern Mediterranean*, edited by M. Bietak and H. Hunger, 2017, pp. 389-400.
- Molloy, Barry. “Martial Arts and Materiality: A Combat Archaeology Perspective on Aegean Swords of the Fifteenth and Fourteenth Centuries BC.” *World Archaeology*, vol. 40, no. 1, 2008, pp. 116-134.
- Molloy, Barry. “Swords and Swordsmanship in the Aegean Bronze Age.” *American Journal of Archaeology*, vol. 114, no. 3, 2010, pp. 403-428.
- Molloy, Barry. “Martial Minoans? War as a Social Process, Practice, and Event in Bronze Age Crete.” *The Annual of the British School at Athens*, vol. 107, 2012, pp. 87-142.
- Molloy, Barry. “Nought May Endure but Mutability: Eclectic Encounters and Material Change in the 13th to 11th Centuries BC Aegean.” In *Of Odysseys and Oddities: Scales and Modes of Interaction between Prehistoric Aegean Societies and Their Neighbors*, edited by B. Molloy, Oxbow Books, 2016, pp. 343-383.
- Molloy, Barry. “Bronze Weaponry and Cultural Mobility in Late Bronze Age Southeast Europe.” In *Warfare in Bronze Age Society*, edited by C. Horn and K. Kristiansen, Cambridge University Press, 2018, pp. 81-100.

- Proeva, Nade. "The Engelenes/Encheleis and the Golden Mask from the Trebenište Culture." In *Homage to Milutin Garashanin*, edited by N. Tasic and C. Grozdanov, Belgrade, 2006, pp. 561-570.
- Proeva, Nade. "The Region of Ohrid and Struga in the 6th-5th c. BC: Area, Population, Ethnicity." In *100 Years of Trebenishte*, edited by P. Ardjanliev et al., Sofia, 2018, pp. 153-157.
- Rover, T.O. "The Combat Archaeology of the Fifth-Century BC Kopis: Hoplite Swordsman-ship in the Archaic and Classical Periods." *International Journal of Military History and Historiography*, vol. 40, 2020, pp. 7-49.
- Sarakinski, Vojislav. *PersoMacedonica: Македонија и Персија пред Александар*. Скопје: Универзитет Св. Кирил и Методиј, 2013.
- Sheldarov, N., and Lilchikj, V. "Кралевите на Античка Македонија и Нивните Монети во Република Македонија." *Македонска цивилизација, книга 1*, Скопје, 1994.
- Snodgrass, Anthony. *Arms and Armour of the Greeks*. London: 1999 (First edition, 1967).
- Stefanovski, Nikola. *Representation of warriorhood: A study of Iron Age and Archaic Period burials from Macedonia*. PhD Dissertation: Martin-Luther-University of Halle-Witten-berg, 2023.
- Van Wees, Hans. *Greek Warfare: Myths and Realities*. London, 2004.
- Vasić, Rastko. "Prilog proučavanju grčkog oružja u Jugoslaviji." *Godišnjak, knjiga 20*, 1982, pp. 5-24.
- Zahrnt, Michael. "Macedonia and Thrace in Thucydides." In *Brill Companion to Thucydi-des*, edited by A. Rengakos and A. Tsakmakis, Boston, 2006, pp. 589-614.

