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ΕΤΑΙΡΕΙΑΣ ΔΙΕΡΕΥΝΗΣΗΣ
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Η ΣΤΡΑΤΙΩΤΙΚΗ ΤΕΧΝΟΛΟΓΙΑ ΣΤΑ ΤΕΛΗ ΤΗΣ ΕΠΟΧΗΣ ΤΟΥ ΧΑΛΚΟΥ ΣΤΟ ΑΙΓΑΙΟ: ΟΙ ΤΑΦΕΣ ΠΟΛΕΜΙΣΤΩΝ ΤΗΣ ΒΟΡΕΙΟΔΥΤΙΚΗΣ ΠΕΛΟΠΟΝΝΗΣΟΥ ΚΑΙ Η ΣΧΕΣΗ ΤΟΥΣ ΜΕ ΤΗΝ ΠΤΩΣΗ ΤΩΝ ΜΥΚΗΝΑΪΚΩΝ ΑΝΑΚΤΟΡΩΝ

Θεόδωρος Γ. Γιαννόπουλος
Ανοικτό Πανεπιστήμιο Κύπρου, Επίκουρος Καθηγητής,
Email: theodoros.giannopoulos@ouc.ac.cy

Περίληψη. Η παρούσα εργασία, η οποία εντάσσεται στη Θεματική Ενότητα «Στρατιωτική Τεχνολογία», έχει διπλό στόχο. Καταρχάς, θα επιχειρήσει να αναδείξει την πολύπλευρη σημασία που έχουν για τη μελέτη της ύστερης ελληνικής/αιγαιακής προϊστορίας ορισμένες καινοτομίες στη στρατιωτική τεχνολογία του τέλους της Μυκηναϊκής Εποχής (του ύστερου 13ου και 12ου αιώνα π.Χ.). Κατά την περίοδο αυτή εμφανίζονται στην ηπειρωτική Ελλάδα και στο Αιγαίο νέοι τύποι όπλων με κεντροευρωπαϊκή, ιταλική και βαλκανική προέλευση. Μεταξύ αυτών, κεντρική θέση κατέχουν τα ξίφη νύξης και κοπής Naue II, τα οποία βαθμιαία αντικαθιστούν τα παλαιότερα μυκηναϊκά ξίφη, επιφέροντας ουσιώδεις αλλαγές στον τρόπο μάχης. Η εμφάνιση της νέας στρατιωτικής τεχνολογίας στο Αιγαίο έχει συνδεθεί στην έρευνα με την περίοδο της μεγάλης κρίσης που έπληξε την ανατολική Μεσόγειο περί το 1200 π.Χ., οδηγώντας στην κατάρρευση τα μυκηναϊκά ανάκτορα, καθώς και άλλα βασίλεια της εποχής. Υπό αυτό το πρίσμα, έχει υποστηριχθεί η διασύνδεση των νέου τύπου όπλων με τους Λαούς της Θαλάσσης, καθώς και με ξένους μισθοφόρους στην υπηρεσία των μυκηναϊκών ανακτόρων. Εντούτοις, η μεγαλύτερη συγκέντρωση των συγκεκριμένων όπλων στο Αιγαίο δεν απαντά στις επικράτειες των ανακτόρων, αλλά στις λεγόμενες ταφές πολεμιστών του 12ου αιώνα π.Χ. στη βορειοδυτική Πελοπόννησο και ιδίως στην Αχαΐα. Η παρούσα συμβολή επιχειρεί να εξηγήσει αυτό το φαινόμενο διατυπώνοντας μια νέα ιστορική ερμηνεία των εν λόγω ταφών πολεμιστών που αφορά τη σχέση τους με την πτώση των μυκηναϊκών ανακτόρων. Ο δεύτερος στόχος της παρούσας εργασίας είναι να υποστηρίξει ότι οι υπό εξέταση τεχνολογικές εκφάνσεις του παρελθόντος ενέχουν και μια επιπλέον θεωρητική διάσταση που συνδέεται τόσο με την ιστορική-αρχαιολογική μελέτη τους όσο και με τη σύγχρονη πρόσληψή τους. Καταδεικνύουν, δηλαδή, ότι ενίοτε οι τεχνολογικές καινοτομίες συνδέονται με διαδικασίες ευρείας διαπολιτισμικής αλληλεπίδρασης μεταξύ πολλών διαφορετικών πολιτισμών. Σε αυτές τις περιπτώσεις, η συνεισφορά μιας συγκεκριμένης πολιτισμικής ομάδας, π.χ. του αιγαιακού ή ελληνικού πολιτισμού, μπορεί να συνίσταται όχι τόσο στην αρχική επινόηση όσο στη γόνιμη οικειοποίηση και περαιτέρω ανάπτυξη των τεχνολογικών καινοτομιών.

Λέξεις Κλειδιά: Ξίφη Naue II, Μυκηναϊκά ανάκτορα, Μυκηναϊκή Αχαΐα, ταφές πολεμιστών, Λαοί της Θάλασσης.

MILITARY TECHNOLOGY AT THE END OF THE AEGEAN BRONZE AGE: THE WARRIOR BURIALS OF THE NORTH-WESTERN PELOPONNESE AND THEIR RELATION TO THE FALL OF THE MYCENAEAN PALACES

Theodoros G. Giannopoulos
Open University of Cyprus, Assistant Professor,
Email: theodoros.giannopoulos@ouc.ac.cy

Abstract. The present article, which falls into the topic “Military Technology”, has a twofold objective: firstly, it aims to highlight some innovations in military technology that occur at the end of the Mycenaean period (in the late 13th and the 12th century BC) and their great importance for late Greek/Aegean prehistory. This period witnessed the introduction in the Greek mainland and the Aegean of new weapon types with central European, Italian and Balkan origins. Of central importance among them are the cut-and-thrust Naue II swords that gradually replaced the earlier Mycenaean swords and brought about significant changes in combat style. The emergence of new military technology in the Aegean coincides with the great crisis that affected the eastern Mediterranean around 1200 BC and resulted in the collapse of the Mycenaean palaces and other contemporary kingdoms. In this context, the new weapon types have been linked to the Sea Peoples and to foreign mercenaries at the service of the Mycenaean palaces. Nevertheless, the greatest concentration of these weapons in the Aegean does not occur in the palatial territories but in the warrior burials of the 12th century BC north-western Peloponnese and especially in Achaia. In an attempt to explain this phenomenon, the present contribution proposes a new historical interpretation of these warrior burials that links them to the fall of the Mycenaean palaces. The second aim of the present paper is to suggest that the past technological aspects under discussion have another theoretical implication related to both their historical-archaeological examination and their modern reception. They demonstrate that in some cases technological innovations are related to processes of widespread cross-cultural interaction involving many cultural areas. In these cases the contribution of specific cultural groups, e.g. of the Aegean or Greek culture, to certain technological novelties may lie in their fruitful appropriation and further development rather than in their original invention.

Keywords: Naue II swords, Mycenaean palaces, Mycenaean Achaia, warrior burials, Sea Peoples.

1 Introduction

The present article has a twofold objective: firstly, it aims to introduce to a diverse community of scholars interested in ancient technology an important horizon of innovation in the military technology of the Aegean Bronze Age. More specifically, at the end of the Late Bronze Age or Mycenaean period (c. 1600–1060 BC), especially in the late 13th and the 12th century BC, new offensive and defensive weapon types of central European, Italian and Balkan origins were gradually incorporated into the Aegean weaponry tradition. These metal artefacts are associated with important historical processes and questions related both to the collapse of the palatial states of the eastern Mediterranean around 1200 BC, including the Mycenaean palaces, and to the post-palatial Aegean of the 12th and the early 11th century BC. The most striking concentration of these new weapons occurs in the numerous warrior burials of the post-palatial north-western Peloponnese. These burial assemblages constitute a special chapter of the Mycenaean archaeology that has been subject to different interpretations.

The present text describes at first the main aspects of the new military technology and reviews the various theories regarding its origins and the reasons for its dissemination to the Aegean. It then examines the warrior burials of the north-western Peloponnese and presents arguments for their possible association with the wider “Sea Peoples phenomenon” of the late 2nd millennium BC. Finally, the article puts forward a new hypothesis about the relation of the warrior burials under study to the fall of the Mycenaean palaces. The present author holds the view that this relationship might be the missing piece of the historical interpretation of these warrior graves and may also be of some value for gradually assembling the greater jigsaw puzzle of the collapse of the Mycenaean palaces. Certainly, as is so often the case in archaeology, our new hypothesis does not aim to meet at once the demand of a full or definite empirical verification. Historical and archaeological research sometimes inevitably resembles a “long jump” from fragmentary data to coherent narratives about the past. It proceeds not only through linear inductivism but also through deductively integrating the data into new frameworks of interpretation, which result in tentative hypotheses that remain to be strengthened or weakened by future research.¹

The second aim of this paper is to suggest that the martial technological aspects under discussion have another theoretical implication related to both their historical-archaeological examination and their modern reception. They demonstrate that in some cases the emergence of new military features is related to processes of widespread cross-cultural interaction involving many cultural areas. In these cases the contribution of specific cultural groups, e.g. of the Aegean or Greek culture, to certain technological novelties may lie in their fruitful integration and further development rather than in their original invention. We would like to start our examination exactly from this theoretical issue.

¹ For the general importance of deductive reasoning in science see the classical contribution of Popper (2005). For the impact of 20th century positivist and non-positivist epistemology on archaeology see Johnson 2010, 35-49.

2 Military Technology In The Greek World: Theoretical Considerations

One of the most important traditions in the study of material remains of past societies is the so-called culturalist or cultural-historical approach. This influential school of thought perceives human populations as divided in distinct and rather homogeneous cultural groupings, sometimes equated with specific ethnolinguistic groups (Johnson 2010, 15-21, Maran 2017). One of the most important features of this culturalist approach is its association with the notion of *essentialism*, i.e. the idea that certain cultural aspects are exclusive and normative elements of a specific group, defining and reflecting its very essence and uniqueness (Johnson 2010, 69-70, 239). This general concept of culture is expressed by a respective and omnipresent use of language. When we discuss “the Egyptian religion”, “the Sumerian cosmology” or “the Mycenaean pottery” we tend to exclusively associate cultural phenomena with these ethnolinguistic groups. In many instances there are, of course, good reasons to describe and study material artefacts in these terms. When we see a typical ancient Egyptian tomb painting or a Classical Greek red-figure vase, we can indeed speak of unique cultural aspects exclusively linked to specific ancient societies (or parts of them). On the other hand, the art of wall painting or pottery making *per se* is by no means restricted to the aforementioned cultures. So, it is up to our theoretical standpoint whether we prefer to focus on the particularities, i.e. the particular and unique features of each society, or on the generalities, i.e. the general similarities between human groups. Focusing on these similarities has been the main concern of the so-called New or Processual Archaeology, the archaeological theoretical tradition that from 1960 onward questioned the culture-historical approach by seeking to formulate nomothetic cross-cultural generalisations (Johnson 2010, 21-34).

We hold the view that these theoretical considerations are of some relevance for the study of ancient technology – especially past military technology. Following, for instance, the general culture-historical approach, the frequently used term “Greek military technology” could sometimes be understood as implying an exclusive interconnection of certain technological features and innovations with Greek culture. This risks implicitly drawing a too sharp dividing line between Greek and foreign elements, which can complicate the study of technological developments of a more cross-cultural nature.² In other words, although speaking of an ancient Greek military technology might be perfectly reasonable when we refer to the Corinthian helmet or the Macedonian sarissa, there are other cases where Greek individuals or groups actively participated in the introduction to the Greek world, appropriation and further circulation and development of important martial elements that were not exclusively related to the Greek cultural context. In these cases, Greek military technology can be conceived in broader terms as “military technology in the Greek world”.

Another reason for addressing these theoretical issues is that essentialist perceptions of military technology in ancient Greece or Byzantium are involved in the reception of the Greek past in modern Greece. Some of the greatest figures of ancient Greece were, for instance, military leaders (e.g. Leonidas of Sparta or Alexander the Great), who are widely celebrated in modern Greece not only because of their important war achievements but also, we would argue, due to their iconic association with distinctively Greek pieces of military equipment.

² For a critique of the “ethnic” interpretation of weaponry, see also Maran 2018, 224-225.

Both these historical figures themselves and their armament have been inscribed in collective perception as symbolic expressions of hellenicity. It is not a coincidence that ancient Greek weaponry and military tactics are central components of modern re-enactments of ancient battles, which aim to authentically reproduce aspects of ancient Greek life (Plantzos 2012, 159-164, figs. 6-7). In this respect, it is noteworthy that political and military leaders of later times who are not so clearly associated with genuinely Greek weapon types are not as iconically inscribed in modern Greek collective consciousness as their ancient predecessors.

The most telling example here is Constantine Palaiologos, the last Byzantine emperor, who reigned from 1449 until the Fall of Constantinople in 1453 (Nicol 1992). Among all Byzantine emperors and generals, Constantine Palaiologos undoubtedly enjoys the greatest popularity in modern Greece, due to his heroic death in the last defence of Constantinople against the Ottomans. Nevertheless, there is a certain kind of obscurity surrounding the appearance of this legendary figure and especially his military equipment in battlefield. Modern statues of Constantine, such as the one in Mystras and its copy outside the Metropolitan Cathedral of Athens, portray him in a somewhat anachronistic royal and military attire, reminiscent of earlier Byzantine emperors, e.g. Basil II, as portrayed in his *Psalter* around 1000 AD (Evans and Wixom 1997, 186). An effort is perhaps discernible here to associate Constantine with elements of clothing and military equipment that could be perceived as typically Byzantine and, thus, to produce an essentialist Byzantine Greek image as the medieval equivalent of the iconic representations of ancient Greek kings and generals.

However, given the diversity and multitude of foreign influences characterising late Byzantine warfare (Bartusis 1992), it is unlikely that this idealised representation corresponds to any historical reality regarding Constantine's armour in the final siege of Constantinople. On the contrary, there is iconographic evidence implying that both the last Byzantine emperors and their high military officials made use of the most effective "international" weapons of their time, such as the 15th-century full plate armours (D' Amato 2016, 47, fig. G1). Soldiers wearing such suits of armour are, for instance, shown accompanying John VIII Palaiologos, the penultimate Byzantine emperor, who symbolises Constantine the Great in Piero della Francesca's painting *Victory of Constantine* in the Basilica of San Francesco in Arezzo (Beck 2003, 78-79, fig. 19). Consequently, any attempt to examine and imagine the combat equipment of the last Byzantine emperors in terms of a genuine Byzantine military technology would probably be misleading. Instead, defining our research topic more broadly as "the military technology in the late Byzantine world" paves a more suitable ground for the understanding of a diverse technological landscape composed of both indigenous elements and foreign influences. The fact that many of these foreign elements in late Byzantium were of European and Italian origin and partly associated with mercenary troops provides a good parallel to the main case study that we will examine in the present article.

3 A New Military Technology At The End Of The Mycenaean Period

The period around 1200 BC constitutes one of the most significant turning points in the history of the eastern Mediterranean. It is the period of the great crisis and final demise of many Bronze Age palatial states and kingdoms that had flourished in the previous centuries, e.g. the Mycenaean palaces on the Greek mainland, the Hittite empire in Anatolia and smaller kingdoms along the Levantine coast (Knapp and Manning 2016, Cline 2014). In Mycenaean

Greece, the breakdown of the palatial states brought about a regression from protohistory to prehistory, since the earliest script documenting the Greek language, the syllabic Linear B that was advanced and used by the palaces, disappeared along with the palatial administration. The end of the palatial period in the Greek mainland signalled the beginning of the post-palatial, Late Helladic (LH) IIIC period (the 12th and the early 11th century BC), usually subdivided into an Early, a Middle and a Late phase (Deger-Jalkotzy 2008, Dickinson 2006, 58-78). Despite the fall of the palaces and the return to illiteracy, during the LH IIIC period most aspects of Mycenaean civilisation, such as Mycenaean pottery and the burial customs, continued to exist. The post-palatial Mycenaean culture also witnessed the further distribution of important technological novelties that had been already introduced into the Aegean in the last phases of the palatial period. Most of these innovations are related to military technology.

During the 13th century BC, i.e. the last century of the Mycenaean palaces, which corresponds to phase LH IIIB in the Greek mainland, new types of metal artefacts started to reach the Aegean. These included weapons, e.g. new forms of swords, daggers and spears, dress accessories, like violin-bow fibulae, and implements, such as new knife and razor types (van den Berg 2018, 62-69, Bouzek 1985, 92-167, 241-242, Harding 1984, 151-187). Already in the early 20th century, archaeologists like O. Montelius and A. Evans recognised the foreign, non-Aegean character of these metal objects and sought an explanation for their dissemination to the Aegean.³ In accordance with the predominant theoretical tendencies in archaeology during the first half of the 20th century, the emergence of these new metal artefacts has often been interpreted in terms of massive migrations of various groups. The Dorians, the Achaeans, the Sea Peoples and the bearers of the Late Bronze Age cultures of Central Europe – the so-called Urnfield cultures (c. 1300-800 BC) – have all been identified by different scholars as the presumed migrating or invading groups that brought with them the foreign material elements. Later research reinforced the view that the origins of the foreign metal objects should be sought in the Late Bronze Age central European, Carpathian and Italian metallurgical traditions related to the wider Urnfield cultural horizon. Moreover, the unpopularity of simplistic migrationist models in archaeology during the second half of the 20th century led scholars to associate the introduction of these foreign metal forms to the Aegean with smaller scale population movements. In an influential hypothesis, Hector Catling identified the bearers of the new metal objects, and especially the weapons, as foreign warrior groups that served as mercenaries in the Mycenaean palaces (Catling 1968, 103 and 1961, 121). According to this view, the warriors brought with them their own sets of innovative weapons, which were highly appreciated by the palaces. “Their swords in particular were greatly admired by their employers, who set their own swordsmiths to copy and adapt them” (Catling 1968, 103).

Indeed, the most iconic component of the so-called “Urnfield bronzes” in the Aegean is a flange-hilted sword type called “Naue II” (Fig. 2:I,VI) after the German archaeologist Julius Naue (Kilian-Dirlmeier 1993, 94-105, Catling 1961, Schauer 1971, 132-171, Naue 1903, 12-20). When the Naue II swords were introduced to the Aegean, they represented a technological novelty compared to their local Aegean counterparts. The traditional Aegean

³ For the history of research see van den Berg 2018, 64-69, Deger-Jalkotzy 1991, 131-135, Müller-Karpe 1962, 255-259.

swords that were produced from the beginning of the Late Bronze Age (around 1600 BC) until the end of the Mycenaean palatial period (c. 1200 BC) were mostly narrow, thrusting weapons with a high midrib and a tapering blade, i.e. with cutting edges converging towards the tip (Molloy 2010, 403-409, fig. 1, Kilian-Dirlmeier 1993, 17-92). This sword construction was suitable for precisely hitting a vulnerable area of the enemy's body with a thrusting blow, as depicted in early Mycenaean seal images, e.g. on the combat agate discovered in the Griffin Warrior Tomb in Pylos (Stocker and Davis 2017, Jung and Mehofer 2005-2006, 118).

Naue II swords were clearly different from this rather *sui generis* Aegean sword tradition (Harding 1984, 11). They were longer than contemporary Mycenaean swords, with a length of c. 0.58–0.68m (Molloy 2010, 409), and were characterised by long, parallel-sided cutting edges and a thickened lenticular or rhomboid cross section (Jung and Mehofer 2005-2006, 123). Due to this different design, Naue II swords could be used to deliver both cutting and thrusting blows, and for this reason they are often labelled as “cut-and-thrust swords”. This term has been criticised in the past as not adequately differentiating Naue II swords from the traditional Mycenaean swords, since the latter could also to some extent be used for cutting (Molloy 2010, 421). However, the cutting capacities of the Naue II swords seem to have been significantly greater; measurements demonstrate that the balance point of the Naue II swords is closer to the tip, which would increase the kinetic energy in slashing movements from above (Jung and Mehofer 2013, 177, fig. 4, Jung and Mehofer 2005-2006, 123). In the Mycenaean swords, the balance point and, hence, most of their weight are situated closer to their hilt, which would facilitate quick thrusting movements for hitting precise targets.

The aforementioned measurements strengthened the view that the Naue II sword was indeed an innovative element in Aegean warfare, possibly associated with a new combat style. In this respect, the argument has been advanced that, due to their stronger, parallel-sided blades, Naue II swords were perhaps able to cause severe damage to both leather and bronze armour and helmets (Jung and Mehofer 2005-2006, 131). If this is indeed the case, then the shift from some heavier, cumbersome elements of earlier Mycenaean military equipment – such as the figure-of-eight or tower shield or the famous Dendra cuirass – to lighter ones, like the round shields, might be related to the introduction of the Urnfield bronzes in the Aegean (Jung and Mehofer 2005-2006, 130-133). In any case, the great effect exercised by the Naue II swords on Aegean warfare is archaeologically substantiated by the fact that they gradually replaced the traditional Mycenaean swords and became the only Bronze Age sword type that survived into the Iron Age (Kilian-Dirlmeier 1993, 105-126). Their great influence is also demonstrated by finds of LH IIIC Mycenaean swords with Naue II-like blades, such as two swords of the Fii type from Moulana (Kilian-Dirlmeier 1993, 85, pl. 32, 204-205). These “hybrid” forms are indicative of the need to adapt to the new fighting style associated with the Naue II swords.

The same phenomenon can also be approached from the theoretical perspective of “military technology in the Greek world” stated at the beginning of this article. In other words, although the Naue II swords were initially a non-Aegean technological innovation, they soon became part of the Aegean weapon technology. In this context, Aegean groups (among them certainly also Greek-speaking individuals) actively participated not only in the introduction and appropriation but also in the further development of these new technological features. Apart from the production of traditional Mycenaean swords with Naue II blades, chemical copper

characterisation studies have demonstrated that many of the Urnfield bronzes found in Greece were products of local workshops (Mehofer and Jung 2017, 392, 396, Jung and Mehofer 2013, 178, Jung 2009, 74). This local production was perhaps responsible for the enrichment of this metallurgical tradition with Aegean elements.

Such features are perhaps the low protuberance between the typical fish-tail hilt of the Naue II swords, occurring in specimens of Kilian-Dirlmeier's Group B (Kilian-Dirlmeier 1993, 96, Catling 1961, 118-120, fig. 2) or the fine plastic ribs and midribs, occurring in Naue II swords of the type Stätzling/Allerona or Kilian-Dirlmeier's Group C/Variant 3 (Molloy 2010, 421, Kilian-Dirlmeier 1993, 97-98). The suggestion has even been made that the whole group of Naue II swords of the type Stätzling/Allerona (Fig. 2:VI) is of Aegean origin, since the spur in the middle of the fish-tail has been seen as imitating the pommel fastening device of the traditional Mycenaean swords (Pabst 2013, 110, n. 27, fig. 5). From a chronological point of view, this is a plausible hypothesis, since the type Stätzling/Allerona represents a later generation of Naue II swords compared to the earlier type (Fig. 2:I) Reutlingen/Cetona or Kilian-Dirlmeier's Group A (Pabst 2013, 106, fig. 1, Kilian-Dirlmeier 1993, 95-96, Schauer 1971, 132-144). However, the Aegean origin of the type Stätzling/Allerona can be questioned on the basis of pottery depictions showing the handles of Naue II swords not ending in a pommel, like their Mycenaean predecessors (Jung, Mehofer and Stavropoulou-Gatsi 2017, 88, n. 43-45). Nonetheless, the aforementioned evidence demonstrates the active participation of Aegean sword production in a greater metallurgical *koine*: the initially central European, Italian and Balkan metallurgical traditions that in the last centuries of the second millennium BC reached the Aegean and other, mainly coastal regions of the eastern Mediterranean, e.g. Cyprus, Anatolia and the Levantine coast (Giannopoulos 2008, 175-178, 233).

It is exactly this widespread distribution of the metallurgical *koine* along the major maritime routes of the Aegean and the eastern Mediterranean that has led scholars to plausibly associate it with a series of seaborne processes: with extensive and decentralised trade networks (Sherratt 2000, 84-87); with less directional "third space" cross-cultural encounters aboard ships (Molloy 2016, 347-348); and with other hypotheses that further elaborate Catling's theory about the palatial mercenaries. Based on a wide range of technological, typological and copper characterisation studies, as well as on the association of the Urnfield bronzes with a ceramic class of mainly Italian origin (Handmade Burnished Ware), Reinhard Jung has more specifically identified Catling's mercenaries with warrior groups originating in the Italian peninsula (Jung 2017a, 27 and 2009, 78, Jung and Mehofer 2013, 184-185). Moreover, Jung and Mehofer emphasised the coincidence between the chronological and geographical distribution of the Urnfield bronze weapons with the activities of the Sea Peoples documented in ancient sources (Mehofer and Jung 2017, 396-397). Using the analogy of Egypt, where groups of Sea Peoples taken as prisoners of war were later integrated into the Pharaonic army, Jung assumed that other seafaring warrior groups might have been incorporated in a similar way into the Mycenaean palatial armies. The emergence of the earliest Naue II swords in the Aegean already before the downfall of the Mycenaean palaces, i.e. in the later phases of the 13th century BC, seems compatible with this view. At Mycenae, for instance, the remains of two Naue II swords, a pair of ivory hilt plates found at the Cult Centre and the sword from Tsountas Hoard I from the Northwest Quarter, date to the LH IIIB period (van den Berg 2018, 78-79, Jung and Mehofer 2013, 176-177). Chemical analyses

indicate that the sword from Tsountas Hoard I might have been imported from Italy (Jung and Mehofer 2013, 178, Jung and Mehofer 2005-2006, 126).

There are, however, two possible complications concerning this theory. Firstly, there is only partial correspondence between the Urnfield weapons and the arms of the Sea Peoples depicted on the Egyptian reliefs. Although some of the weapons in these representations, like the round shields and a specific headgear (see below), can be associated with the metallurgical *koine*, the sword forms are not of Naue II type. However, this might be due to a combination of anachronism and essentialism. It is possible that the Sea Peoples' sword types illustrated in the reliefs – related to type Ugarit, Mycenaean Sandars' type C and south Italian Thapsos-Pertosa (Jung 2018, 274-275, Mehofer and Jung 2017, 389-390, fig. 1) – were anachronistic depictions inspired by earlier waves of ship-based warriors (Bietak and Jung 2007-2008, 221). If this is true, these swords were perhaps stereotypically reproduced as distinct identity markers of the different subgroups of these warrior bands.

The second complication relates to the geographical distribution of the Urnfield weapons, and especially of the Naue II swords, in the Greek mainland. Interestingly, the great majority do not appear in the palatial centres, as one would expect if these weapons belonged to the soldiers or mercenaries of the Mycenaean palaces, but in a non-palatial region: the post-palatial north-western Peloponnese. While only six Naue II swords have been found in the Argolid (van den Berg 2018, 78-80), no less than 24 such swords have been uncovered in the LH IIIC warrior burials of Achaia, Elis and Arcadia (Giannopoulos 2022, 160, n. 129). The historical and modern region of Achaia has yielded the great majority of them (16) as part of some of the most impressive warrior burial assemblages of the Aegean Bronze Age (Giannopoulos 2022, Paschalidis 2018, 472-474, Giannopoulos 2008, 201-252, Deger-Jalkotzy 2006, 157-161, 168-169, Eder 2003, 38-50, Papadopoulos 1999, Papazoglou-Manioudaki 1994).

The 24 warrior burials under consideration have come to light in excavations of normal Mycenaean chamber tombs geographically extending from the western part of the Peloponnese (e.g. Palaiokastro in Arcadia and Mageiras and Alpheiousa near ancient Olympia in Elis) up to its northern coast (Nikoleika near Aigion). A greater concentration of such warrior graves occurs in the region of Patras (e.g. in sites like Voudeni, Krini, Kallithea and Clauss). Chronologically, the more extensively studied finds from Achaia suggest that most of these warrior burials date to the LH IIIC Middle and Late phases, i.e. to an advanced stage of the 12th century BC (Giannopoulos 2022, 142-146, fig. 2). They are principally identified by the presence of a Naue II sword, which is almost always associated with a spearhead (Fig. 2:II-III,VII) of Mycenaean type (Jung 2009, 75) and more occasionally combined with spear butt-spikes (Fig. 2:VIII) and defensive weapons like greaves, shields (Fig. 2:IX), boar's-tusk helmets or headgears (Giannopoulos 2022, 146-148, fig. 2). Furthermore, the grave goods sometimes include objects of possible ritual function, such as knives (Fig. 2:IV,X, 3:II-III), or pieces of jewellery and tools for personal hygiene, such as razors (Fig. 2:V, 3:V), tweezers (Fig. 3:IV) or combs.

Apart from the Naue II swords, there are other weapons in these funerary assemblages that testify to contacts with the wider Urnfield horizon. For instance, the round shields with a central handgrip underneath a protruding metal boss, such as the one found in Spaliareika (Tomb 2, Context 7, Fig. 2:IX) in western Achaia (Giannopoulos 2008, 183-185, pl. 35:57, 51:57), emerge for the first time in the Aegean during the later part of LH IIIB. Their origins

can be traced back to northern and central Europe, where such shields had been used since the Middle Bronze Age (Jung 2018, 274). Another example are the bronze greaves, like the ones found in Kallithea (Tomb A) and Portes (Tomb 3), with a characteristic S-shaped bronze wire as a fixing device, which is also encountered in a greave fragment from Calabria (van den Berg 2018, 200-202, fig. 40:3, Vikatou and Moschos 2018, fig. p. 241, Mödlinger 2017, 241-245, pl. 40).

The two last-mentioned Achaian warrior burials, in Kallithea and Portes, have also yielded one of the most impressive components of these grave assemblages: headgears made of bronze stripes and rows of rivets, belonging to a helmet type widely distributed in the eastern Mediterranean, both as metal finds and as iconographic depictions (Giannopoulos 2022, 166, n. 168, Vikatou and Moschos 2018, fig. p. 241, Jung 2009, 78-79, 82-83, fig. 2, Moschos 2009, 356-358, fig. 1, 2a). No doubt the most fascinating illustrations of these objects are the ones on the reliefs in the temple of Ramesses III at Medinet Habu (Nelson 1930, pl. 39). On these reliefs the horizontal metal stripes with rivets can be identified with the lower part of the distinctive “feathered headdresses” of certain contingents of the Sea Peoples (Emanuel 2021, 314-320, fig. 33-35, Yasur-Landau 2013). The origins of this helmet type can be traced either to the Aegean (Van de Moortel 2020, 323-326) or to the Italian Peninsula, where similar finds are already known from Middle Bronze Age contexts (Jung 2009, 83, fig. 8). As a result, these headgears offer us perhaps the best illustration of the above-mentioned coincidence between the spread of the Urnfield weaponry tradition and the horizon of the Sea Peoples’ activities.

In this respect, it is noteworthy that in the LH IIIC Achaia the links to the Urnfield horizon are not confined to the warrior burial assemblages. They are also evident in bronze objects of central Mediterranean origin found in other burial and settlement contexts, such as Italian razor types (e.g. a specimen of the Scoglio del Tonno type from the cemetery of Claus), spearheads with fully cast sockets (e.g. a find from the cemetery of Mitopolis, with an incised blade decoration encountered also in a spearhead from Lombardy), daggers of the so-called Pertosa type (copying the Naue II swords of the Cetona type on a smaller scale) and dress accessories (e.g. violin-bow fibulae) from the fortified acropolis of Teichos Dymaion⁴. So, it seems that in the LH IIIC north-western Peloponnese a coexistence is discernible between Mycenaean, Urnfield and Sea Peoples’ elements.

4 The Warrior Burials Of The North-Western Peloponnese And Their Relation To The Sea Peoples’ Phenomenon

The above-mentioned archaeological evidence suggests that an unusually large concentration of weapon types related to the Urnfield horizon of metallurgical innovation occurs in the LH IIIC warrior burials of the north-western Peloponnese. The same grave assemblages include objects providing a strong link to the so-called Sea Peoples, such as real metal finds of the peculiar headgears that are depicted on the Egyptian Medinet Habu reliefs as the helmets of certain groups of them. Nevertheless, despite this important evidence, no direct and explicit connection between the buried warriors under discussion and the Sea

⁴ For a comprehensive presentation of the Urnfield bronzes in Achaia with further bibliographical references, see van den Berg 2018, 199-256. See also Moschos 2009, 380, n. 158 and Giannopoulos 2022, 165-166, n. 163.

Peoples had been proposed until recently (Giannopoulos 2022). In our view, there are mainly two reasons for this.

The first is the traditional and much debated migrationist perception of the Sea Peoples, i.e. their association not only with seafaring war enterprises but also with migration episodes in the eastern Mediterranean, e.g. in Egypt, Anatolia and the Levantine coast (Middleton 2018, Knapp and Manning 2016). Research on these supposed migrations and invasions is traditionally linked to the ancient written sources about the Sea Peoples, which do not seem to connect them in any way with the north-western Peloponnese. Furthermore, the migrationist perception of the Sea Peoples is not compatible with the archaeological record of this part of the Peloponnese, since almost all well-preserved warrior burials in this region (and especially in Achaia) have been found in chamber tombs already in use in earlier phases of the Mycenaean period (Giannopoulos 2022, 162-164). This has been interpreted as indicating that the buried warriors were not an intrusive element but members of local families or groups (Giannopoulos 2022, 162-164, Yalouris 1960, 45).

More recent scholarship, however, has tried to develop a broader understanding of the “Sea Peoples phenomenon” (Fischer and Bürge 2017). This can be perceived as a complex historical reality including various piratic, raiding and disruptive activities not always documented in written sources or necessarily associated with migrations (Emanuel 2021, 21-29, Middleton 2018, 109-110, Kristiansen and Suchowska-Ducke 2015, 361-362, 366, 371, 384, Hitchcock and Maeir 2014, Jung 2009). The warrior burials of the north-western Peloponnese could represent such a non-migrationist aspect of the wider phenomenon of the Sea Peoples. Nonetheless, the engagement of at least some warriors in migratory episodes cannot be excluded even in this case, as indicated by the LH IIIC Achaian style pottery found in Albania and Apulia.⁵ Interestingly, in Albania such ceramic finds coexist with Naue II swords, some of them comparable with the Achaian ones (Kilian-Dirlmeier 1993, 98, pl. 38:251-253, 39:254).

The second factor that, in our view, has complicated the association of the warrior burials in question with the Sea Peoples phenomenon is related to certain theoretical tendencies in funerary archaeology. One of these is the socio-archaeological tradition of interpreting exceptional burial treatment as a manifestation of the elite social position of the deceased in life (Moutafi 2021, 35-36, Parker Pearson 1999, 72-94). The strong focus on addressing questions of vertical status differentiation through the study of burial customs has been particularly influential also in the case of the LH IIIC warrior graves of the north-western Peloponnese. These burials have often been interpreted as the remains of a ruling class that emerged out of internal social transformations in this region. From this perspective, the Achaian warriors in particular have been perceived as leaders of local groups or family clans (Moschos 2009, 360-362, Giannopoulos 2008, 239-241, Eder and Jung 2005, 491).

An important side-effect of this socio-archaeological interpretation is that it has favoured a rather “static”, land-based perception of these individuals, focusing on their social position within their societies. Several hypotheses about the possible real use of the weapons found in the graves under study interestingly revolve around such land-based processes or needs, e.g. protection of local communities (Papadopoulos 1999, 273) or engagement of the warrior

⁵ For a summary of these finds with further bibliographical references see Giannopoulos 2022, 142, n. 63, Giannopoulos 2008, 171-174.

chiefs in local hostilities (Petropoulos 2000, 72). As a result, not much attention has been given to the possible association of the weapons found in these graves with overseas expeditions, an assumption compatible with the occurrence of the same weapon types in other conspicuously coastal regions of the Aegean and eastern Mediterranean.

However, connecting warrior burials with real episodes of warfare is also complicated by another and more radical theoretical standpoint in the study of burial customs. In recent decades, some scholars have tried to advance a “critical” argument that questions the very identification of individuals buried with weapons as real warriors. According to this view, such a literal reading of the archaeological evidence is uncritical and can result in a “biographical fallacy” through misinterpreting certain symbolic expressions of identity in the funerary sphere as the equipment of real warriors in life (Arena 2020, 41-42, Anderson 2018, Whitley 2002). As P. Bulmer puts it, “burial practices must not be interpreted in a straight-forward, literal way. If this literal approach was taken for other types of artefacts found in graves, it would be assumed that those buried with drinking cups and jugs were wine merchants or producers, and that those buried with combs, tweezers and razors were barbers. This is absurd” (Bulmer 2016, 176-177). In relation to warrior burials, this school of thought is often associated with the use of an alternative terminology (“burial with weapons”) or punctuation (“warrior burial” enclosed in quotation marks).⁶

Nevertheless, even critical approaches should not be accepted uncritically. Although in some graves specific attributes might have been indeed purely symbolically ascribed to the deceased through the burial ritual, in other cases symbols can correspond to biographies. We know from our present day experience cases of high priests (e.g. popes) buried as priests and of soldiers or military leaders buried with military attributes (e.g. uniforms) and honours. Technological features among grave goods can be particularly telling. The mid-2nd-century AD Roman surgeon’s tomb from Nea Paphos in Cyprus is a good example, since the deceased was buried with an outstanding set of metal surgical instruments (Michaelides 1984). Taking into account the important role of Cyprus in ancient medicine due to its famous pharmaceutical substances, as well as the great number of doctors and medical finds known from the Roman period in the island (Michaelides 2009), a literal, biographical interpretation of the surgeon’s tomb of Nea Paphos appears highly probable. Consequently, advanced technological features and their historical context can be decisive for the right interpretation of burial finds.

In our case, the numerous highly functional and advanced metal weapons found in the LH IIIc graves of the north-western Peloponnese are dated decades after the outbreak of extensive violent events that shook up the eastern Mediterranean. These episodes also affected Mycenaean palatial centres in other, not very remote Peloponnesian regions. Furthermore, crisis and instability may have partly characterise the post-palatial period in the Aegean, as indicated by images of warrior themes, including shipboard battles, depicted in the LH IIIc pottery (Vonhoff 2008, 186-187, pl. 34-35, Eder 2003, 39-40). The wider European and Mediterranean context of the Naue II swords and other Urnfield bronzes is also revealing. As has been pointed out, the widespread distribution of this metallurgical *koine* in the last centuries of the Late Bronze Age reflects real fighting needs linked to the emergence of

⁶ For a critique and arguments in favor of the more traditional term “warrior burial”, see Giannopoulos 2022, 130-135, 180.

institutionalised and professionalised warfare (Horn and Kristiansen 2018) as well as of more independent warrior bands like the ones subsumed under the label Sea Peoples. These real fighting instances are also evidenced in the damages and repairs of the cutting edges of Naue II swords, e.g. in the damaged blade of the Naue II sword of the Tsountas Hoard (Jung and Mehofer 2013, 177-178, fig. 3B-C). In this respect, theoretical approaches of funerary finds that overlook the interconnection of military technology with the reality of warfare can be particularly misleading.

5 The Warrior Burials Of The North-Western Peloponnese And Their Relation To The Fall Of The Mycenaean Palaces

Having presented arguments in favour of the identification of the individuals buried with weapons in the graves of the LH IIIC north-western Peloponnese as real warriors, some of them possibly associated with the wider Sea Peoples Phenomenon, we can now turn to an important historical question: is there any relation between this great concentration of weapons in this area of the post-palatial Peloponnese and the collapse of the Mycenaean palaces? A literal reading of the archaeological record would suggest that there was no direct connection between them. The warrior burials of the north-western Peloponnese occur not only in the post-palatial LH IIIC period, i.e. several decades after the demise of the Mycenaean palaces, but also in regions with apparently no palatial past. Moreover, as already mentioned, the deposition of nearly all well-preserved Achaian warrior burials in chamber tombs already in use in earlier phases of the Mycenaean period seems to suggest that these warriors were persons of local origin buried in the tombs of their ancestors. This chronological and geographical separation of the burial finds under study from the collapse of the Mycenaean palaces around 1200 BC has led scholars to propose only an indirect link between them: the breakdown of the well-established trading systems of the Mycenaean palaces with the eastern Mediterranean allowed non-palatial regions like Achaia to unfold their own dynamics in terms of external contacts, especially with the West and more particularly with Italy (Eder and Jung 2005, Eder 2003, 44-46, 49).

Nevertheless, regarding the chronology, in another publication we explored the possibility that the weapons found in the LH IIIC Middle and Late warrior burials of the north-western Peloponnese probably had much longer life-spans than the dating of their final deposition in graves (Giannopoulos 2022, 145, 161, 175, n. 79). An archaeological testimony strengthening this suspicion is provided by the outstanding burials in the Chamber Tomb 2 of Spaliareika in western Achaia (Fig. 1)⁷, chronologically covering the entire LH IIIC period. According to our recent reinterpretation of these burial finds, Tomb 2 probably contained the remains of at least four warrior burials, the military equipment of which, including two Naue II swords (Fig. 2:I,VI), seems to have been handed down in the course of the tomb's use from older to younger members of the same family or group (Giannopoulos 2022, 152-160, fig. 3). Especially telling is the case of Context 2 of Tomb 2, where the funerary equipment, including two knives, a razor, tweezers and two whetstones (Giannopoulos 2008, 222-230, pl. 23, 39), strongly resembles a typical Achaian warrior burial, minus its sword and spear (Fig. 3). It is highly

⁷ General remark: The Figures of the present article are at the end of the text, after the Bibliography, as the author decided.

probable that the “lost” offensive weapons of this burial are among the two Naue II swords and the three spearheads found on the other side of the same tomb, with the later warrior burials of Contexts 6 and 7 (Fig. 2:I-III,VI-VII). Such a practice of passing on weapons and especially swords to other/younger warriors is attested in many cultural contexts (Kristiansen 2002, 329-331). It was perhaps related both to the powerful “biographies” of the swords, e.g. heroic narratives associated with them (Bennett 2004, Whitley 2002, 220-221), and to their high quality, which was crucial for each swordsman’s survival (Jung and Mehofer 2013, 183). The advanced technological features of the weapons possibly prevented their withdrawal from circulation through a permanent deposition in burials or hoards.

The conspicuous absence of Naue II swords from post-palatial warrior burials in the Aegean that are otherwise quite similar to their counterparts in the north-western Peloponnese might further testify to this practice. Good examples of such burials are the one from Kamini on Naxos, found near Tomb Δ along with two spears and a spear butt-spike (Deger-Jalkotzy 2006, 162, Zapheiroopoulos 1960, 335-337, fig. 4), and another burial from the tholos tomb at Praisos Photoula on Crete, accompanied not only by a spear and a knife but also by the characteristic Sea Peoples headgear known from the Achaian warrior burials (Deger-Jalkotzy 2006, 164-165, Platon 1960, 303-305, pl. 241b). These headgears are themselves a further possible example of a delayed burial deposition, since the specimens from Achaia and Praisos ended up in graves in an advanced phase of LH/LM IIIC, whereas similar helmets can already be seen “in action” in the early 12th-century Egyptian depictions at Medinet Habu (Emanuel 2021, 315, Jung 2009, 83).

If we now return to the Achaian chronological evidence, the aforementioned Context 2 in Chamber Tomb 2 of Spaliareika includes the oldest warrior burial in this grave and can be dated to either the later part of LH IIIC Early or an early part of LH IIIC Middle/Developed (Giannopoulos 2022, 155). It is, thus, chronologically close to the only Achaian warrior burial hitherto securely dated to the beginning of the LH IIIC (or even to the last phase of LH IIIB), the one in Krini-Agios Konstantinos (Giannopoulos 2022, 144-146, Kaskantiri 2016, 180-185, 187-188, 257-258, 354-355, drawings 15:A, Γ, pl. 131, 133:T2/X1). Interestingly, this early sword from Krini-Agios Konstantinos seems at present chronologically “isolated” from the other Achaian Naue II swords, many of which are conspicuously concentrated in the same region around Patras. It is worth considering the possibility that the sword from Krini constitutes an exception from the practice of retrieving and reusing the technologically advanced Naue II swords, which resulted in its final deposition in this early context. Consequently, there is already evidence implying that at least some of the weapons found in the LH IIIC warrior burials could have been already in use in the crucial period around 1200 BC.

If this is indeed the case, then the question arises whether these weapons, possessed by the forerunners of the warriors buried in LH IIIC Middle and Late, might have been more directly involved in the demise of the Mycenaean palaces. In our first attempt to address this issue, we put forward the hypothesis that some of the ancestors of the later (LH IIIC Middle and Late) Achaian warriors were disenfranchised soldiers or mercenaries who were once at the service of the Mycenaean palaces and returned home after their downfall (Giannopoulos 2022, 178, 184). This hypothesis was firstly based on the aforementioned burial deposition of the later Achaian warriors and their weapons in chamber tombs of the local population. Secondly, it relied on the assumption that during the palatial period young individuals from

non-palatial regions like the north-western Peloponnese might have sought their fortune in the great palatial centres, e.g. of the Argolid, and perhaps served as mercenaries in the palatial troops. During their service they probably would have become accustomed to the new and innovative weaponry of the Urnfield tradition brought into Greece by other palatial mercenaries of Italian and Balkan origins.

It is now a reasonable assumption that on the eve of the palatial collapse many of the innovative Urnfield weapons were circulating in the territories of the Mycenaean palaces as part of the military equipment of the palatial troops. However, as already mentioned, remarkably few weapons have been unearthed in the palatial regions and in the ruins of the palaces (van den Berg 2018, 78-85, Jung 2016, 559, n. 24) compared to the strikingly large concentration of such arms deposited decades after the great watershed of 1200 BC in burials of the north-western Peloponnese. Is it then possible that the mostly “lost” weapons of the former palatial centres, or at least some of them, are the ones “found” later in the LH IIIC north-western Peloponnese? Is it possible that after the palatial collapse the north-western Peloponnese served as a major retreat region not only for some repatriated soldiers but also for greater segments of the former military forces of the palaces?

This hypothesis recalls the mythological tradition about Tisamenos, which in classical antiquity provided an explanation for the association of the place name “Achaia” with the north-westernmost landscape of the Peloponnese (Petropoulos 2016, 219, 221, 227, Giannopoulos 2008, 11-16, Rizakis 1995). According to this tradition, Tisamenos, Agamemnon’s grandson, led the Achaians of the Argolid and Laconia to the north-western Peloponnese after their expulsion by the Dorians. This new homeland of the Achaians was eventually renamed Achaia by them. The myth of Tisamenos had a great impact on earlier research on Mycenaean Achaia, giving rise to migrationist explanations for the post-palatial prosperity of this region (e.g. Vermeule 1960, 18-20).

The pendulum of more recent studies has swung in the opposite direction because the scenario of a massive migration in Achaia from the former palatial centres has not found particular support in the archaeological evidence in this region. The examination of the material culture, of the settlement pattern, of the number of tombs and cemeteries and of the burial customs suggests that the transition from LH IIIB to LH IIIC in the north-western Peloponnese was marked by continuity rather than radical changes.⁸ This well-justified rejection of the literal version of the ancient tradition does not, however, exclude the possibility of a historical core that might be revealed through a different reading of it. According to this alternative interpretation, the Achaians of the mythical Tisamenos were not entire populations of the former palatial territories but just the “Achaian soldiers”, i.e. warrior groups once at the service of the palaces.

But why might such a presumed retreat have taken place? In order to understand the possible reasons, it is useful to draw on two recent treatments of the causes of the palatial collapse by Reinhard Jung and Joseph Maran. Both scholars apply theoretical models focusing on the deeper, long-term processes underlying the demise of the palaces rather than simply on the short-term violent events. Jung employs a classical Marxist theoretical framework, suggesting that the main reason for the collapse was the economic oppression of

⁸ For a summary of the evidence with further bibliographical references see Giannopoulos 2022, 161-164.

the lower classes of the Mycenaean society by the Asiatic mode of production that characterised the Mycenaean palaces (Jung 2017b, Jung 2016). As a result of the class conflicts and internal contradictions of the Mycenaean economic system, a revolution broke out around 1200 BC that resulted in burning down the palaces and overthrowing the palatial order.

According to Jung, the revolutionary actions of the oppressed lower classes were facilitated and perhaps guided by the *qa-si-re-we*, the local chieftains who had an intermediate role between the palatial administration and the local communities (Jung 2016, 561-563). The intermediate function of the *qa-si-re-we* allowed them to develop a class consciousness by comprehending the big picture of the Mycenaean economic system and its inherent injustices. Consequently, Jung sees the revolutionary activities that brought about the palatial collapse as undertaken by agents outside the palatial elite: the oppressed social classes and lower-rank dignitaries (the *qa-si-re-we*) who sometimes acted on behalf of the palaces but were not palatial officials. One of the many interesting aspects of Jung's theory is that it brings to mind the "Dorian hypothesis" put forward in the 1970s by John Chadwick (Chadwick 1976) and James Hooker (Hooker 1976, 168-180). The British scholars attributed the destruction of the palaces to Dorian populations that, in their view, were already present in the Peloponnese as a subordinate class before their mythological "invasion" at the end of the Mycenaean period.

On the other hand, Maran's approach (Maran 2022, Maran 2009) aims to move away from the reductionist search for a single "prime mover" of the palatial collapse. In a way reminiscent of the Annales School of history, he distinguishes between different time scales and focuses on the medium- and long-term processes rather than the short-term final events. In this context, Maran examines three particular aspects as highly relevant to the breakdown of the palaces: internal conflicts between different parts of the ruling elite; large-scale construction projects of the palaces; and changes in the palatial armed forces. In particular, a combination of the first and the third aspect might have had a decisive effect, since disenfranchised factions of the palatial elite could have taken advantage of the new multi-ethnic and, thus, heterogeneous composition of the palatial military troops in the 13th century BC. The integration of groups of foreign warriors into the palatial army is witnessed not only by the introduction of the Urnfield bronzes in this period in the Aegean but also by textual indications in the Linear B tablets, such as the non-Greek names of many military commanders (Maran 2022, 240, n. 82-83). The changes in the ethnic composition of the palatial armies may have favoured the rise of "warlords", i.e. commanders of these troops, of doubtful loyalty to the palatial rulers. Maran suggests that discontented members of the palatial dynasties may have fuelled the dissatisfaction of the lower social classes, forged coalitions with some of the "warlords" and finally turned the palatial military troops against the rulers (Maran 2022, 240-242).

The above hypotheses are compatible with our view of the north-western Peloponnese as a retreat zone for soldiers of the destroyed palaces. Following the hypotheses put forward by Jung, Chadwick and Hooker, we can identify the retreated troops with at least a part of the military "superstructure" of the palaces. These units may have survived the hostilities or not actively participated in them, e.g. by ceasing to obey the palatial rule (Jung 2016, 567). Moreover, Jung's hypothesis provides another convincing explanation for the delayed funerary deposition of many warriors' weaponry during LH IIIC: if the Mycenaean palaces were indeed destroyed by a social revolution, it is conceivable that in the early phases of the

post-palatial period funerary display was generally discouraged within the context of a more egalitarian social structure or ideology (Jung 2016, 568).

Following Maran's approach, we can associate the retreated soldiers with parts of the overthrown palatial elite. Combining this view with Chadwick's and Hooker's "Dorian hypothesis" would in fact produce a narrative very close to the mythological tradition about Tisamenos. Nevertheless, Maran's account allows also for considering a reversed version of the Tisamenos myth. In this case, the retreated troops and the members of the palatial elite associated with them could be identified with some of the actual perpetrators of the destruction of the palaces. If, for instance, some victorious factions had been involved in destruction and plundering activities that went far beyond the primary objective of displacing the ruling elite,⁹ some of their members may have become *personae non gratae* for the local population. It is also conceivable that some of the winners of these internal hostilities did not want to stay in territories that were devastated and perhaps partly still controlled by a weakened version of the former palatial rulership. The limited reuse traces of the palace complexes of Tiryns and Pylos after their destruction (Jung 2016, 558, 570-571, LaFayette Hogue 2016, Maran 2001) could be ascribed to such attempts to restore something of the overthrown palatial authority. From this point of view, taking the war plunder and settling down in another region of the Peloponnese might have been a more attractive perspective. A worth mentioning possible example of such war plunder in Achaia is the bronze kalathos (Fig. 3:1), in which the ashes of the warrior burial of Context 2 in Chamber Tomb 2 of Spaliareika were placed (Giannopoulos 2008, 168, 224-225, pl. 23:19, 39:19). It is highly probable that this outstanding metal vessel was acquired in one of the major palatial regions of the Peloponnese, since it has no precursors in Achaia and its best parallels are two older, LH IIIA/B bronze kalathoi found in Chamber Tomb 47 in Mycenae (Giannopoulos 2008, 168, n. 328).

The above sketched "exodus" scenario is very compatible with the archaeological record in the LH IIIC north-western Peloponnese, since it assumes a limited relocation of soldier groups, perhaps along with some palatial nobleman, rather than the arrival of entire populations. In this respect, it differs from other partly similar hypotheses that situate the possible arrival of palatial noblemen in Achaia first in LH IIIC Middle (Pabst 2013, 125-126) or more generally assume that Achaia received groups of refugees – not specifically soldiers – from the palatial centres (Moschos 2009, 348, 384, Papazoglou-Manioudaki 1994, 200). If some of the soldiers of our "exodus" scenario originated from the north-western Peloponnese, then it is no surprise that they (and later their descendants) came to be buried in chamber tombs of the local population. And if these soldiers had developed group bonds with their Italian or Balkan comrades in the former palatial troops, then the integration of the latter into the local society may have taken place quite smoothly. Moreover, the north-western Peloponnese was the region with the greatest proximity to the central Mediterranean and Italy. Since the introduction of metal objects belonging to the wider Urnfield tradition had already started in this region in the late phases of LH IIIB (van den Berg 2018, 248-249, 260-261), it is even possible that groups of central Mediterranean origin were already incorporated into the local society by the time of the assumed arrival of the palatial troops.

⁹ For archaeological traces of looting in the palaces of Pylos, Mycenae and possibly Tiryns see Jung 2016, 555-556.

In addition, if only a small number of members of the former palatial dynasties had arrived in the north-western Peloponnese along with the retreated soldier groups, then this restricted “elite migration” would have left no particular material trace in the archaeological record. Instead, the arrival of both these “Achaian soldiers” and some members of the palatial dynasties might have been responsible for transferring to the north-western Peloponnese *immaterial* elements of an “Achaian” identity. As we have argued elsewhere (Giannopoulos 2022, 173-184), these elements probably initiated a process that resulted in the first association of the north-western Peloponnese with the place name “Achaia” and in the emergence of an early form of the Achaian ethnicity, which was further shaped in historical antiquity.

Finally, it is noteworthy that there is another region of the eastern Mediterranean in which the military technology discussed in this paper coexists with mythological traditions recounting the arrival of “Achaians”. Cyprus has yielded (along with Crete) the second largest concentration of Naue II swords in the eastern Mediterranean, with nine specimens (Matthäus 1985, 363-366, pl. 140-141). Excavations on the island have unearthed further metal weapons associated with the Urnfield bronzes and typologically related to similar finds from Achaia, such as greaves and spearheads with fully cast sockets (Jung 2009, 75-77). Moreover, in Cyprus the military technology and mythological traditions under consideration can be related to tangible evidence testifying the arrival of Mycenaean Greeks, such as the Opheltas’ spit (Duhoux 2012). There are, of course, differences between Cyprus and Achaia, e.g. on the linguistic level: in historical antiquity, the ancient dialect spoken in Achaia was the West Greek Doric, whereas in Cyprus it was the Arcado-Cypriot. Nevertheless, even this partial analogy with Cyprus indicates that the developments in the post-palatial north-western Peloponnese were perhaps more closely connected to the fall of the Mycenaean palaces than often thought.

6 Conclusions

The aim of the present article was to highlight the role of military technology in the last phases of Mycenaean culture. Both the collapse of the Mycenaean palaces around 1200 BC and the post-palatial period in the Aegean are connected with the spread of new weapon types related to the so-called Urnfield metallurgical horizon of central Europe, Italy and the Balkans. Although not initially or genuinely Aegean or Greek, these new weapons, and especially the innovative cut-and-thrust Naue II swords, were effectively integrated into Aegean weaponry traditions and soon locally produced and further developed. They became an important element of the military technology in the Greek world that survived into the Hellenistic period, even in the somewhat less recognisable form of the sword from the “Philip’s Tomb” at Vergina (Andronicos 1984, 144-145, fig. 99-101).

The introduction of the Naue II swords into the Aegean/Mycenaean world was the result of the encounters of the latter with an almost pan-European network of warfare and technological innovation. Some of these encounters might have taken place within the context of the wider Sea Peoples phenomenon, the geographical and chronological imprint of which seems to coincide with the dispersal of the Urnfield bronzes. The emergence of the latter in the Aegean is also contemporary with the last period and final demise of the Mycenaean palatial system. This fact has triggered hypotheses about the association of the new weapons with foreign military troops, mercenaries or Sea Peoples at the service of the Mycenaean palaces. The

involvement of some of these troops in the destruction of the palaces has also been plausibly postulated.

However, the greatest concentration of the weapon types most probably used by the aforementioned troops strangely occurs not in the palatial centres, but in the 12th-century BC warrior burials of the north-western Peloponnese. In the present article, we argued that some of the numerous Naue II swords, the Sea Peoples' helmets, the shields, the greaves and the other elements of these extraordinary burial assemblages might constitute the remains of the exodus of former palatial military groups from the destroyed palace states and of their retreat to the north-western Peloponnese. Due to their advanced technological features and perhaps also their heroic "biographies", some of these weapons were probably handed down in the course of the LH III C period from their initial owners to their successors. Finally, in LH III C Middle and Late, a last generation of "Achaian warriors" was buried with weapons that many decades earlier might have been involved in one of the most important milestones in the history of the ancient world.

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- Fig. 2. The military equipment of the two warrior burials of Contexts 6 and 7 in Chamber Tomb 2 of Spaliareika Lousikon. Source: Giannopoulos 2008, pl. 32, 34-35.
- Fig. 3. The funerary equipment of the warrior burial of Context 2 in Chamber Tomb 2 of Spaliareika Lousikon. Source: Giannopoulos 2008, pl. 23.

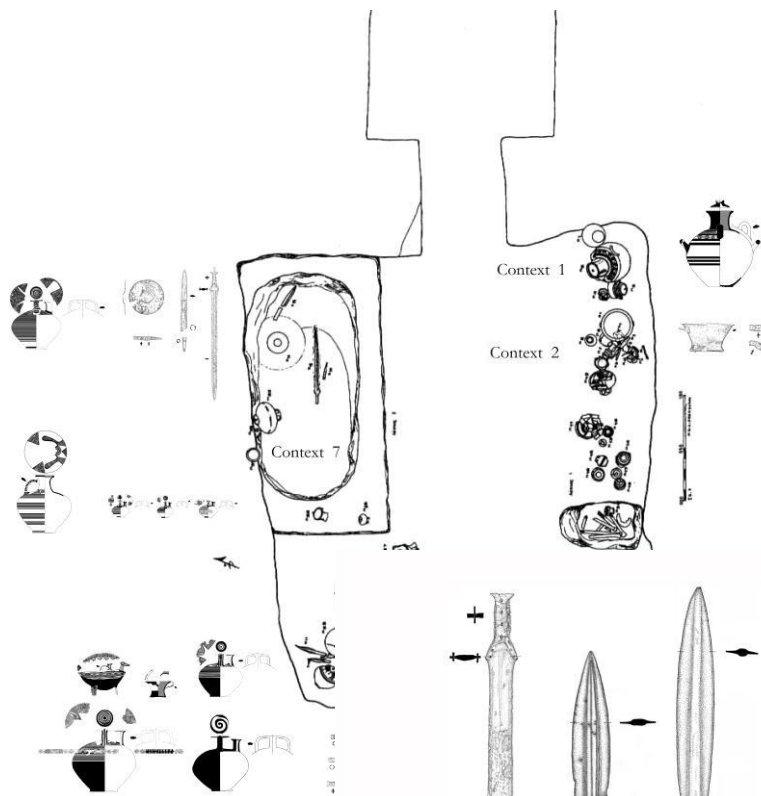


Fig. 1. Chamber Tomb 2 of Spaliareika Lousikon in western Achaia. Selection of grave contexts and grave goods (various scales). Source: Giannopoulos 2008, pl. 6, 21, 23, 26-35.

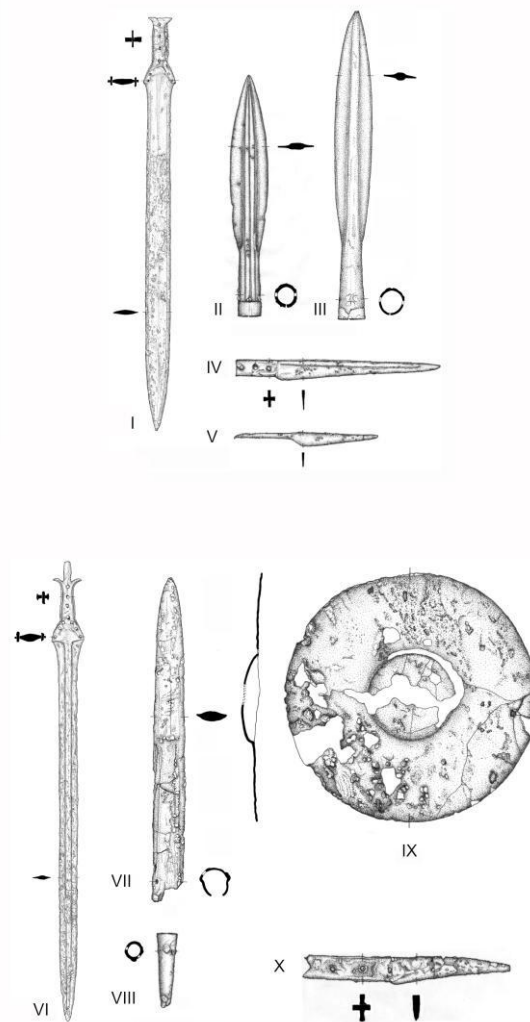
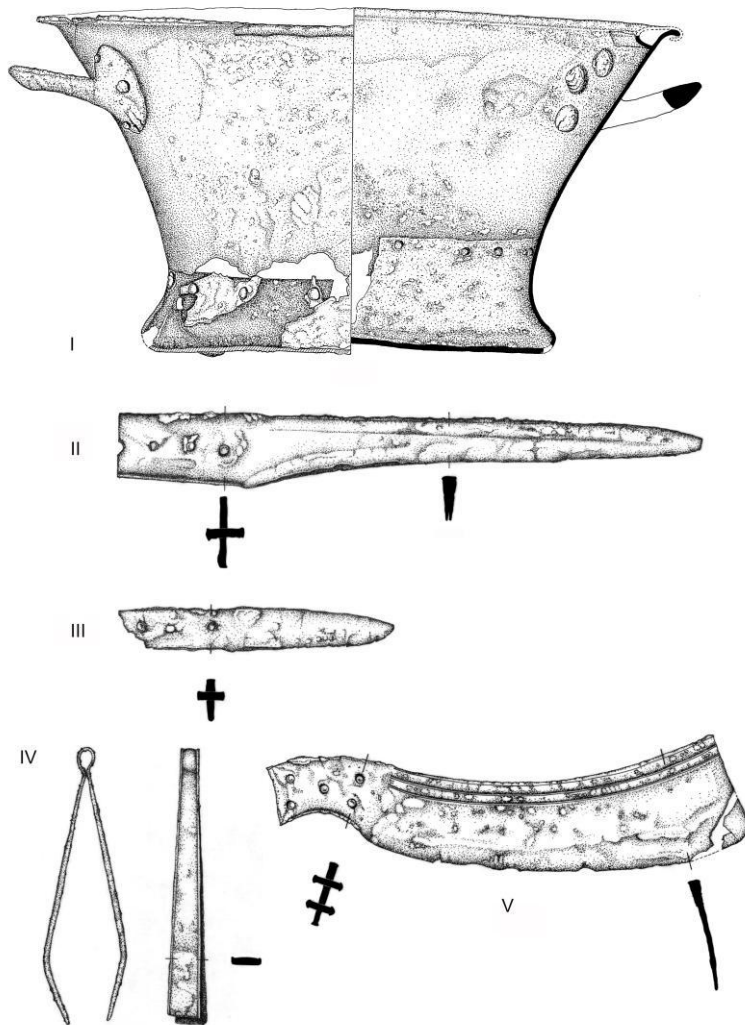


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ΑΙΓΙΔΑ



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