Ancient Warfare

Ancient Warfare:

Introducing Current Research, Volume I

Edited by

Geoff Lee, Helene Whittaker
and Graham Wrightson

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PREFACE

The chapters in this volume are based on some of the research papers presented at the International Ancient Warfare Conference 2013 (IAWC13). The conference theme was deliberately inclusive and academics from any discipline were invited to present papers on any aspect of ancient warfare. Presenters ranged from postgraduates to more experienced academics. The apparent eclecticism of the volume is due to this rationale, and far from seeing this as a lack of coherence, this is a vindication of the conference and editorial strategy.

As lead editor, I have been very fortunate in having the support of two experienced academics as co-editors: Professor Helène Whittaker and Dr. Graham Wrightson. Each chapter benefitted from the feedback of a blind peer review from at least one of three reviewers: Dr. Jason Crowley, Dr. Erin Garvin, and Dr. James Thorne. In addition, the entire volume was blind peer reviewed by an external reviewer. The manuscript was proofread by Theodora Wrightson.

Financial support for the conference and this volume was gratefully received from the Institute of Classical Studies. Professors Bjorn Weiler and Robert Ireland, of Aberystwyth University, and Professor Mike Edwards of the University of Wales: Trinity Saint David offered guidance, and Sian Davies, the Classics Faculty administrator, handled the finances for the conference and this volume. Florence Melley, Ben Lee, and Jade Evans helped as conference assistants. The staff at the National Library of Wales in Aberystwyth gave personal support to me as conference organiser and to all of the conference delegates. The feedback from delegates on the conference and the facilities was very positive. Wales can be very proud of such a fantastic resource in terms of both the infrastructure of the National Library, and its people.

Diolch yn fawr- Thank you very much.

Geoff Lee
Aberystwyth University.

INTRODUCTION

This volume on ancient warfare presents eighteen chapters dealing with a variety of areas of current research. Ranging from archaeology and social history to more traditional tactics and strategy, it represents a range of different aspects of military history. Most of these chapters developed from papers which were presented at a conference on "Ancient Warfare," held at the National Library of Wales in Aberystwyth, Wales, from the 18th to the 20th of September, 2013, organized by Geoff Lee.

The chapters in this volume can be viewed in thematic sections. The first two chapters (by Professor Helène Whittaker, and Dr. Matthew Lloyd), deal primarily with archaeological evidence from the Greek Bronze and Iron Ages. The next three chapters (by Dr. Aimee Schofield, Dr. Nick Barley, and Dr. Graham Wrightson) are concerned with using tactical manuals to inform history, and the first and last also make use of experimental archaeology. This is a comparatively under-researched area of ancient military history but one that is becoming particularly prominent, especially with the use of experimental archaeology. The next three chapters (by Dr. Borja Antela-Bernárdez, Konstantinos Lentakis, and Dr. Stephen O'Connor) deal with more traditional areas of research into military history, in this case Greek warfare, namely tactics, strategy and logistics. These chapters show that despite generations of study in these areas there are still new ideas and interpretations that are important to consider. Following this are two chapters (by Dr. Anna Busetto, and Alberto Pérez-Rubio) that deal with the use of cavalry in warfare. This is another traditional avenue of military scholarship, but in these two cases dealing with aspects that could be considered the edge of traditional analysis, namely literary *topoi* and Celtic armies. Continuing the variation of traditional themes are two chapters (by Dr. Jeffrey P. Emanuel, and Dr. Matteo Zaccarini) on naval warfare but again each deals with new aspects of the field: very early depictions in the Mediterranean and using modern military terminology to interpret ancient Greek warfare. Next are four chapters (by Dr. Elena Franchi and Dr. Giorgia Proietti, Dr. Susan Deacy and Dr. Fiona McHardy, Dr. Julie Laskaris, and Dr Adam Anders), dealing with more social or cultural aspects of warfare: commemorating the war dead, the treatment of women, army medicine, and courage. All these

aspects of military history are crucial and yet until recently under-researched. Finally, there are two chapters (by Joanne Ball and Dr. Hannah Cornwell) that deal with what happens after battle or war. This is very much a new area of research blurring the lines between traditional definitions of historical areas such as military, social, and political history. These papers serve as a suitable closing point for a volume that seeks to break down any perceived barriers between different aspects of warfare.

CHAPTER SUMMARIES

Chapter 1: *Symbolic Aspects of Warfare in Minoan Crete*, by Professor Helène Whittaker, provides an overview of the various symbolic or ritual contexts in which objects and representations pertaining to warfare have been found and argues that the practice of warfare as well as its ideological aspects were closely intertwined with religious meaning in the Aegean during the Bronze Age. The focus is primarily on Crete in the second half of the second millennium BC.

Chapter 2: *Death of a Swordsman, Death of a Sword: the Killing of Swords in the Early Iron Age Aegean (ca. 1050 to ca. 690 BCE)*, by Dr. Matthew Lloyd, looks at the chronological and geographical context of "killed" weapons, their relationships to the types of burial in which they appear, and the other grave goods which accompany these burials. It suggests that the swords "killed" in the period *ca.* 950-825 are the result of societal conditions relating to the value of iron, the exclusivity of warfare, and conscious acts of destruction in burials at this time. On the other hand, the later burials in Eretria relate to changing factors in the deposition of weapons, new ideas about exclusivity and value, and reflecting the way in which warfare changed in the late eighth century. It also suggests that arguments so far have ignored important metallurgical observations about "killed" swords, and what they reveal about sword use and ownership in the EIA Aegean

Chapter 3: *Filling the Gaps: Catapults and Philon of Byzantium*, by Dr. Aimee Schofield, investigates the historical and literary contexts of Philon and his work. It explains how experimental reconstructed catapults can give a different perspective on what would otherwise be considered abstract and esoteric texts. The conclusion is that by applying a practical element to research on military history, it is possible to gain a fresh and new understanding of the military technology of the ancient world.

Chapter 4: *Aeneas Tacticus and Small Units in Greek Warfare,* by Dr. Nick Barley, presents research into the role and influence of officers from the lower ranks of command in Greek armies. Secondary levels of command are rarely discussed in the sources but can be inferred from a number of incidents which can best be explained by the ability of individuals to react rapidly, and in an organized fashion, to changing events. These events suggest that individuals other than generals were able, and indeed expected, to exercise leadership and give commands during battle. This chapter also considers the use of small, semi-independent units in pitched battles and less conventional engagements, with particular emphasis on the frequent use of units of 300 men to achieve specific objectives.

Chapter 5: *To Use or not to Use: The Practical and Historical Reliability of Asclepiodotus's 'Philosophical' Tactical Manual,* by Dr. Graham Wrightson, argues that Asclepiodotus was a philosopher writing practical works just as much as theoretical ones. The terminology that Asclepiodotus uses to describe the command hierarchy largely is confirmed by historically attested officer ranks and he occasionally describes other names for officers that were used in the past. Supported by practical archaeology, this chapter shows that the military information provided by Asclepiodotus is both reliable and historical and should be integrated fully into any history of the Macedonian army.

Chapter 6: *Furious Wrath: Alexander's Siege of Thebes and Perdiccas' False Retreat,* by Dr. Borja Antela-Bernárdez, analyses the destruction of Thebes by Alexander the Great. Although the sources suggest a siege it is perhaps more of a campaign as the extant sources suggest that there was at least one pitched battle and a siege. It is, in fact, during the siege of Thebes and the related campaign that we can note some deceptive tactics used by Alexander and Perdiccas in order to gain access to the besieged city. The sack and destruction of Thebes is used as a case study to analyse the deep impact of Alexander's military leadership against the civil population. It is where he used an iron fist to shock the Greek cities and other peoples in the ancient world.

Chapter 7: *Civil War and Counterinsurgency: Rival Hegemonic Systems in Fourth Century Greece,* by Konstantinos Lentakis, examines the four hegemonic systems that were established in mainland Greece during the fourth century BC by the powers of Athens, Macedon, Sparta, and Thebes. The variables of hegemony that are assessed are the systems of government and alliance that were imposed by the great powers, the

varying use of force of each of them, and the causes that led each power to intervene in smaller states' domestic disputes. After examining these systems this chapter will then proceed to evaluate which policies of empire were successful in the Greek theatre of war, and which were less successful and why. Conclusions on hegemony will be reviewed to see how they can lead us to a better understanding of which policies and strategies are useful for peacekeeping and maintaining stability and providing security in the conflict zones of the 21st century.

Chapter 8: *The Problem of the Four Hundred Wagons: The Provisioning of the Ten Thousand on the March to Cunaxa***,** by Dr. Stephen O'Connor, combines a detailed reading of the first book of Xenophon's *Anabasis* with a narratological analysis of the *Anabasis* as a whole to show that the Ten Thousand provisioned themselves on their march to Cunaxa in the settlements they passed along their route, i.e. by purchase from markets provided by the cities through which they marched, and by requisitioning in the villages where they stopped. Cyrus's army did not, as often thought, usually acquire their supplies from imperial stores or from the Lydian *agora* located in the non-Greek part of the army. The four hundred wagons full of wheat-flour and wine reported by Xenophon (at *Anab.* 1.10.18) to have been provided by Cyrus did not, contra the scholarly consensus on this issue, accompany the army during the whole of their march, but only from Pylae, and then as a provisioning 'safety net' designed to increase the tactical flexibility of Cyrus's army in its manoeuvres before the imminent battle with the King.

Chapter 9: *War As Training, War As Spectacle: The Hippika Gymnasia From Xenophon To Arrian,* by Dr. Anna Busetto, investigates the *loci paralleli* in the descriptions of *hippika gymnasia* in Xenophon's *Hipparchicus* and Arrian's *Tactica.* The Xenophonian echoes appearing in the *Tactica* show not only a generic literary influence by an admired model, but also the vitality – across centuries and cultures – of specific aspects of military training. In Arrian's treatise, their re-enactment is mediated by the *Adlocutio Hadriani*, an epigraphic record of a speech by the Emperor Hadrian at Lambaesis, where he witnessed a spectacular performance by the auxiliary troops stationed there. Certain precise lexical correspondences suggest that the *Tactica* might be – in its "Roman part" (chap. 32, 3-44, 3) at least – a sort of literary re-working of the earlier *Adlocutio*.

Chapter 10: *Trouble Comes in Threes. From Chariot to Cavalry in the 'Celtic' World,* by Alberto Pérez-Rubio, analyses how the 'Celtic' cavalry practice known as *trimarkisia* gives us insight into the evolution from chariotry to cavalry in Iron Age temperate Europe. A close look at the etymology and symbolism of the word *trimarkisia* reveals both the importance of the triad in the 'Celtic' mindset and the later development of cavalry in regard to chariotry. Chariot warfare is then examined, taking into account literary sources and iconography to show how three men probably made up the chariot fighting team. Finally, a model which explains the transition from the chariot to the *trimarkisia* is advanced, tackling its tactical and symbolical dimensions in regard to knowledge networks in the 'Celtic' world.

Chapter 11: *The Late Bronze–Early Iron Age Transition: Changes in Warriors and Warfare and the Earliest Recorded Naval Battles,* by Dr. Jeffrey P. Emanuel, argues that the transition from the Late Bronze to the Early Iron Age in the Eastern Mediterranean and Aegean worlds is marked in part by a change in the representation and iconography of warriors and warfare. This change includes the first depictions and written accounts of true sea battles in recorded history, which are represented in Egyptian relief and text, on Mycenaean and East Aegean-West Anatolian pictorial pottery, and in Hittite documents, all of which date to the late 13th or 12th centuries BCE. This is also the time when the Helladic oared galley, a revolutionary new vessel type well-suited for raids, piracy, and ship-borne combat, makes its first appearance. This chapter investigates the earliest representations and descriptions of naval combat, with a special emphasis on the appearance and employment of new maritime technology and its effect on maritime operations and naval warfare. Also considered are the changes in fighting that had to be made in order to adapt to this early form of ship-based combat.

Chapter 12: *Thucydides' Narrative on Naval Warfare: Epibatai, Military Theory, Ideology,* by Dr. Matteo Zaccarini, proposes that our perception of ancient Greek naval warfare is heavily biased by the classical Athenian concept of *naumachia.* Following the Athenian adoption of the 'fast' style of sea combat Thucydides scornfully disdained the 'old way' of fighting over the sea, regarding the Peloponnesians, whose ships were often overloaded with soldiers, as clumsy amateurs lacking *techne*. An analysis of surviving sources leads to the questioning of this 'Athenian myth' of fast triremes, and this chapter argues that embarked soldiers, *epibatai*, often had an important role requiring skills and training. The peculiar

status of the *epibatai* occasionally puts them as being similar to hoplites, however, this chapter argues that there are several major differences which need to be understood to fully appreciate the role they played.

Chapter 13: *Commemorating War Dead and Inventing Battle Heroes. Heroic Paradigms and Discursive Strategies in Ancient Athens and Phocis*, by Dr. Elena Franchi and Dr. Giorgia Proietti, argues that commemoration of the war dead must be considered in the light of the fluidity and malleability which are intrinsic to the social practices of memory. It uses two historical examples, each different in space and time. One example focuses on the commemoration of the war dead in Classical Athens, and disputes the common assumption that they were honoured with a *strictu sensu* heroic cult and argues instead that they were the recipients of a canonical cult of the dead, though extended in a civic dimension. It does, however, recognize that they were at the core of a complex web of discursive strategies, which, through time, actually represented them as 'founding heroes'. Using the second example, this chapter advances a new interpretation of the base of a Phocian monument dedicated at Delphi in the 4th or 3rd century BCE, and argues that this monument shows both the Classical and Hellenistic-Roman attitude to reshaping the collective memory of an archaic event and the permeability between different means of commemoration.

Chapter 14: *Ajax, Cassandra and Athena: Retaliatory Warfare and Gender Violence at the Sack of Troy*, by Dr. Susan Deacy and Dr. Fiona McHardy, builds on recent work arguing for the centrality of violence against women to ancient warfare. It uses Gaca's model of retaliatory warfare to frame a discussion of how, in representations of the sack of Troy, the actions of the Greeks fit ancient patterns of violent behaviour and may reflect evolutionary dispositions too. The authors argue that this is even – perhaps especially – true of the actions of Locrian Ajax, whose behaviour has previously been interpreted as flying in the face of acceptable behaviour but whose ill-treatment of Cassandra displays expected, even required, warrior behaviour towards enemy females. The chapter comes out of the research that the authors are currently undertaking for a book on ancient Greek gender violence in various contexts including 'domestic', 'street', and 'battlefield'.

Chapter 15: *Treating Hemorrhage in Greek and Roman Militaries*, by Dr. Julie Laskaris, considers that military medicine is a largely neglected field in the studies of ancient warfare and of ancient medicine. Christine

Salazar's excellent work, *The Treatment of War Wounds in Graeco-Roman Antiquity* (Brill 2000), is the sole recent book-length treatment. She does not, however, devote much time to the aspect of trauma care that was, and is still today, of the greatest initial concern: the ability to stop blood loss. This chapter traces the methods for treating hemorrhage that were available to the doctors who travelled with Greek and Roman militaries, and argues that doctors' skills were honed through their regular practice of venesection and their frequent treatment of obstetric hemorrhage.

Chapter 16: *Are You (Ro)man enough? Non-Roman Virtus in the Roman Army,* by Dr. Adam Anders, argues that scholarly discussions of the function of Roman armies have often overlooked the significance of troops commonly classified as light infantry and the possibility that 'light' infantry tactics may have been the most common form of combat in Roman warfare. Investigation into 'light' methods of combat in Roman warfare reveals that 'light' infantry, particularly the *velites* of the Roman republic, were the most tactically versatile troops available to Roman commanders. Their replacements, the auxiliaries, although varied in equipment, organization and role from their predecessors, were no less tactically versatile. It further argues that not only were these non-Roman troops more frequently deployed than Roman legionaries, but also that they displayed a noticeably greater zealousness (*audacia* and *virtus*) in combat than their legionary counterparts. This, in turn, may have been a cause of their aforementioned frequent deployment.

Chapter 17*: To the Victor the Spoils? Post-Battle Looting in the Roman World*, by Joanne Ball, argues that looting in the Roman world did not strip the battlefield of all significant archaeological evidence. Although some archaeologists and historians consider that no archaeological evidence was left, as battlefield archaeology develops as a discipline, it becomes possible to test these preconceptions of field-stripping against the archaeological record. It is evident that Roman battlefields can survive in the archaeological record, and they have been identified in Germany and Spain with assemblages numbering in the thousands for metal artefacts, particularly small finds. This chapter suggests that current ideas of Roman battlefield looting and its impact on the archaeological survival of these sites need to be reassessed as Roman battlefield assemblages were often not entirely looted, and may manifest with characteristic assemblages which are distinctively non-martial in nature.

Chapter 18: *The Role of the Peace-Makers (Caduceatores) in Roman Attitudes to War and Peace*, by Dr. Hannah Cornwell, examines the ways in which the roles and possible relationships between the *fetiales* and *caduceatores* can be used to understand some aspects of how the Romans conceptualised the making and breaking of war and peace, and aims to locate the *caduceatores* within a picture of Roman diplomatic practices and war-mongering. The *caduceatores*, it will be argued, should not be understood primarily as Roman officials, unlike the *fetiales* and *legati*, but rather as a Roman conceptualisation of non-Roman diplomacy. Indeed, the uses of the term *caduceatores* in Latin Literature present us with an insight into how Romans conceptualised peace, as not something they themselves sought, but rather imposed.

Geoff Lee, Graham Wrightson and Helène Whittaker

CHAPTER ONE

SYMBOLIC ASPECTS OF WARFARE IN MINOAN CRETE

PROFESSOR HELÈNE WHITTAKER

Questions concerning the prevalence and role of warfare in European societies during the Bronze Age have been at the focus of much recent research.[1] The widespread occurrence of fortifications, burials with weapons, and weapon hoards would seem to indicate that this was a period that was in many places characterised by organised forms of inter-personal violence, and perhaps on a fairly large scale. That social organisation and institutions may have been in some way defined by warfare is suggested by a perceptible interest in representations of combat in imagery in various parts of Europe and by the aesthetic elaboration of weapons and armour that were probably used solely in military display, since they are sometimes non-functional. The ideological aspects of warfare as they relate to the social persona of the warrior have also been amply explored with regard to Scandinavia, Britain, continental Europe, and the Aegean.[2] Possible religious aspects have been given rather less attention.[3] This is particularly the case in research on the Aegean.

The purpose of this paper is to investigate connections between warfare and religious beliefs and ritual on Crete during the second millennium BC, during the Middle and Late Bronze Ages.[4] My focus is on the evidence

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1 See for example, Bradley 1990; Kristiansen 1998, 2002; Driessen 1999; Harding 2000, 271-307; Otto et al. 2006; Whittaker 2008; Molloy 2010; 2012.

2 Treherne 1995; Peatfield 1999.

3 See for example, Whittaker 2008.

4 The Cretan Bronze Age, which commences some time before the beginning of the third Millennium BC, is often referred to as the Minoan period. The beginning of the second millennium BC coincides more or less with the beginning of the Middle Bronze Age or Middle Minoan period. The beginning of the Late Minoan

from so-called nature sanctuaries. The first part of this paper consists of a general presentation of these sanctuaries, their location, the finds, and the rituals associated with them, with an emphasis on the ways in which they reflect the symbolic importance of warfare. The cave sanctuary at Psychro and the peak sanctuary on Mount Juktas are discussed in particular detail because the material recovered from these sites indicates that they were associated with the religious activities of the palatial elites. In the second part, I attempt to provide an interpretation of the military aspects of Minoan religion, both in general terms and in relation to the political circumstances of the Neopalatial period. My argument is in part based on parallels with the Near East and with later Greek religion.

Minoan civilisation has long been regarded as uniquely non-militaristic in comparison with its neighbours. The absence of defensive walls around palaces, other important buildings, and settlements gave the impression that the Cretans lived in peace with little or no internal strife and had no reason to fear enemy attacks from outside the island. This last may have been either because Crete, not being rich in natural resources, was of little interest to the great powers of the eastern Mediterranean or because the palatial elites invested in sea power in order to keep potential attackers at bay. This is an interpretation that was suggested by Thucydides' review of Greek history at the beginning of the *Peloponnesian War*, in which he claimed that the Cretans under their legendary king Minos ruled the seas.[5] Also in contrast with Egypt and the Near East, Minoan representational art is seemingly characterised by a lack of interest in depicting scenes of combat.[6] This view of Bronze Age Crete as a place of love and peace, where people lived their lives in tune with nature, devoting their time and energies to the performance of elaborate rituals, represents an idealisation of an ancient civilisation which has great emotional appeal.

Unfortunately, it has the force of evidence against it. It is now increasingly being recognised that the warlike aspects of Minoan

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period is dated to around 1600 BC. The political and social landscape during most of this time was characterised by the presence of monumental structures, usually referred to as palaces, which were in all probability centres of political and economic power. In an alternative chronology the period of the Middle and Late Bronze Ages is divided into the Protopalatial, Neopalatial, and Postpalatial periods. The transition between the Protopalatial and Neopalatial periods is dated to the latter part of the Middle Bronze Age, around 1700 BC.

5 Thuc. 1.4.

6 Higgins 1981, 94-98; Immerwahr 1990.

civilisation have been seriously underrated, ignored, shoved under the carpet, or explained away. Although scenes of interpersonal violence that can be taken to reflect warfare are not common, they do occur. Depictions of fully armed warriors can be seen on seals, as can images, the purpose of which would seem to be to glorify martial violence.[7] And not least, it is noteworthy that the first appearance of the sword in the Aegean is on Crete, where it may have been invented independently of its more or less contemporaneous occurrence in central Europe.[8] Because the sword is the first weapon which was not in the first instance a tool or a hunting weapon but was developed expressly for the wounding, maiming, and killing of other human beings in close combat, its invention must reflect a real interest in doing just that. The presence of guard posts in connection with routes of communication is further evidence that conditions on Crete may not always have been peaceful.[9]

Artefacts and imagery that pertain to warfare are not uncommonly found in cultic contexts on Crete during the Bronze Age. They are particularly well represented in so-called peak sanctuaries, cult places located in the open air in a mountainous location, and in cave sanctuaries. Both cave sanctuaries and peak sanctuaries usually lie at some distance from the nearest settlements and are therefore often referred to collectively as nature sanctuaries or extra-urban sanctuaries.[10] That they received large numbers of visitors is evident from the quantities of votive material recovered from those that have been excavated. Many of the finds, such as rudimentary animal figurines or human body parts made of terracotta, indicate that they seem to have served the general population of farmers and herders in the surrounding areas. Objects made of valuable material and characterised by high quality of workmanship indicating elite involvement, such as seals made of semi-precious stones and inscribed stone offering tables, have been found in some sanctuaries. This mixture of different types of objects of varying quality and elaboration suggests that both cave sanctuaries and peak sanctuaries were the location for communal rituals, which reflected the beliefs and values of all levels of the population.[11]

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7 See, for example, CMS II.3.32, II.6.15, II.8.276, II.3.16.

8 Harding 2000, 277.

9 Tzedakis et al. 1989.

10 Kyriakidis 2005, 19.

11 See Peatfield 1990, 2009; Watrous 1996; Jones 1996; Rutkowski & Nowicki 1996; Zeimbeki 2004; and Kyriakidis 2005 for the locations and characteristics of sacred caves and peak sanctuaries. The importance of peak sanctuaries and cave

One of the most spectacular cave sanctuaries is the Psychro Cave, which lies high in the mountains overlooking the Lasithi plateau in central Crete.[12] It was used for habitation in the Neolithic and the first part of the Early Bronze Age and for burial in the Early Bronze Age. After a period of abandonment, it became the location for cult activities from sometime in the Middle Bronze Age to the Roman and Byzantine periods. The Psychro cave, also known as the Dictaean Cave because it was thought to have been identified in Antiquity with the mythological birthplace of Zeus on Mount Dicte, is a very impressive cave with large upper and lower chambers that go deep into the mountain.[13] At the bottom of the cave, in the lower chamber, there is a deep pool of water surrounded by stalagmites, which also rise above its surface, while stalactites descend from the ceiling. The votive material found in the cave was exceptionally rich and has also a decidedly military character. It includes daggers and spearheads, which are actual weapons, and numerous replicas of sword or dagger blades and double axes, which had most probably been made specifically for ritual deposition.[14] The replicas of weapons are either miniatures made of cast bronze or full-size blades made of thin bronze foil. The majority of the replicas of blades and double axes were found inserted into the stalagmites and stalactites of the lower chamber.

The peak sanctuary on Mount Juktas in north-central Crete seems to have been one of the richest and most spectacular open air cult places on Crete.[15] In contrast with most other peak sanctuaries there are extensive traces of architectural elaboration. The remains of an enclosure wall and a multi-roomed building have been identified, in front of which two stepped terraces had been constructed in order to provide the area with a level surface. A number of valuable items, including a number of seal stones and an engraved cup with a Linear A inscription, were found in this building. A stepped altar, constructed on the edge of a deep chasm in the bedrock, was identified to the west of the terraces. Large and small double axes and daggers were found close to the altar.

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sanctuaries as sites of religious ritual is generally recognised in Minoan archaeology. However, many remain unexcavated and many of those that have been investigated have not been published in any great detail.

[12] Boardman 1961; Watrous 1996; Rutkowski & Nowicki 1996. The cave lies 200 metres above the plateau at an altitude of 1025 metres.

[13] Watrous 1996, 18-19.

[14] See Haysom 2010 on the double axe as a weapon.

[15] Karetsou 1981.

Although the material from the Psychro Cave and the peak sanctuary on Mount Juktas can be considered exceptional from an archaeological perspective, other nature sanctuaries were also characterised by rich finds pertaining to warfare.[16] One of the most spectacular weapon finds from this period is a deposit found at Arkalochori in central Crete. It included swords, replicas as well as actual weapons, and double axes, functional ones as well as replicas made of thin bronze or gold foil.[17] The Archalochori deposit, which was found under a rock shelter, is not a primary context. The material had in all likelihood, for some unknown reason, been removed from a cave sanctuary or a peak sanctuary.

In Aegean archaeology religion and warfare are usually discussed from the standpoint that they are two very different things, even if it has been noted that military and religious symbolism would seem in some cases to be interchangeable.[18] Although finds of weapons and artefacts with martial imagery in cultic contexts have sometimes been interpreted as evidence for deities associated with warfare or with the production of weapons, most often they have been interpreted as valuable offerings that were intended to show off the power, wealth, social status, and personal prestige of the dedicants, possibly identifying them as warriors.[19] This is in line with a tendency in Aegean archaeology to see votives as representations of the concerns of the dedicants rather than as expressions of religious beliefs or cosmological realities. The swords and other weapons that were left as votive offerings in sanctuaries in Minoan Crete represent a deliberate choice on the part of the dedicants, which must be meaningful in some way. Rather than interpreting them solely in terms of social expression, I would argue that they reflect a world view in which the practice of warfare was enmeshed with religious beliefs.

The existence of an inseparable association between warfare and religious beliefs is attested at other times and places in the ancient Mediterranean world. Warfare lay at the heart of ancient Greek cosmology. As related by Hesiod in the *Theogony*, it is through warfare that the world of the gods moves forward from one generation to the next and Zeus achieves supremacy, a supremacy which he must always be prepared to defend with violence. Strife among humans was believed to reflect the

[16] See Jones 1999; Kyriakidis 2005, 128-168 for and overview of comparable material from other nature sanctuaries.
[17] Marinatos 1935; Rutkowski & Nowicki 1996, 24-26.
[18] Molloy 2012, 115.
[19] Kilian-Dirlmeier 1993, 13; Molloy 2012, 115.

struggles of the gods and beliefs of this kind were materialised in the popularity of scenes of the gods at war in Greek imagery in religious contexts and of weapons, pieces of armour, and representations of warriors as votive offerings in sanctuaries.[20] The story of the siege and destruction of Troy illustrates, as do several other myths, how warfare was also believed to regulate the relationship between humans and gods. When the Trojan prince Paris flouts the laws of hospitality by running away with or abducting the wife of his host, the Greek king Menelaus, this was not just a breach of good manners, but also an offence against Zeus, and as such, a violation of the bond between humans and gods. Moreover, the Trojans have form and Paris' behaviour is just the latest in a long line of transgressions against divine law. As a consequence, warfare was inflicted upon them as the means through which the gods could restore cosmic order. The suffering and dying of the Greeks, who no more than the Trojans want the war, can be said to represent collateral damage in this regard. Given the choice, the Greeks would have much preferred to have said good riddance to the silly woman for whom the war was being fought and to have got on with their lives. Beliefs similar to those found in early Greek literature, that warfare was essentially a manifestation of the will of the gods rather than of wilful human action, have a long history in the ancient Near East and Egypt.[21] The existence of close ties between religious beliefs and warfare in Minoan Crete may therefore reflect a communality of beliefs in this regard over a larger area in the eastern Mediterranean during the Bronze and Iron Ages, although this is difficult to prove in the present state of the evidence. However, Crete was in close contact with the Near East and Egypt throughout the Bronze Age and it has recently been argued that as regards religion Crete was an integral part of the wider Near Eastern world.[22]

The weapons and other artefacts that pertain to warfare that have been found in sanctuary contexts on Crete were often valuable artefacts in terms of material, quality of workmanship, or both, indicating that they had been made for those possessing wealth, status, and power. Even a blade made of thin bronze would probably not have come cheap. This suggests that members of the elite found it in their interests to invest ostentatiously in the materialisation of the religious and cosmological significance of warfare, which would indicate that the ritual aspects of military display played an important ideological role. The fine ware pottery found in the

[20] For example, at Olympia.
[21] Hamblin 2006.
[22] Marinatos 2010.

Psychro cave was made in the workshops of the palace at Malia, suggesting that ritual activities in the cave were directly associated with the expression of palatial power.[23] The pottery and votive material found at the peak sanctuary on Mount Juktas show that it was associated with the palace of Knossos.[24]

Both the Psychro Cave and the Peak Sanctuary at Juktas lie at some distance from the centres of power with which they were associated. The distance from Malia on the northern coastal plain up to the cave is around twenty kilometres and a difference in height above sea level of more than a thousand metres. Mount Juktas is located c. thirteen kilometres to the southwest of Knossos and its highest peak, on which the sanctuary is located, lies at 811 metres above sea level. Ritual ceremonies would therefore have been initiated by processions over considerable distances and sometimes difficult terrain. Journeys from palace to sanctuary may have lasted several days and involved many people, either as participants, who would have joined the procession at different points along the way, or as spectators. Both at Juktas and at Psychro many people could have gathered in the area of the sanctuary. The presence of a large constructed terrace outside the entrance to the cave at Psychro is further confirmation that ritual activities seem regularly to have involved many people. The types of pottery that have commonly been found in cave sanctuaries and peak sanctuaries indicate eating and drinking, as does the presence of animal bones.[25]

The thick layers of ash that were found at Juktas have been interpreted as the remains of bonfires, indicating that ritual activities probably took place at night. At Psychro a number of lamps found in the upper chamber of the cave are possibly an indication that ceremonies in cave sanctuaries also took place at night, although they would in any case have been necessary for moving deeper into the cave. It is also possible that a dramatic contrast between the dark chill of the cave and the bright light of the day was an integral part of the ritual experience.[26] For those who made their way down into the lower chamber with their offerings, the visual effect of the reflections from the pool and the gleam and flash of the bronze axes, spearheads, and blades that others before them had placed in the stalagmites and stalactites must have been tremendous. We can therefore imagine elaborate and costly rituals centred on the celebration of

23 Watrous 1996, 31-40, 51.
24 Karetsou 1981, 145.
25 Tyree 2001, 45; Kyriakidis 2005, 78-79.
26 Watrous 1996, 20; cf. Tyree 2001, 44.

warfare and warrior values taking place at the sanctuaries patronised by the palatial elites.

I conclude this paper by attempting to put the discussion of the religious aspects of warfare in Minoan Crete into some sort of historical narrative. Although daggers and knives are found in burial contexts from the Early Bronze Age, and some of the daggers and double axes found as votives in sanctuaries may date to the Middle Bronze Age, a focus on the dedication of weapons and, by extension, a particular interest in the religious aspects of warfare would seem to be a later phenomenon, which may not antedate the Neopalatial period. This corresponds temporally with what seems to be an unprecedented interest in the depiction of weapons and combat in representational art, most clearly evident on seals.

Also relevant in this connection are a type of stone vessels with figurative scenes carved in low relief which date to this period. Several whole vessels and a number of fragments are known. As a category, these vessels are characterised by exceptional quality of craftsmanship and must have been high status artefacts. This is corroborated by traces of gold leaf which have been identified on some fragments. Several fragments from vessels of this kind show young men performing ritual actions at what may be peak sanctuaries. A large conical cup shows two young warriors facing one another. Only male figures are represented on these vases, which is noteworthy because female figures generally have a prominent place in Minoan iconography. The context in which these vessels were used is uncertain but it has been speculated that they had been made for elite banquets at which male values were celebrated.[27] While the majority of the scenes depicted on these vases do not have any overt references to warfare, the intention seems in many cases to have been to glorify the display of physical strength and agility, which may reflect the role that athletic performance played in palatial culture, the purpose of which can also be seen as part of a process of militarisation in that it reflects the training undergone by warriors.[28]

This is also the same general timeframe within which the sword was either adopted or invented by the Minoans. As has recently been emphasised, the sword is not merely a new weapon but also involves technological innovations and the adoption of a new and far more complex

[27] Logue 2004, 169.
[28] Cf. Logue 2004, 169-170.

fighting technique which requires sustained training.[29] Its appearance on Crete in the latter part of the Protopalatial period can therefore be said to represent a very definite interest in investing substantially in weapons and warriors. Arguably, the new emphasis on the materialisation of warfare in a religious context and the appearance of the sword are not unconnected, but represent two sides of the same coin, namely the increasing prevalence of organised violence between different groups among the inhabitants of the island.

It is generally accepted that central and eastern Crete was divided into an unknown number of states from the early part of the second millennium BC. The construction of the first palaces at the beginning of the Middle Bronze Age may, accordingly, represent the consolidation of territorial claims by regional elites. The palaces at Knossos, Phaestos, and Malia are broadly comparable architecturally in that they are monumental court-centred structures with public areas, shrines, and storage rooms. Differences between them can be seen in material culture, such as the styles of pottery or the workings of the administrative system. Towards the end of the Middle Minoan period all the palaces suffered extensive destruction, but were rebuilt on a larger and more magnificent scale. It is possible that the palatial rulers were simply taking advantage of the destructions in order to build better and bigger but it could also be that the splendour of the new palaces reflects competitiveness between the palatial states, which was ultimately to spiral out of control.

Around 1450 BC all the palaces with the exception of Knossos were destroyed and not rebuilt. Many settlements were also abandoned or deliberately destroyed by fire. It seems that administrative centres were particularly targeted, indicating a desire to destroy the political infrastructure.[30] Because it is clear that the destructions took place within a longer period of time their attribution to human action is irrefutable. That these were unsettled times is also evident from the fact that in some places steps were taken to protect food storage and water supplies by building enclosures and restricting access. Finds in different parts of Crete of hoards of bronze objects that had been placed under the floor in buildings that had been destroyed or abandoned at this time reinforce the picture.[31] Although we know very little about the relations between the palace states

[29] Molloy 2010, 413-414.
[30] Driessen & McDonald 1997, 35-41.
[31] Ayia Triada, Mitropolis, Gournia, Mochlos, Malia, Palaikastro, Kato Zakros, Knossos (Driessen & MacDonald 1997, 65-70).

in the Middle and Late Bronze Ages, it is possible that they were from the beginning defined in part by military might, as has often been the case in other times and places. In the early part of the Late Bronze Age, the balance of power may have become disturbed and episodes of strife that may not previously have been entirely uncommon could have started to become more frequent and ever more serious and destructive. Knossos is the only palace that was not destroyed at this time and there is evidence indicating that the end result of this period of unrest was the domination of Knossos over much of Crete.

To sum up, my contention in this paper has been that, as was the case in the contemporary Near East and the later Greek period, there may have been a general conceptual connection between warfare and religion in the Aegean during the Bronze Age. However, the unprecedented material elaboration of the military life in ritual contexts that we see on Crete in the Neopalatial period should be seen as a matter of contingency, constituting a response to particular historical circumstances and events. The emphasis on military display in a ritual context, which indicates that the palatial elites had become particularly interested in the material amplification of religious beliefs that equated political instability with cosmic disorder, can be seen in relation to a need or desire to strengthen their military capabilities, which was motivated by fear of enemy attacks, territorial aspirations of their own, or both at the same time. In order to promote the idea that participation in warfare meant complying with the will of the gods and inspire enthusiasm for combat, the status of the warrior was enhanced and ritualised and the symbolic aspects of warfare were celebrated in spectacular rituals within the palaces and at important nature sanctuaries, materialised in the ceremonial elaboration of weapons, and variously represented in elite iconography.[32]

BIBLIOGRAPHY

Boardman, J. (1961) *The Cretan Collection in Oxford: The Dictaean Cave and Iron Age Crete.* Oxford.

Bradley, R. (1990) *The Passage of Arms. An Archaeological Analysis of Prehistoric Hoards and Votive Deposits*. Cambridge.

Brumfiel, E. M. (2004) “Materiality, Feasts, and Figured Worlds in Aztec

[32] My argument here is similar to that put forward by Brumfiel (2004) with regard to the Aztec state. I disagree, however, with the implications of her account that elites are unfailingly cynical, clever, and devious and the general population naive, a bit thick, and easily duped.

Mexico. Rethinking Materiality", in E. DeMarrais, C. Gosden and C. Renfrew (eds.) *The Engagement of Mind with the Material World*, 225-237, Cambridge.

CMS (*Corpus der minoischen und mykenischen Siegel* Available at: <http://www.arachne.uni-koeln.de/browser/index.php?view[layout]=siegel>) [Accessed: 01/06/14].

Driessen, J. (1999) "The Archaeology of Aegean Warfare", in R. Lafineur (ed.) *Polemos. Le contexte guerrier en Égée à l' âge du Bronze. Actes de la 7e rencontre égéenne internationale, Université de Liège, 14-17 avril 1998*, 11-20, Liège.

Driessen, J. and C. McDonald (1997) *The Troubled Island: Minoan Crete before and after the Santorini Eruption*. Liège.

Hamblin, W. J. (2006) *Warfare in the Ancient Near East to 1600 BC: Holy Warriors at the Dawn of History*. London.

Harding, A. (2000) *European Societies in the Bronze Age*. Cambridge.

Harrison, R. (2004) *Symbols and Warriors: Images of the European Bronze Age*. Bristol.

Haysom, M. (2010) "The Double-Axe: A Contextual Approach to the Understanding of a Cretan Symbol in the Neopalatial Period", *Oxford Journal of Archaeology* 29(1), 35-55.

Higgins, R. (1081) *Minoan and Mycenaean Art*. London.

Immerwahr, S. (1990) *Aegean Painting in the Bronze Age*. University Park, Pennsylvania.

Jones, D. W. (1999) *Peak Sanctuaries and Sacred Caves in Minoan Crete. A Comparison of Artifacts*. Jonsered.

Karetsou, A. (1981) "The Peak Sanctuary of Mt. Juktas", in R. Hägg and N. Marinatos (eds.) *Sanctuaries and Cults in the Aegean Bronze Age. Proceedings of the First International Symposium at the Swedish Institute in Athens, 12-13 May, 1980*, 137-153, Stockholm.

Kilian-Dirlmeier, I (1993) *Die Schwerter in Griechenland (ausserhalb der Peloponnes), Bulgarien und Albanien*. Stuttgart.

Kristiansen, K (1998) *Europe before History*. Cambridge.

—. (2002) "The Tale of the Sword —Swords and Swordfighters in Bronze Age Europe", *Oxford Journal of Archaeology* 21, 319-332.

Kyriakidis, E. (2005) *Ritual in the Bronze Age Aegean. The Minoan Peak Sanctuaries*. London.

Logue, W. (2004) "Set in Stone: The Role of Relief-Carved Stone Vessels in Neoplatial Minoan Elite Propaganda", *Annual of the British School at Athens* 99, 149-172.

Marinatos, N. (2012) *Minoan Kingship and the Solar Goddess*, Urbana, Chicago and Sprinfield.

Marinatos, S. (1935) "Ἀνασκαφαὶ ἐν Κρήτῃ", *Praktika tes en Athenais Archaiologikes Hetaireias*, 196-220.

Molloy, B. (2010) "Swords and Swordsmanship in the Aegean Bronze Age", *American Journal of Archaeology* 114(3), 403-428.

—. (2012) "Martial Minoans? War as Social Process, Practice and Event in Bronze Age Crete", *The Annual of the British School at Athens* 107, 87-142.

Otto, T., H. Thrane, and H. Vandkille, (Eds.) (2006) *Warfare and Society. Archaeologcal and Social Anthropological Perspectives*. Aarhus.

Peatfield A. (1990) "Minoan Peak Sanctuaries: History and Society", *Opuscula Atheniensia* 18, 117-132.

—. (1999) "The Paradox of Violence: Weaponry and Martial Art in Minoan Crete. Polemos", in R. Laffineur (ed.) *Le contexte guerrier en Égée à l' âge du Bronze. Actes de la 7e Rencontre égéenne internationale, Université de Liège*, 67-74, Liège.

—. (2009) "The Topography of Minoan Peak Sanctuaries Revisited", in A. L. D'Agata and A. Van de Moortel (eds.) *Archaeologies of Cult: Essays on Ritual and Cult in Crete in Honor of Geraldine C. Gesell*, 251-259 Princeton.

Rutkowski, B. and K. Nowicki (1996) *The Psychro Cave and Other Sacred Grottoes in Crete*. Warsaw.

Treherne, P. (1995) "The Warrior's Beauty: The Masculine Body and Self-Identity in Bronze-Age Europe", *European Journal of Archaeology* 3(1), 105-144.

Tyree, E. L. (2001) "Diachronic Changes in Minoan Cave Cult", in R. Laffineur and R. Hägg (eds.) *Potnia. Deities and Religion in the Aegean Bronze Age. Proceedings of the 8th International Aegean Conference/ 8e Rencontre égéenne international Göteborg, Göteborg University, 12-15 April 2000*, 39-50, 39-50, Liège.

Tzedakis, Y., S. Chryssoulaki, S. Voutsaki and Y. Veniéri (1989) "Les routes minoennes: rapport préliminaire. Défense de la circulation ou circulation de défense?" *Bulletin de correspondance hellénique* 113, 43-75.

Watrous, L. V. (1996) *The Cave Sanctuary of Zeus at Psychro. A Study of Extra-Urban Sanctuaries in Minoan and Early Iron Age Crete*. Liège.

Whittaker, H. (2008) "Warfare and Religion in the Bronze Age. The Aegean in the European Context. The Aegean Bronze Age in Relation to the Wider European Context", in H. Whittaker (ed.) *Papers from a Session at the Eleventh Annual Meeting of the European Association of Archaeologists, Cork, 5-11 September 2005*, 73-93, Oxford.

Zeimbeki, M. (2004) "The Organisation of Votive Production and Distribution in the Peak Sanctuaries of State Society Crete: A Perspective Offered by the Juktas Clay Animal Figurines" in G. Cadogan, E. Hatzaki and A. Vasilakis (eds.) *Knossos: Palace, City, State. Proceedings of the Conference in Herakleion Organised by the British School at Athens and the 23rd Ephoreia of Prehistoric and Classical Antiquities of Herakleion, in November 2000, for the Centenary of Sir Arthur Evans's Excavations at Knossos*, 351-361, London.

CHAPTER TWO

DEATH OF A SWORDSMAN, DEATH OF A SWORD: THE KILLING OF SWORDS IN THE EARLY IRON AGE AEGEAN (*CA.* 1050 TO *CA.* 690 B.C.E)

DR. MATTHEW LLOYD

INTRODUCTION

After decades of research, Early Iron Age Greece is still best understood through its burials. One of the defining characteristics of these burials is the inclusion of weapons. It is, in fact, the development of iron weapons which led many scholars to define this period as a true "Iron Age", although others disagree.[1] But burials are complex, intentional deposits which require careful interpretation. The question which this paper addresses is part of the overall complexity of the relationship between the dead and their grave goods, specifically a man and his sword, and how this changes throughout the Early Iron Age. The phenomenon I will discuss is the act of "killing" swords. While this phenomenon is widespread in Crete and the northern Aegean, the main focus of this paper will be on Athens, Attica, and central Euboea.

The term "burials with weapons" has been adopted by scholars to replace the more subjective "warrior burial".[2] "Burial with weapons" is an all-inclusive term, essentially incorporating any burial which includes a weapon or combination of weapons. "Warrior burial" identifies the deceased as a warrior, which can be defined as *one who makes* (or rather, made) *war*.[3] The difficulty with this definition is that we may then proceed

1 Haarer 2001.
2 E.g. Whitley 2002, 218-220; D'Onofrio 2011.
3 Molloy 2012, 88.