

**An Analysis of the Nature and Circumstances of Early Mycenaean Warfare  
Based on a Study of the Pre LH IIIB Mycenaean Shields**

*A thesis submitted for the degree of Masters of Arts with Honours of the University of New England*

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**Submitted: 9/10/2014**

**Certification**

*I certify that the substance of this thesis has not already been submitted for any degree and is not currently being submitted for any other degree or qualification.*

*I certify that any help received in preparing this thesis and all sources used have been acknowledged in this thesis.*

Signature:

## **Acknowledgements**

I would like to thank the following people for their contribution to this work. Firstly, my primary supervisor, Lloyd Weeks, without whom this work would not have been a reality. Secondly, Mark Keay, whose structural feedback contributed greatly to the overall quality and layout of the revised thesis. I am indebted to Michael Kearney, who when other outlets failed to deliver and the completion of my thesis was threatened, built many of the shields used in my experiments, and without whom any part of the experimental phase of this thesis, the cornerstone of this project, could not have come to pass. On this too I would like to give my thanks to the armourer of the Melbourne Sword Spear Association James Kerton and my friend Tom Conley, who helped with the construction and continued to work on them even while I was too ill to work. I would like to also thank Justin Hanson-Kendrick, Gypsy Taylor, Asgeir Evans, Chris Croce and Rebecca for taking over my administrative duties and looking after my students at the MSSA in my absence while working on this thesis.

I would also like to give my personal thanks to Stephen Hand, Paul Wagner, Craig Sitch, Barry Molloy, Alex Neilson and several others too numerous to mention who helped by offering their time and perspectives into the mix. Several of the conclusions reached could not have been reached without their valued input. Finally, I would like to thank Andrea Salimeti and Raffaele D'Amato, the authors of the most up to date website at the time of writing on Mycenaean military archaeology, through whom I obtained many of the images and articles referenced in this work.

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## Introduction

The purpose of this thesis is to produce a definitive study of how the Mycenaean full body shields impacted on Mycenaean warfare and answer the question “is the current understanding of the how the Mycenaean tower shield was historically used accurate?” In the process this thesis will look at how Mycenaean military was organised, the role it played in the society of the time, and how warfare was physically waged – researched through the mediums of documentary evidence and weaponry. As the swords of this period and spears in general have received recent attention in publication,<sup>1</sup> this thesis will focus on that most unique of early Mycenaean defensive armaments, the full body shields of both tower and figure-of-eight design.<sup>2</sup> This thesis is an original contribution to the period being studied, and will make use of all resources at its disposal to arrive at its conclusion.

The 17<sup>th</sup> to 14<sup>th</sup> centuries BCE, from the start of the LH IIA Mycenaean period to the end of the LH IIIA2 period, were a formative period for many aspects of later Mycenaean warfare, which is the period focused on in this thesis.<sup>3</sup> The widespread use and development of the shield and armour as part of the military armament occurred first here, and the sword, which would live on as a tool of armies until the age of gunpowder, also experienced considerable development during this period.<sup>4</sup> Nevertheless, the primary artefact of this period, which certainly impacted on battles more than early body armour and offensive weaponry, was the shield. These shields, contrary to popular thought, were not only simple to use, but also very effective at the task assigned to them. So unique in their design, the tower and figure-of-eight shields of these periods dictated much of Mycenaean combat and have a crucial role in any interpretation of the nature of Mycenaean warfare from the end of the Middle Helladic III period (approximately 1650 BCE) and their approximate disappearance on the archaeological record by circa 1350 BCE.<sup>5</sup>

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<sup>1</sup> Dan Howard, *Bronze Age Military Equipment*, South Yorkshire, 2011, pp35-45; B. Molloy, Martial Arts and Materiality: a combat archaeology perspective on Aegean swords of the fifteenth and fourteenth centuries BC, *World Archaeology Vol.40(1)*, 2008, pp116-134; B. Molloy Swords and Swordsmanship in the Aegean Bronze Age, *American Journal of Archaeology Vol. 114, No 4*, 2010

<sup>2</sup> See discussion later in chapters 3-6

<sup>3</sup> There has been much question in recent scholarship about the appropriate dating of ancient time periods focused around whether or not a hundred years or more need to be altered from the current historical timeline. This thesis and its dating are based primarily on scholarship and research completed prior to this debate and as such uses the previously accepted timeline.

<sup>4</sup> For more on the Mycenaean military of later generations, see: Robert Drews, 1993, *The End of the Bronze Age, Changes in Warfare and the Catastrophe C.1200 BC*, Princeton; 1993 N. Grguric, *Mycenaeans c. 1650-1100 BC*, Oxford, 2005; A. Snodgrass, *Early Greek Armour and Weapons*, Edinburgh, 1964; J. Warry, *Warfare in the Classical World*, New York, 2000

<sup>5</sup> For more on the Mycenaean Military of this period, see: J. Driessen and C. Macdonald, Some Military Aspects of the Aegean in the Late Fifteenth and Early Fourteenth Centuries B.C., *The Annual of the British School at Athens, Vol. 79*, 1984, pp49-56; J. Driessen, The Archaeology of Aegean Warfare, *Polemos: Le Contexte Guerrier en Egee a L'Age du Bronze. Actes de la 7e Rencontre egeenne internationale Universite de Liège*, 1998.

This thesis will follow in the style of Ebbe Vilborg, one of the first academics of Mycenaean grammar, who proposed that when considering a topic that is either controversial or has only limited secondary sources available this should be approached by presenting wherever possible any variances or controversies as they arise.<sup>6</sup> Only by doing so can these variances and controversies be identified and addressed. When combined with the evidence this will then enable an assessment to determine what *probably* happened on the basis of other *probable* conditions being true.

This thesis will not place great emphasis on the Dendra plate armour,<sup>7</sup> or present a discourse on Mycenaean armour as a whole.<sup>8</sup> Tests with the Dendra armour have previously revealed that the armour itself lends primarily to thrusting actions and has great difficulty with overhand cutting.<sup>9</sup> Though an important part of the discussion on Mycenaean warfare, the armour's apparent rarity offers little evidence for analysing how the armies of the Aegean fought, and its value in prestige and expense infers that it offers a narrow perspective on how one small section of the upper nobility fought. Therefore, due to the separation in technology, role and training, was not representative of the army as a whole.<sup>10</sup>

Similarly the sword and spear, the other staples of the Mycenaean armament, will not be the focus of much discussion. Both are primarily thrusting tools and the spear does not differ greatly from other examples throughout history, suggesting that these spears were used in a similar fashion.<sup>11</sup> The

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Universite de Liège, Histoire de l'art d'archeologie de la Grece antique, ed. Robert Laffineur, 1999, pp. 11–20; N., Grguric, *Mycenaeans c. 1650-1100 BC*, Oxford, 2005; P. Guida, *Le Armi Difensive Dei Icenei Nelle Figurazioni*, Rome, edizioni dell'Ateneo, 1973; Dan Howard, *Bronze Age Military Equipment*, South Yorkshire, 2011; B. Molloy, Martial Arts and Materiality: a combat archaeology perspective on Aegean swords of the fifteenth and fourteenth centuries BC, *World Archaeology Vol.40(1)*, 2008, pp116-134; B. Molloy, Swords and Swordsmanship in the Aegean Bronze Age, *American Journal of Archaeology Vol. 114, No 4*, 2010; R. Osgood, R. and S. Monks, *Bronze Age Warfare*, Sutton, 2000

<sup>6</sup> Ebbe Vilborg, *A Tentative Grammar of Mycenaean Greek*, Göteborg, 1960, his viewpoint is succinctly explained in the preface.

<sup>7</sup> #Reference Dendra Armour

<sup>8</sup> For such a discourse I refer the reader to Dan Howard, *Bronze Age Military Equipment*, South Yorkshire, 2011

<sup>9</sup> An analysis of the swords may be found in B. Molloy, Martial Arts and Materiality: a combat archaeology perspective on Aegean swords of the fifteenth and fourteenth centuries BC, *World Archaeology Vol.40(1)*, 2008, pp116-134

<sup>10</sup> For more on social stratification and the Mycenaean nobility, see Chapter 3.

<sup>11</sup> This is to say that there are many different types of spear, but for a given type of spear the fighting styles are incredibly similar. For example, a pike is fought with differently as to a dory which is used differently to a Persian paltron, but all pikes fight similarly with only minor differences.

Fundamentally, the physics does not change as the spear remains a primarily thrust oriented weapon. For a discourse on how to fight with a spear see: David Knight and Brian Hunt (trans), *Polearms of Hector Mair*, Colorado, 2008, Chapter 3; Achille Marozzo, *Opera Nova dell'Arte delle armi*, Libro 4, compiled by Richard Cullinan, 2007; Francesco Novati, *Flos duellatorum: Il Fior di battaglia di maestro Fiore dei Liberi da Premariacco*, Bergamo, 1902, Pisani-Dossi Collection

sword of this period has also been significantly analysed,<sup>12</sup> and it can therefore be concluded from these studies that Mycenaean sword and spear combat was most probably thrust oriented. It required compact formations the nature of which can only be determined via a study of the shield, which dictates precisely how, when and where the thrust can be performed.

As previously stated, this thesis will proceed by studying the available documentary and pictorial evidence, supplemented by physical research. At times the discussion will bring in comparative evidence from other contemporary, classical or even medieval cultures to assist in identifying the most likely conclusions and clarification of ideas. To facilitate this, each chapter will deal with a separate topic within the study of the Mycenaean military as a whole – inclusive of evidence sourced from circa 1300 BCE in the period post Aegean dominance and Mycenaean empire period which would normally be considered outside the bounds of 1600-1450 or 1350 BCE period. Chapter 1 will offer a basic introduction to the field and will discuss the many issues with studying this particular subject and why this research is crucial. Chapter 2 deals with the many perspectives within academia that have examined the subject of Mycenaean warfare, and in particular the Mycenaean shields, including a general literature review and an analysis of perspectives that have influenced academic interpretation since the original discovery of the Mycenaean culture by Schliemann in 1876. Chapter 3 approaches the question of the Mycenaean military relating to matters of organization and social standing. Chapter 4 offers an analysis of the primary shield evidence and offers various interpretations and approaches in considering this evidence, concluding in an assessment of the potential fighting style. Chapter 5 is a comparative study of shields and shield types from throughout history and an interpretation from a biomechanical perspective. The focus on historical shield designs as the basis for this understanding is justified on the assertion that this discussion will help delineate a clear difference between the Mycenaean style of warfare and all other historical forces. This study should help readers better understand the physical mechanics of a variety of historical shield designs and thus allow them to better critique the research that appear in chapter 6. Chapter 6 presents the results of practical tests to supplement the conclusions that the Mycenaean utilized formation-based warfare as the foundation of their fighting style. Chapter 7 provides a short summary of the important points of the preceding chapters and presents in full, the most likely style of fighting used by early Mycenaean armies, based on the information contained within the documentary sources both modern and contemporary, pictorial sources, the application of physical realities and the results of practical experimentation.

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<sup>12</sup> For a practical analysis of the Mycenaean swords see: D. Howard, *Bronze Age Military Equipment*, South Yorkshire, 2011 pp41-42; B. Molloy, Martial Arts and Materiality: a combat archaeology perspective on Aegean swords of the fifteenth and fourteenth centuries BC, *World Archaeology Vol.40(1)*, 2008, pp116-134; B. Molloy, Swords and Swordsmanship in the Aegean Bronze Age, *American Journal of Archaeology Vol. 114 No 4*, 2010



It must be emphasised that while evidence may point strongly in one direction or another, without written sources for this period it is impossible to conclusively identify how the Mycenaeans fought on any particular occasion and investigation is reliant wholly on investigation and inference. Without access to contemporary literary sources, first-hand knowledge or a time machine, we can only suppose a reasonable understanding of how these shields *could* have been used, and how the Mycenaeans most likely would have been fought. Thus this thesis will conclusively determine what they *probably* did, which is of value to the academic world.