

**ARMS, ARMOUR AND SIEGE-CRAFT OF THE GRAECO-ROMAN WORLD
BETWEEN 2000 BC AND 200 AD: THE USE AND TRANSLATION OF
TERMINOLOGY**

by

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In memoriam

Rev./Dr. N.F. Schmidt

03/07/1972 - 10/12/2017

A kind and noble soul

Who taught me to find joy and fulfilment in the
translation of Biblical and ancient languages

DECLARATION

I, Wynand Mauritz Bezuidenhout, declare that the Master's Degree research dissertation that I herewith submit for the Masters degree qualification of Magister Artium with specialization in Classical Languages to the University of the Free State, is my independent work and that I have not previously submitted it for completion of a degree at another institution of higher education. I hereby cede copyright of this product in favour of the University of the Free State.

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LIST OF ABBREVIATIONS

Caes. <i>B.C.</i>	Gaius Julius Caesar, <i>Bellum civile/Civil War</i>
Caes. <i>B.G.</i>	Gaius Julius Caesar, <i>Bellum gallicum/Gallic War</i>
Cic. <i>Phil.</i>	Cicero, <i>Orationes philippicae/Philippics</i>
Hdt.	Herodotus, <i>Historiae/Histories</i>
Hom. <i>Il.</i>	Homer, <i>Ilias/Iliad</i>
Hom. <i>Od.</i>	Homer, <i>Ilias/Iliad</i>
J. <i>BJ</i>	Flavius Josephus, <i>Bellum Judaicum/Jewish War</i>
Juv.	Juvenal, <i>Satirae</i>
Liv.	Livy/Livius
Luc. <i>Tox.</i>	Lucian, <i>Toxaris</i>
LXX	Septuagint
Ov. <i>M.</i>	Ovid, <i>Metamorphoses</i>
Plin. <i>Nat.</i>	Pliny the Elder, <i>Naturalis Historia</i>
Plb.	Polybius, <i>World history</i>
Suet. <i>Calig.</i>	Suetonius, <i>Gaius Caligula</i>
Suet. <i>Claud.</i>	Suetonius, <i>Divus Claudius</i>
Suet. <i>Galb.</i>	Suetonius, <i>Galba</i>
Tac. <i>Ann.</i>	Tacitus, <i>Annales</i>
Tac. <i>G.</i>	Tacitus, <i>Germania</i>
Th.	Thucydides, <i>History of the Peloponnesian War</i>
Thphr. <i>HP</i>	Theophrastus, <i>Historia Plantarum</i>
Verg. <i>A.</i>	Vergil, <i>Aeneid</i>
Vulg.	Vulgate
X. <i>An.</i>	Xenophon, <i>Anabasis</i>
X. <i>Cyr.</i>	Xenophon, <i>Institutio Cyri/Cyropaedia</i>
X. <i>Eq.</i>	Xenophon, <i>de Equitande ratione</i>
X. <i>HG</i>	Xenophon, <i>Historia Graeca/Hellenica</i>

- BAGD Bauer, W. W.F. Arndt, F.W. Gingrich and F.W. Danker. 1979. (2nd ed.)
A Greek-English Lexicon of the New Testament and Other Early Christian Literature. Chicago/London: The University of Chicago Press.
- BDB Brown, F. Driver, S. and Briggs, C. 2010. (13th print)
The Brown-Driver-Briggs Hebrew and English Lexicon. Peabody, Massachusetts: Hendrikson Publishers.
- HAT Odendal, F.F. en Gouws R.H. 2013 (5^{de} uitgawe). *HAT: Handwoordeboek van die Afrikaans Taal*. Kaapstad: Pearson/Longman
- LEH Lust, J. Eynikel, E. and Hauspie, K. 2003. (rev. ed.) *Greek-English Lexicon of the Septuagint*. Stuttgart: Deutsche Bibelgesellschaft.
- LS Liddell, H.G. and Scott, R. 1889. *An Intermediate Greek-English Lexicon*. Oxford: Clarendon Press.
- LSJ Liddell, H.G. Scott, R. and Jones, H.S. 1968. (9th ed. with supplement)
A Greek-English Lexicon. Oxford: Clarendon Press.
- L&S Lewis, C.T. and Short, C. 1975. *A Latin Dictionary*. Oxford: Clarendon Press.
- AFR1983 Afrikaans 1983 translation
- AFR3353 Afrikaans 1933/1953 translation
- KJV King James Version
- NIV New International Version
- NKJV New King James Version

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ABSTRACT

The purpose and aim of this study is to identify translations of Greek and Latin words for weapons, armour, siege engines and naval warfare from the Graeco-Roman world between the years 2000 BC and 200 AD and to determine whether or not these translations do justice to their meaning. In cases where existing translations are not adequate, new translations are developed. The methodology applied both for determining the accuracy of existing translations and searching for new translations is to compare the semantics, etymology and context of words with their archaeological, historical and technological background. The study will also illustrate how these disciplines can be mutually beneficial to each other. Questions such as “what did these arms/war machines look like?”, “for what function was it designed?”, “what context and clues did ancient writers provide?” and “what clues do the origins of the words that represent these weapons, armour and war machines provide?” are raised. These questions give rise to an equally important question: “How can the appearance and/or function of specific arms, armour or war machines be put into words that can still be read smoothly in translated literature and texts?”. This study attempts to answer these questions as best it can and to indicate where further study is necessary to answer the unanswered questions.

Key terms: Arms, armour, siege-craft, Graeco-Roman, 2000 BC, 200 AD, translation, linguistics, semantics, etymology, history, archaeology, technology, weaponology, weaponry, weapons, melee weapons, armour, missile weapons, siege engines, naval warfare.

1. INTRODUCTION

1.1 Background and rationale

Translators do at times give generic translations for weapons from the Graeco-Roman world. In some cases, generic translations are sufficient (see 2.2.4 *ensis*) but more often they are not (see 2.2.12 *ρόμφαία*). The translations lack the iconic meaning that the people of Greece and Rome would have attributed to specific weapons. The result is that many translations are non-specific and too vague to provide readers with an accurate concept of what specific weapons looked like, for instance, the words *gladius* and *ξίφος* are often translated as “sword”, even though both weapons were specifically double-edged swords (see 2.2.7 *gladius* and 2.2.10 *ξίφος*). The opposite is also true, that translators are sometimes too specific when translating weapons where a more generic translation is safer (see 2.1.1 *αἰγῶνή* and 2.1.3 *cuspis*).

The tendency to give generic translations of a word is probably due to the fact that the following disciplines do not meet:

- i. Linguistics - “the scientific study of language or of particular languages” (Hornby s.v. linguistics).
- ii. Archaeology - “the study of cultures of the past and of periods of history by examining the remains of buildings and objects found in the ground” (Hornby s.v. archaeology).
- iii. History - “the study of past events” (Hornby s.v. “history”).
- iv. The emerging discipline of weaponology (the science and history of weapons).

By connecting these disciplines, the result would be more accurate translations: Meyer (2012: 1-12), for example, wrote on Roman siege machinery and the siege of Masada, consulting many historical sources and even an English translation on Josephus’ *Jewish War*. Meyer did not consult much linguistic evidence in Greek or Latin, perhaps because it is not part of his field. Studies on the Greek or Latin text could have aided such work (as chapter 5 of this study will prove), especially if semantics and etymology confirm existing theories on what the siege

machinery looked like. This niche, if explored, may benefit fields of Classical Languages such as epic, tragedy and history by providing a more accurate frame of reference for the weaponry of Ancient Greece and Rome: Borangic (2008: 141-160), for example, combined elements of linguistics, history and archaeology to produce an astounding description and a detailed discussion on the *falx* family of swords, including the *sica* and ῥομφαία.

Due credit must be given to authors who have studied specific aspects of the field of weaponology. Authors such as Hanson (2003), Krentz (1985) and Wilde (2008) have written on the history and technology of hoplite (Greek heavy infantry) weapons, armour and warfare. Their work may prove insightful to studies on the ὄπλον shield and the word ὄπλα, to determine where the word ὄπλιτη comes from. Campbell (2002), Meyer (2012) and Payne-Gallwey (1907) have done significant work on the history and technology of Graeco-Roman siegecraft and provide background for the history of thought on siege engines, for instance the καταπέλτη or catapult as it is commonly known. It is especially important to realise that authors such as Sage (1996), Connolly (1981), Feugere (2002) and Anderson (1976, 2003) have contributed greatly to the historical, archaeological and technological study of weapons and armour. Haws (1985) and Ireland (1978) have made an excellent historical and technological study of naval warfare and its development over the ages, for example, how the triremes developed from biremes and how they in turn evolved from the pre-biremes. The work they have done can be compared to the “many benched ships” found in Hom. *Il.* 7.88. A linguistic study on the meaning of τριήρεις combined with their work can determine whether the term “trireme” refers to three sets of oarbanks above each other or three rowers per oar seated in one row.

Although abovementioned authors have taken the archaeological, technological, historical and cultural aspects of their fields into account, there is little focus on linguistic reference in their work. The absence of linguistic information is not due to any lack of it on the part of these authors but rather because they focus on historical description and not on linguistics. Sadly, this means that these authors leave some readers in the dark, though not intentionally. Not all language students or scholars are experts on history and not all history students or scholars are experts in language. Ironically, the works of these authors would be able to contribute to the linguistic world in terms of how one pictures the weapons, what they look like and how they

were used; thereby making it possible to describe these weapons in more detail while still using a single word or phrase. Linguistic studies, such as Cebrian (1996) and Borangic (2008) as well as Greek lexicons and Latin dictionaries may be helpful for historians to better understand the weapons that they write about - why the Greek and/or Roman name for a weapon is descriptive or not descriptive of what it looked like and what the semantic range of each specific weapon's name was.

1.2 Problem statement and objectives

In the light of 1.1 above, it is clear that the field of linguistics must be cross-referenced with fields such as archaeology and history (inasmuch as they may guide us to discover the meaning of words without being too deeply immersed in the fields of archaeology and history; thereby avoiding the danger of straying from the field of linguistics). It is still quite clear (in the light of 1.1 above) that the work done on weaponology has been restricted to particular fields, such as archaeology and/or history and not combined with linguistics as a holistic reference for arms, armour and siegecraft within the field of Classical Studies. How can the problem be resolved? What period of time in history is necessary to produce such a holistic reference? Can it serve as a basis for linguistic study or not? If so, which linguistic tools should be used?

This study aims to answer these questions in order to produce an informed basis for describing weapons, that is, what they looked like and what they were used for in the Graeco-Roman world. New translations, that aid the description of a weapon by name instead of obscuring it to the reader, will be provided where necessary. Existing translations that are sufficient will be maintained. Existing alternatives that describe the weapon better than the immediate translations will substitute inadequate translations. A table with a summary of translations will be included for each chapter, starting with chapter 2. Existing and alternative interpretations as identified will remain unmarked in these tables. New translations (mostly created through neologism) will be indicated with an asterisk * in the tables. The tables include five columns, supplying the lexeme, the general meaning of the word, the specific meaning of the word and the choices made in this study for English and Afrikaans translations. In some rows, comments like “adjective specific”, “context specific” and “not applicable” are used where definite translations cannot be made.

General meanings of lexemes are formulated from either the most basic dictionary meaning or from the most common translations used by more than one translator. Specific meanings of lexemes are formulated in the light of more detailed evidence acquired from the sources in this study.

The research done here endeavours to study the arms, armour, siege engines and ships of the Greek city-states, the Romans and other Hellenic civilizations between the years 2000 BC and 200 AD as portrayed in Greek and Roman literature and as affirmed or contradicted by physical evidence, where available. 2000 BC marks the rise of the Mycenaean and Minoan civilizations; these nations were the predecessors of the Greeks and eventually shaped Ancient Greek society, warfare and military technology. Evidence of the presence of these nations in mainland Greece as well as remnants of their weapons, which resemble some of the weapons that developed in Dark Age and Classical Greece, has been found (Boxall et al. 2000: 24-28, Sandars, 1961: 17-29, Sandars, 1963: 117-153, Molloy, 2008: 116-134 and Molloy 2010, 403-428). Furthermore, some Greek names for weapons are in fact Mycenaean or Minoan loanwords (Cebrian, 1996: 13-20). The date of 200 AD marks the end of the Parthian campaigns (199 AD), the end of the Rome's Golden Age (by 180/193 AD) and the end of the Antonine Dynasty (193 AD) according to Boxall et al. (2000: 24-28). The result will be substantiated and researched translations. Unfortunately, substantiated and researched translations are difficult to produce without researching etymology and impossible without researching semantics. Semantics must therefore be included in this study and etymological data must be included where available.

In short, the purpose of the study is to provide a detailed description of each weapon, piece of armour, siege engine and ship (of the Graeco-Roman world between the years 2000 BC and 200 AD) according to its appearance and use, to consider the semantic, etymological and historical background of these objects and then translate the word or provide a new translation when necessary. The ability and knowledge of the writers of relevant sources should be considered to assist with the historical background. Josephus was well acquainted with military terms, whereas Homer was not as well acquainted with the detail. Poets like Vergil often used poetic or vague (or even specific) terms to suit the needs of the poetic works that they were creating.

1.3 Research design and methodology

The study researches language within the framework of weaponry from a semantic, etymological and historical perspective. Semantics is “the study of meanings of words and phrases” according to Hornby (s.v. semantics).

Saeed (2003: 3) describes semantics as “the study of meaning communicated through language” and more specifically as “the study of meanings of words and sentences”. Semantics can be split into linguistic knowledge (knowledge of words) and encyclopaedic knowledge (knowledge of the world), that is, a word has a specific meaning but it is still defined in terms of its relation with the way things are in reality (Saeed, 2003: 6). This study brings these two elements together, by studying the history and physical evidence of weapons of the Graeco-Roman world and comparing it with the language used to describe these weapons in Classical works. Semantics, according to Saeed (2003: 64-71) includes semantic descriptions of word meaning, such as:

- i) Polysemy (the multiple senses of a word that are related to each other) - See 2.4.2 ξύλον.
- ii) Synonymy (words that have different phonology but have the same or similar meanings) - see 3.1.5 θῦρέος and 3.1.11 *scutum*; two words almost identical in meaning.
- iii) Antonymy (opposite meanings), for example, melee weapons and missile weapons.
- iv) Hyponymy (the relation of inclusion) - see 4.1.7 οἰστός (arrow) and 4.1.8 *pilum* (heavy javelin); both fall into the family of words known as projectiles or missile weapons.
- v) Meronymy (describes a part-whole relationship between lexical items) - see 3.4.1 θώραξ (breastplate/cuirass) and 3.3.2 περιμηρίδες (thigh armour) as different parts of the bigger whole that makes up a hoplite’s πανοπλία (panoply).

Louw and Nida (1988) notably have a different approach to lexicography, namely the inclusion of semantic domain of words, in other words, the polysemy of the word or the range of different meanings that it may have, such as its military meaning, its abstract meaning or its domestic meaning (this varies from word to word). See 2.2.9 μάχαιρα and 2.4.2 ξύλον as examples. The need for inclusion of Louw and Nida concerning weapons in the New Testament is clear.

Etymology is the “study of the origin and history of words and their meanings” (Hornby s.v. etymology) and “aims to trace the history of a word” (Jackson, 2002: 17). Jackson also mentions that the formation of words, such as derivation and compounding is not often included in etymology, unless it is unclear (2002: 17). The reader will note that there are indeed many cases of nouns derived from verbs and also compounds mentioned in this study, including cases where there is uncertainty as to their origins. Jackson’s description of etymology makes it quite clear why it is necessary to take it into account in this study, since it is linked to the history of words and therefore a link between language and history. Jackson (2002: 126) states that etymology is not very useful for contemporary or synchronic study of language but very useful for diachronic study of language. The title of this study implies the need for diachronic study. In the light of the need for diachronic study of words, the dates of primary works (and in some cases the dates implied by the content) are given when two or more of these works are consulted on a specific word. This study presupposes that the reader will be able to make their own conclusions in terms of development of meaning through time and will therefore not discuss these differences in detail but simply point them out to the reader.

History is the “study of past events” (Hornby s.v. history). In a sense semantics and etymology overlap as both consider the aspect of meaning and culture, yet etymology is concerned with the origin of the word, which may even provide clues to its semantic meaning. The historical perspective where ancient weapons are concerned, includes:

- i) archaeology - the study of cultures of the past and of periods of history by examining the remains of buildings and objects found in the ground (Hornby s.v. archaeology); and
- ii) technology - scientific knowledge used in practical ways (Hornby s.v. technology).

It cannot be stressed enough that this study is primarily linguistic and therefore not too much time can be spent on archaeological evidence or on technological aspects of ancient arms and armour. Archaeological and other physical evidence will only be used where it may give clarity to the semantic and etymological situation of individual weapons, in other words, where it seems to support a theory or contradict it. Etymological data will be included when it is available. This study will make use of primary literary sources to define the uses of these weapons as written by

Greek and Roman historians and poets; granting insight into how the Graeco-Roman or Hellenistic writers thought about these words, for what purpose they used them and in what context they used them. The study will determine why a primary author or work uses words for Greek and/or Latin weapons in a way that differs from other writers or works. One example: why does the LXX use the words μάχαιρα, ξίφος and ῥομφαία (LXX, Lev 26:7, 8, Josh 11:11, 12 and Ezek 6:11, 12) to translate the Hebrew word *chereb*, a straight short sword (De Vaux, 1965: 241)? The ξίφος resembles the *chereb*, while the μάχαιρα and ῥομφαία are two distinct swords not resembling a *chereb* at all (see 2.2.9 μάχαιρα, 2.2.10 ξίφος, 2.2.12 ῥομφαία and addendum B). Secondary sources are used to assist in the interpretation of the primary sources or even provide independent interpretations of the weapons.

The identification and selection of Greek and Latin words for weapons is difficult, even for someone who has knowledge of military terms in Classical languages. There will always be a term or two that one does not notice. A working knowledge is, of course, essential in identifying many of the terms but is only limited to those terms that are known by the researcher. It therefore cannot serve as the only basis for identifying weapon vocabulary. Where does one start? A lexicon or database is only useful if the researcher knows what to look for. It is the first time that someone has endeavoured to make such a study and much of the research methodology had to be developed from scratch. This study approaches the problem by reading or scanning through primary literary sources that have military rich content or at least some chapters with a military rich content. One cannot consult all instances of all primary literary sources with military content.

The following primary sources are consulted: Gaius Julius Caesar, *Bellum civile/Civil War*, Gaius Julius Caesar, *Bellum gallicum/Gallic War*, Cicero, *Orationes philippicae/Philippics*, Herodotus, *Historiae/Histories*, Homer, *Ilias/Iliad*, Flavius Josephus, *Bellum Judaicum/Jewish War*, Juvenal, *Satirae*, Livy, Lucian, *Toxaris*, the Septuagint, Ovid, *Metamorphoses*, Pliny the Elder, *Naturalis Historia*, Polybius, *World history*, Suetonius, *Gaius Caligula*, Suetonius, *Divus Claudius*, Suetonius, *Galba*, Tacitus, *Annales*, Tacitus, *Germania*, Thucydides, *History of the Peloponnesian War*, Theophrastus, *Historia Plantarum*, Vergil, *Aeneid*, the Vulgate, Xenophon,

Anabasis, Xenophon, *Institutio Cyri/Cyropaedia*, Xenophon, *de Equitande ratione* and Xenophon, *Historia Graeca/Hellenica*.

The method may seem crude at first but it eventually picks up momentum as the study of military terms in Classical languages unlocks more vocabulary. The words, *πᾶνοπλία* and *arma*, for example, immediately lead one to think about what is included in a Greek warrior or Roman soldier's arms and armour and to research these words. Consulting authors on Greek and Roman military history especially helps one to identify the relevant vocabulary. The list of primary sources obviously grows as the vocabulary expands through the course of the research. Archaeological finds also assist in affirming relevant vocabulary. At this point it must be noted that it is impossible to include all military vocabulary, only the most relevant terms are included. The word *fascis* (an axe) for instance, is not included in this study, because it was mostly used for ceremonial purposes in Roman court. Thomas (s.v. *fascis*) describes the use of the *fascis* as "bundles of sticks with an axe projecting, carried by lictors before the chief magistrate". The word *ferrum* is, for instance included, even though it is a poetic term for a sword or other military implements, because it was used to describe numerous types of weapons in accounts of actual battle. Well known words such as *gladius* and ὄπλον are included and relevant terms that are not so well known, such as δίπυλον, are also included.

Weapons will be arranged in categories and sub-categories and finally alphabetically within each sub-category. *Pilum*, for example will be categorized under "Missile weapons" in chapter 4, sub-categorized under "Arrows, bolts and javelins" in 4.1 and arranged alphabetically after "οἰστός" 4.1.7 and before "*sagitta*" 4.1.9. When Greek and Latin alphabets correspond, no problems arise while arranging lexemes alphabetically. One does however encounter some Greek letters that are not found in Latin, such as ξ, κ, η, θ and ω and at the same time the letters c and h exist in Latin but do not occur as letters in the Greek alphabet. To remedy this issue, preference will be given to the position of the applicable letter in its own alphabet: words beginning with c will, for instance, appear after b or β and before g or γ; words beginning with ξ will be arranged after n and v but before o and ο. G will take preference to its position in the Latin alphabet and γ will take preference to its position in the Greek alphabet. Aspirated Greek letters will be treated as normal alphabet letters: ρ̄, for example, will be treated as ρ. The abovementioned system is

henceforth referred to as harmonized alphabetical order. Chapter 5 “Siege engines” and chapter 6 “Naval Warfare” are the exceptions to harmonized alphabetical order of arrangement. The contents of chapter 5 are arranged according to similar words and their similarities and/or differences. The contents of chapter 6 are arranged according to historical development, since the names of ships are related to their development: triremes, for example, came after biremes but before quadriremes and quinqueremes.

Illustrations and images are included in the addenda to enable the reader to grasp concepts of what the weapons looked like, after all, a picture is worth a thousand words. The illustrations and images have been acquired from academic sources, because not all sources containing image material can necessarily be trusted, that is, many weapons enthusiasts may present renderings, illustrations or models of weapons that are not necessarily historically accurate. The amount of usable image material is far less than the amount of image material that is available and for this reason, not all the lexemes will necessarily have image representation in the addenda.

Suitable translations in Afrikaans and English will be supplied for each word. Afrikaans and English are both used as target languages for the concept translations in order for the study to be used for international and local (South African) purposes. The translations will be measured by visual and historical sources inasmuch as they are available and also by context and clues provided in the passages (for examples on this method - see *gladius* 2.2.7, *cassis* 3.6.1, *galea* 3.6.3 and *πέλτη* 3.1.8). Note that many of the images, though they are found in academic articles, still qualify as primary visual sources, since they are photographs of archaeological finds, such as the helmets displayed in the Royal Athena Gallery (2007), the helmets found at the Kops plateau as discussed by Van Enkevort & Willems (1994) and examples of the *ξίφος* and *μάχαιρα* found in cremation burial pit graves Southwest of the cemetery of Tumuli dating from the 6th century BC as described by Kottaridi (2001). Plates, reconstructions, models or renderings based on archaeological finds or historical evidence is also included. Please note that the historical references such as dates and where the finds originated from are discussed in the content of the study and are linked to their applicable images in the Addenda by in-text references. The reader should take note of this and read through the content carefully.

Some subjects require more discussion than others - Section 5.1 on the catapult/ballista for example, since it presents an interpretative dilemma: Does a λίθοβολος or πετροβόλος (stone thrower) refer to a *ballista* or does it refer to an *onager* or pre-*onager* as well? Does the word καταπέλτη refer to an onager-type or a ballista-type siege engine? How does one differentiate these stone-throwing devices? Section 3.3.4 on the σάνδαλον is short, since not much can be said about the Greek word for a sandal. The translation of the σάνδαλον into English or Afrikaans does not require much effort.

The Loeb Classical Library will serve as the basis for Classical Greek and Latin texts, since the Classical scholars and students are generally familiar with the Loeb Classical Library. The availability and user-friendly nature of the Loeb Classical Library provides a safe and dependable source of Greek and Latin texts. *Rahlfs-Hanhart Septuagint* rev. ed. (2006) will serve as the Septuagint text reference for this study due to availability and user-friendliness. Nestle-Aland, *Novum Testamentum Graece*, 28th ed. (2012) will be used as Greek New Testament text reference as it is a well known and standard version of the Greek New Testament. Weber-Gryson, *Biblia Sacra Iuxta Vulgatam Versionem* (2007) will be used for the Vulgate. Nestle-Aland *Novum Testamentum Latine* (2008) will be the reference work for the Latin New Testament. Please note that Greek accents and breaths will be indicated in accordance with the lexemes as they appear in source lexicons, such as LSJ or LEH. Where Greek texts are cited from primary sources such as Loeb Classical Library, the accents in these citations and references to the text will be done in accordance with their appearance in the sources themselves. Any general references to Greek words will be done in accordance with the accents as they are represented in the lexicon form. When accents in lexicons are at odds for general reference, preference will be given to accent style in LSJ.

Abbreviations for primary works will be done in accordance with LSJ (1968) for Greek texts and L&S (1975) for Latin texts, with the exceptions of Tacitus' *Annales*, which will be abbreviated as Tac. *Ann.* to avoid confusion with Tacitus' *Agricola* and Pliny the Elder, *Naturalis Historia*, which will be abbreviated as Plin. *Nat.* to avoid confusion with the work of Pliny the Younger. Lexicons and dictionaries are abbreviated in accordance with *The SBL Handbook of Style* by Alexander et al. (1999: 68-152).

1.4 Significance of the research

The following questions might be asked: Why is this research important? What does a study in Graeco-Roman weapons offer the academic world? To the academic world, the study may already be justified when considering that many of these words are incorrectly represented in English and Afrikaans translations. One example of incorrect representation is when translators such as Fagles (1990: 133, 137), Jackson (1962: 413) and Benade (1984: 42) use the English term “lance” or the “Afrikaans term “lans” (which denotes a cavalry spear) where the context of the Primary work in Greek or Latin denotes an infantry spear or a type of javelin (see sections 2.1.5, 2.1.7 and 2.1.10). Please note that this is but one example of erroneous translation; many errors of a similar nature are represented and discussed in this study and the reader should take the time to read and pay attention to these throughout the content.

Perceptions of what arms and armour looked like are sometimes distorted, for example, the δῖπῦλον shield, which was not a figure 8 shield. The δῖπῦλον shield was a “double-gated” shield or double opening shield, with two half-moon cut-outs on each side as used by the Greek heroes of old (LSJ s.v. δῖπῦλος and Hurwitt, 1985: 21-26). It is therefore important to give translators a more accurate basis for their work, so that they may in turn produce translations that give readers better insight into the world of Graeco-Roman history. Apart from translations, further information and descriptions of weapons may be useful for editors in critical editions to provide even more details in comments and notes for their readers. Readers who are informed and have more insight into the Graeco-Roman world may even be able to challenge accepted concepts of Graeco-Roman history in favour of new data, which they could substantiate through this study.

The more immediate questions are: Do people really want to know all of this? Do they consider such knowledge important? To answer these questions, honesty about human nature is necessary. The truth is that weapons, with their variety of forms, have always had a strange appeal to people, even if they do not necessarily wish to use them or hope for war or death. Ancient warfare has been the subject of many a film, especially where Greek and Roman warfare is concerned and new documentaries about Graeco-Roman warfare are continually created for television viewers. The Ancient world is brought back to life as reality. As palaeontology is to

dinosaurs, so linguistics and history is to the study of weapons in the Graeco-Roman world. The knowledge and pure interest in such a striking topic already justifies a study in which the most relevant vocabulary of Graeco-Roman warfare is dealt with in one work only.

It is also important to note how warfare, as Chaniotis (2005: 245) puts it, “shaped the Hellenistic world”: Warfare changed boundaries of city-states, it strengthened social positions and hierarchies, since staying on a battlefield to fight meant more to a general than it did to a low-ranking soldier. There was more glory to be had from the battlefield by the the military elite than by skirmishers; for a lowly soldier, war simply meant payment and potential loss of life and since victory held little reward for a commoner, the risk was not worth it unless victory was assured (Chaniotis, 2005: 245). The hoplites, for instance, were the military elite of the Greek city-states, while peltasts and trireme rowers were regarded lowly. Roman generals sought glory, their troops sometimes fled or deserted, such as the soldiers who discarded their weapons and shields, fled and drowned in the river Tiber (see 3.4.3 *lorica*), because they neglected to take off their armour. In this same manner, this study will mean different things to different people. Weapons enthusiasts and Classical linguists may find useful information and translation techniques in this study. Furthermore, it is envisaged that the study will prove useful to lexicographers, since they would have access to concepts which are not in common circulation. The study also shows how military aspects of the Greek and Roman life is also woven into the fabric of everyday life. Historians both ancient and contemporary cannot ignore it.

The next question that could be raised is whether this research brings any new insights to the table? Although much of the information presented has already been confirmed or at least mentioned by the secondary sources, the data in secondary sources often raise more questions. These questions require answers or remain unanswered and remain open to interpretation and further research, for example, that which is normally considered to be the meaning of the word catapult as derived from the Greek *καταπέλτη*. What happens when one realises that existing pre-conceived ideas are challenged and the notion of that which is generally considered to be a catapult is likely to be incorrect or at least questionable? Questions such as this one remain unanswered but are possible topics for further study.

As time passes, so does knowledge of the weapons of the Graeco-Roman world and each generation builds upon the results of their predecessors. Sometimes it is found that the foundation is flawed and a new one is required for example, ζῖβουνη (see 2.1.6), which denoted a spear (LEH s.v. ζῖβουνη, -ης) and was used to denote a spear in LXX, Isa 2:4, yet also used in LXX, Jer 6:23 where a Canaanite sword was meant in the Hebrew. The Hebrew manuscripts, such as the Qumran scrolls and Masoretic texts, are still considered to be more significant to Old Testament translation, even if they are not as old as existing Septuagint manuscripts. These interpretative errors in the LXX led to faulty translations of the Hebrew texts, such as KJV and AFR3353 using the word “spear” or “spies” in a context where “sword” is meant, whereas later translations such as AFR1983 took the 1QM Qumran scroll into account and rectified this mistake. This occurrence is an example of the importance of knowing how to translate terminology for weapons.

One might ask whether the KJV and AFR3353 translations are still relevant? Can errors that occur in these translations be justified as part of a rationale of a study? The answer is yes, these translations are still relevant and errors that are found in them can still serve as part of the rationale of a study. Consider the two translations individually:

- i) The AFR3353 translation is a direct (word-by-word) translation; it is in fact the only direct translation that exists in Afrikaans. The AFR1983 translation is an idiomatic (phrase-by-phrase) translation and *Die Boodskap* (Afrikaans version of The Message) and *Nuwe Lewende Vertaling* (Afrikaans version of NLT) are both paraphrases. *Die Bybel vir Almal* is a target-specific translation, mostly focused on the deaf, mentally impaired or casual readers. None of these translations can fill the niche that the AFR3353 fills. It is for this reason that it is still widely used by Afrikaans-speaking Theological students and many other individuals.
- ii) The KJV is of course, not the only direct English translation that exists today, it is very old, it makes use of a poetic style of translation and it was written more than three centuries before the Qumran Scrolls were discovered. It should be obsolete and yet it isn't. It is still one of the most popular English translations in the world. It cannot be neglected in this study. Its value in this study is in comparing its

content with other international translations such as the NIV and pointing out why, popular or not, there are some translation errors. This study's content takes into account that it is a very old translation and that is why other translations are included in this study.

In addition to the need to have a sound basis for translating weaponry, there is a need to integrate information on Graeco-Roman weapons which may focus on specific aspects of Graeco-Roman arms and armour. Hanson (2003) focuses on hoplite warfare, Campbell (2002) on Roman siegecraft and Gaebel (2002) focuses on Greek cavalry warfare and the applicable arms and armour, yet he sometimes includes infantry weapons and tactics where infantry engaged or aided cavalry. This is the first time ever that a study brings all these details together in one place, to produce a significant whole for a reference. The frame of reference provides a more in-depth analysis of what ought to be conceptualized in terms of weapon translations for Classical Studies.

1.5 Overview

1. INTRODUCTION

The background and rationale, the problem statement and objectives, the research design and methodology and the significance of the research are discussed in this section of the study.

2. MELEE WEAPONS

Melee weapons are weapons used in close quarters combat and were quite prominent in Greek warfare (Anderson, 2003: 17) as one notices in the *Iliad* and even in *The History of the Peloponnesian War*:

2.1 The spear formed the basis of hoplite battle and was the primary weapon of the Greek city-states for centuries (Anderson, 2003: 18).

2.2 Swords and knives were the secondary weapons of the Greek infantry and cavalry and these became the primary melee weapons of the Roman infantry after the Second Punic

War and occur in a wide variety (Anderson, 2003: 25-26 and Cook & Stevenson, 1980: 22).

2.3 Axes were not commonly used by Greek or Roman soldiers but are mostly mentioned as exotic or foreign weapons in primary sources (see section 2.3).

2.4 Clubs and maces were also not commonly used by Greeks and Romans, yet they are mentioned from time to time and were of the same rare nature as axes (see section 2.4).

3. ARMOUR

Armour was the warrior's best friend and indisputably part of Graeco-Roman warfare:

3.1 Shields are included in this chapter. Although shields could be used as defensive weapons and were not part of the armour itself, they still functioned to deflect or block attacks.

3.2 Bracers and armguards gave additional protection in combat.

3.3 Greaves and footwear are also included because they formed part of the Greek hoplite panoply and sandals were used by Roman legionaries and other troops.

3.4 Breastplates and cuirasses provided vital protection in both senses of the word, since three of the four vital organs are situated in the torso region.

3.5 Belts, skirts and flaps provided protection to the pelvic area and soft flesh between the waist and thighs.

3.6 The helmet was a warrior's last line of defense, since a head injury could be fatal.

4. MISSILE WEAPONS

Missile weapons were a part of the ancient world and no less so in Greece and Rome. The chapter includes:

4.1 Arrows, bolts and javelins which are discussed in the same section due to their similarities in shape and nature, functioning as a type of ammunition for ranged combat.

4.2 Bows do not need much introduction but are included, because they were crucial in warfare and cannot be neglected in this study.

4.3 Slings are not mentioned as often as for instance the bow and arrow but are just as important to translate as the bow. Slings predate the bow and arrow and were used through the Bronze Age up to the Roman period (Cook & Stevenson, 1980: 9-13 and Ransford, 1975: 10-12).

5. SIEGE ENGINES

Siege engines naturally follow missile weapons since many of these were in fact missile-firing in nature. This section includes:

5.1 The catapult/ballista enigma, which discusses the terms catapult, καταπέλτη, *ballista*, πετροβόλος and λίθοβολος in order to determine what the relationship between these terms is and whether a decisive account can be made at all.

5.2 κομισθείσας μηχανάς or κριός, which entails a discussion of the battering ram and its development.

5.3 The ἐλέπολις, a monstrosity of a siege engine, combining many features of other siege engines to devastating effect.

5.4 ὀξυβελής/*Scorpio*, a smaller, portable version of the *ballista*.

5.5 Towers used as both siege technology and counter-siege measures (Th. 4.115.2 and Meyer, 2012: 10). Ramps and the structures used to build them are also discussed in this section.

5.6 The Roman testudo formation proved very effective in warding off enemy missile weapons when soldiers advanced on a city wall.

6. NAVAL WARFARE

Naval warfare is an unavoidable topic where Graeco-Roman weaponology is concerned, since ships themselves were weapons, especially when considering that the Mediterranean is a mass of water. Ships also had or were themselves versions of weapons used on land: triremes, quadriremes and quinqueremes, for example, were themselves naval battering rams but also had siege equipment on board, penteconters were the predecessors of the multi-oared ships and were also still used alongside them in naval battles:

6.1 Pre-biremes and large boats were some of the earliest warships described in Hellenistic literature. Pre-biremes and large boats eventually led to the development of biremes. Notable among these is the penteconter or fifty-oared ship.

6.2 Biremes were revolutionary in design due to their double oar-banks but eventually evolved into triremes.

6.3 Triremes had three banks of oars and were even faster than their predecessors and inevitably led to the design of quadriremes and quinqueremes.

6.4 Quadriremes and quinqueremes were the pinnacle of oared ships.

6.5 Transport ships were perhaps not as notable as warships but had an important role to play in naval warfare.

6.6 Small boats were used by contingency forces (Hdt. 8.21).

6.7 Other Greek and Roman naval innovations are placed in a general section since they do not have any common ground with other ship types.

6.8 Sailing ships are mentioned last, since they eventually replaced oared ships because of their larger sails, giving more speed and less need for oars (Haws, 1985: 24-35).

7. CONCLUSION

The concluding chapter will discuss the general findings of the research, such as which information proved useful and how the use and methods for translating individual words varied. Areas of the study that warrant future research are also mentioned.

Some illustrations and images of the discussed arms, armour, siege engines and naval craft are included at the end of the study, as per the following list of addenda:

ADDENDA

Addendum A - Spears

Addendum B - Swords

Addendum C - Shields

Addendum D - Armour

Addendum E - Helmets

Addendum F - Missile weapons

Addendum G - Siege engines

Addendum H - Naval Warfare

2. MELEE WEAPONS

Melee weapons are the oldest kind of weapons, yet have been reinvented many times over. The first were stone hand-axes, which eventually developed into hafted weapons such as clubs and stone axes and poled weapons such as spears. Knives and swords were the next step in this development. The materials rapidly changed from stone to bone to copper to bronze and finally to iron. Weaponsmiths experimented with different designs to yield different results, some weapons for bludgeoning, some for cutting and slashing, others for chopping and yet more for piercing and stabbing. This chapter deals with the wooden, bronze and iron melee weapons used in the Graeco-Roman world and comments on how innovative and unique some of these weapons were. Unusual words or expressions are therefore needed to describe them.

2.1 Spears

Greek spears typically had leaf-shaped heads with a central rib (see Addendum A image ii); their length varied from 20cm to 30cm and they were initially made of bronze and later of iron. They came in various sizes (Anderson, 2003: 23-24). The same is true for their Mycenaean predecessors (see Addendum A image i). The Romans eventually developed different spearheads for different purposes. The spear meant different things to different people. It was for instance the primary weapon of the Greeks, whereas the Romans later made the *gladius* their primary weapon and moved the role of the spear to secondary weapon and eventually replaced it with the javelin or *pilum* (Tomczak, 2012: 40-47).

2.1.1 αἰγᾶνή

The αἰγᾶνή was a hunting spear; the word perhaps derived from the word αἶξ for “wild goat” or “ibex” according to LS (s.v. αἰγᾶνή), though LSJ’s 9th ed. seems to exclude the idea that αἰγᾶνή could be related to the word αἶξ (LSJ s.v. αἰγᾶνή). Perhaps this is a revision? There is, however a resemblance between αἰγᾶνή and the word αἰγίος, meaning “of a goat” (LSJ s.v. αἰγᾶνή, αἰγίος). Αἰγᾶνή is used in the *Iliad* (II, 2.774) and is often translated as “javelin”, which is the case with Murray (1928: 107) who uses the translation “javelin” in *Iliad*, book 2 line 774, since this scene denotes javelin and discus throwing, though the term “hunting spear” is a

more apt translation when referring to combat situations. Fagles (1990: 124), however, uses the term “spears”, which, under normal circumstances would be acceptable, though not in this context, because it denotes sport, not combat. It could be argued that the soldiers used their military equipment for recreation, in which case, Fagles’ translation would be correct. Some insight into the shape of its point is found in the *Iliad*, with the words *αἰγανέης ταναοῖο*, “long/stretched/long-edged hunting spear”; it was primarily a throwing-spear (Hom. *Il.* 16.589). The term is derived from the word *τᾶνᾶός*, meaning “outstretched”, “tall”, “long” or “tapered” (LSJ s.v. *τᾶνᾶός*). This adaptation would have made it ideal for piercing the fur and tough hides of wild animals when cast from a distance. Murray (1976: 207) translates the term *αἰγανέης ταναοῖο* as “long javelin”, thus his translation of *αἰγανέη* is “javelin”. Fagles (1990: 431) translates it as “long thin spear”, perhaps he is including the connotation of “outstretched” in his translation? In English, it may be translated as “ibex/goat spear”, “hunting spear” or “hunting javelin” while Afrikaans equivalents may be “bok-spies” or “jagspies”.

2.1.2 αἰχμή

The word *αἰχμή* seems to be a generic Greek word for a spear or a spear point depending upon its use in a text (Hom. *Il.* 5.293 and Hdt. 1.43 and 5.94). Herodotus lived in the 5th century BC (485/4-425 BC) and Homer is believed to have composed the *Iliad* either in the late 8th century or early 7th century BC (if he is accepted as the author of the *Iliad*). The events of the Trojan War probably took place in the 12th or 11th century BC. The events described in Herodotus’ *Histories* cannot be attributed to a single time, since his work describes events that took place in various places and times. Each case shall have to be regarded individually. Godley (1920: 49) and Godley (1922: 115) translate *αἰχμή* as “spear” in Hdt. 1.43 (event 6th century BC) and 5.94 (event mid to late 6th century BC) respectively. Murray (1928: 217) translates *αἰχμή* as spear in Hom. *Il.* 5.293. Holland (2014: 20-21) also translates *αἰχμή* as “spear”. LSJ (s.v. *αἰχμή*) confirm that the *αἰχμή* may refer to a spear as well as a spear point; the word is written as *αἶχμα* in Aeolic. The Trojan War version had a bronze tip (*αἰχμή χαλκείη*) according to Homer (Hom. *Il.* 4.461). Herodotus does however refer to an iron version with regard to the 6th century BC, such as the “iron spear” *αἰχμῆς σίδηρεῖς* with which Croesus’ son was slain (Hdt.1.38, 39). Godley (1922: 47) translates *αἰχμή* as “spear” once again in Hdt. 1.38, 39. Holland (2014: 19) translates the word *αἰχμή* as “spearhead”, which is perfectly acceptable and maybe even preferable in view

of the context. The *αἰχμή* was not only used for thrusting but also for throwing, for example *λαβόντα αἰχμὴν βαλεῖν* (Hdt. 2.111) - event somewhere between late 20th century BC and late 19th century BC. Godley (1920: 399) and Holland (2014: 151) translate *αἰχμή* as “spear”. It could even refer to a short spear with the correct adjective as in the case of *αἰχμὰς βραχέας* (Hdt. 7.61) - event early to mid 5th century. Godley (1922: 377) and Holland (2014: 472) translate the phrase *αἰχμὰς βραχέας* as “short spears”. The word could in fact be used to refer to a foreign spear, such as a Magian or Persian spear (Hdt. 3.78) - event 522 BC. Godley (1921: 101, 103) and Holland (2014: 226-227) refer to *αἰχμή* as “spear” in aforementioned instance. The word “spear” is a suitable English translation for this word and “spies” is a satisfactory Afrikaans translation.

2.1.3 *Cuspis*

The word *cuspis* refers to a spear or a spear-point. L&S (s.v. *cuspis*) describe *cuspis* as “point”, “the pointed end of anything”, “the pointed end of a standard”, “spear”, “javelin”, “lance”, “Neptune’s trident” or “a scorpion’s sting”. The word itself literally means “point” (Thomas s.v. *cuspis*, *-idis*). Thomas (s.v. *cuspis*, *-idis*) translates this word as “lance” or “javelin”. These words are perhaps too specific (“lance” being a cavalry spear and “javelin” being a weapon mainly for throwing). *Cuspis* seems to be used as a generic word for spear. The type of spear would depend upon the context or the adjective that accompanies it, such as *cuspidis Ausoniae*, “Ausonian spear” (Verg. A. 11.41) or *longa cuspidē* “long spear” (Verg. A. 12.386). Fairclough (1954: 237, 325) translates the terms respectfully as “Ausonian spear” and “long spear”. Benade (1975: 324, 370) and Blanckenberg (1980: 324, 372) translate the term *cuspidis Ausoniae* as “Italiaanse spies” (Italian spear) and the term *longa cuspidē* as “lang spies”. The English word “spear” and the Afrikaans word “spies” should each be used with a suitable adjective, the translation depending on the context or adjective, if applicable.

2.1.4 *δόρυ/δουρί*

The Greek word for this spear literally means “pole”, “plank”, “beam”, “mast”, “oar” or “shaft”, though the military use undoubtedly refers to a “spear”, possibly Attic or Ionian in origin (LSJ s.v. *δόρυ*); the link between etymology and military sense of the word is clear, because the usual connotation is implied in the shaft of the spear. BAGD (s.v. *δόρυ*, *-ρατος*) simply translate this weapon as “spear”. LEH (s.v. *δόρυ*, *δόρατος*) translate *δόρυ* as “spear” or “shaft”. Although the

δόρυ is generally considered to be an early spear of the heavy infantry (see Addendum C image iv), it could be thrown if necessary (Hom. *Il.* 4.527 and LXX, 1 Sam 19: 9-10) - LXX 3rd to 2nd century BC describing an event in the 11th century BC and two could be wielded at the same time (Hom. *Il.* 12.298). These spears were therefore not the long pikes used by phalanxes at a later stage but rather a type of combat spear. Murray (1928: 117) and Fagles (1990: 129) translate δούρι as “spear”. The term, “combat spear” may be used to distinguish it from other Greek or Roman spears. The first versions of these, which are encountered in the Iliad, that is, 7th century BC literature describing events in 12th or 11th century BC, had copper or bronze heads (Hom. *Il.* 3.18). By the time of the Peloponnesian War it was considered to be a light infantry weapon as well. The light infantry who carried this kind of spear were known as ψιλοὶ (literally “bare/naked ones” but denoting soldiers without heavy armour). They were armed with δόρυ spears (μετὰ δορατίοις), their shields (ἀσπίδας) carried by shield-bearers (Th. 3.22.3). Thucydides lived in the mid 5th century BC to the early 4th century BC and wrote of events that occurred in the late 5th century BC. Forster Smith (1920: 35) translates δορατίοι as “short spears”, though this is due to the adjective ξυν or “short” used with δορατίοι. Warner (1972a: 205) translates δορατίοι as “spears” but gives no indication of them being “short”. The shaft of the δόρυ was made of hard wood such as ash and on rare occasions pine or wild olive would be used to make the shaft, yet ash was the preferred wood, since it was durable. The shafts of lighter spears such as hunting spears or throwing spears could be made of cornel, myrtle, pine or yew. These weapons had iron heads by 6th and 5th centuries BC though bronze heads were also still in use at the time. The spear had a butt-spike, called a σαυρωτήρ or “lizard killer”, which disappeared temporarily after the Bronze Age, yet reappeared in the 7th century BC as a rare occurrence but was in common use by the 6th century BC. Oddly, it was always of bronze even if the spearhead was of iron. It was 40cm long; a solid cast four-sided spike, fastened to the spear shaft by the method of socketing. It was stuck upright in the ground when the spear was not used or could even be used in combat (Anderson 2003: 22-24). The σαυρωτήρ (see Addendum A image iii) was also known as a στύραξ or οὐρίᾱχος and served as counterweight and therefore to stabilise the spearhead (Hanson, 2003: 71). LSJ (s.v. σαυρωτήρ) describe its use as “a ferrule or spike at the butt-end of a spear, by which it is stuck into the ground” and confirm that there is some relation between this word and the word for “lizard”.

The word may denote a heavier spear in some instances, such as 2 Chr. 25:5 (LXX) - written 3rd or 2nd century BC recording an event in the 8th century BC ; where it is used alongside the heavy shield. There are two possible explanations for this: The first being that *rōmah* (pike) in the Hebrew (consonant text) was mistranslated as the Greek δόρυ. The other possibility is that the author chose the Greek word with its original etymology of “pole” or “beam” in mind. In this case it would seem that both explanations are applicable, since the author, obviously having knowledge of Greek, knew that the word δόρυ could potentially have a more basic meaning due to its etymology. A Hebrew pike or *rōmah* was also not nearly as long as a Greek pike or σάρισσα, which gives another clue to the author’s view. Other interpretative problems are found in the LXX, such as 2 Chr. 23:9 - written 3rd or 2nd century BC describing an even in the late 9th to early 8th century BC; where *hanîṭ* (combat spear) in the Hebrew is translated as the Greek μάχαιρα, which denotes a sword or a knife. Translations for the word δόρυ would be “combat spear” (English) and “vegspies” (Afrikaans).

The word δόρυ can also be used in a compound noun to indicate a pole arm, such as δορυδρέπᾰνον, which refers to a type of halberd or poled scythe used for cutting down an enemy’s halyard during a naval battle (LSJ s.v. δορυδρέπᾰνον). The description of δορυδρέπᾰνον made by LSJ makes complete sense when considering that etymologically speaking, the word δόρυ refers to a pole or a beam and δρέπᾰνον refers to a scythe or curved sword (LSJ s.v. δρέπᾰνον) or “a sickle for cutting down trees” according to BAGD (s.v. δρέπᾰνον, -ου). The δορυδρέπᾰνον or spear-sickle was used by mariner hoplites or ἐπιβάται as they were called, to cut away at an enemy’s rigging, though this was never a hoplite weapon (Anderson, 2003: 24-25 and Krentz, 1985: 53). The weapon has a spear point, with a sickle shaped blade curving concavely downward toward the shaft of the pole, set below the spear point, above the socket at a 90-degree angle. The weapon was later adopted by Julius Caesar, who won a decisive battle against Gallic sailing ships (Anderson, 2003: 24-25) - see Caes. *B.G.* 3.14 (written somewhere between 58 and 49 BC describing events occurring between the years 58 and 50 BC) Anderson (2003: 24) calls it a “spear-sickle”, which is quite an accurate description. In Afrikaans it may be called “sekelspies” or “haakspies”.

2.1.5 ἔγχος

The word ἔγχος is a Mycenaean loanword, derived from the word “ekea” of which only one account was ever found, namely in Knossos; the word denoted a spear (Cebrián, 1996: 13-20). The word ἔγχος is a concept that cannot be translated without considering the context in which it occurs. One finds examples of where it is hurled (Hom. *Il.* 3.346) and used to thrust (Hom. *Il.* 4.307). It can refer to a long/large spear, for example ἔγχεα μακρὰ, “long spears” (Hom. *Il.* 3.135, 137, 254) and Murray (1928: 127, 135) translates ἔγχος as such, whereas Fagles (1990: 133, 137) translates ἔγχεα μακρὰ as “long lances”, therefore applying the term “lance” to ἔγχος, which is incorrect, since a “lance” denotes a cavalry spear but two lines later translates the same phrase as “rugged spears” and also does the same with regard to line 254. The ἔγχεα μακρὰ or “long spears” resemble descriptions of the σάρῖσα or “pike” and it would seem that pikes already began to make their appearance in the Trojan War. It must be noted that the σάρῖσα was a technology developed by Philip II of Macedon in the the 4th century BC to give Macedon an advantage over other Greek city-states. One cannot, therefore, link the σάρῖσα with longer versions of the ἔγχος. The fact that the ἔγχος is described by its accompanying adjective is supported by phrases such as δολιχόσκιον ἔγχος, “far-shadowing spear” (Hom. *Il.* 3.346; 5.15) and δολίχ' ἔγχεα, “tall/long spears” (Hom. *Il.* 4.533). Murray (1928: 143) translates δολιχόσκιον ἔγχος as “far-shadowing spear”. Fagles (1990: 140) translates it as “spear’s long shadow”, making the shadow the object instead of the spear. One could also consider these phrases to be nothing more than instances of a more dramatic and/or poetic ring given to the text by Homer. The possibility of a pike pre-dating (though not related to) the σάρῖσα is not so far-fetched after all, since ἔγχος can be translated as “spear”, “lance”, “sword”, “arrow” or simply as “weapon” according to LSJ (s.v. ἔγχος). The foregoing discussion makes it difficult to make assumptions about the word. Fortunately, the Greeks preferred the spear as their primary infantry weapon, making it somewhat easier to translate this difficult term. It is best to translate ἔγχος in its context, therefore a suggestion for translation is omitted here.

2.1.6 ζιβύνη

The ζιβύνη was a type of spear or hunting spear according to LEH (s.v. ζιβύνη). Ζιβύνη seems to be related to σιβύνη (LSJ s.v. ζιβύνη) and may also be translated as “pike”, besides its usual translation of “spear” or “hunting spear” (LSJ s.v. σιβύνη). Ζιβύνη is found in Isa. 2:4 and Jer.

6:23 in the LXX. In Isa. 2:4 of the Masoretic text the word *hanîṭ* is used, whereas Jer. 6:23 uses *kîdō^wn*. Both of these events date from around the late 7th century BC to the early 6th century BC and were translated in the 3rd or 2nd century BC. The word ζιβύνη is similar to the Hebrew word *hanîṭ* (combat spear, a lighter type of spear), yet the dilemma of *kîdō^wn* (Canaanite/sickle sword) remains. A *kîdō^wn* was most definitely not a spear of any kind, though it is often mistranslated as such, especially in translations which came into being before the discovery of the Dead Sea Scrolls or shortly afterwards. Examples of such translations which arose before the discovery of the Dead Sea Scrolls (1946/7) would be the KJV and AFR3353 translations (note that the Afrikaans 1933 was revised to include the available data of the Dead Sea Scrolls in 1953, hence the AFR3353 translation), whereas translations such as the AFR1983 translation took extensive research of the Qumran scrolls into account. De Vaux (1965: 241-242) indicates that it was definitely a sword and that the Order of War Scroll (1QM) confirms this statement. De Vaux (1965: 242) does however state that it was probably not a straight sword but a curved sword. Curved swords/Canaanite blades of this type were in use in Palestine by 1800 BC (Douglas et al. s.v. armour and weapons: weapons, spear and javelin, *kîdôn*). The blades are similar to the Egyptian *khopesh*, which may suggest that there is after all a link between the *Hyksos*, the Israelites and the Egyptians, since the appearance of the weapon corresponds with this period. Herein the importance of translating correctly and taking historical and archaeological research into account alongside linguistic work is seen. The translation used by LEH is “hunting spear” in English. “Jagspies” may be used in Afrikaans.

2.1.7 *Hasta*

The *hasta* is translated as “spear”, “pike” or “javelin” by Thomas (s.v. *hasta*, *-ae*) and translated as such by L&S (s.v. *hasta*). L&S (s.v. *hasta*, *-ae*) mention that the etymological root of *hasta* is from Sanscrit *hastas* or *hand* via the Greek root *χαδ* in *χανδάνω*. The word “javelin” is not quite accurate, because the spear could have had the potential for thrusting as well as throwing (see Addendum F image iv); it was not used solely for throwing and can therefore not be called a “javelin”. The *hastati* “spearmen”, who formed the front line of the Roman army, notably used these weapons, since they were named after them (Thomas s.v. *hastatus*, *-a*, *-um*). Fairclough (1954: 207) translates the term as “lance” in Verg. A. 10.521-522. Benade (1975: 307) and Blanckenberg (1980: 307) translate the term as “spies”. Page (1970: 334) translates *hasta* as

“spear” for this same passage (The Aeneid was written between 29 BC and 19 BC and described events that supposedly took place after the fall of Troy, that is, early to mid 11th century BC). From the context of Verg. A. 10.521-522 it is clear that this weapon could be thrown, for example: *at tremibunda supervolat hasta*, “the hasta flies trembling over him”. This example gives a clue as to what the nature of the weapon may be, since a “pike” is too heavy and solid to be thrown or to tremble. The word “pike” may not be such a good choice in this instance. Both a spear or a javelin could be thrown and could tremble and yet the word represents a Germanic spear in Tac. Ann. 2.21.1 (note that the Annals of Tacitus describe events between 14 AD and 66/68 AD and probably written between 112 and 120 AD). Damon (2012: 54) translates the phrase *praelonga(s) hasta(s)* as “(too long) spear” in Tac. Ann. 2.21.1. Jackson (1962: 413) translates the phrase as “tremendous lances” in Tac. Ann. 2.21.1. The term “lances” is erroneous, since a “lance” denotes a cavalry spear. Grant (1996: 86) translates the phrase as “great pikes” in Tac. Ann. 2.21.1, which in this context is applicable, though may not work for other contexts. A possible explanation for this change in semantic use is a semantic shift in meaning over time, in other words, scholars must regard the *hasta* diachronically (through time) and not simply synchronically (in a particular moment in time), for instance, Tacitus started writing long after Vergil and meaning of the word *hasta* could have been different by the time that Tacitus wrote the Annals. A future diachronical study of the *hasta* may yet prove to unravel the mysteries surrounding its translation. The word “spear” may be used as a translation for *hasta*, because it denotes neither a pike nor a javelin, yet semantically implies both melee and ranged function. Context can still dictate otherwise as can be seen with the word *hasta*. Afrikaans would simply be “spies”, since this is the generic term for spear. *Hasta* may also be translated as “heavy spear” or “infantry spear” in English and “infanteriespies” in Afrikaans when referring to a spear for heavy infantry.

2.1.8 κοντός

The word κοντός is best translated as “javelin” or “skirmish spear” when referred to as a weapon. Its etymology, however, shows that it does not have a military origin since the word κοντός refers to a “pole”, “punting pole” or a “boat hook” (LSJ s.v. κοντός). This description probably points to the weapon’s origin as an implement, which was fashioned into a weapon. LSJ (s.v. κοντός) also translate it with the word “pike”. The question one might ask is whether there is any

relation between κοντός and its homonym, which is an adjective meaning “short” (LSJ s.v. κοντός). LEH (s.v. κοντός, -ου) consider κοντός to mean “pole”, “shaft” or “spear”. The LXX uses κοντός to denote the Hebrew word *hanîṭ* (a spear that could be wielded for melee attacks or could be thrown) in three instances (LXX, 1 Sam 17:7, 45, 47) - text dating 3rd or 2nd century BC describing an event circa 1000 BC. The κοντός was often made of styrax wood according to Anderson (2003: 23). Much of the evidence suggests that it was a short throwing spear, which would mean that the lexical entry “pike” in LSJ (s.v. κοντός) is an anomaly based on Lucian. Lucian (Luc. *Tox.* 55) mentions Macentes being wounded in the shoulder with a κοντός: καὶ κοντῷ εἰς τὸν ὤμῳν “...and with a ‘kontos’ in the shoulder” (*Toxaris* was written around 163 AD). The context does not give any clue as to whether the κοντός pierced his shoulder by a throw or by a thrust but simply states one of two wounds which he received in battle (against the Scythians, Alans and Machlyans) and with which weapons the wounds were inflicted. Harmon (1962: 193) translates the phrase καὶ κοντῷ εἰς τὸν ὤμῳν as “and on the shoulder with a javelin” in Luc. *Tox.* 55. The result is that one source translates κοντός as “pike” and another translates it as “javelin” in Luc. *Tox.* 55, which results in an interpretative dilemma. A possible solution is found in Luc. *Tox.* 54, where the Alans and Machlyans fire arrows and hurl javelins at the Greeks: περισχόντες οἱ Ἄλανοι καὶ Μάχλυες ἔκοπτον πανταχόθεν ἀφθόνως τῶν ὀιστῶν καὶ ἀκοντίων. Harmon (1962: 191) translates these clauses as “was surrounded by the Alans and Machlyans, who were hammering it from all sides, loosing arrows and javelins without stint”; he therefore interprets ἀκοντίων as “javelins” and rightly so, since this is what the context denotes. Harmon probably translated κοντός as “javelin” in Luc. *Tox.* 55 in the light of ἀκοντίων in Luc. *Tox.* 54. Further studies of the relation between the words κοντός and ἀκόντια would be beneficial to both lexicographers and translators, more specifically, whether κοντός and ἀκόντια refer to the same type of spear/javelin or two entirely different spear-types with distinct functions. An alternative interpretation would be that the semantic range of κοντός allows for development of meaning through the ages. The word κοντός may denote any number of spear types, depending on the context, though it rarely refers to a heavy spear, even if its origin suggests it may initially have been a heavy spear. The word κοντός therefore, cannot be translated sweepingly or without some background. Translations may vary from “spear” to “javelin” or variations in between, such as “light spear”; yet in some cases leaning more to a description of a heavier weapon. The choices of “skirmish spear” in English and

“skermutselspies” in Afrikaans seem best, making provision for fighting and throwing uses. One may however, consider the term “javelin” and “werpspies” when referring to a spear used only for throwing purposes.

2.1.9 λόγχη

The word λόγχη refers to the “tip or a spear”, “spearhead”, “spear”, “lance” or “javelin” according to LSJ (s.v. λόγχη). BAGD (s.v. λόγχη, -ης) refer to it as “spear”, “lance” or “spear-point”. LEH (s.v. λόγχη, -ης) refer to λόγχη as “spear”, “lance” or “spearhead”. Louw and Nida (s.v. λόγχη) translate it as “spear” or “spear point” and give some semantic background on the word: “a long weapon with sharpened end used for piercing by thrusting or as a projectile by hurling”. The semantic background however, amounts to the same as that supplied by LSJ, LEH and BAGD. Herodotus refers to the “point” - λόγχη and “shaft” - ξυστόν together (Hdt. 7.40-41), although the term λόγχη could refer to a whole spear, for example καὶ οἱ τὰς λόγχας κάτω τράποντες “and they that carried their spears reversed” (Hdt. 7.55). Godley (1922: 355, 357, 371) and Holland (2014: 464, 465, 470) translate the word λόγχη as “spear”. Herodotus is referring to the Persians. One could argue that Herodotus meant that the Persians carried their spear-points backwards. Nonetheless, it is confirmed that there were many compound nouns and compound adjectives in Ancient Greek dialects which are derived from λόγχη, in which the λόγχη component is referring to a whole spear; the same is true for verbs derived from this word (LSJ s.v. λογχήρης, λογχηφόρος, λογχίδιον, λογχῖμος, λογχίον, λογχίτης, λογχάζω). It is notable that no particular translation is given to λόγχη in John 19:34 (dating late first century AD, describing events between 0/6 AD and 32/38 AD) other than to call it a “spear” or a “spies” (KJV, NIV, AFR1983, AFR3353, NKJV). There is no clear indication of what this spear looked like and therefore it can only be translated as a “spear” or a “spies”.

2.1.10 *Matara*

The *matara* was a Gallic pike, described by Caesar in *De Bello Gallico* - *matarae*; “Gallic/native pikes” (Caes. *B.G.* 1.26.10, 11). Gould and Whiteley (1953: 103) translate the word *matara* as “dart” or “light throwing spear”; they confirm (1953: 80) that it is often used to describe a thrusting spear or pike, though in this instance it cannot denote a pike due to the context of the verbal action of “throwing upwards”. Thomas (s.v. “*matara*, -ae”) describes the *matara* as a

Gallic spear/pike. It should therefore be translated as “Gallic pike/spear”. It is distinguished from the *tragula* “javelin” in the same passage (Caes. *B.G.* 1.26.10, 11), indicating that this was a spear mainly for thrusting, in all likelihood a pike. Ewan (1991: 86) differentiates between a *matara* as a pike and the *tragula* as a javelin, both being used by Gauls and Spaniards. Edwards (1919: 41) refers to the phrase *mataras ac tragulas* as “native pikes and darts”. Benade (1984: 42) refers to these weapons as “spiese en lanse” or “spears and lances”. The term “spiese” for the Latin word *matarae*, is vague but probably the safest choice, though the term “lans” is entirely incorrect when referring to a *tragula*, because a “lance” denotes a cavalry spear. The term “pike” seems to be standard amongst scholars, though it may not be possible as a translation in this instance, as Gould and Whiteley (1973: 80, 103) mention. At this point it is clear that context dictates the translation of the weapon and one should be careful of choosing a set term such as “pike” or “javelin” for the word *matara*. It is quite clear that this weapon may be translated as “Gallic spear” in English and should be translated as “Galliese spies” in Afrikaans and yet the Spaniards also used these weapons. A more suitable term would perhaps be “barbarian spear” or “barbaar spies”, since the term “barbarian” is part of the Roman world but also understood by Classical scholars. The term “barbarian” refers to Gauls, Spaniards and many other enemies of Rome. The word “spear” or “spies” would be a safe lexicographical choice, though in contextual translation the term “spear” or “spies” may be interchanged with terms such as “javelin”/“werpspies” or “pike”/“steekspies”, where necessary. The word “spear” can denote a throwing or a thrusting weapon.

2.1.11 ξυστόν

The word ξυστόν could refer to a “shaft”, “pole” “spear” or a “spear shaft”, though it could also refer to “a horseman’s lance” (LSJ s.v. ξυστόν). The word is derived from the Greek adjective ξύω, which means “scraped” or “scratched” (LSJ s.v. ξυστόν). Perhaps its origin refers to the part of the shaft where the socket of the spearhead is attached? To make the socket flush with the shaft, part of the shaft would need to be shaved off. Oddly, Alexander’s Macedonian cavalry used a ξυστόν, referring to a cavalry spear or lance with a σαυρωτήρ or butt-spike (Gaebel, 2002: 161-163). The Companion cavalry was the elite guard of the Macedonian cavalry, used by both Philip and Alexander of Macedon. Gaebel (2002: 174-175, 180) mentions that they were part of the cavalry of the line and were armed with Macedonian ξυστόν lances. Alexander later added

eastern cavalry to their ranks (Gaebel, 2002: 174). The word *ξυστόν* seems to be a generic word for a spear (Hom. *Il.* 4.469) and is certainly translated as such by Murray (1928: 187) and Fagles (1990: 160). *Ξυστόν* often denotes a “long spear”/“long pike” - μακροῖσι ξυστοῖσι in the *Iliad* (Hom. *Il.* 15.388). This spear was generally used for guarding ships, fighting near ships and lay along the side of a ship (Hom. *Il.* 15.388-390); its use is confirmed by the words *ξυστόν μέγα ναύμαχον* “big spear/pike for sea fighting” (Hom. *Il.* 15.677). Murray (1976: 135, 157) translates μακροῖσι ξυστοῖσι as “long pikes” and *ξυστόν μέγα ναύμαχον* as “a long pike for sea-fighting”. Fagles (1990: 400) translates μακροῖσι ξυστοῖσι as “long pikes” and *ξυστόν μέγα ναύμαχον* as “enormous polished pikes”. Evidently the defining aspect of the *ξυστόν* found in the *Iliad* was its length, enabling the naval encampment to keep attackers at a distance and protect the ships from major damage. It is clear that the Greeks had begun developing longer spears by the time of the Trojan War. The adjectives μακρός or μέγα are used when describing this larger naval weapon. The larger naval spear (dating roughly 12th or 11th century BC and mentioned by Homer late 8th or early 7th century) can be translated as “naval pike”, “guard pike” or “long pike” in English and as “vlootspies”, “waakspies” or “lang spies” in Afrikaans only if there is some adjective describing it. When referring to the cavalry version of the *ξυστόν* (this particular use dating 4th century BC), the translation is quite simple, being “lance” in English and “lans” in Afrikaans.

2.1.12 προβόλιον

The word *προβόλιον* is derived from the word *προβόλος*, which literally means “jutting” or “projecting”. It was a type of “boar spear” or “hunting spear” meant for boars or other animals, though it could also denote a “missile” (LSJ s.v. *προβόλιον*, *προβόλος*). An example can be found in Hdt. 7.76 where it refers to either wolf-hunter’s spears or to Lycian workmen’s spears: καὶ προβόλους δύο λυκιοεργέας ἕκαστος εἶχε “and each man carried two wolf-hunter’s spears/spears of Lycian workmen”. Godley (1922: 387) translates the phrase *προβόλους δύο λυκιοεργέας* as “two wolfhunter’s spears”. Holland (2014: 475) translates the term as “two hunting spears fashioned in the Lycian style”. *Προβόλιον* is best translated as “hunting-spear” in English and as “jagspies” in Afrikaans.

2.1.13 σάρῑσα/σάρῑσσα

The σάρῑσα, also known as the sarissa, was a long pike used by Macedonian phalanxes (LSJ s.v. σάρῑσα), advantageous in keeping the enemy infantry at a distance and also maintaining a steady, organized advance, pushing the enemy back; the alternative being death at the tips of these deadly weapons (see Addendum A images iv and v). Philip II of Macedon was the inventor of this weapon and the phalanx military system that went along with it (Sage, 2003: 166-168). The σάρῑσα was limited to 18 feet (6m) due to the growth size of the cornel tree from which it was made (Anderson, 2003: 23, Markle 1977: 323 and Sage, 2003: 169). Markle (1977: 323-324) confirms that cornel wood was used for the σάρῑσα, because it did not have to be thick to be strong; the σάρῑσα also had a butt-spike or σαυρωτήρ as the δόρυ did. Sage (2003: 169) confirms that the σάρῑσα had a σαυρωτήρ. The Macedonian phalanxes of Antigonus are mentioned going into double-phalanx formation using συμφοράξαντες τὰς σαρίσας or sarissas packed in close order in Plb. 2.69.9. Paton (1922: 411) translates the term συμφοράξαντες τὰς σαρίσας as “a serried line of pikes”.

The σάρῑσοφόροι were one of the different variations of cavalry that Alexander the Great used and were sometimes also known as προδρόμοι (Markle, 1977: 337). As can be seen with the word σάρῑσοφόροι, they were troops considered to have carried σάρῑσα spears, yet this is baffling, since a σάρῑσα was a long infantry spear and far too impractical for cavalry combat (Gaebel, 2002: 172-174). Markle (1977: 333-334, 339), however, confirms that the cavalry σάρῑσα was the exact same size as that of the infantry σάρῑσα and was used for its great length to charge straight forward and break hoplite phalanxes, though he admits that the length of the σάρῑσα makes it impossible to shift the weapon. The *sarisa* is also encountered as a cavalry spear in Roman literature, for example, in Ov. *M.* 12.466:

*qui clipeo gladioque Macedoniaque sarisa conspicuus faciemque obversus in agmen
utrumque armaque concussit certumque equitavit in orbe*

“Who, conspicuous for his shield and gladius and Macedonian sarissa and facing both hosts in turn, clashed his arms and rode (his horse) in a circle.”

Miller (1916: 213) translates the term *Macedoniaque sarisa* as “Macedonian lance”. A lance is a cavalry spear and the *sarisa* is being used from a mount, yet the rider is noted for his conspicuous choice of arms, in which the *sarisa* is included, hinting at the abnormality of the situation. Gaebel (2002: 172-174) proposes that these cavalry units were mounted skirmishers, assigned for patrolling with their horses and using their *σάρισσαι* only in battle and only after dismounting, all wielding their *σάρισσαι* with two hands. A third possibility is that Ovid did not know the difference between a *σάρισσα* and a *ξυστόν* and therefore confused these two spears as used by the Macedonians. LSJ (s.v. *προδρομος*) confirm Gaebel’s theory. Gaebel’s solution to the problem is the only way to make sense of the *σάρισσα* being used by mounted troops. It would enable these mounted skirmishers to be deployed with great speed and efficiency. It also means that the concept of pikemen as they came to be known in the Middle Ages was much older than history teaches, because these *σάρισσοφοροι* and *προδρομοι* did not carry shields. Pikemen of the Middle Ages did not carry shields either but were armed with long pikes, which they held with two hands. A direct line cannot, of course, be drawn from Ancient Warfare to Medieval Warfare, yet the similarities are striking.

“Pike” and “steekspies” should be adequate translations for *σάρισσα* in English and Afrikaans respectively or one could simply leave the term untranslated as LSJ (s.v. *σάρισσα*) suggest by giving the word *sarissa* as one of the possible translations (though this may require a footnote as not all Classical scholars are necessarily acquainted with the *sarissa*).

2.1.14 *σειρομάστης/σιρομάστης*

LEH (s.v. *σειρομάστης*, -ου, *σιρομάστης*, -ου) describe this weapon as a “barbed lance”. LSJ (s.v. *σιρομάστης*) translate the word as “pit-searcher”, “probe” or “gauge” and describes it as being used by tax collectors to search corn-pits and magazines; the weapon was also used in war to probe for pits/pitfalls in the ground - the word *σειρομάστης* is Sicyonian in origin. The word *σιρός* confirms both original meanings, since *σιρός* means “a pit for keeping corn” or a “pitfall”. It was later written as *σειρός* (LSJ s.v. *σειρός*, *σιρός*). The other half of the compound is derived from the word *μαστήρ*, which means “searcher” or “seeker” and is related to the verb *μαστεύω*, meaning to “seek, search after” (LSJ s.v. *μαστήρ*, *μαστεύω*). LSJ (s.v. *σιρομάστης*) also indicate that it was a barbed lance of the same shape as the “pit-searcher”. Aforementioned indicates that

the *σειρομάστης* was another weapon that originated from an everyday implement. The word is found in the LXX (Num 25:7, Jud 5:8, 1 Kgs 18:28 and 2 Kgs 11:10). The odd thing one notices in the LXX, is that *σειρομάστης* is used to describe two different types of spear. *Σειρομάστης* mostly substitutes for the Hebrew *rōmah*, a pike or heavy infantry spear (LXX, Num 25:7, Judg 5:8, 1 Kgs 18:28 and De Vaux, 1965: 242). One anomaly that is found in the LXX is in 2 Kgs 11:10, where it substitutes the word *ḥanīʾt*, a combat spear, able to be thrown, with a spike or shoe on the reverse side and is also shorter and much lighter than the *rōmah* (De Vaux, 1965: 242-243). A “barbed lance” is, needless to say, not the same as a combat spear or a pike. This contrast presents a challenge as to which weapon was originally meant in the Hebrew consonant text. Consider the fact that the LXX is indeed a translation, whereas the Masoretic text is an edited copy of the Hebrew consonant text to which vowel signs were added. One should also consider the fact that the LXX uses one word to describe the applicable spear, whereas the Masoretic text uses two different words, which implies that the LXX is more likely to have strayed from the Hebrew consonant text than the Masoretic text. This emphasizes the need for further research in this field. A suggestion for the translation of *σειρομάστης* can therefore not be provided at this time. As for the accuracy of the term “barbed spear”, the etymology of the word may need some investigation before it can be confirmed or negated.

2.1.15 *Sparus*

The *sparus* was a type of hunting spear used by Ornytus in book 11 of the *Aeneid*, not much is known about its form, only that Ornytus wore “wolf-armour” (Verg. A. 11.682). Fairclough (1954: 281) translates the word *sparus* as “rustic pike”. Page (1970: 400) refers to *sparus* as “spear”. Blanckenberg (1980: 348) refers to this weapon as a “boerejagspies” (a farmer’s hunting spear) and Benade (1975: 346) refers to the weapon as a “landelike jagspies” (rustic hunting spear). L&S (s.v. *sparus*) translate *sparus* as “a small missile weapon with a curved blade, a hunting-spear”. The *sparus* may very well be the Latin equivalent of *προβόλιον* and may be translated as “hunting spear” and “jagspies” in English and Afrikaans respectively. From the context of the passage it is also highly probable that the word *sparus* refers to a hunting spear. Camilla taunts Ornytus by asking whether he thought he was chasing wild animals in the forest. One is at a loss to explain where the concept of a curved bladed missile comes from, as L&S

have stated. This anomaly warrants further investigation, since none of the translations even consider this aspect.

2.1.16 *Spiculum*

The word *spiculum* denotes a sharp point or even a sting and is used poetically in Latin literature to refer to a spear or a javelin; the word is derived from *spica* - a “spike” or “an ear of corn” (Thomas s.v. *spica*, -ae; *spicus*, -i; *spiculum*, -i), which makes complete sense, considering the general shape of a spear-point. Vergil uses this word in Verg. A. 7.165, 626, 687; 11.606. Fairclough (1954: 275, 14, 47) translates *spicula* as “darts” in Verg. A. 7.165, 687 and as “javelins” in Verg. A. 7.626; 11.606. Page (1970: 190) refers to this weapon as a “spear”. Blanckenberg (1980: 203, 220, 223, 345) translates the word as “spies”. Benade (1975: 199, 216, 219, 343) translates *spiculum* as “werpspies” in Verg. A. 7.165, as “spies” in Verg. A. 7.626, as “jagspies” in Verg. A. 7.687 and as “lans” in Verg. A. 11.626. L&S (s.v. *spiculum*) describe the weapon as a “javelin” or “the point of a missile weapon”. *Spiculum* is quite generic in its original meaning and can therefore denote any type of spear. The precise translation of *spiculum*, therefore, depends on the context.

2.1.17 *Telum*

The word *telum* is not as easy to translate as one might think. In fact, it can denote a wide variety of weapons. Thomas (s.v. *telum*, -i) includes such translations of the word as “missile”, “dart”, “javelin”, “spear”, “sword”, “dagger”, “arrow”, “axe”, “weapon” or “the rays/beams of the sun”. L&S (s.v. *telum*) include such meanings as “missile”, “weapon”, “dart”, “spear”, “javelin”, “sword”, “dagger”, “poniard” or “axe”; he states that it is derived from the word *texlum*, which is related to the Greek *τεκ* found in *τίκτω* “to beget”. It is also related to the *τυχ* from *τυγχάνω* “to hit, chance upon” and the verb *texo*, which is related to the Greek *τόξον* or “bow”. This word can represent any weapon or even gleaming objects. It is therefore best translated entirely dependent on context, examples of the word translated as “spear” (Fairclough, 1956: 339) in Verg. A. 2.664, “spear” (Fairclough, 1956: 331, 317) in Verg. A. 2.544) and as “dart” in Verg. A. 12.266, 536 (Fairclough, 1956: 337) are found. Benade (1975: 366, 375) translates the word *telum* in Verg. A. 12.266, 536 as “spies”. Blanckenberg (1980: 368, 378) translates *telum* as “spies” in Verg. A. 12.266 and as “wapen” in Verg. A. 12.536. Here the context makes it easier to determine an

approximate meaning of *telum* in line 536, since the term *hasta* is used to refer to the same weapon (with which Hyllus was slain) in Verg. A. 12.537 (this is clearly the meaning that Benade 1975: 375 considered for line 536), though it does not solve the problem, because *hasta* has no clear-cut translation either.

The translation of *telum* could prove difficult, for instance in a sentence where a warrior is simply holding a *telum*. It may be difficult to determine the noun without an action accompanying the sentence. Even with an action the translation may even be difficult or incorrect.

One therefore first has to determine whether the text refers to a missile weapon or a melee weapon. The next step would be to look for physical descriptions of the weapon or adjectives, verbs and adverbs that may help to identify the type of weapon or at least the approximation thereof. It will certainly be unavoidable at times to translate the term generically as “weapon” if the context does not provide enough information, such as Verg. A. (2.216, 332, 410, 422) - Written between 29 and 19 BC and describing events supposedly dating to 11th century BC. Even so, the word *telum* often denotes a “dart” “missile” or “projectile” as is found throughout *Caes. B.G.* 1.46, 47; 4.23; 7.41 (event dating 58 to 50 BC and written between 58 and 49 BC) and also in Verg. A. 2.443, 451; 4.71; 10.610, 773. Ewan (1957: 146) uses the terms “javelin, spear, missile” when referring to the *telum* in his vocabulary for Caesar’s *Gallic War*, book 1. Gould and Whiteley (1973: 116) include the word *telum* in their vocabulary section on Caesar’s *Gallic War* as “missile” or “weapon”. Gould and Whiteley (1964: 119) include the term as “missile” in their vocabulary on book 4 and as “javelin” or “missile” in book 7 of Caesar’s *Gallic War* (Whiteley, 1966b: 237). Irvine (1970: 258) translates the word *telum* in his vocabulary on Caesar’s *Gallic* and *Civil Wars* as “weapon, dart, missile”. Edwards (1919: 77, 211, 441) translates *telum* as a “dart” or “missile”. Benade (1984: 53-54, 99 and 177) uses a newly invented Afrikaans term, namely “werpwapen” to describe the word *telum* in *Caes. B.G.* 1.46-47; 4.23; 7.41. The term “werpwapen” is a very descriptive for the contexts where darts or missiles are implied.

A good example of an interpretative assumption would be Fairclough (1956: 281), who translates *telum* in the Verg. A. (11.689) as “spear”, whereas Camilla was wielding an axe (*bipennem* in line 651 and *securim* in 656) earlier in the passage and also later on in line 696 where the word *securim* is used again. Fairclough makes the mistake of assuming that the verb *traicio* is used here to denote “pierce”, whereas it may also mean “break through” (Thomas s.v. *traicio*, *-ieci*, *-iectum*). One could assume that an axe was referred to through the whole scene or Camilla could have switched between weapons while fighting. The scene and the translations are complicated even further by the fact that chapter 11 is a cavalry battle. Whether the weapon that she used was an entirely new weapon or the same, is not clear, therefore the generic term “weapon” would be best, leaving the translation open to interpretation or contextualizing it where necessary. Benade (1975: 346) translates line 689 safely by simply referring to it as a “wapen” (weapon). Blanckenberg (1980: 348) does the exact same as Benade. It may often be safer to refer to *telum* as “weapon”. Even assuming that a projectile should be translated as a type of spear is potentially incorrect, since barbarian tribes were sometimes known to throw axes. A contextual translation is advised, though when no clear guideline is available, a generic term such as “weapon” for English or “wapen” for Afrikaans is the safest option.

2.1.18 τρίαινα

The τρίαινα is a mythological weapon, attributed to Poseidon and found often in Graeco-Roman literature, such as the *Iliad* (Hom. *Il.* 12.27). Even though this weapon seems purely mythical, it was used by Roman gladiators, making this weapon a reality, albeit a more rare and exotic weapon. In Latin, it is called a *tridens* or a *fuscina* (Berdeguer et al. 2014: 19 and L&S s.v. *tridens*). L&S (s.v. *tridens*) state that it was originally used for spear-fishing and also attributes it to Neptune. LSJ (s.v. τρίαινα) translate τρίαινα as “trident”, “three-pronged fish spear” or “three-pronged fork”. Murray (1928: 547) also calls it a “trident”. Τρίαινα is included in this study for the sake of completeness. In English, the word is already known as “trident” and in Afrikaans it is known as “drietandvurk”.

2.2 Swords and knives

Swords and knives in the Graeco-Roman world and varied in accordance with the regions in which they were found. Some had straight double-edged blades for thrusting, others had leaf-shaped blades to provide a balance between thrusting and cutting, still others sacrificed thrusting ability for properties that better benefitted cutting or chopping actions by enlarging the blade length in a shorter area, by making it either curve concavely (inward) or convexly (outward). The Graeco-Roman world, however, preferred concave blades to convex blades. Swords could be portrayed as elegant or downright menacing and intimidating, depending on the author's choice of vocabulary, as this section will illustrate.

2.2.1 ἀκινάκης

Although the ἀκινάκης is not a Greek sword but a Persian sword, it is perhaps necessary to mention it in case anyone should ponder at its origin and confuse it with a Greek or Roman sword. It was a short straight sword according to LSJ (s.v. ἀκινάκης). The word is in fact Persian in origin (LSJ s.v. ἀκινάκης). LEH (s.v. ἀκινάκης, -ου) also translate ἀκινάκης as a “short, straight sword”. Herodotus mentions that the Persians had ἀκινάκας/ἀκινάκης of gold” (Hdt. 9.80). Godley (1969) describes ἀκινάκας in 9.80 as “daggers”, whereas Holland (2014: 622) describes the weapons as “short swords”. “Short sword” is perhaps a better choice than “dagger”, since “short sword” is a more specific translation and thus the more accurate of the two choices. The term “kort swaard” may therefore be used in Afrikaans translations.

2.2.2 ἄορ

The ἄορ seems to have been a long sword, hanging from a warrior's thigh. The *Iliad* mentions one being worn by Automedon, Achilles' charioteer: τανύηκες ἄορ παχέος παρὰ μηρου, “a long sword hanging against the large thigh” (Hom. *Il.* 16.473). Murray (1976: 199) translates the phrase as “long sword from beside the stout thigh”. Fagles (1990: 428) translates the phrase as “long sharp sword sword from his sturdy thigh”. The word ἄορ literally means “hanger” but could denote “a sword hung in a belt” according to LSJ (s.v. ἄορ). It is also described as being drawn from the thigh: ἄορ ὄξυ ἐρυσσάμενος παρὰ μηρου, “drawing his sharp sword from his thigh” (Hom. *Il.* 21.173). Murray (1976: 421) translates the phrase as “drawing his sharp sword

from beside his thigh”. Fagles (1990: 525) translates this phrase as “drawing the sharp sword at his hip”. In the *Iliad*, Apollo is fabled to have worn a golden one - χρυσάορος “sword of gold” (Hom. *Il.* 5.509). Murray (1928: 233) translates χρυσάορος as “golden sword”. Burton (1884: 224) writes that the ἄορ had a “broad, stout, strong blade”, though its literary use is mostly poetic - that being said, it is difficult to give a clear-cut idea of what the ἄορ looked like. The safest assumption is that the ἄορ was not a small sword. A suitable English translation for ἄορ would be “large sword” and “groot swaard” would be a suitable Afrikaans translation. It is unclear whether the ἄορ was a single- or double-edged sword.

2.2.3 ἐγγχειρίδιος

Literally translated as “hand-knife”, “handle” or “dagger” (LSJ s.v. ἐγγχειρίδιος, -ίδιον and LEH s.v. ἐγγχειρίδιον, -ου), this weapon seems to have been some type of sidearm (Th. 6.58.2) - event late 5th century BC, described in a work dated late 5th or early 4th BC, which hung from the thigh (Hdt. 7.61) - dating 5th century BC describing an event in the early 5th century BC. Warner (1972a: 446) and Forster Smith (1921: 285) translate ἐγγχειρίδιος as “dagger” in Th. 6.58.2. Godley (1922: 377) and Holland (2014: 472) translate ἐγγχειρίδιος as “dagger” in Hdt. 7.61. The Persians were also said to have used such daggers as sidearms and for assassinations (Hdt. 3.29, 77, 79) - written 5th century BC, describing events from the 6th or 5th century BC. Godley (1921: 39, 103) and Holland (2014: 202, 226, 227) again translate ἐγγχειρίδιος with “dagger”. Thracian skirmishers liked using even smaller versions of these weapons as sidearms: ἀκόντια τε καὶ πέλτας καὶ ἐγγχειρίδια μικρά “javelins and little shields and small daggers” (Hdt. 7.75). Godley (1922: 385) and Holland (2014: 475) translate ἐγγχειρίδιον as “dagger” in Hdt. 7.75. There is one exception to the translation of this word (or is there?), where in Ezek 21:9 the Greek word ἐγγχειρίδιος or “dagger” is used in the LXX to translate the Hebrew word *hereb* or “sword” (text written between 3rd century BC and 2nd century BC, describing events from the 6th century AD. At first it may seem that either the translator has strayed from the original meaning in the Hebrew consonant text, or that the semantic range of the word ἐγγχειρίδιος is perhaps broader than it seems. Yet one should note that the *hereb* was a short sword approximately 20 inches (50-51cm) long according to De Vaux (1965: 241) and could easily have been considered a dagger by the Greeks, hence its translation as ἐγγχειρίδιος... and yet many of the Greeks’ own swords were short. The translation is puzzling, yet not too far off its semantic range. Ἐγγχειρίδιος may

therefore be translated as “dagger”, “knife” or “short sword” in English and as “dolk”, “mes” or “kort swaard” in Afrikaans.

2.2.4 *Ensis*

Ensis seems to be a generic word for “sword” (Verg. *A.* 7.743; 10.387). Fairclough (1954: 55, 197) translates *ensis* as “sword” in Verg. *A.* 7.743; 10.387. Benade (1975: 221, 303) and Blanckenberg (1980: 225, 302) translate the term *ensis* as “swaard” in these same verses. Whiteley (1966: 118) translates the word *ensis* as “sword” for *Aeneid* book 9, as does Thomas (s.v. *ensis*). According to Borangic (2008: 151) the word *ensis* was a synonym for *gladius*. L&S (s.v. *ensis*) translate *ensis* as “sword” or “brand”: this is possibly derived from the Sanscrit root *as-*, where the word *asi* means “sword”. L&S (s.v. *ensis*) also mention that *ensis* could be synonymous with *gladius*, yet used exclusively by poets - that being said, there is no point in trying to determine what a poetic term for a *sword* or *gladius* looked like and therefore the literary witness should suffice. According to Burton (1884: 255), the *ensis* was an “early straight sword” (see Addendum B image viii). Burton’s claim is not entirely impossible, since the first type of *gladius* was referred to as *gladius hispaniensis* or “Spanish sword” (see *gladius* 2.2.7). Note the “*hispani*” and “*ensis*” components of the compound. Unfortunately, there is not enough evidence to support this theory, though it justifies future study. Oddly, in Verg. *A.* 7.732, the term *falcati comminus enses* is encountered. Fairclough (1954: 53) translates *falcati comminus enses* as “for close combat are their curved swords”. Benade (1975: 220) translates *falcati comminus enses* as “en sekelswaarde is bedoel vir die stryd van man teen man”. Blanckenberg (1980: 224) translates this passage as “vir die handgemeen het hul ‘n sekelswaard”. Verg. *A.* 7.732 therefore clearly refers to what would later be termed the “*falcata*”, though the word is also associated with *ensis*, indicating that this word should be understood generically as “sword”, unless otherwise specified by means of an adjective. The word *ensis* is therefore a generic word for “sword” (“swaard” in Afrikaans) and should be translated as such.

2.2.5 *Falx/falcata*

The *falx* refers to a family/group of swords, associated with the Dacians and Thracians. One could ask what the relationship between the Thracians and Dacians was. The Thracians were in fact, not Greeks but were of Baltic descent. Their mother tongue was not Greek either, though

they would probably have learned to speak Greek. They spoke Thracian, which was written with the Greek alphabet. It was in fact closer to Dacian and other dialects from the Baltic region. Although they incorporated some military principles of the Greek city-states into their army, their swords showed a completely different development than those of their Greek neighbours.

This study will pay special attention to the *falx/falcata* family of swords. The word *falx* in Latin refers to a “scythe”, “sickle” or “pruning hook” according to Thomas (s.v. *falx*). The word *falcatus* means “furnished with scythes” or “scythe-shaped” according to Thomas (s.v. *falcatus*, -a, -um). L&S (s.v. *falx*) describe *falx* as “sickle”, “reaping hook”, “pruning-hook”, “scythe”, “hook” or a “military implement shaped like a sickle, used in sieges to pull down walls”. The abovementioned also presents the possibility that these weapons originated as agricultural implements. Gould and Whiteley (1966: 82) offer “sickle” or “hook” as a vocabulary entry for *falx* in book 3 of Caes. *B.G.* Gould and Whiteley (1961: 121, 166) translate the word *falx* in Caes. *B.G.* 5.42.11 as “grappling hook” according to the context. Whiteley (1966b: 105, 206) describes *falces* (Caes. *B.G.* 7.22.5) as hooks fastened to poles for loosening stones or wood from the enemy palisade and prefers to add the term “sickle” or “hook” in his vocabulary entry for *falx*. Benade (1984: 125) translates *falces* in Caes. *B.G.* 5.42.11 as “muursekels’ (wall sickles/grappling hooks) and the entry in Caes. *B.G.* 7.22.5 as “muurseise” (wall hooks) with regard to siege equipment to pull down pieces of palisade. Irvine (1970: 228) translates the word *falx* as “sickle”, “scythe” or “hook”.

The primary sources that have been mentioned are useful for determining the approximate shape of the *falx* but does not bring one closer to the actual bladed weapon called a *falx*. According to Borangic (2008: 141-142) the *falx dacica* or Dacian falx had a concave curving blade (curving inwards), with a terrifying reputation. The *falx dacica* was originally called *falcatus ensis* by M. Cornelius Fronto (Borangic, 2008: 141-142). The word *falx*, Borangic (2008: 141-142) says, referred to many bladed objects, the common denominator being the fact that the blades were curved inwards and that the term *Dacorum falcibus* (a term also used by M. Cornelius Fronto) can refer to sickles, scythes, daggers and bill hooks, the curved dagger (*sica*) and two types of curved swords of Thracian-Illyric origin, known as ῥομφαία.

This sword may be referred to in two ways, namely “concave blade/sword” or “battle-scythe”; the smaller types of swords/blades describing the former and the larger blades describing the latter. The sizes are mentioned below in i-xi. The Afrikaans translations may prove more difficult, because Anglicisms cannot be used when seeking a proper translation of the term, especially if the term is to be understandable for the average person. One option for the term may be “sekelswaard”/“sekelmes”, meaning “sickle sword”/“sickle knife” depending upon the size meant. This translation is, of course, derived from the shape of the sword, in fact the term “sickle sword”/“sickle knife” is also a good translation for English, since this term also takes the semantic range of “falx”/“falcibus”/“falcatus” into account.

Borangic indicates that these weapons were varied in shape and size (Borangic, 2008: 143-150), see also Addendum B images vi and vii:

- i) The war-scythe for two hands, long and highly curved and could be 1m, 1.5m, 2m in length or anywhere between these lengths. This weapon was one type of *ρόμφαία* and was rare and difficult to handle.
- ii) The second type of *ρόμφαία*: A sword for two hands, with a long blade that had a curved upper part and had a trace of a semi-circular shape. This sword was between 1m and 1.5m in length.
- iii) A sword for two hands, with a curved peak and a blood groove. It was used for cutting, striking and stabbing.
- iv) A sword wielded with one or two hands, with a medium sized blade, with generous curve that begins from the middle of the blade, having a length of 66.5cm of which 49cm is the blade itself.
- v) A sword for one or two hands (varied due to handle length), also with a medium length blade, rounded in a semi-circle, with an overdrawn opening, giving the blade a slightly bent shape.
- vi) A sword for one or two hands (varied due to handle length), with a medium length blade, curved on its upper part, which in turn is part of a slight semi-circle arch.

- vii) A one-handed sword, with a medium sized blade, curved on its “superior part”, tracing an obtuse angle and forming a long peak. This sword was probably very sharp.
- viii) A sword for one or two hands, with a blade of medium length and only its peak being curved.
- ix) The *cangea*, which had two variants a) a semi-circular curved sword, with a long handle that was tightly fitted to the blade with a metal ring. This sword was shaped as a battle-scythe but had the dimensions of the ῥομφαία and b) a sword with a long tapering peak, because of the deep bloodletting curve just above the handle.
- x) The *sica*, which was a curved knife. *Sica* is derived from the Latin word *sicilis* “sickle”. It was between 25 and 35cm in length.
- xi) A curved hedging-knife.

From these different types belonging to the *falx* family of blades, it is clear that when translating the term “*falx*” or “*falcatus*”, that one should carefully determine the context of the writer and the text itself. The *falx* in iv, for example, is considerably different from the curved hedging knife mentioned in xi. *Falx* is a term which should be translated with care, since it depends wholly on the scenario described.

2.2.6 *Ferrum*

Technically there is no sword called a *ferrum*, it is simply the Latin word for iron, yet the word was used by Vergil in the *Aeneid* to make a general reference to a sword (Verg. A. 2.671; 4.663; 12.260). Gould and Whiteley (1970: 98, 111) confirm that the literal translation is “iron” but should be translated as “sword” in Verg. A. 4.663 and provide the terms “iron”, “steel” and “sword” as vocabulary equivalents. Fairclough (1965: 339, 442) translates *ferrum* as “sword” in Verg. A. 2.671; 4.663 and also as “sword” in Verg. A. 12.260 (Fairclough 1954: 317). Benade (1975: 67, 123, 365) and Blanckenberg (1980: 69, 127, 368) translate the word *ferrum* as “swaard” in Verg. A. 2.671; 4.663; 12.260 (Abovementioned work written between 29 and 19 AD describing events that supposedly took place in the 11th century AD). The word *ferrum* is also found in Ov. *M.* 9.128 - *extabat ferrum de pectore aduncum* “the hooked tip/arrowhead protruded from his breast” (work written in early 1st century AD); from the context of line 127 it

is clear that *ferrum* refers to an arrowhead in this case, since it was fired from a *sagitta* or “bow” (written early 1st century AD, describing mythological events). Its most frequent use as a military term still denotes “sword” and is also found in Caes. *B.G.* 5.30 fin - *aut ferro aut fame* “from sword or famine” as a figurative reference to means of perishing (event between 58 and 50 BC and written between 58 and 49 BC). Edwards (1919: 275) translates *ferrum* as “sword” in Caes. *B.G.* 5.30. According to L&S (s.v. *ferrum*) the word *ferrum* can denote iron, an iron implement, a hatchet, an arrowhead, a spearhead, scissors, a sword or any type of armament and is related to the word *firmus* - “firm”. Thomas (s.v. *ferrum*) gives the following translations: “iron ore”, “cruelty”, “hard-heartedness”, “any iron instrument” or a “sword”.

Vergil used the word in its original sense of “iron” but also in the sense of “sword”, and it seems that this was not by accident. He was probably aware that there were no directly translatable Latin words for the Trojan or Greek swords and therefore used the word *ferrum* to refer to an archaic sword or weapon in general, where he thought necessary. *Ferrum* is used poetically by Vergil, Ovid and Caesar. The poetic and slightly vague nature of the word is perfect for depicting weapons of a distant past, which is certainly the case in the *Aeneid*. The words “sword” for English and “swaard” for Afrikaans are perfectly suitable translations in the context of the *Aeneid*. The safest option is, of course, a contextual translation, since *ferrum* can denote any implement or weapon.

2.2.7 *Gladius*

The *gladius* was a short double-edged sword. Thomas simply translates this word as “sword” (Thomas s.v. *gladius, gladii*). L&S (s.v. *gladius*) translate it as a “sword” and suggest that the word may be derived from *clades*, which in turn is derived from the Greek term κλαδάσαι “to brandish” and is synonymous with the poetic *ensis*. The archaic form of the word *gladius* is *gladium* (L&S s.v. *gladius, gladium*). Gould and Whiteley (1973: 98), Irvine (1970: 230) and Ewan (1991: 127) translate *gladius* in Caes. *B.G.* 1.25.5 as “sword”, without any further description, as does Whiteley (1966b: 208) for Caes. *B.G.* 7.12.18. Benade (1984: 41, 161) translates *gladius* with “swaard” in his translation of Caes. *B.G.* 1.25.5; 7.12.18. The term “sword” or “swaard” is too generic, especially for a sword design as effective and famous as this one. The blade is roughly the length of a man’s forearm and it remains more or less the same

width up to where the tip starts forming; some variations become wider just below where the tip starts forming (see Addendum B image ix). The *gladius* must therefore be translated with more detail. Burton (1884: 255) mentions that the *gladius* has a leaf-shaped blade.

There are four main types of *gladius*, the Pompeii-type, the Fulham-type, the Mainz-type and the Hispaniensus type. The Pompeii type was the shortest of the four types, with a shorter blade than the other four types and completely straight with a more stunted tip. The Fulham-type had a long triangular tip and was also straight but longer than the Pompeii-type. The Hispaniensus-type was the original and longest type (the Romans adopted this weapon from the Spanish). It had a slight leaf shape to its blade. The Mainz-type evolved from the Hispaniensus, shorter than the Hispaniensus- but longer than the Fulham- and Pompeii-types. It is also wider than all the other types, with a prominent leaf shape, derived from the Hispaniensus-type (Berdeguer et al. 2014: 20-22 - see also Addendum B image ix). Quesada Sanz (1997: 262) on the contrary, claims that the *gladius hispanienis* had a straight blade with a triangular tip and did not have a leaf-shaped blade and was between 60 and 67cm long. He proposes two possibilities for the origin of the *gladius hispaniensus* (1997: 266-268):

- i. The sword existed before 225 BC and the term *hispaniensus* refers to the type of iron rather than the country of origin; or
- ii. the sword appeared between 216 and 209 BC and the prototype was a Celtic-Iberian modification of a weapon referred to by archaeologists as a “La Tène sword” (see Addendum B images x and xi).

Quesada Sanz (1997: 254-255, 266-268) prefers the latter possibility. Feugere (1993: 96-101, 138-142) states that the *gladius hispaniensus* is from the Late Republican era of the Roman army and was between 67 and 75 cm long, whereas the Mainz-type *gladius* followed as the classical legionary *gladius* from the Augustan period halfway into the first century AD. According to Feugere (1993: 138-142) the Fulham-type *gladius* was simply another variant of the Mainz-type found at the Thames in London. The Pompeii-type replaced the Mainz-type during the reign of Claudius (Feugere, 1993: 138-142).

The word *gladius* is perhaps best kept untranslated, since its meaning and shape is widely known; it is well known in English and may therefore be written as “gladius”. An entirely different situation exists for Afrikaans, because the term may be known but is not present in Afrikaans vocabulary. It is therefore best to refer to it as a “steekswaard” or “kort swaard” that is, “stabbing sword” or “short sword”.

2.2.8 κοπίς

The κοπίς was the sword used by the Thessalians and by Orientals. It had a slightly crooked blade and resembled a large knife. The name of this sword is derived from the word κόπτω “to chop off”. The word κοπίς can be translated directly with “chopper” (LSJ s.v. κοπίς). The origin of the word indicates the function of the weapon. It was mostly used to hack off limbs or heads. The statement of its use by Orientals is confirmed by the fact that the Ghurkhas of Nepal still use a knife called a *kukri* in the British armed forces, which is effectively a shorter version of the κοπίς. Anderson (2003: 26) describes the κοπίς as having a curved back and the hilt and the blade are both curved inward (see Addendum B images ii and iv). A κοπίς is referred to in the Maccabean revolt, where Mattathias slew Bacchides κοπίσιν “with choppers/curved blades” (J. BJ 1.36) - work written circa 75 AD and describes an event circa 167/166 BC. Thackeray (1956: 21) translates κοπίσιν as “with choppers”. It may seem odd that a Jew used a Graeco-Roman sword, yet it is not as unlikely as one might think. Consider that even before the time of the Maccabean revolt, Jews were already taking part in athletics. They therefore had enough contact with Hellenistic culture to appreciate the weapons it produced. Cyrus suggests the use of the κοπίς or alternatively, the σάγῳρις as being ideal for close quarters fighting in Xenophon (X. Cyr. 2.1.9) - written in early 4th Century BC and describes events that took place in the 6th century BC. Miller (1914a: 139) translates κοπίς as “scimitar” and σάγῳρις as “sabre”. A σάγῳρις, in fact, denotes an axe and cannot be translated as “sabre”. Miller probably thought of the *shamshir* of the Persians and Turks, which appeared much later. The *shamshir* was in fact a weapon of the Dark Ages (that is, Dark Ages in the general sense - not the Greek Dark Age) and Middle Ages. The term “scimitar” is therefore not an acceptable translation for κοπίς, because scimitars date much later than the Bronze or Iron Ages. It is unclear which of the many early Persian sword types is meant in the passage. The same may be said of X. Cyr. 6.2.10 with regard to the phrase καὶ κοπίσι “and with choppers”, which Miller (1914b: 155) translates as “and with

sabres” in X. *Cyr.* 6.2.10. The Macedonians used μάχαιρα or κοπίς swords for close quarters, the κοπίς being the deadlier of the two, approximately 25 inches long, being heavier toward the tip and curved (Gaebel, 2002: 161-163, 168). Gaebel (2002: 163) describes it as “capable of severing a man’s arm at the shoulder”. Anderson (2003: 26) as mentioned before, describes it as having a curved blade and a curved back. Ali et al. (2012: 65-67) claims that the κοπίς developed from the Egyptian *khopesh*, which in turn developed from the Canaanite poleaxe, though this claim cannot be confirmed. LSJ (s.v. κοπίς) translate this word as “chopper”, “cleaver” or “a broad curved knife”. The first and third translations are apt but the word “cleaver” is not, because it could even denote an axe. The words “crooked sword” or “hooked sword” are also quite descriptive of the κοπίς. In Afrikaans, the weapon may be referred to as a “kapswaard” or a “chopping sword” but it cannot be referred to as “kapmes” (chopping knife), because this is the Afrikaans term for a machete. Alternatively, the words “haakswaard” or “kromswaard” may be used.

2.2.9 μάχαιρα

The μάχαιρα was a single-edged blade. The word “blade” is a better translation than the word “sword” or “knife”, since it could represent either. A dagger is generally considered to be double-edged. Herodotus mentions that the Egyptians cut their foreheads μαχαίρησι “with knives” (Hdt. 2.61). Here, Godley (1920: 349) and Holland (2014: 133) translate μάχαιρα as “knife”. Agamemnon uses the μάχαιρα as a sidearm (Hom. *Il.* 3.271) alongside his Xiphos (Work dated to around late 8th or early 7th century BC describing events of the 12th to 11th century BC). Its use as a sidearm is found again in *Iliad* book 19, a μάχαιρα hanging next to a ξίφος (Hom. *Il.* 19.252). Murray (1928: 137) and (1976: 355) translates μάχαιρα as “knife” in Hom. *Il.* 3.271 and 19.252. Fagles (1990: 496) translates it as “dagger”, which is slightly misleading, because “dagger” usually denotes a double-edged knife. The word “knife” is acceptable. The word “blade” is a better choice, because the word “blade” normally implies a single edge, unless otherwise stated and is non-specific as to whether it is a knife or a sword, for example, μάχαιραν δίστομον “double-edged blade” in Hebrews 4:12 (the Epistle to the Hebrews is dated mid to late 1st century BC). The size of the μάχαιρα, however, is not clear and was not standardized. There does seem to be a standard form of the μάχαιρα, since Anderson (2003: 26)

describes it as having a blade with the maximum width at the tip, slightly curved but with a straight back (see Addendum B image iii).

Patroclus uses a μάχαιρα to cut out an arrow from a comrade's flesh (Hom. *Il.* 11.844). Here it undoubtedly refers to a small sharp knife. Murray (1928: 543) and Fagles (1990: 324) translate μάχαιρα as “knife” in Hom. *Il.* 11.844. This notion is supported by the LXX (dated 3rd or 2nd century BC), which uses the word μάχαιρα to describe the knife that Abraham almost used to sacrifice Isaac (LXX, Gen. 22: 6, 10). Joshua used μαχαίρας πετρίνας, “stone knives” to circumcise the Israelites once more as the Lord commanded (LXX, Josh 5: 2, 3) and the Levite who cut his concubine into pieces used a knife (*ma'akelet* in Hebrew), which is translated as μάχαιρα in the LXX (Judg 19:29). LSJ (s.v. μάχαιρα) confirm that the μάχαιρα was worn by the heroes of the *Iliad* next to the sword-sheath and describes the μάχαιρα as “a large knife or dirk” generally a knife for cutting up meat or as a weapon, “short sword” or “dagger”, “a cavalry sabre as opposed to the straight sword (ξίφος)”, “cutler”, “shears or scissors”, though referring to one blade or a “carving knife”. LSJ are mistaken to translate the word as “dirk” or “dagger”, since these translations could denote a double-edged blade. The “carving knife” may as well denote a large knife for chopping or cutting blocks of meat and therefore “butcher's knife” is probably a better term in such a case. LSJ are however correct in stating that it was probably a meat-knife, because there is historical evidence of the Greeks cutting up ox-meat with a μάχαιρα (Hdt. 2.41) - Work written in the 5th century BC. Godley (1920: 325) and Holland (2014: 125) translate μάχαιρα as “knife” in this case, since the context denotes a knife. LEH (s.v. μάχαιρα) refer to μάχαιρα as “sword”, “short sword”, “dagger” or “sacrificial knife” and only refer to the μάχαιρα as “double-edged” if used with the adjective δίστομος.

The New Testament mentions the weapon as well (Mark 14: 43, 47, 48; Luke 22: 36, 38, 49 and Matt 26: 47, 51 52) - Works all date to 1st century AD, describing events that took place early 1st century AD. Whether the word μάχαιρα is used generically in the New Testament or that the Jews preferred this Greek sword to other swords of the time is not clear, though the former seems more probable, since the New Testament only uses two words for “sword”, namely μάχαιρα and ρομφαία. The words μάχαιρα and ρομφαία were probably chosen individually in each case for semantic, rhetorical and theological purposes as it suited the particular author/s of the New

Testament but more importantly, in accordance with how authors were inspired to write to enhance the message of Scripture. BAGD (s.v. μάχαιρα, -ης) translate μάχαιρα as “sword” or “sabre”. NKJV, KJV, NIV, AFR1983 and AFR3353 translate the word μάχαιρα as “sword” or “swaard” in Mark 14: 43, 47, 48; Luke 22: 36, 38, 49 and Matt 26: 47, 51 52. These Bible translations are correct according to context as the writers of these passages seem to use the term μάχαιρα generically.

In the light of the foregoing, the following can be derived: The μάχαιρα was a single-edged blade since one cannot cut meat with a double-edged knife; it can also refer to a single-edged razor, often curved but not necessarily. The single-edged nature of the weapon is also confirmed by Anderson (2003: 26), who mentions that the sword sometimes had a straight back, with the cutting edge curved in such a manner that the maximum width and weight of the blade was at the tip (or like the κοπίς but with a straight back and a heavy tip). Burton (1884: 224) states that the μάχαιρα was often curved, though not always. Kottaridi (2001: 2-3) describes a Macedonian μάχαιρα found in cremation burial pit graves Southwest of the cemetery of Tumuli dating from the 6th century BC as having a “single edge, slightly curved forward” (see Addendum B image iii). Quesada Sanz (1997: 251), however, is of the opinion that the word μάχαιρα should not be understood in the narrow sense of “one-edged, curved, slashing sword or knife” but should also be translated to include double edged weapons, by the broad generic term “sword”, for instance. The argument against Quesada Sanz, is that the instances where double-edged weapons are specified are mostly where the adjective δίστομος is present. Louw and Nida (s.v. μάχαιρα), however, consider μάχαιρα to mean “a relatively short sword (or even dagger) used to cutting and stabbing” and translate it with “sword” or “dagger”. The one text that could support this notion is Plb. 6.23.7-8, where the μάχαιρα is used to describe the sword of the *hastatus* as being of Iberian origin and having a blade on both sides (written between 146 and 116 BC and describes events that took place between 264 and 146 BC). It must however be noted that the passage explicitly states that the weapon had a blade on both sides and therefore was suitable for stabbing and slashing (Louw and Nida’s interpretation of the weapon is probably based on his passage of Polybius). Quesada Sanz (1997: 251) also states that the naming process for weapons in classical literary works is difficult, since the literary sources themselves are often unreliable, especially in naming non-Hellenic weapons. The μάχαιρα as used in warfare, refers to knife, a

large knife or a sword. The word μάχαιρα is related to the word μάχομαι, which means “fight”, “quarrel”, “wrangle” or “dispute” (LSJ s.v. μάχομαι), implying a military origin for the word; this origin is supported by the rhetoric of Rev. 6:4, where the Horseman War carries a μάχαιρα μεγάλη, “large sword” (work dating from late 1st century AD). The wordplay is quite spectacular as the rider is meant to remove peace from the world and by implication bring strife and war. The word μάχαιρα was not chosen by accident... Additional consideration may be given to Matt. 10:34, where the word means “sword” but is metaphoric and synonymous with “conflict”: οὐκ ἦλθον βαλεῖν εἰρήνην ἀλλὰ μάχαιραν “I did not come to bring peace but conflict/the sword”. This idea may even be supported by Rom 8:35 (work dated mid 1st century AD): θλίψις ἢ στενοχωρία ἢ διωγμός ἢ λιμὸς ἢ γυμνότης ἢ κίνδυνος ἢ μάχαιρα “Suffering or hardship or persecution or hunger or nakedness or danger or the sword”, since “the sword” is a metaphor for violence or death. All of the above makes it difficult to determine whether the weapon was originally used as a tool or for warfare, especially when taking into account that it was also the word for a meat knife. Etymology and function are at odds; therefore, not too many assumptions can be made about this blade.

An interesting detail occurs in the *History of the Peloponnesian War*. Thucydides apparently did not know the word ῥομφαία, which is not surprising, since the word’s first recorded use is found in the LXX (3rd or 2nd century BC) and the *History of the Peloponnesian War* dates from the late 5th century BC. The ῥομφαία was a Thracian weapon and even though the term did not necessarily exist in Thucydides’ time, it is not inconceivable that the weapon itself could already have existed by that time, for instance, Θρακῶν...τῶν αὐτονόμων...καὶ μαχαιροφόρων - “Independent Thracian tribes...and who carry μάχαιρα” (Th. 2.96.2) and μαχαιροφόροι “μάχαιρα carriers” (Th. 2.98.4) - work dated to late 4th or early 3rd century BC, describing events of the late 4th century BC. In both these instances Warner (1972a: 187, 189) translates μάχαιρα as “sword”. Forster Smith (1956: 443) mistakenly refers to these μαχαιροφόρων as “who wear short swords” in Th. 2.96.2. There is no indication in the text that these weapons were short. The interpretative problem illustrates the importance of knowing weapons and their history. In this context, μάχαιρα probably refers to a type of ῥομφαία or at least a long *falx* of some sort. Thucydides probably knew what the weapons looked like but did not have a word for it and therefore used the word μάχαιρα. Forster Smith (1956: 449) translates the word μαχαιροφόροι in

Th. 2.98.4 as “sword-wearers”, where the Getae are the wearers in question. Considering the aforementioned, it is once again clear that the word μάχαιρα could be used to describe many types of blades, including foreign or unknown ones (it may even be used as reference to a ρομφαία). The one detail that was always the same was the single edge, unless otherwise stated in the primary work wherein it occurs (NB!!!), yet, as is always the case in language, there are exceptions to the rule.

The words “blade” (as mentioned before) or “warblade” would be suitable translations, depending on context. The word μάχαιρα is used as a translation for the Hebrew *hereb* or “sword”, when the priests of Baal wounded themselves with swords and pikes/spears (LXX, 1 Kgs 18:28) The word “knife” is also acceptable in certain contexts. The word “lem” or “krygslem” may be used in Afrikaans. In more specific scenarios, the words “knife”/“mes” and “sword”/“swaard” may be used. Where the term “blade”/“lem” fits to context, it is probably the safer choice.

2.2.10 ξίφος

The ξίφος was a double-edged leaf-shaped blade for thrusting or cutting and the word is derived from the Egyptian word *qisipe* (Cebrian, 1996: 13-20), which is also confirmed by Anderson (2003: 26). Kottaridi (2001: 2-3) describes a ξίφος found in an archaeological investigation of the Aigai necropolis between 1994 and 1996 as a double-edged blade (see Addendum B image iii). Homer, however, used this word as a general reference to a sword whether Greek or Trojan (Hom. *Il.* 3.18; 1.210; 3.367; 7.273, 303). The standard size of the ξίφος did not seem to be relevant to him either, as with the phrase μέγα ξίφος, “big sword” (Hom. *Il.* 1.194, 220) - work dating late 8th or early 7th century BC describing events in 12th or 11th century BC. This occurrence was probably due to Homer’s Ionian heritage and the proximity of Ionic regions to Aeolic regions. Whether Homeric authority of the *Iliad* is accepted or not, the author was definitely someone who spoke and wrote in a dialect of Ionic, containing words from other Greek dialects such as Aeolic and Attic. There may be another reason; the majority of Mycenaean and Minoan swords were straight and double-edged and corresponded with the era that Homer was trying to recreate. Perhaps he was privy to this information and was more accurate in his description of the events of the Trojan War than he is given credit for (See

Addendum B image i) or it was simply used due to familiarity as stated earlier. LSJ (s.v. ξίφος) mention that the word ξίφος was written as σκίφος in Aeolic. Burton (1884: 222-223) refers to the ξίφος as a “straight”, “rapier-like” blade. Burton is probably thinking of the Aegean type B or C Bronze Age swords (see Addendum B image i), since these fit the description that he mentions, though he mistakenly assumes that these were the same as the ξίφος, probably in the light of the *Iliad*. There is a possibility that Burton is not entirely incorrect, since weapons often develop through history, as do the semantic range of their names, in which case the ξίφος could have become shorter, broader and leaf-shaped blade over time. The word “rapier” is still a far cry from what Mycenaean swords looked like and therefore Burton’s reference cannot be wholly accepted. Murray (1928: 19, 117, 145, 323, 325) and Fagles (1990: 84, 140, 223, 224) translate ξίφος as “sword”. Fagles (1990: 129) also uses the phrase “battle sword” to translate ξίφος in Hom. *Il.* 3:18. The ξίφος had a smaller dagger version called by its diminutive, ξιφίδιον (Burton, 1884: 222-223). LSJ (s.v. ξίφος), LEH (s.v. ξίφος, -ους) and BAGD (s.v. ξίφος, -εος, -ους) simply translate the word ξίφος as “sword”, which is far too non-specific. The Persians also had a variety of swords, including double-edged swords, which the Greeks would then also refer to as ξίφος, such as the sword of Darius, which Herodotus refers to (Hdt. 3.78) - work dated to 5th century BC, describing events that occurred in the mid 6th to early 5th century BC. Ξίφος is also used in the LXX to translate the Hebrew *ḥereb*, a short double-edged sword (LXX, Josh 11: 11, 12 and De Vaux, 1965: 241) - yet the LXX sometimes used the words μάχαιρα or ῥομφαία to translate *ḥereb* as well... Nonetheless, the ξίφος may be translated as “double-edged sword” or “leaf-shaped blade” in the light of historical evidence and in Afrikaans “tweesnydende swaard” or “blaarlem swaard” would be the most acceptable term.

2.2.11 *Pugio*

The *pugio* was a dagger worn by a Roman legionary in addition to his *gladius*, to use as a tool and a sidearm (Reid, 1986: 24 and Thomas s.v. *pugio*, -onis). An even smaller version existed, called a *pugiunculus*, “little dagger” (Thomas s.v. *pugiunculus*, -i). The word *pugiunculus* is simply the diminutive of *pugio* L&S (s.v. *pugiunculus*). L&S (s.v. *pugio*) translate *pugio* as “short weapon for stabbing”, “a dagger”, “dirk” or “poniard” and is derived from the root *pug-* and related to the word *pugna* (combat). Suetonius (Suet. *Calig.* 49.3) mentions two books “Gladius” and “Pugio” containing the names of people who were doomed to death. He also

mentions the *pugio* in Gal. 11, where Galba carries it, hanging from his neck against his chest, which indicates that the *pugio* was indeed smaller than the *gladius*. The *pugio* was apparently another innovation taken over from the Iberians, as is the case with the *gladius* (Feugere, 1993: 157-163). Burton (1884: 256-257) states that the *pugio* is the Roman equivalent of the Greek ἐγχειρίδιον (see Addendum B image xiii). Rolfe (1964: 479) translates the word *pugio* as “dagger” for the former and for the latter (Rolfe, 1965: 209). *Pugio* may be translated as “dagger” in English and as “dolk” in Afrikaans.

2.2.12 ῥομφαία

The ῥομφαία was a long scythe-like sword, used by the Thracians. LS (s.v. ῥομφαία) in their 7th edition translated the word as “large sword” or “scimitar”; the word is of foreign origin and encountered in the N.T. and in some of Plutarch’s work. “Scimitar” is too general a word and not quite an accurate description of the blade as a scimitar has a convex blade, whereas the ῥομφαία normally had a concave blade. In the 9th ed. of LSJ (s.v. ῥομφαία) the word ῥομφαία is translated as “as large, broad sword used by the Thracians” or “generally a sword”. The generic meaning of the word occurs in Rev. 1:16, Rev. 2:16 and Luke 2:35, though its use does seem to denote a strange, otherworldly sword, in essence, foreign or exotic and definitely not a sword in the literal sense. BAGD (s.v. ῥομφαία, -ας) translate it as a “large and broad sword used by barbaric peoples, especially the Thracians”. “Large sword” is also too general a term. It had a notable crescent or sickle shape, concave and sharpened inwards for slicing as indicated by Borangic (2008: 143-150) in 2.2.5 i and ii. LEH (s.v. ῥομφαία, -ας) translate ῥομφαία as “sword”. Louw and Nida (s.v. ῥομφαία) describe it as “a large broad sword used both for cutting and piercing” but also state that it can denote “war”. More detailed translations would be “sickle sword”, “crescent sword”, “scythe sword” or “war-scythe”/“battle-scythe” - the latter is the most accurate translation in the light of the historical and archaeological evidence. Some texts may, however, require a generic translation of “sword”. Afrikaans translations could include “sekelswaard” or “krom swaard”, the generic translation would be “swaard”. As has been mentioned in 2.2.5 i and ii, there were two main types of ῥομφαία, the larger battle-scythe, which could reach up to 2m in length and the slightly shorter 1.5m version. Both were two-handed weapons. The damage that these swords could inflict is self-evident, easily slicing through light armour and even wooden shields.

The New Testament mostly makes use of the word μάχαιρα but three exceptions are made, where the word ῥομφαία is used for rhetorical and theological purposes (at this point it is important to note that the ῥομφαία and μάχαιρα were not the same swords - compare Addendum image iii lower with Addendum B images vi and viii). The first is in Luke 2:35 where Simeon tells Mary that a ῥομφαία shall go through her soul. The ῥομφαία was a longer and more efficient weapon than the μάχαιρα, denoting a far deeper (cut/cleave) and crueller emotion that she would experience when Jesus would be crucified, than could be denoted by using the word μάχαιρα. The second is found again in Rev. 1:16 - ἐκ τοῦ στόματος αὐτοῦ ῥομφαία δίστομος ὀξεῖα ἐκπορευομένη “and out of his mouth came a sharp double-edged sword/scythe” and the third is found in Rev. 2:16 καὶ πολεμήσω μετ’ αὐτῶν ἐν τῇ ῥομφαίᾳ τοῦ στόματός μου “and I shall make war against them with the sword/scythe of My mouth”. This clause denotes far more than any normal blade but a far-reaching, unstoppable deep-cleaving blade. In Rev. 1:16 it is described as even more dangerous, being double-edged, unique in terms of a ῥομφαία, a blade like no other, even more fierce than its regular counterpart and theologically fitting to describe the Word of God. The author of *Revelation* chose to use this word when referring to Christ (Rev. 1:16 and 2:16), whereas he simply uses the word μάχαιρα for the Horseman War (Rev. 6:4). Though μάχαιρα is used to describe the Word of God as a sword in Eph. 6:17 and Heb 4:12, it is clear that the imagery of ῥομφαία is used with a different effect in Luke 2:35 and Rev. 1:16 and 2:16. In fact, if μάχαιρα is considered in its generic sense as “blade” in Heb 4:12 it would make even more sense in a translation as “the Word of God is sharper than any double-edged blade”. The generic sense gives a far wider range and also implies the limitation of earthly blades in comparison with the Word of God, whereas ῥομφαία has very specific implications in Luke 2:35, Rev. 1:16 and 2:16. AFR1983, AFR3353, NIV, KJV and NKJV all translate ῥομφαία as “sword” or “swaard” in Luke 2:35, Rev. 1:16 and Rev. 2:16.

As with any word, there are exceptions, such as the LXX, which uses μάχαιρα, ξίφος and ῥομφαία on different occasions to translate the Hebrew *hereb*, such as Lev 26:7, 8, Josh 11:11, 12 and Ezek. 6:11, 12 respectively (LXX, Lev 26:7, 8, Josh 11:11, 12 and Ezek 6:11, 12). Here it would seem that translators were not bothered too much by which Greek word fits the Hebrew (or at least not with the examples in Leviticus and Ezekiel, seeing as the shape of the Greek ξίφος more or less corresponds with that of the Hebrew *hereb*) - Biblical Hebrew generally had

only one word for sword, perhaps it did not bother the Septuagint authors. It would however, matter to a historian or a Biblical archaeologist. A possible explanation for this occurrence looms in a modern-day equivalent: People often do not know the specific descriptions for different types of swords: a man without knowledge of weaponry, for instance, would use the word “sword” to describe rapier and broadsword alike, without being aware of the different names for these two; it is therefore possible that one has a similar case with many of the books of the LXX, that the authors had mastery over much of the language but not necessarily over the terminology for swords or that some authors did and others did not. For instance, Goliath’s sword is described in the LXX (1 Kgs 17:51) as a ῥομφαία. Perhaps it is because the Philistines are fabled to have come from Crete or at least from somewhere along the Aegean. Yet another reference to ῥομφαία is found in LXX (Gen. 3:24), where τὴν φλογίνην ῥομφαίαν – “the flaming rhomphaia” turned in all directions to protect the tree of life. The strange thing about the Biblical use of the word ῥομφαία, is that both in the Old and New Testament it seems to be used by authors to instill a sense of fear or awe.

The Greek word δρέπᾶνον is a synonym for ῥομφαία, such as the δρέπᾶνον or “scythed/curved sword/falchion” with which Onesilus, a Carian, lops off the Persian Artybius’ horse’s legs and then slays him (Hdt. 5.112) - written 5th century BC; describing events that took place in 6th or 5th century BC. Holland (2014: 384) translates δρέπᾶνον as “a bill hook”. Godley (1922: 135) translates δρέπᾶνον as “falchion”, which is a near translation, though not entirely accurate, since the cutting edge was on the convex side and not on the concave side as with the δρέπᾶνον. LSJ (s.v. δρέπᾶνον) translate δρέπᾶνον as “pruning knife”, “scythe”, “curved sword” or “scimitar”. The word “scimitar” is also not a good translation, though the words “pruning knife”, “scythe” and “curved sword” are quite accurate. Afrikaans equivalents would be “snoeimes”, “sekellem” or “sekelswaard”.

2.2.13 *Sica*

The *sica* was a curved knife between 25cm and 35cm in length, used by the Dacians. The weapon was used mainly to cut throats but due to its design it would also have been very efficient in hand-to-hand combat. There is some relation between the word *sica* “curved-/sickle knife” and *sicarius* “throat cutter/assassin” (Borangic, 2008: 150 see also Addendum B image vi

and vii), Thomas (s.v. *sica*, -ae; *sicarius*, -ii) and L&S (s.v. *sica*, *sicarius*) confirm the link between the weapon and its progenitor, namely the *sicarius*. L&S (s.v. *sica*) translate the word *sica* as “curved dagger” or “poniard”. Caligula once used an iron *sica* against a *murmillo* from the gladiatorial school who was armed only with wooden swords (Suet. *Calig.* 32.2). Rolfe (1964: 455) translates *sica* as “dagger”, though this translation does not capture the essence of what was written, for the *sica* was an insidious assassin’s weapon. The word *sica* is very difficult to translate without losing some of its potency. *Sica* may be translated as “curved knife” or “crooked knife” in English and as “krom mes” in Afrikaans; these translations capture both its shape and the nature of the weapon, since it was not straight in form and was also not used in a straightforward manner. The Afrikaans word “krom” and the English word “crooked” are perhaps more effective at denoting the function of the weapon than the word “curved” is, since the words “krom” and “crooked” often imply “twisted” in its abstract sense.

2.2.14 *Spatha*

Thomas (s.v. *spatha*, -ae) describes this sword as “a broad two-edged sword”. The *spatha* was around 75cm long and used by Roman soldiers and also by Roman gladiators (Berdeguer et al. 2014: 20). L&S (s.v. *spatha*) describe *spatha* as “a broad, two-edged sword without a point. It is related to the word *spada*, which is the Italian name for the same weapon and is derived from the word *σπαθη* in Greek (L&S s.v. *spatha*). The *spatha*, though an entirely different sword, was sometimes used generically: *spatha* and *semispatha*, for instance, were used to represent the *gladius* and *pugio* (Feugere, 1993: 146-147). The *spatha* is possibly of Germanic origin and due to its weight and length was worn on the left of the soldier, in other words to allow for a cross draw to solve the problem of the blade’s length, whereas the *gladius* was short enough to be worn on and drawn from the right side (Feugere, 1993: 137-138, 147-150). The scabbard would obviously be reversed in the case of a left-handed person. Burton (1884: 235) however, claims that the word *spatha* is derived from the Greek *σπάτι* and referred to a “sabre” or a “broadsword”. LSJ do not include the term *σπάτι* as “sword”. Burton’s translations of the term *spatha*, cannot be applied, since there is a big difference between a sabre and a broadsword. The *spatha* was roughly 88,8cm long and its width also kept on increasing over time, though the blades became grooved as they became wider to prevent the blade from becoming too heavy, according to Feugere (1993: 147-150). See Addendum B image xii. The *spatha*, deduced from

descriptions of its dimensions, could therefore have varied somewhere between 70cm and 90cm in length. The word *spatha* is difficult to put into words but may be translated as “broad sword” (note that the words are not written as one word but two, since “broadsword” denotes something from the Middle Ages and was entirely different in nature and origin). An Afrikaans term which may be used is “breëlem swaard”.

2.2.15 φάσγανον

The word φάσγανον seems to be a generic reference for “sword”. The word’s generic nature is evident from its use in the *Iliad*, for example, φάσγανον ὀξύ “sharp sword” (Hom. *Il.* 1.190), φασγανῶ “with sword” (Hom. *Il.* 8.88), φάσγανον ἄμφηκες “double-edged sword” (Hom. *Il.* 10.256) and φάσγανον Θρηίκιον “Thracian sword” (Hom. *Il.* 23.807). In all cases Murray (1928: 17, 345, 455), (1976: 555) and Fagles (1990: 83, 234, 285, 584) translate φάσγανον as “sword” and describe it with the adjective that accompanies it in each case. The word is a Mycenaean loanword, originating in Minoan Crete as the word *pakana*, denoting a “sword” or “knife” (Cebrián, 1996: 13-20). Burton (1884: 223-224) however claims that the word φάσγανον originates from the word σφάγειν “to slay, to slaughter” and eventually changed via metathesis (switching of consonants); he is also of the opinion that the φάσγανον originated in Egypt and was a double-edged, leaf-shaped blade. It seems that Burton has once again confused two different swords with each other, because his description fits the ξίφος and not the φάσγανον (see ξίφος). Burton may be correct with regard to the etymology of the word, since the verb φάσγανω means to “slaughter with the sword” (LSJ s.v. φάσγανω). The shape or description of the sword depends on the adjective that accompanies it, or the absence thereof. This principle applies to both English and Afrikaans translations of φάσγανον.

2.3 Axes

Axes were considered to be more exotic or foreign weapons in the Graeco-Roman world and were certainly not part of the standard equipment of Greek soldiers. Roman soldiers used axes to cut down trees for construction of their camps and barricades but these would have been tools rather than weapons. Axes are normally mentioned in the same breath as legendary heroes or

fierce Amazons who wielded them to devastating effect. The shapes varied from single-headed axes to double-headed axes and even to axes meant for execution.

2.3.1 ἄξινη

The word “axe” is probably derived from this very Greek word. It could refer to an axe-head, an axe in general or a battle-axe (LSJ s.v. ἄξινη). BAGD (s.v. ἄξινη) consider it to be an “axe for cutting wood”. LEH (s.v. ἄξινη) refer to ἄξινη as “axe” in general. Herodotus uses this word to refer to battle-axes of foreign origin (Hdt. 7.64). Holland (2014: 473) translates ἄξινη as “battle-axe” in the light of its military use in the passage. Godley (1922: 379) prefers to simply call ἄξινη “axe” in this case. The word “battle-axe” or “axe” are applicable, though “axe” is perhaps a safer term to use, since “battle-axe” is often associated with a double-edged axe, therefore the term “byl” in Afrikaans is more than sufficient.

2.3.2 *Bipennis*

The word *bipennis* literally means “two-winged”. The word also referred to a double-bladed axe (Thomas s.v. *bipennis*, -e). L&S (s.v. *bipennis*) confirm that the *bipennis* was a double-edged axe and also mentions its derivation from the adjectives *bis* and *penna*, meaning “two” and “winged”. The Greek equivalent of this weapon is the λάβρυξ. Camilla, the Amazon, is said to have a *bipennis* (Verg. A. 11.651). Fairclough (1954: 279) uses the term “battle-axe” to describe the weapon, which may lead one to the conclusion of a double-headed axe but not necessarily, since Vikings, for instance, used single-edged battle-axes. Benade (1975: 345) and Blanckenberg (1980: 343) translate *bipennis* as “strydbyl” (hatchet), which is perhaps even less descriptive than-, yet effectively amounts to the term *battle-axe*. When attempting to pass a concept onto the reader, it is important to be thorough. The translations of Fairclough, Benade and Blanckenberg are not specific enough in this instance. *Bipennis* may be referred to as a “double-axe” or “double-headed axe” in English and as a “twee-kop byl” in Afrikaans.

2.3.3 *Dolo*

“*Dolo*” could refer to an axe, a staff or a pole-arm (Thomas s.v. *dolo*), yet in the *Aeneid* (Verg. A. 11.712) the word *dolo* refers to “deceit” or “guile”, from the abstract noun *dolus* (Thomas s.v. *dolus*, -i). The *Aeneid* was written between 29 and 19 BC. In the descriptions given by Thomas,

the importance of combing semantics, syntax and morphology to avoid error and confusion is seen. Suetonius mentions this weapon as used by assassins on three separate occasions in attempts to slay Claudius - one had a *pugio*, the second had a *dolo* and the third had a type of knife (Suet. *Claud.* 13.1) - work dating to early 2nd century AD; describing events that took place early to mid 1st century AD. The fact that the other two assassins used small weapons, which were not so visible, implies that the *dolo* in question was probably a weapon of concealment. Rolfe (1965: 25) translates *dolo* as “sword-cane” when referring to this incident. L&S (s.v. *dolo*) consider the word *dolo* to mean “a staff with a short sharp point”, “pike” or “sword-stick”. The verb *dolo* denotes “to hew” or to “chip with an axe” and is related to the Sanscrit *dal-* “to tear apart” (L&S s.v. *dolo*). It was probably some type of pole-axe, or pole-arm, though it could also be translated as “sword-cane”, depending on context. There is no universal translation for this word, which indicates that more study on this specific weapon is necessary.

2.3.4 πέλεκυς

The πέλεκυς is mainly considered a two-edged tree-felling axe; the word itself can refer to an axe or an axe-handle, though it could also refer to a “sacrificial axe”, an “executioner’s axe” or even a “battle axe” (LSJ s.v. πέλεκυς), the word was used to describe an axe used for war - πελέκκω (Hom. *Il.* 13.612). Murray (1976: 49) and Fagles (1990: 361) translate πελέκκω as “haft”, since ἄξινη already represents the axe head in this passage. There were apparently single-edged and double-edged versions of these axes, for example πελέκεας “double axes” or “axes” and ἡμιπέλεκκα, “single-axes” or literally “half-axes” (Hom. *Il.* 23.851, 858 and LSJ s.v. πέλεκυς). Murray (1976: 557, 559) translates πελέκεαι as “double axes” and ἡμιπελεκκα as “half-axes”. Fagles (1990: 585, 586) translates πελέκεαι as “double-headed axes”/“double axes” and ἡμιπέλεκκα as “single heads”. The word πέλεκυς is probably a loanword from the Babylonian word *pilaḫku*, which in turn comes from the Sumerian *balag*, which means “axe” (LSJ s.v. πέλεκυς). LEH (s.v. πέλεκυς, -εως) confirm that πέλεκυς referred to a “double-edged axe” or “battle axe”. The best translations for this word would be “double-axe”, “single-headed axe” or “lumber axe”, depending on its use in a text. In Afrikaans, the words “tweekop byl” or “byl” should suffice.

2.3.5 σάγᾶρις

The σάγᾶρις was a Scythian weapon, also used by Amazons and Persians. The etymological origin of the word is possibly Ionian, since Ionian variations of the word exist, though it may just as well be Attic in origin. The word refers to a single-edged axe or a double-edged axe (LSJ s.v. σάγᾶρις). Evidence of this weapon's existence is found in Hdt. 4.70. Holland (2014: 287) calls a σάγᾶρις a “battle-axe” in Hdt. 4.70. Godley (1921: 269) refers to σάγᾶρις simply as axe for Hdt. 4.70. Herodotus also describes the σάγᾶρις as an axe: πρὸς δὲ καὶ ἀχίνας σάγᾶρις “and together with axes which they call sagaris” (Hdt. 7.64). Holland (2014: 473) and Godley (1922: 379) leave the word untranslated in Hdt. 7.64 as Herodotus does, since this instance is a stating of its name. Anderson (2003: 25) states that mounted tribesmen normally used the weapon. The name seems to be a non-specific term regarding its shape, though it is possibly used to denote a foreign or exotic axe. The word should therefore be translated in a general sense as “axe” (English) or “byl” (Afrikaans).

2.3.6 *Securis*

The *securis* was a general word for an axe or hatchet. This weapon is encountered in the *Aeneid* (Verg. A. 12.306; 7.627; 11.656, 696). This is confirmed by Thomas (s.v. *securis*). L&S (s.v. *securis*) give many possible translations for the *securis* namely “an axe or hatchet with a broad edge”, “a two-edged axe” and also an “axe of the executioner” or an “axe for beheading”, having some connotation of giving the death-blow. Fairclough (1954: 47, 279, 281, 321) translates *securis* as “axe” and Benade (1975: 216, 345, 346 367) and Blanckenberg (1980: 220, 349, 369) translate it as “byl” in Verg. A. 12.306; 7.627; 11.656, 696, though in 11.656 Blanckenberg (1980: 347) translates *securis* as “strydbyl”. It may seem that the words used in the translations of the *Aeneid* were not entirely adequate, yet *securis* cannot denote an execution axe in the entries in this work. Be that as it may, *securis* somehow implies a heavy or broad-bladed axe. The term “broad axe”, “heavy axe” or “executioner’s axe” may suffice depending on the context of the passage translated. Afrikaans translations may include “breëlem byl” or “laksman byl”.

2.4 Clubs and maces

Clubs, maces and staves, though archaic and primitive in origin, its development ranged from subduing a wanted person to killing an opponent on the battlefield. They generally were staves, sticks or clubs made of wood or maces made of metal. The harder and heavier the weapon, the more damage it would inflict.

2.4.1 κορύνη

The word κορύνη can be used to describe a “club”, a “mace” or even a “shepherd’s staff” and bears some relation to knobs or buds on flowers (LSJ s.v. κορύνη). LEH (s.v. κορύνη, -ης) translate κορύνη as “mace” or “club”. A basic translation for the word would be “blunt weapon”, although the exact translation would depend on its use in whichever work it is found, such as the *Iliad* (Hom. *Il.* 7.141, 143) σιδηρείη κορύνη, “iron mace” and κορύνη σιδηρείη, “mace of iron” or a wooden club, as when Herodotus describes a group of κορυνηφοροι “club-bearers” who bore ξύλων κορύνας “wooden clubs” (Hdt. 1.59). Murray (1928: 313) translates κορύνη as “mace” in Hom. *Il.* 7.141, 143. Fagles (1990: 219) translates κορύνη as “club”, he refers to it as an “iron club”, no doubt because of the adjective. The words “club” and “iron”, however, do not belong together. A club is made of wood, a mace of metal. It is odd to see an iron weapon mentioned in the Trojan War, because most weapons in this era were of bronze (it is, however, not odd to see it in the *Iliad*, since the *Iliad* was written in the late 8th or early 7th century BC). Yet it is not impossible that iron weapons were used during the Trojan War, since the Iron Age had already started in the Middle East by 1200 BC (Chandler, 2000: 24-25) and a Trojan, according to Homer, wielded a mace mentioned in book 7 of the *Iliad*. Troy was located in what is now modern Turkey, thus acquiring an iron mace from Philistine, Canaanite or other tribes of the Ancient Near East is a possibility. It could be argued that Homer simply mixed the terms bronze, copper (χαλκείη) and iron (σιδηρείη) indiscriminately and that he lived in the iron age, therefore it would not seem strange to him. It is, however, important to note that despite the fact that Homer often used the term σιδηρείη in the *Iliad*, he used χαλκείη more often. Furthermore, the context of Hom. *Il.* 7.141, 143 makes it clear that Homer intentionally stresses that the mace was made of iron and considered it a devastating weapon with which Areïthous broke the ranks and that Lycurgus had to kill him with inventiveness instead of strength. Three possibilities exist:

The weapon was made of iron, which the Trojans acquired from other lands in the East, Homer was exaggerating or he was mistaken. Nonetheless, the term may be used to describe a mace, regardless of the type of metal. Κορύνη may be translated with “mace” or “club” depending on the material of which it consisted. The Afrikaans word “knots” may be used to translate the club variant and the Afrikaans word “roede” to translate the mace variant. Readers who are unfamiliar with the Afrikaans word “knots” may consult HAT (s.v. knots), Kritzinger and Eksteen (s.v. knots) and *Avonture van die Griekse helde en gode* (Conradie, 1964: 70-71).

2.4.2 ξύλον

Ξύλον does not generally refer to a weapon; in fact, it rather refers to a piece of wood or timber, yet it may also describe a “cudgel” or “club” (LSJ s.v. ξύλον). Louw and Nida (s.v. ξύλον) state that it can denote “wood”, “firewood”, “club”, “stocks” or “cross” and in its military sense means something like “a heavy stick used in fighting”. The name of the weapon is simply a description of the material of which it is made. Josephus mentions its use in *Jewish Wars*: ξύλοις “with cudgels” (J. *BJ* 2.176) - work dated to c. 75 AD; describing events that took place between 66 and 70 AD. Thackeray (1956: 391) translates ξύλον as “cudgel” in J. *BJ* 2.176. Ξύλον is also mentioned in Matt. 26:47 and Mark 14:43 as being amongst the weapons with which Jesus Christ was arrested: μετὰ μαχαίρων καὶ χύλων (event dated between 30 and 38 AD, described in works dating to 1st century AD). KJV translates μετὰ μαχαίρων καὶ χύλων as “with swords and staves”. NKJV and NIV translate μετὰ μαχαίρων καὶ χύλων as “with swords and clubs”. AFR3353 and AFR1983 translate μετὰ μαχαίρων καὶ χύλων as “met swaarde en stokke”. It is best translated as “cudgel” or “club” in English and as “knots” (club) in Afrikaans, when it is referring to a weapon. The terms “stave” or “stick” may also be used, since the word ξύλον technically means “wood”, in which case the term “stok” may be used in Afrikaans.

Table 1 - Summary of melee weapon translations

Lexeme	General meaning	Specific meaning	English	Afrikaans
αἰγᾶνή	spear	ibex spear * hunting spear *	ibex spear* goat spear *, hunting spear, hunting javelin *	bokspies *, jagspies *
αἰχμή	spear spear point	not applicable	spear	spies
<i>cuspis</i>	point/spear	not applicable	spear	spies
δόρυ/δουρί	pole, shaft, spear	combat spear	combat spear	vegspies
δορυδρέπανον	halyard poled scythe	A poled scythe for cutting enemy rigging	sickle spear	sekelspies haakspies
ἔγχος	spear, sword, lance, arrow, weapon	not applicable	no translation (context specific)	no translation (context specific)
ζιβύνη	spear	hunting spear pike	hunting spear	jagspies
<i>hasta</i>	spear	not applicable	spear	spies
κοντός	pole, punting pole, boat hook, spear javelin	skirmish spear javelin	skirmish spear	skermutselspies
λόγχη	tip, spearhead, spear	spear, spearhead	spear	spies
<i>matara</i>	native spear Gallic spear	barbarian pike/- javelin	barbarian spear *	barbaar spies *

Table 1 - Summary of melee weapon translations

Lexeme	General meaning	Specific meaning	English	Afrikaans
ξυστόν	shaft, pole, spear	naval pike &, guard pike, long pike, lance	naval pike, guard pike, long pike, lance (context specific)	vlootspies *, waakspies *, langspies, lans (context specific)
προβόλιον	jutting, projecting	hunting spear, boar spear, wolfhunter spear, Lycian workmen's spear	hunting spear	jagspies
σάρῖσα	pike	pike	pike	steekspies*
σειρομάστης/ σιρομάστης	pit searcher probe, spear, barbed lance	barbed spear	no translation	no translation
<i>sparus</i>	rustic pike, spear	hunting spear, rustic pike,	hunting spear	jagspies
<i>spiculum</i>	spike, spear	javelin, dart, spear	context specific	context specific
<i>telum</i>	weapon	missile, dart, javelin, spear sword, dagger, axe	weapon (context specific)	wapen (context specific)
τρίαινα	trident	trident, three-pronged fork, three-pronged fish spear	trident	drietandvurk
ἀκινάκης	dagger, short straight sword	short straight sword	short sword	kort swaard

Table 1 - Summary of melee weapon translations

Lexeme	General meaning	Specific meaning	English	Afrikaans
ἄορ	big sword, long sword	big/long sword on thigh	large sword	groot swaard
ἐγχειρίδιος	handle, dagger, hand-knife	dagger	dagger, knife, short sword	dolk, mes, kort swaard
<i>ensis</i>	sword	not applicable	sword	swaard
<i>falx/falcatus</i>	sickle, scythe, pruning hook, hook	scythe, battle scythe, sickle sword, hedging knife,	sickle sword, battle scythe. scythe, grappling hook, concave blade, concave sword (context specific)	sekelswaard, sekelmes, muurseis (context specific)
<i>ferrum</i>	iron, instrument, implement, sword	sword	sword	swaard
<i>gladius</i>	sword	gladius	gladius	steek swaard, kort swaard
κοπίς	chopper, curved blade/-knife	curved blade	chopper, chopping sword, crooked sword, hooked sword	kapswaard, krom swaard, haakswaard*
μάχαιρα	large knife, sword, short sword	sword, single- edged blade, large knife, slashing sword, meat knife	blade, knife, sword, warblade	lem, mes, swaard

Table 1 - Summary of melee weapon translations

Lexeme	General meaning	Specific meaning	English	Afrikaans
ξίφος	sword	double-edged sword	double-edged sword, leaf-shaped blade	tweesnydende swaard, blaarlem swaard*
<i>pugio</i>	dagger	dagger	dagger	dolk
ρόμφαία	sword	Thracian sword	crescent sword, sickle sword, war-scythe, battle-scythe	sekelswaard
<i>sica</i>	dagger	curved dagger, curved knife	curved knife	krom mes
<i>spatha</i>	broad sword	broad two-edged sword	broad sword	breëlem swaard
φάσγανον	sword	not applicable	adjective specific	adjective specific
ἄξινη	axe, axe-head	battle-axe	axe	byl
<i>bipennis</i>	double-edged axe	double-edged axe, battle-axe	double axe, double headed axe	twee-kop byl
<i>dolo</i>	staff, polearm, axe	pike, sword cane, axe, pole-axe, staff	no translation	no translation
πέλεκϋς	double axe	executioner's axe, battle-axe	double axe, lumber axe	twee-kop byl, byl
σάγαρις	axe	not applicable	axe	byl
<i>securis</i>	two-edged axe, axe with a broad blade	axe of the executioner, axe for beheading,	broad axe, executioner's axe	breëlem byl*, laksman byl*
κορύνη	club, mace	club, mace, staff	mace, club	roede, knots

Table 1 - Summary of the translation of melee weapons

Lexeme	General meaning	Specific meaning	English	Afrikaans
ξύλον	wood, timber	cudgel, club	cudgel, club, stick, staff	knots, stok

Source: Compiled by the researcher (Wynand M. Bezuidenhout 2018).

*New translations developed in this study

3. ARMOUR

Armour was as important to a Greek or Roman soldier as his weapon. This chapter shall therefore examine the soldiers' armour and equipment from their first line of defence (shields) to their last line of defence (helmets) and compare the variations thereof. This study includes shields, though they could be classified as defensive arms. The reason being that they do not belong to any offensive weapon group. Armour in this chapter therefore includes any kind of clothing or equipment that protects the body against injury during warfare.

The Greeks referred to their armour and/or battle gear as τεῦχος. Roughly translated it means "arms/armour" (LSJ s.v. τεῦχος). The Latin equivalent of this word is *arma*. The word τεῦχος is found in numerous places in the *Iliad* (Hom. *Il.* 3.29, 327, 328; 4.466; 6.28; 7.78). There is another Greek word for a hoplite's full arms and armour, namely the Ionian word πᾶνοπλία or "panoply" as it is known in English, which referred to full body armour, a shield, a sword and a spear (LSJ s.v. πᾶνοπλία). The word literally means "all arms"/"all armour"/"the whole armour"/"the complete armour"/"the full armour". This notion is also supported by Eph. 6:13 τὴν πανοπλίαν τοῦ θεοῦ "the full armour of God". The word σκεύη/σκεῦος "equipment", "implement" may also refer to armour or attire, though its translation remains "equipment" or "gear", because it could also refer to fishing gear or tools (Hdt. 7.62 and LSJ s.v. σκεῦος).

The Greek hoplite was armed with some of the heaviest infantry armour in history. The armour consisted of a περίχειρον (bracer) for each arm, a περιβραχίονιος for each arm (shoulder/upper arm armour), a pair of σάνδαλον (sandals), a pair of περισφύριος (anklets/ankle bands), two κνήμιδες/περικνήμιδες (greaves), two περιμηρίδες (thigh armour), the θώραξ (bell cuirass of bronze) or a λινοθώραξ (composite torso armour made of linen, leather and animal fat), the πτέρυξ/πτερῦγος (leather flaps covering the skirt of the tunic), a μίτρα (girdle) and a κράνος (helmet).

Strange as it may seem, hoplite armour has been adapted back and forth. By the 5th century BC hoplites preferred the use of the composite corselet (λινοθώραξ) and the pilos helmet (as they were lighter and cooler in hot weather) and often decided not to wear thigh, arm and shoulder

guards, sometimes even relinquishing greaves. The relinquishing of encumbering armour was also commonplace before the year 725 BC (Hanson, 2003: 64-65). In short, hoplites of the 5th century BC reverted to earlier types of armour. Between the years 725 BC and 650 BC hoplites are once again equipped with the hoplite panoply, a new heavy set of bronze armour and iron arms including a double-grip convex shield, a Corinthian helmet, a bronze bell-corselet, pliable greaves without laces, a δόρυ and a short sword. It is reminiscent of the equipment used by Mycenaean and Dark Age Greek hoplites, therefore a jumping back and forth of the use of equipment in history (Hanson, 2003: 64-65). Hanson, however, does not provide any ancient works to support these dates and relies purely on historical data, which he gathers and assesses by comparing the works of experts in the field of hoplite weaponry and eventually draws his own conclusions.

Hanson (2003: 76), is of further opinion that the heavier hoplite panoply compromised mobility, comfort and vision. He is correct; both Philip and Alexander of Macedon proved that mobility and skill are more important than armour. Hoplites faced other obstacles, such as uneven terrain and the weight of their arms, armour and gear; they therefore made use of baggage trains, paved roads and military highways to overcome these problems (Ober, 2003: 173-179).

Hoplites carried their shields with their left arms, covering the vulnerable right of the hoplite next to them, where the spear was held (Wilde, 2008: 2), therefore hoplites were not effective in loose formation or individually but highly effective in a phalanx (Krentz, 1985: 53). The two essential qualities of a hoplite, according to Cawkwell (1989: 376 - cited in Wilde 2008: 3-4), were weight and solidity. The hoplite used a ὄπλον shield (possibly where the troop's name is derived from), with two handles, one armband through which the upper arm passed, called a πορπαξ and a handle or handgrip called an ἀντιλαβή (Anderson, 2003: 15-17 and Krentz, 1985: 53) - though Lazenby and Whitehead (1996: 27-29 cited in Wilde, 2008 4-5) claim that the name "hoplite" is derived from the word ὄπλα, which refers to "arms and armour" and not from ὄπλον and that the name "hoplite" refers to nothing more than "heavily armed infantryman". It is however, difficult to determine which interpretation is correct. LSJ (s.v. ὄπλον) seem to be in agreement with the theory that Whitehead proposes, however, LSJ (s.v. ὄπλον) state that the word ὄπλον is Attic for "large round shield", is also related to the word ὀπλίται or "hoplites" and

that ὀπλιῖται is also derived from the word ὄπλον. Peltasts were named for their shield - the πέλιτη, which means it is very plausible that the hoplite was after all named after the shield. To try and determine what came first: the heavily armed troop who the shield was named after or the shield for which the heavily armed troop was named, is like attempting to determine what came first, the proverbial “chicken or the egg”. In any event, a hoplite was a heavily armoured and heavily shielded infantryman.

Roman heavy infantrymen, including *hastati*, *principes* and legionaries, were armoured but not nearly as heavily as Greek hoplites. The Romans sacrificed armour for mobility, since they made use of maniple formations, which provided adaptability, rather than the solid shield line of a hoplite or phalanx formation, which the Greeks preferred. Roman armour was lighter, yet protected the vitals. The Romans replaced the phalanx formation with manipular tactics as early as 340 BC, with the oblong *scutum* replacing the round *clipeus* and the *pilum* becoming favoured above the *hasta* (Tomczak, 2012: 49-50). The intervals and spaces of *manipuli* allowed the Romans to replace tiring troops with fresh soldiers (Tomczak, 2012: 50), whereas the Greeks could not afford to break up the phalanx at any point, because it would collapse.

As this chapter will indicate, Romans wore a *lorica* “chest armour”, “cuirass”, either of leather, chain mail, scale armour or banded armour, depending on their needs (see *lorica* 3.4.3), helmets, normally differentiated on the basis of cavalry (see *cassis* 3.6.1) versus infantry (see *galea* 3.6.3) and naturally their shields varied according to their needs (see *clipeus* 3.1.3, *parma* 3.1.7 and *scutum* 3.1.11). Romans did not make as much use of greaves, bracers, armplates or legplates as the Greeks, though mention is made of *manicae*, which were manacles or a type of bracer (see *manica* 3.2.1). Their *lorica*, as mentioned, protected their vitals. Therefore, the bulk of this chapter will deal with Greek armour, since, simply put, the Greeks appreciated armour far more than the Romans did. The chapter will however, pay adequate attention to the important armour groups of the Romans.

3.1 Shields

Herodotus claims that the Greeks first took the concept of their shields from the Egyptians (Hdt. 4.180); whether this is true or not, cannot be determined. The Carians were the first Greeks to make “holders” for their shields (that is, they had not one but two loops, one through which the arm went and one to hold in hand) and they were also the first Greeks to put symbols and art on their shields (Hdt. 1.171). Shields may be considered defensive arms, rather than armour, though its primary function is that of protection and they are therefore included in this chapter.

3.1.1 ἀσπίς

The ἀσπίς was a round shield of bull’s hide, overlaid with metal plates, with a boss or centrepiece (ὀμφᾶλος) in the middle, according to LS (s.v. ἀσπίς). This translation is but one possibility and therefore a very narrow view on the word ἀσπίς and is rectified in LSJ (s.v. ἀσπίς) as a “round shield”. LSJ (s.v. ἀσπίς) do indicate some relation to “the boss on a door” and that the version with a boss is found in the *Iliad* (date late 8th or early 7th century AD; describing events of 12th or 11th century AD) and accompanied by the word ὀμφαλόεσσα, which means “bossed”. The abovementioned implies that the ἀσπίς was round, though not necessarily made of bull hide and not always bossed. LEH (s.v. ἀσπίς, -ιδος) indicate two homonyms for ἀσπίς, the one meaning “shield” or “armour” and the other meaning “asp” or “serpent”. The boss is confirmed in the *Iliad* (Hom. *Il.* 4.448): ἀσπίδες ὀμφαλόεσαι “a bossed/naveled shields”. Murray (1928: 187) translates ἀσπίδες ὀμφαλόεσαι as “bossed shields”. Fagles (1990: 160) translates ἀσπίδες as “round shields” but also mentions that they were bossed in the same sentence; the result is a very descriptive and accurate translation. The Persians had a wicker version of this shield – “ἀσπίδων γέρρα” (Hdt. 7.61), although Herodotus probably used this word for lack of a better one with which to describe the shield (work dated to 5th century BC; describes events that took place in the 6th or 5th century BC). Godley (1922: 377) translates the phrase as “wicker buckler”. Holland (2014: 472) translates the phrase as “shields... made of wicker”. Its round shape is confirmed by Homer (Hom. *Il.* 12.294-298) when he refers to Sarpedon’s ἀσπίς “shield” as “well balanced on each side” and also using the word κύκλον “circle”/“circuit” to refer to the same shield’s rim (Hom. *Il.* 12.297). Murray (1928: 565) and Fagles (1990: 335) refer to ἀσπίς as “shield” in Hom. *Il.* 12.294.

The word ἄσπις is used to translate the Hebrew word *kîdō^wn* in LXX 1 Sam. 17:6, 45 as Kraus (forthcoming: 4-5) points out (LXX dates to 3rd or 2nd century AD). Kraus (forthcoming: 5) argues that in this case the word ἄσπις denotes “a part of the armour” or “javelin”. Another detail occurs in the LXX, Jos 8:18 where the word *kîdō^wn* from the Hebrew is translated as γαῖσος in Greek. LEH (s.v. γαῖσος, -ou) translate γαῖσος as “spear/javelin”. *Kîdō^wn* is translated as *clipeum* (see clipeus 3.1.3) in Vulg. *Jos.* 8:18 and 1 *Reg.* 17:6, 45 which clearly denotes a shield in all three instances (work dated to late 4th century AD). The situation is complicated even further when the original meaning of the word *kîdō^wn* is discussed, since Davidson (s.v. *kîdō^wn*) considers the word *kîdō^wn* to mean “spear” or “javelin”, Douglas et al. (s.v. armour and weapons: weapons, spear and javelin, *kîdôn*) considers *kîdō^wn* to mean “javelin” and BDB (s.v. *kîdō^wn*) translate *kîdō^wn* as “dart” or “javelin”. Wood et al. (s.v. armour and weapons: weapons, spear and javelin, *kîdôn*) in the 3rd ed. of New Bible Dictionary, concedes that the evidence from Qumran supports the idea that *kîdō^wn* referred to a sword, contrary to the traditional notion of *kîdō^wn* as a spear or javelin. Koehler, Baumgartner and Holladay (1988: 156 “*kîdō^wn*”) and De Vaux (1965: 241-242) point out that Qumran War Scroll suggests either a sword hung between the shoulders from a harness or a curved, crescent shaped blade, a harp-like (shaped like the frame of a harp or a question mark), unusual weapon. The latter fits the description of the Canaanite blade and the Egyptian *khopesh*. Considering the context of 1 Sam. 17:6, 45 describing Goliath carrying the *kîdō^wn* between his shoulders and the fact that Joshua is instructed to extend the *kîdō^wn* that is in his hand toward Ai, it becomes clear that the text did not originally refer to a shield but an offensive weapon, either sword or spear. It begs the question, why the LXX translates *kîdō^wn* as γαῖσος in Jos. 8:18 and as ἄσπις in 1 Sam. 17:6, 45 and why the Vulgate translates *kîdō^wn* as *clipeum* (another form of *clipeus*) or “shield” in 1 Sam 17: 6, 45 and Jos 8:18? One detail that is quite clear, is that the accuracy of Scripture diminishes slightly with each translation, even with ancient ones. The LXX is slightly removed from the meaning of the word *kîdō^wn*, the Vulgate, even more so. Perhaps it seemed odd for the applicable authors of the LXX that a warrior like Goliath would carry two swords, since Greek warriors would carry a sword, a spear and a shield or a sword, a spear and a javelin but never two swords, according to Anderson (2003: 15-26). The same is true of Roman soldiers, though they did carry daggers along with their swords. It is not uncommon for Greek translators to adapt a text’s translation if the source text does not make sense to them: LXX, *Gen.* 1, for instance, where God creates the

earth, it is done in six days and not seven as in the Hebrew, since it did not make sense to the logically minded Greek translators that God rested on the seventh day, yet that the seventh day is still counted with the other six days of creation. The translators therefore adapted the translation to six days of creation and one day of rest. This same cultural adaptation is probably the case with *kīdō^wn* and ἄσπις and cannot be relied on as an accurate representation of the word ἄσπις, since it cannot be determined whether “shield” or “javelin” is meant and the text itself is an inaccurate translation to begin with. The instances of ἄσπις in the LXX does however warrant further investigation of its semantics, since it may refer to more than just a shield as Kraus (forthcoming: 1-7) points out. More importantly, the Greek term should be studied and compared with the Hebrew, because it would give one more clarity on why modern Bible translations have slight interpretative errors where weapons are concerned. It also explains how many historians, Biblical scholars and even lexicographers have been steered in the wrong direction. The aforementioned being said, the term ἄσπις also has other parallels. Kraus (forthcoming: 4) mentions *šinnā^h* as the parallel for ἄσπις in Jer. 26:3. It is however, only one example. The majority of parallels with ἄσπις occur in relation to the term *māgan/māgen*, which, Kraus (forthcoming: 4) mentions, are found in 1 Chron. 5:8, 2 Chron 9:16, Job 15:26 and Job 41:7[15]. The word *māgan/māgen* denotes a smaller round shield in Hebrew, whereas *šinnā^h* denotes a larger shield (De Vaux, 1965: 244-245 and Douglas et al. s.v. armour and weapons: armour, shield), therefore the term ἄσπις more often correlates with the small shield than the heavy shield. For now, ἄσπις may be translated with “round shield” or “bossed shield” or even as “buckler” and as “ronde skild” in Afrikaans.

3.1.2 *Cetra*

The word *cetra* refers to a “small Spanish shield” according to Thomas (s.v. *cetra*, -ae), see *cetra* in the Verg. A. (7.732), for instance. Fairclough (1954: 58) translates *cetra* as “large shields” in Verg. A. 7.732. Jackson Knight (1958: 198) translates *cetra* as “leather buckler” in Verg. A. 7.732, which is an excellent translation of the word *cetra*, since “buckler” denotes a light, often round shield. Benade (1975: 220) translates *cetra* as “leerskild” in Verg. A. 7.732. Blanckenberg (1980: 224) translates *cetra* as “’n ligte leerskild” in Verg. A. 7.732. Evidently these shields were made of leather, since Benade (1975: 220), Blanckenberg (1980: 224) and Jackson Knight (1958: 198) have all translated the word *cetra* as such. Fairclough, however, is mistaken when

translating *cetra* as a “large shield”, since the *cetra* seems to be light, small and made of leather. The terms “leather buckler” or “light leather shield” may therefore be used in English and “leerskild” or “ligte leerskild” may be used in Afrikaans. The existing translations seem to be more than adequate.

3.1.3 *Clipeus*

Thomas describes this shield as a round metal shield. The word is also used to describe a sun-disc or a medallion portrait (Thomas s.v. *clipeus*, *clipeum*). L&S (s.v. *clipeus*) translate *clipeus* as “round brazen shield of the Romans” or “shield, protection, defence”. Vergil uses this word to describe the round shields used in the Trojan War and thereafter (Verg. A. 2.389, 392, 422, 546, 671; 11.10; 12.377), he also confirms that the shield could consist of metal: *clipeum(que) ex aere* “and a shield of bronze” (Verg. A. 11.10), though it cannot be assumed that all were necessarily made of metal. Gould and Whiteley (1965: 86) mention that some variations were covered with leather. The shield had bossed variations; *clipei...umbone* “shield’s boss” (Verg. A. 2.546), for instance. Fairclough (1965: 321, 323) and Fairclough (1954: 235, 325) translate *clipeus* as “shield/s” in Verg. A. 2.389, 392, 422, 546, 671; 11.10; 12.377). Page (1970: 358, 440) translates *clipeus* as “shield” in Verg. A. 11.10 and Verg. A. 12.377. Jackson Knight (1958: 62, 63, 67, 71, 279, 320) translates it as “shield/s” in Verg. A. 2.389, 392, 422, 546, 671; 11.10; 12.377). Gould and Whiteley (1965: 76, 107) translate *clipeus* as “shield” in Verg. A. 2.392 and list *clipeus* as “shield” in their vocabulary of Verg. A. 2. Benade (1975 57, 58, 63, 67, 323, 369) translates *clipeus* as “skild/e” in Verg. A. 389, 392, 422, 546, 671; 11.10; 12.377, though he uses compound nouns, such as “skildknop” for phrases like *clipei...umbone* in Verg. A. 2.546. Blanckenberg (1980: 59, 60, 64, 69, 323, 373) translates *clipeus* as “skild” in Verg. A. 2.389, 392, 422, 546, 671; 11.10; 12.377 and like Benade, uses compound terms, such as “bronsskild” in *clipeum(que) ex aere* in Verg. A. 2.546. *Clipeus* seems to be comparable to the word ἄσπίς and therefore may be translated in the same manner, namely as “round shield” or “bossed shield” in English and as “ronde skild” in Afrikaans.

3.1.4 δίπυλον

The word δίπυλος literally means “double-gated” or “with two entrances” (LSJ s.v. δίπυλος). It is more commonly known by its neuter form, δίπυλον. Hurwitt (1985: 121-122) writes that these

shields are often misrepresented as a figure 8, which never existed in Greece except in art and that these figure 8 shields only existed amongst the Hittites. There was however, the true δίπυλον shield, which resembled a ὄπλον with a semi-circle cut from each side. It was used by individual heroes and sometimes by advancing columns but eventually became obsolete due to the use of the ὄπλον; it was however still depicted in art and as an emblem on ὄπλον shields (Hurwitt, 1985: 122-126). The discontinued use of the δίπυλον makes perfect sense, because the shield would not provide protection to the man on the left as the ὄπλον did, which was crucial to the effectiveness of the hoplite phalanx. Hurwitt is also correct in his conclusion as to what the δίπυλον looked like (see Addendum C image i), since the name is another clue to the shape. The two half-moons cut from the circular shape allowed for more movement and opportunity to rest a spear in one of the half-moons, hence the term “double-gated” or “with two entrances”. A good description and translation would be “double half-moon shield”, “double crescent shield”, “double concave shield” or “double cut-out shield” in English and “dubbel-halfmaan skild” or “dubbel-sekelmaan skild” in Afrikaans. Alternatively, the transliterated word “dipulon/dipylon” may be added with a footnote explaining its shape.

3.1.5 θύρεός

The θύρεός was a rectangular door-like shield, clearly distinct from the round ἀσπίς. The original word, θύρα, denoted a “stone put against a door”, the word θύρεός itself denotes an “oblong shield (shaped like a door)”, “Roman *scutum*” or an “oval” (LSJ s.v. θύρεός). The θύρεός originally referred to an oval shield, which was introduced by Greeks in the Northern Peloponnese (Sage, 2003: 211). LEH (s.v. θύρεός) translate θύρεός as “oblong shield (shaped like a door)”. Louw and Nida (s.v. θύρεός) translate it as “a long, oblong shield”. The fact that the word can refer to a shield is confirmed by Josephus in *J. BJ* (2.452) - event dated between 66 and 70 AD and written circa 75 AD. The fact that Josephus uses this word to describe the shield of the Roman legionaries is testimony of his knowledge of both the Roman army and the Greek language. Thackeray (1956: 499) mistakenly translates θύρεός/οι as “bucklers” in *J. BJ* 2.452. A buckler denotes a lighter type of shield, normally round. Mention of this shield is found in Eph 6:16 τον θύρεόν τῆς πίστεως “the shield of faith” (work dated to mid or late 1st century AD). Although the language is symbolic, the word and its description denote a shield that offers maximum protection: “with which you can extinguish all the flaming arrows of the evil one”.

AFR1983 and AFR3353 translate θύρεός as “skild” in Eph. 6:16. NIV, NKJV and KJV translate θύρεόν as “shield” in Eph. 6:16. The word may be translated as “oblong shield” (excluding any comments of “shaped like a door”), taking its lengthy shape into account, without necessarily forcing it into a category of ovaline or rectangular. The equivalent Afrikaans translation would be “langwerpige skild”.

3.1.6 ὄπλον

The ὄπλον is considered by LSJ (s.v. ὄπλον) to be a “large shield from which the men-at-arms took their name” (see Addendum C image iv). LEH (s.v. ὄπλον) consider ὄπλον to mean “arms”, “armour”, “weapon” or even “spear” though this is in fact a reference to the term ὄπλα, which was similar in meaning to the word ὄπλον but not quite the same. The word ὄπλον denotes a “shield” and the word ὄπλα denotes “arms”. The ὄπλον had two handles; a strap through which the upper arm went, called a πορπαξ and a handle called an ἀντιλάβη to secure it (Hanson, 2003: 65 and Anderson, 2003: 17). Some were made of bronze (See Addendum C image iii), others were even made “of weaved willow” ὄπλα... ἐκ ληστρικῆς (Th. 4.9.1). Forster Smith (1920: 223) translates the phrase as “shields made of plaited willow” in Th. 4.9.1. Warner (1972a: 269) translates the phrase as “shields made of osiers” in Th. 4.9.1. The shape, not the material defined the ὄπλον. Its name in the military sense simply means “weapon” or “arm”, the word can also mean “tool”, “implement” or “implement of war” (LSJ s.v. ὄπλον). The word ὄπλον can therefore be understood as a “military implement”. It makes perfect sense, since Greek warriors valued their shields more than their weapons. A shield could be used defensively and offensively, while loss of a shield left one open to attack. Sage (2003: 29) states that the name “hoplite” is derived from the ὄπλον shield, even though the word in its singular and plural form could refer to armor and weapons. To simply call a ὄπλον a “round shield” would not suffice, it may therefore best be described as “hoplite shield” or “heavy shield” in English and “infanterieskild” or “groot skild” in Afrikaans.

3.1.7 Parma

Thomas (s.v. *parma*, -ae) translates *parma* as “small round shield”. L&S (s.v. *parma*) refer to it as “a small round shield” or “a target”, which was carried by light infantry, especially the *velites*. L&S (s.v. *parma*) also state that the word *parma* is derived from the Greek word πάρμη, which

LSJ (s.v. *πάρμη*) translate as a “light shield” or “buckler”. The word *parma* is found in *Ov. M.* 12.89, where Cygnus tells Achilles boastfully that he has no need of armour nor his *cava parma* - “hollow shield”. Miller (1916: 187) translates *cava parma* as “hollow shield” in *Ov. M.* 12.89. The abovementioned makes it clear that *parma* refers to a convex shield, in other words shaped like a bowl. The *parma* may be translated as “convex shield”, “small round shield” or “bowl shield” in English and as “klein ronde skild” or “koepel skild” in Afrikaans.

3.1.8 *πέλτη*

The *πέλτη* was a “small light shield of leather without a rim”, a word of Thracian origin, later being used in Attic and Doric according to LSJ (s.v. *πέλτη*, *πέλτα*) and is described as being used alongside a javelin or *ἀκόντια* in *Hdt.* 7.75 (work dated to 5th century BC). Godley (1922: 385) translates *πέλτας* as “little shield” in *Hdt.* 7.75. Holland (2014: 475) translates *πέλτας* as “tiny shields”, though the description as “tiny” is probably due to the accompanying adjective *μικρά* which is applicable for both *ἀκόντια* and *πέλτας*. LEH (s.v. *πέλτη*) translate *πέλτη* as “light shield”. It is from this word that the word “peltast” is derived. The *πέλτη* had a semi-circle cut out of its top, forming a crescent where the top had been (see Addendum C image ii), though it was later replaced by a larger round shield, according to Sage (2003: 42, 147). Peltasts or *πελτασται* were light infantry who bore the small leather shield or *πέλτη*. These they carried with throwing spears or javelins; the *πελτασται* were placed in formation between the hoplites and light troops (*ψιλοὶ*) for effective volleys in battle (LSJ s.v. *πελταστής*, *πέλτη*, *πέλτα* and *LXX*, 2 Chr. 14:7 and 17:17). Their shields were probably to protect them from incoming enemy projectiles, since it would not have stopped a blow from a sword or a heavy spear. The *πέλτη* was a light infantry shield. The shape of the shield allows enough vision for throwing projectiles accurately. The word *πέλτη* may be translated as “crescent shield”, “concave shield”, “skirmish shield” or even “peltast shield” as it was the light shield used by peltasts. In Afrikaans it may be translated as “sekelskild”, “konkawe skild” or “skermutselskild” (from the Afrikaans verb “skermutsel” and the noun “skild”, meaning to skirmish, therefore, a shield that is used in skirmishes - the noun “skermutseling” would make the compound word too lengthy and clumsy).

3.1.9 ῥῆνός

The word ῥῆνός in its original sense refers to a hide or skin, either that of an ox or a wild animal (LSJ s.v. ῥῆνός). The literal meaning remains “hide/ox-hide” and yet the word also refers to a shield in the *Iliad* (Hom. *Il.* 4.447; 8.61), ῥῆνός “hide shield”. Murray (1928: 187, 343) and Fagles (1990: 160, 233) refer to ῥῆνός as “shields”. It can therefore refer to a shield on a semantic level, though one would have to differentiate and call it a “leather/hide shield”. LSJ (s.v. ῥῆνός) specifically refer to this shield as an “ox-hide shield”. Abovementioned assumption can however, not always be made, since horsehides were also used to make shields in the ancient world. Another version of this shield is found in the *Iliad*, called a τᾶλαύρῆνος “tough hide shield” (Hom. *Il.* 5.289). It can be assumed to denote a bull’s hide shield, since it is implied in the name. Murray (1928: 217) translates τᾶλαύρῆνος as “tough shield of hide”. Fagles (1990: 173) translates it as “rawhide shield”. LSJ (s.v. τᾶλαύρῆνος) correctly describe τᾶλαύρῆνος as a “shield of bull’s-hide”, “thick, tough hide” and rightly so. The word is a compound of the words τλᾶω (to be tough, courageous) and ῥῆνός (hide). “Hide shield” already seems to be an adequate English translation for ῥῆνός, since it does state the material of which the shield is made, without making assumptions about the type of hide. Afrikaans translations would be something like “velskild” or “leerskild”.

3.1.10 σάκος

LSJ (s.v. σάκος) translate σάκος as “shield” or “defence” and links it etymologically to a Sanskrit word *svác* for “skin, hide”, possibly of Cretan origin or linked to the Ionian σάκευς. Being of hide and wood, there was no limitation to the shape of the shield and therefore it would be a mistake to give a more specific translation of this word. The σάκος is mentioned in the *Iliad* (Hom. *Il.* 3.335; 4.113, 282). Murray (1928: 141, 161, 175) and Fagles (1990: 139, 149, 154) translate σάκος as “shield/s” in Hom. *Il.* 3.335, 4.113, 282. The shield of Ajax is testimony to the myriad of forms that this shield can take, seeing as his shield was a “shield like a tower, of bronze and seven bull-hides” σάκος ἤύτε πύργον, χάλκεον ἑπταβόειον (Hom. *Il.* 7.219-220). Murray (1928: 319) translates the phrase σάκος ἤύτε πύργον, χάλκεον ἑπταβόειον (Hom. *Il.* 7.219-220) as “his flashing shield of seven hides of sturdy bulls”. Fagles (1990: 221) translates the phrase as “gleaming shield...layering seven hides of sturdy well-fed bulls”. Murray and Fagles both seem to understand that the translation should be non-specific to the word σάκος but

seems to ignore the implication of the word πύργον as tower and instead interprets it as “wall”. Both translators seem to regard σάκος as “shield”. Σάκος seems to be a generic word for “shield”, composed of different materials. The word may therefore be regarded in a generic sense (“shield”/“skild”) or translated alongside a descriptive adjective with relation to the specific context (if the text does not already supply the descriptive adjective).

3.1.11 *Scutum*

The *scutum* was a rounded rectangular shield, which protected a Roman legionary from knee to neck. It was also lighter than Greek shields (Reid, 1986: 24 and Ransford, 1975: 25). L&S (s.v. *scutum*) translate *scutum* as “an oblong shield”, “a buckler” and describe it as “made of boards fastened together and covered with leather”; it is distinguished from a round shield or *clipeus*, though “buckler” is a poor translation, since it normally refers to a light shield. Thomas (s.v. *scutum*, -i) gives a highly descriptive translation of *scutum*, namely “a quadrangular shield”. The word *scutum* appears in Liv. (3.53.9), though the reference is more political than military and gives no indication as to the shape of the shield: “A shield is what you need more than a sword”, referring to the domestic danger of riots incited by the plebs being more dangerous than an enemy outside of Rome (work written in late 1st century BC or early 1st century AD). Foster (1953: 177) and De Sélincourt (2002: 258) simply translate *scutum* as “shield” in Liv. 3.53. *Scutum* is also encountered in Vulg. 2 Reg. 22:3: *Deus meus fortis meus sperabo in eum scutum meum...* “God is my strength in whom I hope/trust, my shield” (work dated to late 4th century AD) and in the Novum Testamentum Latine Eph. 6:16 *in omnibus sumentes scutum fidei* - “in everything the shield of faith”. The best translation for *scutum* is “oblong shield” (L&S s.v. *scutum*), since the term “quadrangular shield” does not take the earlier ovaline shape of the Republican *scutum* (Tomczak, 2012: 53) into account. The term “quadrangular shield” may be used for the Imperial Roman *scutum* (see Addendum C image vi), the term “ovaline shield” for the *scutum* if it corresponds with early / Republican Roman *scutum* (see Addendum C image v). The Afrikaans term “langwerpige skild” may be used as the equivalent of “oblong shield”. More contextual translations may include “reghoekige skild” or “ovaal skild”.

3.1.12 *Tegimen/tegmen*

Thomas (s.v. *tegmen*) describes this word as “shield” or “covering”. It is probably derived from the verb *tego* “to protect/conceal”, indicating this particular word for shield as derived from its function. L&S (s.v. *tegimen*, *tegumen* and *tegmen*) translate *tegimen* as “cover”, “covering”, “shield” or “vault”. Not enough information of the term is available to give a detailed description of the shield, yet it does not matter as its semantic origin leans toward a generic term for “shield”. Ovid (Ov. *M.* 12.92) mentions the word *tegimen* in the phrase *removebitur huius tegminis officium* - “remove the protection of his shield/armour/covering” (work dated early 1st century AD). It is unclear whether “shield” or “armour” is meant and for this reason, Miller (1916: 187) translates *tegminis* as “covering” in Ov. *M.* 12.92. A clear example of *tegimen/tegmen* referring to armour is found in Liv. 5.38.8 *graves lorice aliisque tegminibus* - “weighed down by their corselets/cuirasses and other coverings”, referring to the Roman soldiers who drowned in the Tiber, weighed down by their armour after having already discarded their arms prior to the incident (work written late 1st century BC or late 1st century AD). Foster (1940: 131) translates *aliisque tegminibus* as “and other armour” in Liv. 5.38.8. *Tegimen* may be translated as “shield” or “skild” (Afrikaans) where applicable.

3.2 Bracers and armguards

Bracers and armguards protected warriors from the enemy’s attacks, should the shield fail or get damaged. A soldier could block or parry a blow directed at the head or torso with his bracers. The Greeks favoured bracers and armguards, whereas the Romans preferred mobility and did not want to sacrifice bodily movement, even for extra protection.

3.2.1 *Manica*

A *manica* in short, is an armguard. L&S (s.v. *manicae*) translate *manicae* (pl.) as “armlets” or “gauntlets”, denoting something to protect the arms against enemy weapons. The word *manica/e* may also refer to “manacles”, “gloves” or “sleeves”, generally anything that covers the arms and is derived from the Latin word *manus* (L&S s.v. *manicae*). The word *manica* is found in Cic. *Phil.* 11.11.26 *solet enim ipse accipere manica* “for he likes to put on his armlets himself” with regard to Marc Antony (written in the first century BC and recording events in the first century

BC). Ker (1957: 487) translates *manica* as “gloves”, whether this is the intended meaning, is not clear, since Cicero is making fun of Marc Antony in *Philippics*. He made fun of him either way, since gloves were of course hinting at him being effeminate but the Romans also stopped using armlets when they traded phalanx tactics for manipular tactics, which occurred well before Cicero’s time. The more probable answer is that Cicero is intentionally using a pun to make fun of Marc Antony’s mannerisms, putting on armlets as if they were gloves. The underlying military aspect of the word *manica* is still evident in Cicero’s comical rendition of Marc Antony. Juvenal mentions *manicae* in a satirical manner, yet which still refers to them as “bracers” (Juv. 6.256) - work dated to late 1st century AD or early 2nd century AD. Ramsay (1928: 103) translates *manicae* as “armlets” in Juv. 6.256. The words “armguard” and “bracer” are most descriptive of this piece of armour. Possible Afrikaans translations may include “armstul” or “armpantser”.

3.2.2 περιβραχίωνιος

LSJ (s.v. περιβραχίωνιος) describe this piece of armour as an “armlet” or a piece of armour on or “round the arm”. The word περιβραχίωνιος refers to armour for the upper arm, because the word literally means “around the βραχίων”, which is the “arm” or “shoulder” (LSJ s.v. βραχίων). Xenophon describes the armour of Abradatas and mentions the περιβραχίονια “upper-arm armour” which he put on to prepare for battle; it is clearly distinguished from the ψέλια πλατέα περὶ τοὺς καρπούς “broad bracelets for his wrists” (X. *Cyr.* 6.4.2), which indicates that the περιβραχίωνιος was indeed armour for the upper arm. Miller (1914b: 193) translates περιβραχίονια as “arm-pieces” in X. *Cyr.* 6.4.2 and rightly so, since he clearly distinguishes between armour for the upper arm and forearm (the word “armlet” or “bracer” is normally used for forearm armour). Miller’s translation is descriptive, worth using for translation and could even be useful to lexicographers. Alternatively, the terms “upper-arm armour” may be used in English and “bo-arm pantser” may be used in Afrikaans.

3.2.3 περίχειρον

A περίχειρον in its simple sense means “bracelet” or “armlet” (LSJ s.v. περίχειρον) but quite literally means around the χεῖρ “hand”/“forearm” (LSJ s.v. χεῖρ). In the military sense it may be referred to as an armguard or bracer. These could be worn individually on one arm or in pairs,

depending on the need. The Celts were said to have worn χρυσοῖς μανιάκαις καὶ περιχέριους - “golden bracelets and armlets” into battle; other than that, they were mostly naked (Plb. 2.29.8). Paton (1922: 315) translates χρυσοῖς μανιάκαις καὶ περιχέριους as “golden torques and armlets” in Plb. 2.29.8. The word περιχέριον is the Greek equivalent of *manica* and may be translated accordingly as “armguard” or “bracer” in English and as “armstut” or “armpantser”.

3.3 Greaves and footwear

Greaves and footwear were the second part of a soldier’s second line of defence (bracers and armguards were the first part). A greave or thigh-plate provided protection against attacks and sandals protected a soldier’s feet on rough terrain. The Greeks often made use of leg armour, whereas the Romans once again preferred mobility and wore only sandals, therefore, Latin terms do not feature in this section.

3.3.1 κνημῖς

A κνημῖς or “greave” was a piece of armour. It is derived from the word κνημη “limb” or “lower leg”, because it protected the lower leg from knee to ankle (LSJ s.v. κνημη, κνημῖς). According to LSJ (s.v. κνημῖς), they could be made of ox-hide, as seen in Hom. *Od.* 24.229 - βόειαι κνημῖς, yet could also be made of copper or bronze (see Addendum D image iv). LEH (s.v. κνημῖς) refer to κνημῖς as “greave” or “legging” and it is once again clear that it is derived from κνημη, which LEH (s.v. κνημη, -ης) translate as “the part between knee and ankle”. The word κνημῖδας is encountered in the *Iliad* (Hom. *Il.* 3.330; 18.613). Murray (1928: 141), (1976: 335) and Fagles (1990: 139, 487) translate κνημῖδας as “greaves” in Hom. *Il.* 3.330; 18.613. The Achaeans were known for their greaves, as Homer often refers to the ἐϋκνήμιδας “well-greaved” Achaeans (Hom. *Il.* 3.156, 304, 343, 370, 378). Κνημῖδας were obviously worn in pairs. These were sometimes referred to as περικνήμια (LSJ s.v. περικνήμια). The term “greave” needs no adaptation and is fine as is. In Afrikaans it may be referred to it as “kuit-pantser” or “kuit-plate”.

3.3.2 περιμήρια

The word περιμήρια is translated as “a covering for the thighs” (LSJ s.v. περιμήρια, περιμηρίδες) and literally means “around the thighs”, referring to thigh armour, as is evident from the words

μηρός or “thigh” and περί or “around” (LSJ s.v. μηρός, περί). “Thigh armour” is a simple and descriptive term for English and its Afrikaans equivalent is “dy-pantser”. Thigh armour would have made movement more difficult for Greek warriors and was probably not very practical. The function, of course, was to protect the thighs, because a wounded thigh decreases a soldier’s ability to fight. A cut to the hamstring could make a soldier fall instantly or damage to the main artery on the inside of the right thigh could cause a soldier to bleed to death in seconds. Armour was often sacrificed for movement, since an agile warrior could more easily block or deflect attacks, which in turn made up for the protection lost by not wearing the full panoply of armour. Not much information is available on the word περιμήρια, because it was probably not used very often by Greek warriors.

3.3.3 περισφύριος

The περισφύριος was a band worn around the ankle, in other words, an “anklet”, translated literally as “around the ankle” (LSJ s.v. περισφύριος), though more research may be required as to the exact nature of the kind worn by Greek soldiers. The words περισφύρια and περισφύριον in Hdt. 4.176 denote anklets worn by the Gindanes women, who are said to have worn one for each man they had intercourse with. Godley (1921: 379) translates the term περισφύρια and περισφύριον as “anklets” and “anklet” respectively, yet this translation does not help to understand the military version any better. The existing term, “anklet” is fine for any translation. Afrikaans translations may use the terms “enkel-stut” or “enkel-band” depending on context.

3.3.4 σάνδαλον

As the name suggests, σάνδαλον was the Greek word for sandal and also the etymological origin for most uses of the word in modern languages. The diminutive form, σανδάλιον, is often used instead of its original form. The diminutive is also used to denote a horseshoe (LSJ s.v. σανδάλιον, σάνδαλον). The words “sandal” (English) and “sandaal” (Afrikaans) are, needless to say, the applicable choices.

3.4 Breastplates, cuirasses and lining

Homer describes the Achaeans as “bronze-clad”- χαλκοχιτώνων (Hom. *Il.* 2.47, 163, 382; 3.127, 131, 251). The Trojans are also referred to in this manner (Hom. *Il.* 5.182). This description is probably a reference to their helmets and breastplates. The Greeks also used composite linen and leather cuirasses, which were lighter and more comfortable. The Roman *lorica*, as this section will mention, varied from leather to banded armour and everything in-between.

3.4.1 θώραξ/θώραξ

The word for chest-armour is derived from the word for chest/breast, namely θώραξ, which is also where the English word “thorax” comes from. Cebrián (1996: 13-20) suggests that θώραξ may be another Mycenaean loanword. The word θώραξ was a reference to any type of chest armour, whether a breastplate, a cuirass or a corselet and could refer to scale armour, mail armour or even plate armour (see Addendum D image i). The pieces at the back were called γύαλον: θώρακος γύαλοιο - “the hollow back plate of the breastplate”; they were fastened with clasps - ὀχρεῖς (LSJ s.v. θώραξ; Ephesians 6:14 and Hom. *Il.* 5.189). Louw and Nida (s.v. θώραξ) state that θώραξ can denote “chest” or “a breastplate” and describe it semantically as “a piece of armour covering the chest to protect it against blows and arrows”, therefore allowing that it could include chest armour other than a breastplate. LEH (s.v. θώραξ, -ακος) use only the word “breastplate” for θώραξ. In Ionian and epic texts, the word θώραξ is written θώραξ (Hom. *Il.* 3.332, 358) - work late 8th or early 7th century BC; describing events in the 12th or 11th century BC. Murray (1928: 141, 143) translates θώραξ/θώραξ as “corselet” in Hom. *Il.* 3.332. Fagles (1990: 139) translates it as “breastplate”. AFR1983 translates θώρακα as “borsharnas” in Eph. 6:14. NIV, NKJV and KJV translate θώραξ as “breastplate” in Eph. 6:14 (work dated to mid or late 1st century AD). AFR3353 translates θώραξ as “borswapen” in Eph. 6:14. The Latin word *thoraca* is used to refer to chest armour in Verg. *A.* 11.9 - from the word *thorax* in Latin, meaning “chest”, “breast” or “breastplate” (Thomas s.v. *thorax*), thus giving insight into the etymology of the Latin version of the word, derived directly from the Greek θώραξ. These were normally made of leather or bronze or combinations of the two materials.

Some of the hammered bronze breastplates had swirling patterns on the metal; others were made to look like a muscled male torso (see Addendum D image ii), sometimes even having detailed nipples; all of it intended to make the warrior look stronger and godlike. Greeks were not the only ones to use this type of body armour. Roman generals also wore these bronze muscled breastplates as a sign of rank (Dineley, 2015: 7-8).

The words “breastplate”, “cuirass”, “corselet”, “chest armour” or “harness” are all suitable English translations for θώραξ/θώραξ, though the choice may depend on the context. Afrikaans translations would be “borsharnas” or “borsplaat”.

3.4.2 λῖνοθώραξ

The word λῖνοθώραξ is a compound noun derived from the Greek words λίνον/λίνεος “linen”/“flax” and θώραξ “chest/chest armour/cuirass/breastplate” and is translated as “linen cuirass”, found in Attic and Ionian dialects (LEH s.v. θώραξ, λίνον, λινος, -η and LSJ s.v. λῖνοθώραξ). The λῖνοθώραξ was a composite linen θώραξ which absorbed the impact of projectiles such as arrows and gave some protection against cuts. The words λίνον/λινος and θώραξ are sometimes found separately to denote a cuirass of linen or a linen cuirass, for example X. *Cyr.* 6.4.2 where Abradatas prepared to put on his armour (written late 4th century BC; describing events in the 6th or 5th century BC), among which was a λινούν θώρακα or linen cuirass, which was in fact a composite cuirass made of leather and linen (see Addendum D image iii). Panthea brought him a cuirass of gold instead. Miller (1914b: 193) translates the phrase as “linen corselet” in X. *Cyr.* 6.4.2. Another example is found in X. *An.* 4.7.15 where the Chalybians are described as wearing θώρακας λινούς or cuirasses of linen (text dated to early 4th century BC; describing events in late 5th to early 4th century BC). Brownson (1922: 73) translates the phrase as “corselets of linen” in X. *An.* 4.7.15. Warner (1972b: 209) translates the term it as “body-armour of linen”. The term λῖνοθώραξ is found in Hom. *Il.* 2.529, 830 (written in late 8th or early 7th century BC; describing events of the 12th or 11th century AD). Murray (1928: 91, 113) translates λῖνοθώραξ as “with corselet of linen” in Hom. *Il.* 2.529, 830. Fagles (1990: 116, 126) translates it as “linen corslet”. One may translate λῖνοθώραξ/λῖνοθώραξ as “linen cuirass” or “linen corselet” but more accurately as “composite corselet”. In Afrikaans it may be translated as “linne harnas” or “leerharnas”.

3.4.3 *Lorica*

Lorica is the Latin word for breastplate, cuirass or torso armour, made of leather, bronze or iron depending on the era. Scale armour (metal plates sewn together and onto a piece of clothing) was used by the Roman army through its entire history, since it was cheap, easy to manufacture and also ideal for cavalry or for lower ranking soldiers (Feugere, 1993: 87-89). A linen cuirass is reportedly worn by Galba: *Loricam tamen induit linteam* - “He nevertheless put on a linen cuirass”. This event took place when he was lured into public by false reports of Otho’s death. Galba is said to have declared that it offered little protection against so many blades, implying that he knew it was a trap (Suet. *Galb.* 19.1) - written early 2nd century AD and describing events that took place in the 1st century AD. Rolfe (1965: 221) translates *Loricam linteam* as “linen cuirass”. It could be that the linen cuirass refers to a composite linen and leather cuirass similar to the λῖνοθώραξ of the Greeks. Another example is the report that rather heavy cuirasses or corselets caused a group of Roman soldiers to drown in the Tiber river: *graves loriciis aliisque tegminibus* - “weighed down by their corselets/cuirasses and other coverings” (Liv. 5.38.8) - work dated to late 1st century BC or early 1st century AD. Foster (1940: 131) translates *graves loriciis* as “weighed down by their corselets” in Liv. 5.38.8. De Sélincourt (2002: 414-415) translates *graves loriciis* as “dragged under water by the weight of their equipment” in Liv. 5.38.5. De Sélincourt’s translation is too idiomatic, because “equipment” does not portray the *lorica* as torso armour as it should. The word *lorica* is also encountered in Verg. A. 3.467 *loricam consertam hamis auroque trilicem* - a lorica thrice linked with golden hooks/links. Fairclough (1965: 379) translates *loricam consertam hamis auroque trilicem* as “a breastplate trebly woven with hooks of gold” in Verg. A. 3.467 (work dated between 29 and 19 BC). Gould and Whiteley (1949: 101) translate this passage as “a cuirass woven with links and triple with gold” or alternatively “a cuirass woven of triple links of gold” in Verg. A. 3.467 and suggest that it was a chainmail cuirass. Jackson Knight (1958: 89) translates the passage above as “and a corslet of hooked chain-mail and three-leash golden weave”. Blanckenberg (1980: 92) translates it as “‘n borsharnas met goue hake en driedubbeld geweeft” in Verg. A. 3.467. Benade (1975: 90) translates it as “‘n drie-laag pantser met goue skakels aanmekeargevleg” in Verg. A. 3.467. A similar phrase is found in Verg. A. 5.259: *levibus huic hamis consertam auroque trilicem lorica*, which is translated in much the same way, except that the hooks/links are polished/smooth (Fairclough, 1965: 463 and Jackson Knight, 1958: 127). Benade (1975: 135)

translates the phrase as “’n drie-laag harnas met gepoleerde goue skakels aanmekaar gevleg” and Blanckenberg (1980: 139) translates it as “’n pantserpak met gladde, goue hoeke driemaal saamgeweef”. The reason why Benade and Blanckenberg choose not to maintain translations similar to those which they used in Verg. A. 3.467, is not known. A plated (banded?) corselet is found in Verg. A. 12.375-376 *rumpitque infixā bilicem lorica* - and rips the double-threaded/plated lorica (where it) pierced. Fairclough (1954: 325) translates the phrase as “rends the two-plated corslet where it lodged” in Verg. A. 12.375-376. Vergil is referring to a *lorica segmentata* or he is referring to layered plate armour or to the type of banded bronze armour that existed as far back as the Trojan War, such as those found at Dendra (see Addendum E image i). Jackson Knight (1958: 320) translates it as “and burst through his two-leashed cuirass” in Verg. A. 12.375-376. Benade (1975: 369) translates the passage as “dit skeur die tweelaag borspantser, steek daarin vas...” in Verg. A. 12.375-376. Blanckenberg (1980: 372) translates it as “bly steek en skeur die tweedraadpantser oop” in Verg. A. 12.375-376.

The Roman cavalry adopted chain mail coats from the Celts in the first century AD, since they were highly effective (Feugere, 1993: 125, 127, 129). The Roman legionaries started using the *lorica segmentata*, a cuirass of banded iron strips found in Magdalensberg (occupied by Romans in 45 AD) and Colchester (occupied circa 49 AD), hence, in the time of Emperor Claudius’ reign (41-54 AD), yet hinges belonging to Roman banded armour have been found at the campsite at Aulnay-de-Saintonge (occupied around 20-30 AD). The *lorica segmentata* also had shoulder plates, which were attached the rest of the cuirass by leather straps. The *lorica segmentata* offered superior protection as it could stop heavier blows than other types of armour but the links and hinges that held the segments together broke easily, making the maintenance of this type of armour expensive. The *lorica segmentata* is depicted on numerous columns, including those of Marcus Aurelius and of Trajan (Feugere, 1993: 129, 132-134). All Roman soldiers wore one of the three types of armour, in other words scale, segmental or chain mail *lorica* (Feugere, 1993: 134-136 - See Addendum D image v).

L&S (s.v. *lorica*) translate *lorica* as “a leather cuirass”, “a corselet of thongs” or “a brazen breastplate”. Thomas (s.v. *lorica, -ae*) translates *lorica* as “a leather cuirass, corselet”. *Lorica* may be translated as “cuirass” or “corselet” but when referring to the *lorica segmentata* it may be

translated as “banded chest armour”. In some instances, where the context denotes scale armour or mail armour, the term *lorica* may be translated accordingly. *Lorica* may be translated as “borsharnas” in Afrikaans and as “skubpantser” for scale armour and as “gesegmenteerde harnas” for *lorica segmentata*. There is no term for mail armour in Afrikaans, the closest being “geweefde borsharnas” or “borsharnas van skakels”.

3.5 Belts, skirts and flaps

In spite of the multiple forms of protection that Greek and Roman soldiers had, they also needed armour on the skirts that they wore, since their pelvic and gluteal regions also needed to be protected. The armour included skirt-flaps, belts and girdles or taslets.

3.5.1 μίτρα

The μίτρα was a belt or girdle worn around the waist, beneath the θώραξ or “chest armour”, it could also mean headband, (LSJ s.v. μίτρα), though when referring to armour, it would most likely refer to a belt. The meaning can naturally be derived from the context. The term is found in Hom. *Il.* 4.137 μίτρης θ’ - “and through the belt”. According to Murray (1928: 162-163) the term μιτρη was “a short kilt-like piece of armour, covering the abdomen and thighs”, therefore he translates the phrase as “and through the taslet” in Hom. *Il.* 4.137. Fagles (1990: 149) translates it as “belt” The term μιτρη is also encountered in Hom. *Il.* 4.187, 216 τε καὶ μίτρη, τὴν χαλκῆες κάμιον ἄνδρες - “and the μίτρη, which the coppersmiths made”. Murray (1928: 167) translates the phrase τε καὶ μίτρη, τὴν χαλκῆες κάμιον ἄνδρες as “and the taslet that the coppersmiths fashioned” in Hom. *Il.* 4.187, 216. Fagles (1990: 151, 152) translates this phrase as “war-belt” and “loin-piece” in Hom. *Il.* 4.187, 216. Hom. *Il.* 5.857 is the last section of the *Iliad* containing in which the word μίτρη occurs: ὅθι ζωννύσκετο μίτρη - “where he was girded with his μίτρη”, which Murray (1928: 257) translates as “where he was girded with his taslets”, whereas Fagles (1990: 192) translates it as “where the belt clinched him tight”. Μίτρα may be translated as “girdle” or “taslet” in English and as “gordel” or “romp” in Afrikaans.

3.5.2 πτέρυξ/πτέρυγος

This word literally means “wing”, “bird” or “winged creature”, it can also denote the covering for a skirt or skirt armour- the “flap of a cuirass” (LSJ s.v. πτέρυξ) and is therefore a reference to the leather skirt flaps of a Greek warrior, especially a hoplite. LEH (s.v. πτέρυξ, -υγος) mention πτερύγιον as denoting “the border/flap of a garment”. Winglet extensions of the cuirass or πτέρυγες were also used by some of Trajan’s legionaries to protect their thighs and even upper arms, adopting the idea from the Greeks (Feugere, 1993: 134-136). Xenophon describes the Chalybians as ἀντὶ δὲ τῶν πτερύγων σπάρτα πυκνὰ ἐστραμμένα under their linen cuirasses in X. *An.* 4.7.15. Brownson (1922: 73) translates the phrase as “with a thick fringe of plaited cords instead of flaps” in X. *An.* 4.7.15. Warner (1972b: 209) translates the phrase as “and instead of skirts to their armour they wore thick twisted cords” in X. *An.* 4.7.15. Xenophon also describes the style of skirt flaps that should be used for horsemanship in X. *Eq.* 12.4: αἱ πτερύγες τοιαῦται καὶ τοσαῦται ἔστωσαν, ὥσθη στέγειν τὰ βέλη. Marchant (1946: 359) translates the phrase as “let the flaps be of such material and size that they will keep out missiles” in X. *Eq.* 12.4. The term πτέρυξ/πτέρυγος may be translated as “flaps”, “skirt flaps” or “leather flaps” in English and as “leerflappe” or “leerlelle”.

3.6 Helmets

When dealing with the helmets of the Greeks, a slight dilemma is encountered. Different city-states and/or regions used different helmet designs, which are commonly known to historians and archaeologists studying Hellenistic warfare, there were, for example, the Corinthian helmets (Royal Athena Gallery, 2007: 39 - see Addendum E image ii), Chalcidian helmets (Royal Athena Gallery, 2007: 40-41 - see Addendum E image iii), Kegel helmets (Hixenbaugh & Valdman, 2014: 3 - see Addendum E image iv), Illyrian helmets (Royal Athena Gallery, 2007: 38 - see Addendum E image v), Attic helmets (Royal Athena Gallery, 2007: 43 - see Addendum E image vi), Hellenistic Pilos helmets (Royal Athena Gallery, 2007: 44, 45 - see Addendum E image vii and viii), Hellenistic Phrygian helmets (Hixenbaugh & Valdman, 2014: 8 – see Addendum E image ix) and Thracian helmets (Ali et al. 2012: 48 - see Addendum E image x). Primary sources do not necessarily distinguish between helmets in detail; three types of crested helmets are described, namely κόρυς (see 3.6.4), κράνος (see 3.6.5), τρυφάλεια (see 3.6.9), one uncrested

helmet namely περικεφαλαία (see 3.6.7) and two helmets which could be crested or uncrested, namely κῦνέη (see 3.6.6) and στεφάνη (see 3.6.8). Evidently, the names for helmets found in Greek literature do not necessarily correspond with the regional classifications of helmets. To refer to a helmet as crested or uncrested does not say much either, since these crests came in many shapes and sizes (see Addendum E images ii-iii and vi-ix). It is therefore important to note that helmets from different regions and times would not look the same, even though the name of the helmet in question is the same, for example, a κῦνέη or boar-tusk helmet (Hom. *Il.* 10.260-265) encountered in the Trojan War (see Addendum E image i) would be different from a κῦνέη used in the Peloponnesian War. A κράνος used by the earliest Greek soldiers would also be different from those used in the Persian expedition. Further research on a helmet's etymology in terms of dialect may prove useful in associating words with helmets or groups of helmets. Obviously, if a historian from a region and time other than that of the content of the text is the quoted source, archaeological and historical evidence would take preference over linguistic evidence. Roman helmets are a little easier to deal with, since the archaeological, historical and linguistic evidence of these helmets is in closer correspondence; the word *cassis*, for example, would rather denote a cavalry helmet than an infantry helmet according to Feugere (1993: 180-184) and would normally be made of metal whereas the *galea* was normally made of leather (Hutton & Warmington, 1970: 139 and L&S s.v. *galea*), yet examples of metal *galea* exist in Classical literature (see 3.6.3). The *galea* seems to be associated with the infantry (Quesada Sanz & Kavanagh de Prado, 2006: 70). The most likely reason for these uncomplicated parallels where Roman helmets are concerned, is the fact that Rome's army was not a group of divided city-states but a unified army. Their helmets would not have varied as greatly, since the Romans did not develop their equipment in the isolated fashion of Greek city-states, in other words, their helmets may have had slight variations but nothing major. By the time of the Principate, that is, between 27 BC and 284 AD, Rome developed into a uniform army (in both senses of the word). The Romans fought in pitched battle as the Greeks did in the 2nd century BC (Liv. 38.58.9) and did not have a standard uniform at the time but their equipment did not vary as greatly as that of the Greeks.

3.6.1 *Cassis*

The Latin word *cassis* is used for a “metal helmet” according to Thomas (s.v. *cassis*, *-idis*). It may very well be linked to the word *cassus*, meaning “hollow” or “empty” (s.v. *cassus*, *-a, um*). L&S (s.v. *cassis*) regard *cassis* as “a helmet, commonly of metal” and in turn considers the *galea* to be of leather. The word is related to the Latin word *casa* derived from Etruscan, in turn derived from Sanscrit *khad* “to cover” (L&S s.v. *cassis*). Ov. *M.* (12.89) mentions the *cassis*: *equinis fulva iubis cassis neque onus* (work dated to early 1st century AD). Miller (1916: 187) translates the term as “neither this helmet which you behold yellow with its horse-hair crest” in Ov. *M.* 12.89. The word *cassis* is used to describe a Greek helmet in Ov. *M.* 13.107: *sub Achillis casside* - “under the helmet of Achilles”. Miller (1916: 235) translates *cassis* as “helmet” in Ov. *M.* 13.107. Tacitus also differentiates between *cassis* and *galea* in Tac. *G.* 6.3, *vix uni alterive cassis aut galea* - “scarcely one or the other has a *cassis* or *galea*” (written late 1st century AD). Hutton & Warmington (1970: 139) translate *cassis aut galea* as “metal or hide helmets” in Tac. *G.* 6.3. An example of the *cassis* as a cavalry helmet is found in Caes. *B.G.* 7.45 *mulionesque cum cassidibus equitum specie at simulatione collibus circumvehi iubet* “and he ordered the muleteers to ride around the hills with helmets, looking like (and) simulating cavalry” (events dating between 58 and 50 BC, written between 58 and 49 BC). Benade (1984: 178) translates the passage as “en dat die muildrywers, met helms op, in die voorkoms en skyn van ruitery om die heuwels moet rondry” in Caes. *B.G.* 7.45. Edwards (1919: 445) translates it as “and with helmets on their heads to ride around the hills, like cavalry to all seeming” in Caes. *B.G.* 7.45. Whiteley (1966b: 193) translates *cassis* as “helmet”. According to Feugere (1993: 180-184) the *cassis* mostly denotes the more open Roman cavalry helmet and not an infantry helmet. Van Enckevort & Willems (1994: 126-128) describe the iron auxiliary cavalry helmets, cavalry sports helmets and Imperial-Gallic helmets found at the Kops Plateau in the Netherlands:

- i. The auxiliary cavalry helmets were of the “A-type” or “Weiler-type” as they are called, has “a narrow neck flange” and “the cheek-pieces lacked ears” (see Addendum E image xv), the samples all date from the Tiberian or Claudian periods.
- ii. The cavalry sports helmets were very similar to the Weiler-type helmets but had facemasks with mouth-slits, eye-holes and embossed or engraved ears and hair (see Addendum E image xvi), dating from the reign of either Claudius or Nero.

- iii. The Imperial-Gallic helmets or “Weisenau type” (see Addendum E images xiii and xiv) had signs of previously having eyebrows, cheekpieces, brow guards, ear-protectors and neck guards, which were purposefully removed, though some still had their crest-supports. In all likelihood, these adaptations were made for comfort and visibility in battle.

As seen above, the *cassis* or cavalry helmet came in many shapes and sizes. The word *cassis* may be translated as “helmet” or “cavalry helmet” depending on context. In Afrikaans it may be translated as “helm” or “ruitery helm”.

3.6.2 *Crista*

According to Thomas (s.v. *crista*, -ae) this word refers to the crest of a bird or a helmet. L&S (s.v. *crista*) translate *crista* as the “crest of a helmet” or a “plume”, derived from the word for a cock’s comb or the leaves of plants. The English word “crest” is derived from the Old French *creste*, which in turn is derived from the Latin word *crista*. The morphological development is clear. The word *crista* appears in Verg. A. 9.50: *cristaque tegit galea aurea rubra* “and a gold helmet with a red crest protects (his head)” as well as *purpurei cristis* “purple plumes” (Verg. A. 9.163). Fairclough (1954: 115, 123) translates *crista* as crest in Verg. A. 9.50 and *purpurei cristis* as “purple plumed” in Verg. A. 9.163 respectively. Whiteley (1966a: 58) translates *purpurei cristis* as “purple with plumes” in Verg. A. 9.163. Whiteley (1966a: 116) translates *crista* as “crest” in his vocabulary in Verg. A. 9. Jackson Knight (1958: 226) translates *cristaque tegit galea aurea rubra* as “and wearing a golden helmet with a scarlet plume” in Verg. A. 9.50. Jackson Knight (1958: 230) translates *purpurei cristis* as “bright red plumes” in Verg. A. 9.163. Benade (1975: 258, 263) translates *cristaque tegit galea aurea rubra* as “en ‘n goue helm met ‘n rooi bos beskerm sy hoof” in Verg. A. 9.50 and translates *cristis purpurei* as “purper pluime” in Verg. A. 9.163 respectively. Blanckenberg (1980: 258, 263) translates *cristaque tegit galea aurea rubra* as “en dra ‘n goue helm met vlamrooi pluim” in Verg. A. 9.50 and translates *cristis purpurei* as “purper pluime” in Verg. A. 9.163. The existing translations “plume” or “crest” are sufficient translations for *crista*. Afrikaans can be more specific in this regard, because the terms “kam”, “pluimkam”, “bos” or “pluim” are all acceptable terms, depending on the shape of the crest or plume denoted in Greek.

3.6.3 *Galea*

The word *galea* simply denotes a “helmet”, originally of leather as opposed to the *cassis*, which was of metal, according to Thomas (s.v. *galea*). L&S (s.v. *galea*) describe *galea* as “a helmet usually of leather”, “a headpiece”, “a morion” and could even refer to “brazen helmets”. The word is similar to the Sanscrit *jal* “to cover” (L&S s.v. *galea*) and it is used in Verg. A. (10.835-836): *aerea...galea* “bronze helmet”. Fairclough (1954: 227) translates it as “brazen helmet” in Verg. A. 10.835-836. Jackson Knight (1958: 276) translates it as “bronze helmet” in Verg. A. 10.835-836. Benade (1975: 318) translates it as “brons helm” in Verg. A. 10.835-836. Blanckenberg (1980: 319) translates it as “koperhelm” in Verg. A. 10.835-836. Feugere (1993: 180-184) is of the opinion that the word *galea* refers primarily to an infantry helmet. Quesada Sanz & Kavanagh de Prado (2006: 70) mention Republican Roman (infantry) helmets from the late 3rd and early 2nd centuries BC, which show resemblance to Celtic, Gallic and Iberian helmets and therefore imply an interaction or influence of some sort. The Romans had already come into contact with Gauls and Iberians in the 4th century BC (when the Gauls sacked Rome in 390 AD), therefore one can accept that the Republican helmets were adopted from Gauls and Iberians. The Republican helmets had a slight rim, which extended into a neck guard at the rear and also had a round fitting at the top for a horsehair crest (see Addendum E images xi and xii), which later evolved into a proper neck guard (see Addendum E image xvii). It is quite clear that the *galea* was an infantry helmet and is therefore best translated as “infantry helmet” in English and as “infanterie-helm” in Afrikaans. In some cases, where it denotes a leather helm it may be translated as such and as “leerhelm” in Afrikaans.

3.6.4 κόρυς

The word κόρυς, refers to the head but could also be used to refer to a helmet (LSJ s.v. κόρυς). LEH (s.v. κόρυς, -υθος) simply translate κόρυς as “helmet”. It was probably a bronze, crested helm, as is evident from the word κόρυθος “helm” found in Hom. *Il.* 3.369 and Hom. *Il.* 6.9; Hom. *Il.* 6.9 supports the fact that it had a crest of ἵπποδασειης, “horse hair”. Murray (1928: 145) and Fagles (1990: 140) translate κόρυθος as “helmet”. The word κόρυς may be translated as “bronze helm” or simply “helmet” in English and as “bronshelm” or “helm” in Afrikaans.

3.6.5 κράνος

The word κράνος, according to LSJ (s.v. κράνος), refers to a “helmet” and is related the word “κρᾶνᾶός” (hard) rather than “κρᾶνίον” (upper part of the skull) but may also refer to a ship’s ram. The word itself is translated by LSJ (s.v. κρᾶνᾶός) as “rocky”, “rugged”, “the people of Attica”, “hard” or “stinging”; in its relation to κράνος the term κρᾶνᾶός obviously refers to the semantic connotation of “hard”. The term κράνος is found in some of Xenophon’s works, such as *X. Cyr.* 6.4.2, where Abradatas puts on a κράνος or “helmet” or *X. Cyr.* 6.1.51 where one encounters the term χρυσοῦν κράνος or “helmet of gold” (work written early 4th century BC; describing events in the 6th and 5th centuries BC. Miller (1914b: 147, 193) simply translates the term κράνος as “helmet” in both these instances. *X. An.* 4.7.16 (dated late early 4th century, describing events of late 5th century BC to early 4th century BC) also contains the word κρᾶνη, which Brownson (1922: 73) translates as “helmets”. Herodotus (Hdt. 1.171) states that the Carians were the first of the Greeks to wear crests on their helmets: καὶ γὰρ ἐπὶ τὰ κρᾶνεα λόφους ἐπιδέεσθαι Κᾶρες εἰσὶ οἱ καταδέξαντες (work dated to 5th century BC). If Herodotus is right, then a large part of Greek armour design traces its origins to the Carians. Godley (1920: 213) and Holland (2014: 84) translate κρᾶνεα as “helmets” in Hdt. 1.171. Herodotus believed that the Greeks originally got their κράνος or “helmet” from Egypt (Hdt. 4.180) - work dated to 5th century BC. Godley (1921: 383) and Holland (2014: 328) translate κράνος as “helmet” in Hdt. 4.180, though Holland uses the plural “helmets”. Κράνος seems to refer to a metal helm but should nonetheless be translated in a generic sense as “helmet” unless the context demands otherwise. In Afrikaans it may be translated as “helm”.

3.6.6 κῦνέη

Κῦνέη is literally translated as “a dog’s skin”, referring to a leather skullcap, though it is not necessarily made of dogskin (LSJ s.v. κῦνέη). Agamemnon wears one in the *Iliad* (Hom. *Il.* 7.176, 182) but is highly unlikely that a king of Agamemnon’s stature would simply wear a leather cap (work written in late 8th or early 7th century BC; describing events of the 12th or 11th century AD). The κῦνέη was probably an inner helm to protect a soldier’s head from the bronze of his helm, especially on a hot day. Murray (1928: 315) and Fagles (1990: 220) translate κῦνέη as a “helmet” (not a skullcap) in Hom. *Il.* 7.176, 182. The inner helm may however, not be the only form and use of the word κῦνέη, since a bronze one is encountered in the *Iliad* - κῦνέη

χαλκήρει “bronze-forged helmet” (Hom. *Il.* 3.316). Murray (1928: 141) translates the phrase as “bronze-wrought helmet”. Fagles (1990: 139), oddly, does not translate the helmet as being bronze. Herodotus uses the word κῦνέη to refer to a helmet (Hdt. 2.152) - work written in 5th century BC. Godley (1920: 463) and Holland (2013: 174) translate κῦνέη as “helmet” in Hdt. 2.152. Herodotus mentions a bronze helmet or κῦνέη χαλκήη (Hdt. 2.151). There are also instances where this helmet had a horsehair crest, for example, κῦνέην εὐτυκτον ἔθηκεν ἵππουριν “a well-made helm with horsehair crest” (Hom. *Il.* 3.337). Murray (1928: 141) translates this phrase as “well-wrought helmet with horsehair crest”. Fagles (1990: 139) translates the phrase as “a well-forged helmet, the horsehair crest atop”. The term κτιδέην κῦνέην is found in Hom. *Il.* 10.335, 458, denoting a “cap of ferret skin” as Murray (1928: 461, 469) translates it. Fagles (1990: 287, 290) translates it as “a cap of weasel skin” and “weasel-cap”. An interesting example of a κῦνέη is found in Hom. *Il.* 10.260-265:

Μηριόνης δ’ Ὀδυσῆϊ δίδου βίον ἠδὲ φαρέτρην καὶ ξίφος, ἀμφὶ δὲ οἱ κῦνέην κεφαλῆφιν ἔθηκε ῥίνοῦ ποιητήν· πολέσιν δ’ ἔντοσθεν ἰμᾶσιν ἐντέτατο στερεῶς ἔκτοσθε δὲ λευκοὶ ὀδόντες ἀργιόδοντος ὑὸς θαμέες ἔχον ἔνθα καὶ ἔνθα εἶ καὶ ἐπισταμένως μέσση δ’ ἐνὶ πῖλος ἀρήρει.

Murray (1928: 455) translates Hom. *Il.* 10.260-265 as follows:

“And Meriones gave to Odysseus a bow and a quiver and a sword, and about his head he set a helm wrought of hide, and with many a tight stretched thong was it made stiff within, while without the white teeth of a boar of gleaming tusks were set thick on this side and that, well and cunningly, and within was fixed a lining of felt.”

The abovementioned instance is confirmed by the boar-tusk helmets found at Dendra (Blair, 1981: 770) and is one of the few cases where a term for a helmet used in literature corresponds with that of archaeological evidence. The word κῦνέη, however, cannot be linked solely to the boar-tusk helm, since examples of helmets of ferret skin and bronze helmets are also associated with the word κῦνέη. The word is therefore translatable with “skullcap”, “skincap” or “helmet” in English and as “leerhelm”, “velhelm” or “helm” in Afrikaans, depending on the context of the

passage. The terms “boar-tusk helm” (English) and “ivoortand-helm”/“vark-tand helm” are obviously applicable in Hom. *Il.* 10.260-265.

3.6.7 περικεφαλαία

The word περικεφαλαία is quite unique in that it refers to a covering for the head or literally “that which goes around the head”. LSJ (s.v. περικεφαλαίος) translate it as “a covering for the head”, “a helmet” or “cap” or something that goes “round the head”. There are texts which refer to it in its military sense, such as Eph 6:17 την περικεφαλαίαν τοῦ σωτηρίου “the helmet of salvation”, where it is mentioned together with the rest of the panoply (written mid or late 1st century AD). The word is also used as a translation for kō^wḅa‘/qō^wḅa‘ a “skullcap” or “helmet”. LEH (s.v. περικεφαλαία, -ας) translate περικεφαλαία as “helmet”. Goliath is mentioned wearing a περικεφαλαία on his head in LXX (1 Sam. 17:5) - work written 3rd or 2nd century BC. Uzziah’s army is also supplied with περικεφαλαίαι or “helmets” amongst other things (LXX, 2 Chron. 26:14). One may use the words “helmet”, “cap” or “covering” for περικεφαλαία when translating it into English and the words “helm” or “hoofbedekking” when translating it into Afrikaans.

3.6.8 στεφάνη

The word στεφάνη is non-specific and refers to “anything that surrounds or encircles the head”, normally a wreath, a diadem, a circlet, a crown or a coronal. Its semantic range is quite broad though, making it possible for the word to denote a “helmet” or the “brim of a helmet” and is derived from the verb στέφω (LSJ s.v. στεφάνη). In the *Iliad* (Hom. *Il.* 7.12) the phrase στεφάνη εὐχάλκος, “well-bronzed helm” is found. It is an indication of the broad semantic spectrum of this word. Murray (1928: 303) translates the phrase as “well-wrought helmet of bronze”. Fagles (1990: 214) translates it as “helmet’s hammered bronze rim”. The terms “helmet” (English) and “helm” (Afrikaans) may be used to translate the word in its military sense.

3.6.9 τρυφάλεια

LSJ (s.v. τρυφάλεια) simply translate τρυφάλεια as “helmet”, which appears to be correct at first glance, when considering that the word has this connotation in the *Iliad* (Hom. *Il.* 3.372, 376; 10.76). Murray (1928: 145) translates τρυφαλεία in Hom. *Il.* 3.372, 376 as “helm”, Fagles (1990: 140, 141) as “helmet” in Hom. *Il.* 3.372, 376 and Murray (1928: 443) and Fagles (1990: 279) as

“helmet” in Hom. *Il.* 10.76. One may, however, consider the following: The word φάλος/-ον refers to the ridge, crest or peak of the helmet, from which the horsehair flows (LSJ s.v. τρυφάλεια). The word τρυφάλεια could very well be a compound noun, consisting of φάλος and other words. Suitable English translations would be “helmet” or even “crested helm” (if τρυφάλεια is accepted as being related to φάλος/-ον). Afrikaans translations may include “helm” or “gepluimde helm” (once again, only if a link between τρυφάλεια and φάλος/-ον is confirmed).

Table 2 - Summary of armour translations

Lexeme	General meaning	Specific meaning	English	Afrikaans
ἀσπίς	round shield, buckler	round shield, bossed shield	round shield, buckler	ronde skild
<i>cetra</i>	buckler	small Spanish shield, leather buckler	leather buckler, light leather shield	leerskild, ligte leerskild
<i>clipeus</i>	shield	round shield, bossed shield*	round shield, bossed shield*	ronde skild
δίπυλον	double-gated shield	double half moon*-, double crescent*-, double concave* -, double cut-out shield*	double half moon*-, double crescent*-, double concave* -, double cut-out shield*	dubbel halfmaan- skild*, dubbel sekelmaan-skild*
θύρεός	stone put against a door, shield	oblong shield shaped like a door, ovaline shield	oblong shield	langwerpige skild
ὄπλον	shield	large shield of the men-at-arms	hoplite shield, heavy shield	infanterie skild*, groot skild

Table 2 - Summary of armour translations

Lexeme	General meaning	Specific meaning	English	Afrikaans
<i>parma</i>	shield	small round shield	convex shield, bowl shield*, small round shield	klein ronde skild, koepel skild*
πέλιτη	small light leather shield	peltast shield, small light leather shield without a rim	crescent shield*, concave shield* skirmish shield* peltast shield	sekelskild*, konkawe skild*, skermutselskild*
ῥήνός	hide, ox-hide	ox-hide shield	hide shield	leerskild, velskild
σάκος	shield	not applicable	shield	skild
<i>scutum</i>	shield, oblong shield	ovaline shield, quadrangular shield	oblong shield, ovaline shield, quadrangular shield	langwerpige skild, ovaal skild, reghoekige skild
<i>tegimen/tegmen</i>	covering, shield	not applicable	shield	skild
<i>manica</i>	gloves, armllets	armguard, bracer	armguard, bracer	armstut, armpantser
περιβραχίωνιος	armlet	arm-pieces	upper-arm armour	bo-arm pantser
περίχειρον	bracelet, armlet	bracer, armguard	armguard, bracer	armstut*, armpantser
κνημίς	lower leg, greave	greave, legging	greave	kuit-pantser, kuit-plate
περιμήρια	around the thigh, a covering for the thigh	thigh armour	thigh-armour	dy-pantser*

Table 2 - Summary of armour translations

Lexeme	General meaning	Specific meaning	English	Afrikaans
περισφύριος	anklet	not applicable	anklet	enkel-stut, enkel-band
σάνδαλον	sandal	not applicable	sandal	sandaal
θώραξ/θώραξ	chest, chest armour	breastplate, chest armour, cuirass, corselet, harness	breastplate, chest armour, cuirass, corselet, harness	borsharnas, borsplaat
λίνοθώραξ	linen chest armour	linen cuirass, linen corselet, composite corselet	linen corselet, linen cuirass composite corselet	linne harnas*, leerharnas
<i>lorica</i>	cuirass, corselet	context specific	cuirass, corselet	borsharnas
μίτρα	belt, girdle	belt or girdle worn around the waist beneath the cuirass	girdel, taslet	gordel, romp
πτέρυξ/πτέρυγος	wing, flap	covering for the skirt, skirt armour	flaps, skirt flaps, leather flaps	leerflappe, leerlelle
<i>cassis</i>	helmet	metal helmet, cavalry helmet	helmet, cavalry helmet	helm, ruitery helm*
<i>crista</i>	crest, plume	crest of a helmet	plume, crest	pluim, bos, kam, pluimkam
<i>galea</i>	helmet	infantry helmet, leather helmet, helmet	infantry helmet, leather helmet	infanterie helm, leerhelm
κόρυς	head, helmet	bronze helmet, crested helmet	helmet, bronze helm	helm, brons helm
κράνος	hard, helmet	metal helmet	helmet	helm

Table 2 - Summary of armour translations

Lexeme	General meaning	Specific meaning	English	Afrikaans
κύνέη	dogskin, leather skullcap	leather skullcap, helmet	skullcap, skincap, helmet	leerhelm, velhelm, helm
περικεφαλαία	something that goes around the head	helmet, skullcap	helmet, cap, covering	helm, hoofbedekking
στεφάνη	anything that surrounds or encircles the head	wreath, diadem, circlet, crown	helmet	helm
τρῦφάλεια	helmet	crested helm	helmet, crested helm	helm, gepluimde helm

Source: Compiled by the researcher (Wynand M. Bezuidenhout 2018)

*New translations developed in this study

4. MISSILE WEAPONS

Missile weapons allow soldiers to attack from afar. The advantage of a ranged attack is self-evident, because it eliminates the need to engage directly with the opposing side. Missile weapons are as old as the art of the hunt and are critical in all battlefields of all times. This section discusses the differences and similarities of these weapons.

4.1 Arrows, bolts and javelins

Not much information is available on the type of wood that the Romans used for missile weapons, such as arrows, bolts and javelins but apparently the Greeks used wood such as cornel, myrtle, yew and pine for their lighter spears and javelins (Anderson, 2003: 23).

4.1.1 ἀκόντιον/ἀκόντια

Herodotus differentiates between ἀκόντια “javelins/throwing spears” and δοράτια “spears” (Hdt. 1.34) - written in 5th century BC; describing events, which in this case, date to the 6th century BC. Godley (1920: 43) and Holland (2014: 18) translate ἀκόντια as “javelins”. The ἀκόντια was the preferred weapon of the light armed troops in the Peloponnesian War, because it was cheap and easy to manufacture (soldiers who could not afford heavy armour made up the ranks of the light infantry); having a light missile weapon made them more mobile and also meant that they could attack enemies at a safer distance, where lack of heavy armour did not matter. Consider the phrase ψιλῶν ἀκοντιστῶν, “light armed javelin-throwers” (Th. 3.97.2) - work dating to late 5th century BC or early 4th century BC, describing events that occurred in the late 5th century BC. Forster Smith (1920: 173) translates the phrase as “light-armed men who were javelin throwers” and Warner (1972a: 252) translates it as “light-armed javelin-throwers”. Theophrastus states that the female cornel tree has soft wood “and is therefore useless for javelins” - δι’ ὃ καὶ ἀχρεῖον εἰς τὰ ἀκόντια (Thphr. *HP* 3.12.1). Hort (1916: 235) translates this phrase as “wherefore it is useless for javelins” in Thphr. *HP* 3.12.1. There is probably an etymological relation between the word ἀκόντιον and the word κοντός. Ἀκόντιον/ἀκόντια may therefore safely be translated as “javelin” (English) or “werp spies” (Afrikaans).

4.1.2 βέλος

Βέλος is a generic Greek word for a sharp projectile or missile and can be translated as “javelin”, “missile”, “dart”, “bolt”, “arrow” or “shaft”. Βέλος is derived from the verb βάλλω, “I throw” (LSJ s.v. βέλος). LSJ (s.v. βέλος) are of opinion that it can be used to describe swords, axes, engines of war or any other type of weapon. The etymology of the word however, indicates it as having primarily a missile function. It would be a mistake to translate the word as “spear”, because the word shows no inclination to a heavier weapon. It is primarily described as a missile weapon (Hom. *Il.* 5.290; 8.159, Eph. 6:16 and Th. 3.98.1) - Hom. *Il.* 8th or 7th century BC, Eph. Mid or late 1st century AD and Th. in late 5th or early 4th century AD. Murray (1928: 217) translates βέλος as “spear” in Hom. *Il.* 5.290, which is too generic a term for βέλος. Fagles (1990: 173) translates it as “shaft”. Murray (1928: 351) elsewhere translates βέλεα as “darts” in Hom. *Il.* 8.159. Fagles (1990: 236) translates it as “spears and arrows”, suggesting that it was a mixed group of projectiles. Forster Smith (1920: 172) and Warner (1972: 252) translate βέλη as “arrows” in Th. 3.98.1. KJV and NKJV translate βέλη as darts” in Eph 6:16. NIV translates βέλη as “arrows” in Eph 6:16. AFR1983 and AFR3353 translate βέλη as “pyle” (arrows) in Eph. 6:16. LEH (s.v. βέλος, -ους) mostly consider βέλος to mean “arrow”, “missile” or “dart”. Louw and Nida (s.v. βέλος) translate as “arrow” or “dart” and supply its semantic background: “a missile, including arrows (propelled by a bow) or darts (hurled by hand)”. The word clearly refers to a projectile, which would need to be translated in the light of how it is launched: Was it fired from a bow? Was it released or hurled? When fired from a bow it would be an “arrow”, when fired from a machine, it would be a “bolt”, when hurled by hand, it would be a “javelin”, or “dart”. When in doubt, the word “projectile” or “missile” may suffice as a generic substitute. In Afrikaans it must be translated contextually as “werpspies” for javelin or “pyl” for arrow. “Werptuig” would be the more generic term, since it is equivalent to “projectile” or “missile”.

4.1.3 *Iaculum*

The word *iaculum* may refer to a “javelin”, “dart” or a “casting-net” and denotes a thrown object, (Thomas s.v. *iaculum*, -i). L&S (s.v. *jaculum*) translate *iaculum* as “dart” or “javelin”. The word *iaculum* seems to be related to the words *iaculor* “to throw, cast or hurl” and *iacio* “to throw, cast, to scatter” (Thomas s.v. *iacio*, *ieci*, *iactum*, *iaculor* and L&S s.v. *jaculor*) and *jaculor* is extended to the meaning “to hurl a javelin” (L&S s.v. *jaculor*). The word *iaculum* is found in Ov.

M. 10.130: *hunc puer imprudens iaculo Cyparissus acuto fixit* - “this boy Cyparissus unwittingly pierced with a sharp javelin”. Miller (1916: 73) translates *iaculum* as “with a javelin” in *Ov. M.* 10.130. The existing translations “javelin” or “dart” are perfect. An Afrikaans translation would be “werpspies”.

4.1.4 ἰός

The word ἰός means “arrow” and is derived from the Sanskrit word *īśus*, also meaning “arrow” (LSJ s.v. ἰός). It is used by Homer in the *Iliad* (1.48; 3.80; 4.116) and is of course the ammunition of the τόξα or bow. Murray (1928: 7) and Fagles (1990: 79) translates ἰόν as “shaft” in *Hom. Il.* 1.48. Murray (1928: 123) and Fagles (1990: 131) translate ἰοί as “arrows” in *Hom. Il.* 3.80. Murray (1928: 161) and Fagles (1990: 149) translate ἰός as “arrow” in *Hom. Il.* 4.116. LEH (s.v. ἰός, -ου) consider ἰός to mean “arrow”, but also “poison” or “venom”. The translation of ἰός is undoubtedly “arrow” in English and “pyl” in Afrikaans.

4.1.5 κηλόν

Another word referring to an arrow but more specifically to the “shaft of an arrow” is κηλόν, yet it may also refer to an “arrow” itself (LSJ s.v. κηλόν). As is fitting of the epic Trojan War described in the *Iliad*, Homer uses a greater variation of words for arrows than may seem necessary, yet it is that which made him a master poet: He uses κηλόν as another poetic variant of an arrow, to fit into the metre of his work and also to highlight a certain aspect of an arrow, focusing more on its shaft than its tip, for example κῆλα “arrows/shafts” in *Hom. Il.* 1.53, 383. Murray (1928: 7) translates κῆλα as “missiles” in *Hom. Il.* 1.53, yet it still denotes “arrows” in the context. Fagles (1990: 79) translates κῆλα as “arrows in *Hom. Il.* 1.53. Murray (1928: 33) translates κῆλα as “shafts” in *Hom. Il.* 1.383. Fagles (1990: 90) translates κῆλα as “arrows” in *Hom. Il.* 1.383. Κηλόν may be translated as “arrow” in English and “pyl” in Afrikaans.

4.1.6 *Missile*

Missile is a generic term referring to a missile or a projectile, non-specific and broad in its possibilities of use (Thomas s.v. *missile*) and often used in the plural, such as *missiles* “missiles” in *Verg. A.* 10.716. L&S (s.v. *missile*) refer to *missile* as “a missile weapon”, “a missile” or “a javelin”. Fairclough (1954: 219) translates *missiles* as “with darts” in *Verg. A.* 10.716. Jackson

Knight (1958: 273) translates it as “with javelin-casts” in Verg. *A.* 10.716. Benade (1975: 314) translates it as “met spiese” in Verg. *A.* 10.716. Blanckenberg (1980: 314) translates it as “met werpspiese” in Verg. *A.* 10.716. English translations would be “missile” or “projectile” and an Afrikaans translation would be “werptuig”; naturally more specific translations of *missile* may be made if the text leans toward it.

4.1.7 οἰστός

Yet another term exists, which Homer used for an arrow, namely οἰστός (Hom. *Il.* 1.46; 4.118, 125). LSJ (s.v. οἰστός) suggest that οἰστός refers to an “arrow” or an “arrow-head”. Murray (1928: 7) and Fagles (1990: 79) translate οἰστοί as “arrows” in Hom. *Il.* 1.46. Murray (1928: 161, 163) and Fagles (1990: 149) translate οἰστόν and οἰστός as “arrow” in Hom. *Il.* 4.118, 125. These arrows had a variety of points, including barbed tips, for example ὄγκος, referring to the barb of an arrow (Hom. *Il.* 4.151, 214), which caused further damage and bleeding when removed from its target (see Addendum F image iii). Murray (1928: 165) and Fagles (1990: 150) translate ὄγκους as “barbs” in Hom. *Il.* 4.151. Murray (1928: 169) and Fagles (1990: 152) translate ὄγκοι as “barbs” in Hom. *Il.* 4.214. Other barbed variations are found in the *Iliad*, such as the προέηκα τανυγλώχινας οἰστούς “long-barbed arrows” (Hom. *Il.* 8.297) and οἰστῶ τριγλώχινι “three-barbed arrow” (Hom. *Il.* 5.393) that did even more horrific damage to its targets. Murray (1928: 223) translates the phrase οἰστῶ τριγλώχινι as “three-barbed arrow”. Fagles (1990: 177) translates it as a “three-barbed shaft”. Murray (1928: 361) translates the phrase προέηκα τανυγλώχινας οἰστούς as “long-barbed arrows”. Fagles (1990: 241) translates it as “long sharp barbs”. The word οἰστός may be translated as “arrow” or “arrowhead” and may be described in shape by the adjective that accompanies it. Afrikaans translations would be “pyl” or “pylpunt”. It is noteworthy that the word οἰστός is normally accompanied by an adjective describing it as “barbed” or “forked”, which should be taken into account when translating the term.

4.1.8 *Pilum*

The *pilum* or “javelin” was the missile weapon of the Roman legion and needs to be distinguished from lighter javelins like those that were used by the *velites* (see Addendum F image iv). These weapons were used exclusively for throwing (Caes. *B.G.* 1.25, 52 and Thomas

s.v. *pilum*, -i). L&S (s.v. *pilum*) describe the *pilum* as “the heavy javelin of the Roman infantry” which they threw at the enemy at the beginning of a battle. Gould and Whiteley (1973: 77) and Edwards (1919: 39) refer to *pili* as “javelins” in Caes. B.G. 1.25. Edwards (1919: 85) translates *pilis* as javelins in Caes. B.G. 1.52. Benade (1984: 41, 56) translates *pili* as “werpspiese” in Caes. B.G. 1.25, yet translates *pili* as “spiese” in Caes. B.G. 1.52. Gould and Whiteley (1973: 108) also translate *pilum* as “javelin” in their vocabulary. Ewan (1991: 137) also translates *pilum* as “javelin”. Irvine (1970: 246) translates *pilum* as “heavy javelin”. The original *pilum* had a shaft of 1,38 metres and with its head was around 2 metres long; the head was heavy and made for a powerful throw, yet travelled slowly through the air and could be evaded. The Romans eventually slimmed down the head so that when it pierced a shield, it would bend or break off and render the shield useless (Feugere, 1993: 99-101). Tomczak (2012: 40) describes this first Italic *pilum* as having a long narrow shaft with a circular or square cross-section. The *pilum* was ahead of its time, since its point was specifically designed for armour piercing. Caesar describes this weapon as often transfixing shields and exposing the warriors at the same time (Caes. B.G. 1.25 and Feugere, 1993: 12-14). The point of a *pilum* was elongated and cylindrical, with a slightly expanding teardrop tip, sharpened to a pin, which was socketed onto the wooden shaft (Reid, 1986: 24). What Reid describes, is the High Empire *pilum* (High Empire 97/98-192 AD), a javelin with a long thin iron head between 60 and 90 cm in length, fastened to a wooden shaft (Feugere, 1993: 163-168). The force applied to a smaller surface resulted in greater piercing capability, making the *pilum* the deadliest javelin of all time (see Addendum F images ii and iv). The word “javelin” therefore does not do justice to this weapon. If at all possible, it would be best to leave this word untranslated as “pilum”, with a footnote explaining what a “pilum” is. If it is not possible to leave *pilum* untranslated, “heavy javelin” (English) and “groot werp spies” (Afrikaans) should be considered.

4.1.9 *Sagitta*

Sagitta is a Latin word for an arrow, the ammunition of the bow, found in the Verg. A. (10.248) - work dated between 29 and 19 BC. The arrow is called a *sagitta* and the archer called a *sagittarius* (Thomas s.v. *sagitta*, *ae*, *sagittarius*), denoting one who looses arrows (an archer “looses” or “releases” an arrow - Hornby s.v. loose). L&S (s.v. *sagitta*, *sagio*) refer to *sagitta* as “arrow”, “shaft”, “bolt”, “arrow-head”, “an instrument for letting blood” or a “lancet” and links

sagitta to *sagio*, which is derived from the root *sagh-*, which in turn is derived from the Sanscrit *saghnomi*, meaning “kill”. Fairclough (1954: 187) and Jackson Knight (1958: 259) translate *sagitta* as “arrow” in Verg. A. 10.248. Benade (1975: 298) translates *sagitta* as “pyl” in Verg. A. 10.248. Blanckenberg (1980: 297) translates *sagitta* as “pyle” in Verg. A. 10.248; why he uses the plural is unclear. In Verg. A. 4.69 Dido’s wandering frenzy is compared to that of a wounded deer - *qualis coniecta cerva sagitta*, “like that of a deer struck by an arrow”. Benade (1975: 103) translates the phrase *qualis coniecta cerva sagitta* as “soos ‘n hert na ‘n pylskoot” in Verg. A. 4.69, hence making *coniecta* and *sagitta* directly dependent to each other. Benade’s translation is therefore not of much use here. Fairclough (1965: 401) and Jackson Knight (1958: 99) translate *sagitta* as “arrow” in Verg. A. 4.69. Blanckenberg (1980: 104) translates *qualis coniecta cerva sagitta* as “net soos ‘n hinde deur ‘n pyl gewond” in Verg. A. 4.69. Caesar mentions using *Cretas sagittarios* “Cretan archers” along with Numidian archers and Balearic slingers to reinforce his troops during the Gallic War (Caes. *B.G.* 2.7) - work dated between 58 and 49 BC and describing events that occurred between 58 and 50 BC. The word *sagitta* should undoubtedly be translated as “arrow” (English) and as “pyl” (Afrikaans). Occasionally the meaning of *sagitta* may differ, in which case the translation should be adapted accordingly.

4.1.10 *Tragula*

The *tragula* was another type of javelin (Thomas s.v. *tragula*, -ae), Gallic in origin and exclusively a throwing spear or “dart” (Caes. *B.G.* 1.26). The *tragula* was a Gallic/Spanish throwing spear and had a leather strap called an *amentum* to assist with the hurling action (Gould and Whiteley, 1973: 80 and Ewan, 1957: 86). L&S (s.v. *tragula*) describe the *tragula* in the same manner: “a kind of javelin or dart attached to a strap by which it was swung when thrown” and also state that it is related to the word *traho*. Gould and Whiteley (1973: 116) translate *tragula* as “javelin” in their vocabulary. Irvine (1970: 259) translates *tragula* as “dart” or “javelin” in his vocabulary. Ewan (1957: 86) translates *tragulae* as “javelins” in Caes. *B.G.* 1.26. Edwards, (1919: 41) translates *tragulae* as “darts” in Caes. *B.G.* 1.26. Benade (1984: 42) translates *tragulae* as “lanse” in Caes. *B.G.* 1.26, which is not quite accurate, since a “lans” (lance) is a cavalry spear and a melee spear at that. The phrase *utrumque femur tragula traicitur* – “and both his thighs were pierced by a *tragula*” (Caes. *B.G.* 5.35) unfortunately does not give any further clue as to the nature of the weapon. Edwards (1919: 281) translates *tragula* as javelin in Caes.

B.G. 5.35. Benade (1984: 135) translates *tragula* as “werpspies” in Caes. *B.G.* 5.35. The *tragula*, from all indications, seems to have been a type of javelin launched by a strap and should therefore be translated as “strap-javelin” in English and as “riem-werpspies” in Afrikaans.

4.1.11 ὑσσός

The word ὑσσός denotes a “javelin” or a “pilum” (LSJ s.v. ὑσσός). Polybius uses the word to describe the two kinds of javelin that were worn by Roman legionaries Plb. 6.23.8-9:

πρὸς δὲ τούτοις ὑσσοὶ δύο καὶ περικεφαλαία χαλκῆ καὶ προκνημῖς. τῶν δ' ὑσσῶν εἰσιν οἱ μὲν ταχεῖς, οἱ δὲ λεπτοί. τῶν δὲ στερεωτέρων οἱ μὲν στρογγύλοι παλαιστικῆν ἔχουσι τὴν διάμετρον, οἱ δὲ τετράγωνοι τὴν πλευράν. οἱ γὰρ μὴν λεπτοὶ σιβυνοῖς εἰκόμασι συμμέτροις, οὓς φοροῦ μετὰ τῶν προειρημένων.

In the passage above, Polybius describes two variants of the ὑσσός. One is essentially the *pilum* or heavy javelin and the other was a lighter variant; one of each was included in the arms carried by the *hastati*. He continues to say that the lighter variant was like a moderate-sized hunting spear, the haft about three cubits in length and fitted with a hooked/barbed iron head of about the same length (Plb. 6.23.8-11).

Paton (1979: 319, 321) translates ὑσσός as “pilum” in both cases, distinguishing between the two types with the words “stout” and “fine”. Whether “pilum” may refer to the lighter variant is debatable, since the *pilum* did not have a barbed head on the one hand but on the other hand it did come in different variations of size and weight.

When referring to the heavy variant of the ὑσσός it is safe to translate it as “pilum” in English and “groot werpspies” in Afrikaans. It would perhaps be safer to refer to the lighter version as “javelin” or “light javelin”, since the more general translation allows for both interpretations in abovementioned paragraph.

4.1.12 *Verutum*

The word *verutum* denotes a javelin, a dart or any type of spear used exclusively for throwing; there is some relation to the word *veru*, denoting a “dart” or a “spit” (Thomas s.v. *veru*, -us; *verutum*), hence a long sharp object. L&S (s.v. *verutum*) describe *verutum* as a “javelin” or “dart”. It was a skirmish spear, little over a metre in length (Berdeguer et al. 2014: 18 - see Addendum F image i). This weapon is encountered in Caes. *B.G.* (5.44) - work dated between 58 and 49 BC and events dated between 58 and 50 AD. Gould and Whiteley (1961: 198) translate *verutum* as “dart” or “javelin” in their vocabulary. Edwards (1919: 293) translates *verutum* as “dart” in Caes. *B.G.* 5.44. Benade (1984: 127) translates *verutum* as “spies”, which is far too generic a translation of the word. The word *verutum* is also found in Liv. 1.43.6 *nihil praeter hastam et verutum datum* “nothing given (to them) but a spear and a javelin”, describing the armament given to fourth class soldiers (work written in late 1st century BC or early 1st century AD). Foster (1957: 151) and De Sélincourt (2002: 82) translate *verutum* as “javelin” in Liv. 1.43.6. *Verutum* may be translated as “javelin” or “dart” in English and as “werpspies” in Afrikaans.

4.2 Bows

Bows have been in use since time immemorial. It was an essential hunting tool, which has been adapted many times through the ages. This section discusses how recurve bows used by the Trojans for instance, had major advantages over earlier designs of the bow, used by the Greeks. The more common Greek design was still used by the Romans when they came into power.

4.2.1 *Arcus*

Arcus refers to a bow or an arch, therefore a rainbow, an architectural arch and of course the military weapon, the bow (Thomas s.v. *arcus* and L&S s.v. *arcus*). It is mentioned in the Verg. *A.* (10.169) *letifer arcus* “fatal bow”. Fairclough (1954: 183) translates *letifer arcus* as “deadly bows” in Verg. *A.* 10.169. Jackson Knight (1958: 256) translates this phrase as “death dealing bows” in Verg. *A.* 10.169. Benade (1975: 295) and Blanckenberg (1980: 294) translate it as “dodelike boë” in Verg. *A.* 10.169. In Verg. *A.* 9.665 the Trojans “bend their eager bows” - *intendunt acris arcus*, before firing at Turnus’ troops. Fairclough (1954: 159) and Jackson

Knight (1958: 246) translate *arcus* as “bows” (plural) in Verg. *A.* 9.665. Benade (1975: 280) and Blackenberg (1980: 281) translate *arcus* as “boë” (plural) in Verg. *A.* 9.665. The word is generic in nature, so too is its translation, hence “bow” for English and “boog” for Afrikaans.

4.2.2 βίος

Βίος is translated as “bow” (LSJ s.v. βίος), as is evidenced in the *Iliad* with βιοῖο (Hom. *Il.* 1.49). Murray (1928: 7) and Fagles (1990: 79) translate the term βιοῖο (Hom. *Il.* 1.49) as “bow”. This term should not be confused with βίος (change of accent), which means “life”. Perhaps there is some relation between the word for arrow - ἰός and this word for bow - βίος? Consider that there is a relation between βίος and the Vedic *jiyā* meaning “bow-string” and the Lithuanian *gijà*, meaning “thread” (LSJ s.v. βίος). Βίος is a general word for a bow, making it quite simple to translate, in other words “bow” (English) and “boog” (Afrikaans).

4.2.3 τόξον/τόξα

The word τόξον is a word used more frequently for bow and many descriptions of these are found in the *Iliad*, for instance, the “silver bow”- ἀργυρότοξ’ of Apollo (Hom. *Il.* 1.451). LSJ (s.v. τόξον) simply translate τόξον as “bow”. Murray (1928: 37) and Fagles (1990: 93) translate ἀργυρότοξ’ as “silver bow”. Even curved/bent bows are found in the *Iliad*, for example καμπύλα τόξα “curved/bent bow” used by Paris (Hom. *Il.* 3.17), Lycaon (Hom. *Il.* 5.97) and by other Trojans (Hom. *Il.* 10.333) as well as ἀγκυλατόξος “crooked bows/curved bows” (Hom. *Il.* 2.848). Murray (1928: 113) translates ἀγκυλατόξος as “curved bows” in Hom. *Il.* 2.848. Fagles (1990: 127) translates this phrase as “reflex bows” (another term for recurve bows). Murray (1928: 117, 201, 461) translates καμπύλα τόξα as “curved bow” in Hom. *Il.* 3.17; 5.97; 10.333. Fagles (1990: 129, 167, 287) translates it as “reflex bow” in Hom. *Il.* 3.17; 5.97; 10.333. The fact that the Trojans mostly used these bows, suggests that their bows had a technological advantage, perhaps these were recurve bows which became more common the further one went east. A recurve bow of five feet, for instance, can launch an arrow at the same force as a basic bow of six feet. Before strung, the recurve bow bends forward and not backward; when strung backwards, the tension on the string is greater. The deeper the recurve, the shorter the bow could be, as was clear with the Persians, Turks, Mongols, Huns and Russians in later ages. This theory may be supported by Homer mentioning the Trojans using a τόξα παλίντονα “a back-bent bow” or a

“bent again bow” (Hom. *Il.* 10.459). Murray (1928: 470) also translates τόξα παλίντονα as “back-bent bow”. Fagles (1990: 291) once again refers to it as a “reflex bow”. The τόξα παλίντονα undoubtedly refers to a recurve bow and also solves the riddle of the curved bow. The Trojans had superior bow technology at their disposal, giving them an edge in ranged city defence. The word τόξον itself is another loanword in Mycenaean Greek, originating in either Pylos or Knossos, making it either of Mycenaean origin or of Minoan origin, from the word “*tokoso*”/“*tokosota*” (Cebrián, 2003: 13-20). LEH (s.v. τόξον, -ου) refer to τόξον as “bow and arrows” but also “bow in the clouds/rainbow”. The latter undoubtedly is an attempt by the Septuagint translators to mirror the fact that Hebrew cosmology and warfare were intertwined in poetry and should not be attributed to the Greek language itself. Considering what has been said regarding τόξον/τόξα, it is often used to describe a recurve bow, although an adjective is necessary to qualify τόξον/τόξα. The word must therefore be translated in accordance with the adjective that accompanies it.

4.2.4 φᾶρέτρα

A φᾶρέτρα was a quiver and essential to any serious archer of the Graeco-Roman world. The word is derived from the word φέρω (to carry), denoting its function, to carry arrows and is translated as a “quiver for arrows” (LSJ s.v. φᾶρέτρα). The word φᾶρέτρα is encountered in the LXX as a translation for the Hebrew *’ašpaḥ* or “quiver” (LXX, Isa 22:6) - work dated to 3rd or 2nd century BC. LEH (s.v. φᾶρέτρα, -ας) also translate it as “quiver”. φᾶρέτρα is also found in Hom. *Il.* 1.45; 15.443 (written in late 8th or early 7th century AD; describing events in 12th or 11th century AD). Murray (1928: 7) and Murray (1976: 139) and Fagles (1990: 79) translate the word φᾶρέτρα as “quiver” in Hom. *Il.* 1.45. Fagles (1990: 402) also translates it as “quiver” in Hom. *Il.* 15.443. Herodotus (Hdt. 2.141) mentions field mice eating the quivers and bows of the Assyrians, having been sent by a god to aid the Egyptians: μῦς ἀρουραίους κατὰ μὲν φαγεῖν τοὺς φαρετρεῶνας αὐτῶν κατὰ δὲ τὰ τόξα. Godley (1922: 447) translates τοὺς φαρετρεῶνας αὐτῶν as “their quivers” in Hdt. 2.141. Holland (2013: 169) translates this phrase as “the quivers of the invaders” in Hdt. 2.141. The correct translations for φᾶρέτρα are “quiver” in English and “koker”/“pylkoker” in Afrikaans.

4.3 Slings: *Funda* or σφενδόνη

The word *funda* refers to a sling or a casting net and is clearly related to the verb *fundo*, which means “to pour”, “to cast”, “to let loose” or even “to discharge projectiles” (Thomas s.v. *funda*, -*ae*). L&S (s.v. *funda*) translate *funda* as “sling”, “that which is thrown by a sling”, “the sling-stone” or “missile”. Julius Caesar encountered these weapons when he fought the Gauls (Caes. *B.G.* 4.25), yet they would not have been unfamiliar to him, since many Mediterranean nations would have used them in war, including Greeks. Edwards (1919: 213) translates *fundae* as “slings” in Caes. *B.G.* 4.25. Benade (1984: 100) translates *fundae* as “slingers”, which is an Anglicism. The correct term in Afrikaans is in fact “slingervelle”. Gould and Whiteley (1964: 102) translate *funda* as “sling” in their vocabulary. Irvine (1970: 230) also translates *funda* as “sling” in his vocabulary for Caesar’s *Gallic* and *Civil Wars*. In fact, Caesar also made use of the Balearic slingers, who were professional troops drafted into service of Rome from the Balearic Islands in the Mediterranean (Thomas s.v. *Balearis*, -*e*), renowned for their skill (Caes. *B.G.* 2.7). There is also a relation between the Latin word and the earlier Greek term, σφενδόνη; the sigma apparently disappeared over time and the word gradually changed to *funda* (L&S s.v. *funda*). LEH (s.v. σφενδόνη, -ης) refer to σφενδόνη as “sling” or “bullet/stone (thrown by a sling)”, therefore either the weapon or its ammunition. LXX 1 Sam. 17:40 describes David facing Goliath, “his sling in his hand” σφενδόνην αὐτοῦ ἐν τῇ χειρὶ αὐτοῦ. *Funda* or σφενδόνη may be translated as “sling” (English) and “slingervel” (Afrikaans).

Table 3 - Summary of missile weapon translations

Lexeme	General meaning	Specific meaning	English	Afrikaans
ἀκόντιον/ἀκόντια	javelin, throwing spear	not applicable	javelin	werpspies
βέλος	projectile, missile	arrow, javelin, dart, bolt	projectile, arrow, missile, javelin, dart, bolt	werptuig, pyl, werpspies
<i>iaculum</i>	thrown object	dart, javelin, casting net	dart, javelin	werpspies

Table 3 - Summary of missile weapon translations

Lexeme	General meaning	Specific meaning	English	Afrikaans
ἰός	arrow	not applicable	arrow	pyl
κηλόν	arrow, shaft	shaft of an arrow	arrow	pyl
<i>missile</i>	missile, projectile	not applicable	missile, projectile	werptuig
οἰστός	arrow, arrowhead	not applicable	arrow, arrowhead	pyl, pylpunt
<i>pilum</i>	javelin	heavy javelin	heavy javelin, pilum	groot werpspies*
<i>sagitta</i>	arrow	not applicable	arrow	pyl
<i>tragula</i>	javelin	dart, javelin thrown with leather strap	strap-javelin*	riem-werpspies*
ὑσσός	javelin	pilum, heavy javelin or light javelin, barbed javelin	pilum, heavy javelin, light javelin (context specific)	swaar werpspies, ligte werpspies (context specific)
<i>verutum</i>	dart, spit	dart, javelin	javelin, dart	werpspies
<i>arcus</i>	bow, rainbow, arch	bow (military)	bow	boog
βίος	bow	not applicable	bow	boog
τόξον/τόξα	bow	bow, recurve bow	no translation (adjective specific)	no translation (adjective specific)
φᾶρέτρα	quiver	not applicable	quiver	koker
<i>funda</i>	sling	sling, sling stone	sling	slingervel
σφενδόνη	sling	sling, sling stone	sling	slingervel

Source: Compiled by the researcher (Wynand M. Bezuidenhout 2018)

*New translations developed in this study

5. SIEGE ENGINES

Siege engines are basically as old as war and the first cities. The Greeks used the word μηχανή as a general reference to a siege engine. The Spartans had a siege engine (μηχανή) designed to throw fire down onto the wooden part of their enemies' fortifications (Th. 4.115.2). The type of siege engine, unless named, would need a description to identify its function. Forster Smith (1920: 407) and Warner (1972a: 333) translate μηχανή as “engine” in Th. 4.115.2. ὄργανος is another Greek word denoting a siege engine or ancient artillery engine, as Josephus mentions: καὶ τὰ πολλὰ τῶν ἄλλων ὀργάνων “and all the other engines” abandoned by the Romans (J. BJ 2.553).

5.1 The catapult/ballista enigma

One is confronted with a rare problem when it comes to the καταπέλτα and the *ballista*. Does a λίθοβολος/πετροβόλος (stone thrower) refer to a *ballista* or may it refer to an *onager* or *pre-onager* as well? Does the word καταπέλτα refer to an *onager*-type or a *ballista*-type siege engine?

5.1.1 The conventional interpretation

5.1.1.1 *Ballista*/πετροβόλος

The *ballista* came in two versions, a mounted version and a mobile version. Claws pulled back the cord of the machine, each arm tensioned by its own skein of sinews, the claws in turn, were pulled towards a nut, with the windlass (a double wheel lever) winding the ropes back, thus holding the cord in place. The trigger released the nut and fired the stone/bolt as the cord was released (Reid, 1986: 28). The Greeks referred to this siege engine as πετροβόλος/λίθοβολος “stone thrower” (J. BJ 1.147; 3.80). Thackeray (1956: 69) translates πετροβόλοι as “ballistae” in J. BJ 1.147. Thackeray (1956: 600-601) translates λιθοβόλα as “stone-throwers” in J. BJ 3.80, yet believes that λιθοβόλα also refers to “ballistae”. LSJ (s.v. πετροβόλος) translate πετροβόλος as “engine for hurling stones” and links it to the “sling and its action of hurling stones”. The term λίθοβολος is translated as “stone thrower” or “engine for throwing stones” (LSJ s.v. λίθοβολος).

5.1.1.2 καταπέλτα/*catapulta/onager*

The *catapulta* was a siege engine that hurled large stones. The word “catapult” is derived from this very device (Thomas s.v. *catapulta*). The Roman word *catapulta* in turn is derived from the Greek word καταπέλτα. Josephus uses the word καταπέλτας when referring to “catapults” and differentiates between ὀχυβελεῖς, καταπέλτας and λιθοβόλα, naming them as three separate machines (J. BJ 3.80) - work dating to circa 75 AD and describing events between 66 and 70 AD. The Romans gave a type of catapult/stone-thrower the nickname *onager* or “wild ass” (Ransford, 1975: 28 and Thomas s.v. *onager, onagrus*). It normally had wheels to move it around and it worked on the principle of torsion. Soldiers wound down the arm of the catapult against tension. Twisted animal sinews woven together to form a skein, achieved this tension (See Addendum G images v, vi and vii). A geared winch made pulling down against this tension easier. When the arm was pulled down it reached the slip-hook, which held it in place. A rope released the slip-hook when pulled, which in turn released the catapult arm, hurling the stone projectile towards its target (Reid, 1986: 26-27).

5.1.2 Alternative interpretations

i) Thackeray (1961: 411, 466) suggests that the word καταπέλτα should be translated as “catapult” and that λιθοβολος/πετροβόλος should be translated as “ballista”. The μηχανήματος (engine) which Josephus (J. BJ 3.245) describes as “breaking battlements and angles of towers” was most likely related to an *onager*, though these were not invented until later, according to Thackeray (1956: 647). Thackeray (1956: 600) believes that the words ὀχυβελεῖς and καταπέλται refer to “species of *catapultae*”. Thackeray does however not specify what he means by “catapult”, which is problematic.

ii) Ransford (1975: 16-28) claims that there were two types of “catapults”, namely the Macedonian torsion catapult, which correlates with the *onager* design (see Addendum G and images v-vii) and the lighter Roman design (see Addendum G image iv), which was the *ballista*, a crossbow shaped siege engine which could launch bolts, spears or even stone balls. Ransford’s theory is a plausible solution to the interpretative dilemma.

iii) Campbell claims that the λιθοβολος/πετροβόλος referred to a “ballista” (please note that “ballista” is an acceptable loan-word and may be used without italics in some

instances). The word catapult, he states, refers mostly to an arrow or spear-firing weapon of which there were three main types: There was the scorpion, which fired small bolts and two types of ballistae, one that projected bolts, arrows or spears (see addendum G image i) and the larger that projected stones (See addendum G image ii). All being catapults and the latter being the λιθοβολος/πετροβόλος. He does however not dismiss the idea that the stone-thrower was redesigned before 240 AD, especially when considering the one-armed *scorpio* which troops referred to as the *onager* or “wild ass” (Campbell, 2002: 159-174). Interestingly, Campbell (2002: 173) describes later developments of the ballista: the *carroballista* (a cart-mounted catapult), the *manuballista/cheiroballista* (hand-held torsion weapon) and the *acruballista* (a proto-crossbow). Noting the above, one realises that little is known about the siege-engines of the past and how siege engines developed. Nonetheless, Campbell’s version of the catapult-ballista dynamic is also credible.

iv) Josephus describes καταπέλται (catapults) that “sent lances hurtling through the air” and πετροβόλοι (stone-projectors) “which discharged blocks of the weight of a talent” (J. BJ 3.166-167). This example perhaps gives some perspective on the subject, since Josephus (J. BJ 3.243-245) refers to the type of siege engine of the *onager*-type as μηχανήματος (engine), differentiating between this new type of engine and όξυβελεις as well as καταπέλτα.

5.1.3 The unsolved enigma

As sections 5.1.1 and 5.1.2 have shown, there are at least five interpretations of the catapult-ballista problem. It seems that the problem does not lie with the terms πετροβόλος or λιθοβολος being interpreted as *ballista*. The interpretative dilemma arises with the term καταπέλτα/*catapulta* or “catapult”. This argument cannot be solved until the exact etymology of the word καταπέλτα is determined as it is the only way to solve the riddle.

One possible explanation is found in Liv. 26.47.5-6 (Livy wrote in the late 1st century BC or early 1st century AD):

Captus et apparatus ingens belli: catapultae maximae formae centum viginti, minores ducentae octoginta una; ballistae maiores viginti tres, minores quinquaginta duae, scorpionum maiorum minorumque et armorum telumque ingens numerus;

Moore (1958: 181) translates the passage (quite accurately) as follows:

“Captured also was a vast amount of war material: a hundred and twenty catapults of the largest model, two hundred and eighty-one of the smaller; twenty-three of the larger ballistae, fifty-two smaller; larger and smaller scorpions and arms and missile weapons, a vast number;”

Livy distinguishes (NB!!!) between *catapulta*, *ballista* and *scorpio*, as can be seen above. He also mentions larger and smaller types for each of the three (NB) groups, ruling out the possibility of the *catapulta* being a larger type of *ballista*, that is, there were 120 catapults of the largest model, there were 280 catapults of the smaller model, there were 23 ballistae of the larger model, there were 52 ballistae of the smaller model and larger and smaller scorpions and arms and missiles. Why would the catapults, ballistae and scorpions be counted separately? It is clear that the devices are not the same. The *scorpio* was a wheeled, lighter version of the *ballista* (see Addendum G image iii). Unfortunately, the text still does not give an indication of what the *catapulta* looked like. Was it a machine that fired projectiles with a bow-arm or with a single arm swinging from a 0-degree to 90-degree angle, that is, does it resemble the *onager*? Perhaps it was a pre-cursor to the *onager*? Yet another possible explanation is that the Greek term *καταπέλτα* and the Latin term *catapulta* have each gone their own way over time, giving each of the Greek and Latin terms their own distinct meaning, in other words, meanings that do not necessarily correspond, for example the Greek refers to a machine that fires with a bow-arm and the Latin refers to an upward swinging arm or vice-versa. The mechanism is the issue, not the size of the machine. The same problem is encountered.

The need for etymological data is critical to solve the problem. The word *καταπέλτα* is derived from *καταπαλτης*, meaning “engine of war for hurling bolts, catapult”, which in turn is derived from the verb *καταπάλλω* (LSJ s.v. *καταπαλτης*). *Καταπαλτης* is frequently written *καταπέλτης* in literary texts, which could either refer to an engine “used as an instrument of torture” or a “bolt/shot” (LSJ s.v. *καταπέλτης*). *Καταπάλλω* is also related to the word *καταπαλτός*, meaning “hurled down” (LSJ s.v. *καταπαλτός καταπάλλομαι*), which may imply an etymological link to *καταβάλλω*, since *καταβάλλω* also means “to throw down”, “cast down” or “drop” (LSJ s.v. *καταβάλλω*). To get a more accurate bearing on the word, it is necessary to break *καταπάλλω* into its smaller parts. The verb *καταπάλλω* is derived from the preposition *κατά*, referring to “motion from above” or “downward motion” (LSJ s.v. *κατά*) and the verb *πάλλω*, meaning to “poise or sway a missile before it is thrown” or to “generally sway or brandish” (LSJ s.v. *πάλλω*). Unfortunately, the etymological data only complicates the problem even further, since one seems to be dealing with diachronic changes in meaning (in other words it changes in meaning over time). The verb *καταπάλλω* in its simplest sense means to “sway a missile downward/from above”, implying that it is swayed and launched at an arc, thus more in the sense of an *onager*. The words *καταπαλτης* and *καταπέλτης* denote a bolt or a shot fired, implying a bow arm, *ballista*-like weapon. The diachronical changes would explain why questions exist as to the exact meaning of *καταπέλτα* / *καταπέλτη*, in other words there is not one meaning only that may be applied to the term, because many meanings have come to exist through time. Still, when Greek or Latin authors refer to *καταπέλτα* or *catapulta*, they have a specific engine in mind and therein lies the challenge - to determine what the author meant. The need for further study on the subject is of great importance. A translation for *καταπέλτα/catapulta* cannot be given at this time as there is not enough conclusive evidence to provide a translation.

The word “ballista” is already recognized in English vocabulary and needs no translation. An Afrikaans translation may prove more challenging. It cannot be called a “krygsmasjien” as it is too generic a term. The only available translation for the term *ballista* is “geskut”. (StudySite.org s.v. *ballista*). The same translations may apply to *πετροβολος* and *λίθοβολος*, though it would be more apt to add some indication of them firing stone balls, therefore “stone throwing ballista” or “shot-ballista” would be descriptive English translations and “steen-geskut” or “klip-geskut” would be suitable Afrikaans translations for *πετροβολος* and *λίθοβολος*. The *onager* may be left

untranslated as “onager” in English, since the term already exists, though an Afrikaans translation does not exist. A possible Afrikaans translation would be “steen-werper” or “klip-werper” (stone thrower).

5.2 κομισθείσας μηχανὰς or κριός

The term κομισθείσας is not such an easy term to translate, because its etymology is elusive at best. It is probably derived from the verb κομίζω, which can denote “to carry off as a prize/to acquire for oneself/receive in full/acquire/gain” (LSJ s.v. κομίζω). It could, however also be derived from the verb κόπτω “to strike/smite/knock down/hammer/knock/pound” (LSJ s.v. κόπτω). The verb κόπτω is known to lose its π in certain verbal forms and take a μ instead as part of assimilation. This verb could have evolved to a noun; in fact, a noun derived from κόπτω exists where this exact occurrence is evident, namely the abstract noun κομμός that denotes “a striking/a beating of the breast” (LSJ s.v. κομμός). In any case, it is clear that the siege engines called κομισθείσας μηχανὰς by Josephus (J. *BJ* 1.147) referred to battering rams or more accurately “battering engines” as Thackeray (1956: 69) translates them (see Addendum G images viii and ix). The other Greek word that refers to this siege engine is the word κριός or “ram”, more often than not implying a “battering ram” (LSJ s.v. κριός). The battering ram is a siege engine, probably of Greek origin, though the Romans used it (J. *BJ* 4.20) - work written circa 75 AD; describing events that took place between 66 and 70 AD. Thackeray (1961: 9) translates κριούς as “battering rams” in J. *BJ* 4.20. Vergil refers to them as *ariete* “rams” (Verg. *A.* 12.706) - work written between 29 and 19 BC. Blanckenberg (1980: 384) translates *ariete* as “stormramme” (it is unclear why he translated it into plural). The terms κομισθείσας μηχανὰς, κριός or *ariete*, may all be translated as “battering ram” (English) and as “stormram” (Afrikaans).

5.3 ἐλέπολις

The ἐλέπολις was a unique siege engine developed by the Greeks, consisting of a tower with one or more *ballistae*, enabling it to both fire at a wall and let soldiers scale it. It was also used by the Romans and is mentioned by Josephus in this regard (J. *BJ* 2.553). Thackeray (1956: 537)

mistakenly translates ἐλεπόλεις as “battering-rams” in J. *BJ* 2.553. LSJ (s.v. ἐλέπολις) translate ἐλέπολις as “engine for sieges” but also links it to “city-destroying” as ἐλέπολις originally meant “city-destroyer”. ἐλέπολις is a term that should be left untranslated in both English and Afrikaans, hence “helepolis”, since there is no translation for it in any language.

5.4 ὄξυβελής/*Scorpio*

The word ὄξυβελής in its simplest form means “sharp-pointed” or “shooting sharp-pointed missiles” (LSJ s.v. ὄξυβελής). Thackeray (1956: 601) translates ὄξυβελεῖς as “quick-firers” in J. *BJ* 3.80. Oddly, Thackeray (1956: 537, 600) also translates ὄξυβελεῖς as “catapults” in J. *BJ* 2.553, though this is probably because he considers it to be a species of catapult. Both these terms are descriptive of a bolt-firing weapon, in all likelihood smaller and lighter than a *ballista*. Josephus mentions it as being used by the Romans (J. *BJ* 3.80) - Josephus wrote circa 75 AD and described events that took place between 66 and 70 AD. There can only be one siege engine that fits this description... The Roman scorpion or *scorpio*, which was in effect a mounted crossbow with wheels (See Addendum G image iii), which could adjust its elevation and horizontal arc and varying in size. Thomas (s.v. *scorpio*, *scorpius*) translates *scorpio* as “scorpion”, “military engine for throwing missiles”. Whether this particular siege engine is of Roman or Greek origin is difficult to determine. The Romans are nonetheless associated with this siege engine and vice versa. It was light and easily moved across the battlefield and used as an anti-infantry engine, firing bolts at critical positions and targets. The origin of its name is self-explanatory; it refers to the “sting” it delivered and also to its shape. Livy refers to the weapon amongst other siege machines captured by the Romans at New Carthage and states that there were two variations, one smaller, one larger: *scorpionum maiorum minorumque* (Liv. 26.47.6) - Livy wrote in the late 1st century BC or early 1st century AD. Moore (1958: 181) translates the phrase *scorpionum maiorum minorumque* as “larger and smaller scorpions” in Liv. 26.47.6. The ὄξυβελής or *scorpio* is best referred to by translations of its Latin name, in other words “scorpion” in English and “skerpioen” in Afrikaans.

5.5 Towers and ramps

The Athenians once used a wooden tower (πύργον ξύλινον), which held jars of water as a countermeasure to Spartan fire raining down on their wooden walls (Th. 4.115.2). This innovation is brilliant, because they could drop water onto the fire, instead of wasting energy throwing water upwards. The Athenians allowed gravity to do the work. Forster Smith (1920: 407) and Warner (1972a: 333) translate the term πύργον ξύλινον as “wooden tower”. Meyer (2012: 10) mentions that the Romans built siege towers to attack walls (see Addendum G image x).

A brick tower, constructed by the Romans during the siege of Massilia (49 BC), is described in Caes. *B.C.* 2.8, 9: *si tibi pro castello ac receptaculo turrim ex latere sub muro fecissent* “if they made there a tower of brick under the wall it would (serve) as a stronghold and a shelter/retreat”. The word *turris* - “tower”/“turret” is used throughout the passage. Peskett (1961: 133, 135, 137) and Gardner (1967: 83, 84) translate *turris* as “tower” in Caes. *B.C.* 2.8, 9.

This each side of the tower was thirty feet in length, therefore having a square base. Its walls were five feet thick. The tower was gradually built up to six storeys with openings for *tormenta* (another type of siege engine that fired missiles). The roof of the tower was constructed of wood. The construction was achieved by using wooden screens and sheds to ward off missile attacks while each next level was built. The tower had mattresses lined on the flooring to absorb the impact of missiles hurled by siege engines and also had fenders made of anchor rope to deflect heavy missiles that were fired at the walls of the tower (Caes. *B.C.* 2.8, 9).

Towers were not the only siege technology that utilized the principle of height. Another age-old technique was to build a ramp or mound. Notable is the siege of Masada, where the Romans constructed a large earthen ramp to approach and attack the stronghold. Naturally, the building of such a structure would not go unhindered by the besieged, since they would throw missiles down on the builders attempting to construct the earthen ramp. The Romans therefore used *vinea* and *plutei*. *Vinea* were open ended on both sides, consisting of wicker and/or hide. These were attached end-to-end, forming tunnels or veins, under which the builders could continue

transporting the large amounts of earth they needed without being molested. *Vinea* received their name from vineyard trellises, seeing as they closely resembled them. The *plutei* were halfround convex covers, serving as frontal protection of the *vinea*, also made of overlapping wicker and/or hide (Meyer, 2012: 2-3, 9). The word *pluteus* may mean “shed”, “mantlet”, “battlement” or “bookshelf” according to Thomas (s.v. *pluteus*, -i). The word *vinea* means “vineyard” but may denote “mantlet” in the military sense (Thomas s.v. *vinea*). These structures could be moved when necessary, due to their light nature. When a ramp was completed, siege engines could move to the level of the walls protecting the defenders (see Addendum G image ix). The term *pluteus* may be translated with “forward mantlet” and the term *vinea* may be translated as “shed mantlet” to differentiate the shapes and functions of the two objects. An Afrikaans translation would be “roting beskutting” for *pluteus* and “roting skuur” for *vinea*, with a footnote explaining what the difference is.

5.6 Roman testudo

The *testudo* or “tortoise” was a formation formed by legionaries, by holding their shields above their heads and letting them overlap to cover each other, effectively resembling roof tiles (see Addendum G image xi). The overlapping shields protected them from enemy missiles raining from above (J. *BJ* 2.537 and Reid, 1986: 24). Thomas (s.v. *testudo*) confirms that the word *testudo* refers to both the tortoise and the formation associated with shields held aloft. The *testudo* was formed with rectangular shields (in other words, the *scutum*) by locking them closely together according to Gould and Whiteley (1961: 70). Thackeray (1956: 529) translates the Greek term *χιτώνην* as “tortoise” in J. *BJ* 2.537 but also refers to it as “testudo” in a footnote. Irvine (1970: 29) cautions readers not to confuse the *testudo* formation of the Roman soldiers (grouped together) with the *testudo* shed that protected the battering ram and its bearers against the defenders of a city. The *testudo* formation is encountered in Caes. *B.G.* 5.9: *At milites legionis septimae, testudine facta* - “but the soldiers of the Seventh Legion formed a tortoise” and Caes. *B.G.* 7.85: *alii testudine facta subeunt* - “others went under a testudo formation” (this passage refers to the Gauls, making use of their shields to protect them as they attempted to approach the Romans - obviously their formation would look slightly different, since Gauls preferred round or oval shields). Edwards (1919: 247, 505) translates the term *At milites legionis*

septimae, testudine facta “but the men of the Seventh Legion formed a ‘tortoise’” in Caes. *B.G.* 5.9 and translates *alii testudine facta subeunt* as “others moved up in close formation under their shields” in Caes. *B.G.* 7.85 respectively. Benade (1984: 111, 198) translates *At milites legionis septimae, testudine facta* as “maar die soldate van die sewende legioen het ‘n skilddak gevorm” in Caes. *B.G.* 5.9 and *alii testudine facta subeunt* as “ander vorm ‘n skilddak en beweeg nader” in Caes. *B.G.* 7.85 respectively. Benade’s term “skilddak” is quite descriptive but not as close to the term *testudo* as it should be; the Afrikaans word “skilpad” would be a more literal translation but may be unclear. The group referred to in Caes. *B.G.* 7.85 were Gallic warriors and did not have the *scutum* as their standard shield, hence the cover formation would have looked different from the Roman one. The word “testudo” is recognized in English and need not be translated, though it could also be translated as “tortoise”. An Afrikaans translation would be “skilpad”, yet Benade’s term, “skilddak” is a commendable alternative and better captures the function of the *testudo* formation.

Table 4 - Summary of siege engine translations

Lexeme	General meaning	Specific meaning	English	Afrikaans
λίθοβολος/ πετροβολος	stone thrower	stone-firing ballista	stone throwing* ballista, shot-ballista*	steen-geskut, klip-geskut
<i>ballista</i>	ballista	not applicable	ballista	geskut
<i>onager</i>	“wild ass”, stone thrower	onager	onager	steen-werper, klip-werper
καταπέλτα/ <i>catapulta</i>	undefined	undefined	undefined	undefined
κομισθείσας μηχανὰς/κρίος/ <i>ariete</i>	battering engine, battering ram	not applicable	battering ram	stormram
ἐλέπολις	city-destroyer	helepolis	helepolis	helepolis

Table 4 – Summary of siege engine translations

Lexeme	General meaning	Specific meaning	English	Afrikaans
ὄξυβελής	sharp-pointed, shooting sharp-pointed missiles	scorpion, mounted crossbow	scorpion	skerpioen
<i>scorpio</i>	scorpion	scorpion, mounted crossbow	scorpion	skerpioen
<i>vinea</i>	vineyard trellis	wicker mantlet	shed mantlet*	rottang skuur*
<i>pluteus</i>	bookshelf, shed battlement	mantlet, forward wicker mantlet	forward mantlet*	rottang beskutting
<i>testudo</i>	tortoise	testudo	tortoise, testudo	skilpad, skilddak

Source: Compiled by the researcher (Wynand M. Bezuidenhout 2018)

*New translations developed in this study

6. NAVAL WARFARE

According to Thucydides (Th. 1.4) King Minos of Crete was the first person in Greece to organize a navy in an attempt to stop piracy and secure his own revenues. Thucydides (Th. 1.9.1-5) states that Agamemnon was one of the most powerful rulers of his day, having a stronger navy and commanding more ships than any other ruler among the Hellenes and was even capable of equipping the Arcadians with a fleet. He would not have been able to rule over the islands if he did not have a large fleet. Homer's figures of the amount of ships and troops were, however, exaggerated. The oarsmen were either soldiers or archers, making the fleets very space efficient but not on the scale that Homer describes in the *Iliad* (Th. 1.10.3-4). Ships eventually developed from biremes to triremes, from triremes to quadriremes and from quadriremes to quinqueremes in the Graeco-Roman world. New innovations offered more precision in naval combat, turning ships into mobile siege weapons and also offered logistical improvements such as troop carriers and hauling engines.

6.1 Pre-biremes and large boats

The pre-cursors to the bireme were fast ships designed mostly for warfare (though they could theoretically still double for trade ships) and were notably slimmer than the average trading vessel, such as Ramesses III's fighting ships (Ramesses III reigned 1186 to 1155 BC), which had a dozen rowers on each side of the craft, with the keel ending in a beaked shape (at the front of the ship), which may or may not have been used as a ram. It was most certainly designed for some type of damage, possibly to the oars of an enemy ship. These ships were used to defeat the Sea Peoples. In Crete and the Northern Mediterranean simple dugouts were improved with edge-to-edge planks and stabilized with outriggers to make them seaworthy. These evolved into warships that were eventually used in the Trojan War by the Greeks (Ireland, 1978: 12).

Thucydides (Th. 1.14.1) mentions that there were not many triremes in use in the Trojan War, but that the navies consisted mainly of πεντεκοντέροι "boats/ships of fifty oars" and πλοίοι μακροί "long boats/large boats". LSJ (s.v. πεντεκόντερος) translate πεντεκόντερος as "ship with fifty oars". The terms πλοῖον and μακρός need no introduction to Greek scholars. Forster Smith

(1956: 27) translates πεντεκοντέροι as “fifty-oared galleys” and πλοίοι μακροί as “ordinary long boats” in Th. 1.14.1. Warner (1972a: 44) translates πεντεκοντέροι as “boats of fifty oars” and πλοίοι μακροί as “long boats”. Many kinds of ships were used during the Trojan War (note that Thucydides spent much time describing the development of Greek fleets from earlier times, such as the Trojan War before he actually described the events of the Peloponnesian War itself), for instance the Boeotian ships, which had no decks but were made in the old fashion of pirate ships (Th. 1.10.4-5) - Thucydides wrote in the late 5th century or early 4th century. These fifty-oared ships are also mentioned by Herodotus and had archers on deck to fire at enemy ships and their mariners (Hdt. 1.152, 164; 3.39). The Greeks continued to use them alongside triremes, even against the Persians (Hdt. 8.1), for example, πεντεκοντέρους καὶ τριήρεας συνθέντες (Hdt. 7.36) and possibly because they were cheaper and quicker to build and because smaller city-states could only supply these (Herodotus wrote in the 5th century AD). Holland (2013: 462, 535) translates πεντεκοντέρος as “penteconters” in Hdt. 7.36; 8.1. Godley (1969: 3) prefers the term “fifty-oared barks” for πεντεκοντέρος in Hdt.8.1. Godley (1922: 349) uses the term “fifty-oared ships” for πεντεκοντέρος in Hdt. 7.36.

The *Iliad* mentions “ships that are rowed on both sides” νῆας ἀμφιελίσσας or “swaying to and fro” depending on how it is translated (Hom. *Il.* 2.165, 181) - written in the late 8th or early 7th century BC; describing events that took place in the 12th or 11th century BC. LSJ (s.v. ἀμφιέλισσα) translate the phrase as “curved at both ends or on both sides”, “wheeling either way”, “handy”, “twisting” or “doubling”. The term “doubling” may even refer to a bireme, if used as the primary interpretation of ἀμφιέλισσα. Murray (1928: 63) translates the phrase as “curved ships” in Hom. *Il.* 2.165, 181. Fagles (1990: 104, 105) translates the phrase as “rolling ships”. It could not have been a bireme or a trireme, since they were designed to cut through water. It is a very difficult term to translate.

Another early ship that is encountered in the *Iliad* was the “hollow-/polished ship”; γλαφυραὶ νέες “hollow-/polished ships (Hom. *Il.* 2.516, 602). LSJ (s.v. γλῦφῦρός, -ά, -όν) translate γλῦφῦρός as “neatness”, “smoothness”, “hollow”, “hollowed”, “deep” or “polished”. Murray (1928: 89) translates γλαφυραὶ νέες as “hollow ships” in Hom. *Il.* 2.516. Fagles (1990: 116) translates γλαφυραὶ νέες as “long curved ships” in Hom. *Il.* 2.516. Murray (1928: 95) mistakenly

translates γλαφυραὶ νέες as “black ships” in Hom. *Il.* 2.602 (though this is probably a typing or printing error). Fagles (1990: 116) translates the term as “sweeping ships” for this phrase.

The word πεντεκόντερος may be translated as “fifty-oared ship / boat” as it seems to be an accepted term among translators. The term “penteconter” is descriptive and may also serve as a translation but perhaps an explanatory footnote should then be included so that readers who are not yet acquainted with the term “penteconter” are not left in the dark. An Afrikaans translation would be something like “skip-/boot met vyftig roeispane”/“vyftig spaan skip/boot”. The term πλοῖος μακρός is simple and may be translated as “large boat”. “Long boat” immediately brings a Viking ship to mind and could mislead a reader, therefore the term cannot be used. A suitable Afrikaans term would be rather blunt, namely “groot boot”. Where γλαφυραὶ νέες is concerned, it cannot be translated accurately until some contextual or historical evidence suggests whether to translate γλῶφῦρος as either “hollow” or “polished” with regard to the ships. If one or the other choice is made for a translation, the alternative should be added in a footnote.

6.2 Biremes

Biremes were commonly used by Greeks, Phoenicians and Assyrians in the 7th century BC. Biremes had two banks of oars on each side, one above the other; each oar manned by its own oarsman. The result was greatly increased speed. These ships were exclusively designed for war; its beak was now used for ramming the hull of the enemy ship; it also had a full-length bridge for deck fighting (Ireland, 1978: 12-13 and Haws, 1985: 18-19 - see Addendum H image i). This design left the rowers out of deck fighting but left them vulnerable on their part against a ramming enemy ship. The problem was solved by framing the ships with ribs, beams and longitudinal beams, to absorb shock when rammed (Ireland, 1978: 13). It undoubtedly also served to absorb some of the shock when ramming an enemy ship, since the keel would have broken off from a normal beaked ship. It is unclear whether the Phoenicians, Greeks or Assyrians first developed the bireme.

Haws (1985: 18) states that the Greek design had a much lower profile than the Phoenician one and became more widely used in Hellenic lands, even the Etruscans made use of the Greek

design. This statement is supported by the discovery of one such a bireme in the Etruscan cemetery at Cerveteri (Haws, 1985: 18). The the *Iliad* suggests that there were biremes by the time of the Trojan War (even though it is historically impossible), as are seen, for instance, in the following phrases: νηυσὶ κορωνίσιν “beaked/crow-beaked ships” (Hom. *Il.* 1.170); νῆας ἐϋσσέλμους “well benched ships”/“ships with many oarbanks” (Hom. *Il.* 2.613; 7.84) and νηὶ πολυκλήϊδι “many benched ship” (Hom. *Il.* 7.88).

LSJ (s.v. κορωνίς, κορώνη) consider κορωνίς to mean “crook-beaked” or “curved”, though the word is related to κορώνη, referring to a “sea-bird”, “crow” or “anything hooked or curved like a crow’s bill”. Murray (1928: 15) and Fagles (1990: 83) translate νηυσὶ κορωνίσιν as “beaked ships” in Hom. *Il.* 1.170.

LSJ (s.v. ἐϋσσελμος, εὔσελμος) translate εὔσελμος as “well-benched” or “well-decked”. Murray (1928: 97) translates νῆαι ἐϋσσέλμοι as “benched ships” in Hom. *Il.* 2.613, which is too non-specific, considering that the prefix εϋ “well” could change the interpretation of what the ship looked like on both the inside and outside, with regard to benches or rather oarbanks. Fagles (1990: 119, 217) translates it as “well-benched ships” in Hom. *Il.* 2.613 and as “decked ships” in Hom. *Il.* 7.84. Murray (1928: 309) does however translate the phrase as “well-benched ships” in Hom. *Il.* 7.84.

LSJ (s.v. πολυκλήϊς) translate πολυκλήϊς as “with many benches of rowers”. Murray (1928: 309) translates νηὶ πολυκλήϊδι as “many-benched ship” in Hom. *Il.* 7.88. Fagles (1990: 217) translates this phrase as “oar-swept ships”.

Abovementioned descriptions point to biremes, having beaked tips and more oarbanks than their predecessors. It is important to remember though, that Homer wrote the *Iliad* in the late 8th or early 7th century BC and that biremes were only in common use in the 7th century BC, as mentioned earlier in this chapter, therefore, biremes could not yet have existed in the Trojan War (12th or 11th century BC). Homer’s description of “beaked ships”, “well-benched ships” and “many-benched ships”, however, makes it clear that he is referring to biremes. Beaked ships existed before biremes but the terms “well-benched” and “many-benched” cannot be explained

away as easily. Homer is obviously applying the culture and technologies that he knew in his own time to the time of the *Iliad*. He is, of course, mistaken, yet the information is still useful to historians, since one can, from this information, deduce that the *Iliad* was in fact written in the early 7th century BC rather than the late 8th century BC. The data may not be historically accurate in terms of the technology but can certainly help settle disputes over the date of the *Iliad*.

Technically there was no Greek word for “bireme”. The Latin *biremis* (see translation of Plin. *Nat.* 7.207 in section 6.4 under “Quadriremes and quinqueremes”) is where the English term “bireme” comes from. Thomas (s.v. *biremis*, -e) translates *biremis* as “two-oared” or “a ship with two banks of oars”. The term *biremis* is a compound noun, consisting of the words *bis* “two” and *remus* “oar”, referring to the two oarbanks of the ship (L&S s.v. *biremis*). Ultimately, even though referring to biremes, terms such as νηυσὶ κορωνίσιν, νῆαι ἐϋστέλμοι and νηὶ πολυκλήϊδι should be translated as “crow-beaked ships” (English) and “kraai-bek skepe (Afrikaans), “well benched ships”/“ships with many oarbanks” (English) and “many benched ship” (English)/“roeibank-ryke skip” (Afrikaans) respectively. The Latin term *biremis* (Plin. *Nat.* 7.207) may be translated as as “bireme” in English and as “tweeriemskip” in Afrikaans.

6.3 Triremes

The trireme was the next step in nautical technology after the bireme. The Corinthians built the first triremes or τριῆρεις (Th. 1.13.2), which had three banks of oars (Thucydides wrote in the late 5th century BC or in the early 4th century BC). How this was achieved is not certain, since three layers of oars would result in the upper oars being very long and thick. It is possible that two sets of oars occupied the same level, but that would still require a longer oar and more force behind it and would require two rowers per oar for the third set, according to Ireland (1978: 13). A carving of a trireme found at Delos suggests that Ireland may be right (Haws, 1985: 18-19). Fields (2007: 13), however, states that an Athenian trireme’s oar system looked as follows: 27 oarsmen on each side at the lowest level, 27 oarsmen on each side of the middle level and 31 oarsmen on each side of the top level, who, unlike the men below them, rowed through an outrigger (an extension that gives greater leverage to the oarsmen) on each side. This adds up to 170 rowers. Fields (2007: 13) bases his figures and description on the *Olympias* project. Two

possibilities exist: Ireland is entirely mistaken or his description is based on earlier variants (Corinthian?) of the trireme. Regardless of where the oar-banks were placed, the word τριήρης refers to a galley with three banks of oars and oarsmen (LSJ s.v. τριήρης - see Addendum H image ii). Both Forster Smith (1956: 25) and Warner (1972a: 43) translate the term τριήρεις as “triremes” in Th. 1.13.2. The Phoenicians, who already had the technology of the bireme, adopted the technology of the Greek trireme, realising that it was superior, which is confirmed by Herodotus mentioning Phoenician triremes (Hdt. 3.37) Herodotus wrote in the 5th century BC. Godley (1921: 51) and Holland (2014: 207) translate τριήρεις as “triremes” in Hdt. 3.37. Xenophon also writes about the τριήριον Θουρίων “Thurian triremes” which Phanosthenes captured (X. *HG.* 1.5.19) - written between 362 and 354 BC; describing events that took place between 411 and 362 BC. Brownson (1918: 49) translates τριήριον as “triremes” in X. *HG.* 1.5.19.

The later triremes had 170 oars, 200 men of which 170 were oarsmen, 10 were naval hoplites, 4 were archers, 10 were deckhands, the captain (commander), the helmsman (steers the ship), the bow officer (stationed at the front of the ship, commonly known as the bow), the shipwright (ship builder and repairman), the boatswain (supervision over deck and outer hull) and the double-pipe player (to play for the rowers and crew, often to keep rhythm). These were used effectively against the Persians at the Battle of Salamis (Foster, 1974: 12 and Fields 2007: 14-15). Ireland (1978: 14) mistakenly writes that each trireme carried 80 marines for combat.

This development put more speed behind the ram but eventually other means of assault such as catapults and ballistae were mounted on ships, since ramming was still a big risk to the ship doing the ramming, yet catapults and ballistae could not replace the ram in effectiveness (Ireland, 1978: 13-14 and Foster, 1974: 12).

The word “trireme” is in itself, already a translation. Afrikaans translations for τριήρης may be borrowed from Opperman (1972: 15, 65) as “drieriemskip” or “driebanker” and from his translations may be implied that “bireme” equals “tweeriemskip”, “quadrireme” equals “vierriemskip” and “quinquereme” equals “vyfriemskip” etc.

6.4 Quadriremes and quinqueremes

The names “quadrireme” and “quinquereme” most probably referred to the ranks of rowers, since it was impossible to have as many oars without it becoming impractical. These ships were larger and notably wider in comparison with biremes and triremes. They were developed and used by the Romans against Carthage; the Romans, being unused to naval warfare, resorted to beating the Carthaginians with sheer size and brute force, thus defeating skill with engineering according to Ireland (1978: 13-14). Haws (1985: 29-32) however, states that the Carthaginians were the first to develop quinqueremes, forcing the Romans to adopt the same technology to eventually defeat them. The Romans built 100 πεντηρικὰ or “quinqueremes” even though their shipwrights were inexperienced in building πεντήρεις or “quinqueremes” (Plb. 1.20.9, 10) - written between 146 and 116 BC and describes events that took place between 264 and 146 BC. LSJ (s.v. πεντήρης) simply translate πεντήρης as “quinquereme”. Paton (1922: 55) translates both πεντηρικὰ and πεντήρεις as “quinqueremes” in Plb. 1.20.10. Oddly though, there was one ship with even more oars, a colossal ship, called the *Syracusa*, a double-quinquereme, having twenty rowing banks (if quinqueremes are understood to have ten). All in all, it would have had 800 oars, rowed by 2000 men and able to transport 4000 troops. Three outriggers were necessary for every set of ten oars. It had four sail masts and eight catapults (see Addendum H image iii). It was never used in battle (it would have been cumbersome, too big a target and totally impractical). The vessel was built for Hieron II of Syracuse and presented to Ptolemy II Philadelphus of Alexandria. According to Callixenus, Ptolemy’s son, Ptolemy IV Philopator, made an even bigger ship than the *Syracusa*, with 40 rowing banks, rowed by 4000 men. The bigger version has never been confirmed by any historical sources and is, in all likelihood, a fable (Haws, 1985: 29).

Pliny (Plin. *Nat.* 7.207) lists an array of galley types, the number of oars they had, the countries or individuals that invented them and which authors mention them:

biremem Damastes Erythracos fecisse, triremem Thucydides Aminoelen Corinthium, quadriremem Aristoteles Carthaginiensis, quinqueremem Mnesigiton Salaminios, sex ordinum Xenagoras Syracusios, ab ea ad decemremem Mnesigiton Alexandrum Magnum,

ad duodecim ordines Philostephanus Ptolomaeum Soterem, ad quindecini Demetrium Antigoni, ad triginta Ptolomaeum Philadelphum, ad XL Ptolemaeum Philpatorem qui Tryphon cognominatus est.

From the list one notices the Latin word *biremem* (bireme) invented by the Erithreans, *triremem* (trireme) invented by the Corinthians, *quadriremem* (quadrireme) invented by the Carthaginians, *quinqueremem* (quinquereme) invented by the Salaminians, *sex ordinum* (six oarbank galleys) invented by the Syracusans, *decemremem* (decereme - this is the accepted English term) invented by Alexander the Great, *duodecim ordines* (twelve oarbanks) invented by Ptolemy Soter, *quindecini* (fifteen) invented by Demetrius, *triginta* (thirty) invented by Ptolemy Philadelphus and *XL* (forty) invented by Ptolemy Philopator. The *triginta* (thirty) clearly refers to the Syracuse, though Ptolemy did not build it and the *XL* (forty) refers to the ship alleged to have been larger than the Syracuse. Note that the number of oarbanks on multi-oared ships are always in multiples of two, three, four or five, suggesting that the larger ships were adaptations of biremes, triremes, quadriremes or quinqueremes (Pliny wrote in the 1st century AD). Thomas (s.v. *quadriremis*, *quinqueremis*, -e) translates *quadriremis* as “a ship with four banks of oars and *quinqueremis* as “having five banks of oars” and “quinquereme”.

“Quadrireme” and “quinquereme” are already translations in themselves of the Latin terms *quadriremis* and *quinqueremis*, so also *decemremis*, which may in turn be translated “decereme”. Opperman’s (1972: 15, 65) translation of “trireme” has been mentioned in 6.3. Afrikaans translations of other multi-oared ships may follow suit, hence *quadriremis* would be “vierriemskip”/“vierbanker”, *quinqueremis* would be “vyfriemskip”/“vyfbanker” and *decemremis* would be “tienriemskip”/“tienbanker”.

6.5 Transports

The Greeks had transport ships called στρατιώτιδες “troop ships” (Th. 6.43.1; 8.62.2) being self-explanatory. LSJ (s.v. στρατιώτης) call a στρατιώτης a “troop ship” or “transport”. Forster Smith (1921: 261) translates στρατιώτιδες as “transports for soldiers” in Th. 6.43.1. Warner (1972a: 437) refers to στρατιώτιδες as “transports” in Th. 6.43.1; 8.62.2. Thucydides mentions a horse

transport which he called a ἰππᾶγωγός (Th. 6.43.1). LSJ (s.v. ἰππᾶγωγός) refer to ἰππᾶγωγός as “carrying horses” or “cavalry transports”. Forster Smith (1956: 261) and Warner (1972a: 438) translate ἰππᾶγωγός as “horse transport” in Th. 6.43.1. Transports were not warships but were certainly used for the logistical purposes of war, namely transporting troops and animals. Translations for ἰππᾶγωγός may include “horse transport”/“cavalry transport”/“horseman transport” in English and “perd-vervoerskip”/“ruiter-vervoerskip” in Afrikaans. Translations for στράτιωτις may include “troop ship”/“soldier transport”/“troop transport” in English and “militêre vervoerskip/-vervoerboot” in Afrikaans.

6.6 Small boats

6.6.1 πλοῖον

Hdt. (1.194) mentions the use of τὰ πλοῖα “boats”, when smaller bodies of troops are transported. Smaller boats are essential to any navy, since a ship’s dimensions are determined by its purpose. Godley (1920: 245) and Holland (2014: 96) translate τὰ πλοῖα as “boats” in Hdt. 1.194. The word πλοῖον is widely known by Greek scholars and does not need much discussion. “Boat” (English) and “boot” (Afrikaans) are acknowledged and accepted translations for πλοῖον among scholars and need not be adapted or changed.

6.6.2 τριηκοντέρος

Herodotus mentions another small craft called a τριηκοντέρος or “thirty-oared vessel”. It cannot be called a ship due to its size. Abronichus used such a vessel (τριηκοντέρος) to bring news of Leonidas’ death (Hdt. 8.21). Godley (1969: 21) translates τριηκοντέρος as “thirty-oared bark” in Hdt. 8.21. Holland (2014: 541) translates the term as “triaconter” in Hdt. 8.21. Godley’s translation of “thirty-oared bark” is descriptive but not entirely accurate, since a “bark” denotes a ship with three masts in both English and Afrikaans. The term “thirty-oared vessel” is more accurate, because it does not specifically denote “boat” or “ship”. The Afrikaans term for “vessel” is “vaartuig”, hence τριηκοντέρος may be translated as “vaartuig met dertig spane”/“dertig-spaan vaartuig”.

6.7 Other Greek and Roman naval innovations

6.7.1 Black ships

The Myrmidons, according to legend, stained the wood of their ships black, which is evident in the phrase νηὶ μελαίνῃ “black ship” (Hom. *Il.* 1.329). It is a recurring phrase in the *Iliad* (Hom. *Il.* 1.433, 482; 2.545-587). Murray (1928: 35, 39) and Fagles (1990: 92, 93) translate it as and νῆα μέλαιναν as “black ship” in Hom. *Il.* 1.433, 482. LSJ (s.v. μέλας) translate the term μέλας as “dark”, “black” or “swarthy”. The term νηὶ μελαίνῃ does not require much effort to translate as “black ships” (English) and “swart skepe” (Afrikaans) is entirely adequate.

6.7.2 Boar-shaped prows

The Aeginetans’ and Cretans’ ships had boar-shaped prows according to Hdt. (3.59). Their exact function is not known, perhaps it was better suited for ramming or more likely it was crafted purely for aesthetic and cultural purposes.

6.7.3 Liburnians, towers and the *corvus*

The Romans, having established their naval supremacy, continued to develop naval technology, inter alia smaller, faster ships, which were improved versions of the bireme, called “Liburnians”. These ships proved effective against heavier ships as proved at the Battle of Actium (Ireland, 1978: 14). The Romans also made use of small towers on their ships in order to give officers better vision. They developed an interesting boarding device, called a *corvus* or “raven”, a hinged bridge with a beak/hook-like spike, which pierced the enemy ship’s planking by dropping onto it, securing the enemy ship and allowing the soldiers to board the enemy ship. All these Roman innovations did not help much against the sailing ships of the Gauls or the Germanic tribes, which were superior in speed and range (Ireland, 1978: 14 and Haws, 1985: 35). Plb. (1.22-23) refers to the ravens which were used by the Romans; in Greek they were referred to as κόρακα, which is the Greek word for “ravens”. Polybius’ description of the κόρακα that the Romans used is identical with the description of the *corvus* (Plb. 1.22-23). Paton (1922: 61, 63) translates κόρακας as “ravens” in Plb. 1.22-23. LSJ (s.v. “κόραξ”) describe κόραξ as “raven”. The word *corvus* or κόραξ may be translated as “raven”, “raven hook” or “raven bridge” in English and as “kraai”, “kraaihaak” or “kraaibrug” in Afrikaans.

6.7.4 ὀλκός

Another innovation is the ὀλκός, “landing engine”, “machine for hauling ships on land”; it is derived from the Greek word ἔλκω, which means “to draw to oneself” (LSJ s.v. ὀλκός). Herodotus mentions this device: τε ὀλκοὶ τῶν νεῶν “and the landing/hauling engines of their ships” (Hdt. 2.154). Godley (1920: 467) translates ὀλκοὶ as “landing engines” in Hdt. 2.154. Holland (2014: 176) translates the term ὀλκοὶ as “slipways” in Hdt. 2.154. Godley (1920: 467) is of the opinion that a ὀλκός was probably a capstan (a vertical pipe-winch rotating on an axis for pulling ships ashore, in this case it would be mechanical and not electro-mechanical) for hauling ships ashore. When considering the etymology and therefore semantic origin of the word, Godley is more than likely correct in his assumption. The terms “landing engine”, “hauling engine” and “capstan” are all acceptable terms. Afrikaans translations may include “spil” or “trek-enjin”.

6.7.5 *Ratis*

The Romans had another vessel, a *ratis* which in ordinary speech referred to a raft or a bridge of boats, yet the term was used poetically to describe ships and boats (Thomas s.v. *ratis*). Gould and Whiteley (1970: 124) include the term *ratis* in their vocabulary and translate it as “raft” or “ship”. Examples of this poetic use is found in Verg. A. (4.53; 5.8), especially in the phrase “when the ships/boats reached the deep” (Verg. A. 5.8), denoting a seaworthy vessel and most certainly not small craft. Fairclough (1965: 399, 447) and Jackson Knight (1958: 98, 119) translate *rates* as “ships” in both instances. Blanckenberg (1980: 103, 130) uses the term “skepe” for *rates* in Verg. A. 4.53 and uses “vloot” in Verg. A. 5.8. Benade (1975: 102, 127) uses the term “skepe” as translation for *rates* in Verg. A. 4.53, 5.8. *Ratis* should be translated in accordance with the context, for example, “raft” (English)/“vlot” (Afrikaans) where it denotes a raft, “ship” (English)/“skip” (Afrikaans) where it denotes a ship and “boat” (English)/“boot” (Afrikaans) where it denotes a boat.

6.8 Sailing ships

Sailing ships eventually started surpassing oared ships and notably had a wider, rounder hull, enabling them to slide rather than cut through water and also allowing them to support a larger sail, thus being wind-driven, requiring only single banks of oars on each side in case the wind died down. Initially, these were only used as merchant and trading ships but were later developed into warships by other nations (Haws, 1985: 24-35). The Romans did not use them as warships but they were eventually used by the Barbarian nations of the Dark Ages, with their longboats and raiding ships.

Table 5 - Summary of naval warfare translations

Lexeme	General meaning	Specific meaning	English	Afrikaans
πεντεκόντερος	fifty-oared boat/-ship	penteconter	fifty-oared ship/-boat, penteconter	vyftig spaan skip/-boot
πλοίοι μακροί	long boat, large boat	not applicable	large boat	groot boot
γλαφυραὶ νέες	hollow ships/ polished ships	undefined	undefined	undefined
νησοὶ κορωνίσιν	beaked ships	crow-beaked ships*, biremes	crow-beaked ships*	kraai-bek skepe*
νῆα ἐϋστέλμος	well benched ship	bireme	well benched ship	roeibank-ryke skip*
νηὶ πολυκλήϊδι	many benched ships	biremes	many benched ships	roeibank-ryke skepe*
<i>biremis</i>	bireme	not applicable	bireme	tweeriemskip
τριήρης <i>triremis</i>	trireme	not applicable	trireme	drieriemskip, driebanker
<i>quadriremis</i>	quadrireme	not applicable	quadrireme	vierriemskip*, vierbanker*

Table 5 - Summary of naval warfare translations

Lexeme	General meaning	Specific meaning	English	Afrikaans
πεντήρης/ <i>quinqueremis</i>	quinquereme	not applicable	quinquereme	vyfriemskip*, vyfbanker*
<i>decemremis</i>	decereme	not applicable	decereme	tienriemskip*
στράτιωτις	transport, troop ship	transport for soldiers	troop ship, troop transport, soldier transport	militêre vervoerskip/- vervoerboot
ἵππᾶγωγός	horse transport	cavalry transport	horse transport, cavalry transport, horseman transport	ruiter- vervoerskip*
πλοῖον	boat	not applicable	boat	boot
τριηκοντέρος	thirty-oared vessel*	triaconter	thirty-oared vessel*, triaconter	dertig-spaan vaartuig*
νῆα μέλαιναν	dark-, black-, swarthy ship	not applicable	black ship	swart skip
<i>corvus</i> /κόραξ	raven	raven hook*	raven, raven hook*, raven bridge*	kraai, kraaihaak*, kraaibrug*
ὄλκος	landing engine, hauling engine	engine for pulling ships ashore	hauling engine, landing engine, capstan	spil, trek-enjin
<i>rais</i>	any naval craft	raft, boat, ship	raft, boat, ship (context specific)	vlot, boot, skip (context specific)

Source: Compiled by the researcher (Wynand M. Bezuidenhout 2018)

*New translations developed in this study

7. CONCLUSION

This study has shown that translating words in ancient Greek and Latin for arms, armour and siege engines from between the years 2000 BC and 200 AD is more complicated than it seems at first glance. The etymology of a word may provide clues as to how to translate a word more accurately or it could raise even more questions about the semantics of the applicable word than before, such as the *καταπέλτα/catapulta*. Sadly, etymological data is not always available on individual words or is often incomplete. More research into the field of etymology may yield more accurate results when used to define weapon terminology. The historical development of weapons and of words is just as important, because languages and weapons develop over time, such as the *pilum*. A diachronical study of arms, armour and siege engines is necessary when translating their names. The semantics of a specific word often overlap with the semantic range of another, though not entirely, only partially, as could be seen in the tables. The overlapping of semantic range provides more clues to translate words that are alike in meaning, mutual templates, though with slight differences, as can be seen from *scutum* and θύρεός. One must also deal with archaic terms, for which no clear-cut translations exist, such as δίπυλον. The table summaries of each chapter made it clear that some terms need to be translated quite generically, whereas translators have only focused on a specific aspect, which is too detailed, even in the context in which it appears. The opposite is also true, where the context of the weapon may require a more detailed description than translators have given it, which was also noticeable in the tables. The fact that translation problems are not always the same means that translation techniques may vary from word to word. Forcing a fixed technique of translation upon a word does not guarantee an accurate translation; it would probably distort rather than clarify the meaning of the word or phrase. This study has shown where existing translations are sufficient and where there is room for improvement.

This study has also made it clear that in order to provide insightful translations of weaponry, it is important to have input from other disciplines like archaeology, history and technology. Sharing information between academic disciplines which have the subject of Greek and Roman weapons in common is mutually beneficial. It is wise to broaden the mind to other possibilities and input on the subject, that is, to think laterally. Archaeologists have the physical evidence, providing a

clear picture and tangible proof of what weaponry looked like. Linguists have the recorded evidence of thought, written down by ancient writers, providing an insight into how people thought, wrote and spoke about weaponry, which associations they made and which they did not, why specific weapons had specific names, for example, was it derived from the weapon's function, its origin or its shape? Classical linguists have access to much of the semantics and etymology which is not available in present spoken language. Historians have access to information acquired from physical evidence and written accounts, making common ground to bring language and archaeology closer together. Historical context also helps to discern why some translation errors are made, because confusion of historical events leads to confusion of conveyance and expression. Some slight insight into the technology of weapons provides the practical science behind it all. Archaeology provides the physical evidence, language provides thought put into words, history provides background and technology provides rationale. Together it provides a better understanding, which is after all, the function of all academic disciplines, therefore, an interdisciplinary approach is necessary.

The study has also shown that visual aid is not to be taken lightly when translating or conveying meaning, since images better help the mind to express what it cannot put into words. Images, being useful to the translator, could also aid the reader in understanding the nature of individual weapons and could be considered as part of an appendix or used in the text, much like an encyclopaedia. Encyclopaedias unfortunately lack the finer linguistic detail found in lexicons and dictionaries. A hybrid system could prove to be a helpful reference tool for scholars of many academic disciplines. An example of the usefulness of images is seen with the different types of *gladius* and their shapes. Republican *gladii* would differ from those of the time of Claudius (see Addendum B image ix). Descriptions of the *falx* family of swords and the *ῥομφαία* would have been difficult for the reader to understand, without visual aid. The nature of interpretative errors made by writers are also identified much easier through the availability of images, for example, Burton's misinterpretation of what the *ξίφος* looked like, which turned out to be Aegean swords. In general, swords of the Graeco-Roman world are visually well represented. Axes, clubs and maces of the Graeco-Roman world are not represented by images, for lack of visual information and there is not really much archaeological information available on these weapons either. Translations would have more description and detail behind them if they had visual

representation. The availability or lack of image material directly influences the ability to give a detailed description of a weapon. Axes, clubs and maces are but a few examples. The same is true for some of the lesser-known spears, armour, shields, siege engines and ships; images of the *σάρισσα*, for instance, are available but there is nothing on the *αιγῶνήη*, images of the *ὄπλον* and *scutum* are available but nothing is available on the *cetra* and images of greaves are available but images of thigh-armour are not available. Further research into the appearance of lesser-known spears, armour, shields, siege engines and ships may yield even better insight into how to translate the words that represent them. The importance of image material must not be underestimated and would be valuable for future studies on Graeco-Roman weaponry.

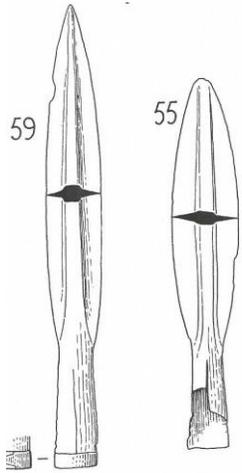
The study has also shown that if lexicons are lacking in evidence for specific words, evidence may be acquired through studying literature or some of the other disciplines mentioned above. Inter-disciplinary study can improve lexicons and dictionaries. The study has also shown that by placing the weapons of Classical warfare from the lightest to the heaviest all in one place of reference, a bigger picture is formed as to how everything fits together, that is, which weapons influenced which, what the relationship between weapons were, which weapons were used together and how language gives clarity to these influences and relationships. In short, both a macro and a micro perspective into the meaning of these words have been created.

Above all, this study has shown that much research still needs to be done before properly grasping the meaning of some weapons; consider, for instance, the catapult -/ballista enigma or many of the names for weapons which could not be translated due to conflicting or insufficient data. The area of siege engines is but one such an example. The wide variety of Greek spears is another area that requires attention, because the lines of translations for melee spears vs. projectiles are often blurred. Further study of Greek helmets would also be useful. Roman arms and armour generally have more data available than Greek arms and armour and is therefore easier to discuss, yet the subject of Roman shields has less data available than that of Greek shields, since Romans were not as dependent on their shields as the Greeks were. Further study into semantic, etymological, historical, archaeological and technological data for words describing the arms, armour and siegecraft of the Graeco-Roman world between the years 2000 BC and 200 AD is imperative for improving the translations thereof. This statement may seem

obvious but there is still a big difference between what seems obvious and what has actually been done in this field. One might even ask why it has not been attempted before. The need for further study in this regard therefore still stands.

ADDENDA

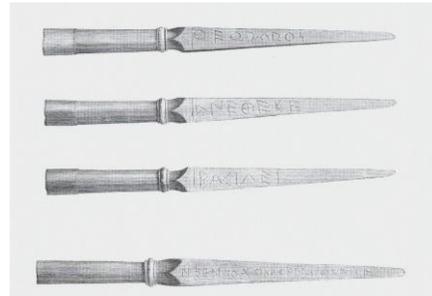
Addendum A - Spears



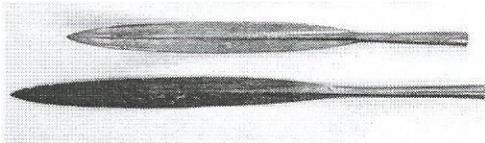
i) Mycenaean spearheads
Sandars (1963: Plate 27)



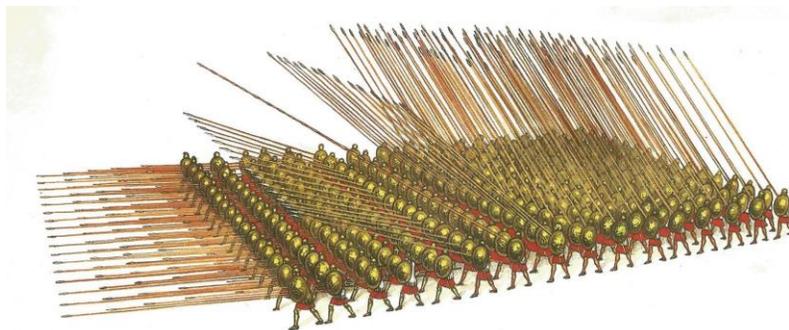
ii) Greek
bronze spearhead
Boman et al.
(2009: 19)



iii) σαυρωτήρ spear-butts, mistakenly
assumed to be spearheads, by
Greenwell & Greenwell (1881: plate XI)

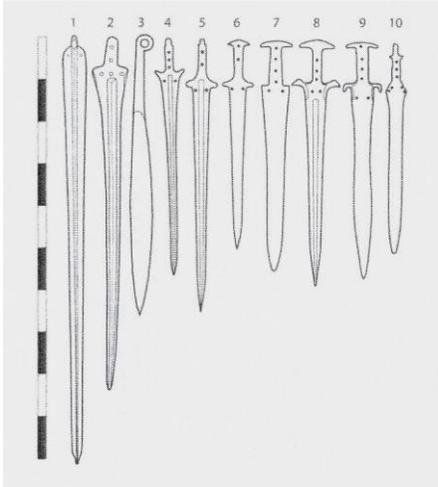


iv) Large spearheads which may be prototypes for the σάρῖσα spearhead (Kottaridi, 2001: 3)

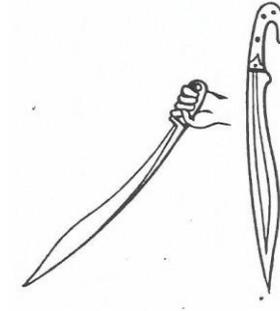


v) The Macedonian phalanx, each man armed with a σάρῖσα (Cook & Stevenson, 1980: 18)

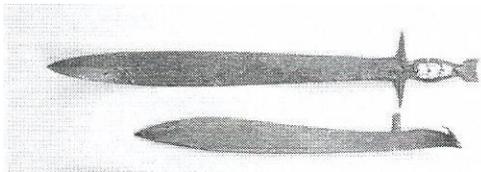
Addendum B - Swords and knives



i) Aegean swords: 1- type A, 2- type B, 3 - single edged, 4 - type C, 5 - type Di, 6- type Dii, 7- type Fii, 8 - type Gi, 9 - type Gii, 10 - type Naue ii (Molloy, 2010: 404)



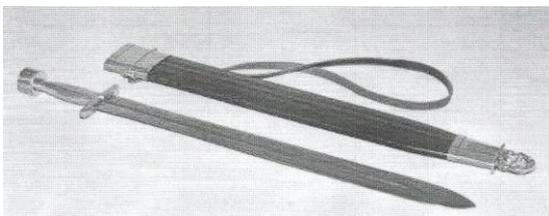
ii) κοπίς (Burton, 1884: 236)



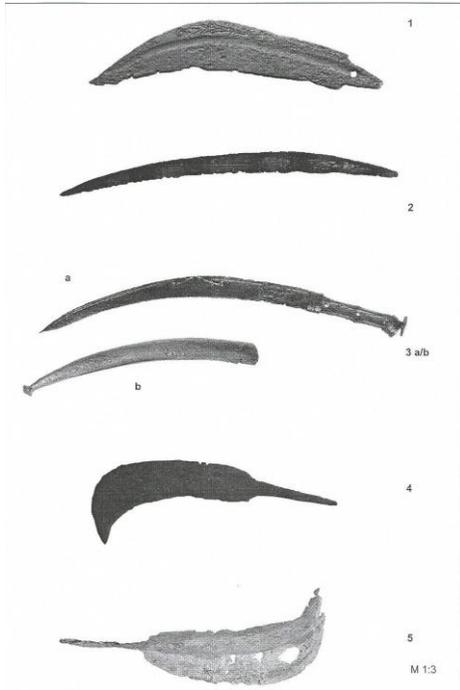
iii) ξίφος (top), μάχαιρα (lower) (Kottaridi, 2001: 3)



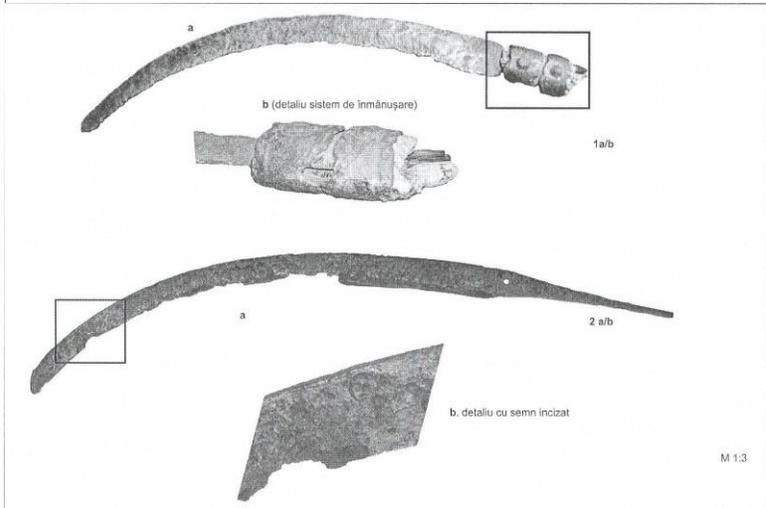
iv) κοπίς (Ali et al. 2012: 50)



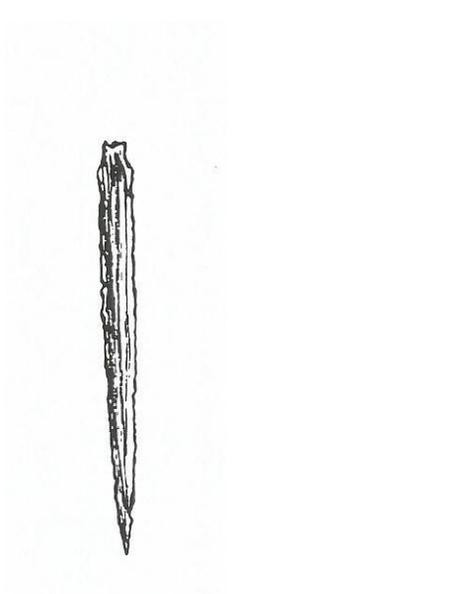
v) ξίφος (Luton Culture, 2016: 8)



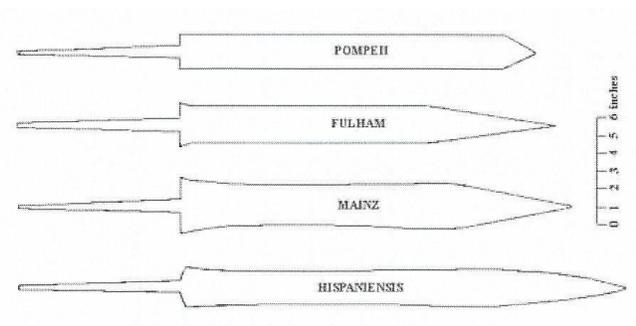
vi) *Falx* blade variations including *ρόμφαία* (Borangic, 2008: 157)



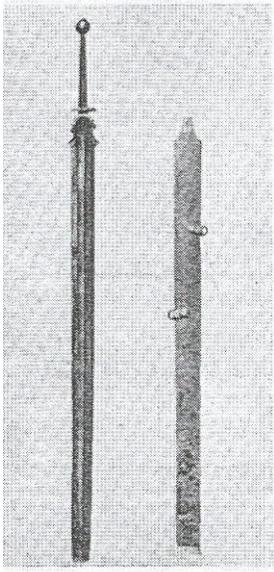
vii) *Falx* blade variations including *ρόμφαία* (Borangic, 2008: 160)



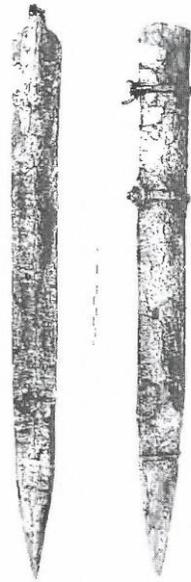
viii) Early Roman *ensis* according to Burton (1884: 255)



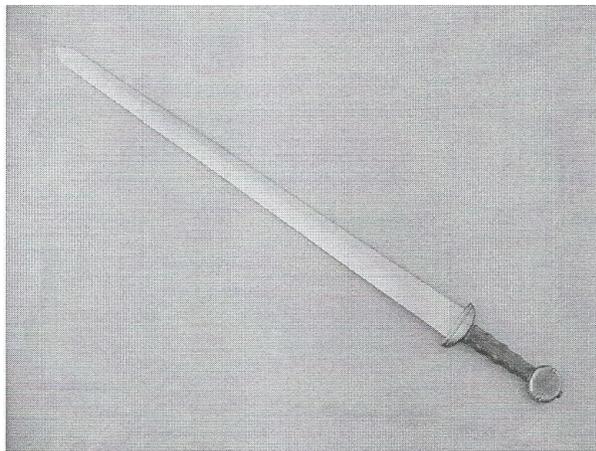
ix) Pompeii, Fulham, Mainz and Hispaniensis type *gladii* according to Berdeguer et al. (2014: 21)



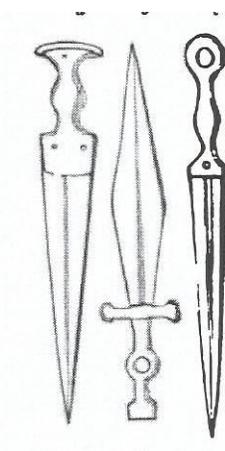
x) Iron La Tène sword (Blair, 1981: 772)



xi) Modified La Tène sword (Quesada-Sanz, 1997: 264)



xii) Reconstructed *spatha* (Berdeguer et al. 2014: 20)

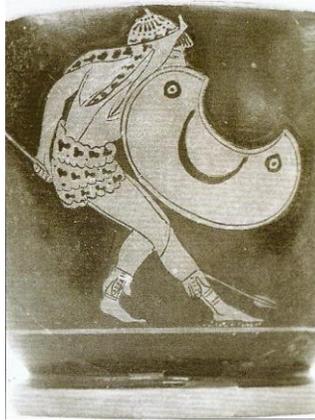


xiii) *Pugio* (Burton, 1884: 256)

Addendum C - Shields



i) δίπυλον shields on vase
(Hurwitt, 1985: plate 2)



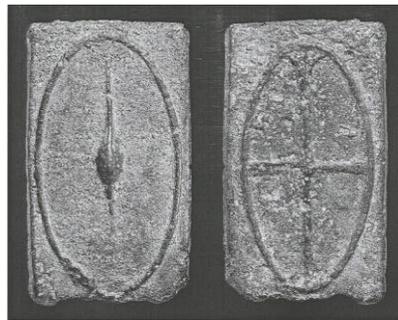
ii) Peltast holding πέλιτη
(Boman et al.: 2009: 16)



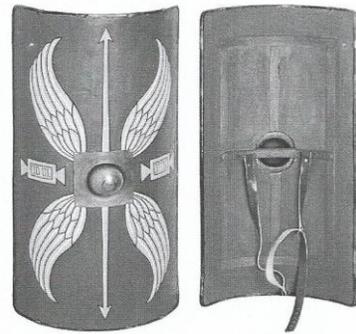
iii) ὄπλον (Ali et al. 2012: 47)



iv) Greek hoplites
(Ali et al. 2012: 33)



v) *Scutum*- Roman Republic
Bronze currency bar print
(Tomczak, 2012: 53)



vi) *Scutum*, rectangular
(Berdeguer et al. 2014: 19)

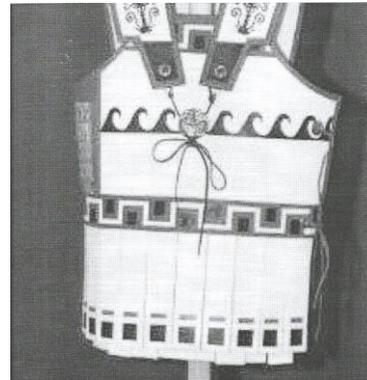
Addendum D - Armour



i) “Bell corslet” θώραξ
(Ali et al.: 2012: 45)



ii) Muscled θώραξ
(Dineley, 2015: 10)



iii) λινοθώραξ
(Luton culture, 2016: 5)



iv) Left: Greaves or κνημίδες (Luton culture, 2016: 6)

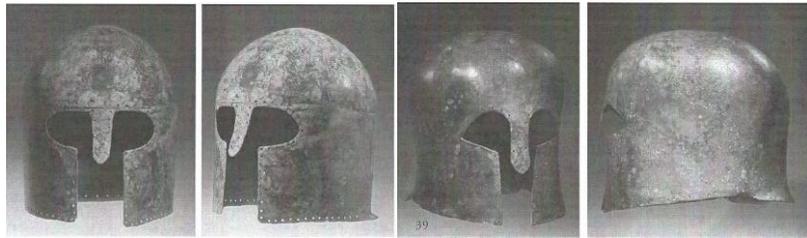


v) From left to right- Roman legionary from the time of Julius Caesar, wearing chainmail *lorica*, Roman legionary wearing the *lorica segmentata* and a Roman auxiliary wearing scale-armour *lorica* (Cook & Stevenson, 1980: 22).

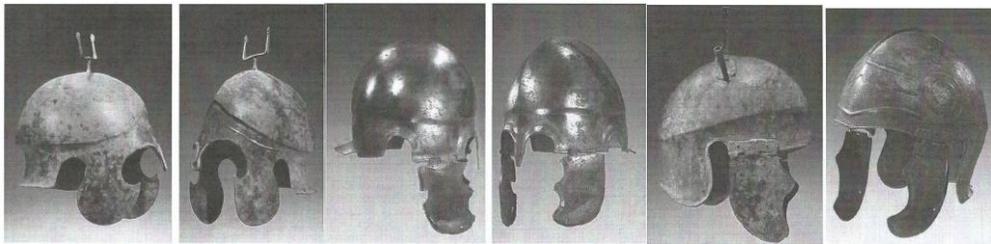
Addendum E - Helmets



i) Boar-tusk helmet and banded bronze armour found at Dendra (Blair, 1981: 770)



ii) Corinthian bronze helmets (Royal Athena Gallery, 2007: 39)



iii) Chalcidian helmets (Royal Athena Gallery, 2007: 40-41)



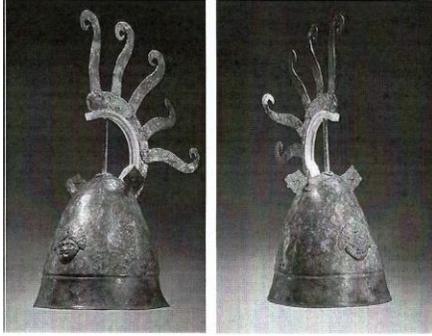
iv) Kegel helmets (Hixenbaugh & Valdman, Unpublished 2014, 3)



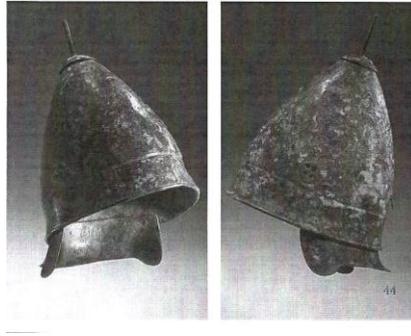
v) Illyrian helmet (Royal Athena Gallery, 2007: 38)



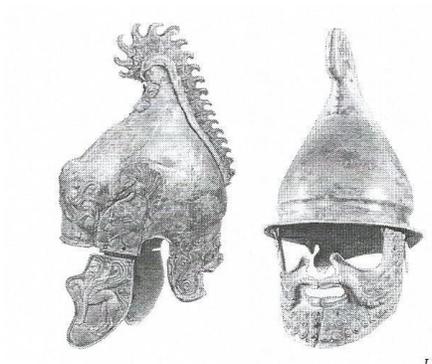
vi) Iron Attic helmet (Royal Athena Gallery, 2007: 43)



vii) Hellenistic pilos helmet
(Royal Athena Gallery, 2007: 45)



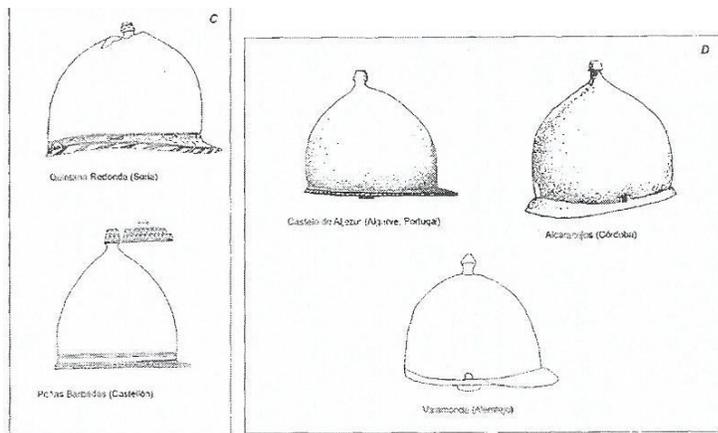
viii) Hellenistic pilos helmet
(Royal Athena Gallery, 2007: 44)



ix) Hellenistic helmet of Phrygian Type (Hixenbaugh & Valdman, unpublished 2014: 8)



x) Thracian helmet according to Ali et al. (2012: 48)



xi) From left to right: Roman Republican *galea* late 3rd early 2nd century and *galea* of Buggenum-type (Quesada Sanz & Kavanagh de Prado, 2006: 70)



xii) Roman Republican *principes* helmet or early infantry *galea* (Royal Athena Gallery, 2007: 46)



xiii) Modified Imperial-Gallic or Weisenau type helmet (*cassis*) Van Enkevort & Willems (1994: 130)



xiv) Bronze Roman Weisenau-Mainz type cavalry helmet or *cassis* (Royal Athena Gallery, 2007: 47)



xv) Iron auxiliary cavalry helmet or Weiler-type (*cassis*) (Van Enkevort & Willems, 1994: 130)

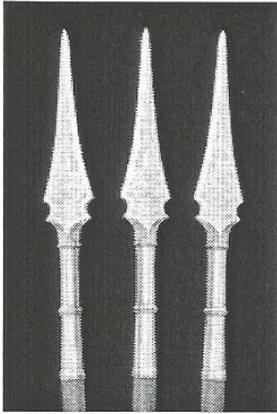


xvi) Roman face masks for cavalry helmets (Van Enkevort & Willems, 1994: 131)

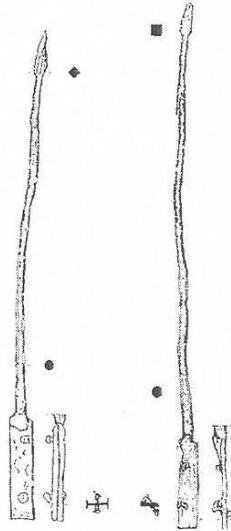


xvii) Legionary wearing a later shape of *galea* (Blair, 1981: 773)

Addendum F - Missile weapons



i) *Verutum* examples according to Berdeguer et al. (2014: 18)



ii) *Pilum* heads (Quesada Sanz & Kavanagh de Prado, 2006: 74)

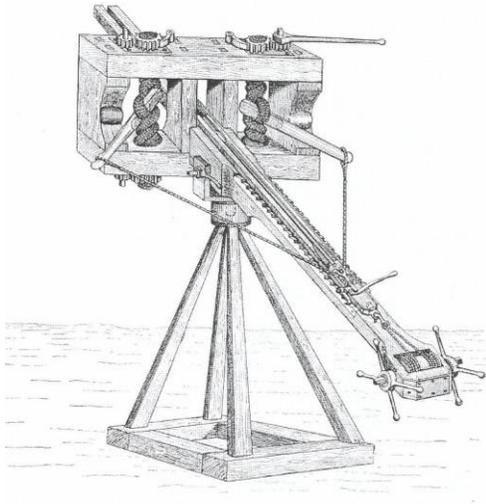


iii) Bronze arrowhead (Mattusch, 1982: 6)

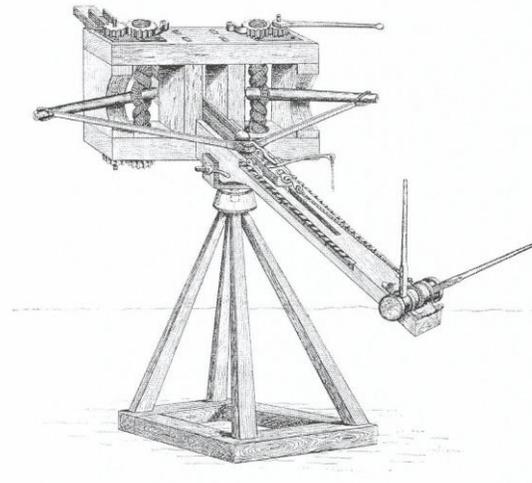


iv) From left to right: *Velites* holding javelins and either a *clipeus* or *parma*, *hastatus/princeps* holding *scutum* and *pili*, *triarius* holding *scutum* and *hasta* (Cook & Stevenson, 1980: 20)

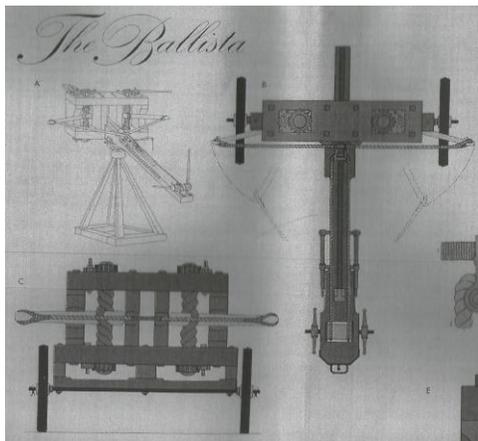
Addendum G - Siege engines



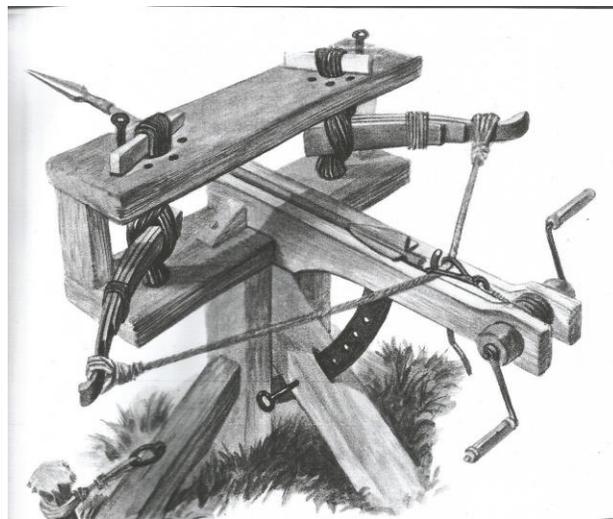
i) *Ballista* for heavy bolts & javelins
(Payne-Galloway, 1907: 21)



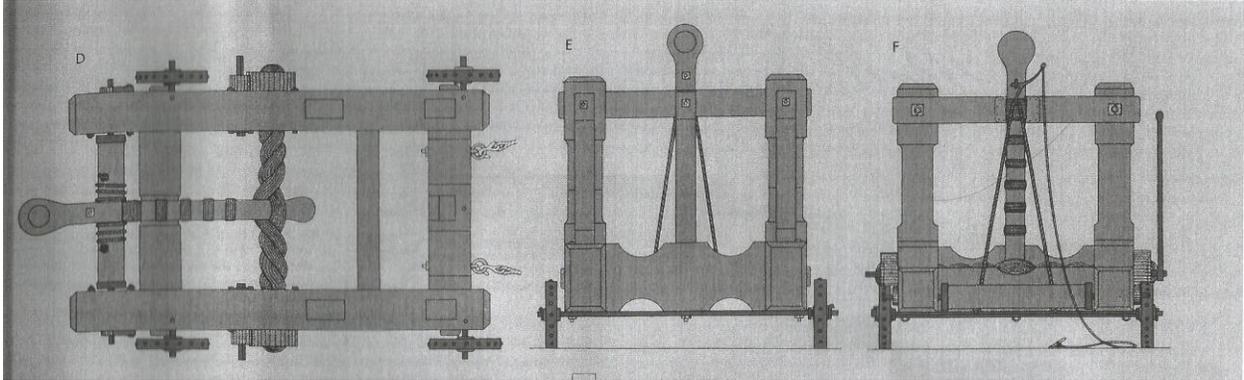
ii) *Ballista* for throwing stone balls
(Payne-Galloway, 1907: 24)



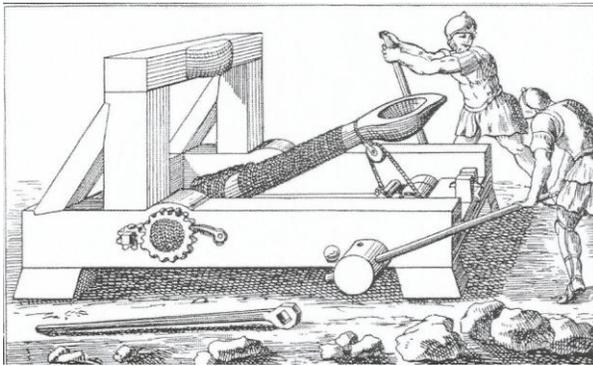
iii) *Ballista* according to Reid
(1986: 28) though the wheels may
even imply an ὄξυβελής or scorpion



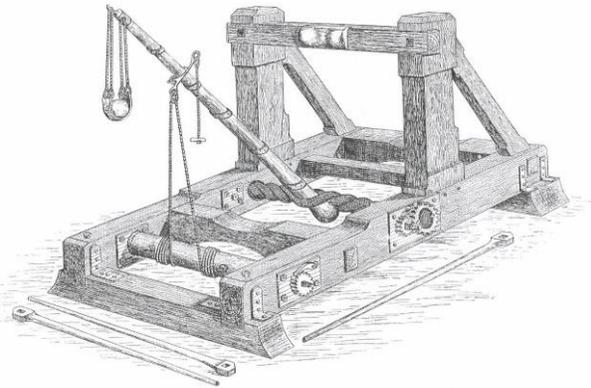
iv) "The lighter form of the catapult"
according to Ransford (1975: 29)



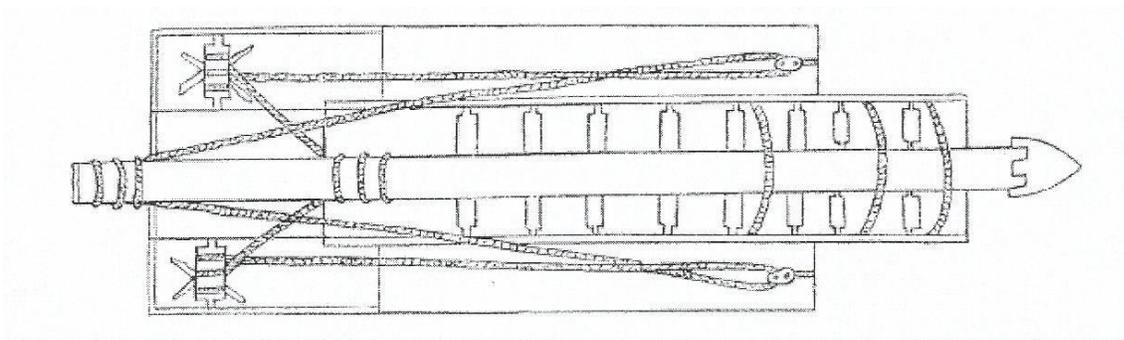
v) Catapult according to Reid (1986: 27)



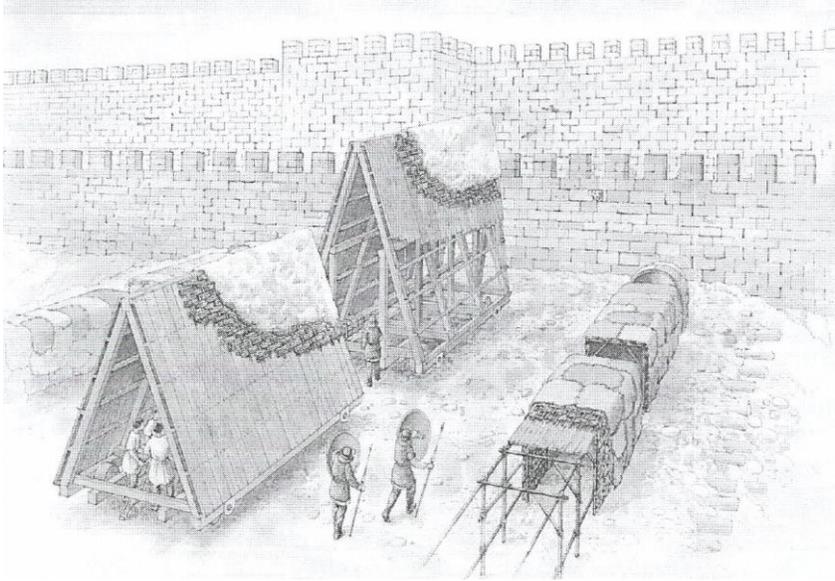
vi) "Catapult"
(Payne-Gallway, 1907: 10)



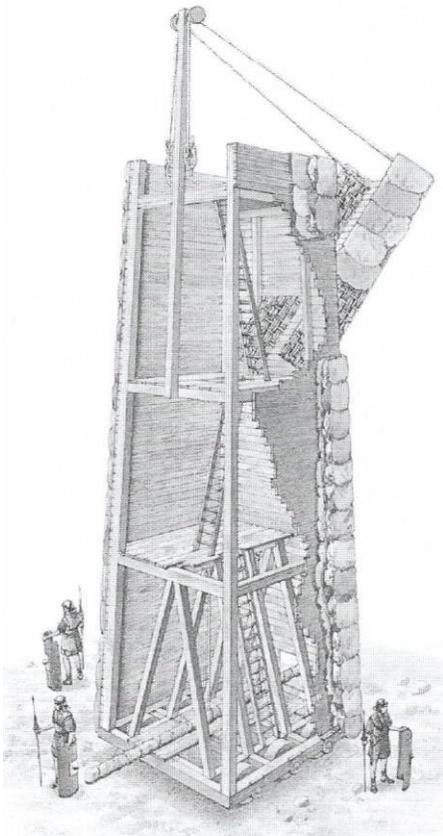
vii) "Catapult" (with sling)
(Payne-Gallway, 1907: 12)



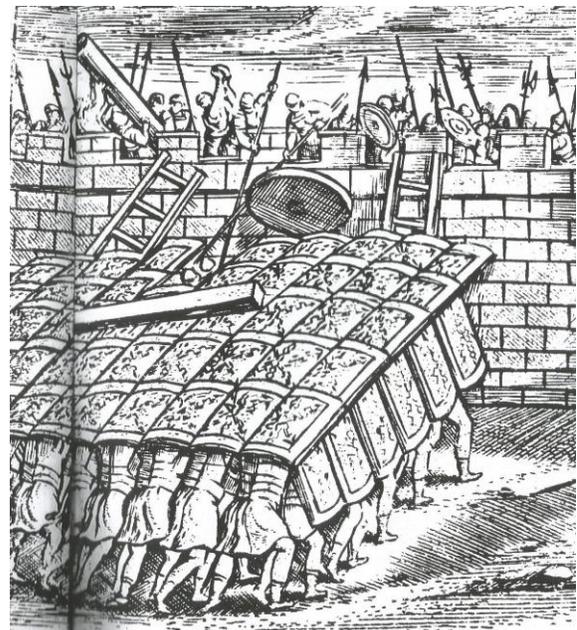
viii) Specialized Roman battering ram, with winches and rollers to store potential energy and release as kinetic energy, in other words, movement through tension (Meyer, 2012: 11)



ix) Battering rams alongside *vinea* and *plutei* on a siege ramp (Meyer, 2012: 9)

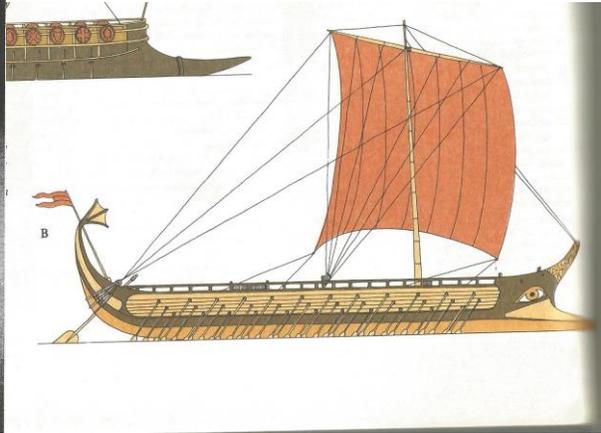
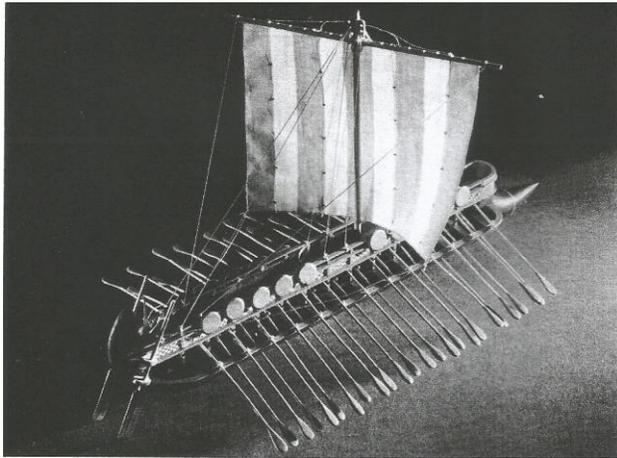


x) Roman siege-tower with battering ram, platform for artillery and a drawbridge - based on the *ἐλέπολις* (Meyer, 2012: 10)

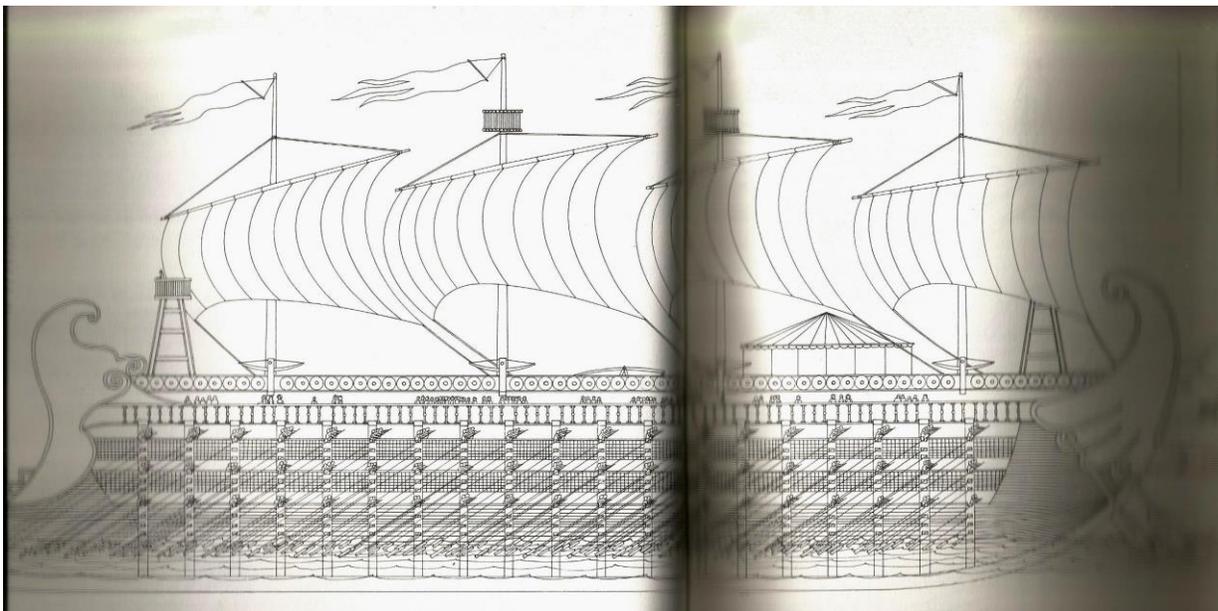


xi) *Testudo* formation (Ransford, 1975: 33)

Addendum H - Naval warfare



i) Phoenician bireme (Ireland, 1978: 12) ii) Greek trireme (Haws, 1985: 22)



iii) The *Syracusa*, the largest double quinquereme ever made (Haws, 1985: 30-31)

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