

**The Military Revolution: What were Philip II's
Reforms of the Macedonian Military and how
Revolutionary were they?**

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Table of Contents

List of illustrations.....	3
Introduction.....	4
Chapter One – The Reforms.....	8
Chapter Two – Effectiveness.....	26
Chapter Three – Innovation.....	38
Conclusion.....	48
Bibliography.....	51

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List of Illustrations

Fig. 1. Three of the iron spearheads from 'Philip's Tomb' at Vergina. (Source: Andronicos, M. (1984), *Vergina: The Royal Tombs and the Ancient City*, Athens, p144.)

Fig. 2. Reconstruction drawing of a fresco, now destroyed. Mounted Macedonian attacking Persian foot soldier. From Tomb of Naoussa (Kinch's Tomb) dated to 4th C BC. (Source: http://library.artstor.org.ezproxy.is.ed.ac.uk/#/asset/ARTSTOR_103_41822000408458)(accessed 03/03/2018).

Fig. 3. Stylized image of what a typical hoplite phalanx looked like. (Source: 'The Hoplite Battle Experience: The Nature of Greek Warfare and a Western Style of Fighting' , <http://sites.psu.edu/thehopliteexperience/the-phalanx/>) (Accessed 03/03/18)

Fig. 4. A Macedonian phalanx in formation. Illustration by Erin Babnik. (Source: <https://www.alamy.com/stock-photo-a-macedonian-phalanx-in-formation-illustration-by-erin-babnik-33292918.html>) (Accessed 03/04/18)

Fig. 5. The Battle of Chaeronea, 338BC. (Source: Hammond, N. G. L. (1989), *The Macedonian State: The Origins, Institutions, and History*, Oxford, p117.)

Fig. 6. The Battles of Leuctra and against Bardylis. (Source: Hammond, N. G. L. (1999), 'What may Philip have learnt as a hostage in Thebes?' , *Greek, Roman, and Byzantine Studies* 38, p363.)

Introduction

In 331 BC Alexander III of Macedon's army defeated the army of the Achaemenid King Darius III in the decisive encounter of the Battle of Gaugamela, signalling the near-completion of the Macedonian subjugation of the entire Achaemenid Empire. In this one major battle Alexander succeeded in gaining control of the part of the Persian Empire stretching from Mesopotamia all the way to Afghanistan.¹ By the time of his death in 323 BC the vast territory under Macedonian control extended from northern Greece to southern Egypt and to north-eastern India. When examining the history of Macedon earlier in the 4th Century BC, the contrast could not be clearer. Anson states that Macedonian history of this period was one of frequent invasion by tribal peoples to the north and east and frequent interference by Greek city-states to the south.² Likewise, Griffith states that the history of Macedonia prior to the accession of Philip II is a "study in survival."³ The peak of the crisis and the largest threat to the survival of Macedonia came in the same year as the accession of Philip II. In 359 (less than three decades before Gaugamela) Perdiccas III, Philip's older brother and king of Macedonia, perished at the hands of the Illyrian king Bardylis along with 4,000 of his men in battle (Diodorus 16.2.4-5). Upper Macedonia was now occupied by this force and further invasion was anticipated from four quarters.⁴ The situation seemed hopeless.

This dissertation seeks to explore one of the most significant reasons why and how Philip II, in less than thirty years, was able to dominate almost the entire Greek peninsula, and to leave Alexander the Great with the means to achieve his exploits, in the face of such adversity: his reforms of the Macedonian military. Although the precise details and timeline

¹ Marsden (1964), xi.

² Anson (2013), 43-44.

³ Hammond & Griffith (1979), 203.

⁴ Anson (2013), 44.; Hammond & Griffith (1979), 210.

are not always clear and sometimes debated, there is a clear consensus that the Macedonian military underwent significant changes during the reign of Philip II.⁵ It would be appropriate to conclude that, to some extent, there occurred a military revolution. The purpose of this dissertation, therefore, is twofold. Its first task is to ascertain exactly what the reforms consisted of and when they were introduced; the second is to deduce precisely how revolutionary the reforms were. The first task is necessary for several reasons. Firstly, it is essential that one has a thorough knowledge of the reforms' content and timeline before being able to assess how revolutionary they were. Secondly, given the paucity of evidence and the extent of scholarly debate, it is necessary to consider these factors in order to reach a valid conclusion. In order to test the claim of revolutionary change, I will employ two criteria: 'how effective were the reforms?' and 'how innovative were the reforms?'. If we consider the Oxford Dictionary's definition of revolutionary as "involving or causing a complete or dramatic change," then these two questions together will suffice to allow a comprehensive conclusion as to how revolutionary they were. The 'effectiveness' chapter will demonstrate the ways in which the reforms caused change by examining their use in practice. The 'innovation' chapter will determine the extent of this change, by examining their influences and precedents, to determine how original they were. Thus, once these have all been considered independently, an extensive survey of Philip's military reforms and, more importantly, a thoroughly considered conclusion on how revolutionary they were can be reached.

As I mentioned above, the sources for this period are somewhat problematic in that they are relatively scarce and often not as informative as would be desirable. This dissertation will consider all of the available evidence to create the fullest account possible for Philip's

⁵ Garlan (1994), 686-692.; Anson (2008), 17.; Hammond & Griffith (1979), 405-449.; Worthington (2013), 57-60.

reforms, however it is necessary here to say a few words about the sources used. The most informative writer on the subject, and the one cited most frequently, is the 1st Century BC Greek historian Diodorus Siculus and his *Bibliotheca historia*. Though his historical skills are often doubted, he is particularly useful for our purpose.⁶ Hau states that Diodorus is known for lifting long stretches of text from his respective sources and that he often abbreviated and rephrased rather than creating a new narrative.⁷ Although this may be considered a weakness, our lack of contemporary sources for Philip's reign makes this aspect of Diodorus particularly useful. His source for the first part of Book 16, which is particularly relevant for Philip's reign, is likely to be Ephorus of Cyme who was a contemporary of Philip.⁸ Diodorus, then, is perhaps the most accurate of the non-contemporary sources used. Similarly useful, though slightly less so, are Frontinus and Polyaeus. The former, Polyaeus is a 2nd Century AD Macedonian author who wrote *Stratagems in War*, a study on the technique of war presented to Lucius Verus prior to his Parthian War (Polyaeus *Stratagems* Preface 1). The latter, Frontinus, was a Roman engineer in the 1st Century AD and wrote a military work named *Stratagems*. It is worth noting that there is some disagreement over the authenticity of the fourth book of Frontinus' *Stratagems* with some scholars arguing that it was Frontinus who wrote it and others arguing that it was added as late as the 5th Century AD.⁹ This is important to bear in mind given that this will be the most cited book of Frontinus in this dissertation. Further sources include the 1st Century AD Greek writer Plutarch and the 2nd Century AD writer Polybius. It must be considered that the latter wrote a moralising biographical work which focused on character rather than a purely historical work. Polybius, however, is a more reliable source in this dissertation in that references to him are to his

⁶ Duff (2003), 49.

⁷ Hau (2016), 73.

⁸ Hau (2016), 74.

⁹ Bennett (1902), xvii.

mentions of Roman encounters with Macedonian forces contemporary to him; despite the difference in time, these Macedonians had much in common with their predecessors, such as the use of the phalanx and *sarissa* spear. Thus, Polybius is of particular use to us. Finally, there are some contemporary sources which are perhaps the most reliable and informative. For example, Demosthenes' *Philippics*, speeches delivered by the Athenian statesman, frequently refer to details of Philip's military. The sources, then, are evidently wide-ranging and reliable to varying extents. By using this full range available, and bearing in mind their respective merits and weaknesses, along with the use of archaeological evidence, we can attempt to create the most accurate account of Philip's reforms as is possible.

1. The Reforms

What were the reforms and when were they introduced?

In this chapter I will highlight the reforms to the Macedonian military during Philip II's reign and, as far as possible, establish a timeline for them. There are, however, difficulties regarding both of these tasks. In listing the reforms of Philip, there are varying degrees of doubt about which aspects can be attributed to him and which aspects he inherited, or which came after his reign.¹⁰ With regards to establishing a timeline, there is considerable debate surrounding the chronology of the reforms, if they can be dated at all. Both of these are primarily due to the paucity of literary and archaeological sources for the period. Despite this, close examination of the evidence available, along with examination of the incisive analysis by various scholars, allows for a reasonably thorough record and timeline of Philip's reforms. Ian Worthington places these military reforms into three categories (weaponry, training and tactics) and I can conceive no better general system of classification so, in my own exploration of the reforms, I will use a similar system.¹¹ Not all of the reforms that I will mention, however, fit perfectly into these categories and so it will be necessary to slightly expand the first; rather than 'weaponry', I will instead use 'equipment' as this also incorporates other relevant aspects such as armour and siege technology.

Among the most significant innovations in equipment introduced to the Macedonian military under Philip was the famous *sarissa* spear which would go on to become a defining characteristic of the Macedonian infantry for centuries.¹² What primarily set it apart from its

¹⁰ Worthington (2008), 26.

¹¹ Worthington (2013), 58.

¹² Garlan (1994), 686.

hoplite counterparts was its length. Theophrastus, one of few contemporary sources, states that the longest Macedonian spears were twelve cubits (eighteen feet) long (Theophrastus *Historia Plantarum* 3.12.2). Other sources give lengths ranging from ten cubits (Asclepiodotus *Tactics* 5.1; Arrian *Tactics* 12.7) to sixteen cubits (Polybius 16.29.2-5), giving a total possible range of fifteen to twenty-four feet. These discrepancies, however, are somewhat resolved by Markle's assertion that, based on archaeological finds, the Macedonians employed *sarissae* of varying lengths and so a range of fifteen to eighteen feet



Fig. 1: Iron *sarissa*-spearheads from Vergina

is acceptable.¹³ The archaeological evidence in question is several spear heads found at a tomb in Vergina, believed to be the burial cluster of Philip II. Six iron spearheads and one spear butt were found, each of varying sizes, the largest being 0.553m and the smallest being 0.332m (Fig. 1).¹⁴ Some of the smaller ones are regular hoplite spearheads whereas the larger ones likely belonged to *sarissae*.¹⁵ From these finds, we can postulate that the Macedonians employed a variety of sizes of both hoplite spears and *sarissae*.¹⁶ It is also clear from these finds that as well as having an iron tip, the *sarissa* had an iron counterbalance at the opposite end.¹⁷ The shaft was made from cornel wood which came from a tree native to Macedonia (Arrian *Anabasis* 1.15). It was a strong material whilst also being relatively light and was thus a suitable material for a spear.¹⁸ Polybius states that carrying the *sarissa* caused soldiers to become fatigued (Polybius 18.18.3) but this does not

¹³ Markle (1977), 323-325.

¹⁴ Andronicos (1984), 144-5.

¹⁵ Andronicos (1984), 145.; Markle (1977), 325.

¹⁶ Markle (1977), 325.

¹⁷ Andronicos (1984), 146.

¹⁸ Hammond (1989), 102.

necessarily preclude the fact that the spear was relatively light for a spear of such size. Hammond puts the precise weight of the *sarissa* at fifteen pounds and Markle puts it at fourteen and a half pounds so there is some consensus here.¹⁹ Overall, the *sarissa* was an effective weapon and it was by far most effective when used in the phalanx formation.²⁰ I will discuss the phalanx and the *sarissa*'s role in it in greater depth below. Suffice to say for now, however, that the length of the *sarissa* meant that in a Macedonian phalanx formation, at least five spear points could protrude beyond each man in the front rank, effectively creating a wall of spear tips (Asclepiodotus *Tact.* 5.1; Polybius 18.29.5). Contrast this with the traditional Greek phalanx formation which, with spears of six to eight feet in length,



Fig. 2: Macedonian cavalryman wielding a *sarissa* attached at the wrist

could produce one protruding spear-point for every five Macedonian ones.²¹ Not only this, but the Greek hoplite spear would be too short to even reach the Macedonian

line.²² The cavalry was also equipped with the *sarissa*. However, it is possible that they varied somewhat from the infantry *sarissae* in that they may have used a slightly lighter variant with a metal joint in the centre and a throng with which it was attached to the wrist in case it broke (Arrian *Anabasis* 1.15.6; Fig. 2). Evidently, then, there is firm consensus on the effectiveness of the *sarissa* as an offensive weapon.

¹⁹ Hammond (1989), 102.; Markle (1977), 324.

²⁰ Markle (1977), 331.

²¹ Markle (1977), 331.

²² Hammond (1989), 102.

There is disagreement, however, on when it was introduced and how widely it was utilised. Markle states that “there is no valid evidence for the orthodox view that Philip devised the sarissa-armed infantry phalanx.”²³ The main reason for Markle’s position is that the “sole support” for this opinion is a passage in Diodorus in which he ambiguously states that Philip, “devised the compact order and the equipment of the phalanx” (Diodorus 16.3.2). Likewise, Griffith states that Diodorus’ attribution of Philip’s reforms to a single year is characteristic of Diodorus; instead, he says, the reforms began in the year 359 and continued until Philip’s death.²⁴ Hammond, in response, states that Diodorus’ words are “crystal-clear.”²⁵ In this instance, Markle’s assertion is more convincing as it is true that the passage in Diodorus alone is not sufficient evidence to justify the dating of the sarissa to 359. He suggests that Philip made no use of the *sarissa* until the Battle of Chaeronea in 338 BC and employed the traditional hoplite panoply instead.²⁶ He cites several pieces of plausible evidence for this, the most compelling of which is that no archaeological evidence for the *sarissa* exists before Chaeronea. The earliest dated remains of spearheads large enough to be considered to belong to *sarissae* were found at the site of the battle.²⁷ Markle goes one step further and concludes that the *sarissa* was only used by the cavalry at this time because the use of *sarissa* by infantry on the terrain at Chaeronea would not have allowed for the tactical feigned retreat.²⁸ On the contrary, Rahe has argued that the infantry did use the *sarissa* and Anson has put the date of its introduction at the winter of 359/8, almost two decades earlier than Markle’s date.²⁹ This is a significant disagreement and, given the acceptance of the effectiveness of the *sarissa*, the differing dates have wide-ranging implications for its

²³ Markle (1978), 483.

²⁴ Hammond & Griffith (1979), 407.

²⁵ Hammond (1999), 368.

²⁶ Markle (1978), 486-8.

²⁷ Sotiriades (1903), 301-330.

²⁸ Markle (1978), 489.

²⁹ Rahe (1981), 84-84.; Anson (2010), 51-68.

significance as a component of Philip's military reforms. Rahe's argument for the use of *sarissae* by infantry at Chaeronea, and Anson's argument for the date of introduction of 359/8, however, are both compelling. The former's dispute with Markle rests primarily on Markle's use of passages in Plutarch as evidence for the use exclusively by cavalry. Plutarch states that Alexander was the "first to break the ranks of the Sacred Band" (Plutarch *Alexander* 9.2) at Chaeronea and that they "faced the long spears of [Philip's] phalanx" (Plutarch *Pelopidas* 18.4). Knowing that Alexander led a cavalry charge, Markle takes this as evidence that the cavalry broke the Sacred Band using *sarissae*.³⁰ Rahe, however, points out that Plutarch does not specify who was equipping the *sarissa*.³¹ Furthermore, he states that the Sacred Band fought on flat ground suitable for use of the *sarissa* by infantry; he also points out that a formation of infantry could withstand a cavalry charge that the fighting on the Macedonian left was "a battle of attrition" rather than a decisive cavalry charge.³² Markle's argument for the exclusive use of the *sarissa* by cavalry at Chaeronea, then, does not hold up to close scrutiny.

I will here explore Anson's argument for the date of 359/8 in depth because it is of significance to the timeline of the reforms in general as well as to the *sarissa* in particular. Although our literary sources point to Philip's first year as King as the date of introduction (Diodorus 16.3.2; Polyaeus *Strategems* 4.2.10), they, as mentioned above, are inadequate proof for some scholars.³³ Likewise, problems are caused by the fact that the earliest archaeological evidence that can undoubtedly be identified as *sarissae* date to Chaeronea.³⁴ Similarly, the earliest literary mention of a *sarissa* is in Didymus' account of a campaign in which Philip is injured in the leg by a *sarissa* (Didymus Col. 13.3-7). That campaign is

³⁰ Markle (1978), 491.

³¹ Rahe (1981), 84-86.

³² Rahe (1981), 84-86.

³³ Hammond & Griffith (1979) 421; Markle (1978), 483-489.

³⁴ Sotiriades (1903), 301-330.

usually dated to 339 BC so is still two decades after Anson's date.³⁵ How, then, does he reach the conclusion of this early date? Macedonia's frequent defeats at the hands of neighbours, and their long history of "military weakness," makes their change in fortune extraordinary.³⁶ Within a year of Perdiccas' defeat, Philip defeated that same army, forcing their retreat and the loss of over seven thousand men (Diodorus 26.5.7; Justin 7.6.7). Prior to this, he had defeated a small force of 3000 hoplites commanded by the Athenian-backed pretender Argaeus (Diodorus 16.3.5). Although it was a small force, in the past a Greek force of this size would have sufficed to defeat any Macedonian force.³⁷ Anson concludes that infantry units must have been participants in this skirmish and that, given these two victories within a year of Perdiccas' massive defeat, the Macedonians under Philip had made a rapid recovery.³⁸ Furthermore, significant changes had clearly been made to the Macedonian military.³⁹ A problem with this conclusion is that it would have been difficult for Philip to implement these changes in the short period of time between his accession and the confrontations with Argaeus and Bardylis. Anson provides a viable solution which is significant for the timeline of the reforms. We see that Plato, through Euphraeus, set out the basis for Philip's rule during Perdiccas' reign (Speusippus' *Letter to Philip* 30.12). More specifically, Carstyius of Pergamon, a writer of the second century BC, claims that Plato sent Euphraeus to argue the case to Perdiccas for giving Philip control of a portion of Macedonia and he also states that Philip had his forces in a state of readiness in 359 (Athenaeus *Deipnosophists* 11.506e-f.). Both Hammond and Anson suggest that this region was given to Philip in 364, the same year that Euphraeus entered the Macedonian court, although its

³⁵ Hammond & Griffith (1979), 583.

³⁶ Anson (2010a), 54.

³⁷ Anson (2010a), 56.

³⁸ Anson (2010a), 57.

³⁹ Anson (2010a), 58.

location is unclear.⁴⁰ Philip, then, had control over troops, a region of Macedonia and had the opportunity to train soldiers and experiment with potential reforms for as long as five years prior to his accession. This would have been ample time to introduce the changes which enabled his immediate victories. At least one of these changes can be seen in the fact that the Macedonian infantry, who were easily defeated earlier in the same year, effectively held their own against Bardylis' Illyrians. Something significant must have changed regarding the Macedonian infantry to enable this and the introduction of the *sarissa* is a prime candidate for an explanation. Given Philip's dire financial situation, the *sarissa* was a cheap and effective option that had potentially been tested by Philip and required little training to wield.⁴¹ Similarly, although the financial situation was bad, Philip still had ownership of the raw materials within Macedonia, including the cornel wood of which the *sarissa* was made.⁴² It is worth noting that definitive evidence to prove this does not exist but, as shown, there are significant indications and circumstantial evidence that the *sarissa* was introduced at this early date of 359/8.⁴³

Having attributed a date to the introduction of the *sarissa*, it is now possible to estimate the date of introduction of related equipment. The properties of the *sarissa* necessitated new equipment and so we can attribute their introduction to a similar date. For example, the *sarissa's* weight and length meant that both hands were required to wield it. Thus, the accompanying shield (*pelta*) required adjustments as they were traditionally held in one hand whilst the spear was held in the other. The result was a smaller shield that was slung over the shoulder.⁴⁴ This is supported by the literary evidence (Plutarch *Cleomenes* 11.2, *Aemilius* 19.2; Asclepiodotus *Tactics* 12). Regarding the precise dimensions of the shield,

⁴⁰ Hammond (1998), 18.; Anson (2010), 58.

⁴¹ Anson (2010a), 64.

⁴² Hammond (1999), 367.

⁴³ Anson (2010), 64.

⁴⁴ Worthington (2013), 58.

however, we have limited evidence. Archaeological evidence provides some examples of Macedonian shields that are approximately 0.80m in diameter.⁴⁵ Asclepiodotus, on the other hand, gives a diameter of eight palms or 0.6.166m (Asclepiodotus *Tactics* 5.1). Pritchett insists, given that Asclepiodotus was a “chair-strategist,” and that none of his work is drawn from experience or history, that the figure of 0.80m from archaeological evidence should be prioritised.⁴⁶ There is also disagreement over the material of the shield. Asclepiodotus states that it was made from bronze (Asclepiodotus *Tactics* 5.1) whereas Hammond states that it was instead made of wicker and coated with metal.⁴⁷ This would appear to be supported by the finding of a Macedonian bronze shield cover for a wooden shield at Lynkos and also by Plutarch’s account of a Roman encounter with Macedonian “light wicker targets” (Plutarch *Aemilius* 20.10).⁴⁸ This does not necessarily contradict Asclepiodotus’ assertion that they were made of metal; it is possible that he was referring to their covers. As for the remainder of the panoply, we have less evidence. The Macedonian infantryman was likely equipped with a helmet and greaves made of bronze.⁴⁹ One Macedonian helmet has been found and that example was at the Tomb at Vergina, however it is an exceptionally rare example made from iron and is not representative of the helmets of most soldiers.⁵⁰ The remaining armour was a leather jacket, most likely introduced for economic reasons.⁵¹ We can only speculate as to the date of introduction of these items of armour. However, given that the *sarissa* was introduced at short notice due to its cost effectiveness, it is reasonable to assume that the leather jacket was also introduced at a similar date. Its lighter nature, like the *pelta*, would have also made it particularly suitable for equipping alongside the *sarissa*. This new panoply,

⁴⁵ Couissin (1932), 76.

⁴⁶ Pritchett (1971), 150.

⁴⁷ Hammond (1999), 367.

⁴⁸ Hammond (1996), 365.

⁴⁹ Hammond (1989), 102.

⁵⁰ Andronicos (1984), 144.

⁵¹ Garlan (1994), 687.

then, consisting of the new *sarissa* along with a smaller shield, a lighter leather jacket and a traditional bronze helmet and greaves, was probably introduced to the infantry early in Philip's reign.

It is also important to state that, despite these new developments in the creation of the new *sarissa*-bearing infantry, Philip still employed traditional hoplites. The core of the infantry consisted of *sarissa* pikemen, but hoplites remained an important element through to the reign of Alexander.⁵² The evidence for their use is primarily visual. Hoplite shields feature alongside the smaller *sarissa*-shields on a monument at Veria which Markle dates to the reign of Pyrrhus; however he states that it depicts a phalanx of Alexander the Great.⁵³ Also, the Alexander Sarcophagus depicts spearmen equipping the hoplite panoply.⁵⁴ Likewise, two examples of Macedonian tetradrachms dated to 325-300 BC depict both a hoplite shield and a *sarissa* shield.⁵⁵ The Macedonian infantry, then, appears to have been made up of a combination of types of infantry.⁵⁶

A final reform with regards to equipment was that of Philip's contribution to siege technology. Like many of Philip's reforms, there is no definitive evidence, however Marsden has convincingly argued that there is sufficient circumstantial evidence to suggest that the principle of torsion was discovered under Philip II.⁵⁷ Philip saw the necessity of a strong siege train to attack cities; the result was the establishment and financing of a team of engineers, led by a famous engineer called Polyidos, which began operating around 350 (Athenaeus *Mechanicus* 10.5-10; Vitruvius 10.13.3).⁵⁸ These new torsion weapons, then,

⁵² Anson (2010b), 81.

⁵³ Markle (1994), 95-96.

⁵⁴ Sekunda (2010), 450.

⁵⁵ Anson (2010b), 81.

⁵⁶ Anson (2010b), 82.

⁵⁷ Marsden (1969), 58.

⁵⁸ Sekunda (2010), 451.

used “twisted skeins of sinew-rope” to yield a greater force in launching projectiles such as arrows and stones.⁵⁹ Other offensive siege technology, such as rams, and defensive technology, such as enhanced fortifications, are also attested to.⁶⁰ In terms of a timeline, given the large financial costs involved, it is credible that these reforms came later, after the financial gains of conquest had been realised. In fact, we have relatively strong evidence to provide a timeline for this aspect of the reforms. Bolt heads, found from the siege of Olynthus in 348 with Philip’s name inscribed on them, provide us with an earliest date the use of new siege equipment.⁶¹ By 341 this siege weaponry was so well known that it was commented on by Demosthenes (Demosthenes *Third Philippic* 9.50). Likewise, the preoccupation of Macedonians with catapults is alluded to in Mnesimachus’ comedy *Philip*, dated to roughly 345.⁶² Although we hear of Philip using siege engines early in his reign, we hear of the use of various kinds of artillery and rams at the siege of Perinthus in 340 which can be considered to be the results of the work of Polyidos and his team (Diodorus 16.74.3-4). We can conclude that although Philip utilized siege engines from early in his reign, he financed the establishment of a team of military engineers in 350 which produced new siege technology (primarily torsion-powered catapults). The Macedonians began using their new equipment by 348 and by 341 they had made a significant enough impact to be mentioned by Demosthenes and Mnesimachus.

The second aspect of the military reforms attributed to Philip are his innovations regarding the training of his army (in training I will also include enrolment and subsequent increased troop numbers). Adcock, in his study on Greek warfare, states that once there existed an army which “combined professional skill with a national spirit” and which was led

⁵⁹ Murray (2008), 34.

⁶⁰ Murray (2008), 34.

⁶¹ Sekunda (2010), 451.

⁶² Edmonds (1959), 366.

by a first rate general, the art of warfare in battle would inevitably change. He states that this combination was first achieved by Philip II and it would appear that these factors were largely the result of innovative training methods.⁶³ I take Adcock's notion of "national spirit" to be closely related to morale and within "professional skill" I believe there are several elements, namely professionalism, discipline and prowess. All of these can be said to have resulted from Philip's training regime. We hear in Diodorus that frequent assemblies were held where, using rousing speeches, he urged his soldiers "to be men" and "built up their morale" (Diodorus 16.3). This was likely a feature of the reforms that began at the beginning of Philip's reign, and possibly earlier if he practised this oratory on the men he commanded prior to his reign. Given the dire state of Macedonian morale following the defeat by Bardylis, it is probable that this oratory was responsible for the vital rebuilding of morale. Diodorus also states that Philip "held constant manoeuvres of the men" (Diodorus 16.3.1) which is indicative of the practical side of Philip's reforms of military training. This side is related to Adcock's notion of "professional skill," which I briefly explored above.

Concerning professionalism, it was Philip who ended the method of using conscript farmers who fought part-time and worked their farms for the remainder of the year. Instead, he created a professional army where soldiering was a year-round occupation with regular pay and a clear promotion pathway.⁶⁴ The primary way in which he achieved this was through a significant overhaul of the system of enrolment. He was the first of the Argead dynasty to commission non-nobles into the elite cavalry, effectively increasing the strength of the cavalry to 10,000.⁶⁵ This was up to ten times larger than what Perdikkas may have fielded and would have been impossible under his predecessor's systems of enrolment.⁶⁶ This was also

⁶³ Adcock (1957), 24.

⁶⁴ Worthington (2013), 58-59.; Sekunda (2010), 451.

⁶⁵ Howe (2017), 104.

⁶⁶ Howe (2017), 104.

achieved by a significant redistribution of land, in which he transformed his population of herdsmen into a population of loyal landowners capable of maintaining their own horses.⁶⁷ In a similar fashion, he created an elite infantry unit (pezhetairoi) which functioned similarly to the Companion Cavalry and had the same degree of loyalty to the king.⁶⁸ That the army was mobilized year-round is supported by Demosthenes' assertion that Philip "always keeps a standing army by him" (Demosthenes *On the Chersonese* 8.11). Secondly, with regards to discipline, Carney states that the Macedonian army was likely "more focused on obedience to orders than were Greek armies."⁶⁹ This is partly attributable to the existence of a permanent king rather than an a constantly changing leader and so, to some extent, is not entirely an innovation by Philip.⁷⁰ However, Philip effectively used this pre-existing characteristic and built upon it with his own innovative training to create an extremely disciplined army. For example, he demanded an unprecedented physical training regime.⁷¹ As well as contributing to discipline, this regime enabled the prowess mentioned above. He strictly forbade the use of carts and allowed only one attendant for every ten men to assist with carrying equipment (Frontinus *Stratagems* 4.1.6). The infantry carried their own equipment whereas in contrast the custom at Athens was to have one attendant for every hoplite.⁷² Likewise, Polyaeus records that Philip made his men partake in long marches carrying all of their equipment (Polyaeus *Stratagems* 4.2.10). Similar exercises are recounted by Diodorus who states that Philip organized frequent, fully-armed manoeuvres and competitive drills (Diodorus 16.3.1). This strict drill regime was in stark contrast to the training habits of Greeks and tribal peoples to the north.⁷³ As well as drill, Philip used a system of punishment and reward to enforce

⁶⁷ Anson (2008), 17.

⁶⁸ Howe (2017), 104.

⁶⁹ Carney (1996), 23.

⁷⁰ Carney (1996), 23.

⁷¹ Carney (1996), 24-25.

⁷² Pritchett (1971), 50.

⁷³ Carney (1996), 25.

discipline. For example, as reward, soldiers were allowed to keep spear-won booty and awards of land and cash were often given following victories.⁷⁴ Likewise, punishment included flogging, standing guard in full armour and execution (Aelian *Varia Historia* 14.48). With regards to a timeline for these aspects of reform, it is likely that the enforcement of discipline and training began from the outset of Philip's reign. His oratory, forced manoeuvres and punishments could very well have their roots in his command during the reign of Perdiccas. However, the gifts of land and cash cannot have been possible until later, after Macedonia's financial situation improved as conquests increased. Newly acquired wealth later on in Philip's reign allowed this method of encouraging discipline to increase.⁷⁵ Taking these factors and accounts together, it is fair to conclude that the army under Philip was a professional, well-disciplined and highly skilled fighting force and this was the result of the unprecedented training regime which Philip enacted. The resulting effectiveness then allowed for the ambitious new tactics which Philip employed as a part of his military reforms which I will recount next.

'Tactics' is a fairly broad term so within this context I intend to span from the strategies employed on a larger scale by the whole army to the smaller scale actions of individual soldiers. I will begin firstly with the smaller scale actions of individual soldiers and progress to the actions of the whole army. Firstly, as mentioned above under training, the Macedonian infantryman carried with him most of his own equipment and this included enough flour for thirty days (Frontinus *Stratagems* 4.1.6). The implication of this on tactics was that it allowed the army to survive in the field for longer periods and to engage in operations outside of the of the traditional campaigning seasons. Demosthenes states that

⁷⁴ Carney (1996), 25.

⁷⁵ Carney (1996), 25.

Philip “makes no difference between summer and winter and has no season set apart for inaction” (Demosthenes *Third Philippic* 9.50). Also regarding individual tactics was the



Fig. 3: An example of a traditional hoplite phalanx

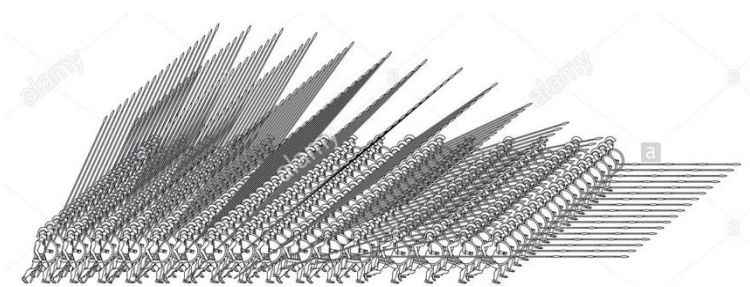


Fig. 4: An example of a sarissa-wielding Macedonian phalanx

participation of Philip himself in battles. He led from the front and the effect of this on morale must have been considerable; by Chaeronea he had lost one eye and was lame in one leg.⁷⁶

Another area where the tactics of individual soldiers contributed to the operation of large units was in the new Macedonian pikeman-phalanx (Fig.4). Plutarch accurately summarises the nature of the phalanx: “the phalanx is like an animal of invincible

strength as long as it is as one body and can keep its shields locked together in a single formation” (Plutarch *Flamininus* 8.4). Although the phalanx was definitely not a new invention, the reformed Macedonian pikeman-phalanx still relied on every individual to perform their role. However, apart from this, the Macedonian phalanx differed somewhat from the traditional hoplite phalanx; the use of the *sarissa* spear meant that at least five spear points could protrude from the front rank as opposed to just one in the hoplite phalanx (Fig.3).⁷⁷ Likewise, the pikeman-phalanx was often deeper to compensate for their lighter

⁷⁶ Hammond (1999), 369.

⁷⁷ Hammond (1989), 102.

armour and thus could produce enough force to equal that of the hoplites.⁷⁸ Bosworth states that it was not Philip who introduced the phalanx to the Macedonian military, instead attributing it to Alexander II, Philip's brother.⁷⁹ He does concede based on Diodorus' account, that Philip modified the phalanx by concentrating it into a tighter formation that had overlapping shields.⁸⁰ This would appear to be supported by Garlan's assertion that contemporary hoplite phalanxes were deployed more loosely.⁸¹ This, along with the incorporation of the *sarissa* into the formation, indicates that Philip certainly at least made some significant changes to the phalanx formation, if he did not introduce it to the Macedonian military in the first place. In terms of timescale, it is likely that the new phalanx was introduced, naturally, at the same time as the *sarissa* because the weapon was far too large to be used outside of this formation. This new phalanx was not a very flexible formation and was limited to certain terrains. It required "level and clear ground with no obstacles" (Polybius 18.31.5-6) and was ineffective in smaller detachments (Polybius 18.32.9). Likewise, they had trouble crossing broken ground as a formation and had vulnerable flanks, therefore requiring constant cavalry support.⁸² Manoeuvring in such a large and tightly packed formation with such long spears and light armour would require immense skill and discipline adding further credence to the extent of Philip's training.⁸³ The new pikeman-phalanx came to distinguish itself as a formidable and highly effective formation, as I will demonstrate in the next chapter.

An innovation on the same scale, regarding tactics, was the introduction of a new formation for the cavalry, the wedge-shaped formation (*embolon*). Prior to this, cavalry had

⁷⁸ Hammond (1989), 102.

⁷⁹ Bosworth (2010), 99.

⁸⁰ Bosworth (2010), 100.

⁸¹ Garlan (1994), 680.

⁸² Anson (2010b), 83.; Markle (1977), 332.

⁸³ Bosworth (2010), 100.

been drawn up in straight lines.⁸⁴ In the *embolon*, however, the cavalry was arranged in the shape of a wedge with the leading officer at the point, allowing him to determine the formation's direction and also increased their chances of piercing any gaps in an infantry formation.⁸⁵ Asclepiodotus compares the formation, and its method of direction, to that of a "flight of cranes" (Asclepiodotus *Tactics* 7.3). This innovation, however, was relatively late compared to others, probably resulting from a defeat at the hand of the Scythians. They allegedly invented the formation and their effective use of it to defeat Philip in 339 inspired him to adopt it himself (Arrian *Ars Tactica* 16.6).

On a larger scale, regarding the tactics of the whole army, a significant reform under Philip was the use of combined forces. By this, I mean a combined use of all kinds of soldier, such as cavalry, light infantry and heavy infantry, in conjunction. This reform was used throughout the reign of Philip. The increased finances generated by almost constant expansion provided Philip with the financial means to develop several new branches of his military.⁸⁶ For example, Demosthenes states that Philip not only marched with a phalanx, but also brought "skirmishers, cavalry, archers, mercenaries and similar troops" (Demosthenes *Third Philippic* 9.49). Philip utilized this tactic from the beginning of his reign and it was partly because of this use of combined arms that Philip was able to defeat Bardylis in 358.⁸⁷ This tactic went on to be used in many ways to suit many situations; it served to compensate for weaknesses in the army and could even turn those weaknesses into strengths. For example, the pikeman-phalanx, although extremely effective on flat terrain, had the weaknesses of being inflexible, having vulnerable flanks and being incapable of single combat. These weaknesses, however, were negated by the use of combined forces. The use of

⁸⁴ Sekunda (2010), 451.

⁸⁵ Hammond (1989), 106.; Sekunda (2010), 451.

⁸⁶ Sekunda (2010), 451.

⁸⁷ Howe (2017), 104.

regular hoplites (who were capable of individual combat and were much more flexible) alongside the *sarissa*-pikemen, provided Philip with a much more flexible force.⁸⁸ Likewise, Philip used light infantry and cavalry to protect the vulnerable flanks of the pikeman-phalanx.⁸⁹ Thus, the weaknesses of the pikeman-phalanx were mostly eliminated. Combined forces were also used in a more offensive function, notably in that which is called the “hammer and anvil” tactic.⁹⁰ The strong pikeman-phalanx, protected and enhanced by hoplites, light cavalry and light infantry, could engage and hold the enemy infantry, serving as the ‘anvil.’ The ‘hammer,’ was the cavalry. Now that the enemy infantry was engaged by the phalanx, the cavalry could assault the enemy flanks to create gaps for the infantry to exploit.⁹¹ The cavalry could even strike the decisive blow themselves in a charge against any gaps that appeared (especially following the introduction of the wedge formation).⁹²

A further innovation with regards to tactics was that in siege warfare. Although evidence is limited, there is sufficient information to reach relatively safe conclusions with regards to Philip’s progress in siege tactics. One particularly informative episode is Philip’s capture of Amphipolis in 357, which is recounted by Diodorus. He tells us that Philip brought siege engines against their walls and launched “severe and continuous assaults” (Diodorus 16.8.2). As effective as these siege engines may have been, at this early stage they were not the product of Philip’s later innovations. Instead the reform that can here be attributed to Philip is the ‘severe and continuous assault’; it was the vigorous nature of the attacks that made Philip’s siege tactics so unique and effective.⁹³ This was likely enabled by other reforms. For example, the 1st Century AD Greek Onasander writes that “courage on the part

⁸⁸ Anson (2010b), 83.

⁸⁹ Hammond (1989), 106.

⁹⁰ Anson (2010a), 65.

⁹¹ Worthington (2013), 58.

⁹² Sekunda (2010), 451.

⁹³ Garlan (1994), 689.

of the soldiers” was necessary for a successful siege (Onasander *Strategikos* 40.1). This courage was most likely enabled by the training and encouragement of morale and discipline. Philip could rely on the determination of his men to quickly subdue a city by force rather than waiting for the city to surrender, as was the common tactic at the time.⁹⁴ This reform was evidently an early innovation of Philip’s given that we see it in action from as early as 357.

As shown, although the evidence is relatively scarce and scattered, a reasonably detailed account of the content and timeline of Philip II’s changes to the military can be formed. That he enacted significant changes to the equipment, training and tactics of the military is undeniable, although there is evidently substantial disagreement over some of the details highlighted above. By comparing the opinions and facts presented in numerous modern and ancient sources, this chapter has attempted to provide the most accurate reconstruction of the changes that is possible. What remains now, then, is to examine how effective and innovative these reforms were to finally determine how revolutionary Philip II’s reforms to the military were.

⁹⁴ Hammond (1989), 109.

2. Effectiveness

How effective were the reforms?

Now that the content and a timeline of Philip's reforms to the Macedonian military have been established, it is necessary to explore them in practice and evaluate their effectiveness and thus, ultimately, how revolutionary they were. This can most effectively be achieved by examining the events of various skirmishes and battles, of which we have evidence, and determining the effect of the various reforms of the military on the outcome of those encounters. I will do so thematically. First, I will evaluate the Macedonian military in battles against non-Greek forces, such as those that were encountered earlier in Philip's reign. Following this, I will evaluate the later encounters in battle with the forces of the Greek city states to the south. The reason for this, as well as chronology, is that the two presented significantly differing challenges. The former still presented a great challenge to Philip, given the long history of defeats and submission at the hands of their neighbours. The latter, however, presented the ultimate challenge. The Greek hoplite army was an unsurpassed and unrivalled force, and by 359 the militarily dominant Boeotians were pre-eminent. That Philip was able to overcome these is testament to the effectiveness of his reforms in general. Finally, I will examine Philip's sieges and the relevant reforms separately. This is because the tactics in this area of warfare differed quite substantially from ordinary pitched battles and also because there are significant reforms in this area that require independent evaluation. It is important to add that it will not be possible to examine every instance of combat involving the army of Philip within the constraints of this dissertation. I will therefore examine those which we have the most evidence for and those which are the most indicative of the effectiveness of the reforms.

The first action of Philip's army came during his invasion of Paeonia (Diodorus 16.4.2). Evidence for the encounter is scarce but it is possible to discern details from knowledge of the nature of Paeonian military; they were effective mobile fighters and had strong cavalry.⁹⁵ Thus, Philip's victory indicates his success in engaging an enemy that had effective cavalry and was capable of rapid movement.⁹⁶ To do so, he would have required a large amount of cavalry which, given Perdiccas' loss of 4000 men, was quite the achievement. The effective reform in this case appears to be the new system of enrolment which allowed Philip to rapidly recover the size of his forces within a year and allowed him to create a cavalry force capable of defeating the highly mobile Paeonians.⁹⁷ Likewise, it is probable that the changes to the infantry had some impact; they must have been capable of quick movement to compete with such a mobile enemy.⁹⁸ No doubt their lighter armour and training contributed to this capability. The pikeman-phalanx formation must also have been of some importance in the victory given the effectiveness of long spears against cavalry.⁹⁹ Although this victory was surely a welcome one, the true test would not come until later in the same year when Philip's new Macedonian army would face that same Illyrian army under Bardylis which had inflicted the catastrophic defeat on Perdiccas just one year previously.

We have greater evidence for this encounter and Diodorus' account comes from a well-informed source (4th Century Greek historian Ephorus), providing us with a detailed glimpse of a significant military engagement.¹⁰⁰ Thus we are able to see a wide range of reforms in action. Philip gathered the strongest force he could for the offensive.¹⁰¹ Prior to

⁹⁵ Hammond & Griffith (1979), 213.

⁹⁶ Anson (2010a), 63.

⁹⁷ Howe (2017), 104.

⁹⁸ Hammond & Griffith (1979), 213.

⁹⁹ Rahe (1981), 85.

¹⁰⁰ Hammond & Griffith (1979), 213.

¹⁰¹ Hammond & Griffith (1979), 213.

departing, he called an assembly and “exhorted his soldiers for war in a fitting speech” (Diodorus 16.4.3). The importance of this aspect of Philip’s reforms, concerning the improvement of morale through oratory and assemblies, is clear. In 359 the morale of the Illyrian army was excellent, owing to their previous victories (Diodorus 16.4.4). The Macedonians on the other hand, because of their defeat and the looming existential disaster, were despondent and afraid (Diodorus 16.2.5; 16.3.1). Yet here we see them marching on the offensive to a decisive victory. Hammond draws an apt comparison with the effect on morale of the oratory of Winston Churchill following the retreat from Dunkirk.¹⁰² Following the assembly, the two armies encountered one another and were almost equal in size; the Macedonians had 10,000 infantry and 600 cavalry and Bardylis had 10,000 “picked” infantry and 500 cavalry (Diodorus 16.4.4-6.). “Picked” appears to indicate that they were elite, as supported by Frontinus’ assertion that Philip noticed that the front of Bardylis’ lines were made up of men picked from the whole army (Frontinus *Stratagems* 2.3). In response he put the elite Macedonians under his personal command on the right flank (Diodorus 16.4.5). The Illyrian army was a worthy opponent; it was effective, varied and led by the capable Bardylis. Hammond states that they fought in the “hoplite manner” and Howe attests to their “wickedly effective cavalry and light infantry.”¹⁰³ Similarly, Anson speculates that some of Bardylis’ soldiers were equipped as heavy infantrymen.¹⁰⁴ Most significantly, the Illyrian army were the first to realise the potential of combined arms; using infantry and cavalry in tandem had enabled many of their victories prior to 359 and it was only through a similar use of combined arms that they could be beaten.¹⁰⁵ The Macedonians faced a fearsome challenge. The Illyrians formed themselves into a square, an effective formation for defending against

¹⁰² Hammond (1999), 365.

¹⁰³ Hammond (1989), 101.; Howe (2017), 100.

¹⁰⁴ Anson (2010a), 60.

¹⁰⁵ Howe (2017), 103.

cavalry (Diodorus 16.4.6).¹⁰⁶ Why Bardylis would adopt such a defensive formation in this situation is unclear. However, Griffith offers a fitting explanation that Bardylis saw the new Macedonian army, rallied from their previous defeat and equipping their new *sarissae*, and realised that this would not be a repeat of the previous encounter; “the square formation was his way of being careful.”¹⁰⁷ Following an initial assault, there was fierce fighting with both sides evenly poised; Philip participated and fought “heroically” (Diodorus 16.4.4-6.). His newly trained and equipped infantry could evidently now hold their own against ‘picked’ Illyrians. A significant development came with Philip’s deployment of the cavalry; they harassed the flanks of the Illyrians and this ultimately caused their rout (Diodorus 16.4.6-7). A deadly pursuit of the fleeing Illyrians was then carried out by the cavalry (Diodorus 16.4.7). Philip must have relied upon his cavalry to eliminate the Illyrian cavalry at an early point in the battle to enable it to prize open the Illyrian square.¹⁰⁸ Anson suggests that this success was made possible by their use of the short cavalry *sarissa* as well as their numerical superiority.¹⁰⁹ Regardless of how they achieved it, they were undeniably very successful. The Illyrians’ mobility was neutralized with its cavalry and their capability to use combined arms was removed by Philip’s skilful use of the same tactic.¹¹⁰ This astounding victory showcases the effectiveness of a range of Philip’s reforms and provides weight to the argument for an earlier date for their introduction. Firstly, and most reliably, we see in Diodorus’ account the use of combined arms and the increase of morale through oratory and Philip’s participation in battle. As shown, these were very effective and contributed to the battles’ outcome. Secondly, as we can infer from speculation based on circumstantial evidence and scholarly interpretation, we see the effects of improved training and the employment of the *sarissa* and

¹⁰⁶ Anson (2010a), 61.

¹⁰⁷ Hammond & Griffith (1979), 213.

¹⁰⁸ Hammond & Griffith (1979), 213.

¹⁰⁹ Anson (2010a), 61.

¹¹⁰ Howe (2017), 105.

related equipment. Although definitive proof is lacking, it is hard to see how the Macedonian infantry held their own any other way. The most important aspect in winning the day, however, was the use of combined arms. More specifically, it was the effective use of the cavalry whilst the infantry held the enemy line in the ‘hammer and anvil’ tactic. Sekunda states that it was only after the adoption of the wedge formation (c.339 BC) that the cavalry became the decisive arm for the first time in Greek warfare.¹¹¹ However, it would appear that Griffith’s statement that, after the victory against Bardylis, “victory by cavalry opened a new vista,” is more accurate.¹¹² It is hard to overstate the effectiveness of those of Philip’s reforms mentioned in this landmark battle.

The next significant encounter in assessing the effectiveness of Philip’s reforms, and the first encounter with a Greek army, came in 354/3 BC during the Third Sacred War. By this point, Philip’s Macedonian army had demonstrated its superiority over the armies of the Balkan states. However, the Greeks and their highly trained and well-equipped citizen armies were world leaders in pitched battles.¹¹³ The first encounters with a Greek army would therefore inevitably be a significant test of the effectiveness of Philip’s reforms. The Greek army in question was a Phocian one led by the leading general Onomarchus. There were three battles, roughly within a year of one another, which I shall here evaluate. Philip entered Thessaly and assisted his allies in defeating a small force of Phocian auxiliaries in the summer of 353 (Diodorus 16.35.1). In autumn of 353, however, Onomarchus entered Thessaly with “his entire military strength” (Diodorus 16.35.2) which Hammond estimates to be approximately 20,000 men.¹¹⁴ Diodorus states that Philip, along with his Thessalian allies, engaged Onomarchus in two battles, both of which resulted in defeats for Philip (Diodorus

¹¹¹ Sekunda (2010), 451.

¹¹² Hammond & Griffith (1979), 214.

¹¹³ Hammond (1989), 111-112.

¹¹⁴ Hammond (1989), 112.

16.35.2). We only have details for the second battle, all of which come from Polyaeus (Polyaeus *Stratagems* 2.38.2). Onomarchus chose a favourable position with his rear protected by mountains. On top of the mountains he placed missile troops in ambush while he formed his army on the plain below. Once the Macedonians attacked, they feigned a retreat, luring the Macedonians up the mountain. The Phocians then reversed to begin the ambush which ultimately routed the Macedonians. Marsden states that Onomarchus also had stone-throwing artillery engines on top of the mountains which must have had a significant impact on the direction of the battle.¹¹⁵ Philip had been defeated by Onomarchus for a second time. He had been out-performed by a professional general and his reformed army had been ineffectual; both armies withdrew. Philip suffered problems with morale and many soldiers began to desert, but he managed to restore order by “arousing the courage of the majority” (Diodorus 16.35.2). His morale-raising oratory had saved the day once again. The two armies met again the following year in their third confrontation. Onomarchus had 20,000 infantry and 500 cavalry; Philip managed to persuade the Thessalians to join him and together they numbered 20,000 infantry and 3,000 cavalry (Diodorus 16.35.4). Hammond estimates that 15,000 of the infantry were Macedonian pikemen and Griffith estimates that at least half of the cavalry were Macedonian.¹¹⁶ Onomarchus made the mistake of marching over the coastal plains rather than through the hills (where the numerical superiority of the Macedonian and Thessalian cavalry could be negated) and here Philip, “by intelligent anticipation,” engaged him.¹¹⁷ A significant defeat was inflicted on Onomarchus’ army and a brutal rout followed, resulting in over 6000 dead, 3000 captured and Onomarchus’ death (Diodorus 16.35.6). Diodorus attributes the victory to the the Thessalian cavalry’s superiority “in numbers and valour” (Diodorus 16.35.5). However, Hammond states that credit must be given to the

¹¹⁵ Marsden (1969), 59.

¹¹⁶ Hammond (1989), 113.; Hammond & Griffith (1979), 409.

¹¹⁷ Hammond (1989), 113.

Macedonian pikeman-phalanx for holding the Phocian phalanx while the cavalry attacked their flanks and rear.¹¹⁸ We see, once again, the effectiveness of the highly-trained, *sarissa*-wielding pikeman-phalanx in engaging and holding infantry. We also see the decisive use of combined arms in the ‘hammer and anvil’ tactic and the use of pursuing cavalry in the deadly rout. Most importantly, we see Philip’s exceptional ability to rapidly recover from a defeat; his oration clearly played a part in this. It is also reasonable to speculate that the improved discipline, resulting from Philip’s increased training, and the improved system of enrolment, played a significant part in enabling the Macedonian recovery of manpower and morale. Speaking more generally, it is undeniable that Philip’s new reformed army was effective because they had shocked Greece by defeating “the strongest army on mainland Greece.”¹¹⁹

The next battle against Greek forces which I shall recount, and also one of the largest and last battles which Philip fought, is the decisive Battle of Chaeronea in 338 BC. Like with many events surrounding this topic, the literary evidence leaves much to be desired.¹²⁰ However, using what evidence we have with some effective deduction, we can create a reasonably accurate series of events. Philip was marching on Athens and requested that the Boeotians join him. Instead, they joined the Athenian-led anti-Macedonian coalition and were awarded command of the coalition army. Plutarch tells us that they raised a mercenary force of 15,000 infantry and 2,000 cavalry, not including the substantial citizen numbers (Plutarch *Demosthenes* 13.7). Justin likewise states that the Athenian coalition was “far superior” in number (Justin 9.3.9). Evidently this was a large force raised against Philip. Hammond provides some more precise estimates based on figures for previous campaigns; they potentially had 40,000 infantry, 4,000 cavalry and some light infantry.¹²¹ Philip, on the other

¹¹⁸ Hammond (1989), 114.

¹¹⁹ Hammond (1989), 114.

¹²⁰ Rahe (1981), 84.

¹²¹ Hammond (1989), 115.

hand, had forces totalling 30,000 infantry and 2,000 cavalry and was assisted by allies (Diodorus 16.85.5). As well as being outnumbered, it had been demonstrated by Onomarchus that Greek hoplites could match Macedonian pikemen. Furthermore, the hoplites were now led by one of the foremost military powers in the Greek world. A significant test of the effectiveness of Philip's reforms therefore lie ahead. Following some initial outmanoeuvring by Philip, the coalition fell back to a strong defensive position by the Chaeronea Acropolis; both armies deployed here and the Greek forces were protected on their left by hills and on their right by marshes.¹²² The flat plain of Chaeronea was ideal terrain for the pikeman-phalanx.¹²³ Furthermore, despite being outnumbered, the Macedonian forces were "invigorated by constant service in the field" (Justin 9.3.9) and "seasoned by long experience" (Frontinus *Stratagems* 2.1.9). Despite the unfavourable numerical difference, there were some aspects in the Macedonian favour. Once again Philip led from the front,

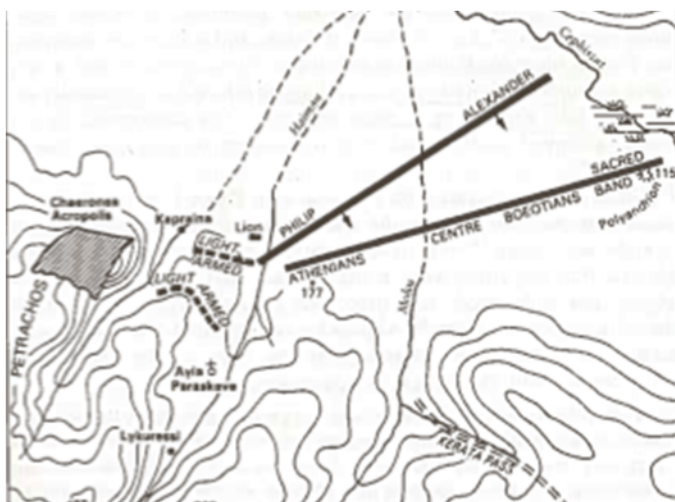


Fig. 5: The Battle of Chaeronea, 338 BC

commanding the right flank whilst Alexander commanded the cavalry on the left flank; the Greek line had the Athenians on the left and the Boeotians on the right, with the elite Sacred Band holding the far right (Diodorus 16.86.1-2; Fig. 5.). The Macedonian army deployed in a

slanting line at an angle to the coalition line so that when battle began, Philip's right engaged the Athenian left first.¹²⁴ Shortly after engaging, Philip ordered a feigned retreat to more favourable ground; the pikemen fell back whilst retaining their formation (Polyaenus

¹²² Hammond (1989), 116-117.

¹²³ Markle (1978), 497.

¹²⁴ Hammond (1989), 118.

Stratagems 4.2.2). The Athenians pursued them, and the Macedonians then reversed direction and began a vigorous assault. Meanwhile the Macedonian left was steadily advancing.

Hammond states that the Greek line, as a result of the Athenian advance, was forced to move forward to prevent gaps forming; however, the Sacred Band stood their ground and a gap opened in the line.¹²⁵ This allegedly resulted in a decisive cavalry charge, which would be somewhat characteristic of Philip's previous strategies.¹²⁶ Rahe, on the other hand, states that there was no gap created and it was unlikely that the cavalry played a decisive role.¹²⁷

Instead, he offers the conclusion that the Sacred Band were defeated by Macedonian infantry in a battle of attrition. Griffith supports a similar conclusion.¹²⁸ He cites as evidence

Frontinus and Polyaeus, who indicate that Philip purposely prolonged the engagement due to his belief in the superior training and ability of his soldiers and that the Athenians were easily exhausted (Frontinus *Stratagems* 2.1.9; Polyaeus *Stratagems* 4.2.7). There is not sufficient evidence to prove either argument. What is certain is that the result was a decisive Macedonian victory with heavy coalition losses (Diodorus 16.86.5; Plutarch *Pelopidas* 18.5). Despite the discrepancies in the events, we can make several important deductions regarding the effectiveness of Philip's reforms from the outcome. We have two key events which both versions acknowledge; firstly, that Alexander assaulted the Sacred Band on the left and secondly that Philip carried out a feigned retreat. The latter was arguably the impressive "*tour de force*" of Philip's trained army.¹²⁹ It is testament to the quality of that training and is even more so given that Markle maintains that it would have been impossible for a phalanx to retreat backwards uphill.¹³⁰ Similarly indicative of the effectiveness of the training was the

¹²⁵ Hammond (1989), 119.

¹²⁶ Hammond (1989), 119.

¹²⁷ Rahe (1981), 87.

¹²⁸ Hammond & Griffith (1979), 600-601.

¹²⁹ Hammond & Griffith (1979), 426.

¹³⁰ Markle (1978), 488.

co-ordination between the far-sides of the Macedonian line. Whether it was cavalry charge or infantry battle that occurred on Alexander's left, there was clearly a degree of co-ordination with the right wing. It is "more than probable" that Philip's intention was to extend the Athenian line and open gaps.¹³¹ As well as training, the victory was testament to the effectiveness of the new equipment. There is scholarly consensus and archaeological evidence that the *sarissa* was employed at Chaeronea and so, if earlier examples are not evidence of its effectiveness, this certainly is. Chaeronea demonstrated the superiority of the *sarissa*-wielding Macedonian pikeman-phalanx in pitched battles and its ability to defeat the best Greek infantry by attrition.¹³² Finally, although the cavalry charge is disputed, if it were the case that it was employed, then this would prove to be another example of the effectiveness of the use of combined arms. If it did not occur, then there is ample evidence elsewhere to attest to its effectiveness and there are several alternative explanations for this victory.

The final aspect of Philip's reforms which I shall evaluate the effectiveness of is his reforms to siege warfare in tactics and technology. The evidence for Philip's developments in siege warfare is mostly circumstantial.¹³³ Despite this, scholars attest to the effectiveness of Philip's army in siege warfare. Hammond states that Philip's gains "stemmed from his unparalleled ability to take walled cities by storm."¹³⁴ Likewise, Garlan asserts that it was in "siege warfare that the military superiority of the Macedonians was most brilliantly demonstrated."¹³⁵ One of the main reasons for this was that the ability to quickly take cities by force understandably had a greater impact on the political scene than pitched battles.¹³⁶

¹³¹ Hammond & Griffith (1979), 602.

¹³² Rahe (1981), 87.

¹³³ Marsden (1969), 60.; Murray (2008), 34.

¹³⁴ Hammond (1989), 110.

¹³⁵ Garlan (1994), 689.

¹³⁶ Hammond & Griffith (1979), 444.

Clearly, there is consensus on Macedonian effectiveness in taking cities. However, it is necessary to examine the evidence in order to determine to what extent this effectiveness was the result of Philip's reforms and why they were effective. Philip likely began financing a team of skilled engineers under Polyidos in 350. This, however, does not explain Philip's early successes. For example, in the first years of his reign Philip captured Amphipolis (357), Pydna (357) and Potidaea (356) (Diodorus 16.8.1-5). Especially impressive is that the Athenians, regarded as masters of siege warfare, had repeatedly failed to overcome Amphipolis' formidable defences.¹³⁷ They had unsuccessfully built a wall around it to force a surrender, a method which could have taken years. In contrast, Diodorus mentions that Philip's attack on Amphipolis utilized siege engines and "severe and continuous assaults" (Diodorus 16.8.2). These earlier siege engines were probably inherited by Philip and are therefore not one of his reforms. The effective reform attributed to Philip appears to be his use of the tactic of 'severe and continuous' assaults.¹³⁸ Given the increased discipline and ability resulting from training and discipline, Philip could rely on his men to quickly take a city by storm.¹³⁹ That we see so many cities taken so swiftly proves the effectiveness of this tactic. Given that this tactic alone was so successful, one could reasonably conclude that the introduction of more powerful torsion catapults after 350 must have exponentially increased their siege-winning capabilities. This, however, appears not to be the case as evidenced by his failure to take Perinthus and Byzantium in 340. These do not necessarily mean that the new catapults and engines were utterly ineffective; other factors were involved in the failure of the sieges. For example Murray attributes the failure of the siege of Byzantium to the lack of adequate naval support.¹⁴⁰ Likewise Griffith speculates that Philip may have decided that

¹³⁷ Hammond & Griffith (1979), 444.; Hammond (1989), 109.

¹³⁸ Garland (1994), 689.

¹³⁹ Hammond (1989), 109.

¹⁴⁰ Murray (2008),

they were not worth committing further time and resources to.¹⁴¹ Furthermore, Marsden states that the torsion engines were not fully developed.¹⁴² Even so it is clear that, although Philip's siege tactics were effective and allowed him to take cities quickly, his reforms of siege equipment (although innovative) were not as effective as the majority of his other reforms were. That is not to say, however, that they were entirely ineffectual.

As we can see, the effectiveness of Philip's reforms is hard to overstate. He successfully employed the changes to the equipment, training and tactics to his army in practice and, as shown above, they all contributed, to some extent, to his numerous victories. Though some were more effective than others, for example the use of combined forces was greatly more effective than the employment of torsion catapults, the reforms in general enabled the defeat of every enemy force that they faced, including the previously pre-eminent military powers of Thebes and Athens. It is for this reason then, that they can categorically be considered to be revolutionary.

¹⁴¹ Hammond & Griffith (1979), 449.

¹⁴² Marsden (1969), 67-68.

3. Innovation

How innovative were the reforms?

The second criteria by which I shall judge how revolutionary Philip's military reforms were is innovation. I shall here explore how innovative and original the reforms were by exploring the various influences, experiences and trends that arguably led Philip and his military to the stage which we have seen in the previous chapters. In order to fully explore these influences, I will first examine Philip's experiences prior to becoming king. This includes, most significantly, periods of time spent as a hostage with the Illyrians and the Thebans. Following this, I will examine the various trends and changes in warfare in general that the Greek world underwent during the fourth century BC. This will then allow me to determine to what extent Philip's reforms were original and independent from general far-reaching changes to Greek warfare and thus how innovative they were.

Although Philip's time as a hostage in Thebes has been widely acknowledged as significant in modern scholarship, his time as a hostage in Illyria has been mostly overlooked.¹⁴³ We hear in the ancient sources that Philip was handed over to the Thebans as a hostage either by the Illyrians (Diodorus 16.2.2) or by his brother Alexander II (Justin 7.5.1) in 368.¹⁴⁴ Despite differences, both sources acknowledge that Philip spent time in Illyria. His captivity, according to Diodorus, began as the result of a severe defeat suffered by father Amyntas III to Bardylis in 383 (Diodorus 14.92.3-4, 15.19.2).¹⁴⁵ Justin, however, states that it

¹⁴³ Howe (2017), 99.; For time in Thebes: Hammond (1999), 355-371.; Worthington (2008), 17-18.; Garlan (1994), 686.

¹⁴⁴ Worthington (2008), 17.

¹⁴⁵ For date of 368: Roisman (2010), 159.

was Alexander II who sent Philip to Illyria to secure peace at the beginning of his reign in 370.¹⁴⁶ Although there is significant difference, we can conclude that Philip spent at least two years in Illyria. This difference is less important given that Philip was born in either 383 or 382.¹⁴⁷ If he was handed over by Amyntas, he would have been too young to learn anything significant. If he left Illyria in 368, however, then he would have been approximately fifteen and certainly old enough to learn. As Worthington points out it is easy to doubt how a teenager, held against his will, could learn anything significant regarding complex military matters.¹⁴⁸ It is important to state, then, that it was customary for young Macedonian princes to learn by example from a young age.¹⁴⁹ Alexander, for example, acted as regent and subdued a rebellion at the age of sixteen (Plutarch *Alexander* 9.1). Not only was Philip therefore old enough to learn, he was also in Illyria at a fortunate time. It was at this time that Bardylis was enacting a transformation of the Illyrian military and frequently engaging the Molossians.¹⁵⁰ It is likely that witnessing this had a profound impact on the personal and military development of Philip as he will have been provided with many practical examples from which to learn.¹⁵¹ What Philip learnt I will split into two categories for ease of analysis, dealing first with his personal leadership and then his military organization and strategy. Bardylis was “an able statesman, a great warrior and, above all, an effective organiser.”¹⁵² He sought to increase Illyrian power and he did so by unifying the various Illyrian tribal groups. Though evidence is limited, and it is impossible to quantify the effects on Philip, we can infer that Bardylis must have had been a talented and respected leader. Philip’s own effective leadership style proved to be a pivotal to Macedonian success. It must have been influenced

¹⁴⁶ For date of 370: Roisman (2010), 161.

¹⁴⁷ Müller (2010), 167.

¹⁴⁸ Worthington (2008), 18.

¹⁴⁹ Worthington (2008), 18.

¹⁵⁰ Howe (2017), 100.

¹⁵¹ Howe (2017), 100-101.

¹⁵² Howe (2017), 101.

to some degree by witnessing Bardylis' unification and effective leadership. The influences on Philip's military organization and strategy, on the other hand, we can identify more easily. In 385 BCE, Dionysius of Syracuse initiated an alliance with Bardylis and sent two thousand soldiers and five hundred sets of armour; these soldiers and armaments were integrated into the Illyrian army (Diodorus 15.13.2). Howe asserts that it was this integration of foreign troops and equipment which initiated the adoption of the tactic of combined arms into Illyrian strategy.¹⁵³ Using the newly introduced Greek soldiers in tandem with the existing Illyrian horseman and infantry likely enabled the Illyrians to dominate the armies of Epirus, and the same tactic was a significant factor in defeating Perdiccas in 359.¹⁵⁴ As shown, the strategy of combined arms proved to be a pivotal reform. Given that Bardylis made use of this effective tactic, it is unlikely to be a coincidence that Philip also employed it. He most likely saw its effectiveness under Bardylis and knew that in order to defeat him, he would have to adopt the same tactic.¹⁵⁵ Combined with the effective holding power of his new pikeman-phalanx, he was then able to perfect the 'hammer and anvil' tactic. As shown, the Illyrians were a dominant power at the beginning of Philip's reign and also their biggest threat. However, Philip was fortunate enough to spend time at the Illyrian court during their most significant military transformation. As will prove to be a common theme in this chapter, the Argead prince showed a characteristic eye for learning from his enemies and using their strategic tools against them.¹⁵⁶

Justin's assertion that Philip's time in Thebes provided "opportunities of improving his extraordinary abilities" highlights the significance of his stay (Justin 7.5.2). The literary evidence for the Theban influence on Philip's reforms is also stronger; as Hammond

¹⁵³ Howe (2017), 103.

¹⁵⁴ Howe (2017), 103.

¹⁵⁵ Howe (2017), 104.

¹⁵⁶ Howe (2017), 108.

demonstrates, we can trace the belief of Theban influence to three contemporary sources, Marsyas, Theopompus and either Callisthenes or Ephorus, all of which expressed the opinion independently.¹⁵⁷ Plutarch and Justin similarly attest to it (Plutarch, *Pelopidas* 26.5; Justin 6.9.7., 7.5.2). Philip was handed over to the Thebans in 368 following the defeat of his brother Alexander II and they were a prominent military power in Greece. This was largely down to the exceptional skill of the general Epaminondas.¹⁵⁸ During his stay, Philip stayed with Pammenes (a friend of Epaminondas) and Plutarch states that Philip became a “zealous follower” of Epaminondas (Plutarch *Pelopidas* 26.5). Philip’s proximity to such a skilled general doubtless influenced his reforms. In order to determine which of the reforms his stay at Thebes influenced, it will be necessary to explore Theban military practice and strategy, particularly those of Epaminondas. Given Philip’s attention to Epaminondas, it will also be necessary to explore his personal traits and leadership style. I will deal with the latter first. Plutarch tells us that Epaminondas excelled in “restraint, justice, magnanimity and gentleness” (Plutarch *Pelopidas* 26.5). He also states that Epaminondas never executed or enslaved his defeated enemies (Plutarch *Comparison of Pelopidas and Marcellus* 1.1) and we see this in his sparing of the Orchomenians (Diodorus 15.57.1). Evidently, the priority was cooperation rather than subjugation.¹⁵⁹ These same traits and policies are also evident in Philip. An example is Philip’s treatment of Upper Macedonia at the beginning of his reign; after expelling Bardylis in 358 he could have imposed a policy of subjugation. Instead, he integrated them into the Macedonian kingdom.¹⁶⁰ Although this is not a reform of the military, the policy was a key factor in enabling those reforms which increased of the size of the army.¹⁶¹ A further trait of Epaminondas that we hear of is his skill and bravery in battle

¹⁵⁷ Hammond (1999), 356.

¹⁵⁸ Worthington (2008), 17.

¹⁵⁹ Hammond (1999), 369.

¹⁶⁰ Hammond (1999). 370.

¹⁶¹ Worthington (2008), 26.

and his leadership from the front (Diodorus 15.93.1). As mentioned in the previous chapters, Philip frequently demonstrated considerable bravery in leading his men from the front and sustained significant injuries. Furthermore, Diodorus mentions Epaminondas' skill as an orator in an occasion where he rouses his soldiers for battle (Diodorus 15.54.4). His emphasis on physical training and practice exercises is also attested to (Plutarch *Pelopidas* 7.3; 15.1). As we have seen in the previous chapters, both of these also proved to be vital to Macedonian success. To name but a few examples, we see the importance of oratory in the recovery of morale following the defeats by Bardylis and Onomarchus. Likewise, we see the effect of training at Chaeronea, whether in the orderly retreat or in Philip's purposeful prolonging of the battle due to his confidence in said training. Evidently, much of Philip's leadership style and many of his personal traits were influenced by Epaminondas.

I will now explore the Theban military practices which may have influenced Philip's reforms. Firstly, two characteristics of Epaminondas' strategy were his willingness to campaign throughout the year, and his ability to efficiently co-ordinate his forces with allied forces.¹⁶² As we have seen, these were also features of Philip's campaigns; the former was so characteristic that Demosthenes remarked on it (Demosthenes *Third Philippic* 9.50) and the latter we see, for example, in the joint action of the Thessalians and Macedonians in the battle against Onomarchus. Further glimpses of Epaminondas' strategies are shown at the decisive Battle of Leuctra, fought against the Spartans in 371.¹⁶³ Although outnumbered almost two to one, the Thebans were victorious (Diodorus 15.52.2; Plutarch *Pelopidas* 20.1). One of the key factors in the Theban victory was Epaminondas' employment of the slanting phalanx. He placed his best troops, the Sacred Band, on the advanced left wing so that they would encounter the enemy first, and his weakest troops on the right side so that they would have

¹⁶² Hammond (1999), 357.

¹⁶³ Worthington (2008), 17.

minimal contact (Fig.6.; Diodorus 15.55.2). The Spartans in response attempted to extend their right flank and, in the ensuing confusion, were routed (Polyaenus *Stratagems* 23.2).¹⁶⁴ It is remarkable that, despite the success of the slanting phalanx, it was not employed by the

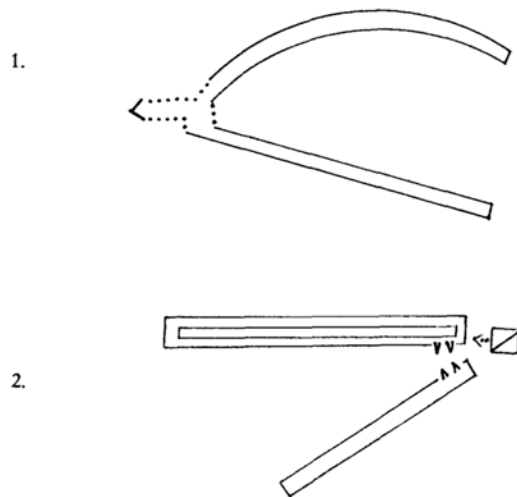


Fig. 6: The Battle of Leuctra (1) and against Bardylis (2)

Greeks even at Chaeronea. Philip, on the other hand, employed it in his first battle against Bardylis in 358, with the elite of the Macedonians on the right flank of the slanted line. He also later employed the same tactic at Chaeronea, with the right flank advancing before the left.

Furthermore, Philip became familiar with the Theban Sacred Band; this is evidenced by his tearful reaction to seeing them dead after Chaeronea (Plutarch *Pelopidas* 18.5). The Sacred Band were one of the earliest examples of a professional and elite military force.¹⁶⁵ It is therefore highly likely that their existence influenced Philip's own creation of a professional army and elite forces (such as the *pezhetairoi*) within it. He will have also learned some more general lessons. For example, one of the most important observations he may have made was what military power could achieve. He saw in Epaminondas that, while a general could be an effective leader and statesman, expansion was ultimately determined by military might.¹⁶⁶ While this does not refer to any reforms specifically, it sheds light on the underlying reasons for the firm commitment to military reform. The influence of Thebes, especially of the general Epaminondas, is clear.

¹⁶⁴ Hammond (1999), 359.

¹⁶⁵ Galan (1994), 678.

¹⁶⁶ Worthington (2008), 18.

As well as Philip's own personal experience as a youth, it is likely that the general trends and changes in warfare in the Greek world also had some influence on his reforms. The first of which was the development of professionalism. Although Philip was an early adopter of a professional army, there were examples prior to him and evidence for an increasing tendency towards the modern conception of a standing army.¹⁶⁷ Although citizen armies continued to mobilize, there was an increasing reliance on mercenaries which drew considerable criticism from Isocrates (Isocrates *Panegyricus* 4.115; *On the Peace* 8.79, 8.82).¹⁶⁸ Some states, despite this trend, maintained professional forces (such as the Theban Sacred Band) and this was consistent with the recommendations of reforming philosophers of the fourth and fifth centuries. Both Plato (Plato *Republic* 2.374C) and Hippodamus of Miletus (Aristotle *Politics* 2.8), for example, advocated the existence of a professional military class. As well as this, the nature of warfare was changing to become more complex. Whereas previously warfare consisted primarily of pitched battles, it was becoming increasingly necessary to capture and hold walled cities and increasingly-fortified strategic zones and thus greater tactical sophistication was required.¹⁶⁹ A professional and trained standing army therefore provided a solution to the increasing challenges posed by warfare and, in the minds of some prominent thinkers, was a logical next step in military development. Furthermore, as mentioned in Chapter 1, Philip II had links to Plato to the extent that he secured a command for him during the reign of his brother.¹⁷⁰ It has been suggested that this connection potentially began upon the recommendation of Philip to Plato by Theban Pythagoreans, which adds further credence to the significance of Philip's time in Thebes.¹⁷¹ Philip, then, was particularly well-placed to receive and institute this new idea.

¹⁶⁷ Garlan (1994), 678.

¹⁶⁸ Garlan (1994), 678-9.

¹⁶⁹ Garlan (1994), 679.

¹⁷⁰ For Plato and Philip, see Chapter 1, p13.

¹⁷¹ Moore (2016), 13-14.

There were several other developments in Greek warfare which may indicate an influence on Philip or a change in the nature of warfare which Philip was responding too. Firstly, for example, was the increased interest in cavalry. Traditionally it had not been used on a larger scale and was employed primarily for harassment and reconnaissance.¹⁷² However, increased interest by the Athenians is shown by Xenophon's concern that the cavalry receive adequate training, good quality horses and effective command in response to the threat of Boeotian invasion in the 360's.¹⁷³ A similar interest by the Spartans is indicated in Thucydides who states that they "took the unusual step" of raising a cavalry force (Thucydides 4.55.2). Although these examples are not clear acknowledgements of cavalry as the decisive arm in warfare, they are indicative of an increased awareness of the importance of cavalry. A second example is the shift towards more mobile and flexible warfare and thus a resulting general lightening of armour.¹⁷⁴ Though hoplites in the late fifth and early fourth centuries continued to be the primary force in the centre of the line, they were increasingly less heavily armed, often replacing their metal cuirasses for linen or leather coats and replacing their metal helmets with lighter or even leather versions; they were also deployed in a more loose formation and manoeuvred less uniformly.¹⁷⁵ This was perhaps a result of the decreasing superiority of the hoplites phalanxes over light infantry. Athenian hoplites under Demosthenes suffered a significant defeat to Aetolian light infantry in 426 (Thucydides 3.97-99) and a Spartan force of hoplites were similarly defeated by a group of mercenary peltasts under Iphicrates in 391 (Xenophon *Hellenica* 4.4.15-19). Both of these instances of a force of lightly armed infantry defeating a heavily armed force of hoplites had a significant impact on contemporary opinion and resulted in the elevated importance of these kinds of soldiers.¹⁷⁶

¹⁷² Garlan (1994), 681.

¹⁷³ Ober (1999), 178.

¹⁷⁴ Garlan (1994), 681-682.

¹⁷⁵ Garlan (1994), 680.

¹⁷⁶ Garlan (1994), 681.

Again, although these are not instances of the wholesale adoption of lighter-armed infantry, they reflect a wide-spread increasing consciousness of the importance of light infantry and the decreased importance of heavy armour. It is certainly conceivable that this was a factor in Philip's lighter-armed *sarissa* pikemen and his extensive use of flexible, mobile forces and light infantry.

Perhaps the most innovative of Philip's reforms, in that it was an entirely new technology, was the creation of torsion-powered catapults. As discussed in previous chapters, Philip's team of engineers under Polyidos constructed the first torsion-powered catapults which were much more powerful than their predecessors. Although this was a new technology it was certainly not without influence; the fourth century BC saw significant developments in the art of capturing cities and Philip was not the only contributor to this.¹⁷⁷ The siege of Plataea at the start of the Peloponnesian War, for example, provided an opportunity for ambitious experiments by both the attackers and defenders, such as the construction of assault ramps and battering rams (Thucydides 2.75.1-2.78.3). A more significant move in this direction, however, was taken by Dionysius I of Syracuse in his war against the Carthaginians at the end of the 5th Century BC. Diodorus recounts extensive and costly preparations for the war which included the creation and financing of a group of engineers, drawn from various places, which resulted in the creation of the first catapult (Diodorus 14.41.3-42.1). This hitherto unknown weapon, along with other traditional creations such as siege towers and rams, caused considerable dismay at the successful Siege of Motya (Diodorus 14.50.4-53). Despite their success, the catapult was surprisingly not rapidly adopted by states on the Greek mainland although its effectiveness was recognized.¹⁷⁸ However, given Philip's evident talent for spotting and drawing influence from notable and

¹⁷⁷ Garlan (1994), 682.

¹⁷⁸ Garlan (1994), 684.

ingenious generals, and his willingness to implement and experiment with significant changes, it is certainly reasonable to suggest that Dionysius' method of financing a group of talented engineers, and the inventions themselves, had an impact on Philip's own reforms in this regard.

As shown, Philip's reforms, although effective, were not complete innovations in the strictest sense and they were not developed purely independently. Aspects of Philip's reforms, from his personal leadership style to the armament of his men and his recruitment of engineers, evidently have some precedent and inspiration in the militaries of states and individuals from Syracuse to mainland Greece and Illyria. However, this does not preclude the fact that they were innovative or revolutionary. In fact, the opposite is the case. Philip's reforms were not innovative in the sense that they were entirely original; most had precedent elsewhere or reflected emerging trends. They were innovative in that he was, in most cases, the first to effectively implement responses to these general trends and usually improved on those things which he adopted from others. Furthermore, they were certainly innovative in his application of them in combination with one another and Philip himself was certainly an innovator in his ability to spot, and his willingness to introduce, the best ideas of his contemporaries and predecessors from a young age. In this sense, then, they can quite safely be considered revolutionary.

Conclusion

A statement by Demosthenes in 341 BC perhaps best illustrates the conclusion which this dissertation has deduced from the information presented in the previous chapters. “We are living today in a very different world from the old one, I consider that nothing has been more revolutionized and improved than the art of war” (Demosthenes *Third Philippic* 9.47).

Philip’s military reforms, then, were undeniably revolutionary. The introduction highlighted a twofold purpose of this dissertation: to establish the content and timeline of Philip’s reforms as a prerequisite to fulfilling the second purpose, which was to conclude how revolutionary the reforms were by evaluating their effectiveness and innovativeness. I will give a brief survey of the information covered in this dissertation below in order to demonstrate the fulfilment of these two purposes and the resulting conclusion.

It is now clear that Philip’s reforms involved significant, wide-ranging and ambitious changes to the equipment, training and tactics of the Macedonian military. Having spent time from a young age in the courts of two significant, and yet quite different, military powers, Philip was particularly well-placed to learn valuable lessons from Illyria, Thebes and their respective leaders. This sharp eye for inspiration and ingenuity was a hallmark feature of his military career and reforms. Then, having most likely had command of a body of soldiers for several years prior to becoming king, he also had the opportunity to test and implement these various new methods and equipment which were either the product of his own ingenuity or of inspiration from his youth. His inspiring, and ultimately pivotal, leadership style, for example, may well have derived partly from the examples of Epaminondas of Thebes and Bardylis of Illyria. Effective tactics such as year-round campaigning and the slanted phalanx were also likely influenced by the witnessing Theban military practice. Likewise, the impressively effective use of combined forces was most likely inspired by Bardylis’ use of

the same tactic. Other reforms, such as the *sarissa* spear and the resulting pikeman-phalanx, were more the result of Philip's own ingenuity and were perhaps borne partly out of financial necessity. So, while perhaps not all of Philip's reforms were original in the strictest sense, they were certainly innovative in their applications, development and use in combination. For example, while the tactic of combined forces perhaps originated with Bardylis, Philip developed and perfected it with the resulting 'hammer and anvil' tactic. Similarly, although the pre-eminence of hoplites and heavily armoured infantry was already beginning to fade before Philip's reign, his creation of the *sarissa*-pikeman and their respective formation were unparalleled in their effectiveness; nothing provided a response to the trend of lightening armour as effectively as Philip's *sarissa*-pikemen. The reforms would also prove to be extremely effective. Philip's defeat of Bardylis, for example, is undeniably impressive. Having suffered a crushing defeat with the loss of 4,000 men and their king just one year previously, Philip led the revitalized and newly armed force of Macedonians to victory. His inspirational oratory and personal leadership proved repeatedly critical to the recovery of morale and the *sarissa*-pikemen were essential in holding the enemy line while cavalry harassed the Illyrian flanks and rear. The battle against Bardylis certainly demonstrates how effective Philip's reforms to the Macedonian military were. Equally as indicative of their effectiveness was his subjugation of the dominant Greek powers resulting from the defeat inflicted by Philip at Chaeronea. In a tour de force of the extensive training and discipline which he imposed on his men, Philip performed an ambitious feigned retreat in full formation and a slanted advance. The result was a crushing Macedonian victory and the complete annihilation of the famous Theban Sacred Band. Philip's military reforms were evidently and irrefutably effective. They were also highly innovative, though to a slightly lesser extent because, as I mentioned previously, there are observable precedents for many of them.

We can conclude then, that Philip's reforms of the Macedonian military were certainly revolutionary. As shown, they were instrumental in enabling him to defeat not only his tribal enemies in the Balkans, but also eventually every army that he faced of the traditionally dominant military powers of Greece. They were the result of Philip's excellent ingenuity as well as the combination of the ideas of some of the best military leaders in the ancient world. Furthermore, they reflected emerging trends in contemporary warfare and realized these very early on, sufficiently so to give a decisive advantage. They were instrumental in Philip's near-complete subjugation of the Greek peninsula and creation of the League of Corinth. Ultimately, they furnished Alexander the Great with the army and military theory with which he crossed the Hellespont and made a profound and lasting impact on Europe, Africa and Asia. Philip's reforms of the Macedonian military, then, can undoubtedly be considered a military revolution.

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