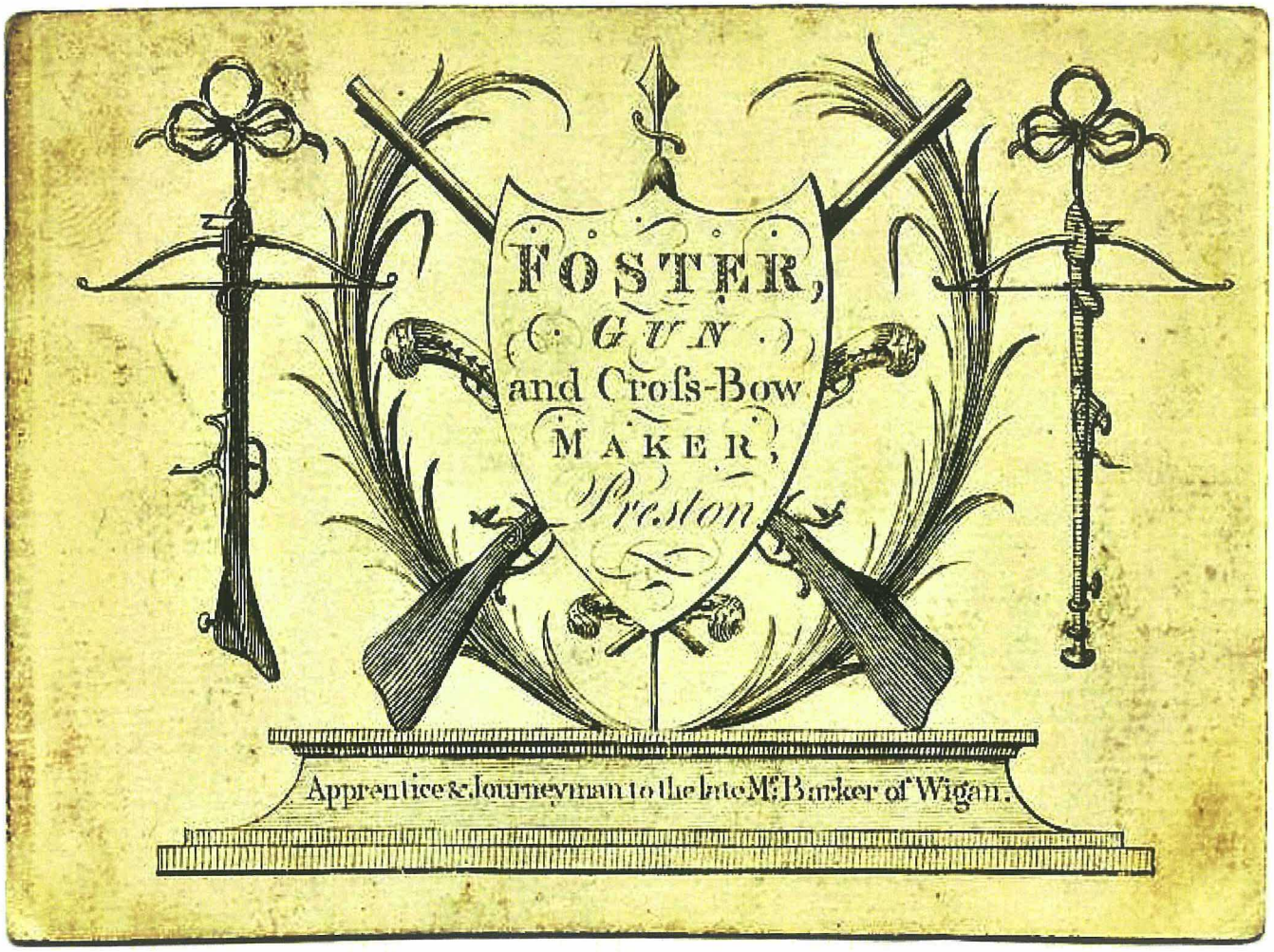
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Volume 61

The Society of Archer-Antiquaries



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2. Please make footnote as brief as possible, put as much material in the main text as possible.

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5. A short bibliographical list of associated works, not specifically referred to in the notes, may be appended.

6. Illustrations: line drawings in black ink clearly and neatly labelled. For half tone plates a glossy, contrasty, black and white print is preferred. Even if the text is on disc the illustrations should if possible be supplied as original drawings and photos. When images are supplied on disc they should be at least 600 dpi jpegs or tiffs, 16 bit grey scale or 24 bit colour. **Please do not embed images in the text but supply as a separate document and simply indicate where they should be placed.**

7. Captions and legends should be as concise as possible.

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Archery warfare in the Greek Classical Age. Tactical development and operational implementation.

Dr. Manousos E. Kambouris and Spyros Bakas

Introduction

In late Aegean Bronze Age societies bows (self bows and composites) were in widespread use, they were the weapon of the lightest armored infantry, but also the weapon of the aristocracy (Kosiorek 2002,53). A symbol of a composite bow is depicted on the Phaistos disc, according to Evans (Evans A. 1928), while Minoans appear to bring wild-goat horn for the construction of Egyptian composite bows, as depicted in the tomb of Menkheperreseneb (Watchsmann 1987,90 ; Bakas 2016). Howard notes that *'at least in the same period as the battles of Megido and Kadesh Mycenaean aristocrats were primarily chariot archers'* (Howard 2011, 57), while we do have evidence to believe that composite bows were widely constructed by the state's specialist craftsmen at least till the end of 13th century BC.

After the Bronze Age collapse, archery emerges again in Crete as the Dorian Spartans hire Dorian Cretan archers in their 9th or 8th century first war against their fellow Dorians, the Messenians (Paus. 4.8.3). They embraced the bow operationally and founded a mercenary tradition so that the Cretan archer-mercenary became an archetypal figure. The Cretan bow, wielded perhaps only by Cretan mercenaries, is known on the mainland in the eighth century BC, and was fairly common in the 7th (Snodgrass 1964, 156). In the late 6th century BC artists take up, quite intensively, the subject of the Scythian archer, with his distinctive trousered costume and barbarian facial features. The sudden appearance of Scythian troops can only be connected with the tyrant Peisistratos (Snodgrass 1998, 83). The Classical era Greeks used substantial bodies of archers even if held in low regard in contrast to the spear-wielding hoplites. Large areas of the country become proficient with the bow and archery was absorbed into its culture. The weapon was used with surgical accuracy against the prominent archer invader, Persia, with dramatic effects on both land and sea. The shooting technique and tactics of the era imply direct, aimed shots, but some decades later indirect, high trajectory shooting is also mentioned as a known skill.

The Classical Age. Reformations

The archers in Greek service are either imported foreigners (possibly Greeks from other areas, Cretans being the usual choice) (Thuc. VI.43), or native archers developed by authoritarian regimes to provide internal security (figure 1). The tyrant Polycrates of Samos had 1000 of them, (Hdt. 3.39) definitely Greeks, and possibly , but not probably, Samians; while Peisistratos of Athens had a body of Scythians. Irrespective of their origin they could integrate into a phalanx and shoot covered by the hoplite shield formation *(parentaxis)* (Ascl. 1.6.1.8), most probably from a semi-kneeling position, operating as 'snipers', taking careful aim (Snodgrass 1998, 83). Kneeling in this position is definitely no way to shoot the bow over a great distance, so those archers can be assumed to be shooting at close range and consequently to a high degree of accuracy (Davis 2013, 131).

The Cretans served as mercenaries against the Persians as excellently illustrated by Green in *The Year of Salamis*. According to the Stele of Troezen the Athenian democracy had enough archers in 480 BC, to post four to each trireme, which means at least 720 men. It is very interesting that after Peisistratos there were no archers available in Marathon, to defend the city in 490 BC (Hdt. 6.112). Three hundred Cretans or Athenians (another 400 may have been with the fleet) fought in 479 BC at Plataea where they excelled against the Persian cavalry (Hdt. 9.22). They were the only missile troops worthy of the name in the Greek side, in numbers, skill and effectiveness, so much so that the Spartans requested their assistance to fend off the attackers when under a Persian arrow storm (Hdt. 9.60). The shooting of the horse of the Persian cavalry commander implies a direct aimed shot, which in turn suggests *parentaxis* within the elite hoplite unit and not *epitaxis* (Ascl, 1.10.1.14) behind them, which allows only for indirect fire.



Fig. 1. An archer (possibly Greek), bracing his bow, from a red-figure cup in the Museo Archeologico Etrusco of Florence, 500-450 BC (Copyright Spyros Bakas).

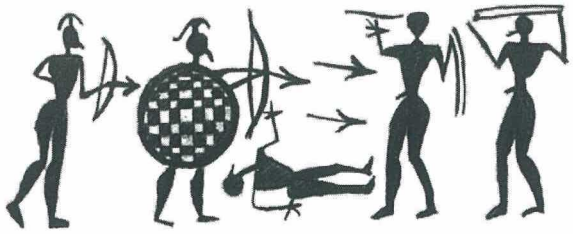


Fig. 2. Middle 8th century BC amphora from Paros (Hughes, B., Robson, F. , 2017,233).



Fig. 3. An archer (possibly Greek) in motion, holding a short Scythian bow and a small shield. From a red-figure kylix (500-450 BC). (Ivantchik A. 2006, 2013)

Archers with shields

After 510 BC the Scythians could not be accessed because the Persian Empire had cut both land and sea routes to the Black Sea, therefore these archers are Greeks, and possibly account for the shield bearing and/or armoured archers illustrated in art (fig. 2). This implies holding the bow at the left hand with the presence of the *antilabe* (hand-grip) near the edge of the shield. It is a cumbersome practice when used from standing position, but kneeling alleviates the problem as the rimmed edge of the shield can be rested on the ground. Half-kneeling is the standard shooting position for Scythians in Greek art as horsemen with short bows apparently felt more comfortable in this posture than when standing. The Greek archers do not use the asymmetric Scythian bow, as there is no need to do so when on foot. They are depicted primarily with symmetric Scythian bows especially of short size (Figs.2,3,4). Still, the Greek bow is not very big, compared with the longbow. Both Herodotus and Xenophon are impressed by long bows; the former in Persian hands (Hdt. 7.61) and the latter in Cardouchian hands (Xen. Anab. IV.3). Moreover, the Indian longbow made a lasting impression on Alexander's troops (Arr. Ind.16.6.6), as they had perhaps on their forefathers as well, since Indian archers were present in Xerxes' host (Hdt. 7.62).

Shielded Archers

Light infantry using small two-handled circular shields appear in late Mycenaean frescoes from ancient Pylos (fig.3) These fit well with the small, bronze-covered, circular shields that Xenophon says Cretan archers had (Xen. *Anab.* V.2.28-32); there is no mention of them being rimmed or rimless; though the term *pelte* properly means rimless. Xenophon, writing almost half a century before Aristotle (the latter classified the shields more precisely), never used the terms 'hoplon'/'shield' and 'pelte' inconsistently. With the pelte shield, light, small and rimless, the holding of the bow when standing while having the shield at the forearm at the ready is easy. The shield is moved up a bit and the antilabe is at the wrist instead of the palm. As *pelte* shields always had a belt to sling them on the back when fleeing, this was another option, although less practical in exchanging fire. But having the pelte at the forearm permitted a very fast shoot-shield cycle, clearly advantageous against unshielded archers in skirmishes on broken ground or other kinds of non-set battles. A well-trained Cretan would use the time of covering, which brings the left hand and thus the bow near the center of the chest, to nock the new arrow to his bow and draw as soon as ready, cutting the time and exposure to enemy weapons.

It is no accident that Thucydides says that in 424 BC the archers of the Athenian task force in Aetolia kept the local javelin men at bay over extra-rough terrain as long as they had arrows; then slaughter ensued (Thuc. 3.98,1). Although our sources are silent, there is no need to exclude lightly shielded archers from the 9th century Cretans in Spartan pay, or the 5th century ones fighting against the Persians. The ability to combine with heavy infantry is also long-standing.

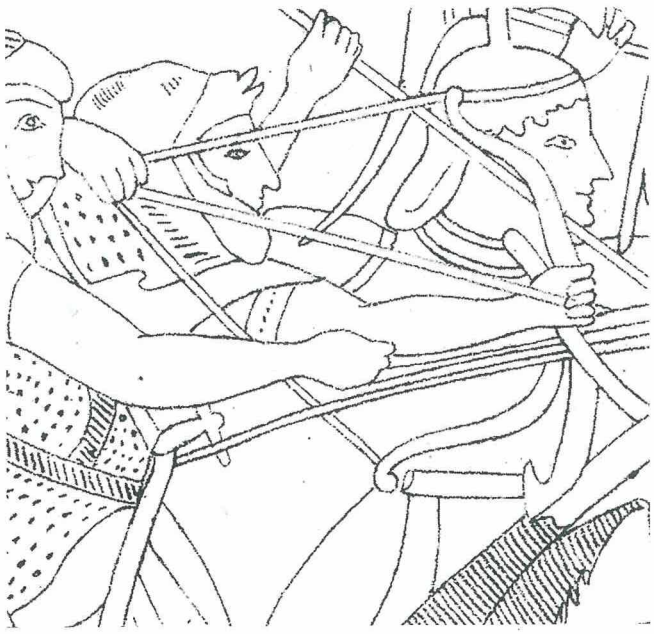


Fig. 4. Depiction of Heracles shooting with a short composite Scythian bow in full-draw. From a black-figure amphora in Florence, Museo Archeologico Etrusco. (550-500 BC).

Mobile Shooting

The interesting point is that in the 5th century the archer contingents are not missile troops firing en masse, but light troops using motion, manoeuver and fluidity on the battle field, and perhaps able to shoot almost on the move (Fig. 5); a skill perhaps inherited from their Mycenaean forefathers as noted before. In rough terrain speed of movement maybe reduced, but in such conditions where there is a need of continuous movement and snap-shooting tactics, it seems more possible that the archers would have favoured a drawing technique which would effectively stabilize the arrow in their hands during the motion. We can assume that the primary, secondary and tertiary methods of drawing the bow would all fit this kind of warfare. A statistical comparison of the depicted drawing techniques of that era justify this assumption (Bakas 2014).

In Greek mobile archery, shooting is direct and the arrows are comparatively small. Cretan archers in 400 BC returned spent Persian arrows back by shooting high, in indirect mode , because these arrows were too big for their bows (Xen. *Anab.* III.4.16). This shows a high degree of experience, skill, initiative and adaptation; it also shows us the superiority of the Persian bow in range, as witnessed and attested by Xenophon himself (Xen. *Anab.* III.3). The high-arc shooting is mentioned as something unusual and exceptional, showing the limited range of either the standard Greek archery or knowledge of the professional soldier on this subject.

The use of archers is a complicated issue. The expeditionary warfare undertaken by the Athenians needed specialist troops to operate far, in unknown terrain and for indefinite periods, as sieges had no seasonal limitations. This turn of events started from the effort to expel the Persians from European soil but went on to embrace all the civil wars Athens was later involved with. Scythians were reintroduced in 446 BC (Andoc. 3.5), and in 434 BC a decree was issued to both civic and alien archers (Jameson, 2014, 44-46). Cretan archers, in small numbers, were among the archers sent to Sicily in 415 BC (Thuc. VI.43), evidently offering capabilities unavailable among other archers in the Athenian roster, most probably the skill in shielded foot-archery. In the same context, after the Pylian Disaster of 425 BC, Spartans reintroduced archers (and cavalry) to fend off Athenian raids from Pylos and rebel Helot encroachments (Thuc. IV.55). Western Greeks, in Sicily and southern Italy used both native and mercenary archers, without leaving us any record on their modus operandi, organisation, skill and equipment.



Fig. 5. An archer who is shooting while in motion, from a red-figure cup in the Claudio Faina Museum and Civic Archaeological Museum, Orvieto, 500-450 BC (Copyright Spyros Bakas).

Conclusions

The hoplite ideal, and the development of an agrarian society, did not favour the archer in Greek communities. The hoplite was the best choice to colonise the Mediterranean, with a few ships, manned with small numbers of colonists, and sent to many locations but in tiny numbers at each place. It was also a better choice to impose oligarchies, or to fight in a strict framework of 'justice-in-war' with their neighbouring communities and, in general, to occupy and hold terrain vital for food production. To save the horse and extend the notion of honour and virtue, the bow is prohibited in some set-piece battles, so as to allow the hoplites to show their skills. Construction of a bow is expensive and difficult, and mastering it demands time and practice which could be ill-afforded by the agrarian (farmer) or bourgeois (such as craftsmen) part-time warriors. Its exclusion is a matter of choice. Archery is a tricky discipline and it needs constant and hard practice to acquire skills and keep them honed. But the same is the case with hoplite gear. Hoplite gear is expensive, but it became more affordable for the civic body than the panoplies of earlier times ever were. Being a hoplite was not easy, but the essentials were attainable with some hard practice in a year of mandatory service as in 4th century Athens. But the essentials of archery are just as easy to learn, and the weapon is by no means more expensive than standard hoplite gear.

Greece is a land excellent for pasture, and for acquiring the raw materials for bows of the best quality. The Greeks simply preferred the spear. It is obvious that the few communities which chose differently (Crete for example) had no difficulty in producing excellent archers and decent weapons, as did much poorer areas such as the steppe, throughout history. In this framework, Greek archery survived discretely and flourished in its second youth with the advent of comprehensive and integrated multi-arm expeditionary forces able to operate in difficult terrain. The striking similarities in the form of bows and arrows in an unbroken succession of representational evidence spanning 900 years, show the continuity and nativeness of an important though uncelebrated Greek archery tradition (Kambouris, Bakas 2017, p168).

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