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THE HOPLITE REFORM AND HISTORY

I HAVE tried to analyse elsewhere¹ the archaeological evidence for Greek armour and weapons, and their possible effects on tactics, in the critical period of the eighth and seventh centuries B.C. There, I was of necessity concerned with the monumental evidence, and did not look far beyond it. But there are historical implications which should be faced and also, I think, some further historical support for the conclusions there reached.

The conclusions were briefly these. The equipment of arms and armour, which modern writers tend to group together as the 'hoplite panoply', was originally a motley assemblage. Certain of its components—the long iron sword and spear—were part of the equipment of most warriors of the era, and of many periods before and since. Other items resemble those used by Mycenaean warriors some five centuries earlier: these include the bronze plate-corslet, the greave and (an optional accessory) the ankle-guard. I cannot believe, with some scholars, that such advanced and costly products of the bronze-smith had been produced continuously throughout the Dark Age that followed the fall of the Mycenaean civilisation; and indeed for at least 400 years there is no evidence of any kind that they were. Rather, they were revived or readopted: the corslet apparently under the influence of the metal-working cultures of Central Europe and Italy, the greave and ankle-guard spontaneously, although the Epic tradition had never forgotten their earlier use. Other items again, the closed helmet of the type that the Greeks called Corinthian, and the large round shield with arm-band and hand-grip, were Greek variants devised as an improvement on foreign models, principally the metal open-faced helmets and round single-grip shields used by the Assyrians, Urartians and other Eastern peoples. The combination of all these elements together was an original Greek notion; as was their later association with a novel form of massed infantry tactics, the phalanx.

This brings us to the question of chronology. The adoption or readoption in Greece of each of these elements of the panoply, with the exception of the greave, can be shown to have taken place decidedly earlier than 700 B.C., though not probably earlier than *c.* 750. This conforms with the likeliest date at which the foreign models, whose influence we have posited, would become accessible. The European metal-workers would be encountered at the beginning of Greek colonisation in Italy (*c.* 750), the Oriental perhaps with the new onset of the Assyrians on the Mediterranean seaboard under Tiglath-Pileser III (745–727). On the other hand, the full equipment is first definitely shown together, on one man, on Protocorinthian vases of *c.* 675 B.C.; and the massed tactics of the phalanx are first convincingly represented, also on Protocorinthian, hardly before the middle of the 7th century. There may, of course, be other uncertain factors at work here: the tendency of the Greek artist to portray nudity where it would not occur in real life, and the great difficulty for the vase-painter of depicting the phalanx at all. But the chance statements of contemporary poets, and the evidence of the only relevant grave-group, both support the *prima facie* evidence of the artists: that the adoption of the 'hoplite panoply' was a long drawn out, piecemeal process, which did not at first entail any radical change in tactics.

This conclusion has, after all, a certain historical plausibility. Since there was no true precedent, but only partial parallels, for the new developments, it would have been extraordinary if the hoplite had sprung fully-armed from the head of some unknown genius, and at once taken up his position in the phalanx. Rather, we should expect that the different improvements in armour, coming as they did from a variety of sources and not all at the same moment, would be adopted, as occasion offered, by the warrior class of the period. This class was the aristocracy; and its methods of warfare are known to us, not only from Homer (whose evidence is usually ambiguous), but from the occasional remarks of poetic

¹ *Early Greek Armour and Weapons* (Edinburgh, 1964), esp. pp. 83–4, 89–90, 136–9, 193–204.

aristocrats like Archilochos, from the researches of Aristotle and other later writers,² and from the military scenes of the contemporary Geometric vase-painters, predominantly Attic and Argive. In such battles, the horse apparently played a considerable part, though its purpose may more often have been to serve as a transport animal, rather than as a charger in true cavalry warfare of the kind to which Aristotle refers. But to judge from the vase-paintings, infantry battles were commoner. In these the warriors on either side were armed with shield, sword and spears, but were for long without metallic protection for the head or body. The spears were predominantly used as javelins, and the engagements partly fought out at a distance, with archers, by the late eighth century at least, also taking a part.

Thus far, the picture of pre-hoplite warfare conforms to some extent with the Homeric descriptions. But one other feature appears often enough in the vase-paintings to be taken as characteristic: this is the beached warship, sometimes with an amphibious battle taking place at the point of landing. This cannot be entirely of heroic or mythological import, nor relevant only to Attica³; it therefore suggests a form of warfare in which raiding, by small parties of warriors, was a familiar tactic. Such raids will also have been possible on land for mounted men; and it may be that the Greek aristocrats of the late eighth century fought strategically, as they often did tactically, at long range, making armed forays of an offensive character against the territory of other cities. Whether they ever, in the battle itself, fought in a series of individual duels between rival champions, such as the Homeric poems portray, is far more questionable. The literary requirements, which may largely explain this picture, would not operate on the battlefield.

What would one expect to be the impact, on such a pattern of warfare, of the purely technological advances made in the later eighth century? Surely, that each improvement would be adopted by the aristocrats of the day, as far as possible within the existing mode of fighting. Thus there is the tradition that Timomachos the Aegeid, captor of Amyklai in the mid-eighth century, wore a metal corslet which was carried in processions in later days (see note 2 above). The horseman, infantryman and marine would benefit alike from having a metallic helmet, corslet and greaves. They would also theoretically benefit from having a larger and more protective shield, also faced with metal; but here arose the complications of weight and manoeuvrability. The Assyrian infantryman had gone into battle with a large, round, bronze-faced shield which he held in the time-honoured way, by a central handle, supported in some cases also by a strap passing round his neck. The Greeks, less robust or more ingenious, devised a new method of overcoming the weight of such a shield: the central arm-band, with the hand-grip shifted to the right-hand edge. It has been claimed that this simple improvement entailed a sweeping change in tactics, but this is an exaggeration. There are many later parallels in history for the use of such multiple-handled shields, without any such formation as the phalanx being entailed.⁴ Certainly it would be hard to protect one's right-hand side with a shield so held; but so would it with any type of shield, save the long-extinct leather body-shields of the Bronze Age. One would expect the aristocrat, at least when fighting on foot, to make use of such a shield even in an era of missile-warfare. He could let go of the hand-grip to hold his spare javelins; and he would often have a horse (and no doubt a squire) at hand to relieve him of its weight before and after the fight.

Finally, emboldened by this protection, the warrior would tend to close the range at which he engaged. Having thrown his javelins, he would close with the sword; alternatively, he would exchange his two or three javelins for a single, heavy, thrusting-spear which would

² Aristotle, *Pol.* 1289b 36-40, 1297b 16-28: fr. 611, 51: cf. Strabo xiv 643: Plutarch, *Mor.* 760-1. Note also the metal corslet of Timomachos the Aegeid (Aristotle fr. 532 (Rose), in Schol. on Pindar, *Isthm.* 6 (7). 18; cf. on *Pyth.* 5. 101).

³ On this question see Kirk, *BSA* xlv (1949), 144-53.

⁴ E.g. the Romans and Dacians in Trajan's day: Cichorius, *Reliefs der Traianssäule*, pls. 69 etc. The shield of the later Medieval knights: R. W. Oakeshott, *The Archaeology of Weapons*, figs. 132-3.

become his main weapon. All this could happen without any wider change in man-power, or in the general attitude to warfare.

Thus far, this has been a hypothetical argument: but it can be supported and illustrated, at almost every stage, by the evidence of archaeology or, more rarely, of contemporary literature. First one may make a general point: namely that, with the rather higher dating now provided for the introduction of many of the improvements, it follows that they were present in the Late Geometric era, the very period in which the painters are portraying the old, pre-hoplite style of warfare. Their presence is occasionally indicated by these artists; and the hoplite shield is unambiguously shown on two vases of the Late (but not the very latest) Geometric style.⁵ In both cases it is carried by warriors who are following each other in a repetitive file round the vase; it is not yet shown being wielded in battle, and this may be significant. Possibly a distinction is to be drawn between such decorative subjects and the true battle-scenes; conceivably the latter are all intended to represent episodes from saga or mythology. It has been argued that both the chariot and the predominant type of shield (the 'Dipylon' form) in such scenes are merely heroic property, and do not correspond with contemporary usage.⁶ But it would be unwarrantable to dispose of the whole body of contemporary pictorial evidence on such grounds. Even if the subject-matter of all these scenes were legendary, it would be extraordinary if the artist's depiction of them were not in some way coloured by his experience of contemporary warfare. We thus have evidence that the tactics of the Geometric battle-scenes could be, and were, combined with the use of the hoplite shield, and of the metallic helmet and corslet.

For the last two items, there is conclusive evidence from another source besides the paintings: the Late Geometric grave discovered at Argos in 1953.⁷ The warrior buried here was a young man of substance; he may also, if the iron axes and huge fire-dogs in the shape of warships mean anything, have been a ship's captain or marine, as the excavator suggested. He wore a bronze helmet of early type, new to Greece but very soon to become obsolete with the development of the Corinthian helmet, and a superbly made bronze cuirass of the type which Greek hoplites wore for some two centuries afterwards. It might seem rash to conclude that he was an aristocrat; but the unparalleled nature of the find for its period, and the other indications of wealth, make this a natural inference. In addition, the connexion of the horse with a prominently drawn helmet, almost certainly metallic, is established by a small group of paintings, of Argive as well as Attic provenance.⁸ In these, the helmeted warrior is shown either actually mounted, or holding the heads of one or two horses.

The next stage in the evidence is represented by the scenes on a number of vases, mainly Corinthian and Attic, of the first half of the seventh century. Here again there is ambiguity in the evidence. It has been claimed that certain features of these scenes are romantic survivals, while others are based on up-to-date observation; and that the scenes themselves, according to the presence or absence of these features, are sometimes legendary, sometimes contemporary in subject-matter, or else a mixture of the two.⁹ I have no wish to ridicule such a theory, which in part at least is well-supported. But it seems better to make certain objective observations about these scenes:

(i) Only a very few of the latest scenes in the group (all Corinthian) unmistakably

⁵ *BSA* xlii (1947), pl. 19A (Benaki Museum): lii (1957), pl. 3A (from Eretria, in Athens): *Early Greek Armour* 62. To these we may now add a sherd from the Kerameikos, *AA* 1963, 649, fig. 5.

⁶ Webster, *BSA* I (1955), 41-3 and *From Mycenae to Homer*, 169 f. on the shield: cf. *Early Greek Armour* 58-60, and 159-63 (chariot).

⁷ *BCH* lxxxii (1957), 322-86.

⁸ Attic: *AM* xvii (1892), pl. 10; Robinson, Harcum and Iliffe, *Greek Vases in Toronto*, pl. 9. 120.

Argive: *Tiryns* i, pl. 15. 5; *Argive Heraeum* ii, pl. 57. 4; *JHS* lxxiv (1954) pl. 8. 3; *BCH* lxxviii (1954), 413, fig. 4; and another unpublished sherd from Argos, shown to me by Prof P. Courbin.

⁹ See especially Miss Lorimer, *BSA* xlii (1947), 80-108. This view was rightly criticised by Roland Hampe, *Ein frühattischer Grabfund*, 82-3.

portray men operating in a close-packed formation that can be called a phalanx. In the main, the warriors are either alone, or engaging in a series of individual duels, or in a more or less loose formation, often with variegated equipment. It should be stressed that even uniform equipment and fairly close formation are not peculiar properties of the hoplite: New Kingdom Egypt, seventh-century Assyria and pre-hoplite Greece all show examples of these features.¹⁰

(ii) Of the scenes in which spears are carried, a majority give two spears to each warrior. This is most easily intelligible if one or both spears are to be thrown; and two even later Corinthian vases do clearly show twin spears with thongs attached for this very purpose.^{10a} The Classical hoplite, on the other hand, had only one spear, for thrusting.

(iii) A majority of the scenes show the warriors wearing something less than the full hoplite equipment: in particular, either the corslet or the hoplite shield is definitely absent in many cases.

(iv) The modes of fighting differ: in particular, one group of Attic vases shows warriors engaging in single combat with long swords.¹¹ This again is not hoplite practice, unless we are to imagine that these warriors have broken their spears.

I believe that these pictures are in fact the documentary evidence of a transitional stage in the development of Greek warfare. In this stage, there was as yet no crystallised formation or form of tactics; indeed, there was no standardised panoply, either of armour or of offensive weapons. Instead, the familiar tactics of the previous century were being gradually modified—for instance, there is now an overwhelming concentration on hand-to-hand fighting. But the equipment remains much the same as in the last generation, except that the helmet has been improved and the greave is now often present. It may also be possible to recognise glimpses of this kind of warfare in two contemporary poets. The use of the javelin, perhaps in conjunction with the hoplite shield, is twice indicated in the surviving poem of Kallinos of Ephesos; while the sword-duels (see (iv) above) may be recorded in Archilochos' prophecy that an imminent war in Euboea 'ξίφείων . . . πολύστονον ἔσσειται ἔργον', where the prospective participants are also referred to as 'lords'.¹² Here there is no mention of the spear (except in the traditional epithet *δουρικλυτοί*), although we know from other fragments that Archilochos fought with the hoplite shield and spear.¹³ Furthermore the mounted warrior, though not yet a common figure in Greek art, is less rare in the early seventh century than in the late eighth.¹⁴ He is seldom equipped as a true hoplite at this date, and may well represent a survival of the aristocratic 'cavalryman', who now probably used his horse mainly for transport.

It therefore seems unnecessary to believe that a radical change in the warrior class, with its social and political implications, had yet taken place. This would only occur after—if very soon after—the adoption of the phalanx. But it is an equally fundamental question, what the scope and effects of such a change would be when it did happen.

In seeking an answer to this question, we are fortunately not confined to the world of early Greece, with its extremely thin documentation. The superiority of hoplite equipment and tactics was such that they came to be adopted, in emulation of the Greeks, by several other peoples. Of these the Carians perhaps take first place chronologically, but their case

¹⁰ Cf. Myres, *Homér and his Critics*, 183 and pl. 6.

^{10a} Chigi Vase: *Antike Denkmäler* ii, pl. 44 (far left). Alabastron in Berlin: *AA* iv (1889), 93.

¹¹ *CVA* Berlin i, pls. 28. 1; 44. 2; *BSA* xxxv (1934-5), pl. 52 a: Hampe, *op. cit.* fig. 37, upper right.

¹² Kallinos i 5, 14; cf. 10. Archilochos fr. 3.

¹³ *Frr.* 2 and 6.

¹⁴ *CVA* Berlin i, pls. 42. 4; 44. 2; Welter, *Aus der Karlsruher Vasensammlung (Bausteine* i), pl. 1. 2 (all Attic). *Artemis Orthia*, pls. 92. 3 and 104. 1 (Lacanian). To these we may add many terracotta figurines of mounted warriors, such as *Tiryns* i 83 fig. 20; *Perachora* i. pl. 100. 166; *Argive Heraeum* ii, pl. 48. 245.

is not an enlightening one.¹⁵ The literary tradition, such as it is, is misleading; there is no evidence, nor is there ever likely to be, from artistic representation; while actual finds of armour have yet to materialise.

Far more rewarding is the study of the two stages whereby the new form of warfare first passed from Greece to Etruria, and then from Etruria to Rome. Part of its value lies in the fact that the nature of the evidence is so different from that in Greece. Admittedly there is much useful information here also to be gained from pictorial evidence, especially in Etruria. But in the case of Rome there is a literary account, diffuse if incoherent, and this account includes just enough about Etruria to confirm the natural inference from the archaeological material.

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Before examining this, however, I think it is worth making a few observations on the whole subject of hoplite warfare. Sometimes the fundamentals stand in greatest danger of being overlooked.

First, the entire concept of a hoplite army must always be based on a qualification of wealth: the wealth necessary for the individual soldier to pay for his own panoply. This point has of course been made by many commentators, ancient and modern. In the state of society in which the system was invariably adopted, this qualification could be assessed primarily in one commodity only, landed property. The hoplite phalanx must, for a time at least, be recruited largely from the ranks of the farmers. These would hardly be mere smallholders; in a country as poor as Greece, one would judge that only a fairly substantial landed proprietor could afford a panoply which was not only intrinsically valuable, but which (particularly in the case of the Corinthian helmet) required exceptional skill in the bronze-smith and a considerable amount of his time.

There is also the question of an *upper* limit to the property qualification of the hoplite class. Can we believe that, from the first, the aristocrats and men of exceptional wealth took their place in the phalanx beside their supposed inferiors? Any answer to this is largely dependent on the function that is allowed to the cavalry before and after the hoplite reform. The position, at least as far as Athens was concerned, was made clear by the researches of W. Helbig at the beginning of this century.¹⁶ The Athenian *ἑπταεῖς*, by a deft compromise, were able to keep their horses (and servants) and yet serve in the phalanx. The horse was used only for transport, and on the battlefield the aristocrat, already accoutred as a hoplite, dismounted and took his position in the line, leaving his horse to a squire.

Such an arrangement need not necessarily have gone back to the very beginnings of the phalanx, especially if there had been true cavalry warfare in the preceding period. Aristotle assures us that, in Euboea and Ionia at least, there was; and certainly, in some of the more backward areas of Greece, cavalry warfare was traditional and remained in use down into the Classical era. When Helbig applied his theory of mounted hoplites to early Rome and other more primitive communities, he was understandably challenged.¹⁷ Nevertheless, it seems that Helbig was probably right in the main about seventh-century Greece. Neither in the monumental evidence, nor in contemporary literature, is there an instance of a Greek warrior going into action on horseback; while our one articulate aristocratic warrior of this period, Archilochos, certainly fought as an infantryman and almost certainly in hoplite equipment (see above).

If farmer and aristocrat stood side by side in the phalanx from early on, there would clearly be a degree of interdependence between the two classes. Of the farmers one can perhaps say more. For one thing, they would have no vested interest in war; on the con-

¹⁵ See *JHS* lxxxiv (1964), 107–8.

¹⁶ *Mémoires de l'Académie des Inscriptions* xxxvii (1902), 157 f.: cf. *S.B. Bayr. Ak. Wiss.* 1911, 37 f.

¹⁷ Helbig, *Abh. Bayr. Ak. Wiss. (philos.-philol.*

Klasse xxiii. 2 (1905), 265–317; *Hermes* xl (1905), 101–115; cf. *CRAI* 1904, 190–201. Contrast Ed. Meyer, *Kleine Schriften* ii (1924), 274 f.

trary, it would be a double menace to their property, possibly leading to its devastation and certainly requiring their own absence from it. Nor had they, to judge from the evidence available, any tradition of service as a military unit. To say that they had a positive interest in maintaining the *status quo* would be an exaggeration; it is most unlikely, for instance, that the old system provided for any efficient protection of their property. But it remains difficult to see in the hoplite class a driving force for military or political innovation, let alone revolution.

The second general point is an even more obvious one: that fighting in a hoplite battle, if on occasion glorious, must almost always have been unpleasant. The soldier was well protected, it is true; but this made marching and fighting, under the Greek summer sun, a gruelling experience for him, and it also ensured that any wound he did receive was likely to be an agonising one, not necessarily bringing a quick death. We have it on the authority of many contemporary vase-paintings that the two thrusts habitually used with the hoplite spear were directed at the throat and at the groin. Tyrtaios gives a grim picture of the effects of the latter.¹⁸ In steeling himself to this ordeal, the hoplite had to bear in mind that, accidents apart, the battle would continue relentlessly until a sufficient number of soldiers, on one side or the other, had been so disabled. The one attraction of this form of warfare to the ordinary hoplite will have been that a single engagement usually gave a clear-cut result and ended the campaign.¹⁹

These factors in combination will have produced an inevitable strategic effect: under the new system, offensive warfare became far less attractive. The hoplite who would willingly fight at his city's frontiers, or under her walls, might well balk at a speculative foray into neighbouring territories. It will be observed that the seventh century is none the less a period of great expansion for many Greek states; but there were other military instruments besides the hoplite citizen militia for this purpose. In the first place, there were already mercenaries: such use of Carian hoplites and, less securely, of Thessalian cavalry and Cretan archers, is attested for this period.²⁰ Secondly, there were warships, a necessary accompaniment of colonising ventures overseas: Thucydides dates the first Greek naval battle to c. 664 B.C.²¹ Naval warfare at this time may still have been partly conducted on the old lines, with a fighting deck carrying marines armed as hoplites, and several contemporary pictures show ships of this type;²² but the new tactics, in which fast, undecked longships were manoeuvred to ram, were already being introduced,²³ and these would make small demands, if any, on the hoplite class.

Lastly, there remained a traditional warrior class in the shape of the aristocracy. We have seen (pp. 112-114 above) that there is evidence for its continued activity in warfare after the introduction of hoplite *equipment*; only with the sharp increase in man-power, required by the adoption of hoplite *tactics*, would its supremacy in this field be affected.

The conclusion that I would draw from all these considerations is that there was not, and could not be expected to be, an enthusiastic rush to arms on the part of the more substantial property owners, the future 'hoplite class'. Even if the bait of political power had been held out from the first—which is perhaps improbable—this would hardly be enough to launch a voluntary movement which ran so entirely against historical precedent. Here again we may cite Tyrtaios: there are clear indications in his poems²⁴ that the Spartan army in the Second Messenian War needed constant, not to say desperate, exhortation to duty. This army, it is clear, fought in hoplite equipment; although its organisation can correspond only

¹⁸ Fr. vi-vii, 21-5 (Diehl, *ALG*3). See R. Nierhaus *JdI* liii (1938), 90-114 on this theme.

¹⁹ Cf. Adcock, *The Greek and Macedonian Art of War*, 7 f.

²⁰ Carians: Archilochos fr. 24 Bergk (40 Diehl), *Hdt.* ii 152. Thessalians: Plutarch, *Mor.* 760-1. (These are perhaps semi-professional allies, rather

than mercenaries.) Cretans: Pausanias iv 8. 3; 10. 1 (conquest of Messenia); iv 19. 4 (Second Messenian War).

²¹ i 13. 4.

²² Kirk, *BSA* xlv (1949), 119-23 with references.

²³ Kirk, *op. cit.*, 137-9.

²⁴ Fr. vi-vii and viii, *passim*.

with a rudimentary version of the phalanx.²⁵ The case of Sparta is indeed the best-documented of all. The stage of confused tactics and reluctant hoplites, of which Tyrtaios is witness, is succeeded (it is now clear) by the stage of the lead hoplite-figurines found in such quantities at Sparta and the Menelaion.²⁶ These cheap, mass-produced dedications, a sign of a unified and self-conscious hoplite class, have at last been put in their correct place chronologically, and probably do not begin before *c.* 650 B.C.²⁷

Such a conclusion will almost certainly involve the question of the rise of tyranny. As Professor Andrewes' study has shown, the hoplite reform and the path to power of the early tyrants are subjects which impinge on one another in several cases.²⁸ But the relationship of the two events may have to be reconsidered. For instance, since it is particularly from Corinthian vases that we infer the appearance of the true hoplite phalanx at about the middle of the seventh century, can we believe that Kypselos in *c.* 655 gave political power to an established hoplite class? And could Pheidon of Argos, whether his rise comes in the mid eighth century or (as most scholars believe) in the early seventh, have used the phalanx, drawn from a trained hoplite class, as an instrument for re-establishing the power of the monarchy against that of the aristocracy? And finally, to tread on still more dangerous ground, can the wording of the Spartan Rhetra be taken as a guarantee that a full hoplite assembly is envisaged? If so, the date of that controversial document may have to be placed lower than the latest estimates would have it,²⁹ since political recognition of the hoplite class will hardly have preceded its vindication in war.

I will leave these questions to those better equipped to answer them, and pass instead to the rather less troubled waters of Italy, where the notion of the hoplite phalanx was among those ideas which migrated in the wake of the Greek colonists and traders.

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The story of the adoption of hoplite equipment by the Etruscans is less complex. There is very little literary evidence: almost the only tradition worth noting is that the people of Falerii and Fescennium used Argive shields and other hoplite arms, a fact sometimes attributed to their being descended from Greek settlers.³⁰ But a large corpus of representations of warriors, covering much of the sixth and fifth centuries, seems to give an almost unanimous verdict, that the archaic Etruscan warrior had adopted part or all of the Greek hoplite panoply. These representations embrace a wide range of art, and to them we may add a number of actual specimens of hoplite armour found in Etruria; but many of these last lack secure dating contexts, as indeed they do in Greece itself. The process of borrowing did not apparently begin before 650; perhaps the best evidence of this is the fine series of Etruscan shields of single-grip, pre-hoplite type, ultimately derived from the Near East, which begins in the eighth century and continues only down to about the middle of the seventh.³¹ It is regrettable that the considerable numbers of hoplite shields³² and

²⁵ See Eduard Meyer, *Kleine Schriften* ii, 271-2; M. P. Nilsson, *Klio* xxii (1929), 241-4; *Early Greek Armour* 181-2.

²⁶ *Artemis Orthia* pls. 183, 191; *BSA* xv (1908-9), pl. 7, etc. An example was found at Tegea, *BCH* xlv (1921), 429, no. 377, fig. 42.

²⁷ Boardman, *BSA* lviii (1963), 1-7.

²⁸ *The Greek Tyrants*, 41-2 (Pheidon as possible creator of the Argive hoplite army); 49 (Kypselos as champion of the Corinthian hoplite class); 72-3 (the Rhetra as the enfranchisement of Spartan hoplites). Cf. Huxley, *BCH* lxxxii (1958), 588-601 and *Early Sparta* 30—a similar conclusion but a very different chronology for Pheidon; *ibid.* 49 (the Rhetra); Wade-Gery, *CAH* iii 551 on Kypselos.

²⁹ See most recently W. G. Forrest, *Phoenix* xvii (1963), 157-79 and G. L. Huxley, *Early Sparta* 41-52, who both arrive at a date around 675 B.C.

³⁰ Dionys. i. 21: cf. Pliny, *Nat. Hist.* iii 51.

³¹ On these see A. Akerström, *Der geometrische Stil in Italien* 102 f., 113 f., 119 f.; E. Kunze, *Studies presented to D. M. Robinson* i 736 f.

³² E. g. Schumacher, *Antike Bronzen in Karlsruhe* 137, pl. 13. 13; Dennis, *Cities and Cemeteries of Etruria* i 171-2 (Bomarzo): *Stud. Etr.* vi (1932), pl. 25. I 3-4; *Olynthus* x 445, n. 221 (two unpublished examples in Florence and Palermo); Helbig, *Führer (Rom)* i 364, no. 613.

greaves³³ found in Etruria are not better documented, but at least their Greek inspiration is evident. A recent find may help here: a shield-facing with bronze blazons and other decoration, found at Fabriano in Picenum. In a very full publication of this find,³⁴ Stucchi has argued that it is Attic work of the mid seventh century. Almost certainly it is a hoplite shield, and possibly of Greek workmanship; but I do not think that the animals are as close to Attic models as Stucchi does, nor that a dating closer than to the late Orientalising period is possible. Mr J. Boardman suggests that it could be from an Etruscan or West Greek workshop.^{34a} Fabriano is not far outside Etruscan territory; but if this is a stepping-stone on the way to Etruria, it is on a most unexpected route from Greece.

By comparison with the actual examples, the representational evidence is profuse. I can only hope to give a selection of it here, and it may be that I have omitted some important monument: but I do not think that the conclusions will be affected. This evidence has one great limitation, that one cannot always be sure that the appearance in Etruscan art of figures in Greek armour is not simply due to the pervasion of Etruria by Greek artistic models and motifs. The example of Greek hoplite-figures, executed in materials closely comparable to their own, could have inspired artists who had never seen them in real life. But the evidence allows a *prima facie* inference, that several of the Etruscan city-states adopted hoplite equipment (as distinct from tactics) during the late seventh or the early sixth century.

It is possible to make some differentiation in the quality of this evidence. Of the early vase-paintings, for instance, two similar, late seventh-century amphorae in the Villa Giulia and in London³⁵ show warriors with pattern shield-devices clearly copied from Greek models, most of which represent hoplites.³⁶ They thus offer only the most indirect evidence that the Etruscan artist had ever seen a hoplite. Of similar date, but rather less ambiguous, is the oinochoë from Tragliatella with the scene of the Trojan Game,³⁷ in which the armed dancers and the horsemen carry shields with bird- and animal-blazons, a sure mark of the hoplite type. These are strange circumstances in which to find the hoplite shield first represented; yet this, in a way, adds to the strength of the evidence. Neither the style nor the subject-matter of the scenes on this vase is likely to owe as much as usual to Greek prototypes, and the blazoned shield may therefore quite possibly be present in Etruria before 600 B.C. Such a conclusion is also supported by the less explicit scene of a hoplite duel on a bronze relief from the Tumulus of Castellina (Montecalvario).³⁸

Greater certainty is possible with early sixth-century works: first, the find of bronze figurines made at Brolio in Northern Etruria in the last century, which includes three warriors which form a natural group.³⁹ These evidently served as supports to an object of furniture: they are distinctively Italian in style, and their pose, with the sharp turn of the head, is original. Yet they are wearing Greek helmets, of a form somewhat rarely seen in art: the so-called 'Illyrian' type, actually of Peloponnesian origin. The very slight development of the cheek-piece would date such helmets in Greece some way back in the seventh century,⁴⁰ but the Brolio figurines are normally placed just after 600. In addition, the figurines show, on their left arms, the unmistakable remnants of the arm-band and hand-

³³ E.g. Hagemann, *Griechische Panzerung* 135-6, n. 3b, figs. 148, 150 (two pairs): Micali, *Monumenti Inediti* (1844), pl. 53. 4-5: Helbig, *Führer (Rom)* i 364, no. 612 (three pairs): Montelius, *Civilisation Primitive en Italie* ii pl. 178. 2: *Stud. Etr.* vi (1932), pls. 25. I 2a and 29. III 2. Greek helmets are rarer: cf. Babelon & Blanchet, *Catalogue des Bronzes, Bibliothèque Nationale* no. 2013 (Vulci).

³⁴ *Rivista dell' Istituto nazionale di Archeologia e Storia dell' Arte* viii (1959) 1-58.

^{34a} *Island Gems*, 64, n. 2.

³⁵ *Stud. Etr.* xx (1948-9), 241-5, pl. 13: Walters,

Catalogue of the Greek and Etruscan vases in the British Museum i. 2, pls. 23-4.

³⁶ For similar 'Catherine wheel' patterns, compare *AM* xvii (1892), pl. 10: *BSA* xlii (1947), 76 ff., figs. 6, 8b, 13: *Artemis Orthia* pls. 183. 13-15; 191. 13-15.

³⁷ *Stud. Etr.* iii (1929), 111-159, pls. 23-6.

³⁸ D. Randall MacIver, *Villanovans and Early Etruscans* 254, pl. 46. 6.

³⁹ Riis, *Tyrrhenika* 120 f.: cf. Lamb, *Greek and Roman Bronzes* 80, pl. 24a.

⁴⁰ E. Kunze, *Olympiabbericht* vi 125 f. ('Frühform').

grip of the hoplite shield. Now too representations in stone begin, with a fragmentary statue from Chiusi,⁴¹ perhaps as early as the Brolio bronzes, of a warrior wearing a roughly-carved Corinthian helmet and carrying a hoplite shield with a Gorgoneion device. This substantial piece of sculpture is perhaps even better evidence for Etruscan practices.

If we can identify Etruscan hoplites here, we may the more confidently detect them in many later representations which are more directly reminiscent of Greek models, though not always finer in execution. Outstanding among these is the fully-accoutred bronze warrior forming the handle of one of the cauldrons found with the Loeb tripods (apparently near Perugia).⁴² Here we see not only the Corinthian helmet and hoplite shield, but also the corslet and greaves.⁴³ Also from the middle and later sixth century are examples of relief sculpture; in stone, such as the famous Avle Feluske stele which portrays a man partly equipped as a Greek hoplite although he also carries a double axe,⁴⁴ and a head and another stele from Orvieto which show Corinthian helmets;⁴⁵ in bronze, as on one of the lateral reliefs of the Monteleone chariot;⁴⁶ and, most commonly, in terracotta.⁴⁷ Hoplite armour is also present in a wider range of art before the end of the sixth century—for example, on Etruscan black-figure⁴⁸ and incised bucchero vases,⁴⁹ and in aryballoi in the shape of a helmeted head.⁵⁰

It is one of the stone funerary reliefs which provides perhaps the first instance of Etruscan hoplites ranged in a formation which could be an attempt to portray the phalanx.⁵¹ This again is of the second half of the sixth century. But the most impressive evidence for the Etruscans having adopted the phalanx is literary: the repeated tradition of the Romans that they had learned from the Etruscans the technique of fighting *χαλκασπίδες καὶ φαλαγγιδόν*.⁵² This is a key passage for the whole question. No date is indicated for the event, which theoretically could have happened at any time from the sixth century to the fourth, when Rome went over to the manipular army on the Samnite model. Fortunately, however, there is supporting evidence on the Roman side which will enable us to determine closer limits.

For Etruria, the evidence summarised above shows that, beyond reasonable doubt, the Etruscans adopted the equipment of the Greek hoplite by the early sixth century. Indeed, from the presence of the Graecizing shield at Fabriano and the disappearance of the earlier Etruscan single-grip shield, I should be inclined to place the change rather earlier than 600 B.C. It is conceivable that it could be connected with the migration of Demaratos of Corinth and his retinue.⁵³ The Etruscans also adopted the hoplite phalanx, probably during the sixth century.

This being so, it is worth noting two consequences. First, the change to the new equipment will have occurred during the period when the archaic monarchies were still in power in most or all of the Etruscan states. Secondly, it occurred in a society with a pronounced and lasting oligarchic trend, based on gentilicial lines, and there is no evidence that it was in

⁴¹ *AM* xxi (1896), 1–10, pl. 1: Riis, *Tyrrhenika* 114 A4.

⁴² *AJA* xii (1908), 297, fig. 2, pl. 12: Riis, *Tyrrhenika* 127, 132.

⁴³ The greave may have been a slightly late arrival, but not nearly so late as was thought by G. Karo (Daremberg-Saglio, s.v. 'ocrea', 147), and by E. S. McCartney, *MAAR* i (1917), 151–2, who misunderstood representations on terracottas.

⁴⁴ M. Pallottino, *The Etruscans* 141, fig. 4.

⁴⁵ O.W. von Vacano, *Die Etrusker, Werden und geistige Welt*, 165, fig. 69: Riis, *Tyrrhenika* 102, no. 3 and n. 3.

⁴⁶ L. Goldscheider, *Etruscan Sculpture*, pl. 81.

⁴⁷ E.g. André, *Architectural Terracottas from Etruscan-Italic Temples*, pl. 24. 86, 88 (Tuscania); pl. 25. 91 (Poggio Buco); pl. 36. 124 (Civita Castellana); pl. 141. 492 (Satricum); pl. B. 2–3 (Caere). Commonest of all are the mounted hoplites (see above, p. 114, n. 17): *ibid.* pl. 5. 10–12, 8. 22 and 13. 45 (Caere); pl. 24. 87 (Tuscania); pl. 57. 188 (Vignanello).

⁴⁸ E.g. Beazley, *Etruscan Vase-painting*, pl. 3. 3–4.

⁴⁹ E.g. Martha, *L'Art Étrusque*, figs. 316, 321.

⁵⁰ E.g. von Vacano, *op. cit.* 61, fig. 22 (Caere).

⁵¹ *Stud. Etr.* iv (1930), 101–2, pl. 10.

⁵² Diodor. 23. 2; Ined. Vat. iii (*Hermes* xvii (1892), 121): cf. Athenaeus vi 106.

⁵³ See Blakeway, *JRS* xxv (1935), 129–49.

any way compromised by the transfer of power to the aristocracies, which in most cases took place about the end of the sixth century. This is a very singular fact, as has been observed recently by Momigliano.⁵⁴ For if the hoplite system could be organised and maintained within an unregenerate oligarchic society in Etruria, by what right can it be assumed that its adoption in Greece had far-reaching and almost immediate social consequences?

We may also perhaps point to another analogy with Greece: the repeated evidence that the 'panoply' could be assumed piecemeal or only in part, and the pronounced time-lag between the first evidence for the equipment and the first evidence for hoplite tactics. Even against the misty landscape of Etruscan history, these facts seem to emerge unmistakably.

* * * * *

Roman hoplites are a different story again. It is true that there is some archaeological evidence of the same kind as in Etruria; and that, for the pre-hoplite period, there is abundant proof of Roman dependence on Etruria in things military.⁵⁵ For later times, there are again the architectural terracottas: we have noted that one of the Etruscan examples was found at Satricum in Latium (n. 47), and Rome itself has produced others.⁵⁶ But it is precisely because they are so Etruscan in style, and almost certainly from the hand of Etruscan visiting artists, that their value as evidence is limited. We cannot infer that the equipment and tactics of the hoplite had passed to Rome simultaneously with the artistic influence which led to their being portrayed. It is usual, therefore, to turn to the literary evidence for enlightenment of this question.⁵⁷

It is equally usual to connect the adoption of hoplite tactics with the Centuriate reform attributed to Servius Tullius. Here one enters hazardous ground. In the first place, it is most unlikely that the details of the Centuriate reform, as recorded by Livy and others, all go back to the original Servian scheme; and secondly, even if Servius can be credited with introducing hoplites, the dating of this king is at the moment the very nucleus of a profound controversy.⁵⁸ But provided that Servius really did initiate a scheme, however rudimentary, of military classes based on property qualifications,⁵⁹ he can hardly be dissociated from the adoption of hoplites in Rome; and we may therefore pose the problem as a choice between two alternatives. Either Servius was king, in accordance with the traditional Roman chronology, some time in the sixth century, a period, on any account, of deep Etruscan influence on Rome, when it would have been natural for military advances to be taken over from Etruria in the way which Roman tradition remembered (p. 118 above). 'Or, according to Gjerstad's view, based not only on archaeological evidence, he reigned in the first half of the fifth century, which is much nearer the time at which independent evidence suggested to Nilsson (n. 57) that the hoplite reform occurred. As a matter of fact, Nilsson's evidence is far from conclusive: he points to the creation of the *tribuni militum consulari potestate* and of the censorship in the mid fifth century. But the first of these reforms is now generally admitted to have been a political device to buy off Plebeian aspirations; while the second is hardly a sign of the original institution of a property census, which may have existed for some time within the sphere of other magistrates' duties.⁶⁰ Nilsson also cites the case of the Dictator, A. Postumius Tubertus, who in 432 or 431 B.C. put to death his own son for leaping forward from his place in the line to engage an enemy;⁶¹ but this event, even if historical (which our

⁵⁴ *JRS* liii (1963), 119-21.

⁵⁵ See E. S. McCartney, *MAAR* i (1917), 121-67.

⁵⁶ E.g. Andr n, *op. cit.* pl. 107. 382; pl. 105. 377, which is identical with examples from Velletri, *ibid.*, pl. 127. 445-6. Cf. also pl. 120. 424 from Segni.

⁵⁷ As Nilsson, *JRS* xix (1929), 1-11.

⁵⁸ See most recently Momigliano, *JRS* liii (1963), 95-121; Gjerstad, 'Legends and Facts', *Scripta Minora* (Lund), 1960-1, 2.

⁵⁹ See Last, *JRS* xxxv (1945), 30 f., especially 34-5 and 42-4.

⁶⁰ I am most grateful to colleagues in Edinburgh, particularly Drs T. J. Cadoux and P. G. Walsh, for discussion of these points.

⁶¹ Diodor. xii 64; cf. Livy iv 29.

ancient authorities doubted), would be only a *terminus ante quem* for the establishment of hoplite tactics.

Another piece of evidence much quoted in this context is the tradition that the Fabii went to war as a gens, with their clientes, against the Veientes and were annihilated at the Cremera in c. 477 B.C.⁶² For Nilsson, who rejected any connexion of military reform with Servius Tullius, this was evidence that the hoplite system had not been adopted at that date. This seems at first sight a fair inference, even though the value of this story is to a slight degree offset by the fact that in the traditionally yet earlier battle of Lake Regillus, the Romans were said to have fought in the phalanx.⁶³ Momigliano however (n. 54) uses the Cremera incident to support a different view: that the Servian hoplite reform, enacted in the sixth century, had been allowed to lapse after the king's death, and was reinstated only when the Romans had learned, from such misfortunes as the Cremera, of the indispensability of hoplites.

This is a possible reconstruction, if the lapse was a temporary, administrative failure, unconnected with equipment or tactics. The advantages conferred by the hoplite reform were too obvious for it to be annulled or abandoned by the state; and they would have been doubly so to the Romans who were continually confronted with Etruscan hoplites. Momigliano's own observation, that the Etruscans combined hoplite tactics with an aristocratic system of nobles and clientes, goes far to show how the Fabii could have used hoplites at the Cremera. Men *equipped* as hoplites could and did take part in the warfare of gentilicial factions: we have seen evidence for something much like this in Greece, and indeed Alkaios himself is a witness of it.⁶⁴ It may even have been possible to muster a phalanx from one's own entourage, and this, again, would be desirable when confronting hoplites as the Fabii were. Some social distinction might still be preserved by the nobility serving as mounted hoplites (see p. 114 above).

I would accept the tradition that Servius was responsible for a military reform, and that this was designed to provide a citizen hoplite army. It also seems less difficult, on balance, to date him within the sixth century, though I cannot believe that his traditional dates (579-534) correspond in any way with the historical reality. From this it will follow that the introduction of hoplites in Rome was an extended process, allowing of such irregularities as the Cremera expedition in the early fifth century, and perhaps only systematised in the great period of constitutional reform that began with the Decemviral legislation.⁶⁵ What Servius' exact contribution was, one can hardly tell; but it was evidently an attempt to define the classes from which hoplites and other troops could be recruited, by some kind of property qualification. On this account, the hoplite system will first have been launched in the regal period, by a king in his capacity as head of state; and further, this will have happened before, or at the most during, a period of pronounced aristocratic ascendancy in Rome, in which a hoplite class as yet plays no recognisable part.

* * * * *

We may now return to the original starting-point, the hoplite reform in Greece. One cannot infer, from the cases of Etruria and Rome, that the sequence of events was necessarily the same in Greece; indeed it evidently was not. But one can make more general inferences.

First, the adoption of hoplite equipment, which after a time crystallised into a standard panoply, invariably took place in a period of aristocratic or regal domination, both military and political. There is also evidence, both from Greece and much more definitely from Italy, that the aristocratic ascendancy in warfare survived this event and continued for a

⁶² Livy ii 48-50.

⁶³ Dionys. vi 10. 2.

⁶⁴ See especially fr. 15 Bergk (54 Diehl): *Early Greek Armour* 182-3.

⁶⁵ Compare the conclusion of K. Hanell, *Das altrömische eponyme Amt* 197-8.

considerable period after it. This phase could only be terminated by the growth of a substantial class of land-owners who had proved their worth by fighting in the phalanx. Yet the adoption of the phalanx did not inevitably have this sequel even then: we have no evidence in Etruria that the supposed social upheaval happened at all, and we have no grounds for thinking that it happened immediately in Rome. We cannot therefore assume that it followed at once on the adoption of the phalanx in Greece.

I do not think that this interpretation is contradicted by what Aristotle says in the *Politics* about the development of constitutions; indeed there are details in his account which hint at roughly the sequence of events that we have inferred. Aristotle says that the hoplite 'democracy' succeeded a phase of cavalry supremacy.⁶⁶ We can hardly identify or date this phase with precision, but I have suggested above (p. 113) that it continued for a time after 700 B.C. In the previous sentence Aristotle makes a telling comment, that hoplite warfare is ineffective without organisation; and this is recalled at the end of the passage when he uses the same word (*σύνταξις*) in a difficult phrase, best understood as meaning that the middle class were 'deficient in organisation' (including presumably military organisation). These remarks seem to presuppose a phase in which hoplites existed, but had not yet been organised, either tactically as a phalanx, or politically as a party.

The second conclusion is closely bound up with the first: that there would be no spontaneous movement on the part of the prospective 'hoplite class'. In Etruria we can infer, and in Rome we can be virtually certain, that the adoption of hoplite tactics took place, for purely military reasons, at the behest of the heads of state, who could apply compulsion to a possibly reluctant body of men. This is very much the pattern that we see in a remarkably late case of introduction of hoplites in Greece, the reorganisation of the Achaean army by Philopoemen in the third century B.C.;⁶⁷ and we see it again, many centuries later, in the Capitularies of Charlemagne.⁶⁸

Charlemagne was expressly concerned, as the creators of the hoplite phalanx must have been, with the provision of metal body-armour and the infantry to wear it, and it may be worth looking more closely at his dispositions. First, in a series of ordinances (the earliest apparently in A.D. 779), he made it an offence to export mail-shirts from the realm. Later, in the *Capitulare de Exercitu promovendo* of 803, military service and provision of equipment is generally enforced for a wide range of land-owning Franks: all who possess one *mansus* of land or more.⁶⁹ The enforcement is much stricter for the nobility and richer land-owners; as one descends the scale of wealth, groups of two, and then of four, men are to combine to equip one of their number, the others being exempt from actually serving. The *Capitulare Aquisgranense* of 805 supplements this: each man who owns more than 12 *mansu* (about 95 acres) is to provide his own mail-shirt alone.

The Capitulary of 807 extends this arrangement. The lower limit for compulsory service is brought down to half a *mansus* or its equivalent in goods, and the obligations of the next higher class are slightly increased. The *Capitulare Bononiense* of 811 provides, among other things, for the requisitioning of spare mail-shirts by the king. Finally, the *Capitulare Aquisgranense* of 813 makes it compulsory for all the household men of counts, bishops and abbots to have their own metal helmet and mail-shirt.

The features that I should like to stress are these: the prevalence of land as a qualification, other property being introduced only for the additional lowest class of the Capitulary of 807: the comparatively high land-qualification (nearly 100 acres) for independent commoners providing their own equipment: the fact that it took a powerful and efficient king over thirty years to achieve a satisfactory proportion of heavy-armed infantry: and, in general, the

⁶⁶ *Pol.* 1297b 16-24: cf. 28.

⁶⁷ Pausanias viii 50. 1.

⁶⁸ See Oman, *History of the Art of War in the Middle Ages* 77-82.

⁶⁹ A *mansus* apparently equalled 12 *iugera*, or just under 8 acres.

atmosphere of compulsion and penalty which pervades these Capitularies and explains their existence.

It seems likely that the hoplite phalanx also owed its inception in the Greek cities to the action of the heads of state, whose foremost aim was the defence of the realm. Later on hoplites could and did partake in political struggles and win political rights, but it is in no case certain that they established their political or military leaders as tyrants.⁷⁰ By the time of Solon, it is clear that the Zeugitai, to be identified with the Athenian hoplite class, formed a distinct group and had earned the political power that he gave them. It is also possible that they represent the disappointed δῆμος who had wanted a tyranny.⁷¹ But Solon's poems are our earliest explicit evidence for this state of affairs; and his reforms suggest that in Athens it was a recent growth.

On this account, then, the Greek hoplite entered history as an individual warrior, probably in most cases an aristocrat. The adoption of the phalanx meant that he was joined by men, for the most part substantial land-owners, who had come not to seek a way to political power nor by any wish of their own, but because they were compelled to. These men, however stout-hearted as warriors, are not likely to have become, all at once, a revolutionary force in politics, even in Greece. The political rights which they came to possess could have been acquired gradually and peacefully, τῶν ἐν τοῖς ὅπλοις ἰσχυσάντων μᾶλλον, as Aristotle says. They must have had political leaders, but I doubt whether we can number the early tyrants among them. Hoplites, in short, were an instrument before they became a force.⁷²

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⁷⁰ Kylon of Athens was evidently not such a leader, since he required Megarian help to seize the Acropolis in c. 632 (Thuc. i 126). See also pp. 115-116 above.

⁷¹ So Andrewes, *The Greek Tyrants* 35-6, 87-91. We may disbelieve, along with the rest of Chapter iv of the *Ath. Pol.*, the claim that Drakon extended rights 'τοῖς ὅπλα παρεχομένοις'.

⁷² Prof. A. Andrewes and Mr John Boardman have given me much helpful advice on this subject, though they can in no way be held responsible for what I have written. The article is substantially in the form in which it was delivered to the Hellenic Society in November 1964.