

ORTHODOXY AND HOPLITES

In *Philip of Macedon* (1978) (pp. 150f.), as part of a general survey of the development of the art of war in Classical Greece, I briefly adumbrated a view of the nature of hoplite fighting. It was not the conventional one, of which the following statement of Adcock in *The Greek and Macedonian Art of War* (1957) p. 4 is fairly representative:

The effectiveness of the phalanx depends in part on skill in fighting by those in the front rank, and in part on the physical and moral support of the lines behind them. The two opposing phalanxes meet each other with clash of shield on shield and blow of spear against spear. Their momentum is increased by the impetus of the charge that precedes their meeting. If the first clash is not decisive by the superior weight and thrust of the one phalanx over the other, the fighting goes on. The later ranks supply fighters as those before them fall. At last one side gains the upper hand. Then the other phalanx breaks and takes to flight and the battle is won and lost.

The continuity of the line while the fighting is going on is all-important, and every man in the line knows that his life depends on his neighbour's fighting as steadily, as skilfully and as bravely as himself. No form of combat could so plainly exhibit the community solidarity that was of the essence of the Greek city-state. It was not the place for single-handed exploits, for the Epic *aristeia* of champions...

Similarly, G. B. Grundy, *Thucydides and the History of his Age* i² (1948), pp. 267f.

The hoplite force relied on two qualities, solidity and weight. The men were placed very close together in the ranks, and that tendency which Thucydides notices, for each man to attempt to shelter his right side under the shield of the man next to him would promote the closeness of the order in the phalanx. The aim was to present to the enemy an unbroken line of shields and breastplates. It would no doubt have been very difficult indeed to induce the Greek citizen soldier to adopt tactics involving a more open order, still more to lighten his defensive armour with a view to attaining greater freedom of movement ... Under ordinary circumstances the hoplite force advanced into battle in a compact mass ... When it came into contact with the enemy, it relied in the first instance on shock tactics, that is to say, on the weight put into the first onset and developed in the subsequent thrust. The principle was very much the same as that followed by the forwards in a scrumgame at the Rugby game of football.¹

If such views may be described as orthodox, there have been notable heretics.² In 1942 a brief article³ entitled 'The Myth of the Phalanx-scrumgame' deserved more consideration than it appears to have received, and in 1985 P. Krentz⁴ argued that 'hoplite battle consisted of a multiplicity of individual combats', too late to influence Pritchett's discussion of the Pitched Battle in Part IV of *The Greek State at War*, which presents a more orthodox picture.

The starting point of this article is, however, the defence of orthodoxy by A. J.

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¹ Kromayer-Veith, *Heerwesen* u.s.w. (Munich, 1928) i.84f. does not go in for the analogy of the scrumgame, for which in German a word seems to be lacking.

² A. W. Gomme, *Essays in Greek History and Literature* (Oxford, 1937), p. 135: '... in any case a Greek battle was not so simply "a matter of brawn, ... a steady thrust with the whole weight of the file behind it – a literal shoving of the enemy off the ground on which he stood" (did the back rows *push* the man in front?), as Professor Woodhouse supposes. It was not a scrumgame. The men all used their weapons, and had their right arms free.'

³ A. D. Fraser, *Classical Weekly* 36 No. 2 (12 Oct. 1942), 15f. ('In England, where the accepted theory of phalanx-fighting seems to have arisen, there is, I think, a more or less clear mental association between the working of the phalanx and of the Rugby football scrumgame.')

⁴ 'The Nature of the Hoplite Battle', *Class. Ant.* 4 (1985), 50–61.

Holladay in 'Hoplites and Heresies' *JHS* 102 (1982), 94-7. 'In the fully-developed hoplite line the soldiers were packed closely together, each man relying on his right-hand neighbour for protection because his own shield, on his left arm, could not adequately cover his right side' (p. 94); the hoplite was not trained for, or suitably equipped for, fighting without the close protection of his right-hand neighbour; any changing of formation would be difficult to achieve in a co-ordinated fashion and would in any case invite disaster; hoplite armies always reacted to danger by forming ranks and this suggests they had no intention of breaking up into open order. Holladay's battles seem to begin with a shove and end with one; in between the hoplites stood getting as much as they could of themselves behind the shield of the man on their right using their weapons as far as the constricted space allowed; there was as little need as there was room for skill.

So I must try again and more fully develop my ideas of hoplite battles. The first point to establish is that battles were not short in duration.⁵ Precise indications are few. Vegetius (3.9) declared that battles normally took 'two or three hours'. Plutarch asserted in his *Life of Aemilius Paulus* (22.1) that the battle of Pydna, despite being so great, was very quickly decided, for the Romans began it at the ninth hour and had gained the victory within an hour; he clearly regarded that as exceptional. Generally, however, the historians contented themselves with the phrase 'for a long time', which some might be disposed to dismiss. But we know what the Greeks knew as a long battle. The battle of Himera lasted 'from dawn to late evening' (Hdt. 7.167); the fighting on Sphakteria went on 'most of the day' (Thuc. 4.35.3). According to Diodorus (11.83.1), the battle of Oenophyta lasted all day (διημέρευσαν ἐν τῇ μάχῃ), just as a battle outside the walls of Pelusium during the Persian invasion of Egypt in 351/0 is said to have done (16.46.9). Indeed, the *Iliad* (11.84ff.) shows what Greeks conceived of as a long battle. There is no reason to think of battles as quickly over. When Thucydides (5.73.4) remarked of the Spartans, that their battles were long and hard up to the point of turning the enemy, but that they did not pursue for long, he clearly was not thinking of conflicts of a few minutes' duration. If one follows Vegetius in his two or three hours, one is probably not far wrong.

The length of battles is important. If they lasted for a couple of hours, that is an improbably long time to be pushing, and, one may add, for a man to be fighting. Fifteen three-minute rounds with rests exhaust the fittest pugilists in the world, and those who have had experience of scrummaging and forward play generally in 'the Rugby game of football' must be sceptical about how long such intense efforts could have been maintained without the rests provided by 'line-outs', 'half-time', and 'injury time'. But, in any case, the evidence shows that often at any rate the shove, the *ὤθισμός*, comes late in the battle when the other side shows signs of exhaustion. The battle of Plataea is a good instance. The battle was fierce and long 'until they came to shoving' (Hdt. 9.62.2). If it is countered that only battles between hoplite armies should be considered, the battle of Anapaus in 415 is plain enough in Thucydides' account (6.70.1-3); when the trumpeters gave the signal to engage, the two sides advanced, and when hand-to-hand conflict had begun, they held out against each other for a long time; then and only then, it would seem, did the shoving take place; the Argives pushed back the left wing and then the Athenians pushed back their opponents, and the rest of the Syracusan army fled. It was the same at Delium in 424 (Thuc. 4.96). Although Thucydides says that those engaged were involved in

⁵ The evidence is conveniently tabulated in W. K. Pritchett, *The Greek State at War* (Berkeley, 1985), iv.47-50.

'stubborn battle and in pushing of shields' (*καρτερὰ μάχη καὶ ὠθισμῶ ἀσπίδων*), which, as I explain below, is not to be taken as a hendiadys, he says that the Boeotian left wing was worsted in hand-to-hand conflict and fled to that part of their army which was still engaged in battle, i.e. a matter of some considerable time, but the Thebans on the right wing 'were mastering the Athenians and when they had pushed them a short distance were at first closely following'. Thus the Theban shoving came at a point well on in the battle. So too at the battle of Miletus in 412 (Thuc. 8.25) the Athenians 'defeated the Peloponnesians first and pushed back the barbarians and the rest of the throng' and when the Milesians, having been initially successful against the Argives, saw what was happening with the Athenians, the battle was over. At First Mantinea in 418 (Thuc. 5.72.3) the Mantineans and allies exploited the gap in the Spartan line to 'cause destruction to the Spartans and, by an encircling movement, routed them and pushed them back to the transport'. So much for Thucydides. In Xenophon 'shoving' is not much mentioned, but in the battle near the Piraeus in 403 (*Hell.* 2.4.34) the 'shoving' came after the hand-to-hand conflict. Likewise at Leuctra (*Hell.* 6.4.14).⁶

Of course, armies would 'shove' whenever a shove was called for. In 425 the Athenians fought the Corinthians and with difficulty pushed them back, but they returned to the attack and the hand-to-hand conflict was renewed (Thuc. 4.43). Nor is it inconceivable that a battle could begin with shoving, as on occasion seems to have happened in some sense with the Macedonian phalanx (Polyb. 18.30.4).⁷ In Xenophon's account of the battle of Coronea, the second-phase conflict of the Spartans with the Thebans is vividly described thus: 'when they had clashed their shields together, they were pushing, they were fighting, they were killing and dying' (*Hell.* 4.3.19; cf. *Ages* 2.12). Death ended the conflict, perhaps shoving came first, just as at one stage in the fighting at Olympia in 364 'they were fighting none the less and pushing towards the altar' (*Hell.* 7.4.31), which may mean that the 'pushing' came early on,⁸ though one suspects that these vivid descriptions are not concerned with the exact order of events and that when Thucydides says of Delium that the conflict involved 'stubborn battle and pushing of shields' he is making a general summation of the action, which he proceeds to describe in detail (4.96).⁹ Yet there seems to me absolutely no warrant for Pritchett's assertion¹⁰ that 'the initial manoeuvre was the *ōthismos*, pushing the enemy back by shock tactics to break his formation'. I do not deny that this may on occasion have happened. That it regularly did seems to be quite unsupported by the descriptions of battles that we are given. Indeed as far as the supreme practitioners of hoplite warfare, the Spartans, were concerned, the idea of an initial shock seems to be excluded. Thucydides remarked (5.70) that whereas the Argives and their allies advanced to battle excitedly (*ἐντόνως*) and in rage, the Spartans advanced slowly. With them, as with others, the *ōthismos* regularly enough came late in the engagement.

It is clear too that 'the fighting' (*μάχη*) is a concept distinct from 'the shoving'

⁶ cf. the story concerning Iphicrates in Polyaeus 3.9.27. In Arist. *Wasps* 1085 the 'shove' comes at the end of the battle.

⁷ I confess to great puzzlement at this passage. Seeing that the sarissas of the second, third, fourth and fifth ranks stuck out in front of the file-leaders, and the sarissa required two hands (Polyb. 18.29), I find it hard to believe that those ranks physically pushed the front rank.

⁸ I take *ὄθουμένους* at Xen. *Hell.* 7.1.31 to mean 'pushing each other', 'jostling'.

⁹ It is also possible that by *ὠθισμός ἀσπίδων* at 4.96.2, Thucydides is referring to the use of the shield to get an opponent off balance (see below, p. 386).

¹⁰ *GSW* iv.91f. Holladay, art. cit. 97, speaks of 'an instant attempt at *ōthismos*'.

(ὤθισμός), and that when Thucydides, for instance, says *καρτερὰ μάχη καὶ ὤθισμῳ ἀσπιδων* he does not mean that they fought by shoving. There are a great many cases of 'fighting' in Thucydides and Xenophon, but in comparatively very few is 'shoving' mentioned, while there is never any mention of 'shoving' without 'fighting'. The two terms are not in any way co-extensive.

So what were hoplites doing in hand-to-hand fighting before they began shoving? They were, of course, using their weapons, but what did that involve? According to J. K. Anderson,¹¹ the answer is that it did not involve much. Drawing attention to the beginning of Plato's *Laches*, where the question is put whether a teacher of skill in the use of weapons is in fact of much use, Anderson declares that Nicias is somewhat unenthusiastic about the use of such lessons for war, while Laches is downright sceptical, remarking that the Spartans, who care about getting advantage in war and nothing else, have no use for such teachers and indeed the teachers themselves do not dare to set foot in Laconia. 'Plato, like every Athenian of his class and time, understood the basic facts of hoplite warfare, and he and Thucydides bear one another out. Not only was the front rank too closely packed for individual skill to be of much account as the armies closed, but the following ranks, being made up of files whose duty was to follow their file-leader closely, would have been equally packed. There was certainly no room for front-rank men to fall back between the files (whether by mutual consent or not) after they had had enough.' One notes that Nicias, who had after all no mean experience of hoplite warfare and possibly a great deal more than either Thucydides or Plato, actually said that 'this instruction will be of some use in the actual battle whenever one must fight in formation along with many others' (182a). So he at any rate thought that the so-called *hoplomachoi* had something to teach that was worth learning, and so too presumably did those others who paid for their sons' instruction. If the Spartans spurned such professors, that may have been because Spartans could learn better from Spartans, not because they thought there was nothing to learn. As to what Anderson says about the compact formation, we shall shortly see. For the moment I shall discuss the evidence for how hoplites in formation fought.

Xenophon (*Mem.* 3.12.5) remarked that at Athens there was no military training organised by the city (οὐκ ἀσκεῖ δημοσίᾳ ἡ πόλις τὰ πρὸς τὸν πόλεμον).¹² This should not, however, lead one to think either that there was nothing to be trained for in the use of weapons or that no such training took place. Plato, who 'like every Athenian of his class and time, understood the basic facts of hoplite warfare', at some length in the *Laws* (828e–834a) argued for a full and regular system of military training organised by the city, including the use of the services of experts in *hoplomachia*, the very people for whom his Laches had expressed contempt. Not only is physical fitness (cf. 796b–d) to be maintained for the sake of war (the sort of training one got at the hands of a 'trainer', a *παιδοτρίβης* – cf. *Protag.* 326c), with exercises taken armed (833c), but it is possible that there will be fatal casualties (830e–831a). The contests are to be between individuals, or pairs, or tens (833e). So in the *Laws* Plato thought that there was a good deal to be gained from the tuition of *hoplomachoi* like Euthydemus and Dionysodorus (*Euthyd.* 273c). There was certainly a good deal of skill possible in the use of the sword, as Plutarch (*Tim.* 28.1) remarked in his account of the battle of the Crimisus.

¹¹ 'Hoplites and Heresies: a Note', *JHS* 104 (1984), 152.

¹² Suidas s.v. *Λύκειον* speaks of *πρὸ τῶν ἐξόδων ἐξοπλίσεις τινες ἐν τῷ Λυκείῳ ... καὶ ἀποδείξεις τῶν μάλλον πολεμικῶν ἀνδρῶν*, but this may refer to post-Xenophontic times.

Plato's discussion certainly bears out what Xenophon says about the lack of the proper public provision of training (cf. *Laws* 831b), but it is not to be supposed that it was not sought and obtained by individuals. For one thing, dancing was in part military training.¹³ Athenaeus (628f) records that Socrates said 'in his poems, those who dance with the most grace are the best in war', and Athenaeus, having remarked that 'dancing was pretty much like a parade in arms and a display not just of discipline in general but also of concern for physical fitness', comes in due course to Spartan dancing, their marching songs (*ἐνόπλια*) and especially the war-dance, the Pyrrhic, a discussion that those who think there was nothing much to do with one's arms in a hoplite battle would do well to consider (Ath. 630d–631c).¹⁴ In particular one may note that an alternative name for the Pyrrhic was *Cheironomia*; i.e. it was specially concerned with the movements of the hands and so of the weapons they bore. Indeed Plato in the *Laws* (815a) speaks of the Pyrrhic depicting 'the motions executed to avoid blows and shots of all kinds (dodging, retreating, jumping into the air, crouching)'.¹⁵ All that, however, it may be said, is Sparta and the Cloud-Cuckoo-Land of the *Laws*, but what of elsewhere? One notes that when 'the Mantineans and some others of the Arcadians' from the Ten Thousand danced, they did so in hoplite equipment (Xen. *Anab.* 6.1.11), and in general the place of dancing in Greek life was such that we may be confident that most young men of the hoplite class got from dancing whatever was of use in it for soldiering.

But, it will be argued, all this was useful only for 'when', as Nicias said in the *Laches* (182a), 'the formations are broken up and one must at that time fight one against one'. That would cover the sort of action of Socrates at Potidaea (*Symp.* 220e), or the disordered combats of the night battle on the Epipolae (Thuc. 7.43). Plato (*Laws* 833e) does talk of training for battle in groups of up to ten, but that is of no consequence to those who are convinced that when hoplites were formed up for battle they had only a shield's width in which to fight and whatever training they had had which was of use in single combat was there of very little use indeed.

This conviction derives from what Thucydides (5.71) says of the advance of hoplite armies, that, as they advance, they tend to move to the right as each file-leader seeks the protection of his right-hand neighbour's shield. So they advanced a mere shield's breadth from nose to nose and that, it is assumed, is how they stood as they fought.

One thing is sure. No matter what formation was adopted in battle, for the advance only this was practicable. If an army had tried to advance in open order, there would either have been bunching or unwanted extension, even gaps. One tends to think of hoplite battles taking place on ground as unencumbered as the parade-grounds on which many of us have drilled. As Aristotle notes (*Pol.* 1303b13), crossing ditches, even really small ones, can tear phalanxes apart.¹⁶ No one mentions the effect on formation of trees, huts, boulders and all the petty obstacles of a plain, but they must have been very distracting. That is no doubt why the Spartans advanced slowly and in a rhythmical march (Thuc. 5.70), for only so could the file-leaders be kept in line and in position. But keeping one's distance, staying in position could only be done if the file-leaders were closed up, each occupying in the advance no more than his shield's width. That was the only way to get an army into position to confront the enemy, but whether it remained in this formation all the time is now to be discussed.

¹³ Cf. J. Poursat, 'Danse armée dans la céramique attique', *BCH* 92 (1968), 550–615, and W. K. Pritchett, *GSW* iv.61f., ii.216.

¹⁴ See also Lucian, *De Saltatore* 10.

¹⁵ Translation of T. J. Saunders in the Penguin translation.

¹⁶ To say nothing of mountain torrents which make advance impossible (Thuc. 4.96.2).

In some degree the hoplite phalanx was a flexible thing. In the discussion of tactics in the Xenophontic *Constitution of the Spartans* (Ch. 11), the author declares that phalanxes become 'thin and deeper' (*ἀραιαί τε καὶ βαθύτεραι*), and the only sense one can make of this is that from the compact front line every second man moves into a position behind the man on his right, and similarly with each man in the file behind him. The movement must, in short, have been very much that which used to be practised in the British Army and was described as 'forming fours'. Now a 'thin' phalanx with more than a yard's front interval was not practicable for a phalanx that was about to advance. So it is open to wonder whether such a 'thinning' could occur when the advance was concluded and just before the battle was *ἐν χερσίν*, i.e. a matter of hand-to-hand conflict. But, whenever it happened, it is clear that a Spartan phalanx was in some degree flexible. Indeed the Spartan countermarch (*ἐξελιγμός*), which the author goes on to describe, makes it abundantly plain that a phalanx must be in open order for that movement to be effected. For in a Spartan countermarch the file reversed itself, so that those who had been in front before are still in front when the direction of the phalanx was reversed (the move being very much the same as that which most of us have witnessed military bands make), and that could only happen if there were gaps between files. Only one case of Spartan countermarching in the course of a battle is known to us, but it is illuminating. At the battle of Coronea in 394 the phalanx of Agesilaus, having routed the Argives, had to deal with the Thebans returning from routing their opponents. Agesilaus immediately made the phalanx countermarch (*εὐθὺς ἐξελίξας τὴν φάλαγγα*) and met the Thebans head on (Xen. *Hell.* 4.3.17f.).¹⁷ To do that the Spartan phalanx must first have been made 'thin and deeper' to let the file-leaders through to lead their files against the Boeotians. So it seems to me plain enough that phalanxes were flexible and flexible on the field of battle.

At this point it is suitable to discuss a very remarkable statement of Xenophon's. At the review of the Ten Thousand at Tyriaeum, Cyrus ordered the Greeks to form up and stand 'as was their custom for battle' (*ὡς νόμος αὐτοῖς εἰς μάχην οὕτω ταχθῆναι*). 'So they formed up four deep' (*Anab.* 1.2.15). By the time he wrote those words Xenophon was well acquainted with Spartan military practice, and that practice is plainly enough, in this period, to form up 'eight deep', as a glance at the table provided by Pritchett in his *Ancient Greek Military Practices* Part I (p. 135) will show.¹⁸ The Ten Thousand was essentially a Spartan army with a Spartan commander. What has happened to the regular depth of eight? It can hardly do to say with Pritchett that Cyrus, 'by doubling the width of his phalanx, wishes to make the Greek force appear as large as possible'. If he had wanted that to impress the Cilician woman, he would not have had her inspect the army at close quarters (§16). Nor can he have prescribed this formation to impress his brother, the King, if there was to be a battle; his brother would know roughly how many Greeks Cyrus had and it was to Cyrus' interest to have his troops in the formation most likely to give him the victory. In any case Xenophon says he ordered them to form up as was 'their custom'. Perhaps the right explanation is that the Greeks of the Ten Thousand were not minded to fight as most other Greeks of their time. It is also possible that they formed up four deep for the advance which they shortly made (§17), but that they regularly by 'forming fours' fought eight deep.

¹⁷ cf. Xen. *Cyrop.* 8.5.15.

¹⁸ The only other mention of 'four deep' is in Diod. 13.72.6 (in which passage the figures do not square with the totals in §4; if the length of the line were not 8 but 18 stades, that would suit the number of hoplites).

I fear we can no longer postpone discussion of the Tacticians, whose writings do not fill one with gratitude or respect. Before I do so, however, I should explain that I find it very hard to conceive of a hoplite using his weapons at all effectively in the crowded space orthodoxy assigns him. It might seem that he could use his spear effectively enough: to strike at the vulnerable part of his opponent, i.e. above the shield and below the helmet, he had to use his spear in the overhead manner familiar to us from a multitude of vases, and neither his own shield nor his neighbour's would get in the way of that. Likewise, if he used his sword solely to cut rather than thrust, that too would be an overhead blow delivered from above the line of shields. However, in the use of weapons as in all games that involve the delivery and the avoidance of blows, it is footwork that is all important. Hoplates may have been heavily armed, but they would surely duck and dodge in the way that Plato would have had them train (*Laws* 815a). One cannot do that, if one's neighbour gets in the way. Likewise the delivery of blows would require some freedom of movement. Of course, they may have fought in a highly constricted way and very ineffectively and longed for a chance for single combat where their real skills could be exploited, but if the evidence lends any encouragement to the view that hoplates fought, as opposed to advanced or followed up, in open order, one should take the possibility most seriously.

The Tacticians do indeed provide evidence of a sort. In the *Tactica* of Asclepiodotus, who seems to have written in the first century B.C., it is stated in the section on 'Intervals' (Ch. 4) 'Those have been produced to meet the needs of warfare, i.e. the thinnest' (or 'the most open') 'in which the men are four cubits (i.e. 6 feet) apart both in ranks and in files, the most compact in which each man is a cubit's distance from his neighbour in both senses, and the medium, also termed 'compact formation' (πύκνωσις), in which the men stand two cubits from each other in both senses.' Both Aelian (Ch. 11), who wrote under Trajan, and Arrian (*Tact.* 11) give a similar account, following perhaps the same source as Asclepiodotus.¹⁹ Is it conceivable that in the hoplite armies of Classical Greece there were three such distinct formations, in Aelian's terms open order, *pyknōsis*, and *synaspismos*?

Two objections may be promptly dismissed. Holladay (p. 45) argued that there could be no variation of formation with hoplite armies because there was no means of co-ordinating such variation. 'Who or what', he asked, 'would determine the moment at which the lines opened out and then closed up again? There was no referee with a whistle.' There was however the trumpet (σάλπιγξ), and the trumpeter who was always present, so much to be taken for granted that he is only once mentioned by Thucydides in an account of a battle (6.69.1). Nor was the trumpet the only means of signalling. Thucydides notes that in the night-battle on the Epipolae visual signals were not possible (7.44.4). So there was 'a whistle'. The referee is more of a problem. 'The Classical hoplite general... was usually in no position to survey the whole course of a battle' to quote G. M. Paul,²⁰ who points out that a large number of generals and independent commanders died in battles in Thucydides; men engaged in combat themselves can hardly be in charge of anything at that moment. However, one may make too much of this. It is clear from Thucydides' remark about the night-battle that normally signals were given, presumably by commanders. For instance, at the battle

¹⁹ References to Aelian are to the edition of H. Köchly in Köchly-Rüstow *Griechische Kriegsschriftsteller* (Leipzig, 1855), 2.1, references to the *Tactica* of Arrian to the Teubner edition of A. G. Roos.

²⁰ 'Two Battles in Thucydides', *Echos du Monde Classique* 31, n.s. 6 (1987), 307-12.

of Delium the Theban general, Pagondas, seems to have been in control of things (Thuc. 4.96.4), just as at a crucial moment in the battle of Mantinea Agis issued an order to the whole army (Thuc. 5.73.2). When Thucydides described the chain of command in the Spartan army (5.66.3–4), he added that ‘orders are transmitted, should the need arise, by the same route’ and he concludes that ‘many people are responsible for what is being done’ (τὸ ἐπιμελὲς τοῦ δρωμένου πολλοῖς προσήκει). So there were not only ‘whistles’, but also ‘referees’ to blow them if in some armies somewhat fitfully.

The other objection is on the face of it more serious, namely, that since the shield was three feet wide or thereabouts any formation that accorded each hoplite a mere eighteen inches is inconceivable.²¹ Now it may well be true that in Classical Greek hoplite armies there was no such formation as the *synaspismos*, but the mere width of shields does not rule it out of consideration. No literary source explains, nor artistic representation illuminates what actually happened in the *ōthismos*, but there is one clue. In talking of cavalry formations, Arrian (*Tact.* 16.13) remarked that infantry pushed with their shoulders and sides (κατὰ τοὺς ὤμους καὶ τὰς πλευρὰς αἱ ἐνερεῖσεις γίνονται τῶν πεζῶν), which is hardly surprising, but which makes clear that the hoplite stood sideways on for the *ōthismos* and overlapping of shields far from being impossible may actually have been positively helpful.

So it remains open what is to be made of the evidence of the Tacticians as to formations of the phalanx. Now it is clear enough that what they are describing is the Macedonian phalanx (cf. Aelian, *Preface* 6), although they always speak of ‘hoplites’ rather than ‘phalangites’, and some of their comments seem quite inappropriate to hoplite battle. For instance, they speak of the forming of close order, *pyknōsis*, by movement from left or right, in just the same way as Polybius describes for Cynoscephalae, where Phillip ordered ‘the peltasts and the phalangites to double the depth and to close up (πυκνοῦν) to the right’ (18.24.8). Thus in Asclepiodotus (4.4) it is remarked that forming close order will produce a front only half as long (cf. Aelian 11.6), and Arrian (*Tact.* 11.3) talks of *Pyknōsis* in frontage and depth (κατὰ μῆκος τε καὶ βάθος). Now this sort of shuffling to right or to left is inconceivable in a hoplite battle; in shortening the front it would expose one wing to certain encirclement and in any case it could not be done once the fighting had begun. So we cannot simply take sentences from the works of the Tacticians and apply them to hoplite warfare.

Despite some confusion,²² the three formations of open order, *pyknōsis*, and *synaspismos* are to be found in Polybius. At 12.19.7 he speaks of six feet as the interval between two file-leaders ‘with the proper intervals for marching’ (ἐν τοῖς πορευτικοῖς διαστήμασι). At 18.29.2 he speaks of 3 feet per man in the close formation for action (κατὰ τὰς ἐναγωνίους πυκνώσεις). It is true that Polybius does not use the term *synaspismos*, although uses of *pyknōsis* are common enough,²³ and that his uses of the verb ‘to lock shields’ (συνασπίζειν)²⁴ do not correspond with the Tacticians’ definition of *synaspismos* (Ael. 11.5, Asc. 4.3), which is for them a purely defensive formation.²⁵ So it is something of a leap to assert that essentially what the Tacticians

²¹ W. K. Pritchett, *Ancient Greek Military Practices* (Berkeley, 1971), i.154.

²² cf. Walbank’s note ad 2.69.9.

²³ 18.7.8, 12.2 and 5, 13.3; 3.113.3.

²⁴ 4.64.6; 12.21.3 and 7.

²⁵ Presumably the phalangites stood sideways on when holding the sarissa, perhaps taking the weight of the long shaft by adopting very much the hold used in the British Army for a bayonet-fixed Lee Enfield rifle, i.e. with the right forearm placed along the shaft; in which case 18 inches would be ample in a defensive stance, for the rear four rows of sarissas would require no more

were describing was the Macedonian army and its manoeuvres, but it is hard to see what else they were talking about, and if it is correct that they all derive, directly or indirectly, from Posidonius (cf. Arr. *Tact.* 1.2), the likelihood is that it was the Macedonian way of warfare that was under review.²⁶ One cannot therefore use various statements made by the Tacticians as if they were necessarily applicable to the hoplite armies. Indeed, in the matter of formations, there is some reason to suspect that *synaspismos* as described in the Tacticians was an innovation due to Philip II of Macedon. In Diodorus' account of the military reforms of Philip at the start of his reign (16.3), the source of which is probably the *History* of Ephorus, after referring to changes in military organisation and in arms he adds 'And he (Philip) invented (ἐπενόησε) the close formation (πυκνότητα) and equipment of the phalanx, imitating the *synaspismos* of the heroes at Troy, and he was the first to assemble the Macedonian phalanx.' One has always been puzzled by what can be behind all this. The close formation of hoplite armies, whether for the whole battle or for the advance and the *ōthismos*, was certainly no invention of Philip,²⁷ and although the word for locking shields occurs neither in Herodotus nor in Thucydides, it does in Xenophon's *Hellenica* (7.4.23 and cf. 3.5.11) and in any case the fact must have been there in the *ōthismos*. What then was Diodorus, or, rather, Ephorus, referring to? Perhaps what Philip did was to invent the most compact formation described by the Tacticians as *synaspismos*, that defensive mass bristling with *sarissas*. So that part of the account of tactical formations, at least, may not be applied to Greek hoplite armies. Of what value then the rest?

It has already been remarked that the version of *pyknōsis* which involved the closing up of file-leaders to right or to left can have had no place on the hoplite field of battle. But there is another form of *pyknōsis* referred to in the Tacticians. Aelian (29.1) and Arrian (*Tact.* 25) give virtually identical accounts of 'doubling-up' (διπλασιασμός). One kind of 'doubling-up', it emerges, consists of doubling the number of men in the front rank while keeping the same length of front by 'inserting (παρεμβάλλοντες) within the gaps between the hoplites those from the second rank,²⁸

space in the front. Indeed, the closer the *sarissas*, the more difficult it would have been to get at the file-leaders. Therefore I cannot side with Th. Steinwender, 'Der polybianische Gefechtsabstand', *Hermes* 44 (1909), 179–97. [The only scruple arises from where and how the phalangites' shields were worn in such close formation (cf. G. T. Griffith, *A History of Macedonia* [Oxford, 1979], ii.421 for the phalangite's shield), indeed how a shield allegedly two feet in diameter (cf. W. K. Pritchett, *Anc. Gk. Mil. Prac.* i.146f.) was worn at any time when the *sarissa* was lowered for action. Griffith's version seems more easily said than done – 'the Macedonian will have used his upper arms alone as support for his shield, his forearm thrust through elbow-thong?'] It is to be noted, however, that both Arrian (*Anabasis* 5.17.7) and Plutarch (*Flamininus* 8.4–6) use the term *synaspismos* for a force in attack.

²⁶ For the genealogy of the Tacticians, cf. P. A. Stadter, 'The *Ars Tactica* of Arrian', *CP* 73 (1978), 117f. Greek, as opposed to Macedonian, warfare is allegedly under review (cf. Arr. *Tact.* 3.2.4, 5, 16.9, 19.5, 32.2 etc.). The meaning of Aelian, *Preface* 6 depends on whether one translates *καί* to mean 'as well'.

²⁷ cf. Plut. *Mor.* 220a for a dictum allegedly of Demaratus.

²⁸ Those of the second rank are termed *ἐπιστάται*. It is instructive to compare the account of Aelian 13.3 with Arrian in the parallel texts of Köchly–Rüstow. Aelian ascribes a supporting role in combat, and the role of substitute in case of death or wounding of the file-leader; Arrian goes further, adding something about their role in *ōthismos* (which can only apply when there is *pyknosis κατά παραστάτην τε καὶ ἐπιστάτην*) and having men from the second rank using their swords over the heads of the file-leaders, hardly welcome support even if the *ἐπιστάτης* was as close to the file-leader as he could possibly be. Whatever Arrian knew about warfare in the Roman army, his additions to his Greek original would hardly move one to volunteer for service under him.

and so the front of the phalanx is made more dense (*πυκνοῦται*). 'It is called *parembolē* (insertion) when those who are ranked behind move into the intervals between front-rankers and form a straight line' (Aelian 31.1). As to the reverse procedure whereby the open order is attained from the compact, the only possible trace to be found in the Tacticians is in Onasander (10.2), where he refers to 'the ordering which withdraws files for greater depth of the phalanx' (if that is the right translation of the *κατάταξις ἢ ἐπὶ βάθος ὑποστέλλουσα*). Were these changes of formation purely Macedonian in origin, or did they derive from Greek hoplite armies?

The answer to this question, it seems to me, must be that they probably did derive from hoplite armies. As has already been pointed out, the phalanx was certainly flexible, but it might be argued that such changes of formation would not have happened in face of the enemy or during the battle. The words used in Polybius and the Tacticians for forming up in close order, *πύκνωσις* and *πυκνοῦν*, never occur in that sense in Herodotus, Thucydides, or Xenophon's descriptions of battles.²⁹ The one use in the parts of Diodorus that probably stem from Ephorus (11.7.2) may well not be technical. The movements alluded to in the Xenophontic *Constitution of the Spartans* (11.6) whereby the depth of the phalanx is varied³⁰ may have preceded the battle. However, there are two points that should give us pause. First, the hoplites of the Ten Thousand knew that they would face scythed chariots at Cunaxa. In the event (Xen. *Anab.* 1.8.10 and 20) the chariots were mostly diverted and had little effect. Some the Greeks did avoid by 'standing apart', just as the Macedonians did when they let the scythed chariots pass through them at Gaugamela (Arr. *Anab.* 3.13.6), and they must have had some sort of drills to do so, if the confusion the Persians hoped to create was not in fact to happen. So here is evidence of tactical variation of a hoplite line on the field of battle. Secondly, Plato in the *Republic* (526d), in speaking of the usefulness of geometry in warfare, mentions 'encampments, occupation of positions, concentrations (*συναγωγαί*) and extending (*ἐκτάσεις*) of an army and whatever other formations armies adopt in the very course of battles and of marches (*ὅσα δὴ ἄλλα σχηματίζουσι τὰ στρατόπεδα ἐν αὐταῖς τε ταῖς μάχαις καὶ πορείαις*).' So in the age of hoplite battles armies could be thought of as changing formation during a battle, and if this is correct, it seems all too likely that the movements of the Macedonian army carried on from the hoplite armies.

Variations of formation could be, and indeed were on occasion, made in the course of a battle, but this is far from disproving that normally hoplites fought as Thucydides made them advance, i.e. as close as possible to each other to secure the partial protection of the shield of the man to the right. Contemplation of hoplites on vases and in reliefs should, however, give the orthodox furiously to think. I do not allude to the many scenes of individuals fighting individuals, conflicts in which different practices might well prevail, but to those scenes which represent rows of hoplites going into action. In most such scenes that I am aware of, the shield is held not across the body but is extended forwards and at an angle,³¹ as if the hoplite was using his

²⁹ Hdt. 9.18.1 is not in battle.

³⁰ αἱ δὲ παραγωγαὶ ὥσπερ ὑπὸ κήρυκος ὑπὸ τοῦ ἐνωμοτάρχου λόγῳ δηλοῦνται (καὶ) ἀραιαὶ τε καὶ βαθύτεραι αἱ φάλαγγες γίνονται. It is not clear that changes in depth are due to *παραγωγαί*. To judge by what Thucydides (5.68.3) says of Mantinea, depth in the Spartan army depended to some extent on the decision of the *λοχαγός*, and the phalanx was essentially a series of *λόχοι*; if by *παραγωγαί* the author means the sort of movement described in Xen. *Hell.* 7.5.22, the second half of this sentence in *RL* refers to some other movement.

³¹ For instance, on the Chigi vase one can see the left edge of the shield behind the body of the hoplite whose spearside is fully displayed; so much for the man on his left trying to hide

shield to give 'a straight left'. (Indeed if they did not use it in this way, their shields would have been unnecessarily wide.) In those few scenes where the shield is held directly in front,³² it is held well forward to leave the hoplite free to use his legs, but the Chigi vase is the typical scene, and in it hoplites, with spears held high ready to strike, all have their shields on their left and their left legs forward, the very posture necessary for effective use of the spear. Was this how the fighting in line was conducted? Of course, one will be told that rugby scrums are not like this and that this must be mere artistic licence or convention; Thucydides has told us how they sought the protection of their neighbours' shields. Against such fixity of belief, one can make little progress, but if one is to take seriously the archaeological evidence, it is plainly the case that hoplites did not fight as Thucydides made them advance.

If this is correct, there is a consequent observation discomfiting for orthodoxy. If the man on one's right is fighting with left leg forward and with shield advanced to ward off his opponent's spear, the closer one got to him the greater the danger of his opponent's spear sliding off one's neighbour's shield and damaging oneself. Common prudence would require that there be some space between one and one's neighbour. Such space would give the hoplite room to move and make good use of his weapons. Nor was there need to fear that he would be attacked on his open right side. He had the man behind him to defend him. There is a remarkable statement in Arrian (*Tact.* 12.3) which runs as follows: 'those who stand behind (*ἐπιστάτας*) the file-leaders must be second to these in valour, for their spear reaches up to the enemy...' The version of Aelian, to which this is cognate (13.3), runs as follows: 'one must pay attention by every means possible to the second rank as well, for the spear is also extended in front of these men (*συνεπεκτείνεται γὰρ τὸ δόρυ καὶ τούτων τῶν ἀνδρῶν*) and being nearby in the array keeps watch (*παρεφεδρεύει*) and renders service (*χρεῖαν παρεχόμενον*).' What is remarkable about this is that it simply cannot apply to the Macedonian phalanx which both writers proceed to discuss (Arr. *Tact.* 12.4, Aelian 14 – passages which plainly derive ultimately from Polybius 18.29); there were five rows of sarissas extended before that phalanx. The spear (*τὸ δόρυ*) is the weapon of hoplites, and the Tacticians must here be talking about the files in a hoplite army. So with the second rank 'keeping watch' there was no danger of those in open order being got at on their unprotected side. On the other hand if the file-leaders fought as closely as Thucydides made them advance they would be doubly endangered, first from glancing blows, secondly from ill-timed assistance over their shoulders from an over-enthusiastic second-ranker. Open order does indeed seem to me 'the natural one', as Asclepiodotus (4.3) termed it.

In open order there was room to employ to some extent those skills that Plato declared that dancing developed (*Laws* 815a), not of course as fully as when one was out on one's own engaged in single combat, *μονομαχία*, but 'avoiding all sorts of blows and missiles by nodding and stepping back and leaping up and bending down' was possible in the space.³³ There is a curious passage in Plutarch's *Quaestiones Convivales* (639f): 'The first task of those engaged in battle is to deliver and defend

behind his neighbour's shield. The Nereid Monument at Xanthus is similarly discouraging to the orthodox.

³² cf. the mixture of methods on the Aryballos in Berlin, fig. 3 of H. L. Lorimer, 'The Hoplite Phalanx', *BSA* 42 (1947), 84, and cf. fig. 2 in W. A. P. Childs, *The City Reliefs of Lycia* (Princeton, 1978).

³³ Epaminondas described the flat and open Boeotian land as 'πολέμου ὀρχήστρα' (Plut. *Mor.* 193e).

themselves against blows, and the second is, when they have already engaged and are involved in hand-to-hand conflict, to go in for pushings (*ώθισμοίς*) and overturning each other (*περιτροπαίς ἀλλήλων*), by which means especially, they say, the Spartiates were brought low (*καταβιβασθήναι*) at Leuctra by our men, who were skilled at wrestling (*παλαιστρικῶν ὄντων*), and so in Aeschylus one of the warriors is called *Brithys, hoplitopalas* the wrestling hoplite. Elsewhere one hears of training in gymnasia, but the Palaestra was quite different. In it took place wrestling and only wrestling. What were these 'overturnings' (*περιτροπαί*), managed by Boeotians trained in wrestling against the Spartiates, not 'certain Spartiates'? Aeschylus' warrior may have earned his fame for the sort of single combat depicted on scores of vases. But Plutarch's remark can hardly be so understood. The only sense in which I can take it is that the Boeotians were adept in getting their opponents off balance; perhaps the left leg was advanced to the inside of the opponent's left leg and with a well-timed shove with the shield, he could be pushed over. But what room can the orthodox provide for this sort of thing? One suspects therefore that there was a great deal more in hoplite warfare than is dreamed of in their philosophy, a great deal more for which space was needed.

After all, for what sort of deeds were hoplites accorded the reward for valour (*τὰ ἀριστεία*)?³⁴ Herodotus was moved to give the names. Neither Thucydides³⁵ nor Xenophon did, but it is clear from casual references that individuals, as well as units, regularly were singled out. Socrates should have received the honour according to Alcibiades for defending him when he had been wounded and bringing both him and his shield back to safety (Plato, *Symposium* 220d); we are not told what Alcibiades was claimed to have done to have himself received the honour. At Plataea Aristodemus, the Spartan who in Herodotus' opinion really deserved it (9.71 and cf. 7.229–31) did not get it because he was thought to be indifferent whether he lived or died as he 'in rage was leaving the ranks and turned on a display of great deeds'. Sophanes the Athenian, who was honoured, seems to have been in the habit of conducting himself on the battlefield in a way that gave rise to a curious explanation of how it was that he could not be driven backwards (Hdt. 9.74), though we cannot be sure that that was how he behaved at Plataea. On another occasion he triumphed over the Argive who specialised in single combat (Hdt. 6.92.3, and 9.75). Since, for the rest, no hint is provided of the sort of deeds for which the *aristeia* were given, one might wonder whether they were the reward for the quite exceptional deed done by those who, literally, got out of line, what might be termed a Disorderly Conduct Medal. But if staying in line was all important, it would hardly be the case that a general would incite his men to dashing out of line and so winning the *aristeia* at the risk of losing the battle; Iphicrates is recorded as promising a prize for valour to the man who was best in each part of his army – hoplites, cavalry, peltasts and so on (Polyaenus 3.9.31); he can hardly have been encouraging them to do anything that would cause them to neglect their duty. But where, in the orthodox account of hoplite warfare, is there room for a hoplite to distinguish himself? His movements were restricted, we are told, and his deeds must have gone largely unobserved. If, of course, he was fighting in open order as I believe he was, or could be, for part of the battle, he could indeed distinguish himself. He was still in line (*ἐν τάξει*), fighting man beside man (*ἀνὴρ παρ' ἀνδρα* Eur. *Hel.* 1072, Arist. *Wasps* 1083), still dependent on his

³⁴ cf. W. K. Pritchett, *GSW* ii, Ch. 14 for this subject.

³⁵ 2.25.2 suggests that he could have given names had he chosen to do so.

neighbours' courage (Eur. *HF* 190–3), but he had enough room to do more than just make ineffectual jabs at his opponent.³⁶

The matter of *aristeia* does, however, raise the wider question of whether the fighting was always in line, either in open order, as I believe is probable, or in the close order in which Thucydides and common sense make hoplite armies advance and the orthodox believe them to have remained all through the battle. There certainly was on occasion single combat. At the siege of Aegina in 491 the Argive pentathlete, Eurybates, who made a speciality of (*ἐπασκέων*) single combat, issued challenges and killed three Athenians and was himself killed by Sophanes (Hdt. 6.92.3). That was not part of a hoplite battle, but Sophanes would seem to have been a specialist at this sort of thing in the midst of battle, to judge, as already remarked, by what was said of him (Hdt. 9.71). Likewise the Spartiate Aristodemus (see above). So painters of vases were not entirely delving into the past with their scenes of single combat. But how frequent was this sort of thing? It is clear that in the rare cases of authors speaking of 'fighting in front' (*προμαχεῖν*) they do mean fighting out in front of the formal battle lines, but in no case is such fighting done by hoplites (Thuc. 6.69.2, Diod. 12.70.1, Xen. *Cyr.* 3.3.60). An inscription records the death of, one presumes, a hoplite 'distinguishing himself among the *promachoi*' (*ἀριστεύον ἐν προμάχοις*),³⁷ and a number of inscriptions record deaths 'among the *promachoi*', but it may well be that the word was used as a laudatory phrase for those who died in war, not to be taken literally.³⁸ There is, however, one notice that should give one pause. In Xenophon's account of the battle of Coronea in 394 B.C., as the Thebans were bearing down on the army of Agesilaus and were only one hundred yards away, 'there ran out from the phalanx of Agesilaus to oppose them (*ἀντεξέδραμον*) the men commanded by Herippidas and with them the Ionians and Aeolians and Hellespontians, and all these were amongst those who ran out together (*τῶν συνεκδραμόντων*) and coming to within range of the spear³⁹ (*εἰς δόρυ*) caused those opposite them to turn' (*Hell.* 4.3.17). Xenophon was there and must have known what he was talking about, but what was he talking about? These men who ran out from Agesilaus' phalanx were hoplites as his mention of a spear shows; in any case 'the men commanded by Herippidas' were the remnants of the Ten Thousand who were mainly hoplite;⁴⁰ nor is it likely that a part of the Boeotian army was deterred by a surge of mere peltasts. On the orthodox view these men who did not maintain the compact, unbroken front should have lost the battle and Herippidas should not have been put in command of anyone ever again. But he was (cf. *Hell.* 4.8.11, and Plut. *Pel.* 13), and the Spartans were not defeated. The Spartan army could hardly be accused of indiscipline, nor of lack of training. When at the Pathos in Lechaeum the Polemarch ordered out those in the ten years from their becoming liable to military service (*τὰ δέκα ἀφ' ἧβης*) to attack Iphicrates' peltasts, he was putting into effect perhaps a well-practised drill. A great deal more went on on hoplite battlefields, I suspect, than the orthodox dream of.

Tyrtaeus wrote in the age of hoplite warfare and, to quote Greenhalgh,⁴¹ his fragments 'give a perfect description of the hoplite shield and spear, and the close

³⁶ The story of the blinding vision of Epizēlos at Marathon (Hdt. 6.117.3) presupposes hoplites in line, but is not more suitable to compact than to open order.

³⁷ W. Peek, *Gr. Versinschriften* (Berlin, 1955), i.321.

³⁸ cf. W. K. Pritchett, *GSW* iv.85–8.

³⁹ Since Xenophon goes on to contrast the Argives who *οὐκ ἐδέξαντο τοὺς περὶ Ἀγησίλαον*, he does not mean by *εἰς δόρυ* 'within spear's throw', cf. *Hipparch.* 8.10.

⁴⁰ cf. Xen. *Hell.* 4.2.5.

⁴¹ *Early Greek Warfare* (Cambridge, 1973), p. 180 n. 37.

order of the phalanx formation.' 'Yet in general spirit' to turn to Snodgrass⁴² 'the poems... leave much to be desired as exhortations to hoplites fighting in the phalanx. The presence of light-armed men with javelins and stones (11.35–8) is not incompatible with hoplite tactics; but when it is clear that the heavy-armed warrior has the choice of fighting bravely among the *promachoi* or else of skulking behind out of range of missiles and that the *gymnetes* (the light-armed) are apparently to take cover behind the hoplites' shields, one may well ask what kind of phalanx this is. The address *ἀλλά τις ἐγγὺς ἴων αὐτοσχεδὸν ἐγγχεῖ μακρῶι | ἢ ξίφει οὐτάζων δήϊον ἄνδρ' ἐλέτω* ('but let a man go near and for hand-to-hand conflict choose his foe striking him with long spear or with sword') is most intelligible as an encouragement to individual daring'. It would seem that Tyrtaeus' hoplite could stand back while others went forward to their deaths (cf. 10.21f.), that the whole phalanx did not move to close combat at the same moment as our orthodoxy asserts, that individuals could like Aristodemus at Plataea (Hdt. 9.71.3) 'in rage keep leaving the ranks',⁴³ that as he fought out there with spear or sword light-armed men could crouch on either side of him throwing rocks at the foe. Perhaps some of the alleged seven helots a hoplite at Plataea (Hdt. 9.28.2) found their death thus, and so received honoured burial (9.85.2). Certainly on Attic vases in the last third of the sixth century archers were depicted playing such a part.⁴⁴ One hears, or sees, no more of this sort of thing in the late fifth century, but at least one suspects from Thucydides' account of Mantinea that the whole Spartan phalanx did not simultaneously engage, for he tells us that a portion of the Argive line, attacked by the three hundred Spartiates who were the so-called *Hippeis*, did not dare to come to hand-to-hand fighting but immediately gave up and turned to flight, but he speaks (73.1) as if the battle on each flank was well advanced. So some time must have elapsed before there was any question of general *mêlée* for the centre of the Argive phalanx. The orthodox picture of what happened in a hoplite battle seems therefore simplistic. Just as a lot can go on in rugby scrums that neither spectators nor referee see, so in a hoplite battle a lot more went on perhaps than the orthodox imagine.

One question remains. Once the file-leaders were engaged in hand-to-hand conflict, did those behind have no part? Hoplite fighting must have been a tiring business and, if battles did indeed last two or three hours, exhausting, and it is no surprise to read in Diodorus' account of the battle of Thermopylae (11.8.2) that the Spartans were accustomed to fight in relays. The file-leaders were the strongest and bravest, not just in the Spartan army ([Xen.] *RL* 11.8) but generally (Xen. *Mem.* 3.1.8 and cf. Aelian 13 and Arr. *Tact.* 12), and they certainly bore the brunt of the fighting and suffered the most casualties (which is perhaps why there were no perioecic casualties at Plataea – Hdt. 9.70.5). When they were killed or wounded their places were filled by the men immediately behind them (Aelian 13.3), the men whose spears had helped to defend the file-leaders (Arr. *Tact.* 12.3) now themselves becoming the file-leaders and so 'keeping the formations unbroken' (*συνέχει τὴν τάξιν ἀπαραγῇ* – Aelian l.c.). So it is not clear what the most cowardly in the middle of the file had to fear. Yet fear they did and were kept on the battlefield by the threat of being killed by the file-closers if

⁴² *Early Greek Armour and Weapons* (Edinburgh, 1964), pp. 181f. References to Tyrtaeus are in the edition of M. L. West, *Iambi et Elegi Graeci*, II (Oxford, 1972).

⁴³ The present tense of these participles is to be noted.

⁴⁴ cf. M. F. Vos, *Scythian Archers in Archaic Attic Vase-painting* (Groningen, 1963). Fig. 52 in Greenhalgh *E.G.W.* is perhaps the best example. Cf. fig. 7 in H. L. Lorimer art. cit. These are both assigned an early date. Vos, Plate VII is late.

they turned and tried to run (Xen. *Mem.* 3.1.8, *Cyrop.* 6.3.27). Of course, there was always the danger of the formation breaking up and a general mêlée occurring, of the sort which the author of the Xenophontic *Constitution of the Spartans* envisages (11.7).

So this paper ends on an agnostic note. The only confidence one can have is that things were not so simple as the orthodox would have us believe.

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