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THE HOMERIC WAY OF WAR: THE *ILIAD* AND THE HOPLITE PHALANX (II)

By HANS VAN WEES

3. *A uniform fantasy: the heroic panoply*

Even more than the noise and the clouds of dust raised by men and horses, the flashing of bronze armour and weapons is characteristic of Homeric panoramas of battle. When the Greeks armed themselves with helmets, shields, corslets and spears,

the brightness lit up the sky, and all around the earth beamed in the shine of bronze (19.359–63). It blinded eyes, the glare of bronze from shining helmets, newly-polished corslets and bright shields, as they advanced in their masses (14.340–3).

One cannot help being reminded of archaic Greek hoplites, whose panoplies gained them a reputation abroad as ‘men of bronze’.

A long tradition of scholarship has maintained that references in the *Iliad* to hoplite panoplies are merely a late addition to a generally confused picture, featuring all sorts of arms and armour from various historical periods. More recently, however, Joachim Latacz has suggested that Homeric warriors as a rule do wear hoplite panoplies to match what he believes to be their hoplite style of fighting. Subsequently, both V. D. Hanson and W. K. Pritchett have supported this view, by stressing that heavy Homeric equipment is entirely unsuited to ‘fluid fighting and individual combat’.⁴⁷

I shall try to show that there is no real inconsistency in Homer’s depiction of arms and armour, that Homeric armament is indeed very similar to that of hoplites, but that it is by no means incompatible with mobile, open-formation combat.

Two general observations are in order. First, the heroes’ equipment is not uniform. Some have bigger and better shields than others (14.371–82; 15.616). Some use bow and arrows instead of, or alongside, spear and sword and the occasional battle-axe; those who do may go into battle without shields or body-armour. This, it seems, is a matter of choice rather than necessity: Paris, hardly a poor man, fights as an archer, covered only with a leopard-skin (3.15–20; cf. 328–38), and Teukros, too, initially chooses to fight as an archer without shield or helmet, although he does possess these (15.442–83).⁴⁸

The second observation is that Homer's descriptions of armament are not always realistic. Nestor's shield of solid gold, Akhilleus' shield with its layer of gold sandwiched between two layers of bronze and two of tin, or the plume of Akhilleus' helmet, made of countless golden hairs, are surely as fantastic as, say, the golden doors and silver doorposts of Alkinoös' palace in the *Odyssey*. Equally fantastic is the strength of the heroes, who with one hand can throw boulders too heavy even for two ordinary mortals to hoist onto a waggon. One must therefore allow for the possibility that there may be further, perhaps less obvious, elements of fantasy in Homer's image of heroic arms and armour, particularly with respect to the weight and size of pieces of equipment, and the use of valuable materials in their construction.⁴⁹

The significance of both observations will become clear at once, as we turn to an examination of the notorious Homeric shield.⁵⁰ Despite its notoriety, the bulk of references to it is in fact clear and consistent. Shields in general are several times described as 'well-rounded' (*eukuklos*), and a number of major heroes are specifically said to carry circular shields. The most common epithet for shield is 'equal everywhere' (*pantos eisë*), and the almost universally accepted meaning 'round' is surely correct.⁵¹ The shield consists of several layers of ox-hide and an outer facing of bronze. Interestingly, the poet envisages two ways of constructing it: Sarpedon's shield was created by a bronzesmith, who first hammered out the bronze facing, then attached the hides to the inside by stitching them along the rim with gold wire (12.294–7); Aias' shield, by contrast, which has exceptionally many layers of hide, was appropriately created by a leatherworker, who, it seems, first formed the body of the shield from hides, then hammered a layer of bronze on top of it (7.219–23).⁵² After 'round', shields are most frequently called 'bossed' (*omphaloessa*), and Agamemnon's shield, for one, has a central boss as well as twenty bosses set either along the perimeter or across the diameter.⁵³ Shields have an offset rim, which may be double or triple; they are carried by a strap (*telamôn*) passing over the right or left shoulder.⁵⁴ Finally, shields have *kanones*, which are most likely to be cross-bars fixed at the back of the shield to reinforce it and to which a handle might be attached.⁵⁵

The problem, as it is generally perceived, is that Hektor's shield is on one occasion described as reaching *to the feet* of the bearer, as is the shield of one Periphetes (6.117–18; 15.645–6), and that some of the epithets applied to the shield of Aias suggest that it, too, is very large.⁵⁶ Since a round, bronze-faced shield the size of a man would be uselessly broad and too heavy to carry, it is concluded that the poet is speaking here of large *oblong*

shields *without* metal facing, such as were used in Mycenaean times. Thus, when Homer says that Aias' shield has a layer of bronze, and when elsewhere he repeatedly describes Hektor's shield as round and bronze-faced, he is supposedly being inconsistent.⁵⁷

Commonsensical as the argument may seem, it misses a vital point: the heroes possess superhuman strength and could easily carry shields that would be too unwieldy for ordinary mortals. Indeed, attributing huge and heavy shields to men like Hektor and Aias may be Homer's way of quietly hinting at their heroic prowess. We need see no inconsistency here, merely an element of fiction. The *Iliad* consistently depicts round, bronze-faced, embossed shields of varying size, a few of which are fantastically large, just as some of them are fantastically ornate and made of fantastically expensive materials.⁵⁸

The case of the spear, the most important Homeric weapon, is similar. Hektor twice makes an appearance holding a spear 'eleven cubits', or some five metres, long (6.319; 8.494). Such a weapon would in reality have to be wielded with both hands and could only be used for thrusting. Yet Hektor and other heroes frequently brandish a *pair* of spears, and they *throw* as often as they thrust spears at the enemy. It is commonly concluded that Hektor's spear is a Mycenaean 'survival' at odds with the shorter and lighter weapons used more generally in the *Iliad*. Again, it has not been realized that even Hektor's spear can be thrown, because its fantastic size is matched by Hektor's superhuman strength. So too, Akhilleus, as the greatest of heroes, can throw a spear which is too 'heavy, big and sturdy' for anyone else to handle.⁵⁹ Granted this element of fantasy, what remains is simply a picture of spears of varying sizes, but all suitable for both throwing and thrusting, carried into battle either singly or in pairs.

A further complication is that Homer always speaks of *bronze* spearheads and swordblades, although it transpires from a proverbial expression used in the *Odyssey* that weapons are normally made of *iron* (*Od.* 16.294; 19.13). The proverb clearly reflects the situation of the poet's own day, and it is commonly accepted that the persistent references to bronze weapons are deliberate archaisms intended to reproduce the conditions of the Mycenaean Bronze Age.⁶⁰ This seems plausible, but a closer look at the Greek concept of the Bronze Age raises questions. 'Their arms and armour were of bronze, their houses were of bronze, and they laboured with bronze: black iron did not exist', is Hesiod's picture of the Bronze Race (*Works & Days* 150–1). In Hesiod's scheme, the heroes of the epics are *not* part of this Bronze Race; they succeed it, and it is not suggested that the absence of iron applies to them too. More importantly,

tools are made of *iron* in Homer, not of bronze, as Hesiod apparently knew they had been in the Bronze Age. If Homer systematically archaized weapons, why not tools as well?

The answer may be that, while iron weapons are deadlier, bronze weapons are more glamorous. Bronze spearheads never entirely went out of use, and in fact became more common again in the sixth century B.C., when, as Snodgrass has suggested, large bronze spearheads may have been made specially for dedication in temples 'for decorative effect, to which bronze lent itself better than iron'.⁶¹ If bronze was regarded as more 'precious' than iron, one can understand why common-or-garden tools in the epics are made of iron, and only the more prestigious weaponry is made of bronze. It may seem odd that Homer should give his heroes relatively ineffective weapons 'for decorative effect', yet that is precisely what he does elsewhere, when he creates a shield of gold (8.192–3) and greaves of tin (18.613; 21.592). Not surprisingly, these are without historical parallel since gold and tin are soft metals quite unsuitable for protective armour. It is possible then that Homer is not so much concerned to present an accurate picture of Bronze Age weapons, as to present a dazzling, if fanciful, picture of heroic equipment.

The same is true of the 'silver-studded' (*arguroêlon*) swords carried by many of the heroes. Swordblades were normally attached to the hilts by means of rivets, and silver-tipped rivets have in fact turned up in both Mycenaean and seventh-century Cypriot finds. Before jumping to conclusions, however, one must remind oneself that there is also a *gold*-studded sword in a silver sheath suspended from a golden baldric carried by Agamemnon (11.29–31), for which there is *no* historical parallel. Surely the use of gold and silver here is of a kind with the liberal use of precious metals in shields and elsewhere: it is a glamorous fiction, and its archaeological parallels are likely to be fortuitous.⁶²

Of long-range weapons we know little more than that bows are large and powerful, and arrowtips are barbed and sometimes smeared with poison. The details are vague but not inconsistent. There is, however, a notable discrepancy between the large numbers of archers and slingers or stone-throwers implied in many of the *Iliad*'s panoramic pictures of masses in combat, and the small number of men actually shown using the bow or sling in scenes of individual combat. In view of the occasional disparaging comment on the ineffectiveness of arrows, and the use of 'Archer!' as an insult, the discrepancy indicates that Homer regards the use of long-range missiles as a common, but inferior form of warfare, less appropriate to his heroes than close combat.⁶³

The wearing of bronze body-armour is much stressed in the *Iliad*. Trojans and Greeks are 'bronze-corsleted' (4.448; 8.62), and their frequent epithet 'bronze-clad' (*khalkokhitones*) is no doubt a poetic way of saying the same thing.⁶⁴ The metal corslet (*thôrêx*) used to be regarded as a prime example of post-Homeric interpolation, because it was believed that no such thing existed until after Homer's day. As a result, much ingenuity was expended in finding internal inconsistencies that might justify expunging all references to bronze cuirasses. Archaeology has subsequently shown that this was unnecessary, since bronze corslets did in fact exist both in Mycenaean times and the eighth century. A few of the inconsistencies uncovered, however, remain problematic.⁶⁵

The cuirass is worn over a woven tunic (*khitôn*), and is composed of 'hollows' (*gualoi*) which, as Pausanias (10.26.2) explains, are a front- and back-plate joined together at the shoulders and sides by means of hinges and straps. The plates cover the entire torso down to a little below the waist, but leave throat and neck exposed (22.322–5).⁶⁶ This much is relatively uncontroversial. Difficulties arise in trying to work out the relation between the corslet and the 'belts' (*zôstêr* or *mitrê*) of which we hear.

The *zôstêr* is mentioned fairly often, and a reference to the Lykians as '*mitrê*-less' suggests that the *mitrê* is otherwise in common use (16.419). The *zôstêr* is a substantial piece of armour in its own right (10.77–8), valuable enough to serve as a gift of friendship (6.219; 7.305). While the cover of the corslet does not extend further down than the 'middle belly', the *zôstêr* covers the 'lower belly' (5.538–9, 615–16; 17.519), and Agamemnon's silver *zôstêr* once deflects a blow to the waist and hips (*zônê*) 'below the corslet' (11.234–7). Evidently, the *zôstêr* is a broad metal belt worn around the upper hips, protecting the parts the *thôrêx* cannot reach. Some scholars maintain that warriors might wear *either* such a belt *or* a cuirass, not both at once. That claim, however, is ill-founded. It would be quite possible to wear both, if Homeric cuirasses took the shape of the so-called bell-corslet worn by the Greeks from the eighth to the sixth century. Bell-corslets broaden out with a flared rim from the waist down, so there would be room for an overlap between the lower rim of the corslet and the upper part of the belt. In fact, some vase-paintings show, extending from below the rim of warriors' corslets, a band of the same colour as the corslet and therefore presumably of bronze: this must be the type of belt described by Homer.⁶⁷

Two passages appear at first sight not to fit the picture. When Menelaos is about to be shot by Pandaros, Athena protects him by guiding the arrow

to the thickest part of Menelaos' armour, 'where the golden fasteners of the *zôstêr* met and a twofold *thôrêx* opposed [the missile]' (4.132–3). On impact, the arrow smashes through the *zôstêr*, then the cuirass, and finally through a *mitrê* (4.134–9), which is made of bronze (4.186–7, 215–16). A second passage also refers to the 'fasteners of the *zôstêr*', and makes it clear that these are at the level of the navel (20.413–16).⁶⁸ Clearly, the *zôstêr* here is a belt worn around the waist rather than the upper hips, and on top of, not under, the corslet. Beneath the corslet, where other passages lead us to expect the *zôstêr*, we now find the *mitrê*. It is not too difficult to resolve the discrepancy. I suggest that *mitrê* is simply another word for the 'belt' worn under the cuirass, and that the term is used here to distinguish it from a *second* belt, a *zôstêr* worn around the waist of the cuirass to help keep the front- and back-plate together. Such belts, including at least one fastened with a large round buckle, are in fact attested in representations of bell-corslets in art; and the identification of *mitrê* as a broad metal belt is quite compatible with the meaning of the word in other contexts.⁶⁹

The remainder of what are believed to be inconsistencies amounts to little. The poet frequently alludes to men receiving wounds to the upper body without expressly stating that the weapon pierced their corslets first, but surely there is no need for him to do so every time. He also has blood 'spurting' and entrails bursting out through the cuirass, which is implausible but hardly more than poetic licence for the sake of effect. In only one scene does Homer describe something which, while not strictly incompatible with wearing a metal corslet, would certainly make better sense without it: Diomedes lifting the strap of his shield to wipe the blood and sweat from a shoulder wound irritated by it (5.795–8).⁷⁰

The remaining pieces of body-armour require little discussion. The heroes are at one point said to be 'bronze-greaved' (7.41), and presumably it is *because* their greaves are of bronze that they are often called 'well-greaved' (*euknêmides*). That the attached ankle-guards are made of *silver* is probably yet another touch of glamour.⁷¹ As for helmets, two specimens are described in detail: a simple leather cap 'which they call a *kataitux*', and a leather-and-felt cap covered with 'the white tusks of a wild boar' (10.257–71). The latter has been persuasively identified with a type of helmet well-known from Mycenaean times, but rare afterwards.⁷² Both are used in a night-raid, and this, as well as the fact that they are carefully described while the appearance of the helmets worn in battle is taken for granted, marks them as exceptional. The regular Homeric helmet, we gather from scattered references, is made of bronze and covers most of the head, including the forehead and cheeks. Its outstanding feature is a horsehair plume

mounted on a tall crest, which looks ‘threatening’; it scares little boys, at any rate. The double and even quadruple crests worn by some of the heroes no doubt strike sheer terror into the enemy.⁷³

In short, the heroes are typically equipped with a round bronze shield, a plumed bronze helmet, a bronze plate corslet fastened with a belt around the waist, a broad bronze belt worn underneath the corslet, and bronze greaves with ankle-guards. They carry one or two multi-purpose bronze spears and a bronze sword. More fanciful pieces of equipment may be made of gold, silver, and tin; some shields and spears are of fantastic size. The full panoply appears to be in common use, but those few of the heroes who operate mainly as archers are far less heavily armed. Since it is implied that bows and arrows are in fact in common use, too, it seems likely that a largely ignored, but substantial, proportion of Homeric troops wear little or no armour. None of this contains any real internal inconsistencies; at most, one can point to one or two minor lapses.

Moreover, there is no reason to think that the wearing of bronze panoplies and the carrying of bronze-faced shields is incompatible with the mobile style of fighting of Homeric heroes. It is true that the weight of such equipment will slow down a warrior who runs forward or retreats, and it must be admitted that, for instance, the Dani of New Guinea, cited earlier for their ‘Homeric’ style of combat, fight without body-armour or shields. Experiments show that men fighting in full armour under the hot sun ‘are exhausted within minutes’, and can barely run at a pace of 10 kph for 200 metres.⁷⁴ That, however, is no obstacle to fighting in the manner of the heroes, who, after all, need run only short distances, and may retreat to rest after a single spearcast or a single exchange of blows lasting, one imagines, no more than a minute.

It has been objected that, even if compatible with the Homeric manner of fighting, it is not *designed* for it, insofar as it restricts mobility.⁷⁵ The answer to this, I would suggest, is that mobility is not the only, or even the prime, consideration in epic combat. Just as, despite the drawbacks, chariots are brought into battle to enhance a man’s prestige and provide him with a means of escape, so heavy armour is worn because it affords greater protection, and in addition, we may surmise, signals wealth. The Homeric warrior, therefore, wears a hoplite-style panoply and accepts a certain loss of mobility for the sake of safety and status.

There is an element of fantasy in Homer’s depiction of arms and armour, just as there is in his portrayal of infantry and chariot combat. Yet in their essentials the images of both equipment and tactics are coherent and plausible. Might they reflect historical warfare?

4. *Homer and history: the early seventh century*

In searching for possible historical counterparts to Homeric warfare, we may begin with a brief survey of the archaeological evidence for arms and armour.

We have already noted that there are Mycenaean parallels for Homeric swords and some Homeric spears, but that their identifying features – silver rivets and bronze blades, eleven-cubit shafts and bronze spearheads – are in fact likely to be fantasy elements; or the use of bronze at best a deliberate archaism. If so, swords provide no further clue to a historical date. Twin and single spears, on the other hand, do. Pairs of spears are rare in the Mycenaean age, when they appear to be used in hunting rather than battle, but in Dark Age finds they are common, and in Late Geometric vase-paintings (750–700 B.C.) they are standard issue. Scholars have been inclined to stop here, and identify twin spears as a Dark Age feature of Homeric equipment. Yet it is in vase-paintings of the *seventh* century that we find the closest parallel to the epic: pairs of spears remain very common, but now, as in Homer, but unlike in Geometric pictures, we find *single* spears in general use *as well*.⁷⁶

Homeric cuirasses, as we have seen, look like bell-corslets. Bronze corslets were not unknown in the Mycenaean age, but the ones we know of were far more complex suits of armour and appear to have gone out of use centuries before the traditional date of the Trojan War. There is no evidence for metal cuirasses during the Dark Age until the bell-corslet emerges: the earliest surviving specimen and its earliest, isolated depiction on a vase both date from *c.* 720 B.C. The tomb which contained this bell-corslet also held the earliest helmet that fits Homer's description: not only is it made of bronze and fitted with cheekpieces – as some Mycenaean helmets were too – but is crowned with horse-hair plumes in a tall crest-holder, as Mycenaean and Dark Age helmets were not. Throughout the Archaic age helmets continued to be embellished with tall crests, though another common style was for plumes to be attached directly to the helmet itself.⁷⁷

Bronze greaves were worn by the Mycenaeans and again by Archaic Greeks. From 680 B.C. onwards, almost every single warrior in Protoattic and Protocorinthian vase-paintings is equipped with them; the earliest extant actual greaves have been dated to *c.* 650 B.C. (but see n. 78 *ad fin.*). This does not, however, necessarily mean that greaves were reintroduced only in 680. Geometric and the earliest Protoattic and Protocorinthian paintings are highly stylized and sometimes rather crude, depicting with

rare exceptions no body-armour other than helmets. Since normally no corslets are discernible, although these evidently were worn, the fact that no greaves are visible either does not mean that they did not exist. In fact, there is an isolated instance of a warrior, painted on a clay shield from Tiryns of c.700 B.C., whose greaves are indicated by a hatched pattern similar to the hatching on his swordblade and shieldface, and therefore likely to be made of metal.⁷⁸

Finds of Archaic bronze belts, and Archaic pictorial evidence for such belts worn underneath bell-corslets have already been cited (n. 67). Broad belts worn by otherwise naked warriors appear on eighth-century bronze figurines. The evidence is thin, and it would be unwise to press the point that no Mycenaean examples are known.⁷⁹

The absence of Mycenaean evidence for bronze shields, on the other hand, is significant, because shields are far better attested. Metal shield-bosses are known from the late Mycenaean period onwards, but the body of the shield appears to have been constructed of leather, wicker, or wood until c.700 B.C., when bronze-faced shields begin to appear in Greece. Among these new shields, the first to spring to mind is the hoplite shield with its characteristic 'double grip', but this is *not* depicted by Homer. The hoplite shield may be round but, apart from anything else, it is not slung across the shoulders suspended by a strap; it does not have metal bosses; and it is constructed around a core of wood, rather than layers of hide.⁸⁰ Alongside the hoplite shield, however, emerge various kinds of *single-grip* round bronze shields, including shields decorated with bosses. We are uncertain of the details of construction, but so far as we can tell, the latter type of shield exactly matches Homer's descriptions.⁸¹

In short, Homeric shields and the Homeric combination of twin and single spears, as reconstructed here, have seventh-century Greek counterparts; the other items of standard Homeric equipment are first encountered either in the Mycenaean age or in the later eighth century, but are in general use during the seventh century as well. The obvious conclusion would seem to be that the heroes are equipped with a more glamorous and literally larger than life version of *seventh-century* arms and armour.

Scholars have not, however, drawn that conclusion, in part because they regard the size of some of the heroes' shields and spears as a realistic rather than a fantastic element, but primarily of course because the majority hold that the *Iliad* cannot have been composed later than the second half of the *eighth* century. If so, one would have to assume that Homer did, after all, confuse Mycenaean and contemporary usage of spears, and that he

invented, or perhaps borrowed from the Near East, the idea of bronze-faced shields.⁸² That is not impossible, and one might therefore be inclined to accept the majority verdict and opt for an eighth-century date, were it not for the fact that, as we shall see presently, Homeric combat tactics point to the seventh century, too.

The aspect of Homeric tactics with the widest range of possible historical dates is the use of chariots in combat. Chariots were certainly used in Mycenaean warfare, though *how* is another matter. The records of palace administration reveal a centralized production and provision of chariots, from which we should probably infer the existence of organized chariotry battalions under central control, rather than independently operating chariot-owners. Whether or not Mycenaean chariot-fighters dismounted before engaging is debated.⁸³ Dark Age evidence is very slender until 750 B.C., when we find depicted on vases processions of chariots mounted or followed by armed men, and occasionally also chariots involved in actual combat.⁸⁴ It is possible that the scenes of combat represent, as is often argued, legendary battles rather than contemporary warfare. On the other hand, the chariot-processions surely represent real-life events such as the parade of 3,000 footsoldiers, 600 horsemen, and 60 chariots commemorated on an ancient stele in Eretria (Strabo 10.1.10). If *armed* men paraded on chariots, then it is likely that chariots were used in a military context, and if a military use is consistently and plausibly portrayed in poetry and painting, it would seem perverse to deny its historicity.⁸⁵

Chariots remain a feature of scenes of combat during the seventh and sixth centuries, but increasingly common are now pairs of a warrior and squire riding *on horseback*. They operate very much as chariots do, with the warrior dismounting to fight and the squire staying some way behind, in charge of the horses. This practice can only reflect contemporary reality, and gives us two further reasons to believe that the Homeric use of chariots is realistic, too. Firstly, if it is tactically and economically feasible for squires and pairs of horses to be employed in combat, then surely it was feasible for chariots as well. The extra cost of a light wooden chariot would be small compared to the cost of the horses, while the tactical disadvantage of requiring a little more space and reducing somewhat the manoeuvrability of the horses would be offset by the fact that it would be much simpler for a man in armour to mount and dismount a chariot than a horse without a saddle or stirrups.⁸⁶ Secondly, if warriors and squires are a feature of contemporary warfare, then the simplest explanation of their growing importance in vase-painting is that they are replacing chariots in pictures

because they are replacing chariots in reality, too. At what stage the chariot eventually went out of military use and became, as it presumably did, a conventional marker of 'heroic' scenes, is hard to establish.⁸⁷

By the mid-eighth century at the latest, then, chariots were used in the Homeric manner, and quite possibly they continued to be so used into the seventh century. Since the *Iliad* mentions only chariots, never warriors and squires on horseback, one is tempted to conclude that the epic reflects a period prior to the first appearance of pairs of mounted horses in 720 B.C. On the other hand, the *Iliad* never mentions *single* mounted warriors, without squires, either, although the evidence for single armed men on horseback stretches back to the tenth century at least. It appears, therefore, that Homer is telling us the truth, but not the whole truth. Although presumably acquainted with the practice of going into battle on horseback, he has simply left it out of the picture. I would suggest that he chose to have his heroes use chariots to the exclusion of all else for the same reasons that he has them fight with weapons of bronze only. He either knew of the prominence of chariots in the Mycenaean age, and archaized, or felt that travel by chariot was even more prestigious than riding a horse, and glamorized.⁸⁸ The epic image of chariots in battle thus could be based on the reality of almost any time during the Dark and early Archaic ages.

The date of Homeric infantry combat, by contrast, can be pinpointed with some precision: it falls between 700 and 650 B.C. The *terminus ante quem* of 650 will occasion no surprise, since it is generally believed that poems and vase-paintings show that by this date fully-fledged phalanx warfare had come into existence. It must be said, however, that the evidence is by no means as clear-cut, nor the changes as revolutionary, as scholars have liked to think.⁸⁹

Indeed, it seems to me that the main literary evidence, Tyrtaios' poems of exhortation to the Spartans, shows the Spartans fighting in an essentially Homeric manner. Most informative is a fragment (8.28–30, 35–8 Diehl) which urges:

Let a man not *stand beyond the range of missiles*, shield in hand. No, he must *go close*, striking an enemy with his long spear or sword at close range, and kill him . . . And as for you, light-armed men, you must throw large stones, crouching under a shield, now here, now there, and cast your smooth spears against the enemy, taking a stand near the heavy-armed.

Evidently the men thus exhorted are not bound to a place in a formation, but free to decide whether to move into the fray or hang back. There is sufficient space on the battlefield for light-armed men to flit about among the ranks and attack the enemy with missiles while others are engaging

them hand-to-hand. Clearly mid-seventh century Spartans, like Homer's heroes but unlike Classical hoplites, fight in open formation, enjoying individual mobility and choice of weapons.⁹⁰

Nevertheless, it is received opinion that other passages in Tyrtaios do point to phalanx tactics. Tyrtaios frequently tells his warriors to fight at close range, and stresses that 'a man must make a stand [*menetô*] . . . both feet planted on the ground, biting his lip with his teeth' (7.17–18; 8.21–2; cf. 9.16–17 Diehl). Also, warriors must fight 'standing by one another' (*par' allêloisi menontes*; 7.1; 8.11; cf. 9.19). This, to be sure, would be sound advice to a hoplite in a phalanx, but it is no less pertinent on a Homeric battlefield. Taken out of context, Tyrtaios' admonitions might seem to refer to keeping one's place in the formation, as opposed to running back and forth as one pleases. The context, however, shows otherwise: in each passage, standing one's ground and standing by one's friends is contrasted with *fleeing* in terror and leaving one's comrades to fall prey to a *pursuing* enemy; it is not contrasted with mobility *in combat*. The poet is merely saying that one must not be cowardly in the face of the foe. The importance of not panicking and the value of mutual support is not limited to phalanx warfare, of course. Homer, too, is well aware of it. He often describes how an army, the Greek army in particular, determinedly stands its ground against an enemy charging in force. He also lays considerable emphasis on the Greeks' willingness to co-operate and look out for one another, and highlights their superiority over the Trojans in this respect. Thus, when two Greek heroes join forces, their Trojan opponent, 'although a good fighter', withdraws at the sight of 'two men standing by one another' (*par' allêloisi menonte*; 5.565–72).⁹¹ In Homer, none of this implies Classical phalanx tactics, and there is no reason to think that in Tyrtaios it does.

Tyrtaios' poems are exhortations to fight, and therefore highlight close combat, immovability and solidarity to a greater extent than the *Iliad* does, since the latter is a narrative and thus offers a more rounded picture of battle. Taking into account the difference in genre, there is no indication that the Spartan way of war as revealed by Tyrtaios differs fundamentally from the Homeric style of warfare, though it is worth noting that Tyrtaios makes a categorical distinction between light-armed (*gymnêtes*) and heavy-armed (*panoploi*) which is not found in Homer.⁹²

Three Protocorinthian vases of c. 650–640 B.C. provide better evidence of change. They carry scenes of armies advancing against one another, and of flight and pursuit. The pictures show warriors staying close together while advancing, and even closer when standing still. They form single ranks, facing the foe with levelled spears; the ranks appear to be kept intact

even within striking range of the enemy. In pursuit, too, the warriors appear to keep fairly close together. While, as we have seen, massed fighting is not unknown to Homer, the vases suggest a more organized and permanent massed formation. They do *not* yet depict the fully developed phalanx, though. The latest and most elaborate of the battle scenes – on the Chigi vase – shows two armies about to join battle: four men form the front rank of the left-hand army, five men make up the opposing front line; on each side, a second rank, consisting of nine and seven men respectively, is running up; on the far left, two men are still arming. Most of the warriors carry two spears, one of which is meant for throwing. The presence of second ranks, a unique feature of the painting, may seem to confirm that we are looking at a true phalanx. Yet the fact that the second ranks are considerably *longer* than the first and are still *running* when the front ranks have already come to a halt, shows that we are not dealing with the Classical massed formation in which the ranks are all of equal width and advance in step. Unless one is prepared to believe that an approaching second rank twice as long as the first would come to a halt and wait for the short front line to be wiped out before taking its turn, one must assume that those running up will break their line, and either pile up behind the men in front, or take their stand beside them. In addition, the fact that throwing-spears are used indicates that, despite their apparent nearness of enemy lines, there is somehow room for missile combat. Both considerations suggest a formation far more open and fluid than the Classical phalanx.⁹³ Indeed, one may wonder whether the lines of men in the picture are meant to be strictly single lines at all, rather than schematic depictions of dense clusters of warriors.

Around the middle of the seventh century, then, the Corinthians did not yet fight in the Classical style, but no longer quite in the Homeric manner either. How widespread this new way of war was at the time is hard to say, but it seems reasonable enough to regard *c.* 650 B.C. as the lower limit for the date of Homeric combat tactics.

The upper limit is usually placed well back into the Dark Age at least; largely, I suspect, because Homeric battles are regarded as chaotic and primitive and therefore well-suited to an era of relative poverty and obscurity. At the end of the Dark Age, Geometric battle scenes do indeed at first glance remind one of the *Iliad* insofar as they feature seemingly scattered individuals and small groups fighting with a variety of weapons. Closer scrutiny, however, brings to light striking differences between Homer and the Geometric paintings. Consider the statistics of frequency of use of swords, spears and arrows in both (Table 1). When a Homeric hero

TABLE I: Use of weapons in the *Iliad* and Attic Geometric vase paintings

Weapon	<i>Iliad</i>		Geometric vases						
			Middle Geometric (850–750)		Late Geometric (750–700)		All Geometric		
Spear (cast)	87	42.2%							
Spear (thrust)	79	38.3%							
Spear (all)	166	80.5%	4	23.5%	12	24.5%	16	24.2%	
Sword	19	9.2%	9	52.9%	20	40.8%	29	43.9%	
Arrow	21	10.2%	4	23.5%	17	34.7%	21	31.8%	
Total	206	99.9%	17	99.9%	49	100.0%	66	99.9%	

NOTE: The Table includes all individual actions in combat in the *Iliad* where the weapon is identified, except for four instances where a sword is used to *mutilate* a fallen enemy, and twelve occasions on which a *stone* is thrown. The Table also includes all the Attic Geometric scenes collected by Ahlberg (see n. 84) (including the unnumbered MG duelling scenes, but excluding the non-Attic fragments A3 and B10), with the exception of A15, which is difficult to interpret, but would, if anything, increase the proportion of swords used. The Geometric totals include *only* weapons actually wielded in action, i.e. spears levelled, bows and swords drawn, not spears simply held or swords carried in sheaths.

uses a weapon, 8 out of 10 times it is a spear; this is well over three times as often as in the vase-paintings, where barely 1 in 4 warriors is shown using a spear. The corollary is that Geometric warriors use bow and arrows about three times more often than epic heroes do, while swords, the least mentioned weapon in Homer, are nearly five times more common, and easily the most used weapon, in the paintings.

These statistics should not be taken to imply that spears were a relatively rare weapon in the Geometric period, since, as noted before, passive warriors are almost always depicted holding a pair of spears. Moreover, the vases frequently show fallen or falling men who have been pierced by spears, as well as arrows, and archaeological evidence confirms that in the eighth century spears were no less common than swords.⁹⁴ Nor do the statistics imply that swords are rare in Homer, for the poet appears to regard them as a standard piece of equipment. The difference thus lies not in the way men are armed, but in the frequency with which they are *shown using* one or other of their weapons. Some might say that all these numbers and percentages are meaningless, since Homer, and quite possibly the vase-painters too, depicted legendary scenes and a fictional use of weapons. Yet even heroic fiction must have some basis in reality, and one would expect

poems and pictures of the same period unconsciously to reflect roughly similar notions about which weapons predominate. So how are we to account for the divergence?

One might wonder whether perhaps the vases are more realistic than the epic. This might explain the *Iliad*'s low arrow-count – the arrow being held in low esteem and therefore rather ignored in epic fantasy, although common in reality. It cannot, however, account for the rarity of the sword, a weapon to which no apparent stigma is attached in Homer. One might argue that the vases reflect conditions in Attica while Homer reflects conditions in Ionia, or some other part of Greece. This is conceivable, though the admittedly scarce evidence from other regions of Greece does nothing to support the idea that in the eighth century the use of weapons varied significantly from one area to another.⁹⁵

The only other possible solution is that Homer and the vases reflect different periods of history, and as a matter of fact the Homeric use of weapons turns out to be far closer to the pattern found in early seventh-century vase-paintings. Six Protocorinthian vases, dated to c. 690–650 B.C., shows a total of 39 weapons in action: 34 spears (87.2%), 2 swords (5.1%), and 3 arrows (7.7%). The three Protocorinthian vases of 650–640 discussed earlier depict dozens of levelled spears, and no other weapons. Six Protoattic vases and stands of c. 680–630 show a total of 34 weapons in action: 28 spears (76.5%), 8 swords (23.5%), and no archers.⁹⁶ It is true that we are dealing here with few and sometimes fragmentary scenes of battle, but the preponderance of the spear in the seventh century – and in Homer – as opposed to the prominence of the sword in the eighth century is surely beyond question. H. L. Lorimer long ago pointed out that despite the variety of types of combat in the Geometric scenes, these never once feature a spear-duel of the kind so common from the seventh century onwards. A. M. Snodgrass noted that 'the sword seems to have been more important, and certainly larger, in Geometric times'.⁹⁷ The above statistics reinforce those observations, and the implication, which Lorimer and Snodgrass appear to have overlooked, is that the usage of weapons in the *Iliad* corresponds, not to Geometric, but to early seventh-century practice.

If so, a neat pattern of historical change emerges. In the eighth century, warriors are armed with a pair of spears, which they surely use primarily as missiles: hence the prominence of the sword in Geometric scenes of close combat. In the seventh century, and in the *Iliad*, men are armed with either one or two spears, which they use for both thrusting and throwing, with roughly equal frequency: the *Iliad* features 87 spear-casts (52.4%) and 79 spear-thrusts (47.6%). By the classical period, warriors are without

exception equipped with a single large spear used exclusively as a thrusting weapon.

Homeric arms and armour and combat tactics, then, point to the same date, and the Homeric use of the chariot is not incompatible with it. Yet even if one accepts, as I hope one does, that the argument thus far has been plausible and has placed no undue strain on the archaeological evidence, one may well be reluctant to accept its conclusion. One is bound to object that there are well-established linguistic and historical arguments in favour of an eighth-century or even earlier date for the composition of the *Iliad*. None of these arguments, however, are unassailable. The language of the epics may provide clues to their date, but even Richard Janko, while constructing an impressively detailed argument for a relative chronology, has had to compute his absolute dates on the basis of rather arbitrary assumptions. Moreover, at least one eminent scholar in the field, Martin West, has argued that the linguistic evidence does not in fact preclude a seventh-century date.⁹⁸ As for the historical argument that the political, social, and economic structure of the world of the heroes is modelled on eighth-century or earlier Greek society, a small but weighty body of opinion has recently begun to favour a later date for Homer, and I myself have elsewhere argued at some length that an early seventh-century model for the heroic world is no less plausible than an eighth-century one.⁹⁹

I would conclude, therefore, that, at any rate where heroic combat is concerned, the epic oral tradition was flexible and changed as contemporary warfare changed. There may be a few signs of the weight of tradition influencing the poets. Perhaps bronze belts are mentioned more often than finds and vases suggest they deserve because until recently, prior to the introduction of the bell-corslet, they had been a major piece of armour. Perhaps the poets chose to describe the new bronze-faced, bossed, single-grip shield rather than the new double-grip hoplite shield because introducing the former involved fewer changes to the traditional vocabulary than would have been necessary for the latter, more innovatory, type. But in any case, traditional elements were not retained unless they continued to make sense to poet and audience. The final result, as seen in the *Iliad*, was a partly fictionalized, somewhat selective, but consistent and largely life-like portrayal of battle as fought in the first half of the seventh century.

5. *Conclusion: from heroes to hoplites*

The new consensus led by Latacz sees barely any difference where the old view saw a radical break between heroic and hoplite styles of fighting. It was perhaps inevitable that someone should suggest a compromise, and that, in effect, is what the present reconstruction of Homeric battle amounts to. The corollary that Homeric battles correspond to those of the early seventh century is liable to reduce the chances of this compromise being accepted, but I hope that it will not be rejected out of hand.

Latacz' most important conclusion remains valid: the masses play as important a part in Homer as they do in the Archaic and Classical phalanx. Strictly speaking, one could argue that, if Homer reflects seventh-century warfare, it is *possible* that the masses played a lesser part in the eighth-century; since, however, Geometric vase-paintings and finds provide no information on the matter either way, it is still true to say that there is *no evidence* for increased participation in warfare. This cannot therefore be adduced in explanation of a change in the balance of power between aristocrats and commoners.

On the other hand, there are notable developments from Geometric, through Homeric, to hoplite fighting which Latacz' interpretation does not acknowledge. Firstly, there is from *c.* 700 B.C. onwards a clear, though not perhaps in itself particularly significant, shift from the sword to the spear as the main weapon of close combat. Secondly, chariots gradually disappear from the battlefield. Seventh- and sixth-century vase-paintings of squires holding horses in readiness close behind their duelling masters suggest that horses continued to be ridden into battle for a considerable time, until, by the Classical period at the latest, they came to be used only as transports to and from the battlefield, or in separate cavalry squadrons, mounted by light-armed horsemen.

Thirdly, heavy- and light-armed warriors gradually become differentiated, the latter losing status in the process. In Homer, the difference between light and heavy equipment is a matter of degree, and wearing one or the other partly a matter of choice, but Tyrtaios begins to perceive a categorical distinction between the two. In the eighth century, a pair of throwing spears is part of the standard equipment of a warrior, and in Homer the heroes still freely use missiles and *throw* spears as often as they use them in hand-to-hand combat. By the end of the sixth century, missile warfare has become the preserve of the light-armed, hoplites using only hand-weapons. And while in the eighth century, judging from the number of archers depicted on Geometric vases, missile warfare is perfectly

respectable, in the *Iliad* archers, though no less numerous, stay largely in the background and are treated as second-rate warriors; subsequently, light-armed seem to vanish almost entirely until they emerge again fighting in separate battalions in the later fifth century. It may be, however, that they never stopped playing their part on the battlefield, but merely vanished from the *sources* owing to the low esteem in which they were held.

Fourthly and most importantly, there is a marked development of co-operation, co-ordination, and central leadership. While Geometric vases at best show teams of an archer and spear- or swordsman working together to defeat an enemy, Homer stresses the benefits and illustrates the effectiveness and co-operation and solidarity among warriors. Yet the heroes' efforts at co-operation are limited and temporary, whereas in the Classical phalanx a close formation is maintained and mutual support offered by *all* combatants, *throughout* battle. Leadership, exercised in the *Iliad* by numerous aristocrats, each over mobile and largely independent bands of their kinsmen, friends, and personal followers, eventually comes to be exercised by elected or appointed generals and officers down to the men who command the individual files of eight or sixteen conscripted soldiers constituting the basic unit of the phalanx. How and when the change took place is hard to say; the Protocorinthian paintings suggest that by 650 B.C. it was underway but still incomplete. The process may well have been a slow one.

There are thus signs of increasing uniformity, equality, and solidarity in the army, after all, just as the traditional view of the rise of the phalanx told us. The supposed political consequences of these military developments, however, are another matter. Not only does the process appear to have been far longer drawn-out than the two-generation span allowed by the most gradual interpretation of the hoplite reform to date, but it is doubtful whether without the crucial ingredient of the introduction of mass combat the remaining changes would have had much effect on relations between aristocracy and commoners. Indeed, these military developments may well have been the *consequence* rather than the cause of political change. If the rise of the phalanx played an active part in diminishing the power of the Archaic aristocracy, it may have been by further undermining the already tenuous legitimation of that power. By reducing individual mobility and finally excluding chariots and horses from the battlefield, the phalanx made it even harder than it had previously been for anyone to stand out in the *mêlée*, and even more obvious that the course of battle was never really determined by noble champions.¹⁰⁰

NOTES

47. Pritchett *SAGT* 7, pp. 186–7, and implicitly by Hanson, *Hoplites*, pp. 66–8. Cf. Latacz, *KKK*, esp. pp. 49–65. The traditional inclination to excise ‘hoplite’ panoplies from the *Iliad* as late interpolations is well represented by Lorimer (see n. 65 below).

48. Paris carries a sword and a pair of spears as well as his bow (3.17–19); cf. Helenos (13.576–95) and Meriones, who uses the bow at e.g. 13.650–2, but otherwise employs the spear. Teukros: 8.266–72. Axes: 13.611–13; 15.711. Slings, too, are used (13.598–600, 716–18), as are a mace (7.141) and a dagger (3.271–2; 19.252–3).

49. For the fantasy element in the *Iliad*, see *SW*, pp. 6–10. Shields: 8.192–3; 18.481; 20.268–72; golden plumes: 18.611–12; 19.382–3; 22.315–16; Alkinoös’ palace: *Od.* 7.88–90.

50. Homeric shields and spears are discussed in greater detail, and with bibliography, in *SW*, pp. 17–21. The present discussion summarizes, but adds a number of new points.

51. *Eukuklos*: 5.453 = 12.426 = 13.715; 14.428 (general); 5.797. *Kukloi*: 11.32–7; 12.294–7; 20.280–1. *Pantos’ eisê* (17x): e.g. 3.347, 356; 5.300; and 7.250; 11.61; 13.803 (Hektor). The fact that shields are ‘bossed’ (n. 53 below) also fits most easily with a round shape. I cannot see why H. Borchhardt, ‘Frühe griechische Schildformen’, *Archaeologia Homerica EI* (Göttingen, 1977), pp. 3–4, nevertheless concludes that the epithets do not give a clear indication of the shape of the shields.

52. Combination of leather and bronze: see also 12.405–7; 13.804 (Hektor); 17.492–3; 20.275–6. Shields are at times referred to as ‘hides’ (4.447 = 8.61; 12.105, 137), but also as ‘bronze’ (3.348; 11.65–6; 14.9–11; 17.268); this, too, suggests a combination of both. Aias’ shield has seven layers of hide (7.220 ff.; 11.545) plus one of bronze. It is because of its exceptional *thickness* that it is called ‘like a tower’ (e.g. 11.485): a ‘tower’ to Homer is primarily an *impenetrable*, rather than, as is generally assumed, a *tall* structure (*SW*, p. 320 n. 32; cf. n. 56 below).

53. Central boss: 6.267; 13.192; *omphaloessa* (11x): 4.448 = 8.162; 12.161; 13.264; 16.124; 19.360 (general); 6.118; 22.111 (Hektor); also 11.259, 424, 457. Agamemnon: 11.32–7.

54. Rim: 6.117–18; 14.412; 15.645; 18.479–80; 20.275–6. *Telamôn*: 5.795–8 (right shoulder); 14.404–5 (implicitly over left shoulder); 11.38–9; 12.401–2; 16.802–3; 18.480. The presence of a shoulder strap is also implied by the fact that shields are taken up *before* helmets are put on (e.g. 3.333 ff.; Lorimer *HM*, p. 188), and that shields are ‘slung across the back’ in flight (8.94; 11.545). Since a passage in Herodotos (1.171) and vase-paintings suggest that double-grip shields never had a *telamôn*, we may infer that the Homeric shield had only one handle. The further argument that the heroes manipulate their shields in ways which would have been impossible with double-grip shields (Lorimer *HM*, pp. 186–7; Borchhardt, op. cit. [n. 51], pp. 48–9) does not seem valid to me. The range of movement would not have differed much: even a single-grip shield could not have been held very far from the body, given that it was suspended by a necessarily rather short and non-elastic strap.

55. *Kanones* (8.192–3; 12.405–7) are thus explained by Lorimer *HM*, pp. 192–4, following the scholia.

56. The epithets ‘broad’ (*euru*, 11.527; 17.132) and ‘large’ (*megalos*, 23.820) suggest this. The formula ‘like a tower’ does not imply large size (see n. 52 above), nor does the epithet ‘man-covering’ (*amphibrotos*, 2.389; 11.32; 12.402; 20.281) necessarily mean a shield protecting a warrior from head to toe: a shield of any size would ‘cover’ a man.

57. For Hektor’s shield, see the passage cited in nn. 51 (round), 52 (bronze-faced) and 53 (bossed). See *SW*, pp. 18–19, 320 n. 33, for discussion and bibliography.

58. Such as the ornate and precious shields of Nestor and Akhilleus (n. 49 above) and the shield of Agamemnon (n. 53 above). Lorimer, in fact, believes that Hektor’s shield is ‘not a [Mycenaean] survival, but . . . a touch to enhance Hector’s martial excellence’ (*HM*, p. 184); in other words, she, too, thinks that the poet(s) invented an unrealistically large shield for him; she does not, however, extend this explanation to the shields of Aias and Periphetes. I repeat that to my mind it is methodologically desirable to reconstruct, wherever possible, *consistent* images – and that includes consistent fantasies.

59. Akhilleus’ spear (16.140–2; 19.387–9) is thrown e.g. at Asteropaios (21.160–77). Other men armed with single spears appear at 3.238, 346, 349, 355; 7.213; 10.335, 458–9; 13.296; 15.482; 20.163; cf. Athena at 5.745–6 = 8.389–90. Pairs of spears: 5.495; 6.104; 11.212; 12.464–5 (Hektor); 3.19–20; 10.76; 11.43–4; 12.298; 13.241; 14.139; 21.163; also *Od.* 22.99, 125. There is no categorical distinction between types of spear: the words *doru* and *enkhos* are applied to both spears thrown and spears thrust; the rarer term *akôn*, though, is used only of spears thrown. The ‘butt-spike’ (*saurôûr*) mentioned once

(10.152–4; cf. the ‘butt-end’ [*ouriakhos*], 13.443) would be most useful in hand-to-hand combat (so Hanson, *Hoplites*, pp. 71–4), but would not preclude the use of the spear as a missile; on the contrary, it would serve as a counterweight to the spearhead, helping to lengthen the spear’s trajectory.

60. See e.g. Finley, op. cit. (n. 2), pp. 45, 149; I. Morris, *CLAnt* 5 (1986), 89; also M. P. Nilsson, *Homer and Mycenae* (London, 1933), pp. 139–41. Snodgrass *EGAW*, pp. 173–4, provides statistics on bronze and iron weapons in Homer and the Dark Age, which show that no more than 15% of weapons used in the Dark Age were made of bronze.

61. Snodgrass *AAG*, pp. 96–7.

62. *Arguroëlon*: 2.45; 3.334, 361; 7.303; 13.610; 14.404; 16.135; 19.372; 23.807; also, *Od.* 8.406, 416; 10.261; 11.97. On the use of bronze and iron, as well as silver-tipped, rivets from Mycenaean to Archaic times: Snodgrass *EGAW*, pp. 109. Compare the use of precious metals in other pieces of equipment (e.g. Herakles’ wonderfully decorated *golden baldric* [*Od.* 11.609–14], the *golden ring* around Hektor’s spear [6.320 = 8.495]), and the *silver* ankle-guard attached to the heroes’ greaves [see n. 71 below]). Compare also the silver rivets decorating *chairs*: *Od.* 7.162; 8.65; 10.314, 366; 22.341.

63. Bow: 4.105–11; cf. *Od.* 21.11 ff.; barbed arrows: e.g. 4.151, 214; arrow poison: *Od.* 1.260–2; cf. Lorimer *HM*, pp. 276–305; Snodgrass *EGAW*, pp. 141–56, 174–5. Large numbers of arrows: 3.79–80; 8.513–15; 11.191 = 206; 15.313–19; 16.361, 772–8; see *LM*, p. 11 and n. 36. ‘Archer!’ as insult: 11.385 (‘Archer! Shameless creature!’); ineffectiveness of arrows: 5.204–16; 11.386–95 (*contra* B. J. Hijmans, *Festoën* (Festschrift A. N. Zadoks Josephus-Jitta [Groningen, 1976], pp. 343–52).

64. *Khalkokhitones* (31x *Iliad*, 2x *Odyssey*): e.g. 1.371; 4.537; 5.180; 15.330; 17.485; 24.25. One man is said to wear a ‘bronze tunic’ (*khitôn*; 13.439–40); that this means a cuirass was already recognized by F. Studniczka, *Beiträge zur Geschichte der altgriechischen Tracht* (Vienna, 1886), pp. 61–2, who cites as a parallel the metaphor ‘wearing a stone tunic’, meaning ‘to be stoned to death’ (3.56–7). The identification is accepted by H. W. Catling, ‘Panzer’, *Archaeologia Homérica E1* (Göttingen, 1977), pp. 79–80. Individual bronze cuirasses: 13.372, 398, 507; 17.314; 22.322–3; 23.560 (with tin overlay); cf. 8.195; *golden* cuirasses (11.24–7 [with bands of tin and *lapis lazuli*]; 18.320, 610) are presumably a heroic fantasy. Linen cuirasses are mentioned 2.529–30, 830. I take it that ‘curved tunics’ (*streptoi khitones*) fastened with straps (5.133 [cf. 5.99–100]; 21.30–1) is yet another poetic phrase, referring to the curves of the bronze cuirass (*contra* Studniczka, op. cit. p. 63).

65. A long list of alleged inconsistencies and proposed deletions was offered by Lorimer *HM*, pp. 203–10, who admitted that, were it not for the archaeological evidence, little ‘could be confidently eliminated’ (p. 210). In fact, she felt that no more than three passages could be deleted on internal evidence alone. P. Courbin, *BCH* 81 (1957), 356, and Snodgrass *EGAW*, pp. 171–2, spell out the implications of subsequent finds of Mycenaean and eighth-century bronze corslets.

66. *Gualoi* cover the shoulders (5.98–9, 188–9), the chest (13.586–7), and the ‘middle belly’ (13.506–7; 17.313–14). The lowest parts of the body touched by weapons piercing the corslet are, again, the middle belly (as cited) and the navel (20.413–16); when the ‘lower belly’ is hit, the weapon pierces the *belt* (see below), not the corslet. The details of how the *gualoi* are joined are not provided by Homer (with the possible exception of the reference to ‘straps’ attached to ‘curved tunics’ [see n. 64 above]), but must be inferred (cf. Courbin, op. cit. [n. 65], 342–50).

67. H. Brandenburg, ‘*Mitrè, zōstēr und zōma*’, *Archaeologia Homérica E1* (Göttingen, 1977), p. 135, Snodgrass *EGAW*, p. 183 (cf. *AAG*, p. 55), and Lorimer *HM*, p. 247, hold that bronze belts and bronze corslets are incompatible, though W. Leaf, *JHS* 4 (1883), 76–7, did envisage the combination. A bronze belt is depicted on the famous Chigi vase of c. 640 B.C. (worn by the first warrior of the first rank of the left-hand army), and, it appears, also on a sixth-century black-figure vase (Boston 98.923; worn by the right-hand duellist; reproduced in E. Vermeule, *Aspects of Death in Early Greek Art and Poetry* (Berkeley, 1979), p. 100 (fig. 16). Actual bronze belts dating from the late ninth century B.C. onwards have been found: J. K. Brock, *Fortetsa* (Cambridge, 1957), p. 197; J. Boardman, *Anatolia* 6 (1961–2), 179–89; Brandenburg, op. cit., pp. 131–5. For broad belts on naked bronze figurines, see n. 79 below.

68. There are a few problems with these passages. Why is the corslet ‘twofold’? It has been suggested that this is a reference to the front- and back-plate overlapping at the flanks (e.g. Leaf, op. cit. [n. 67], 80), but the contexts show that Menelaos is hit full in front and that in the second passage Polydoros is hit in the small of the back. I would suggest that the corslet is ‘twofold’ at the spot in question simply because the metal buckle of the belt here adds an extra layer of armour.

A related problem is the fact that, while the buckles of Menelaos’ belt are in front, as one would expect, the buckles of Polydoros’ belt appear to be on his back. We may suppose that belts could be fastened in different ways, or that they had buckles back and front; alternatively, we may perhaps read

the Polydoros-passage as a *hyperbaton*, taking 'where the golden fasteners of the *zôster* met' with what follows ('... the point of the spear went right through past his navel'), rather than with that which precedes it ('He hit him in the middle of the back, ...').

A final problem is the fact that in two later passages the arrow that struck Menelaos is said to have penetrated a *zôma*, not *thôrêx* (after the *zôstêr* and before the *mitrê*; 4.186–7, 215–16). The scholia suggested that *zôma* meant the lower part of the *thôrêx* (accepted by W. Helbig, *Das homerische Epos aus den Denkmälern erläutert*² [Leipzig, 1887], p. 293); others have argued that the *zôma* is either the woven tunic or a loincloth worn under the corslet, and that the poet does not mention the corslet itself in these passages (Studniczka, op. cit. [n. 64], pp. 67–70; Leaf, op. cit. [n. 67], 80–1; Lorimer *HM*, p. 250). More plausible, it seems to me, is the suggestion that *zôma* is used here as a general term for 'that which is girded' (Studniczka, *ibid.* p. 67), and simply means the corslet itself; the more general term is used instead of *thôrêx* 'for metrical reasons' (Snodgrass *EGAW*, p. 172).

69. *Mitrê* as a broad metal belt worn underneath cuirass: Snodgrass *EGAW*, pp. 88–9; *AAG*, p. 56; *contra* Brandenburg, op. cit. (n. 67), pp. 119–20, and *id.*, *Studien zur Mitra* (Münster, 1966), pp. 53–177, who identifies the Homeric *mitrê* with the semi-circular metal 'apron' conventionally called *mitre* by modern archaeologists, and unpersuasively tries to explain away evidence that the Greek term normally refers to a *band* worn around the waist, or around the head (such as the royal diadem). Some scholars have acknowledged that *mitrê* may be the same as *zôstêr*, without noting that *zôstêr* elsewhere applies to a different kind of belt (Lorimer *HM*, p. 245; Trümper, op. cit. [n. 43], p. 89); others have said that the *zôstêr* is a belt worn on top of the cuirass, without acknowledging that in most passages it is a belt worn underneath it (Helbig, op. cit. [n. 68], p. 288; Leaf, op. cit. [n. 67], 74). Leaf and Helbig, as cited, believed that belts worn on top of the cuirass were frequently depicted in Archaic art, but A. Hagemann, *Griechische Panzerung* (Leipzig, 1919), pp. 13–14, pointed out that these 'belts' were merely ornamental patterns on the corslets. Nevertheless, a clear depiction of a buckled belt worn on a bell-corslet is found in the top register of a bronze plate from the Argive Heraion (reproduced in K. Scheffold, *Myth and Legend in Early Greek Art* (London, 1966), pl. 32c). That belts were worn with later types of corslet is clear from Herodotus 9.74, and from e.g. Euphronios' painting of Sleep and Death carrying the body of Sarpedon (New York 1972.11.10), in which both wear belts on top of their corslets (reproduced in Vermeule, op. cit. [n. 67], p. 38, fig. 27).

70. Chest wounds without mention of cuirass: e.g. 11.108, 144, 321; 14.402–6, 409–20; blood spurting: 5.113; entrails bursting out: e.g. 14.517. For a full list, see Lorimer *HM*, pp. 203–10. Most problematic, apart from the Diomedes-passage cited, is a repeated passage (3.357–60; 7.251–4) in which a man is said to 'swerve', and thereby save his life, as a spear hits his corslet. Lorimer objects that there is no room to swerve inside a corslet, although there might be room for it inside a loose tunic (*ibid.* 205; so too Helbig, op. cit. [n. 68], p. 286). Surely this is taking our text too literally: whatever one is wearing, there is no *time* to swerve once hit by a spear. Evidently, the poet means that the men in question *had* swerved just *before* they were hit (cf. Snodgrass *EGAW*, p. 172).

71. *Euknêmidês* (31x *Iliad*; 10x *Odyssey*): e.g. 1.17; 24.800; *Od.* 2.72; 23.319. That 'well-greaved' implies 'bronze-greaved' is accepted by Snodgrass *EGAW*, p. 173, and H. W. Catling, 'Beinschienen', *Archaeologia Homerica* (Göttingen, 1977), p. 145. Silver ankle-guards: 3.330–1; 11.17–18; 16.131–2; 19.369–70 (cf. n. 62 above).

72. The identification was first proposed by W. Reichel, *Homerische Waffen*² (Vienna, 1901), pp. 102ff., and is universally accepted, though Homer's text might allow different interpretations. A boar's tusk helmet dating from *after* the destruction of Pylos has been found, so that its exceptional appearance in Homer need not imply a poetic tradition stretching back into Mycenaean times (Snodgrass *AAG*, p. 32).

73. Bronze: e.g. 4.495; 5.562, 681; 6.116, 369; 17.3; 20.111; forehead covered: e.g. 6.9–10; Cheekpieces: 12.183; 17.294; 20.397; *Od.* 24.523. Nose- and neckguards are not mentioned, but cannot be ruled out. There are quite a few references to the *phaloi* of helmets (3.362; 10.258; 11.42; 12.384; 13.132–3, 614–15; 16.216–17; 22.314–15); these are sometimes thought to be 'horns' or horn-like metal projections (e.g. Lorimer *HM*, pp. 239–41), but when Menelaos is struck with an axe on 'the top of the *phalos* ... just below the actual crest [*lophos*]' (13.614–15), it becomes clear that the *phalos* is the metal part of the crest, the crest-holder, as opposed to the horse-hair plume (*lophos*) set in it. Admittedly, on this view, the poet slips up slightly when he gives Akhilleus *four phaloi* but only *one* golden plume (22.314–16). Other multiple crests: 11.42; 12.384. Double crests are found in paintings, too, but quadruple crests may be another fanciful heroic touch (compare the triple crest of the bellicose general Lamakhos mocked by Aristophanes, *Acharnians* 1109–11). That the crests are tall is suggested

by the Menelaos passage as well as by the formula 'and the crest nodded threateningly down from above' (e.g. 3.337); the plume scares Astyanax (6.466–70). The nature of the *phalara* (5.743; 11.41; 16.106) remains obscure: they might be ornamental bosses (Helbig, op. cit. [n. 68], p. 306) or else the individual plates of bronze welded together to form the helmet itself (Lorimer *HM*, p. 242).

74. Rapid exhaustion: Hanson, *Hoplites*, p. 78 with n. 1; but cf. id., *The Western Way of War* (London, 1989), p. 56 ('after about *thirty minutes* of duelling in mock battles ... they are utterly exhausted'). Maximum speed: Hanson, *Hoplites*, p. 78 with n. 2; *Western Way of War*, p. 144 (citing Donlan and Thompson, *CJ* 71 (1976), 339–43 and *CW* 72 (1979), 419–20).

75. See n. 47 above.

76. Good seventh-century examples of the juxtaposition of single and twin spears are: a Protoattic stand (Berlin A41 [CVA Berlin 1, pls. 76; 80,2]; cf. Lorimer *BSA*, fig. 6; Greenhalgh *EGW*, fig. 44 [vase A3]); the well-known pithos from Mykonos depicting the sack of Troy (e.g. Snodgrass *AAG*, pl. 33); and the even better known Chigi vase. On the latter, and on the continuing use of pairs of spears in the Archaic age generally, see Snodgrass *EGAW*, pp. 138, 198–9; *AAG*, pp. 57–8, 97. Geometric vases do at times feature a man holding a single spear, but only in scenes of actual combat (when the warrior may have already thrown the other spear), not in pictures of warriors outside combat or on the march (and therefore still fully armed). On pairs of (hunting) spears in Mycenaean art, see O. Höckmann, 'Lanze und Speer', *Archaeologia Homerica E2* (Göttingen, 1980), pp. 288–90 (cf. Snodgrass *EGAW*, p. 115, and n. 3).

77. Mycenaean (Dendra) corslet: Snodgrass *AAG*, pp. 24–5; *EGAW*, p. 173 (where he concludes that it cannot be equated with the Homeric type); Catling, op. cit. (n. 64), pp. 83–115. Bell-corslets: Snodgrass *EGAW*, pp. 72–84; *AAG*, pp. 41–2; Catling, op. cit. (n. 64), pp. 116–18; Courbin, op. cit. (n. 65), 322–86. The earliest picture of a bell-corslet appears on a Late Geometric amphora (Buffalo C12847; Greenhalgh *EGW*, vase 38; Wiesner, op. cit. (n. 26), pl. IVa).

As for the helmets, Snodgrass argued that Homeric-style tall crests were a feature of Mycenaean helmets (*EGAW*, p. 35 with n. 119; p. 171 with n. 9), but none of the many known examples appears to be decorated with a horse-hair plume; moreover, they are mounted, not on bronze, but on boar's-tusk helmets. J. Borchhardt, 'Helme', *Archaeologia Homerica E1* (Göttingen, 1977), p. 73, states that the existence of tall, plumed crests in Mycenaean times 'cannot be excluded'; in other words, there is no evidence for it.

78. Greaves: Snodgrass *EGAW*, pp. 86–88; Catling, op. cit. (n. 71), pp. 143–61. Both follow Lorimer *BSA*, 135, in rejecting the Tiryns shield as evidence, on the grounds that cross-hatching is unlikely to represent metal. Snodgrass' date for the earliest extant greaves (accepted by Catling) is questionable. The greaves were found in a tomb dated to 'no later than the end of the *eighth* century' (D. Levi, *Annuario* 13–14 [1930–1], 87–9), but Snodgrass nevertheless dates them to 650 B.C. on the basis of the stylistic similarity between the beaded pattern running down the centre of the robe of a female statuette of that date and the beaded pattern decorating the rim of the greaves. To my mind, the similarity between two isolated examples of a simple pattern is hardly sufficient to ignore the chronological context of the find. Is it not simpler to assume that the beaded pattern was used in the late eighth century and continued to be used half a century later?

Not until after completing this paper (in 1992) did I see Emil Kunze's *Beinschienen* [Olympische Forschungen XXI] (Berlin, 1991), which dates the earliest bronze greaves found at Olympia to the late eighth century (pp. 4–5, n. 10). Snodgrass has since accepted this dating, and now also dates the early greaves discussed above to the eighth century rather than to c.650 B.C. ('The "Hoplite Reform" Revisited', *DHA* 19 [1993], 58–9; and cf. his review of Kunze in *CR* 43 [1993], 376–7).

79. Eighth-century belts: Brandenburg, op. cit. (n. 67), pp. 128–30; Snodgrass *AAG*, p. 42; cf. pl. 16 and *EGAW*, pl. 5; Lorimer *HM*, pp. 246–7; E. Kunze, 'Bronzestatuetten', *IV. Bericht über die Ausgrabungen in Olympia*, eds. E. Kunze, H. Schleiff (Berlin, 1944), pp. 118–25.

80. The hoplite shield: Snodgrass *EGAW*, pp. 61–8 (esp. pp. 63–4 on the wooden core); cf. J. K. Anderson, *Military Theory and Practice in the Age of Xenophon* (Berkeley, 1970), pp. 15–16, on the different way in which a hoplite shield might be suspended from the shoulders.

81. For the 'bronze-faced single-grip round shield' (and in particular the '*omphalos*-shield'), see Snodgrass *EGAW*, pp. 51–7 (52–5); Lorimer *HM*, pp. 167–80 (174–9); and Borchhardt, op. cit. (n. 51), pp. 37–50. It must be said that there is no definite evidence that the construction of these shields involved layers of hide, but it is a possibility: it has been suggested that bronze-faced shields of the *Herzsprung*-type deliberately mimic the appearance of layered hides (Borchhardt, op. cit. [n. 51], pp. 39–44).

It may be noted that there is not a trace in Homer of either the square shield not infrequently found on Geometric vases, or, more importantly, the so-called Dipylon or Boeotian shield which is by far the most common form in eighth-century vase-paintings but in the next century is greatly outnumbered by round shields, and generally thought to have become a mere pictorial convention to indicate the 'heroic' nature of a scene (Greenhalgh *EGW*, pp. 63–70). One might have expected square and Dipylon shields to be hinted at by Homer, if he reflected eighth-century warfare.

82. Near Eastern borrowing: Snodgrass *EGAW*, p. 171; cf. Borchhardt, *op. cit.* (n. 51), p. 50.

83. See the contrasting discussions by Wiesner, Greenhalgh, and Littauer and Crowel, as cited in nn. 33, 34 and 40 above.

84. Chariots followed by warriors on foot: e.g. Greenhalgh *EGW*, p. 27 (vase 9; fig. 18); warriors mounted on chariots: e.g. *ibid.*, p. 35 (vase 40; fig. 27); chariots in combat: *ibid.*, p. 13 (figs. 3 and 4). G. Ahlberg, *Fighting on Land and Sea in Greek Geometric Art* (Stockholm, 1971) also identifies chariots in fragmentary scenes of battle listed as A5 (figs. 6–8) and A6 (fig. 9). It seems likely that, as Greenhalgh (*EGW*, pp. 19–39) argues, chariots had been in use throughout the Dark Age (*contra* Snodgrass *EGAW*, pp. 159–62).

85. For the view that Geometric vases depict heroic and legendary scenes, see esp. A. M. Snodgrass, *PCPhS* 205 (1979), 118–30 and *AM* 95 (1980), 51–8; also J. M. Whitley, *Style and Society in Dark Age Greece* (Cambridge, 1991). There is some positive evidence that the Greeks used chariots in combat, though admittedly it is not in itself particularly strong. In Archaic and Classical times, the Greeks of Cyprus and Cyrene employed chariots in battle, but they were exceptional (see n. 41 above). Two fifth-century institutions may or may not be survivals of chariot warfare: at the Panathenaia in Athens, a contest was held between *apobatai*, who jumped on and off moving chariots (cf. Dionysios of Halikarnassos, *AR*, 7.73; Plutarch, *Phokion* 20); the Theban army included an elite infantry corps incongruously known as *heniochoi* and *parabatai*, that is to say: 'drivers' and 'men mounted beside them' (cf. Diodoros Siculus 12.70.1).

86. Seventh- and eighth-century evidence for warriors and squires on horseback: Greenhalgh *EGW*, pp. 40 ff. The first clear depiction of an *armed* man riding one horse and holding a second date from 720–700 B.C. (amphora Buffalo C12847 [cf. n. 77 above]), while an unarmed mounted man holding the reins of a second horse appears even earlier, c.735–20 B.C. (Greenhalgh *EGW*, p. 21 [vase 13; fig. 8]). Surely these are meant to represent mounted warriors and squires operating in pairs. J. K. Anderson, *AJA* 79 (1975), 184–5, is therefore wrong to say that the practice begins in the seventh century.

Anderson rightly stresses that the advantages of chariots over mounted horses compensate for the drawbacks (*ibid.*, 185). For the, in my view untenable, tactical, economic, and linguistic arguments against the historicity of Homeric chariots, see nn. 38 and 45 above.

87. So Anderson, *op. cit.* (n. 86), 185. There is no reason to suppose that chariots became obsolete the moment pairs of mounted horses were introduced, nor, as we shall see, that by 700 or 650 B.C. the changing nature of infantry combat ruled out the use of chariots in battle. The disappearance of chariots from the battlefield is likely to have been gradual, and in seventh-century vase-paintings they need not yet be 'heroic markers'.

88. There is Mycenaean evidence for warriors on horseback, and the art of riding may have been practised throughout the Dark Age: Snodgrass *EGAW*, p. 163; Greenhalgh *EGW*, pp. 45–51.

When I say that Homer 'archaized' in his portrayal of chariots, I differ from similar views in that I am not arguing that Homer archaized by inventing a purely fictional form of chariot-combat, nor that he archaized by replacing the pairs of mounted warriors and squires of his own day by 'archaic' chariots (as Greenhalgh *EGW*, pp. 40–62, has it). It is my contention that Homer may have archaized by selecting from among the forms of combat practised in his own day the one which he (rightly or wrongly) believed to correspond to that of the heroes/Mycenaeans.

89. The most influential discussion of the evidence for the emergence of the hoplite phalanx is Lorimer *BSA* (1947), though her suggestion of a date near 700 B.C. is now widely rejected in favour of c. 650 (e.g. Snodgrass *EGAW*, pp. 202–4; *JHS* 85 (1965), 110), and some of her interpretations have been questioned (see nn. 90, 93). For an interesting, if not always persuasive, recent theory offering a detailed analysis of how the phalanx might have developed over the centuries from the Dark to Archaic Ages, see Singor, *op. cit.* (n. 9).

90. Individual mobility may also be implied by exhortations to 'go to the *promakhoi*' (fr. 8.4, 11–12), assuming that one's *own promakhoi* (not those of the enemy) are meant, which seems likely. For the use of missiles, see also fr. 1a.23; Kallinos, fr. 1.5, 14 Diehl, and Arkhilokhos, fr. 3 Diehl (with

Snodgrass *EGAW*, pp. 179–80). The use of the term *promakhoi* does not *in itself* imply a Homeric manner of fighting: it might equally well be applied to the front rank of the phalanx. That Tyrtaios does not portray a fully developed phalanx has been noted by Snodgrass *EGAW*, pp. 181–2; M. I. Finley, ‘Sparta and Spartan Society’ (1968), *Economy and Society in Ancient Greece*, eds. B. D. Shaw and R. P. Saller (London, 1981), p. 24 (‘the poetry of Tyrtaios . . . demonstrates that the Spartan army was in a disorder and turmoil unlike anything known from the later, classical period’); and especially J. K. Anderson, *Hoplites*, pp. 15–16; Singor, *op. cit.* (n. 9), pp. 96–104.

91. The phrase is also used at 17.721. These and other examples of co-operation between Homeric warriors are discussed in *KC*, 5–7. When men flock together, as they do frequently in Homeric battles (see part one, section 1), they are, of course, also ‘standing by one another’. ‘Standing one’s ground’ (*menein*) as opposed to fleeing: e.g. 5.497–8; 11.348; 13.150–1, 835–6; 16.312, 367–9, 405–7 (cf. 13.47–8 and 56).

92. There *are* of course light- and heavy-armed men in Homer, but there is no clear-cut dividing line between them, and no distinct name for either. *Prulêes*, interpreted by Pritchett *GSW* 4, p. 21, as ‘heavy-armed’, is in fact used as a synonym of *laoi*, ‘(fighting) men’: 5.744; 11.49 = 12.77; 15.517; 21.90 (cf. 20.412).

93. Lorimer’s discussion of the Chigi vase has been corrected by Snodgrass *EGAW*, p. 198; P. Krentz, *ClAnt* 4 (1985), 52; Anderson, *Hoplites*, pp. 18–19, concerning the significance of the flute-player appearing on the scene, and with regard to the presence of second spears.

One would expect the first spears to be *thrown*, and it does look as if the warriors in the picture are levelling spears which are considerably smaller and more javelin-like than the ones they are holding in reserve; it also appears that the left-hand front-man is keeping his index finger raised while gripping his spear, which would be an oddly dainty way of holding it, unless a *throwing*-loop is wound around his finger. Nevertheless, the distance between the armies is so short that the spears appear to be *thrust* at the enemies’ throats. Snodgrass (*loc. cit.*) suggests ‘ignorance’ on the part of a painter unfamiliar with the real use of the first spear. Perhaps one should consider the possibility that vase-painters were reluctant to leave a (realistic) wide gap between opposing warriors, and opted for the unrealistic but space-saving device of placing them within arm’s reach of one another.

The other two relevant vases are the Berlin-aryballos and the Macmillan-aryballos illustrated in e.g. Lorimer *BSA*, figs. 3 and 10. A somewhat earlier picture on a Protoattic stand (Berlin A41; see n. 76 above) has been adduced as ‘the earliest plausible portrayal of the phalanx’ (Snodgrass *EGAW*, pp. 197–8), but the warriors shown here advancing into battle in a row (or file?) are separated by clear gaps; there is no suggestion of the density of formation that distinguishes the Protocorinthian battle-scenes from Homer.

94. Men pierced by spears and arrows: Ahlberg, *op. cit.* (n. 84), vases A7 (fig. 10); A8 (fig. 12); A9 (fig. 13); A11 (fig. 15) and B4 (figs. 31–3). For the archaeological evidence, see Snodgrass’ catalogues of finds of swords and spears (*EGAW*, pp. 193–103; 116–33).

95. Archers are depicted on the two Geometric fragments from Argos listed by Ahlberg, *op. cit.* (n. 84), vases A3 (fig. 3) and B10 (fig. 41); they are also common on early seventh-century fibulae from Boeotia (Lorimer *BSA*, 116 [fig. 11]). Of the five warriors depicted on two terracotta shields from Tiryns (c. 700 B.C.), three wield a sword, against two who brandish a spear (Lorimer *BSA*, pl. 18a).

96. Protocorinthian vases: (1) Perachora-aryballos (690–80), Lorimer *BSA*, fig. 7; (2) Lechaion-aryballos (690–80), Snodgrass *EGAW*, pl. 15ab; (3) and (4) Syracuse-aryballois (675–50), Lorimer *BSA*, figs. 8b [Lorimer’s no. 2] and 8c [no. 3]; (5) and (6) Louvre-aryballois (675–50), Lorimer *BSA*, figs. 9a–c [no. 4] and 9d [no. 5].

Protoattic vases: (1) Hymettos-amphora (680; Berlin F56), *CVA Berlin* 1, pl. 43–44; (2) Stand (675; Berlin A41), Lorimer *BSA*, fig. 6; S. P. Morris, *The Black and White Style* (New Haven, 1984), pl. 8; (3) Stand (Berlin A40), Morris, *op. cit.*, pl. 18; (4) Stand from Argive Heraion (670, Athens NM), Morris, *op. cit.*, pl. 17; (5) Krater (Berlin A33), Morris, *op. cit.*, pl. 21; (6) Kerameikos-mug (660; Ker.Mus. 73), Morris, *op. cit.*, pl. 26.

97. Snodgrass *EGAW*, p. 180; Lorimer *BSA*, 98. Lorimer also notes that the duel over the body of a fallen warrior – a prominent theme in the *Iliad* – appears to be a new motif in seventh-century vase-painting (*ibid.*, 99). If so, this is highly significant, but I wonder whether a corpse-fight is not already depicted on a Middle Geometric skyphos (Eleusis 741; Ahlberg, *op. cit.* [n. 84], vase B11 [figs 42–3]), despite the odd fact that there appear to be two corpses, holding hands.

Incidentally, the appearance of a *Gorgoneion* on Agamemnon’s shield, generally recognised as a seventh-century feature (e.g. M. L. West, *Hesiod. The Theogony* [Oxford, 1966], p. 46), need no longer

be regarded as a late interpolation (Snodgrass *EGAW*, p. 171) if it is accepted that Homer reflects early seventh-century patterns of warfare. The Gorgon's head as a shield emblem is first attested on a Protocorinthian aryballos of 675–50 (my no. 4 in n. 96 above; Lorimer *HM*, p. 481).

98. R. Janko, *Homer, Hesiod and the Hymns* (Cambridge, 1982); West, op. cit. (n. 97), pp. 46–7 (and note his comments on pp. 99, 177, 183).

99. *SW*, pp. 54–8, 157–62, 253–8. Oliver Taplin, *Homeric Soundings. The Shaping of the Iliad* (Oxford, 1992), pp. 33–5: 'I sense that Homer fits better with the Greek world after 700 than before', citing in support an unpublished paper by Robin Osborne; similarly Wolfgang Kullmann, *Homerische Motive* (Stuttgart, 1992), p. 264: 'Der Verfasser ist geneigt, das Epos eher nach 700 v. Chr. als vorher anzusetzen'. Both authors also cite the well-known paper by Walter Burkert, 'Das hunderttorige Theben und die Datierung der *Ilias*', *WSt* 10 (1976), 5–21, arguing that the *Iliad* postdates the fall of Egyptian Thebes in 664 B.C.

100. The primary causes of change were surely external to military affairs, as was suggested by J. Salmon, *JHS* 97 (1977), 84–101. His theory still assumes that mass combat was introduced after Homer, and he therefore sees the 'new' mass formation as at least an important 'instrument' of change; I would reduce its role yet further.

I believe that the process of change was not only less rapid than that envisaged by e.g. P. A. Cartledge, *JHS* 97 (1977), 20, but also longer drawn-out than the piecemeal development suggested by e.g. Snodgrass, op. cit. (n. 89), 110–12. By implication, I do not believe that the introduction of the double-grip shield greatly accelerated the growth of the phalanx-formation; the role of this new shield is a controversial matter discussed by both Cartledge and Snodgrass, and more recently by Hanson, *Hoplites*, pp. 67–71. A problem in tracing developments from Homeric to Classical formations is that there is considerable uncertainty as to how the Classical phalanx actually fought. Hanson, op. cit. (n. 74), reconstructs the proceedings in lively, but not always convincing detail; modifications are suggested by J. Lazenby, *Hoplites*, pp. 87–109; more radically different views are offered by G. Cawkwell, *CQ* 39 (1989), 375–89, and Krentz, op. cit. (n. 93). These last two articles appear to me worthy of more positive attention than they have received thus far.

* Both parts of this article have benefited from the constructive criticism of N. R. E. Fisher, A. M. Snodgrass, and J. M. Whitley. They are not, of course, responsible for its remaining failings, and are not necessarily in agreement with the views expressed in it.