

## CASUALTIES AND REINFORCEMENTS OF CITIZEN SOLDIERS IN GREECE AND MACEDONIA

THE contention of this paper is that the growing disbelief in the ancient casualty figures of one's own side and the tendency to regard them as 'propagandist' are generally mistaken. The arguments turn on the origins of the figures and on the practicalities of warfare. In the last section special attention is given to those of Alexander's citizen forces. The casualties of mercenaries are not considered.

### I. THE CASUALTIES OF ONE'S OWN SIDE

The procedure for honouring those killed in war is well shown in the case of Athens by the following quotations:

Upon it (the tomb of the Athenians on the battlefield at Marathon) there are stelai carrying the names of the fallen, arranged by tribes (Paus. i 32.3).

The tombs of those who fell in the Persian war were honoured by the Athenian state, the funeral Games were established then for the first time, and a law was passed that chosen speakers should deliver the words of praise for those who were being buried at the expense of the state<sup>1</sup> (Diod. xi 33.3).

In the funerary procession (i.e. at the end of the campaigning year)<sup>2</sup> cypress coffins are borne in carts, one for each tribe, the bones of the deceased being placed in the coffin of their tribe. Among these is carried one empty bier, shrouded, for the missing, whose bodies could not be recovered (Thuc. ii 34.3).

We see that a precise record of the dead and the missing was kept by the state and by the tribe.<sup>3</sup> This record was made public in a permanent form for anyone to consult. Examples are known of two types: for instance, the stone carrying the names of those killed at Drabescus in 464 BC was seen six hundred years later by Pausanias (i 29.4), and fragments of the casualty list for this year—which will have included the names seen by Pausanias—have survived into modern times (*IG* i<sup>3</sup> 1144 and 1146). The reports of losses in individual actions were no doubt used to make up the list of casualties for a year.

It was essential that the record should be accurate not only for the proper honouring of the dead but also for the costing of the state funeral in each year of war and for the awarding of benefits and distinctions to the dependants, such as the upbringing and the equipping of orphaned sons at public expense (e.g. Isoc. viii 82.1 and Aeschin. iii 154). For any historian the public record of those killed in a particular action was most valuable. Thus we accept as true<sup>4</sup> the

The following abbreviations are used:

Arr. = Arrian, *Anabasis Alexandri*. Atkinson = J. E. Atkinson, *A commentary on Q. Curtius Rufus' Historiae Alexandri Magni, Books 3 and 4*, i (Amsterdam 1980). Bosworth = A. B. Bosworth, *A historical commentary on Arrian's History of Alexander* i (Oxford 1980). Brunt L = P. A. Brunt, *Arrian* i (London 1976), ii (1983) in the Loeb edition. Gomme = A. W. Gomme, *A historical commentary on Thucydides* (Oxford 1945–56). Hammond A = N. G. L. Hammond, *Alexander the Great: king, commander and statesman* (New Jersey 1980). Hammond THA = N. G. L. Hammond, *Three historians of Alexander the Great: the so-called Vulgate Authors, Diodorus, Justin and Curtius* (Cambridge 1983). HM = A

*history of Macedonia* i by N. G. L. Hammond (Oxford 1972), ii by Hammond and G. T. Griffith (1979), iii by Hammond and F. W. Walbank (1988). Pritchett = W. K. Pritchett, *The Greek state at war* iv (Berkeley 1985).

<sup>1</sup> τοῖς δημοσίοις θαπτομένοις.

<sup>2</sup> See Gomme ii 100.

<sup>3</sup> Each tribe probably supplied the state official with a list of its dead; see *IG* i<sup>3</sup> 1141 and D. W. Bradeen in *The Athenian Agora* xvii (1974). 73. The list was like our regimental roll of honour. The tribal officials had to find replacements for the tribal regiments.

<sup>4</sup> Despite some scholarly reluctance; but cf. e.g. Gomme iii 656, 'the figure may be believed.'

statement of Herodotus at vi 117.1 that 192 Athenians were killed at Marathon, and the rounded number of 'about 600 Athenians'<sup>5</sup> given by Thucydides for those lost at Amphipolis in 422 BC (they were commemorated in the state cemetery at Athens, according to Pausanias i 29.13). The record of those killed within any one year of war was of general significance for the historian (ML 33 being a good example).

Procedures similar to those which we have seen at Athens were practised also in many other Greek city-states, as we know from surviving casualty lists.<sup>6</sup> The chief difference between Athens and other states was that they usually buried their dead on or near the battlefield. Sparta was unusual in having no casualty lists;<sup>7</sup> but the honour of having one's name inscribed on a tombstone was granted only to those who had fallen 'in war' (Plu. *Lycurg.* 27.3 and *Mor.* 238 d). Casualty lists elsewhere gave the tribal affiliations of the dead, no doubt because their armies were brigaded by tribe. They were customary throughout the Hellenistic period, the latest being for the Achaeans in 148 BC (*IG* iv<sup>2</sup> 1.28).

The Macedonians were as scrupulous as any of the Greek states in honouring the dead.<sup>8</sup> Like the bulk of the Greek states, the Macedonian state buried the dead on or near the battlefield, and more frequently than the Greeks they raised a mound over the mass-tomb (*polyandreion*). Such was the case at Chaeronea in 338 BC. The mound there has been excavated. It was found that there had been funerary sacrifices, and that the weapons had been cremated and deposited together with the men.<sup>9</sup> After the battle of the river Granicus in 334 BC the fallen were buried 'with their arms and armour and with other emblems of honour' (*Arr.* i 16.5). And in 333 BC the whole army in full dress parade attended the burial of those who had died at the battle of Issus (ii 12.1). In 329 BC at Bukhara a mound was raised over the Macedonian dead and funerary sacrifices were made 'in the traditional manner' (*Curt.* vii 9.21). It seems that burial with arms and armour, funerary sacrifices, raising of a tumulus and attendance of troops in full dress were regular Macedonian practices. These practices were different from those of the Greek states, with a few exceptions as at Marathon.

Records of Macedonian casualties must have been kept, because the state gave special benefits to the relatives of those killed in war. For the parents and the sons of those who fell at the river Granicus were exempted from paying certain taxes and carrying out certain services (*Arr.* i 16.5). It is probable that the king, acting on behalf of the state, abstained like the authorities at Sparta from setting up any list of casualties. If so, we can understand why no figures of Macedonian dead in Philip II's battles were reported in the surviving accounts, although the losses of his Greek opponents were recorded, and why there was so much uncertainty in our sources about the numbers of Macedonians killed in Alexander's major battles, Ptolemy and Aristobulus, for instance, giving different numbers for the battle of the Granicus (*Arr.* i 16.4; Plu. *Alex.* 16.7).<sup>10</sup>

There is indeed a striking difference in the reporting of Alexander's casualties between Arrian and all other writers. In the four great battles Arrian gave figures for individual units or groups but not mere totals: at the Granicus 'about 25 Companion cavalrymen at the first attack' (i.e. of Socrates' squadron) and of the rest of the cavalry above 60 and of the infantry up to thirty' (i 16.4); at Issus 'about 120 notable Macedonians' of the central brigades of the phalangites (ii 10.7); at Gaugamela 'around sixty of Alexander's Companions fell' in the head-on clash when Alexander went to help Parmenio (iii 15.2); and then in the long cavalry pursuit, led by

<sup>5</sup> Rounded, it seems, for stylistic reasons. As Gomme *ibid.* remarks, the figures are 'startling.'

<sup>6</sup> Summarised in Pritchett 139 ff., and to be taken 'seriously' as evidence (P. Krentz, *GRBS* xxvi [1985] 13).

<sup>7</sup> Pritchett 244; Sparta kept her military arrangements as confidential as possible (*Thuc.* v 68.2).

<sup>8</sup> *Curt.* v 4.3.

<sup>9</sup> See Pritchett 138 for a short summary and full references to the excavation reports.

<sup>10</sup> Brunt *L* i 68 n. 3 held that Aristobulus' 9 infantrymen in contrast to Ptolemy's 30 infantrymen may have arisen because Aristobulus did not include non-Macedonian infantry. This is implausible, because Alexander deployed very few non-Macedonian infantry (only 1,000 or so Agrianians and Archers as opposed to 12,000 Macedonian infantry). See Brunt *i* lxx and Hammond *JHS* c (1980) 82.

Alexander, 'of those with Alexander there died about up to a hundred men, and more than a thousand horses wounded or exhausted in the pursuit, half of the latter being of the Companion Cavalry' (iii 15.6);<sup>11</sup> and at the Hydaspes 'of those with Alexander about 80 infantrymen died from the 6,000 who were in the first attack (i.e. as distinct from the infantrymen who crossed later), and of the mounted archers who first engaged in the (main) action 10, of the Companion Cavalry about 20, and of the other cavalry some 200' (v 18.3).

The writers other than Arrian give totals only, sometimes separating cavalry and infantry, as follows. At the Granicus 9 infantry and 120 cavalry according to Justin xi 6.12-3, and 9 infantry and 25 cavalry according to Plutarch, *Alex.* 16.7. At Issus 'up to 300 infantry and about 150 cavalry' according to Diodorus (xvii 36.6); 130 infantry and 150 cavalry according to Justin (xi 9.10); and 32 infantry altogether missing, 150 cavalry killed and 504 wounded—'at so small a cost was a mighty victory won'—according to Curtius (iii 11.27).<sup>12</sup> At Gaugamela 'up to 500 Macedonians were killed and very many were wounded' according to Diodorus (xvii 61.3); less than 300 casualties according to Curtius (iv 16.26); and 1,000 infantry and 200 cavalry according to an unnamed historian (*P. Oxy.* 1798 = *FGrH* 148 col. iv). At the Hydaspes 280 cavalry and more than 700 infantry according to Diodorus (xvii 89.3); and 900 infantry and 300 cavalry according to the *Epit. Metz.* 61.

The difference between Arrian and the others is certainly due to their use of sources. Arrian alone named his sources—Ptolemy and Aristobulus—and he said that where they differed he chose the more trustworthy. At his first mention of casualties Arrian named Ptolemy as his source (i 2.7 '11 cavalry and about 40 infantry'), thereby indicating that this would be his practice thereafter.<sup>13</sup> This was confirmed indirectly in that for the attack on Thebes Arrian was using Ptolemy (i 8.1) and his description included the loss of 'up to 70 archers with their commander'; and again in that the number of casualties at the Granicus as given by Aristobulus (*Plu. Alex.* 16.15) differed from that given by Arrian, who was therefore following Ptolemy.<sup>14</sup>

How did Ptolemy know the precise figures for individual units' and groups' losses, for numbers of wounded, and for losses of horses not only in the major battles but in numerous other engagements (e.g. i 2.7 at the Lyginus Glen 'of the Macedonians themselves'<sup>15</sup> 11 cavalry and about 40 infantry', i 20.10 during a sally from Halicarnassus 'up to 16 of Alexander's soldiers died and the wounded came up to 300', at ii 24.4 'Admetus and 20 Hypaspists fell' in the final attack at Tyre, at iv 16.7 the loss of 7 Companion cavalrymen and 60 mercenary cavalrymen in an ambush, and at v 24.5 a little under a hundred killed and over 1,200 wounded in the siege of Sangala)? Ptolemy could not possibly have remembered such precise and detailed figures, spread over many years of campaigning. He must have obtained them from an official record, that is from the *King's Journal*.<sup>16</sup> Moreover, he first among the Alexander-historians had access to that

<sup>11</sup> The context is important. Arrian reports at iii 15.5 that Alexander rested 'the cavalrymen with him' (τοὺς ἀμφ' αὐτὸν ἱππέας) and then continued the pursuit and captured the treasure at Arbela. Arrian then records the effect of the long pursuit in the losses in men and horses 'of those with Alexander' (iii 15.6, ἀπέθανον δὲ τῶν ἀμφ' Ἀλέξανδρον). These are obviously the same group of cavalry. Arrian was not giving the total loss in the battle, as Brunt *L* i 273 n. 3 apparently and Bosworth i 312 emphatically believed.

<sup>12</sup> The manuscript reading is here to be retained; so Atkinson 243, whereas the addition made by Hedicke and accepted in the Loeb text (ed. Rolfe i 136) yielding 4,500 wounded is inconsistent with the next sentence's 'at so small a cost'.

<sup>13</sup> Brunt *L* i 12 n. 2 'Pt. is perhaps cited because A felt that such precise figures needed justification' is more consonant with modern doubts. Arrian gave very many precise figures without citing his source. He did so here

in accordance with his stated practice in the Proem, that where Ptolemy and Aristobulus differed he would choose the more trustworthy. It is likely that he intended his reader to deduce that he would be following Ptolemy in other statements of Macedonian casualties.

<sup>14</sup> So too Brunt *L* i 68 n. 3.

<sup>15</sup> Brunt *L* i 13 did not translate the αὐτῶν which is emphatic by position: αὐτῶν δὲ Μακεδόνων. The implicit contrast is with the non-Macedonians, i.e. the archers and slingers of i 2.4 and the light cavalry of i 2.6.

<sup>16</sup> No one has yet doubted the existence of a *King's Journal* of Philip II and of Alexander. The modern discussion is whether the *Journal* cited by Alexander-historians was a genuine *Journal* or a forged version. If the *Journal* they used was a forged one, it is difficult to see why a forger would produce such detailed figures. My arguments for believing that they used a genuine *Journal* are presented in *Historia* xxxvi (1987) 1-21.

source of information. For if Aristobulus had had access, he would not have given a different figure for casualties at the Granicus. We know from Plu. *Pyrrh.* 21.5 that Pyrrhus' *Journal* gave the figure of dead at Asculum as 3,505 (reported by Hieronymus). The information supplied for the Granicus by other writers came from a different source or sources. In the case of Diodorus' figures for Issus, Gaugamela and the Hydaspes the source was almost certainly Cleitarchus, a young Greek writer, who was not on the campaign but provided hearsay figures.<sup>17</sup>

It was of course essential for any commander-in-chief to know the detailed losses of various units, in order that he might maintain their establishment, if possible.<sup>18</sup> Alexander clearly kept a record. The same was true of cavalry horses, which he had to replace (e.g. *Itin. Alex.* 35). The wounded were probably numbered when Alexander and his staff visited them (e.g. Arr. i 16.5 and ii 12.1) and the number was entered in the *King's Journal*. The number of wounded on both sides at Paraetacene (Diod. xix 31.5) was probably ascertained by Hieronymus from Eumenes and then from Antigonos or from their *Journals*. This may help us to understand the source of the only precise figure of Philip II's losses in wounded, namely Philip himself and 150 Companion cavalrymen in the pursuit of Pleuratus' Illyrians (Ardiaei).<sup>19</sup> Didymus (*in Dem.* 12.64 ff.) reported this while he was listing the numerous wounds of Philip in a passage, in which he drew on Theopompus, Duris and Marsyas the Macedonian as his sources. Of these only the Macedonian is likely to have reported the number of wounded in distant Illyris; and he, an exact contemporary of Alexander, probably obtained the information from the *King's Journal* of Philip.

Since the *King's Journal* was kept for purposes of official record and not for publication, we can be confident that the figures for Macedonian losses were accurate in the *Journal*. They were probably transmitted correctly by Marsyas, Ptolemy and subsequent users of their works.

## II. THE CREDIBILITY OF DISPROPORTIONATE FIGURES

What have appeared to many to be disproportionate figures run right through the period of Greek and Hellenistic history. We must first consider whether they can all be wrong figures, invented to conceal one's own losses and to magnify those of one's enemy. The answer must be that in most cases the existence of casualty lists, publicly displayed, precluded a propagandist falsification.

During the Persian Wars the Athenians lost 192 hoplites at Marathon, and the Spartans and Tegeans lost 107 hoplites in the first charge at Plataea (Hdt. vi 117.1 and ix 70.5). The Persian losses were certainly enormous in comparison.<sup>20</sup> The reasons for the disproportion in the losses have never been in doubt. The defensive armour of the 'bronze men', as the Greek hoplites were called because they wore bronze helmet, breastplate and greaves and carried a large circular bronze shield, was immensely superior to the wicker shield and woven cloth of the Persians, who were described as 'unarmed'.<sup>21</sup> The longer spear and the sword of the Greek were stronger offensive weapons than the Persian short spear and dagger at close quarters. Indeed, the Persians tried to seize the spears of the Greeks in their hands (ix 62.2). The weight of the close phalanx

<sup>17</sup> See Hammond *THA* 22–7. If *Alexander's Journal* accompanied his corpse, it passed into the control of Ptolemy, who kept it to himself, it seems, during his lifetime. It then may have gone into the Library at Alexandria. For a possible fragment of Strattis' *Commentary on the Journal of Alexander* see my article in *GRBS* xxviii (1987) 331–47. Ptolemy II kept a record of his forces in the *basilikai anagraphai* (App. Preface 10).

<sup>18</sup> This applies to any period. In the Second and the Third Macedonian Wars the Senate was evidently informed of the casualties by the commander in the field, so that it could provide replacements and if

necessary reinforcements; see Livy xxxii 1.3, in *supplementum*, 9.1 and 6; 28.10, *supplementum*; xliii 11.10–12, *supplementi* at 12.2; 12.9; 44.1, *supplementum*; xlv 21.8.

<sup>19</sup> G. T. Griffith in *HM* ii 472 assumed that the 150 wounded and the one man killed had been engaged in a preceding battle, but that is not what the context suggests—namely that they, like Philip, were casualties of the pursuit.

<sup>20</sup> Herodotus' 'about 6,400' at Marathon is well discussed by How and Wells in their *Commentary*, ii 114.

<sup>21</sup> Hdt. ix 62.2–3 and 63.2, ἀνοπλοὶ, γυμνήτες.

formation at the run at Marathon and downhill at Plataea overbore the looser formation of the Persians; and very great losses occurred as the Persians fled in disorder and the Greeks pursued them closely (vi 113.2 and ix 68 fin.).

When Greek hoplites fought Greek hoplites, the heavy losses occurred not face to face, each covered by his protective armour, but when the formation broke up and men were in flight. At Amphipolis in 422 BC the army of Brasidas lost seven men and 'about 600 Athenians' fell in the confusion of their flight, 'because the action for them had not been in formation but resulted from an accident, attended by panic' (Thuc. v 11.2). The Amphipolitans gave a state funeral to Brasidas and presumably to the other six casualties; the number was well known at Amphipolis and Thucydides probably went there in his exile. His accuracy is assured. At the Nemea river in 396 BC Sparta lost eight men and inflicted heavy losses on their opponents. Xenophon, who gives us the figure at *HG* iv 3.1, probably learnt it at the time at Sparta (the next-of-kin being informed of the deaths, as after Leuctra in vi 4.16). In 367 BC Sparta defeated the Arcadians in 'The Tearless Battle', so-called because Sparta suffered no casualty. If this seems strange, we should remember that the Greeks did not lose a man in the battle of Cunaxa in 401 BC, partly because they kept formation in pursuit, when they routed the Persian infantry (*X. An.* i 8. 18–20).

A similar or even greater disproportion developed with the rise of Macedonia as a military power. There were several reasons for this. The infantryman's fifteen-foot pike (*sarissa*) far outreached the Greek hoplite's spear and even more so the shorter Persian spear and the Roman's sword.<sup>22</sup> Driven with both arms, the pike struck with more power than a thrusting spear, controlled by one arm, as Plutarch explained at the battle of Pydna in 168 BC. 'The Pelignians (Roman troops) tried to turn the pikes aside with their swords, repel them with their shields and divert them with their hands, seizing hold of them (as the Persians had tried to do with the Greek spears at Plataea), whereas the Macedonians, wielding their pikes with both hands, drove them through their opponents, armour and all; for the door-shaped shield and the breastplate could not withstand the force of the pike' (*Aem.* 20.1–2). The cavalryman's long lance, with a point at each end, outreached the thrusting spear of a Greek or Persian cavalryman and struck an opponent or his mount, before they came within striking distance (e.g. in *Arr.* i 15.5 and i 16.1).<sup>23</sup> The pikeman-phalanx could contract into a tighter formation than the hoplite-phalanx, because the pikeman's shield was smaller, and it then had greater weight when it charged; moreover, it presented five pike-points at the ready against the one spear-point of a hoplite. When it changed formation from an oblong rectangle to a triangular wedge, it could break through any infantry or cavalry formation.<sup>24</sup>

Although the pikeman had a small shield and a short sword or dagger, he was safer than his opponents, because he was separated from them by the hedge of pike-points; and since the back ranks held their pikes aloft and waved them, they deflected the arrows or other missiles of the enemy (see Polybius xvii 29 and xxx 1–4). The Macedonian cavalrymen fought in a wedge formation, so that they could change direction at once (like a flight of cranes, *Ascl.* vii 3) and use their weight to break through an enemy formation of cavalry. Here the shock was taken by the leading men of the apex, so that the rest of the squadron were not at first in danger. The Companion Cavalryman wore a metal helmet and a breastplate with shoulder-guards and a leather kirtle. Riding without stirrups, he had to be bare-legged to grip his horse; but he had first strike and leg-wounds were rarely lethal. With these developments in weapons and formations the Macedonians suffered fewer casualties in set battles than comparable Greek armies would have done, and they inflicted greater loss on their opponents because they had superior weapons

<sup>22</sup> Well illustrated by Livy's remark at xxxi 39.10: 'the Macedonian phalanx with its specially long pikes places a defensive barrier (*vallum*) in front of the shields'.

<sup>23</sup> As the Alexander-mosaic and the Alexander Sarcophagus show (see Hammond *A* 282–3).

<sup>24</sup> Especially the single great wedge of infantry and cavalry at Gaugamela in *Arr.* iii 14.2; (not a set of little wedges as in A. M. Devine, *Anc. World* xiii [1986] 114 Fig. 2).

and greater impact. This was particularly so during the reigns of Philip II and Alexander III, because their opponents were still fighting with their traditional weapons and formations.

The pursuit of a defeated enemy over a great distance by the Macedonian cavalry was a special feature of Macedonian warfare, and it was during the pursuit that the bulk of enemy casualties occurred.<sup>25</sup> The pursuers suffered wounds, but fatalities were rare, as we have seen. Philip set the pace in 358 BC when 7,000 of the Dardanians' army of 10,500 men were killed, 'the pursuit being over a large area and many being killed' κατὰ τὴν φυγὴν (Diod. xvi 4. 6–7).<sup>26</sup> So too in 352 BC the superiority of the Thessalian and Macedonian cavalry led to 6,000 hoplites of the Phocian forces being killed.<sup>27</sup> The pursuits conducted by Alexander were equally effective. During the flight at Issus 'the Persians' horses suffered badly as they were carrying heavily-armed riders; and the cavalrymen themselves, as they fled in great clusters along narrow routes in panic and disorder, were damaged as much by being trodden underfoot by their own countrymen as by the pursuers' (Arr. ii 11.3; cf. Callisthenes in Plb. xii 20.4 and Diod. xvii 34.7–8). We can well imagine what happened at a bottleneck over a gully: 'Ptolemy who was following with Alexander, says that at the time when they came to a gully in the pursuit those pursuing Darius with them crossed the gully on the bodies of the dead' (Arr. ii 11.8).<sup>28</sup>

Alexander incurred few casualties and inflicted heavy losses in his campaign against the Thracians, Triballians, Dardanians and Illyrians, not surprisingly as it was often a case of well-equipped Macedonians routing 'lightly-clad men, poorly armed' (Arr. i 1.12). For instance at the Lyginus Glen he lost of his Macedonians eleven cavalrymen and about forty infantrymen and killed 3,000 Triballians (Arr. i 2.7, the figures being from Ptolemy), and with a surprise attack and minimal casualties (we may assume) his cavalry pursued the Dardanians and the Illyrians for a distance of some ninety-five kilometres and forced the kings to sue for terms.<sup>29</sup> At the river Granicus, against well-equipped Persian cavalry and Greek mercenary infantry who were both using their traditional weapons, Alexander lost 25 Companion Cavalrymen of Socrates' squadron, which led the opening attack, 60 other cavalrymen and about thirty infantrymen (Arr. i 16.4). In this battle (for there was no long pursuit) 1,000 Persian cavalrymen fell and not far short of 18,000 Greek mercenaries, the latter under the combined attack of the pikemen-phalanx in formation and the cavalry forces on flanks and rear, the cavalry with the downhill slope in its favour. After the victory at Issus the Macedonian cavalry pressed the pursuit of the fleeing enemy for some 37 kilometres till nightfall.<sup>30</sup> The total Persian loss was estimated at around 100,000, of which number 10,000 were cavalry (Arr. ii 11.8). Alexander's total loss was not stated by Arrian. The pursuit after the victory at Gaugamela was over 110 kilometres. Arrian did not give Alexander's loss but he included 'the story'—which he did not trust—that Persia lost 300,000 men (iii 15.6 ἐλέγοντο). In any case the Persian losses at Issus and Gaugamela were so high that Darius despaired of raising an army capable of challenging the Macedonians in a set battle. In sieges too the disproportion was very great; for in the hardest siege of all, at Tyre, Arrian cited, evidently from Ptolemy and Aristobulus, the losses of Alexander as 'about up to 400' and of the Tyrians (including the massacre inside the city) as 'up to 8,000' (ii 24.4).<sup>31</sup>

<sup>25</sup> See my article in *CQ* xxviii (1978) 136–40.

<sup>26</sup> Following Ephorus, a reliable contemporary historian, as argued in *CQ* xxxi (1937) 79 f.

<sup>27</sup> Diod. xvi 35.4–5, probably following Demophilus (*CQ* xxxi 84 f.).

<sup>28</sup> Brunt *L* i 163 translated 'deep gully' but the Greek says simply 'gully' (φάρραξ). Bosworth i 217 holds that Ptolemy was romancing. However, it must be allowed that Ptolemy and Arrian knew more of cavalry warfare and of panic in flight than we do, and it is to be noted that Callisthenes—not a combatant like Ptolemy but an observer—repeated the report that 'the most of the Persians in their flight were destroyed in such hollows (κοιλώμασι)', i.e. the gullies (Callisthenes in Plb. xii 20.4; cf. Diod. xvii 34.9).

<sup>29</sup> See my account in *JHS* xciv (1974) 66 ff. The account of Bosworth, published in *Ancient Macedonian Studies in honor of Charles F. Edson* (Thessaloniki 1981) and in *Macedonia and Greece in late classical and early hellenistic times*, edd. B. Barr-Sharrar and E. N. Borza (Washington 1982), is not compatible with the terrain, of which Bosworth lacked personal knowledge. See *HM* iii 43 note.

<sup>30</sup> For the identification of the battlefield see Hammond *A* 106; gullies of the kind mentioned by Ptolemy and Callisthenes (n. 28 above) are shown on p. 276 f.

<sup>31</sup> The figures given by Diodorus at xvii 14.1 for the action at Thebes in 335 BC were comparable: 500 'Macedonians' (i.e. of them and their allies) and over 6,000 Thebans. The source of Diodorus was probably

Throughout the campaigns in Asia Alexander's troops had the immense advantage of superior weapons, tight formations and better protective armour, except that some of the Persian cavalry were heavily armoured (Arr. ii 11.3; cf. Curt. iii 11.15). Skill and luck were needed by an enemy to register a lethal blow and the great majority of wounds were in the thighs for an infantryman and in the legs for a cavalryman, so that Philip II bore the scars of innumerable wounds, was lamed and lost an eye but fought at Chaeronea, and Alexander III had a mere ten wounds and fought in the forefront to the end. The death rate among the brigades of Hypaspists, which saw more action under Alexander than any other infantry, was undoubtedly low; for most of them had served under Philip and even his predecessors and yet were a corps d'élite—the 3,000 'Silvershields'—which without a single casualty delivered repeated charges in close formation and killed 'over 5,000' of Antigonos' infantrymen at Gabiene in 316 BC. The account of this remarkable feat of arms was drawn by Diodorus from Hieronymus, who was serving them with Eumenes and wrote for contemporaries of the event. His statement is certainly trustworthy. The explanation which is given by Diodorus at xix 30.6, 41.2 and 43.1 is that at the ages generally of sixty and seventy these Hypaspists had developed such experience, confidence, skill and handiness with the pike that they were irresistible. For training in this specialised weapon was so important that Alexander selected for his campaign in Asia not stalwart young men but veterans of long experience (Just. xi 6.4).<sup>32</sup>

In the warfare of the Hellenistic period, where both sides had developed the use of the pike and the lance, the disparity in losses was less marked, and the victorious side's losses were far higher than those of Philip's and Alexander's forces. Thus at the battle of Paraetacene in 317 BC Eumenes had very few cavalrymen and 540 infantrymen killed and 900 wounded, whereas Antigonos' figures were 54 cavalrymen and 3,700 infantrymen (mainly due to the success of the Silvershields) and 4,000 wounded (Diod. xix 31.5). Again at Raphia in 217 BC Ptolemy lost 'up to 700 cavalry and 1,500 infantry', and Antiochus 'more than 300 cavalry and not far short of 10,000 infantry' (Plb. v 86.5–6). On the other hand, casualties were often avoided by troops deserting or withdrawing from battle; and even in full retreat well-trained units of cavalry and of infantry were able to withdraw in formation without casualties (e.g. Diod. xix 43.4–5 and 84.6).

### III. REPLACEMENTS AND REINFORCEMENTS

It was always essential for a commander in the field to ascertain the number of his losses and to inform his government, so that replacements could be sent to him, and if he was facing a superior enemy to ask for reinforcements. We see this most clearly from the Roman side in the years of the Second Macedonian War and the Third Macedonian War.<sup>33</sup> In warfare between Greek city-states it was customary after a severe defeat to call up some older age-groups of citizen soldiers (e.g. at Sparta after Leuctra, X. *HG* vi 4.17). If reinforcements were desperately needed, a state went beyond its citizen class and recruited from other layers of the population. Something similar occurred in the Macedonian state. In the winter of 334–333 Alexander was able, as we shall see, to augment his citizen troops by a sudden recruitment of 300 cavalry and 3,000 infantry 'from the land' (Arr. i 24.2 ἐκ τῆς χώρας and i 29.4). Hellenistic kingdoms in Asia and in Egypt turned rather to native troops and to mercenaries when they needed reinforcements.

Cleitarchus (Hammond *THA* 15 ff.), a Greek contemporary writing for Greeks of the time, who may have obtained a reasonable estimate. Bosworth i 312 dismisses the 400 dead at Tyre as 'fatuous'. He does not mention the figure at Thebes or discuss the source of Arrian.

<sup>32</sup> The source was probably Cleitarchus (Hammond *THA* 96), who was interested in the contrast with Greek systems of enlistment.

<sup>33</sup> See n. 18 above. P. A. Brunt did not take these matters into consideration in Appendix 28 of his *Italian manpower*.

The overall situation in the Macedonian kingdom was more complex than that of a city-state. Philip II doubled the number of his citizen troops—the Macedones proper (Ptolemy's αὐτῶν Μακεδόνων at Arr. i 2.7, and Diodorus' τοὺς πρεσβυτάτους τῶν πολιτῶν and στρατιωτῶν πολιτικῶν at xvii 109.1 and xviii 12.2, based on Hieronymus)—when he incorporated the Greek-speaking peoples of Upper Macedonia and added the brigades of *asthetairoi* to the brigades of *pezetairoi*, who had been drawn only from Lower Macedonia and Eordaea and had served under Philip's two elder brothers.<sup>34</sup> There, however, the expansion of the citizen factor by mass incorporation of people within the kingdom ended. Even so, the total of citizen infantry rose from 10,000 in 358 BC to 24,000 infantry of the phalanx. The Companion Cavalry also increased from the 600 of 358 BC to some 2,800 in 334 BC,<sup>35</sup> thanks to the incorporation of the Greek-speaking peoples of Upper Macedonia and to an increase in wealth throughout the kingdom. On a very approximate calculation this means that one man in ten of those of military age in the Greek-speaking areas of Upper Macedonia (i.e. west of the Axios river) and of Lower Macedonia was serving in the field army of the Macedonian state,<sup>36</sup> as we shall call it. They were provided with weapons and equipment (but not horses)<sup>37</sup> by the king, and they were paid by the king as the executive arm of the Macedonian state.

In addition there were troops which lacked the title 'Macedones' and were not full citizens, but were raised within the kingdom. They were first mentioned in our sources in the reign of Alexander, but they were probably operative under Philip also. The probable numbers of these troops in 334 BC were as follows: 1,400 light cavalry (Paeonian, Thracian and Lancers), several thousands of grooms who went armed into battle (e.g. at Gaugamela, Arr. iii 13.6) and probably officers' batmen, and the 'Macedonian archers' (iii 12.2)<sup>38</sup> as distinct from the 'Cretan archers' (ii 9.3). We do not know how they were equipped and paid. They were part of the field army.

Within Macedonia and not belonging to the field army there were local militiamen in considerably larger numbers, who were trained in warfare but had inferior equipment. They had to be ready to resist Illyrian, Dardanian and Thracian raiders, and many of them were hunters or protectors of their herds against predators. They were organised by the local authorities of the cities and the cantons, and they are likely to have equipped themselves and been unpaid.

If Philip's successor had been content to consolidate the gains of Philip's reign, he might have expected to maintain the field army with the normal annual intake of Philip's last years, which we may estimate at 1,000 men a year, personally chosen by the king or/and his deputies.<sup>39</sup> But Alexander had other ambitions. He left 12,000 infantrymen and probably 1,000 cavalrymen of citizen status, i.e. 'Macedones' of the field army, and probably 500 light cavalry in Europe under the command of Antipater. He took to Asia 12,000 infantrymen and 1,800 cavalry of citizen status, and 900 light cavalry, several thousands of grooms, perhaps 1,000 archers,<sup>40</sup> officers' batmen, and ancillary services from within the kingdom.

In the course of the first year in Asia Alexander sent officers 'to enlist as many men as possible from the land' (i 24.2 ἐκ τῆς χώρας). In other words he did not require Antipater to send out some of Antipater's own forces; instead, the officers of Alexander were to recruit from the local militia any suitable men who wished to join Alexander's field army and thus become citizen soldiers. The officers brought back 300 cavalry and 3,000 infantry (i 29.4); they were to replace losses and increase the establishment of Alexander's citizen troops. In 332 BC Alexander sent

<sup>34</sup> See Bosworth in *CQ* xxiii (1973) 245 ff. for *pezetairoi* and *asthetairoi*, and for the view in the text Hammond *A* 26 f.

<sup>35</sup> Assuming that the 1,500 cavalry left with Antipater (Diod. xvii 17.5) were heavy and light in the same proportion as those taken by Alexander to Asia.

<sup>36</sup> The population figures of 1961 are given in *HM* i 16 f. and Hammond *A* 29 f.

<sup>37</sup> Diod. xvi 3.1 (weapons) and Curt. vii 1.32-4 (horses). Each cavalryman had one groom at least.

<sup>38</sup> Although first mentioned at Gaugamela in 331 BC, the Macedonian archers were presumably among the 'archers and slingers' of the Balkan campaign of 335 BC (Arr. i 1.12 and i 2.4).

<sup>39</sup> Allowing the total field army of 26,800 to serve for twenty-five years on average; see Hammond *A* 152 f.

<sup>40</sup> As they balanced the Cretan Archers in the order of battle at Gaugamela.



officers 'to collect young soldiers' (Diod. xvii 49.1 τῶν νέων and Curt. iv 6.30 'novorum militum'), i.e. men then coming of age to serve in the citizen forces and in the local militia; and they arrived late in 331 BC, 500 cavalrymen and 6,000 infantrymen (Diod. xvii 65.1; Curt. v 1.40).<sup>41</sup> No doubt they received training in Macedonia and on the long march to Babylonia (they arrived not long after the battle of Gaugamela), and they were drafted into the citizen units, namely the Companion Cavalry and the phalanx brigades. They not only replaced losses; for with them Alexander was able to make some reorganisation of the cavalry and to add a further brigade of 1,500 men to his phalanx.<sup>42</sup> Thus by the end of 331 BC Alexander had at the lowest reckoning 2,000 Companion Cavalry and 13,500 Hypaspists and phalangites as front-line Macedonian soldiers. He drew no more citizen troops from Macedonia thereafter.

The reason for Alexander ceasing to draw on Macedonia was the need to maintain the army of Antipater, which had to deal in 331–330 BC with a rising in Thrace and the offensive of Agis III in the Peloponnese. After 334 Antipater should have been able to maintain his citizen forces at 1,000 Companion Cavalry and 12,000 phalangites by taking half of the normal annual intake. The other half may have gone out to Alexander as part of the 6,000 infantrymen in 331 BC. In 330 BC Antipater crushed the army of Agis; for he brought his own strength up to 40,000 men by raising troops from his Greek allies, from the Balkan subjects and from the market of mercenaries. It appears then that in 330 BC the total citizen forces of Macedonia ran at some 3,000 Companion Cavalry and 25,500 Hypaspists and phalangites. Because Antipater sent no citizen troops to Asia thereafter, he not only made good the losses of the Lamian War but also raised his number of citizen troops in Macedonia, perhaps by 3,500 young men by 323 BC; for he was now taking not half but all of the normal annual intake.

Since Alexander had taken men of the middle and older age groups to Asia, he had to send some of the oldest home (Arr. iii 29.5) early in 329 BC. They went together with the Thessalian volunteers, who when they volunteered had been 'not few' of the original 1,800. The two together probably numbered 900 (Curt. vii 5.27),<sup>43</sup> so that we may allow, say, 400 for Macedonians. Then after the mutiny at Opis in 324 BC he sent 10,000 Macedonians under the command of Craterus on the way to Macedonia. He retained the 'more than 3,000 Silvershields' as the original Hypaspists were then called, 'the sons of the Hypaspists, more than 3,000' (Diod. xix 28.1, of 317 BC),<sup>44</sup> and 6,700 phalangites to form the Macedonian part of the multiracial phalanx (Arr. vii 23.3–4). That the total of these figures is approximately correct is shown by the statement in Curtius x 2.8, that when Alexander had decided to send the veterans home (in fact the 10,000 who chose to go may have included some less aged men) he ordered the selection of 13,000 infantry to stay in Asia.<sup>45</sup> In the same passage 2,000 Companion Cavalrymen were also to stay. Since Curtius was writing of Macedonians only, they were of Macedonian origin and not Asians brought into the Companion Cavalry.

Alexander intended to settle the 10,000 veterans in Macedonia, with instructions to beget children, and to keep them available for service; and when they were so settled Antipater was to bring to Asia 'Macedonians of those of mature age' (Arr. vii 12.4) as their replacements, i.e. to the number of 10,000 or so; these were evidently to serve with Alexander on the Mediterranean campaign, which was planned to start after the conquest in 323/322 of Arabia. As Alexander must have planned to leave some citizen troops younger than the veterans in Macedonia, we can assume that in 324 BC Antipater had more than 10,000 in Macedonia. In fact in 323 BC (when the

<sup>41</sup> Defined as 'Macedones', distinct from Thracians and others, in both passages. Recruited by Amyntas (Diod. xvii 49.1) they were the men mentioned by Arrian, who omitted to give the numbers at iii 16.10–11. The source of Diodorus and Curtius here was probably Diyllus, an accurate if dull Hellenistic historian (Hammond *THA* 54 f. and 129 f.).

<sup>42</sup> Curtius v 1.40 called the new arrivals an 'incrementum', 'reinforcement'; for the further brigade see

R. D. Milns in *GRBS* vii (1961) 160, preferable to Bosworth i 320.

<sup>43</sup> The source was probably Aristobulus (Hammond *THA* 141).

<sup>44</sup> See Hammond *A* 240 and *CQ* xxviii (1978) 133 with n. 21 for 'the sons of the Hypaspists'.

<sup>45</sup> See Hammond *THA* 240 for the source being probably Diyllus.

veterans were still in Cilicia) Antipater went south with 13,000 Macedonian infantry and 600 Macedonian cavalry to face the Greek insurgents;<sup>46</sup> and he left Sippas, his deputy, with 'a sufficient number of soldiers' and ordered him to 'enlist as many men as possible' (Diod. xviii 12.2).

We are now able to tabulate the total numbers of Macedonian citizen troops as follows: 10,600 in 358 BC, 26,800 in 334 BC, 28,500 early in 330 BC (assuming Antipater's army to have been as in 334 BC) and some 42,000 including 10,000 veterans mostly above normal service-age in 322 BC (allowing Sippas to have been left with 400 cavalry and 2,000 infantry). It is interesting to note that there were more citizen troops in 323 BC than at any earlier time, and that the campaigns of Alexander in Asia were far from depleting those citizen forces. Thus when Diodorus, drawing on Hieronymus, wrote that Macedonia in 323 BC was short of citizen soldiers because of the numbers sent to Asia, he meant Macedonia in the geographical sense and he was concerned with the relatively small proportion available in Macedonia for the crisis of the Lamian War (xviii 12.2).

There is no indication that Alexander intended to recruit further men from the militia to become citizen soldiers in his field army. He had no need of them at the time. For the 10,000 veterans on the way home were to replace those troops which were to go to Asia with Antipater, and to continue in service in Macedonia. What Alexander released them from was the impending campaign with him in Arabia and the Mediterranean.<sup>47</sup> They did in fact continue in harness, since 6,000 served under Craterus in Greece and 4,000 served with Neoptolemus and Alcetas in Asia Minor.<sup>48</sup>

Had the reservoir of militiamen been very seriously depleted by Alexander? Within the twelve months after Alexander's death Sippas enlisted an unknown number of them (Diod. xviii 12.2); Leonnatus enlisted 'many Macedonian soldiers' and his army became 20,000 infantry and 1,500 cavalry (xviii 14.5); and Craterus, in addition to his 6,000 veterans, led south 4,000 'of those he had taken on in the march' (xviii 16.4).<sup>49</sup> It would seem that the reserve of manpower in the militia in 323 was greater than it had been in 335/4, when Alexander's officers recruited 300 cavalry and 3,000 infantry.<sup>50</sup> That is not surprising when we remember the strain put upon Macedonia's troops in Philip's last ten years. The reason for this healthy state of affairs in 323–322 BC is obvious. For his last seven years Alexander had not drawn any troops from Macedonia. His needs were met not only by enlisting Balkan troops and Greek mercenaries but also by training and employing very great numbers of Asian troops in all branches of the army.<sup>50</sup> Moreover, he had the money for the purpose. Having taken over from Philip a shortage of available funds, in 323 BC he was the possessor of wealth exceeding the dreams of Croesus.

<sup>46</sup> Bosworth in *JHS* cvi (1986) n. 51 calls the word 'Macedonian' here 'a blanket designation'; but the next sentence shows that Diodorus was writing of 'citizen soldiers' (xviii 12.2) who alone were 'Macedones'. The source was Hieronymus, a contemporary historian familiar with Macedonian affairs and trustworthy.

<sup>47</sup> This is clearly so in Diod. xvii 109.1 ἀπέλυσε τῆς στρατείας and xviii 4.1 τῶν ἀπολυθέντων τῆς στρατείας, since ἡ στρατεία is 'the campaign' and in particular a campaign abroad (L-S-J<sup>9</sup> s.v.). Arrian used στρατιά, which sometimes has the meaning of στρατεία.

<sup>48</sup> The history of these two groups is given in my article in *GRBS* xxv (1984) 54 ff.

<sup>49</sup> This last passage has been misunderstood by Brunt *L* ii 489. It runs thus: (Craterus having come to Macedonia to help Antipater, besieged in Lamia) ἦγε . . . περὸς μὲν τῶν εἰς Ἀσίαν Ἀλεξάνδρῳ συνδιαβεβηκότων ἑξακισχιλίους, τῶν δ' ἐν παρόδῳ προσειλημμένων τετρακισχιλίους, Πέρσας δέ. . . . The word

προσειλημμένων is the standard term for 'taking on', i.e. enlisting, troops (used at xviii 14.5 of Leonnatus, προσελάβετο), and ἐν παρόδῳ means 'on the way', 'en route', whether Craterus came through Thrace where Lysimachus was in trouble (xviii 14) or more probably by sea from Cilicia to Amphipolis (see *HM* iii 113). The passage was correctly translated by R. M. Geer in the Loeb edition as 'four thousand from those who had been enlisted on the march.' Brunt stated that the '6,000 were survivors of the original expeditionary force, and 4,000 of the men who had joined Al. later'. This is not correct; as the sentence is written Craterus has to be the agent with προσειλημμένων. Bosworth in *JHS* cvi (1986) 8 followed Brunt's interpretation of the passage. For the 6,000 veterans with Craterus and the 4,000 veterans left by him in Asia see my article in *GRBS* xxv (1984) 55 f.

<sup>50</sup> The extent of the Asian recruitment has sometimes been belittled; see my comments in *JHS* ciii (1983) 139 ff.

As my conclusions here, and earlier in my book *Alexander the Great* in 1980, differ radically from those of P. A. Brunt in his Loeb edition ii of 1983 and of A. B. Bosworth in his *Commentary* i of 1980 and his articles in *Ancient Macedonia* iv (Thessaloniki 1986) and *JHS* cvi of 1986,<sup>51</sup> it is necessary as well as a matter of courtesy to point out where they seem to me to have gone astray. Brunt put his case in *L* i lxxix ff. and 526–32 and ii 488–90. He began with the assumption that ‘our authorities minimise the losses in battle’. He had little to say on sources, and he did not explain why Ptolemy and Aristobulus, writing for contemporaries of the campaigns, should have been so imprudent as to reduce the losses which were marked after the Granicus by statues for the Companion Cavalrymen and remissions for the parents of all the Macedonians who had fallen. On the losses at Issus ‘on unreliability of casualty figures’ he referred the reader to his *Italian manpower*, which unfortunately did not deal with either Greek casualty lists or Macedonian remissions for relatives of the fallen or their methods of replacement. He assumed that disease caused a great many deaths. But the only general statement on the subject, in what is certainly a fictitious speech attributed to Coenus at the Hyphasis river, ‘the majority have died of disease and few out of many are left’ (*Arr.* v 27.6), is worthless as evidence.<sup>52</sup> Adding to this his belief that Macedonian citizen troops were left in garrisons, he reached the conclusion that the departure of Craterus in 324 BC with 10,000 Macedonian infantry and ‘1,500 horse, presumably Macedonian’,<sup>53</sup> left ‘in the grand army only two or three thousand Macedonian foot and virtually no Companions’. If that had been so, there would have been no possibility of providing the Macedonian element—6,700 phalangites—in the new mixed phalanx of *Arr.* vii 23.3–4.<sup>54</sup> Faced with that impasse, Brunt did not decide that his assumptions were mistaken. Instead, he made a compensating assumption that ‘Arrian has omitted somewhere between 326 and 323 the arrival of a very considerable force of Macedonian recruits’.<sup>55</sup> This structure of assumptions does not seem to me to be a sound basis for historical interpretation.

Bosworth adopts some of Brunt’s assumptions and improves on them. In the matter of Macedonian casualties he regards Arrian’s narrative as ‘the official court tradition’ (surely that was transmitted by Callisthenes) and not, as Arrian himself claimed, based on the histories of Ptolemy and Aristobulus. The figures of Macedonian casualties were therefore propagandist. The true casualties of the Macedonian citizen troops were according to Bosworth ‘appalling’ in 332 BC (the only engagements were the sieges of Tyre and Gaza). He likes Brunt’s views on disease, citing the speech of Coenus as ‘representing the conventional view in antiquity’ (*JHS* article n. 48), and adding ‘in the incomplete record provided by Arrian there is an impressive list of senior officers who died from disease’ (he cites five names over a period of ten years, but even in peacetime one would not be startled by one senior officer dying every second year). He adds fatigue: ‘the potentialities for wastage’ were, he maintains, ‘truly immense’, and ‘the facts of progressive wastage entail that the original corps of phalanx troops was massively reinforced’ already before the Battle of Issus in 333 BC (*JHS* p. 6), that is within a period of eighteen months after landing, when the Greek cities, the Lydians and the Carians were able to provide plenty of supplies.<sup>56</sup> Although Bosworth rejects Brunt’s assumptions that Macedonian citizen troops were sent to Asia as reinforcements after 330 BC but that this was not mentioned by our sources,

<sup>51</sup> For example in *JHS* cvi 9 ‘few of the men Alexander took with him (to Asia) ever returned’ and ‘the reserves of Macedonian manpower in 323 were less than a half, probably nearer a third, of what they had been in 334’.

<sup>52</sup> Brunt *L* ii 532 f. wrote that the speech ‘is an epideictic display by Arrian’. The only approximation to a disease was the eating of an explosive wheat—one of many miraculous events in distant India—as recounted by Theophr. *HP* viii 4.5 (accepted by R. Lane Fox, *Alexander the Great* [London 1973] 364).

<sup>53</sup> The authority for the 1,500 horse is not given by Brunt; it probably stems from his misinterpretation, as I see it, of *Diod.* xviii 16.4 (see n. 49 above).

<sup>54</sup> For this phalanx see Hammond *A* 240; Bosworth in *JHS* cvi 4 put at the same number the Macedonian element in what he saw as ‘a bizarre amalgam.’

<sup>55</sup> This assumption is rendered more unlikely by the fact that reinforcements from Europe after 330 BC were reported but did not in any case specify Macedonians (for instance, *Diod.* xvii 95.4 allied and mercenary troops, *Curt.* ix 3.21 Thracians and others, *Arr.* vii 23.1 cavalry of unstated nationality).

<sup>56</sup> Fatigue, even with miserable food, did not cause fatalities in my experience in guerrilla warfare in Greece in 1943–4.

Bosworth thinks that prior to that date 'enormous reinforcements were drawn from Macedonia itself.'<sup>57</sup> These sweeping views, together with his rejection of Brunt's last assumption, leads to the same impasse, that with the departure of the 10,000 veterans in 324 Alexander must have been left with only a skeleton force of Macedonian citizen troops.

Let us look at the situation as it was stated in the sources. Alexander crossed to Asia with 13,800 Macedonian citizen troops. It was exclusively from these that Alexander 'released from the campaign the oldest of the citizens, being up to 10,000' (Diod. xvii 109.1; Arrian at vii 8.1 and 12.1 cited 'old age' as the first of the reasons for release); for the Macedonians recruited in 333 and 331 were young men. Of those 10,000, as we have seen, the 6,000 accompanying Craterus to Macedonia were described by Diodorus xviii 16.4 as a part of 'those who had crossed with Alexander to Asia'; and the other part—some 4,000—were serving with Neoptolemus and Alcetas in Asia Minor. The conclusion is therefore unavoidable that the bulk of Alexander's original force was still on active service in 324 BC, and the idea advocated by Bosworth in *JHS* p. 9 that 'few of the men Alexander took with him ever returned' is refuted by the return of these 6,000 to fight in the Lamian War. Here too the literary evidence should take precedence over the assumptions.

The ultimate question is how many Macedonian citizen troops did die during the campaigns in Asia. To this there is no definite answer for several reasons. Where the total casualties in an action, such as the siege of Thebes or the siege of Tyre, are reported, it is not stated what proportion were Macedonian citizen troops. If we proceed from the number of such troops crossing with Alexander to Asia, we lack one vital statistic: the number of such troops already serving in the vanguard in Asia in spring 334 BC. It is certain that both Philip and Alexander needed to show the Macedonian flag in order to impress the Greek League, and they are likely to have sent some of their own troops as well as a large force of mercenaries. In 336–335 BC Parmenio commanded the vanguard; Amyntas and Attalus may have commanded respectively the mercenary force and the Macedonian citizen troops, who, it was feared, might rebel (Diod. xvii 5.2). Let us suppose at a guess that there were in Asia two squadrons of Companion Cavalry and two phalanx brigades (these troops were holding territory won in Asia and were therefore not present at the Granicus).<sup>58</sup>

We are told of citizen troops acting as a garrison, e.g. at Babylon after the battle of Gaugamela, but we are not told about permanent garrisons. I imagine that the Companion cavalrymen and the phalangites were too valuable for battle to be allotted to permanent garrison duty; we hear rather of Greek mercenaries and Thracian troops acting in that capacity. Wounded Macedonians were placed in Alexander's new cities; but we do not know how many. It has also to be remembered that Alexander was able to recruit and thereby make into Macedonian citizens the so-called 'Macedonian archers' and other personnel from Macedonia who were serving or following the army as grooms, batmen, transport men etc. Let us allow 1,000 at a guess.<sup>59</sup> Finally, there were 'the sons of the Hypaspists' (Diod. xix 28.1 οἱ ἐκ τῶν ὑπασπιστῶν), raised in the camp and trained to be soldiers. They were mentioned first in

<sup>57</sup> Bosworth in *JHS* cvi 6 argues from Polybius xii 19, citing the account of Callisthenes *FGH* 124 F 35, that the 5,000 infantry and the 800 cavalry 'from Macedonia' (ἐκ Μακεδονίας) represent 'massive reinforcements of the Macedonian phalanx', i.e. that they were Macedonians. As was pointed out in Hammond *A* 152, a work to which Bosworth does not refer, Macedonia was the mustering point for reinforcements raised in Europe, and this body of troops need not have included any Macedonians. The context of Callisthenes shows that he was dealing with the total force under Alexander's command and not just the Macedonian element.

<sup>58</sup> I am here in agreement with Bosworth in *JHS* cvi 3, whose estimate was '3,000 at a maximum', i.e. the

equivalent of two phalanx brigades. It is interesting that Callisthenes' figure for those on other duties and so not available for the Battle of Issus was 3,000 infantry and 300 cavalry (Plb. xii 19.3); most of those 3,000 were probably mercenaries, but Antigonos is likely to have had some Macedonians too.

<sup>59</sup> When Alexander reorganised his forces after 331 BC, the Macedonian archers, the Lancers, the Paeonian cavalry and the Thracian cavalry disappeared from the record. Suitable men among them may well have been promoted to serve in the Companion Cavalry units and in the phalanx and so have obtained citizen status as 'Macedones'.

317 BC, when they numbered more than 3,000 and fought alongside the Silvershields, as the original Hypaspists were then called.<sup>60</sup> It is anyone's guess how many of these were already in service in 323 BC. Let us say 1,000.

Where there are so many unknown factors, we can offer only very tentative calculations. We begin with the numbers of citizen troops which were already in Asia in 334 BC, going out to Asia between 334 and 330 BC and being promoted or growing up by 323 BC. They may be tabulated as follows:

334 BC	2,200 CC	12,000 phalangites	3,000 Hypaspists
333 BC	300 CC	3,000 phalangites	
331 BC	500 CC	6,000 phalangites	
331-323 BC	400 Royal Pages	at 50 a year <sup>61</sup>	
Added in Asia: 2,000 mainly as phalangites.			

Thus the total deployed in Asia between 334 and 323 was some 29,400.

Let us set against these figures the number of citizen troops who are known to have been alive in 324-323 BC, that is on the estimates we have made. We begin with 400 sent home in 329 BC, 10,000 departing with Craterus in 324 BC and 15,000 retained<sup>62</sup> in Babylonia at Opis in 324 BC (the last being made up of 2,000 CC,<sup>62</sup> 3,000 Hypaspists, 8,000 having come from Macedonia as phalangites and 2,000 added as phalangites in Asia), the total being 25,400. There were also wounded Macedonians posted in the new cities. If we allow 20 to each of the 70 or so foundations, they numbered about 1,400 at what can only be a rough guess. Thus there were perhaps 26,800 citizens alive in Asia in 323 BC.

We consider now the number of casualties in Asia. This is the difference between the 29,400 and the 26,800, that is some 3,000 casualties. The rate, then, is about one man dead in ten; but because the 2,000 added in Asia were probably too late to suffer many casualties, we may put the death rate slightly higher for the Macedonians who came out to Asia as already enlisted and trained men. It thus transpires that less than 3,000 died over the ten years, and this is consistent with the very small numbers reported by Arrian to have been killed in individual actions. But it must be borne in mind that these calculations are nothing more than probable in themselves.<sup>64</sup>

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<sup>60</sup> Diod. xix 28.1 and my comments in CQ xxviii (1978) 133 with n. 21.

<sup>61</sup> The first group of fifty boys came out in the winter of 331-330 (Curt. v 1.42). It makes sense that a similar group came out each year, since we find the Pages guarding the corpse of Alexander in 323 (Curt. x 7.16).

<sup>62</sup> I am here following Curtius x 2.8 (see CQ xxx [1980] 469 f.), of which the source was probably the factual and dependable Diyllus (Hammond, *THA* 158). Bosworth in *JHS* cvi (n. 22) claimed that Curtius' figure for the Asian army [i.e. the 15,000 to be retained] 'cannot comprise Macedonians alone'. This claim is inconsistent with the context of Curtius. For Curtius is giving the background to the mutiny, which was one of Macedonian soldiers only, both in Curtius and in Diod. xvii 109.2-3, Plut. *Alex.* 71.1-5 and Arr. vii 8.1. The contrast between Macedonians to be released from the

campaign and Macedonians to stay was clearly made by Curtius and by Diodorus xvii 109.1-2 and Arrian vii 8.1 (keeping in Arrian's text the reading μένουσι, as I suggested in CQ xxx 470 and as adopted by Brunt *L* ii 224).

<sup>63</sup> Including the Pages who served as cavalry during and after their schooling.

<sup>64</sup> But the probabilities are strong enough to rule out the need to depart from the literary evidence and to postulate either the sending of large reinforcements of Macedonian citizen troops to Asia between 330 and 323 or a spectacular upgrading of such reinforcements before 330 and enormous casualties of citizen troops in Asia. In as far as there was a decline in the power of Macedonia, it was due not to the losses incurred by Alexander but to the civil war instigated by Antigonus in 321 and continuing even beyond his death in 301. For some of its effects see *HM* iii 187-92.