

POPULATION PATTERNS IN LATE ARCHAIC AND CLASSICAL SPARTA

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My subject is the demographic history of Sparta from Plataia (479) to the second battle of Mantinea (362).¹ The Spartans numbered at the end of this period a fraction of their original strength so that it is on decline that this investigation must focus. Previous studies have analyzed Spartan population through the forces deployed in three campaigns: Plataia, the first battle of Mantinea (418), and Leuktra (371). My treatment departs from earlier work in that estimates of the size of the army at other junctures are applied: for a reorganization during the Pentekontaeteia, during the Pylos campaign, for another reorganization c. 400, at the Battle of the Nemea River, and during the 360s. The addition of these new data points leads to some surprising results about both the pace and the historical context of the demographic decline.

My methodology also differs from that of previous scholars. First, the use of a “model life table,” based on populations exhibiting similarities to Sparta in their incidence of mortality and in their distribution of ages, allows a close tracking of the group with the greatest military significance, males 20–49 years of age. Second, the model population points toward certain ramifications of rates of decline which allow us to discriminate between different hypotheses on Spartan demographic change.

¹ The following works are cited by author's name: J. K. Anderson, *Military Practice in the Age of Xenophon* (Berkeley and Los Angeles 1970); J. Beloch, *Die Bevölkerung der griechisch-römischen Welt* (Leipzig 1886); G. Busolt, “Spartas Heer und Leuktra,” *Hermes* 40 (1905) 387–449 (invaluable for its distillation of earlier German scholarship); P. Cartledge, *Sparta and Lakonia: A Regional History 1300–362 BC* (London 1979); G. L. Cawkwell, “The Decline of Sparta,” *CQ* 33 (1983) 385–400; U. Cozzoli, *Proprietà fondiaria ed esercito nello stato spartano dell'età classica* (Rome 1979); E. David, *Sparta Between Empire and Revolution* (New York 1981); J. F. Lazenby, *The Spartan Army* (Warminster 1985); A. J. Toynbee, *Some Problems of Greek History* (London 1969); L. Ziehen, “Das Spartanische Bevölkerungsproblem,” *Hermes* 68 (1933) 218–37. The works of Xenophon will be cited by abbreviated title: e.g., *Anab.*, *HG*, *RL*. On the messes with their dues, the *klêroi* and their rents, and Helot labor, see T. J. Figueira, “Mess Contributions and Subsistence at Sparta,” *TAPA* 114 (1984) 87–109. The tables for this article are placed at the end, pp. 212–13.

Third, evidence for total Spartan manpower is juxtaposed with an analysis of the character and size of the sub-units of the Spartan army.

Each reconstructed level of Spartan manpower will in turn be subjected to historical analysis. Spartan strategy and tactical organization were necessarily sensitive to the nature and the tempo of depopulation. In addition, declining manpower reshaped Spartan society, altering the distribution of property and income among classes and thereby affecting their reciprocal definition. Furthermore, profound changes in Spartan life were worked by changes in land tenure, inheritance, valuation of precious metals, and social mobility which arguably occurred in response to declining manpower.

The significance of Spartan depopulation is unquestionable: Aristotle saw Spartan *oliganthropia* "paucity of men" as the cause of the city's downfall (*Pol.* 1270^a33–34). Sparta could not bear a single blow, the defeat at Leuktra.² Alongside *oliganthropia*, however, there existed in antiquity another, a directly moralizing, interpretation of the downfall of Sparta wherein an influx of precious metals after the Peloponnesian War led to a degeneration of the Spartans.³ Consequently modern studies reflect a misalliance of Aristotelian sociology and Plutarchean homiletics, in which increasing acquisitiveness led to falling manpower via an intended inequalization of property. This approach cannot be adapted to the chronology of depopulation as it leaves scarcely two decades for a collapse of Spartan institutions, an upheaval entirely missed by contemporaries, who, for all their disgust over Spartan self-aggrandizement, expected the Thebans to be defeated at Leuktra (e.g., *HG* 6.3.20). So care in distinguishing between determinative factors of varying priority must be exercised. Many social phenomena which struck fourth-century observers as indicative of decadence can be analyzed as results of pre-existing demographic and social stresses. In the following analysis, the rigidity of its economic order is chiefly implicated in Sparta's declining manpower. While the Spartans were unusually unfortunate in the hap-
penstance of the Great Earthquake of c. 465, their response to this calamity (as well as to avoidable losses sustained at the hands of the Athenians) was hampered by their system of dependent labor.⁴

² Cawkwell's article criticizes *oliganthropia* as the cause of Leuktra.

³ For complete citations, see E. David, "The Influx of Money into Sparta at the End of the Fifth Century B.C.," *SCJ* 5 (1979–80) 30–45, esp. p. 38, note 24; cf. Cawkwell 395–97 for a critique of a hypothetical degeneration through the influx of monies.

⁴ An historical analysis of demographic decline must be contrasted with treatments which drain its significance by denying its existence or by assigning it a role as a background factor, occurring at an unchanging rate. For a static population based on selective rejection of the historical record, see Beloch 140–49; also Cozzoli 59–73; A. Fuks, "The Spartan Citizen-Body in the Mid-Third Century B.C., and Its Enlargement Proposed by Agis IV," *Athenaeum* 40 (1962) 244–63, esp. 258–62; cf. Ziehen 218–25; G. B. Grundy,

I. SPARTAN MANPOWER IN THE ARCHAIC PERIOD

A. Spartan Strength During Xerxes' Invasion

A continuous stream of data illuminating Spartan population is lacking. Rather, the evidence provides windows which look out upon circumscribed situations. Therefore, it becomes indispensable to establish as precisely as possible the ramifications of each of these subsets of the evidence. One such body of material concerns Xerxes' invasion. As the following analysis indicates, the Spartan army at Plataia was near its apogee so its strength in 479 is thereby significant as a base line for any investigation.

For the campaign in 479, Sparta committed 5000 *Homoioi* "Equals" (or full citizens), 5000 Perioeci, and 35,000 Helots (Hdt. 9.10.1, 11.3, 28.2; cf. 7.103.3) (see Table I.1, p. 212). A necessary assumption is that the Perioeci and the Spartiates always served together in the same phalanx in which the Perioeci, in the main, provided the rear ranks.⁵ No Perioecic units are ever mentioned—*HG* 5.2.24 is not an example—and the second class rights of the Perioeci ought to be accompanied by secondary service (on the analogy of the Servian system at Rome?). The emphasis in Tyrtaios on *promakhoi* "fore-fighters" urges the same conclusion (fr. 10.1, 21, 30; 11.4, 12; 12.16, 23W). So too does the tradition that the Spartans fought in a single line at Dipsaia (Isoc. 6.99), for it suggests that the majority of Spartiates were otherwise engaged so that only enough for a single row (the youngest and the oldest?) were present, backed up by Perioecic hoplites.⁶

The 5000 Spartiates were the *neotês* "youth," i.e., not all men liable to military service, but only those in their prime (Hdt. 9.12.2; cf. Thuc. 2.20.2, 21.2).⁷ While *neotês* for a segment of the Spartan army appears

"The Population and Policy of Sparta in the Fifth Century," *JHS* 28 (1908) 77–96, esp. 78–81. For an entropic Sparta, declining from the establishment of the *klêroi* (through partition of estates?): Toynbee 300–302, Cartledge 307–9; cf. Ziehen 229–30. Evidence fits an episodic, not a steady decline. Failure to provide for younger sons in partition would have extinguished the Spartiate order in the sixth century, and "Lycurgan" legislation encouraging three or more sons becomes nonsensical against such a background. K. Hopkins, *Death and Renewal* (Cambridge 1983) 98–103 presents high, intermediate, and low fertility populations, which have families with no sons ever born at respectively c. 9%, c. 29%, c. 28%; with no sons reaching age 40 at c. 34%, c. 53%, c. 55%. Note the inter-generational cross-lineage redistribution of *klêroi* implied by even a high fertility context.

⁵ Busolt 387–94, 423; Cozzoli 78–79; Cawkwell 387, who emphasizes the essential datum: the apparent absence of Perioecic dead at Plataia (Hdt. 9.85.2); cf. Toynbee 371–73, Cartledge 208 for Plataia; Lazenby 44–48 in general. Among the Spartiates, the best (and youngest) fighters headed the files (*RL* 11.8), but young Perioeci could also sally out (e.g., *HG* 4.5.14).

⁶ Cawkwell 387, note 9.

⁷ Cf. Hdt. 4.3.1, where *neotês* denotes Skythians of servile parentage who had come of age. Thuc. 2.8.1 uses *neotês* to signify those with no experience of war before the Pelopon-

uniquely here, it is attractive to associate these men with the two-thirds levy customary for Peloponnesian forces during the Archidamian War (Thuc. 2.10.2, 47.2; 3.15.1). Spartiates began continuous service at 20 (cf. Plut. *Lyc.* 17.4), and continued after 60, as demonstrated by a law excusing men over 60 from serving abroad (*HG* 5.4.13; cf. 6.4.17). Thus the end date for service was probably 65. Levies both for specific campaigns and for tactical deployments in the field were conceptualized in terms of the year-classes (*RL* 11.2; *HG* 6.4.17; cf. 3.4.23; 4.5.14, 16; 4.6.10). Since the Perioeci were mobilized in the same fashion, they probably had the same conditions of service.

The two-thirds levy has been viewed as an estimate that men under a certain age constituted that percentage, in other words a primitive demographic calculation.⁸ Why such calculations would have been useful, since units were composed of a mixture of the year-classes, is a mystery. So too, the dissemination of this information despite Spartan secrecy is hard to understand (cf. Thuc. 5.68.2). Because year-classes implemented conscription, it seems plausible that a two-thirds levy meant a call-up of two-thirds of the year-classes, i.e., 30 out of the 45 year-classes available. To think that the two-thirds levy left the substantial reserve of another third is misleading,⁹ since only men over 50 are left out. In dire straits before the first battle of Mantinea, a pandemic levy amounted to men 18–59 (*βοήθεια . . . πανδημὴ ὀξεῖα καὶ οἷα οὐπω πρότερον*: Thuc. 5.64.2). Thereafter, levies 20–54 became customary, which is exactly our expectation if the two-thirds levy of less stressful times had been men 20–49.

Knowing that male Spartiates 20–49 numbered 5000 permits calculations about other age-groups through the use of a model life table. I have used a model population for which expectation of life at birth is c. 27.¹⁰ A figure for the total number of Spartiates c. 480 is provided when the exiled Spartan king Demaratos boasts to Xerxes of 8000 Spartan fighters (Hdt. 7.234.2). Let us assume that Demaratos is referring to all Spartiates capable of bearing arms, to all males 18 or older.

nesian War, namely those maturing since the Five Years Truce of 451. On Thuc. 4.80.3, see below, p. 186.

⁸ E.g., *HCT* 2.38–39, 4.93; Cozzoli 77–80.

⁹ Busolt 415–18.

¹⁰ The Male Mortality Level 4 of the “South” populations in A. J. Coale and P. Demeny, *Regional Model Life Tables and Stable Populations* (Princeton 1966) 782–83 has been used. The “South” populations employ pre-20th-century Mediterranean populations, where infant mortality was relatively high and there was a relatively high percentage of the population over 50, a fairly good approximation of a classical Greek population. On expectation of life at birth, note that in European *royal* families, males could expect to live 32 years (1500–1599); 28 years (1600–1699): S. Peller, “Births and Deaths among Europe’s Ruling Families since 1500” in D. V. Glass and D. E. C. Eversley, *Population in History* (Chicago 1965) 87–100, esp. 98–99.

Eight thousand men over 18 is consistent with males 20–49 numbering 5000. For instance, if Spartiates 20–49 numbered 5200 and those over 18, 7825 (instead of the rounded figures of 5000 and 8000), the size of the two groups would be exactly as predicted by our model population.

Two testimonia seem to corroborate Herodotus' statements on Spartiate numbers in c. 480. The army which Kleomenes I led against Argos in c. 494 was wholly Spartan. Herodotus describes his soldiers as Spartiates, which, unless it is used loosely, suggests that no Perioeci were present (6.76.1).¹¹ Indeed Kleomenes may have struck with maximum speed against the Argives—dispensing with a full mobilization which would forewarn Argos (while the Perioeci gathered from their towns). At Sepeia, Kleomenes dealt the Argives a decisive defeat. Herodotus reports their dead as 6000 (7.148.2), while Plutarch mentions, only to reject, a tradition of 7777 dead (*Mor.* 245D). Later an Argos which controlled a somewhat smaller territory could field an army of 7000 (in 394 at the Nemea River: *HG* 4.2.17). There were probably c. 8000 Argives at Sepeia. Given the decisiveness of the Spartan victory, Kleomenes had with him a force at least equivalent to the 5000 Spartiates of Plataia, if not to the 10,000 Lakonians present with Pausanias in 479.

A Spartan force of 2000 reached Marathon on the day after the battle, having marched 1200 stades in 3 days (*Hdt.* 6.120; cf. *Isoc.* 4.87). While the length or the speed of their march could be exaggerated, the 2000 ought to be a select group of young men in their prime. As the first ten year-classes were used for tasks demanding special agility and endurance (*HG* 4.5.14), it is worth noting that the first 10 year-classes for our hypothetical Spartiate population of c. 480 (established through the model life table) number 1994.

While previous scholarship has tended to view the Spartiates as a small elite perched above a vast class of dependents,¹² on the basis of the number of Spartiates c. 480, this view is exaggerated. From the one half of their produce left them, I have calculated that fewer than 60,000 Helots could be supported at bare subsistence in Messenia.¹³ The Lakonian Helots were a minority (*Thuc.* 1.101.2): there was less *klêros*-land to

¹¹ Most often in Herodotus *Spartiêtai* equals *Lakedaimonioi*, denoting the Spartan state or community (c. 56 times: e.g. 6.85.2). This is possibly an Ionic usage: H. D. Westlake, "Thucydides on Pausanias and Themistocles—A Written Source?" *CQ* 27 (1977) 95–110, esp. 98–99. Similarly, Herodotus cites the Spartiates as a source (c. 5 times), and in a few cases, the Spartans are referred to by others as Spartiates. Around 15 times, the term Spartiate correctly differentiates Homoioi from Perioeci, and of the 15 people named as Spartiates, no one is known to be anything but a Homoios. In about five cases, including this one, the term is used ambiguously, but, even here, odds favor its use as a differentiator. See below, p. 173.

¹² See, e.g., Grundy (above, note 4) 83–86; Cartledge 175–76; David 44.

¹³ Figueira (above, note 1) 102–6.

support them and more land consigned to Perioecic and private property. Although a recirculatory mechanism may have existed returning food to the Helots, the first 20% of any recirculated food probably went to raising the Helot level of food consumption nearer to Greek adult male norms. Therefore the 35,000 Helots who marched to Plataia (7 for each Spartiate) represented a considerable part of male Helots of an age for military service. Though they might be used as skirmishers and for logistical support, the presence of the Helots mainly precluded their aid to the Persians in the event of the dispatch of a diversionary force, as Demaratos suggested to Xerxes the previous year (Hdt. 7.235.1–3). In contrast Spartiate hoplites numbered 8000, and the 5000 Perioeci suggest a similar number for their total hoplite strength. Lakonian hoplites were then c. 16,000 in 479. The Perioeci who did not serve as hoplites probably exceeded 35,000 (see below, pp. 182–84). It is doubtful therefore whether all adult male Helots, unarmed and without military training, surpassed the total of free Lakonians by much. The spectre of Helot numbers was a feature of post-Earthquake (not archaic) Sparta.

B. Sixth-Century Spartan Population

In order to examine the question whether Spartan population was intrinsically entropic, manpower c. 480 must be set within the context of the demography of archaic Sparta. This subject may be approached from two directions. It is possible to consider the population of c. 480 in relation to the highest level supposedly reached by the Spartiates. Alternatively, one may examine archaic Sparta for data relevant to population trends.

The first perspective can take a start from Isocrates who reports that the Spartiates numbered 2000 when they occupied Lakonia (12.255). Although devoid of historical value, his remark vouches for a tradition that Spartiate numbers had advanced from a low ground point. Aristotle *Politics* 1270^A37 reports that the Spartiates once numbered 10,000. The word *murious* is, of course, even more obviously a rounded number than the Arabic numeral 10,000 would be. Since Aristotle is speaking of *oliganthropia* as the cause of Sparta's military decline, one might assume that he is referring to males of an age for military service. Yet Aristotle next speaks of the city having the potential to be filled with men under a different property system (1270^A38–39). So it is possible then that the figure 10,000 could be drawn from a non-military context, namely from the traditions about the number of *klêroi*. The attested 9000 *klêroi* bespeak another approximation, which could have been rounded up to 10,000 in a setting where it made for a more vivid contrast between an earlier superfluity and a later dearth of manpower.

Our knowledge of this tradition on the *klêroi* is owed to Plutarch (Plut. *Lyc.* 8.5–6, 16.1; cf. *Agis* 8.2). It has been assumed that it was contaminated by propaganda associated with the program of land redis-

tribution of Agis IV (4500 lots in Lakonia, hence 9000 in all).¹⁴ Nonetheless, such a supposition ill accords with the appearance of this number in the *Lycurgus*, with its use of Peripatetic constitutional writings.¹⁵ First of all, a tradition splitting the 9000 into groups of 6000 and 3000 suggests an independent existence of the total of 9000, since it finds no echo in the age of Agis IV. The unlikelihood that Lycurgus could have created all 9000, before the conquest of Messenia, seems to motivate variants in which King Polydoros added 4500 or 3000. That Polydoros is visualized as working within the 9000 total is another indication that it was a traditional given. Agis seems to have respected a tradition of 9000 *klêroi*.¹⁶ Since the *klêroi*, whether numbering 9000 or 10,000, existed to support Spartiate warriors, their total seemed to offer a ceiling for Spartiate numbers.

Is this then the relationship of 9000 or 10,000 *klêroi* to maximum manpower c. 480? Originally, equal and discrete *klêroi* were held by each adult Spartiate, for the principle of equal possession of the *politikê khora* could not otherwise be upheld (Polyb. 6.45.3; *isoklêroi*: Plut. *Lyc.* 8.3; cf. Plato *Laws* 684D–E; Isoc. 6.20). Plutarch reports that all passing the *agôgê* had the right to a *klêros* (*Mor.* 238E; Teles fr. III.15 [Hense] = Stob. *Flor.* 40.8). Since all citizens needed to pay their mess dues and the *klêroi* were not large enough to support two members, all adult males originally held one *klêros*. Hence single *klêroi* were the rule when the Spartiates numbered 8000 in 480. The *klêroi* cannot then have been transmitted under conditions of normal inheritance inasmuch as many fathers would survive during the adulthood of one or more sons and no sure provision could be made for younger sons. Some form of state-controlled assignment of the *klêroi* must have operated, for which, unfortunately, only one testimonium exists: Plut. *Lyc.* 16.1 describes the assignment of *klêroi* in infancy. That this allocation was conducted by the elders of each Dorian tribe is so unexpected a motif—they are otherwise unimportant—that it suggests that a genuine tradition is preserved here.¹⁷ Yet allotment at birth cannot have been operative in c. 480 (adult Spartiates = 8000), because over 12,000 *klêroi* would be needed.¹⁸ It must be recognized that many infants allotted *klêroi* would not have survived the first years of life, so that relatively short delays in assigning a *klêros* had substantial effects in lowering the number of

¹⁴ G. Grote, *History of Greece* (London 1888) 2.308–17.

¹⁵ R. Flacelière, E. Chambry, and M. Jumeaux, *Plutarque Vies* 1 (Paris 1957) 112–13.

¹⁶ V. Ehrenberg, "Spartiaten und Lakedaimonier," *Hermes* 59 (1924) 23–72, esp. 44; G. Marasco, "La leggenda di Polidoro e la ridistribuzione di terre di Licurgo nella propaganda Spartana del III secolo," *Prometheus* 4 (1978) 115–27; Ziehen 222–23.

¹⁷ See also Figueira (above, note 1) 87–90; cf. Toynbee 301–5, esp. 301–2, note 1.

¹⁸ By the fourth century, *klêroi* had become inheritable and even alienable: Aris. *Pol.* 1270A18–21. See below, pp. 184–86.

klêroi needed. Accordingly, 9000/10,000 *klêroi* could accommodate more males than their own number by delayed allocation to allow for infant mortality. Thus an important distinction can be introduced, that between the number of *klêroi* and the carrying capacity (the number of sustainable citizens) of those *klêroi*. Aristotle then does not provide evidence that the number of Spartiates ever exceeded the level achieved in 480.

This carrying capacity could be under stress to different degrees: the longer the allotment of *klêroi* was postponed the higher became the expenses of raising sons (no delay past 18 was possible). Nevertheless, for a population of 5000 men 20–49, allocation of 9–10,000 *klêroi* might have been managed at the start of the *agôgê*, at 7. Males not holding *klêroi* were still young children. But infant allocation would even so have been optimal, because it put the least burden on the rearers of sons, so that its suspension may have been used in default of a means of increasing the number of *klêroi*.

The majority of the *klêroi* were created not later than c. 600. In the early sixth century, the Spartans attempted unsuccessfully to create new *klêroi*, along with Helots, on Tegean land (Hdt. 1.66.1–4). Herodotus connects Spartan aggression with their strength in numbers (1.66.1). After the defeat of Argos in c. 546, the Spartans seem to have occupied Kythera and Kynouria (including the Thyreatis) (cf. Hdt. 1.82.2). The greater part of this land, unsuitable for supporting dependent agriculturalists, was occupied by Perioecic settlements. While former subjects of Argos may have continued to live there, many Lakonian Perioeci were probably relocated to these towns. This usage of the new territory argues that the Perioeci were increasing in number and so able to occupy more land. Was the same true for the Spartiates? An answer depends on the status of Thyrea, for it was the best agricultural land taken from Argos. One settlement, Thyrea itself, is first attested when the Thyreatis was handed over to Aiginetan refugees in 431 (Thuc. 2.27.2). Its availability suggests that the site was not Perioecic, and could have been occupied by *klêros*-land previously, since it was scarcely left vacant. Another site, Anthana, is noted in passing by Thucydides (5.41.2), and described as occupied by the Aiginetans in Pausanias (2.38.6). Its eponymous hero was said to have been killed by Kleomenes I (when he expelled its inhabitants?) by Stephanus Byzantius (s.v. *Ἀνθάνα*), who describes it as one of the 100 Lakonian *poleis*. Quite possibly all the Thyreatis was at first reserved for Spartan exploitation, as Pausanias reports (2.38.5). Accordingly, the Spartiates wore Thyreatic crowns at the Gymnopaediai in honor of their victory in and conquest of the Thyreatis (Sosibius *FGrH* 595 F 5).¹⁹

¹⁹ In general, see G. L. Huxley, *Early Sparta* (Cambridge, Mass. 1962) 70–72.

Just as an eagerness to increase the *klêroi* can be demonstrated, so too a willingness to lose men through warfare and emigration can be noted. The Battle of Champions (c. 546) serves as a salient example: in its first stage two picked forces of 300 men fought. Only a single Spartiate survived (Hdt. 1.82.3–7). The Spartans were prepared to sacrifice 300 of their best fighters—a loss which hardly would have been exceeded in a major battle—without any assurance that they would not have to fight the full-scale battle later (as it turned out). The risk of such a loss was made only in pursuit of the major increase in territory, already mentioned. Their decision may be compared with Leonidas' willingness to die with his 300 men at Thermopylae,²⁰ and contrasted with the Spartan demoralization after the capture of only 120 Spartiates at Sphakteria in 425 (Thuc. 4.38.5).²¹ By 419, ironically, it was the Argives who offered to submit the fate of Kynouria to a similar duel (Thuc. 5.41.2). No matter what the outcome, the Argive goal of toppling Spartan hegemony in the Peloponnesos would have been advanced by the death of many irreplaceable Spartiate elite troops.

The late sixth century also saw the dispatch of a colony under Dorieus, Kleomenes' half-brother, who led an expedition to the West (Hdt. 5.42.2). That Dorieus' colonists are described as Spartiates, perhaps as many as 1000, shows that the Spartan authorities did not consider themselves compelled to retain manpower at any cost (above, note 11). As a rule, Spartans were forbidden to leave Spartan territory without permission.²² The number of Spartiates exceeded the number of *klêroi* so that the disaffected opponents of Kleomenes were hardly irreplaceable.

The aforesaid considerations support the hypothesis that Spartan population was increasing during the sixth century, the same conclusion suggested by the necessity to postpone the assignment of *klêroi*. Points of contrast can more than once be adduced from the classical period, for which reason alone, very different demographic circumstances seem to prevail then. Sparta comes, in this view, to appear rather like most Greek *poleis* inasmuch as increasing populations were the rule during the sixth century.

Yet an entirely different set of testimonia has been adduced by Paul Cartledge to demonstrate the opposite, that Spartiate numbers began

²⁰ See Ziehen 225.

²¹ The Spartans also took considerable risks and bore significant fighting against the dogged resistance of Polykrates of Samos (Hdt. 3.54.1–56.1). They also made an alliance with Kroisos (Hdt. 1.69.1–3), and were prepared to honor it (1.83). During the Ionian War, however, and during Agesilaos' campaign in Asia, Spartiates were not committed abroad in such numbers.

²² *RL* 14.4; *Plut. Lyc.* 27.6; *Mor.* 238D; *Aris. fr.* 543; *Isoc.* 11.18; *Nic. Dam. FGrH* 90 F 103z5.

declining perhaps as early as 550 and certainly by 500.²³ Consider the evidence advanced in favor of his hypothesis.

1) Anaxandridas was pressured by the ephors to take a second wife for the purposes of procreation. Yet Herodotus presents this option as completely without parallel (Hdt. 5.39.1–40.2). The ephors acted explicitly out of a concern for the possible extinction of one of the two royal houses, an eventuality which was possible regardless of the demographic situation at Sparta.

2) That a few prominent individuals like the Agiads Kleomenes, Dorieus, and Pleistarkhos failed to replace themselves is insignificant. Lineages continually die out even in contexts of high fertility when mortality remains high. We lack anything approaching a sample. The narrative on the treacherous Glaukos presents the extinction of his line as a terrible judgment on his faithlessness, and thus exceptional (Hdt. 6.86δ).

3) The phrase *andros Spartiatou* in Thuc. 1.132.5 does not mean that it was for his procreative potential that Pausanias received cautious treatment: three sons eventually reached manhood so that, by this time, he had fathered his share of successors.²⁴ Rather the point is that the Spartans were hesitant to countenance such charges against a Spartiate as compared to a Perioecus.

4) One or two isolated tombstones bearing women's names (*IG* V 1.713, 714) are not evidence for the removal of a "Lycurgan" prohibition against such a practice (Plut. *Lyc.* 27.3; text corrupt) and thereby for more status for women because of their procreative capacity or scarcity. Would a law rescinded before 500 be remembered as Lycurgan? Many explanations are possible for two inscriptions: e.g., they may represent breaches of the law, a special allowance (for priestesses?: *Lyc.* 27.3 [emended]), or the women may not have been truly Spartiate.²⁵

5) Leonidas used the principle of the existence of sons for the enrollment of a part of his 300 men, so that he wanted to preserve lineages (Hdt. 7.205.2). Yet, the mere existence of a son in a context of high mortality hardly guaranteed preservation of the line. Possibly Leonidas could not leave Spartiate families without a male member during the Karneia on ritual grounds. But, if he acted out of a philogenerative scruple, it is striking that his example was never followed in later Spartan history, when a dearth of manpower is well-attested. For example, it

²³ Cartledge 308–10; also Toynbee 314.

²⁴ See M. E. White, "Some Agiad Dates: Pausanias and his Sons," *JHS* 84 (1964) 140–52.

²⁵ The emendation *λεχοῦς* removes the discrepancy: R. Flacelière, "Quelques passages de vies de Plutarque," *REG* 61 (1948) 67–103, 391–429, esp. 404–5; cf. P. Cartledge, "Spartan Wives: Liberation or Licence," *CQ* 31 (1981) 84–105, esp. 95.

would have been useful for the boards of *sumbouloi* who accompanied Spartan commanders abroad, since they were exposed to a high risk of death (cf. Thuc. 2.85.1; 3.69.2; 5.63.4; 8.39.2; 8.41.1; *HG* 3.4.2–3; 5.3.8; Plut. *Ages.* 6.3).

Once it has been established that Spartan population had not begun to decline before 480, two other conclusions follow. Spartan population was not intrinsically entropic under *archaic* conditions. The Spartans perhaps used commonsense criteria for evaluating the success of their institutional order. Among these will have been the ability of their system to accommodate a growing or, at least, a stable population. To reiterate, Sparta was like most successful sixth-century *poleis*: its manpower grew. Evidence is not good enough to allow us to determine whether this growth continued down to 480. But this possibility remains a hypothesis deserving consideration. In the second place, a non-entropic Sparta must have undergone a turning point from which a decline in numbers initiated.

II. SPARTAN POPULATION DOWN TO THE PYLOS CAMPAIGN

A. The Spartan Army at Pylos

Thucydides' account of the Athenian landing at Pylos provides the next data set on Spartan manpower. The Spartans protecting the island of Sphakteria were allotted from all twelve *lokhoi* "battalions" of the army (4.8.9; see Table IIA, p. 212). It is unlikely that this sortition broke up units, so that the smallest tactical unit, the *enômotia* "platoon," must have been the basis for the allotment.²⁶ Otherwise men could not be drawn from all the *lokhoi*. The detachment on Sphakteria was relieved periodically, and the group cut off by the Athenians happened to number 420. This suggests a size for the *enômotia* of c. 35, a number comparable to its size at Mantinea, 32, and at Leuktra, 36.²⁷

Our analysis can be extended, because a good deal can be inferred about the Spartan army at Pylos. When the landing at Pylos was reported, the Peloponnesian army returned from Attica. Once in Lakonia, the Perioecic soldiers went home. The Spartiates along with the nearest Perioeci then marched on Pylos (4.8.1). The context shows that the

²⁶ Beloch 135; Toynbee 377; see also Anderson 227–28; Lazenby 114, who notes that the c. 30 men overwhelmed in the first Spartan outpost may have been an *enômotia* (Thuc. 4.31.2). The *pentêkostus*, the next largest unit, contained 4 *enômotiai*, so that a *pentêkostus* from each *lokhos* would create too large a garrison.

²⁷ Busolt 415–16; Toynbee 319, 368–71; and K. M. T. Chrimes, *Ancient Sparta. A Re-examination of the Evidence* (Manchester 1949) 388–91, complicate their treatment of the *enômotia* by various suppositions that its strength was related to the number of year-classes it contained. Hence 35 year-classes mobilized renders an *enômotia* of 35. The model life table shows that such a distribution of ages is impossible for a high-mortality context. The 20 year olds for a population of 5000 males 20–49 would be 198, but the 45 year olds 125, the 50 year olds 111, and the 54 year olds fewer than 100.

Perioeci nearest to Sparta are meant: the Messenian Perioeci joined *en route* or at Pylos. The rest of the army made a slower march (*bradutera* . . . *ephodos*, 4.8.1). Only 5 or 6 days passed before the force on Sphakteria was trapped, so that some of the Perioeci from eastern and southern Lakonia probably did not arrive in time to contribute men to the detachment trapped on Sphakteria. Similarly, Sparta's allies were summoned as soon as the army returned to Sparta (4.8.1), but Thucydides does not mention them until after the naval defeat of the Spartans (4.14.5).²⁸ For this reason, if for no other, sizes of the successive detachments on Sphakteria varied, as Thucydides observed (4.8.9): the absence of Perioeci had an uneven incidence. Nor was the army at Pylos a special levy *en masse*. Indeed Thucydides emphasizes that the Spartans did not anticipate difficulties in dislodging the Athenians, but saw the landing as an opportunity to inflict a defeat on them (4.5.1). Thus the Spartan army was probably the two-thirds levy, normal during the Archidamian War, the same force returning from Attica.

In this case the army of 6 *morai* (composed of 196 *enômotiai*) would have had 6720 men (Table I.3A, p. 212), to which may be added 600 Perioecic Skiritai (see below, p. 188) for a total of 7320 (cf. 12,000 in DS 12.61.2, with allies?). Of the 292 men captured on the island, 120 or 41% were Spartiates (4.38.5). Such a ratio is quite striking. At Plataia, Spartiates and Perioeci made approximately equal contributions to the army. Now the contribution of the Perioeci had grown to 59% (Table III.2, p. 212).²⁹ On the basis of the Thucydidean narrative of the fighting, nothing argues that the Spartiates were any more exposed to mortal danger than the Perioeci, and, accordingly, that their percentage of the survivors is skewed (4.32–37.1). A captured Spartiate said in self-defense that an arrow could not distinguish a *kalos kagathos*, by which he presumably meant a Spartiate, from a Perioecus, the latter less constrained by the Spartan *êthos* (Thuc. 4.40.2).³⁰ Moreover, the number of

²⁸ In a careful reconstruction of the campaign's chronology, J. B. Wilson, *Pylos 425* (Warminster 1979) 69–72, 124–26, has the Spartans depart 8 days before the defeat of their fleet and arrive on the sixth day before. For him, the third relay of troops reached Sphakteria on the second day before the defeat, when it was cut off. I suspect that those cut off were there from the third day before the defeat—perhaps then the second relay—since the *lokhoi* had been making exhausting attacks on Pylos from that day in relays so that a further sortition might send exhausted men to Sphakteria or have returned men thence directly into an assault. In either case, the time needed by some Perioeci in the south and east of Lakonia ought to have delayed them just enough.

²⁹ Toynbee 383 (cf. H. T. Wade-Gery, "The Spartan Rhetra in Plutarch, *Lycurgus VI*," *Essays in Greek History* [Oxford 1958] 37–85, esp. 83–85) hypothesized a wholly Perioecic *lokhos* paired with a Spartiate *lokhos*, supplemented by additional Perioeci, who according to Wade-Gery made up a year-class of 192. Both the 192 and the two *lokhoi* are unnecessary complications.

³⁰ Busolt 407–9; Toynbee 382–83.

Spartiates is probably overestimated, since not all the Perioeci may have reached Pylos.

B. Sparta and the Great Earthquake

Let us use for now the ratio of 59 Perioeci to 41 Spartiates. In the 6 *morai* there were then 2755 Spartiates 20–49 and 3965 Perioeci (Table I.3A, p. 212). The Spartiates had declined from 5000 to 2755 (45% or –1.1% a year) in the critical age group from 20 to 49 (Table IV.1A–B, p. 213). Such a fall-off is unlikely to have been the result of a change in procreative habits. Using our model population, one can extrapolate certain ramifications of such a change and these are quite unlikely. While the birth rate and death rate balance each other at 37.03 per 1000 in a stationary population, in a population which has changed its reproductive patterns so as to decline 1.1% annually, the birth rate must fall sharply to 26.09. The gross reproductive rate for each female, the average number of births for *every* female, (on the rather arbitrary assumption of a median birth by a mother 27 years old) would have dropped from 2.238 to 1.730, a decline in fertility of about 23%. The average age of the population would have advanced from 28 to 33 years old. Males between 20 and 30 would have declined 30%, as would also the number of males under 20. It may be taken for granted that such a change in reproductive behavior (in a relatively short period), while not impossible, is unlikely to have happened without leaving some trace in our sources. Moreover, as shall be shown shortly, the decline in Spartan manpower between Plataia and Pylos took place in a time frame considerably shorter than the 54 years from 479 to 425.

As a change in basic procreative behavior appears unlikely, only two other influences are worth considering. One is that the number of descendants of the Spartiates of c. 480 did not change, but that many of these successors had experienced downward social movement. They had become Hypomeiones “Inferiors” (see below, pp. 196–97), losing their status as full citizens. This does not appear to be a viable alternative for the period leading up to Pylos.³¹ Disenfranchisements on this scale would have been noted in Thucydides, probably by one of the speakers before the outbreak of war, since such a social dislocation would necessarily condition each side’s expectation of its prospects.

The second explanatory option is a catastrophic incident of increased mortality which took off many of the Spartiates without affecting the underlying pattern of fertility. A possibility lies ready to hand in the Great Earthquake of c. 465. The sources agree that many Spartans were slain. Of the specific comments three are especially useful and their pattern of citation suggests that they go back to a single account of the

³¹ See Ziehen 228–29.

Earthquake, perhaps that of Ephoros. 1) Only five houses remained standing at Sparta (perhaps near the epicenter of the quake): Plut. *Cimon* 16.4; Polyaen. 1.41.3; Ael. *VH* 6.7. 2) Over 20,000 of the Lakedaimonians were killed: DS 11.63.1. 3) The ephebes were killed when the gymnasium collapsed, while the *neaniskoi* escaped harm fortuitously: Plut. *Cimon* 16.5. Number 1) serves as a vivid suggestion of the chief cause of mortality, the collapse of buildings. Thereby some have thought that the victims were disproportionately female.³² In the unlikely event that supposition were true, it would have taken a longer period of time for a recovery. In datum 2), the rounded estimate 20,000 is chiefly notable for its restriction to Spartiates and Perioeci. To put it in context, observe that the total Spartan population in 479 did not exceed 25,000. Consequently, many of the Earthquake's victims will have been Perioeci, since the Spartiates were not annihilated. Circa 400, during the conspiracy of Kinadon, albeit a time of a much lower Spartan population, there were many more Perioeci and Helots in the marketplace at Sparta than Spartiates (*HG* 3.3.5). Sparta was a center of regional exchange,³³ so the Perioeci might well have been present in sufficient numbers when the Earthquake occurred so as to compose a significant share of the 20,000 dead (50%??). The Perioecic towns nearest the epicenter of the Earthquake might also have suffered greatly.

Regarding point 3), one might observe that the 18 and 19 year olds, who were presumably the ephebes mentioned by Plutarch, would have numbered c. 419, if Spartiates 20–49 numbered 5000. The death of these young men would counterbalance any supposed disproportionate loss of females. It was militarily significant in the long term because the youths had no chance to sire successors. Next consider the Earthquake's sequel, a revolt by the Helots, which exposed the Spartans to losses in unfamiliar and risky guerrilla warfare. For instance, a force of 300 men was annihilated in the Stenyklaros Plain during the first stages of the rebellion (Hdt. 9.64.2). And total losses were doubtless several times greater. Again the incidence of this mortality was heavier for males.

If one accepts this admittedly anecdotal evidence, the Earthquake appears an exogenous factor of sufficient magnitude to have caused the steep decline in the number of Spartiates attested by the size of the

³² Ziehen 232–35, who can cite in support only the anecdote that Anaximander (cf. Cic. *De Div.* 1.50; Pliny *NH* 2.81.191) advised the Spartans to stay outdoors as an elaboration of the historical fact that Spartan males happened to be outside at the time of the quake. Surely the point of the story, as with much else of the “scientific” advice of the early philosophers, was that it was not taken. Cartledge (309) sensibly observes that the prediction is evidence for a sixth-century earthquake. An argument presented below (pp. 180–81) suggests a growing Spartan population before the war.

³³ See Busolt 389–90.

Spartan army at Pylos and later at Mantinea.³⁴ Yet, before examining the socio-political ramifications of such a catastrophic episode of mortality, it will be useful to introduce several hypotheses about the Spartan army in the Pentekontaeteia.

C. A Reorganization of the Spartan Army

All serving Perioecic hoplites are unlikely to have been present when the garrison at Sphakteria was cut off in 425. If two or three Perioeci were missing for each *enômotia*, that unit will have otherwise had a strength of c. 37 or 38. The *pentêkostus* of four *enômotiai* would then have had a complement of 148 or 152. When such a size is restored for the *pentêkostus*, some interesting possibilities come into play for the organization of the Spartan army in this period. The notorious disagreement between Thucydides (1.20.3) and Herodotus (9.53.2) over the existence of a Pitanate *lokhus* at Plataia has been explained by postulating a reorganization of the Spartan army wherein 5 territorial *lokhoi* (or *morai*) were replaced by the 6 *morai*, the army attested at Mantinea and assumed for Pylos.³⁵ Such a supposition takes on credibility from the evidence for a Spartan army of 5 *lokhoi* or *morai*, derived from Aristotle's *Constitution of the Lakedaimonians* (Aris. fr. 541).

The subdivisions of most Greek hoplite armies were merely organizational, necessary for correlating political and military units for mobilization. The Spartans, however, had to create reasonably equal sub-units, since their army performed more complex battlefield manoeuvres than other Greek forces. All units on the same organizational level had to be nearly interchangeable. If a reorganization of the Spartan army is postulated for the Pentekontaeteia, then that change was necessitated by manpower losses. The high mortality associated with the Earthquake will have had uneven effects on the 5 *obes* "wards" which provided the Spartiates for each of the territorial *lokhoi*.

A basic unit of the reorganized army was the *pentêkostus*, formed out of 4 *enômotiai*. The term means fiftieth, presumably that fraction of the Spartan army. Yet, in the reconstruction of the Spartan army at Mantinea (see pp. 187–90 below), there are only 48 *pentêkostues*. Scholars have attempted to solve this puzzle by adducing Greek sloppiness about enumeration or by suggesting that *pentêkostus* originally meant fifty men—not fiftieth.³⁶ Rather, one might seek the missing two-fif-

³⁴ Toynbee 349–52 suggests a Spartiate mortality of 50%.

³⁵ Wade-Gery (above, note 29) 74–77, but his suggestion that the Perioeci were now first brigaded with the Spartiates may be resisted; see also Toynbee 373–75, Cartledge 256–57, 396; cf. Lazenby 48–52, 66–69. The Pitanate *lokhus* was commanded by the taxiarch (= polemarch) Amompharetos (9.53.2; cf. 7.173.2), who is certainly not an *eirên* in 9.85.1.

³⁶ Wade-Gery 80–85; Anderson 233–34; Toynbee 391–92, postulating that the term was adopted from the 5-*lokhus* army (for which it is unattested).

tieths among the Hippeis, that elite body of young men numbering 300. It is striking that the full *enômotia* restored for Pylos gives a *pentêkostus* of 148–152. The Hippeis would be equivalent to two *pentêkostues*: the two needed to fill out the total of 50 implied by the name itself (see below, note 38). Accordingly, if the strength of the Skiritai was 600 at the reorganization (their number at Mantinea), we can understand why they were a *lokhos*, 4 *pentêkostues* of c. 150.

Each of the *morai* in the army which has been restored for Pylos (with an *enômotia* of 37 or 38) had 1184–1216 men; the 6 *morai* had 7104–7296 (Table I.3B, p. 212). The Spartiate complement of the *morai* has not changed: all the Spartiates of the requisite age groups were present at Pylos. The Perioeci of the *morai* would, however, number 4483–4675. If 600 Skiritai are to be reckoned (with caution) among the 5000 Perioeci of Plataia,³⁷ the Perioecic force at Pylos equalled or very possibly exceeded the Perioecic numbers at Plataia. Yet it has already been suggested that there were many Perioecic casualties in the Earthquake. Natural increase must have aided their recovery. What then of the Spartiates: are we to imagine a similar growth in numbers after the Earthquake? A tentative answer in the affirmative may be proffered.

If the Spartans reorganized their army in response to the Earthquake/Revolt, the change occurred well before the Peloponnesian War or Thucydides would hardly have been so adamant on the non-existence of a Pitanate *lokhos*. The most attractive juncture for such a reordering, which cannot follow the 30 Years Peace in any event, was after the evacuation of Ithome c. 455. If this hypothesis is correct, almost all the decrease in the number of Spartiates between 479 and 425 had already occurred by 446 (at the latest), which is another indication that the Earthquake/Revolt must be implicated as a cause. By the same token, Spartiate numbers do not appear to have fallen much between the reorganization and Pylos. This conclusion is surprising inasmuch as the Pylos campaign happened in the seventh year of the war. At the reorganization the *enômotia* numbered 37 or 38, and it may still have had this strength in 425, as the partial army at Pylos had an average *enômotia* of 35. To this decrease of one, or, at most, two men for each *enômotia*, a decline of, at most, 300 might also be added, on the assumption that the 300 Hippeis were incorporated into the *morai* to compensate for a decline among the hoplites of the *morai*.³⁸

³⁷ They fought in the line at Mantinea, but also shared characteristics with light-armed troops (*RL* 12.3; *Cyr.* 4.2.2; *DS* 15.32.1). See F. Ollier, *Xénophon: La république des Lacédémoniens* (Paris 1934) 62–63.

³⁸ A history of the Hippeis parallels that of the rest of the army. They were originally a separate detachment, led by the three Hippagretai, whose very number indicates the existence of the unit at the time of the tribal army (*RL* 4.3; *HG* 3.3.9; Hesych. s.v. ἱππαγρέτας). Later the 5 Agathoergoi derived from their ranks show an adaptation to the army of

The possibility that Spartan numbers had grown between the reorganization and the outbreak of the war ought to be canvassed. In that case, losses could have been heavier during the first part of the Archidamian War, masked by an intervening increase between the reorganization and Pylos. Ancient confirmation of this hypothesis may be found in Thucydides' observation that a *neotês* in the Peloponnesos, inexperienced in war, militated in favor of a decision to go to war (2.8.1). The conclusion that the Spartiates experienced a growth in numbers during the Pentekontaeteia may be juxtaposed with my earlier suggestion that archaic Sparta enjoyed a steady growth. Rather than being demographically entropic, Sparta may have seen regular growth in manpower. The Earthquake/Revolt interrupted this pattern, not terminating it, but lowering the whole population.

D. The Demographic Effects of the Earthquake

Populations with a low life expectancy at birth can increase only slowly. If one assumes that the system of *klêroi* was put in place c. 600, a population of 9000 *klêros*-holders had increased to c. 12,000 by 479. This is only the crudest of estimates, but it suggests a "background" annual rate of natural increase for the Spartiates of 0.2%. Comparative material suggests that 0.5% represents a reasonable upper extreme.³⁹ In any case there is no certainty that the Spartiate population had continued to grow during the early fifth century. In the 34 years between the Earthquake and 431, a total growth of 7–18% is the range of

5 *lokhoi* (Hdt. 1.67.5). When the Spartiates of prime military age were as many as 5000, detaching such shock troops was otherwise insignificant. Later, when the proportion of Spartiates to Perioeci changed, the Spartans could not afford a tactical unit outside the *morai*, because it made the depth of the Spartiates across the front of the phalanx shallower. In Thucydides' treatment of the battle of Mantinea, the Hippeis are not enumerated as a discrete unit. Hence the Hippeis had been incorporated in the *morai*, and became the *agêma* of the first *mora* (see Beloch 134; Anderson 245–49). The *agêma* stood by the king (RL 11.9, 13.6), just as the Hippeis are known to have done (Thuc. 5.72.4). As such, they were equivalent to two *pentêkostues*, increasingly over-strength. When the *enômotiai* were halved in number, the Hippeis were still two over-strength *pentêkostues*. ΣArist. *Lys.* 453 speaks of 4 *lokhoi* (= *enômotiai*) which the king uses. By the time of Leuktra, they cannot be envisaged as a separate unit, since the subtraction of 300 Spartiates from the *morai* would leave only 100 Spartiates in each *mora* of 576. The Hippeis probably fronted the phalanx (192 men stood in the first row). In HG 6.4.14, *Hippi* is not to be emended to *Hippeis*, since it is unlikely that 300 Hippeis comprised 75% of the Spartiate dead. The "Hippi" are enumerated among the dead after the polemarch Deinon (of the first *mora*?), Sphodrias (and his son) of *hoi peri damosian* "tentmates" (HG 4.5.8), and the *sumphoreis* (= *parastatai*, HG 4.3.23) of the polemarch. Only those in immediate proximity to the King are named. The role as the king's bodyguard was taken by special groups of 50 or 100 (Hdt. 6.56; Plut. *Ages.* 18.2–3; HG 4.5.8, 7.4.23–24; cf. 5.4.33). Note Cozzoli 92–95.

³⁹ T. J. Figueira, *Aegina* (New York 1982) 47–49.

increase the Spartiates could have achieved under optimal conditions.⁴⁰ The view, however, that the losses suffered in the Earthquake/Revolt could have been repaired by the 420s is unjustified.⁴¹ The measures undertaken by the Spartans to increase the production of children were likely to have been supportive of this level of increase rather than bettering that rate significantly.⁴² Spartan policy affected marginal behavior, which was, in any case, much more visible socially. Some of these measures may date from the period after the Earthquake.⁴³ Therefore, it can be accepted that Sparta's population recovered somewhat after the Earthquake/Revolt and it is appropriate to consider next the differential experience of the Spartiates and the Perioeci. The former could not recover their level c. 480, while the latter stood at very near that level even after six years of war.

While the Earthquake had a disproportionate effect on Sparta, as compared to its impact on the Perioecic towns, this effect was intensified by the inflexibility of Sparta's social order. The Perioecic hoplites were only a fraction of the total Perioecic population of an age for military service. In most *poleis* the hoplite class was well below 50% of the adult males of military age. For the Perioeci special aspects of their situation made even fewer of them capable of service. The Perioecic hoplites did not have *klêroi* to underwrite service, but they fought in the same formations and on the same schedule as the Spartiates. Their service was therefore more demanding than that of other hoplites, with whom they shared the expenses for panoply, rations on campaign, slave attendants, and support for their families in their absence. But the Perioeci

⁴⁰ For less than optimal conditions: Ziehen 231–37.

⁴¹ Cf. Cartledge 222, 311.

⁴² Some of these laws are described as Lycinian, which means no more than that they were in place when the first written accounts of Sparta were composed. Strong social pressures for conformity were harnessed to stigmatize celibacy through public degradation (Plut. *Lyc.* 15.1–3; *Mor.* 227E–F; *RL* 9.5; Klearkhos fr. 73 [Wehrli]), and celibacy was illegal (Plut. *Lyc.* 15.1; *Lys.* 30.7). Men with three sons were exempted from *phroure* “campaigning” or “garrison duty,” and those with four from taxes (Aris. *Pol.* 1270b1–4; Ael. *VH* 6.6). Older men married to younger wives were allowed to permit younger males to father children on them, who would remain in the family of the husband (*RL* 1.7; Plut. *Lyc.* 15.12). Men were also allowed to share their wives with other Spartiates for the purpose of letting them produce heirs (*RL* 1.8–9; *Lyc.* 15.13). But Spartan wife-swapping turns out to be rather elusive: no Spartan is ever named as having been born of such a union. Its prominence in Xenophon (and later the Peripatetics?) is owed to its emotive force as a symbol of Spartiate cohesiveness, rather than its frequency. The Spartans were restricted from approaching biological limits for fertility by the normative character of the monogamous union.

⁴³ The exemption from taxes and exemption from service abroad is not earlier than the later fifth century, when such responsibilities started to become significant, and the legal procedures against celibacy and late marriage seem to be classical (Poll. 3.48, 8.40; Stob. *Flor.* 67.16).

engaged in more sophisticated manoeuvres, beyond the capacities of other hoplite armies (*RL* 11.5–10; cf. *Hdt.* 7.211.3; *Thuc.* 5.71.3), which the Spartan system of sub-units and junior officers made possible (*Thuc.* 5.66.4). Not only did they need to give more time to military training, but they also required the economic freedom to accompany the Spartiates, following quickly after them (*HG* 3.5.7; 5.1.33), or the Spartiates would have forfeited the advantage of their own freedom from agricultural work.⁴⁴

Thus an apposite parallel for the Perioecic hoplites is the specialized corps fielded by other cities.⁴⁵ At Mantinea, the Argives deployed a picked battalion of 1000 (*Thuc.* 5.67.2), made up of youths who could subsidize themselves (*DS* 12.75.7). Compare an Argive army of 7000 in all at the Nemea River in 394. On two occasions, the Eleans had an army of 3000, while fielding picked units of 200 and 400 (*HG* 4.2.16; 7.4.13, 16; cf. *Thuc.* 2.25.3). The Arkadian League fielded a picked force of 5000, the Eparittoi (*DS* 15.62.2, 67.2; *HG* 7.4.22, 23, 33, 34, 36; 7.5.3). The assembly of that rather conservative polity was the Ten Thousand so that their hoplite levy probably numbered at least 10,000.

The data on the potential of Lakonia for supporting hoplites and the number of supposed Perioecic *klêroi* confirm this interpretation. Aristotle estimates that Lakonia could support 1500 cavalry and 30,000 hoplites (*Pol.* 1270A29–30).⁴⁶ The pool of available Spartan manpower c. 480 was 16,000, so that Aristotle was thinking, it appears, of a socio-economic order for Lakonia where hoplites would be raised as in other Greek cities. Lycurgus is said to have created 30,000 lots for Perioeci in Spartan territory (*Plut. Lyc.* 8.5). Such a tradition prompted Agis IV to think of 15,000 Perioecic *klêroi* in Lakonia (*Plut. Agis* 8.1), although the inability of Kleomenes III to mobilize more than 4000 Perioeci suggests that his expectation was unreasonable (*Plut. Cleom.* 11.3). Compare these ancient views with my estimate that the Perioecic land in Messenia might support as many as 60,000 people at bare subsistence.⁴⁷ Accordingly, one realizes that many Perioeci, who would have served as hoplites in other cities, were below hoplite “census” at Sparta. Thus the Perioecic losses in the Earthquake were also incurred by sub-hoplite Perioecic classes, which diluted their impact. As the lineages of hoplite Perioeci became extinct, there were many Perioeci below the hoplite

⁴⁴ Agesilaos distinguished all his Spartans (not just the Spartiates) from the allies by their freedom from *banausia* (*Plut. Ages.* 26.6–9; *Mor.* 213F–214A; *Polyaen.* 2.1.7); these Perioeci were men of leisure, i.e., large landowners. See Busolt 390–97 for earlier scholarship on Perioecic hoplites.

⁴⁵ Herodotus saw them as *logades* “picked men,” 9.11.3.

⁴⁶ Polybios juxtaposes the Arkadians and Lakonians as the two most numerous peoples of the Peloponnesos (2.38.3).

⁴⁷ Figueira (above, note 1) 102–3, esp. table 3, p. 103.

census to inherit (or otherwise procure) their estates or succeed to their socio-economic status. Over generations, Perioeci must have moved in and out of the hoplite class through social mobility. So Perioecic hoplites could increase by interclass recruitment. The Perioeci recovered from their losses in the Earthquake/Revolt through natural increase and interclass mobility. The Spartans opted for repairing the human damage of the Earthquake/Revolt through a slow recovery by procreation. They did not augment their numbers by adlecting new members of the Spartiate class. To understand why they eschewed this comparatively fast method of recruitment of new Spartiates will entail that we examine Spartan land tenure.

E. The Economic Effects of the Earthquake

Normal partible inheritance does not appear to have been in place at Sparta in 480 (see above, pp. 171–72). Then the number of Spartiates approximated the number of *klêroi*, so that single holdings must have predominated. Reassignment of *klêroi* at their holders' death was the rule. At some point the Spartans moved from this system to an inheritance system, as noted in the moralizing accounts of Sparta's decline. The inheritance system was in place when the philogenerative legislation cited above was framed since the laws establish that "lent" wives did not create heirs to the husband's estate (*RL* 1.9). Both the formalization of wife-sharing and changes in land tenure may be contemporary.

An effect of the Earthquake will have been to put a large number of vacant *klêroi* into the hands of the Spartan government. Even if the government had given each Spartiate a *klêros* from infancy, many would have remained unallotted. It is doubtful whether the creation of a group of managers to supervise such estates was conceivable. Thus the Spartans could either expand the Spartiate class until they reached the ratio of one Spartiate/*klêros* again, or allow the holding of more than one allotment. They seemed to have chosen the latter alternative. While a narrow construction of individual self-interest might have played a role, another compelling reason made multiple holdings of *klêroi* attractive. Elsewhere, I have discussed the inputs necessary for producing the agricultural products needed to support the rents of the *klêroi* and so the system of messes.⁴⁸ There I presented the hypothesis that labor was the input most constrained by economic circumstances. At the lower end of the range for the fertility of Messenia under available methods, the man-hours, especially those which had to be provided by adult males, fell short of the labor requirements. In my model much depended on the ability of the Spartans to extract work from their Helots. Accordingly, while Messenia, to be specific, was under normal condi-

⁴⁸ Figueira (above, note 1) 104–6.

tions able to support the rents—circulation of food from Spartiates augmented the number of Helot workers and strengthened their willingness to work—the *klêroi* were vulnerable to disruptions of their labor force. In the Revolt, it will have been adult male Helots, numbering thousands, whose exertions were irreplaceable, that left the land, were killed, or were allowed to emigrate.

The incidence of this interruption of production would have been uneven, although vacant and Messenian *klêroi* would have been particularly affected. Hence a policy in which *klêroi* passed to the relatives of the deceased would have been useful insofar as multiple holdings compensated for the temporarily lower productivity of *klêroi* affected by Helot defection. Sparta opted for a demographic policy leading to a slow natural increase in Spartiate numbers rather than enacting enfranchisements to restore their strength of c. 480. Such an incremental rise among Spartiates depended on a commensurably slow recovery in the number of male Helot workers. If this hypothesis is correct, it is a vivid demonstration of the interdependency of Spartiate and Helot.

Since rents presumably continued to be levied on all *klêros*-land, the number of Helots was too low for the needed work. At the same time, Spartiates had decreased so much that, from a security standpoint, there were too many Helots. The fewer Spartiate consumers for the rents left more food available for retention by or recirculation to the Helots. The shift in the population ratio toward the Helots started by the catastrophic mortality for the Spartiates might even worsen, because fewer Spartiates proportionately translated into more Helots absolutely.⁴⁹ By the early years of the Archidamian War incremental or marginal methods were inappropriate for defusing the threat of too many Helots: neither significantly altered the disproportion between Helot and Spartiate. A reordering of the political relationship between the classes at Sparta might have given the Helots better reasons to cooperate with Spartiate leadership. But the slightest redefinition of collective rights raised the spectre of opening the flood gates to democracy. A part of the Spartan dilemma lay in the fact that the Athenian counter-model to their own polity was so inadaptably to their situation. Athenian support for the Messenians may have led to their assimilation of populist socio-political aspirations. Once, members of the highest circles of the elite like the Regent Pausanias (Thuc. 1.132.4, cf. 128.1) and perhaps King Kleomenes I envisaged fundamental changes,⁵⁰ but that was before the Earthquake, before room for manoeuvring by the Spartans had been

⁴⁹ In the late third century when Spartiate numbers were very low, the Helots paid 5 mn. to liberate one of their number (6000 in all: Plut. *Cleom.* 23.1).

⁵⁰ W. P. Wallace, "Kleomenes, Marathon, the Helots, and Arcadia," *JHS* 74 (1954) 32–35.

curtailed by their own decline. While altering the status of the Helots had been attractive to those wishing to increase royal authority, at the end of the fifth century only revolutionaries like Kinadon spoke of such basic changes. And the surviving accounts of Pausanias and Kleomenes see them from a post-Earthquake vantage point.⁵¹

The Spartiates thought rather of extreme brutality than of widening the political process. They feared the *neotês* of the Helots, those of military age (Thuc. 4.80.3). Therefore they induced 2000 Helots to present themselves as having aided the state in *polemoi*, and then, after honoring them, made away with them secretly (Thuc. 4.80.3–4; cf. Plut. *Lyc.* 28.6; DS 12.67.3–4). By *polemoi*, it is likely that military activity in the 450s and 440s may be meant, and the proclamation might have been a precautionary measure of the beginning of the war. The intention to liquidate all the honorands, which we cannot be certain was conceived consciously, could have followed the proclamation, as the war began to disappoint the Spartans. The circumstances of its implementation were mysterious and thereby individual (massacres tend to find their own publicity). The Peloponnesian War provided numerous opportunities for attrition and possible assassination.

The dispensation for the transmission of property by inheritance was marked by naiveté in its assumptions about the success achieved by individuals in ensuring a single Spartiate heir. The legislation on procreation and marriage implies that a failure to maintain succession from father to son was a moral failing rather than a common biological happenstance (above, note 4). Spartans came to believe that the same number of *klêroi*, descending from father to son, had been preserved since Lycurgus (Plut. *Agis* 5.2), although such a stability of lineages is biologically impossible, and clearly inconsistent with the decline in Spartiate numbers after the Earthquake. Divergence from this standard was held as moral or political failure (cf. [Plut.] *Mor.*, *Comm. in Hes.* 37).

Since they anticipated that most Spartiates would be able to procure heirs, the Spartans tried to legislate a ground line below which their numbers ought not to fall. The *arkhaia moira*, to be interpreted as the original *klêros* held by each surviving lineage after the Earthquake, could not be alienated (Aris. fr. 611.12; Plut. *Mor.* 238E).⁵² With that allotment each Spartiate could provide for his eldest son as successor. Younger sons would have provision made for them from the remainder of the estate (cf. *RL* 1.9).

⁵¹ The *eleutherôsis* and *politeia* offered to the Helots by Pausanias was more than a simple preview of the later status of the Neodamodeis, because of its application to all Helots. Cf. J. F. Lazenby, "Pausanias Son of Kleombrotos," *Hermes* 103 (1975) 235–51, esp. 246–47.

⁵² Toynbee 338; Ziehen 229–30.

When confronted with the prospect that partition of his estate would disenfranchise his younger son(s), the Spartiate was at a disadvantage compared with other Greeks, who could adopt a variety of economic roles for increasing their property in order to ensure that their successors kept an inherited status. Even Spartan land, however, which alone produced socially accepted wealth, had its income fixed. The Spartiate had one sure technique: marry his sons into the families of other property holders. Thus, Spartan women, as the means of access to maintaining and increasing rank, retained a status beyond the usual for contemporaries. By the fourth century, Sparta, according to Aristotle, was typified by large dowries (*Pol.* 1270^a25–26), which reflects the intensity of the competition for status and property through marriage.

Other techniques, although not directly controlled by individuals, could be employed by the Spartiate class to protect younger sons with insufficient property. Presumably there were inheritances from childless Spartiates, and certainly adoptions by those without heirs. As a few *klêroi* became available in extraordinary circumstances, these might be allotted to graduates of the *agôgê*. If a few young Spartiates did not hold the requisite *klêros*-land, there was the position of *mothôn* where they became the protégés of Spartiates capable of subsidizing their education. The original *mothônes* will have been the illegitimate sons of Spartiates with Helot women.⁵³ In the Pentekontaeteia, however, they were déclassé or marginal Spartiates like the poor Heraklid Lysander (*Plut. Lys.* 2.1–2) or Gylippos with his exiled father (and also Kallikratidas; for all see *Ael. VH* 12.43; *Phylarchus FGrH* 81 F 43; cf. *Isoc.* 4.111).⁵⁴

III. SPARTAN POPULATION AFTER MANTINEIA

A. The Spartan Army at Mantinea

The account of Thucydides gives us a clear report on the situation of Spartan manpower in 418. Yet there are cogent arguments that the

⁵³ Harpocration, *EM* 590.14–16 s.v. *μόθων*; Hesych. s.v. *μόθωνας*; ΣArist. *Pl.* 279, *Eq.* 634a; *Ael. VH* 12.43; *Plut. Cleom.* 8.1. In general, see D. Lotze, “ΜΟΘΑΚΕΣ,” *Historia* 11 (1962) 427–35.

⁵⁴ The institution of sponsorship adapts to Sparta's evolving demographic situation. At first, it integrated illegitimate offspring of interclass unions (the original *mothônes*) marginal relative to the descent group. Later that practice was adapted to incorporate socio-economic marginals into the political class. In the fourth century, illegitimate sons and *xenoi* called *trophimoi* (never many) were sponsored (*HG* 5.3.9; *Plut. Phoc.* 20.4; *Agis* 8.3), including Xenophon's sons (*Plut. Ages.* 20.2; *Mor.* 212b; *DL* 2.54). The *xenoi* have become prominent, because Sparta sought to integrate ideologically receptive foreigners (in default of other sources of manpower; cf. Cawkwell 392–93). Finally, in the Hellenistic period, *Phylarchus* speaks of each Spartiate sponsoring at least one *môthax* (F 43). Such patronage had become the mechanism by which poorer citizens (600 out of 700 Spartiates) were supported through the *agôgê* by the rich (cf. *Plut. Cleom.* 8.1?).

Thucydidean total for effectives in the *morai* should be doubled. Naturally this conclusion cannot be accepted easily, since it challenges the authority of Thucydides on a matter about which he refers to his careful investigation.⁵⁵ But Thucydides also admits that the secrecy with which the Spartans cloaked their manpower made such inquiries difficult (5.68.2). Here the initial focus will be on demographic analysis of the question, which will indicate that the Thucydidean army for Mantinea cannot be historical. Traditional arguments in favor of doubling his total can then be seen to complement that analysis.

Thucydides describes a force of 7 *lokhoi* "battalions" with the 600 Skiritai brigaded separately (5.68.3). One *lokhos* was provided by the Brasidaeioi (returned from Thrace) and the Neodamodeis (5.67.1). The 7 *lokhoi* had a frontage of 448 men and were approximately 8 ranks deep. Hence, the *lokhoi* contained about 3584 men. The subdivisions of the *lokhos* were as follows: each *lokhos* had 4 *pentêkostues*, each composed of 4 *enômotiai*; each *enômotia* had 4 men in its first rank and was 8 ranks deep so that it had 32 men. The *lokhos* had c. 512 men and the 6 *lokhoi* of the regular army had 3072 men. A few Spartans, unimportant for our analysis, were stationed on the opposite (right) flank (5.67.1), and some older men (*presbuteroi*, 5.72.3) were guarding the supply train. Both groups could have been seconded from the *morai*.⁵⁶ The Hippeis are not enumerated as a separate unit.⁵⁷

From Thucydides, it is possible to estimate the available manpower for the ages 20–49. The Spartans had marched out *pandêmêi*, which demonstrates the critical nature of the situation (5.64.2; cf. 5.57.1).⁵⁸ Men over 60 could not be made to serve abroad, even presumably in a levy *en masse*. The youngest Spartans, presumably aged 18–19, could serve. At Orestheion, Agis sent home the oldest and youngest soldiers, a sixth of the army according to Thucydides (5.64.3). Assuming that Thucydides' informants were thinking of one-sixth of the year-classes, one sixth equals $18-19 + 55-59 = 7$ year-classes out of $18-59 = 42$ year-classes. If men 20–54 numbered 3072, then males aged 20–49, the year-classes available at Plataia, numbered c. 2745. The two-thirds

⁵⁵ Prominent believers: Busolt 396–406; Beloch 139–40; Ziehen 218–19, note 1; Cawkwell 388–90.

⁵⁶ The Spartans had formed a force of 400 cavalry and archers after the seizure of Kythera by the Athenians (Thuc. 4.55.2). These troops were hardly raised from the Spartiates and probably not even from the Perioeci of hoplite status (below, note 86). I exclude officers from an enumeration as insignificant: they stood in the battle line and formed part of the dimensions of the formation described by Thucydides, except perhaps for the polemarchs and *lokhagoi*.

⁵⁷ Cf. Busolt 406, 422 and note 38 above.

⁵⁸ See Toynbee 397–98. Lazenby's suggestion that the Perioeci were not present seems irreconcilable with the pandemic levy (125–26). Note the comments of Busolt 387–89; also Cozzoli 76–79.

levy or *neotês* at Mantinea is startlingly different from the *neotês* at Plataia (at least 9400, on the assumption that each levy had 600 Skiritai). Manpower had fallen 71% since Plataia.⁵⁹

Consider the Spartiate component of the force at Mantinea. Both the ratio of Spartiates to Perioeci established by the prisoners at Sphakteria and the ratio adjusted on the basis of the absence of some of the Perioeci can be put to use. If 41% of the *lokhoi* at Mantinea were Spartiate, there were only 1125 Spartiates aged 20–49, compared to 5000 at Plataia, a decline of 77%. Only 1620 Perioeci aged 20–49 served in the *lokhoi*, to which one may or not add 600 Skiritai, depending on one's view on the inclusion or non-inclusion of the Skiritai at Plataia. This represents a decline of 63% or 68%. Quite a different result is achieved from the one offered by my analysis of the Spartan army at Pylos: now the Perioeci are seen to decrease almost as quickly as the Spartiates. Yet the hypothesis of differential rates of decline seems to have more explanatory power.

The difficulty of explaining sharp declines in populations by short-term changes in reproductive patterns has already been pointed out in connection with the Spartiate decline between Plataia and Pylos. On the annual decline of 2.4% which Thucydides' figures establishes, it is improbable (much more so than a $-1.1\%/year$: p. 177) that changing procreative behavior caused a decrease of this scale. At an annual 2.4% decline, 11.5% of the population disappeared every 5 years, quite too obvious a phenomenon to go unremarked. In the stationary population of the model life table, births and deaths are equal at 37.03/1000. For the population declining 2.4%/year, births plummet to 11.76/1000. This decline of 68% suggests radical changes, for instance, in the number of women marrying and in the average age at marriage, of which no trace exists. Average age in the stationary society is 28.93 years, but with the 2.4% average decline it is 38.6 years. In a stationary population such an average age might be associated with a population for whom life expectancy at birth is 66 years; in other words, one with a 20th-century distribution of ages. The gross reproductive rate (median birth at age 27) is 2.338 in the static population and 0.7928 in the one declining 2.4% annually. All these ramifications of a 2.4% annual decline suggest massive, but unattested, changes in lifestyles which would prob-

⁵⁹ A minimum estimate for the number of Spartans aged 20–49 at Pylos had been 6720, which suggests a 59% decline in just seven years, an unlikelihood rendering the analysis of the army at Pylos suspect. Yet, to retain the principle of sortition in forming the garrison on Sphakteria, each of the 6 Thucydidean *lokhoi* must have detached 2 *enômotiai*. The 6 Pylia *lokhoi* would number 3360. Yet, an allotment of 2 *enômotiai*, one half of a *pentêkostus*, does not seem as elegant an explanation of the force on Sphakteria as a single *enômotia* from each of 12 *lokhoi*. The Pylos data make best sense if Thucydides' total for Mantinea is doubled. Cf. Busolt 407–8.

ably be accompanied by severe social dislocations. Yet our one piece of evidence is Thucydides' statement that the large number of young Peloponnesians with no experience of warfare militated in favor of the outbreak of war. In the stationary population young men 20–29 years of age outnumber those over 60 almost 2 to 1. In the population of 2.4% annual decline men over 60 outnumber men 20–29; this is simply not the society envisaged by Thucydides before the Peloponnesian War.

If the Spartiates (20–49) were no more than 1125 at Mantinea, but still 938 at the time of Leuktra, one achieves the strange effect by which the Spartiates have suffered almost all their decline in the period before which they were thought by the ancients to have begun their decadence, namely 404. Why did the Spartiates not decrease more sharply in the 47 years between Mantinea and Leuktra? What occurred after Mantinea to slow the rate of decline?

It might be possible to explain a decline of the proportions suggested by Thucydides' narrative merely by postulating even higher losses in the Earthquake. Put simply, a larger portion of those 20,000 dead were Spartiates. Several considerations militate against amplifying the Earthquake to this end. The large number of Peloponnesian youths before the war may suggest a recovery from the Earthquake (as did an analysis of the army at Pylos). But the greater the rate of increase before the war, the lower Spartan population becomes immediately after the Earthquake. If the Spartiates (20–49) numbered only 1125 at Mantinea and 1378 at Pylos, there could scarcely have been many more than 1700 of them at the beginning of the war (with high attrition of -3% /year), and about 1588 right after the Earthquake (given an increase of 0.2% per annum). Neither figure is reconcilable with the actual conduct of the Spartans.⁶⁰ There were 1500 Spartans in the expeditionary force which eventually fought the Athenians at Tanagra (Thuc. 1.107.2).⁶¹ In a campaign undertaken during the Helot Revolt (Thuc. 1.103.1; DS 11.64.4), it is unlikely that these 1500 could represent about half the whole army, as the Thucydidean enumeration for Mantinea suggests.

These arguments from the demographic ramifications of Thucydides' figures support the historical arguments made in favor of doubling his complement by inserting the *mora* above the *lokhos* as the largest Spartan battlefield formation (see Table IIA, p. 212).⁶² The change gives an army of six *morai*, each of two *lokhoi* (12 in all), and obviates the

⁶⁰ For a similar argument, see Toynbee 378–80.

⁶¹ On the basis of the doubled figures, the 1500 might be one of the 5 *morai* (*lokhoi*) of the obal army (in Herodotus), i.e., before the first reorganization.

⁶² W. J. Woodhouse, *King Agis of Sparta and his Campaign in Arcadia in 418 B.C.* (Oxford 1933) 139, note 9; Toynbee 379, 396–401; Cartledge 254–57; HCT 4.110–17.

following literary and historical problems about Agis' army as interpreted by Thucydides:

1) The Spartan army no longer seems too small.⁶³ The King had with him only Arkadians from Heraia, Mainalia, and Tegea (1500 at Plataia: Hdt. 9.61.2; c. 2400 at the Nemea River: *HG* 4.2.17, 19) to add to his 4184 Spartans of all classes, according to Thucydides. The Thucydidean army, although it should have been conspicuously larger than the enemies' (5.68.1, 71.2), can hardly have exceeded 8000 at the outside.⁶⁴ In addition, the actual narrative of the battle implies that at least half of his force was Spartan. On the other side were ranged 1000 Athenians (Thuc. 5.61.1), c. 3000 Mantineians (DS 12.78.4; cf. Lys. 34.7), an Argive force at least equal to the 7000 of 394, along with contingents from Kleonai and Orneai and Arkadians allied with Mantinea. The allies probably had no fewer than 11,500 men. In the 6 *morai*/12 *lokhoi* hypothesis, in which the Thucydidean figures are doubled, Agis had c. 7768 Spartans and it is easy to see how his army can have exceeded that of the Argives and their allies. Such a force could easily have become the 6600 Spartans at the Nemea River (*HG* 4.2.16).⁶⁵ Otherwise, after another 26 years filled with combat, the army of 394 looks much too large.

2) The unfulfilled order of Agis to two polemarchs to move two *lokhoi* to his left makes better sense if the polemarchs, each commanding a *mora*, detached a *lokhos* each (one half their strength) than if Agis tried to shift one quarter of his Spartans (5.71.3).⁶⁶

3) The 6 *morai*/12 *lokhoi* theory also preserves the *mora* as the traditional formation described in the lexicographers and Xenophon rather than a late fifth-century innovation (Hesych. s.v. *μόρα*; Harpocration s.v. *μόρων*; *Anec. Bekkeri* 1.279.14; *RL* 11.4). The sizes for the *mora*, whether grounded in a context or generalizations, all seem too large for the Thucydidean *lokhos* at Mantinea, but not for the doubled *mora* (see below, pp. 200–203). The traditional army of Xenophon with *morai* above the *lokhoi*, while it is not identical to the army hypothesized for Mantinea, can be derived from it (*RL* 11.4). Only in the doubled battle order can sense be made of the term *peniêkostus*.

4) Consider next the chain of command as presented by Thucydides. Even for him the *polemarkhoi*, the presumptive commanders of the *morai*, stood between the king and the *lokhagoi* (5.66.3), who must command *lokhoi* as they are responsible for their tactical arrangement

⁶³ Toynbee 400–401.

⁶⁴ Cawkwell 389–90 argues that the Spartan army only seemed larger, because its hoplites stood in a shallower phalanx.

⁶⁵ Cawkwell 388 opts for many Neodamodeis at Nemea River. See below, pp. 205–6.

⁶⁶ Anderson 233–34; Lazenby 43–44, 130. With his remaining *lokhos*, each polemarch could shift to a shallower formation to cover the gaps.

(5.68.3; cf. 5.71.3) and they give orders to the *pentêkontêres* (5.66.3). They are now actual tactical commanders (cf. Hdt. 7.173.2).⁶⁷

5) The Brasidaeioi and Neodamodeis should have been more than 512, because 700 of the former alone had marched north (4.80.5; 5.34.1). There is no reason to attribute to them such heavy losses.

Thucydides' error may have lain in the ambiguity of the term *lokhos*, so commonly used for a large formation in Greek armies that it could stand for the Spartan *mora*. That denomination risked confusing the *mora* with the Spartan *lokhos* at Mantinea. To compound his confusion, the historian might have known directly only about the *lokhos* of the Brasidaeioi, of which there might have been c. 500 survivors from an original 700. Their exploits might have been known to him from their service in the north, where he had such good connections. Their *lokhos* was paired, however, with a *lokhos* of Neodamodeis, to make a *mora* of enfranchised Helots (1000: DS 12.76.1).⁶⁸

B. Spartan Manpower During the Peloponnesian War

If the foregoing reconstruction of Spartan manpower at Pylos and Mantinea is correct, it is possible to make further inferences about the history of Spartan population (Table I.3A–B, 4A–B, p. 212). Spartiates who numbered 2755 at Pylos had become 2251 at Mantinea (out of 6144). An 18% decline had been experienced over just 7 years or 2.8%/year (Table IV.3A, p. 213). This is moreover a minimum decline, because not all the Perioeci were at Pylos, creating an overestimate of the proportion of Spartiates at Pylos and so at Mantinea. If the *enômotia* would have had 38 men at Pylos if all the Perioeci had been there, the true proportion of the Spartiates was 38% out of an army of 6 *morai* of 7296 (Table III.3, p. 212). The Perioeci numbered 4541. If these emended percentages are applied to Mantinea, revised totals for the Spartiates and Perioeci can be reached: the Spartiates (20–49) number 2086 and the number of Perioeci will be 3404 (Table I.4B, p. 212). There can be no certainty about the relative contributions to the overall decline by the Spartiates and Perioeci, since the percentages for these two groups from Pylos have been applied to Mantinea. Yet the decline of all Spartans was so great that it is clear that the Perioeci must have suffered heavy losses. So the differential experience of the two groups

⁶⁷ Beloch 132; cf. Busolt 418–19, who argues for their status as staff officers on the basis of *parangelô* (5.70.3), but that could mean “direct by intermediary.” Cf. Anderson 230–34.

⁶⁸ Note that the Skiritai, Brasidaeioi, and Neodamodeis were not overwhelmed by the c. 3000 Mantineans they faced (Thuc. 5.72.1–3), which suggests they exceeded 1112. See Busolt 397–98. That Thucydides missed the presence of the Perioecic *lokhoi* at the battle seems implausible (see Toynbee 396–401); that there were more Spartan *lokhoi* on the battlefield is unlikely: the Spartans stood in order (5.67.1). Cf. Busolt 397–400; Anderson 231–32, 239–40.

has lessened. The 25% decline of the Spartans indicates an annual attrition rate of 3.9% over the 7 years (Table IV.3B, p. 213). If this attrition was concentrated in the years before the Peace of Nikias, the actual effects of the adverse situation created by Pylos were even higher.

Even if we discount the estimate for the size of the Spartan army at Pylos as too speculative, the general picture is one of sharp demographic decline between Plataia and Mantinea. Ignore Pylos, however, and one loses sight of the quickening of the decline in the late 420s and the beginning of serious attrition for the Perioeci.⁶⁹ The history of Spartan manpower during the Peloponnesian War resolves itself into two phases: one in which the Spartan decline was relatively modest and the next in which the decrease in mobilizable soldiers accelerated. The signs of acceleration are discernible in the Mantinea campaign. Five more year-classes were called up, and freed Helots were enlisted in considerable numbers.

A system of inheritance is bound to encounter difficulties duplicating the same distribution of property from one generation to another, because it could not match the most prolific Spartiates with the largest holdings of rent-producing land. Necessarily failing this result, methods like adoption or marriage were needed to redistribute property. Each successive inheritance complicated the problem of keeping an even distribution of property. By 432, after only c. 20–30 years, the system of inheritance might create an incipient problem where some Spartiates with multiple siblings and less luck in marriage and other inheritances were marginal in their ability to pay their mess dues.⁷⁰ Since the primary constraint on production was the limited input of male Helot workers, redistribution of income among the Spartiates bore an extra burden when the Helots became a problem after Pylos. Then the inheritance mechanism for the intergenerational transmission of property took on the added burden of matching the most prolific Spartans with the most prolific and acquiescent Helots. Possibly, the restriction on tampering with the *arkhaia moira* (combined with partible inheritance for the rest of the estate) complicated the task of Spartiates, aiming at retaining mess membership for as many sons as possible. Such a situation may explain the passage of the *rhetra* of Epitadeus, which allowed free bequest and grant of *klêros*-land without restriction (even of kinship).

⁶⁹ The overall decline of Spartiates and Perioeci of the *morai* (unadjusted) from Plataia to Mantinea was 55% (–1.3%/year) and 26% respectively (Table IV.2A–B, p. 213). The ramifications of this decline are similar to those outlined for the 1.1% decline between Plataia and Pylos (see p. 177).

⁷⁰ Family background is known for only one possible Hypomeion, the seer Tisamenos (*HG* 3.3.11), a younger brother whose sibling Hagias served with Lysander (Paus. 3.11.5–6). See P. Poralla, *Prosopographie der Lakedaimonier bis auf die Zeit Alexanders des Grossen* (Breslau 1913) 119.

The *rhētra* is portrayed in a tradition on Spartan decadence presented in Plutarch's *Agis* (5.3–5: derived from Phylarchus?) as the onset of a decline in Spartan austerity, as the first fissure in a supposed succession of *klēroi* from fathers to sons. Accordingly, the motivation of Epitadeus was the disinheritance of his estranged son. The law introduced exploitation by the rich which deprived the poor of their patrimony.⁷¹ A first warning signal, however, is given by the appearance in Plutarch of a stock description of the rich dispossessing the poor—one that would not be out of place in pre-Solonian Athens—which finds little echo in contemporary sources.⁷² One is left entirely baffled about the methods by which property was appropriated, for surely no one would argue that the *rhētra* disrupted intrafamilial dynamics to the degree that fathers consistently favored the rich over their sons. Selling property was and continued to be socially stigmatized at Sparta (Aris. *Pol.* 1270A19–20), and the breakdown of the *diailē* took place in the third century (Phylarchus *FGrH* 81 F 44; cf. Plut. *Agis* 3.9). Rather, Plutarch's source has confused a development contemporary with the *rhētra*, namely a growing inequality of property, with a consequence of the passage of the *rhētra*, and linked it with the generally condemned influx of money at the end of the war.

The *rhētra* could be a later stage in philogenerative legislation at Sparta, one attempting to capitalize on the social cohesion and public-spiritedness of well-to-do Spartiates, in order to counteract the effects of ordinary inheritance of real property by a private redistribution of wealth to younger sons, kinsmen, and even deserving, unrelated Spartiates. Aristotle describes this freedom to grant property as Lycurgan (*Pol.* 1270A19–20), which argues that the *rhētra* was presented as a measure consonant with traditional values, if not as a return to Lycurgan norms.⁷³ A parallel involves dowries: forbidden by Lycurgus (Plut. *Mor.* 227F–228A; Ael. *VH* 6.6; Justin 3.3.8), they were sizable in the fourth century (Aris. *Pol.* 1270A25–26). Freedom to dower helped to redistribute property. Similarly, the kings assigned heiresses (Hdt. 6.57.4), at a time when inheritance was less significant in the intergenerational transfer of property. Later the right falls to the *klēronomos* (Aris. *Pol.* 1270A26–29).

We can now consider the date of the *rhētra*. It clearly precedes Leuktra, that catastrophe for Spartan fortunes, by some time, or it

⁷¹ For commentary sympathetic to the tradition: David 66–70; J. Christien, "La Loi d'Epitadeus: un aspect de l'histoire économique et sociale à Sparte," *RD* 52 (1974) 197–221.

⁷² Aris. *Pol.* 1307A34–37 attributes the concentration of property to the *pleonexia* of the *gnōrimoi*, but without details. Was the *rhētra* of Epitadeus possibly a focus of criticism in Peripatetic constitutional writings?

⁷³ Cf. E. Meyer, *Forschungen zur alten Geschichte* (Halle 1892–99) 1.258–59, note 3, who saw Epitadeus as a later fiction.

would not be held as Lycurgan in Aristotle.⁷⁴ One Epitadas, son of Molobros, commanded the force on Sphakteria where he fell (Thuc. 4.8.9). The commander on Sphakteria is a satisfactory choice for the ephor and legislator.⁷⁵ He might have been ephor in the late 430s or early 420s, about a generation after the Earthquake, and this law might reflect an awareness that patrimonial succession to estates was problematical. One strong argument can be adduced in support. Among the disabilities laid upon the Spartan captives from Sphakteria on their repatriation was that they could buy or sell nothing (5.34.2).⁷⁶ This restriction precluded alienation of property, followed by defection. Does it take for granted (and suspend) the freedom of grant bestowed by the *rhetra* of Epitadeus? In this case the *rhetra* cannot be blamed for failing to counteract the sharp decline in Spartiate numbers, because it antedated the raids after Pylos, the proximate cause for accelerated decline.

The setting of the *rhetra* within an intergenerational conflict may be significant, for it implies a conflict over parental expectations and children's achievements. Allowing *klêros*-land to be inherited like ordinary property reopened a struggle for upward mobility, which had been largely suspended since the creation of the *klêros* system. Under the previous system of reassigning *klêroi* on their holders' deaths, ordinary Spartiates whose *klêros* was their chief holding were fixed in status. Access to a *klêros* ensured that they did not fall below Spartiate status, but neither could they ascend because *klêroi* could not be accumulated, and there was no market in private property. A handful of families, already holding considerable private lands at the inception of the system, remained at the pinnacle of society (the few families providing *gerontes* for instance: Aris. Pol. 1270B23–25, 1294B29–31, 1306A18–19).

After the Earthquake, some Spartiates found themselves heirs to enough *klêros*-land to make competition feasible with those of old property. Rather than procreate more children (in accordance with philo-generative legislation) or leave property to poorer Spartiates, they may have opted to improve their sons' chances for upward mobility.⁷⁷ One option was a limitation of family size. This might have focused unprecedented expectations on single sons, now seen as extensions of their fathers, more so than previously, when the whole succeeding generation received a less engaged attention from their fathers. How many sons like Epitadeus' heir may have failed to live up to intensified expectations? This newly-awakened competition could have contributed to the

⁷⁴ Cf. Christien (above, note 71) 202–3; Fuks (above, note 4) 250–53.

⁷⁵ B. Niese, "Epitadeus," *RE* 6.1, cols. 217–18; S. Mazzarino, *Il pensiero storico classico* (Bari 1966–68) 1.458.

⁷⁶ *HCT* 4.36.

⁷⁷ On the competition for office, see S. Hodkinson, "Social Order and the Conflict of Values in Classical Sparta," *Chiron* 13 (1983) 239–81, esp. 260–65.

self-aggrandizing behavior viewed by other Greeks as characteristically Spartan. Those not favored by inheritance would not be denied a chance to compete. Yet their behavior was aberrant, because the protocols of Spartan society denied all economic techniques to their acquisitiveness, which was forced to become covert and political. Hence Aristotle noted the reputation of even the ephors and *gerontes* for venality (*Pol.* 1271A3–8).

The Athenian establishment at Pylos marked a second phase to the hostilities, because Pylos did not adjoin Perioecic territory, but *klêros*-land.⁷⁸ Aggression from there had a tremendous impact on Spartiate well-being. As Thucydides remarks, discounting the effect of earlier raids, the Spartans began then to feel the effects of *lêisteia* for the first time (4.41.2–3, 56.1–2; 5.14.3, 56.2–3). The garrison at Pylos undertook raids damaging *klêros*-land. Raiding made more credible Helot efforts at secreting more of their production. The Naupaktian Messenians established at Pylos also drew potential defectors (4.41.3; 5.13.3, 35.7). Every defector undermined the productivity of the *klêroi* through the subtraction of his own labor, as the system of Helotage was vulnerable to disruptions of its male labor supply. In response the Spartans may have increased incentives to gain the cooperation of the remaining Helots. As the rewards to the Helots who helped feed the Spartans on Sphakteria showed, adversity for Sparta was opportune for their dependents.

Activity from Pylos inaugurated a period of sharp decline in Spartiate numbers. Only some of the c. 600 Spartiates lost to their class in these years were casualties (including some of the 128 Spartans killed at Sphakteria). Aristotle observes that most Spartiates lost their status from inability to pay their mess dues (*Pol.* 1271A26–37, 1272A13–16). The status of Hypomeion, attested in the conspiracy of Kinadon after the war, probably became significant at this time (*HG* 3.3.6, 11). Thucydides seems to allude to this status in his remarks on the Spartan options for punishing the captives from Sphakteria after their return (5.34.2; see below, note 97). With disenfranchisements on this scale the spectre of revolution alarmed the Spartans (Thuc. 4.41.3, 55.1).

As we have seen, the Spartans had already attempted to address the problem of maldistribution of property by altering their system of land tenure. To confront a crisis in Helot labor they naturally turned to a reformulation of the Helot status. The raids after Pylos made it impossible for the Spartans to continue a policy of massacres: that collaborated with the Athenians in weakening their agricultural work force. So the

⁷⁸ Thucydides terms the region *erêmos* “deserted” (4.3.2); not literally deserted because Helots in boats brought food to the men on Sphakteria (4.26.5, 9), but without villages, with only the scattered homesteads. Cf. Wilson (above, note 28) 48–51 with 4.8.6, 27.1, 29.3.

Spartans began to liberate Helots by creating the status of Neodamodeis, after the successful experiment with the Helot troops under Brasidas. The Brasideioi were not accorded freedom until their return from Thrace (5.34.1). In the same passage the Neodamodeis are first mentioned as later established at Lepreon with the freed Brasideioi, so that their origin falls between 424 and 421. Raising Helots to Perioecic status⁷⁹ required that a grant be made of the right of settlement in Spartan territory which may have been accomplished by settling the Neodamodeis (with whom the Brasideioi were now equated) at Lepreon (5.34.1).⁸⁰

Yet large-scale enfranchisements seem contributory to the very same shortage of Helot laborers.⁸¹ Did Spartiates put their own status at risk by conscripting the Helots who provided their mess dues for them? An answer depends on determining precisely which Helots were available for enlistment. Names for classes of freed Helots like *Adespotoi* "Masterless" and *Aphetai* "Released" (Myron *FGrH* 106 F 1) indicate the existence of Helots separated from masters. These masters may have been Hypomeiones "Inferiors."⁸² The stripping from the Hypomeiones of their Helots explains why there could be no reascent to the Spartiate class, a phenomenon to be expected if marginal Hypomeiones retained their dependents. Hence, even a relatively successful Inferior like Kinadon could not reascend short of a revolution (*HG* 3.3.11). The Helots stripped from Hypomeiones may have served, in some cases, as Neodamodeis; in other cases, they could have been shifted to or have worked as freedmen on the *klêroi* of others, freeing their Helots for service. The latter procedure might have been necessary, since the Messenian *klêroi* were more vulnerable to disruption while the Lakonian Helots may have been more tractable recruits.

For the Spartan state, losses in Spartiate manpower through political means were as irremediable as deaths. Citizenship, rights to a *klêros*,

⁷⁹ Freed Helots: Hesych. s.v. *νεοδαμώδεις*; ΣThuc. 5.34.1; Poll. 3.83; Myron *FGrH* 106 F 1. Citizenship: Hesych. s.v. *δαμώδεις*; ΣThuc. Second class status: *HG* 3.3.6; Dio Chrys. 36.38.

⁸⁰ In general, see K. Welwei, *Die Umfreie im griechische Kriegsdienst* (Mainz 1974) 142–58, who, however, is sceptical of the idea that Neodamodic status is integrally linked with the establishment at Lepreon (145).

⁸¹ The number of Neodamodeis: 1) 1000 with Brasideioi at Lepreon: Thuc. 5.49.1; 2) 600 Helots and Neodamodeis to Sicily: Thuc. 7.19.3; 3) 300 to Euboea in 413: Thuc. 8.5.1; 4) not many at Byzantion in 409: *HG* 1.3.15; 5) 1000 to Asia in 399: *HG* 3.1.4; DS 14.36.1; 6) 2000 reinforcements for Asia: *HG* 3.4.2; Plut. *Ages.* 6.4; Xen. *Ages.* 1.7. The personnel of the groups overlap, but the total number enfranchised probably exceeded 4000. See below, note 98.

⁸² R. F. Willetts, "The *Neodamodeis*," *CP* 49 (1954) 27–32, who connects their emergence with the manpower decline, argues the other real possibility: the Helots, perhaps heirs, were drawn from estates vacated by the death of their masters. Cf. E. David, "The Conspiracy of Cinadon," *Athenaeum* 57 (1979) 239–59.

military service, and authority over the Helots were tightly bound together. By failing to pay their dues, the Hypomeiones had deprived the Spartan state of their services as full-time soldiers. Appropriately, their Helots, who were the collective property of all Spartiates (Paus. 3.20.6; Strabo 8.5.4, 365C), were then to support military purposes directly. Such a trade-off was attractive to Spartiates not in immediate danger of losing their status, because Neodamodeis were better suited to the operations against the Athenian *arkhê* now strategically necessary. Their deaths in such risky campaigns would not affect the number of Spartiates, already critically low, nor were they in any danger of becoming Athenian hostages. For each disenfranchised Spartiate (unsuited for such hostilities) several expendable Neodamodeis could be derived. They would, of course, have to be subsidized, but that was not a real problem. On their first appearance in Thucydides the Brasidaeioi are mentioned along with mercenaries (4.80.5). Moreover, this "betrayal" of fellow Spartiates could be rationalized in the customary usage of slave-owning societies: only bad masters face flight by their slaves.

In the first years of the war the large flotilla raids undertaken by the Athenians had their chief impact on the Perioeci (Methone: Thuc. 2.25.1; Prasiai: 2.56.6; 3.16.2). As long as the Peloponnesian army was, however, limited in its military exertions to mass invasions of Attica of a short duration, the pressure on the Perioeci was perhaps not unacceptable. Their enthusiasm for the war was the critical factor, because it would have been difficult for the Spartiates to coerce their service. Their non-monetary economy precluded careful monitoring of their income. All the Perioecus failing to report may have jeopardized was a voice in the governing of his hometown. Perioecic participation in the war was, therefore, sensitive to perceptions about how the war was proceeding.⁸³

The situation of Spartiate manpower conditioned the availability of the Perioeci. Strikingly, the Spartiates could not adopt the same technique as the Romans to supplement a shortage among full citizens—conscript more non-Romans.⁸⁴ The rigors of Perioecic service and the undeveloped governmental apparatus of Sparta were doubtless two reasons. After Pylos the fall in Perioecic numbers becomes discernible. Some of this decrease is accounted for by casualties suffered in defending against raids. The Perioecic communities on Kythera had been captured. Those impoverished must be added to those dying and invalided. The plight of the Perioeci was so well-established that Aristophanes could commiserate with them in passing (*Peace* 622–27).

⁸³ Xenophon praises Agesipolis for attracting an unusual number of well-to-do Perioecic volunteers against Olynthos (*HG* 5.3.9; cf. *DS* 15.22.2).

⁸⁴ Cf. Toynbee 366–68, who opts for an underutilization of the Perioeci, which, given Spartan needs, looks anomalous. Cawkwell 389 posits higher levies of the Perioeci.

Their growing proportion of the army changed the equation of benefits and risks in Perioecic status. When most Perioeci served in the rear ranks of the phalanx, they were exposed to little risk of death except in a heavy defeat. As the Perioeci stood closer to the front of the phalanx, their danger increased proportionately. If the adjusted figures for the ratio of Spartiates at Pylos is correct, some Perioeci already had to stand in the third rank of a phalanx 8 deep (since the 300 Hippeis, all Spartiates, may have served in the first *mora*).⁸⁵ This put them within the primary zone of mortality for the phalanx, the first 3 rows. The significance of a gradual displacement toward the battle line can be seen in a comparison of the casualties at Plataia and Leuktra. In 479 there were apparently no Perioecic casualties, as they stood in victory behind 5000 Spartiates. At Leuktra, 600 Perioeci fell with the 400 Spartiates. In the years after Pylos, every Perioecus was faced with the question whether second-class citizenship was worth the risk. Consequently, Isocrates will later point up the exploitative placement of the Perioeci toward the front of the phalanx (12.180). In the years after Pylos, then, Perioecic alienation from service may have come to parallel Helot flight. From disenchanted Perioeci, Kinadon probably found those who shared his interest in eating the Spartiates raw (*HG* 3.3.6).

IV. SPARTAN POPULATION IN THE EARLY FOURTH CENTURY

A. The Spartan Army During the Corinthian War

There were 6000 Spartan infantry and 600 cavalry⁸⁶ at the Battle of the Nemea River (*HG* 4.2.16) (Table I.5, p. 212).⁸⁷ There were 5 *morai* at the battle, as one *mora* was at Orkhomenos in Boiotia (*HG* 4.3.15; cf. 4.2.17). At Mantinea, there had been 6144 in the *morai*, 600 Skiritai, and c. 1000 Brasideioi/Neodamodeis (about 7800 in all). In 394, there were 3000 Neodamodeis in Asia with Agesilaos so that it is questionable how many would have been available for service in the Corin-

⁸⁵ Note the gravestone of Eualkes, a Perioecus of Geronthrai who fell at Mantinea: *IG* V 1.1124.

⁸⁶ The cavalry was organized into 6 *morai* of 100 (*HG* 3.3.10; 4.5.12; *RL* 11.4). The wealthy provided horses for cavalymen, presumably Perioeci too poor for hoplite service (6.4.10–11). Their officers were Spartiates (*HG* 5.4.39). This cavalry was like the fifth-century cavalry, who, as they are with the *toxotai*, were hardly Spartiates.

⁸⁷ *DS* 14.83.1 has the Spartans at 23,000, the allies at 15,000. For his part, Xenophon mentions, but does not enumerate, Tegeans (4.2.13, 19), Mantineians (4.2.13), and Achaeans (perhaps only Pelleneans) (4.2.18, 20). E. Cavaignac, "À propos de la bataille du torrent de Némée (Juin 394)," *REA* 27 (1925) 273–78, who reverses Diodorus' enumeration, believes that the Spartans, Tegeans, and Mantineians numbered 6000 in all, but his main argument, a calculation of the length of the battle line, rests on the dubious assumption of uniformity of depth for all Peloponnesian contingents. Cf. W. K. Pritchett, *Studies in Greek Topography, Part II* (Berkeley and Los Angeles 1969) 75–76.

this in that year (*HG* 3.1.4; 3.4.2; 4.3.15; cf. 4.20.5). A detailed comparison is impossible, but the army of 394 seems definitely smaller.

There is further evidence on the size of the Spartan army of the Corinthian War (*RL* 11.4; Table I.5, p. 212). Xenophon reports the structure of the Spartan army in his *Constitution of the Lakedaimonians* (Table IIB, p. 212). The *mora* was commanded by a polemarch who directed 4 *lokhagoi*, 8 *pentêkontêres*, and 16 *enômotarkhoi*.⁸⁸ In contrast to Thucydides, Xenophon knows of the *mora* and its polemarch, but he has doubled the number of *lokhagoi* and halved the number of *enômotarkhoi*.⁸⁹ As he describes this order of command as a Lycurgan (i.e., traditional) one, it was presumably in place during the Corinthian War, in the period of Xenophon's active career as an officer.

Xenophon, however, does not give us an order of battle, but a chain of command: the numbers of officers need not correspond to the numbers of units. The battle order, as reconstructed for Mantinea, needed 252 officers. Yet, during the Corinthian War, capable Spartiates were required to serve as *xenagoi*, harmosts, commanders of mercenaries and of Neodamodeis, and officers with the fleet. All such requirements had to be met from a shrinking body of citizens. Could any of the 300 Hippeis serve as officers? The Xenophontic chain of command needs only 28 instead of 42 officers for each *mora*. If the two extra *lokhagoi* served as liaison officers for the polemarch, not leading their own *lokhoi*, the army may have been more responsive to its commander.⁹⁰ The existence of only 12 *lokhoi* after Leuktra urges the correctness of such a suggestion (*HG* 7.4.20; 7.5.10).

A still more pressing reason existed for the change in the army. An *enômotarkhos* can hardly have commanded two *enômotiai*, so that the number of *enômotiai* has been halved. The *enômotia* had already fallen from c. 38 or 35 to c. 32 at Mantinea, although 5 more year-classes had been called out. There was a number below which the *enômotia* could not be allowed to fall, because it could no longer assume the frontages of three or four necessary for certain manoeuvres and formations. An *enômotia* of less than 32 could not stand 4×8 , and the number of *enômotiai* must have been halved before each fell below 24 (3×8).

⁸⁸ The absence of the *lokhagoi* from battlefield conferences does not undercut this report (*HG* 3.5.22; 4.5.7). It suggests that a skeletal chain of command had to be in place at such times for sudden contingencies (*lokhagoi/enômotarkhoi*). Also note that the use of the term half-*mora* does not refute the existence of two *lokhoi* in each *mora* (*HG* 4.3.15; *Ages*. 2.6): a half-*mora* might be constituted from half the present year-classes. Cf. Busolt 426–27; Toynbee 395; Anderson 226–27; Lazenby 6.

⁸⁹ If the text is corrupt the error was ancient: Stob. *Flor.* 44.36. For a replacement of the *lokhos* by the *mora*: Busolt 419–26. The *mora* becomes a strengthened unit, which then weakened(!).

⁹⁰ *HCT* 4.115–16.

The lexicographers speak of an *enômotia* of 25 (24 and one officer). The *enômotia* of 25 in the army of the 10,000 may reflect the same lower limit (*Anab.* 3.4.22). An army of 96 *enômotiai* (16/*mora*), each with 48 (2 old *enômotiai* of 24) or 56 (2 old *enômotiai* of 28) men, had 4608–5376 men (768–896 for each *mora*).

In 403, Pausanias took 2 *morai* and 3 regiments of Athenian cavalry (c. 300 horse) on a reconnaissance in force against Thrasyboulos in the Peiraieus. He was confronted by the democrats and badly handled until the remaining Peloponnesians arrived. Thrasyboulos had 1000 men before his victory at Mounykhia whereupon he was joined by many hoplites and light armed men (*HG* 2.4.10; 2.4.25). He should have had over 3000, the notional strength of the oligarchs in the city, who were afraid to come out against him. The *mora* in 418 had 1024, an upper limit for 403. A fragment of Polybios reports a *mora* of 900 and may refer digressively to a major battle in this period, perhaps Nemea River (fr. 60 BW).⁹¹ It might have been of interest to him for the first appearance of depth of formation as controversial. Nine hundred seems appropriate as a lower limit for each of Pausanias' two *morai* or the king would never have joined battle with the Athenians. Add 600 Skiritai, 900 Neodamodeis (1 *mora*), and the 600 horse to the five *morai* of 900, and the army at Nemea is created. If the *mora*, in fact, numbered 900 at this battle, and the whole force 6600, there had been only a 12% drop in the manpower of the *morai* since Mantinea (Table I.5, IV.4, pp. 212, 213).⁹²

Despite this slowing of demographic decline, the weakness in Sparta's effective manpower compared with its military needs becomes noteworthy from this time. Kinadon alluded to the presence of a few Spartiates in the marketplace at a time when it contained 4000 men (*HG* 3.3.5). The Thebans urged alliance on Athens in 395 on the grounds of Sparta's paucity of men: a few rule many times their number (*HG* 3.5.15). Timolaos of Corinth urged an attack on Sparta by likening Spartan strength to a river, weakest at its source (*HG* 4.2.11–12). Eventually Agesilaos had to counter allied complaints about the number of men contributed by the Spartans themselves by alluding to their "professionalism" (above, note 44). Aristotle (*Pol.* 1270A34–36) reports that citizenship was granted by early Spartan kings to offset losses in war. Ephoros notes that *xenoi* were admitted to *sunoikia* (because of *leipandria*), when Lakonia was occupied (*FGrH* 70 F 117). The *isotimia* of these Perioeci was ended by Agis, son of Eurysthenes, ancestor of the Agiad royal house. Later polemics are obvious in these traditions. In this case, a solution to Spartan oliganthropy is to be sought in a liberal

⁹¹ Cartledge 280–81.

⁹² Lazenby 138, reckoning 32 *enômotiai/mora* and 35 men/*enômotia* has a *mora* of 1120 at the battle; Beloch 138–39 has 6 *morai* of 600, 600 Skiritai, and 1800(!) Neodamodeis.

policy toward the Perioeci. The provenience of the tradition of early *isotimia* appears to be among the partisans of the Eurypontid house and, specifically, Agesilaos. He continually encouraged an aggressive foreign policy in the face of Agiad conservatism. Power-sharing with the Perioeci was one method for providing the manpower for such policies. Yet any reforms of this nature remained stillborn.

B. Spartan Population in the 390s and 380s

The slackening of the decrease in Spartan manpower in the Decelean War ought not to surprise us. The Athenians, preoccupied elsewhere, had less ability to harry Lakonia and Messenia even before the recovery of Pylos in 409/8. Many of the most disaffected Helots would have fled shortly after 425, leaving behind a more docile remainder. More energetic Helots would next have been drawn off into service as Neodamodeis.⁹³ The effect of the defeat of Athens was to introduce a mass of precious metals into Spartan society. Since the consensus condemning possession of precious metals prevailed officially, Spartiate acquisitiveness appears anomalous. War booty provided an alternative income for Spartiates whose estates could no longer produce the requisite natural goods for mess dues. It is possible to envisage a black market in the goods composing the dues, whereby bullion was bartered with those holding more productive estates. Hence Spartiates violated their *diaitê*, almost unwillingly; they had to in order to compete socially and maintain their citizenship.

In contrast, the late 390s and 380s signaled another steep decline in Spartan manpower. The *mora* cut up at Lekhaion in 390 had 600 men (*HG* 4.5.12). While a unit in garrison might be undermanned, the decline from 900 in just four years is noteworthy. The Amyklaians, who had already left for home, were a part of the Spartiate component of the unit, itself between 30% and 40%. Even if Amyklai was somewhat larger than the other villages, the Amyklaians probably did not exceed 50, so that the *mora* originally had no more than 650. Kallisthenes *FGrH* 124 F 18 (Plut. *Pelop.* 17.4) reports a *mora* of 700, and he might be rounding up the *mora* routed at Lekhaion. The polemarch in command detailed the first 10 year-classes and next the first 15 year-classes to drive off the attacking peltasts (*HG* 4.5.14, 15). Although a *mora* on garrison duty might not have included all men up to 55, 20–49 seems right, and 20–44 is a minimum.⁹⁴

⁹³ See Cawkwell 392–94, who, however, exaggerates the passivity of the Helots. See below, pp. 205–6.

⁹⁴ See Busolt 421. There is no reason to follow Toynbee 380 in believing that low sizes for the *mora* are owed to the call-up of fewer than 30 year-classes or to calling a hypothetical Spartiate *lokhos* (without the Perioecic *lokhos*) a *mora*.

Ephoros reported the *mora* numbered 500 in the 370s (*FGrH* 70 F 210 = Plut. *Pelop.* 17.4) and specifically at the battle of Tegyra in 375, where DS 15.37.1 has two *morai* with 1000 men. Diodorus 15.32.1, probably on the authority of Ephoros, has a *mora* of 500 in Agesilaos' army during his invasion of Boiotia in 377 (cf. the 576 man *mora* at Leuktra). In Diodorus' account of the liberation of the Kadmeia in 379/8, the garrison has 1500 men, both Spartans and allies (DS 15.27.2). Only a small number were Spartiates (15.25.3); (e.g.) a *mora* of 500, in which there were c. 150–200 Spartiates, reinforced by 1000 allies, or double their own number.

Each of the *morai* declined from c. 900 to around 500 or 576 at a great battle like Leuktra (see below, pp. 206–7). Even the loss of many men at Lekhaion seems somewhat insubstantial, when it is remembered that each *mora* would have had to sustain a similar debacle in order to account for the overall decline. For the Spartiates, the fundamental causes were endemic labor shortages and unequal distribution of property, where every year the partition of estates took its toll. Mortality in the Corinthian War may have contributed to the decline because it made more frequent the transmission of estates, leading to greater maldistribution. Spartan agriculture at this time must have been characterized by a bewildering mixture of originally private property and former *klêros*-land, combined with family units of Helots of varying degrees of adequacy for cultivation. The decline of the workforce, accelerated through the loss of potentially prolific Helots to military service, had the same effect as raising the mess dues since it increased the land needed to maintain citizenship. The casting of the process of concentration of land into terms of a "class struggle" can be explained. Private property was concentrated in the vicinity of Sparta itself, well protected from the hostile activity to which the Messenian *klêroi* were especially open. Thus, aristocratic Spartiates with holdings of private land were best able to maintain their economic and political status. By the same token, one envisages that the allotment of *klêroi* worked from the top downward, with the last, peripheral Messenian allotments going disproportionately to ordinary hoplites and even to poorer aspirants to Spartiate/hoplite rank. Accordingly, an economic or labor crisis in agriculture, more intense in Messenia than in Lakonia, led to a change in the balance of power between ordinary hoplites and larger landowners.

Yet acute conditions may also be invoked to explain the acceleration of the decline from the late 390s. Two factors appear to be good candidates for such aggravating influences. For my analysis, I have applied a model for Spartan population where it was a stationary or slightly increasing one. The Spartans, however, could be expected to have reacted to the increased possibility of disenfranchisement through impoverish-

ment by limiting the size of their families. The immediate effect of a reaction to the raids after Pylos would be negligible, but the absence of those unborn males would be felt later, even if Spartan procreative habits returned to their pre-war pattern by 404. In 400, 20% of males 20–49 will have been born 425–404 in a stationary population; in 390, 56%, and in 380, 71%. Any diminution of the year-classes after 425 through the Athenian raids had a delayed effect, becoming prominent in the very same period that we detect the sharp decline in the *mora*.

The rapidity of the decline from 394 can also be explained by the exhaustion of the booty imported after the Peloponnesian War. If money was used to make up for inadequate rents, its exhaustion for this purpose (and for what must have been generally costly campaigns abroad) might initiate a steeper decline. No evidence exists on the time of life at which most Spartiates dropped out of their mess, but one supposition would be that the first years of contributing to the mess might have been a crucial time, so that many lost citizenship shortly after finishing the *agôgê*. If this conjecture is true, the remaining Spartiates might have been older, more middle-aged than the model population suggests, a fact not without military ramifications.

The same factors already outlined continued for the Perioeci: Spartiate decline exposed the remaining Perioeci to greater danger, which encouraged avoidance of service. Some less enthusiastic and poorer Perioeci could find refuge in Sparta's substandard cavalry (*HG* 6.4.10–11). Since Sparta had no monetary system, the non-agricultural Perioeci could hardly participate in external trade. While they had a captive market at home, with the numerical decline of the Spartiates that market grew smaller, weakening the economies of their towns. There had also been, once again, direct attacks on Lakonia and Kythera, directed by Konon in 393 (*HG* 4.8.7–8; *DS* 14.84.4–5). After 377, the Athenians embarked on still another campaign of raids against Lakonia (*HG* 6.2.30; cf. 6.2.9). The ill-conceived expedition against Olynthos may also have had a serious effect on the Perioeci and Neodamodeis (no *morai* were committed), even if the figure of 1200 for the Spartan dead in 381 is incorrect or misapplied (*DS* 15.21.2). The Spartan fleet of the fourth century differed from its fifth-century predecessor through its use of Spartans, presumably Perioeci (*HG* 5.1.16), and Helots (7.1.12). Some Perioecic sailors belonged to a poorly attested class of freedmen called the Desposionautai (Myron *FGrH* 106 F 1; cf. *HG* 5.1.11, 16). Their name suggests that the latter were provided by *klêros*-holders of still functioning *klêroi*. Both groups served for pay (*HG* 5.1.24; cf. 7.1.12). Perioecic service for pay offset negative developments during the fourth century in the rest of the economy. Yet the disastrous defeat at Naxos in 376 killed many Perioeci and Helots, and pauperized others through forcing them to pay ransoms; 49 triremes were captured at Naxos, and 3000 prisoners (*Dem.* 20.77,

80). The capacity of the Perioecic towns to provide hoplites was bound to be affected. Thus Naxos may have been a Perioecic rehearsal for Leuktra.

How significant was the decline of the Spartiates and Perioeci of the *morai*, since Neodamodeis and Hypomeiones could be enlisted?⁹⁵ The Hypomeiones needed some source of income to take the place of properly functioning *klêroi*, especially if Helots were enlisted from their property. It would be reckless to extrapolate from the military service of Kinadon and some of his fellow conspirators (*suntetagmenoi*, *HG* 3.3.7) to regular, full-scale deployment.⁹⁶ He also acted as an agent of the government (*HG* 3.3.9). His last mission, on which he was arrested, was perhaps typical: he was used for "police" activities, below the dignity of a Homoios. Serving Hypomeiones will have been paid, and brigaded separately. They could never have stood with Homoioi in the phalanx, for that would undermine the very rationale of citizenship.⁹⁷ While the Hypomeiones were later used under the pressure after Leuktra, the Spartans were anxious to disembarass themselves of such soldiers before the Corinthian War. Dionysios of Syracuse was given permission to enlist as many Lakonian mercenaries as he could (*DS* 14.44.2; see below, note 101). These will have been Hypomeiones. Nor can Hypomeiones be enumerated among the Perioeci. Their inclusion would probably lower the number of Perioeci at a battle like Leuktra so that the Perioecic rate of decline would exceed the Spartiate rate. Accordingly, Kinadon listed the recruits for his conspiracy in the order of ascending social status: Helots, Neodamodeis, Hypomeiones, Perioeci (*HG* 3.3.6).

Nor could the enlistment of Neodamodeis be expanded indefinitely. If it is correct to connect the phenomenon with Spartiate disenfranchisement, deployment could not be pressed beyond certain limits. The Neodamodeis were probably drawn disproportionately from Lakonian Helots, especially those with a familiarity with warfare from having accompanied their Spartiate masters to war. An exposure to the martial ethos of the Spartiates through service in the messes would also have been important. Able and willing Helots may not have been in inexhaustible supply. Some also were serving as sailors. The fact that Kinadon thought that he could draw on the Neodamodeis suggests that the 3000 soon to be sent to Asia had already been freed (some probably on occasions passed over by Xenophon's account of the Ionian War). Further musters between 396 and Leuktra appear insig-

⁹⁵ Cawkwell 388–89. See also Lazenby 17–20 for an army more than half(!) Hypomeiones. For a corrective, Cartledge 313–14.

⁹⁶ Cf. David (above, note 82) 253.

⁹⁷ Contrast his situation with service of the dishonored returnees from Athens, who were later returned to full rights (*Thuc.* 5.34.2). They feared reduction to Hypomeionic status (*elassôthêsesthai*), but received only a limited *atimia*. Cf. Busolt 409–10.

nificant.⁹⁸ The dissemination and tolerance of military skills among the politically secondary Neodamodeis and Hypomeiones provided the raw material for a Kinadon (*HG* 3.3.6; cf. Max. Tyr. 35.8c; Aris. *Pol.* 1306b34–36). Hostilities in Asia were not therefore inopportune.⁹⁹

Non-citizen soldiers had to be supported, probably through pay. The Peloponnesian army was reorganized in 378 (DS 15.31.1–3). Ten units were created, of which one was provided by the Spartans, presumably the 6 *morai* along with the Skiritai (for whom see *HG* 5.2.24, 4.52–53; DS 15.32.1). Single units were provided by, among others, the Eleans, the Corinthians and Megarians, and the Sicyonians, Phliasians, and inhabitants of the Akte. The Eleans had 3500 men in the 370s and the Corinthians alone 3000 during the Corinthian War. There were 3000 from the Akte and 1500 Sicyonians in 394 (*HG* 4.2.16), and 800–1200 Phliasians (? , out of 5000 citizens: *HG* 5.3.16). The Arkadians, who had 10,000 hoplites in the 370s, made up two-tenths (cf. DS 15.71.2). The Spartan army numbered 4000–5000 with its *morai* and *lokhoi* of Skiritai and perhaps of Neodamodeis, a total incidentally confirming the estimate for the Spartans at Leuktra (pp. 206–7 below).¹⁰⁰

One reason for the reorganization was so that money could be paid in commutation for service, a practice established in 382 (*HG* 5.2.21–22). Spartan armies of this period, then, contained many mercenaries (*HG* 6.2.5, 16; 6.4.9; for peltasts: 5.3.4; 5.4.24, 42), perhaps impoverished Hypomeiones and Perioeci, subsidized by allied payments in commutation.¹⁰¹ The initiation of commutation payments had a degree of success in keeping the Spartan proportion of the army as high as possible. As confirmation DS 15.23.4 (c. 381), reflecting Ephoros, alludes oddly to the high level of Spartan manpower.

V. THE POPULATION OF SPARTA AND LEUKTRA

A. The Army at Leuktra

Kleombrotos' army in Phokis, which was directed to enter Boiotia, had 4 (out of 6) *morai*. The call-up had been made up to 55 years of age (the earlier two-thirds levy now being infeasible). There were 700 Spar-

⁹⁸ Eudamidas took a force of only 1000 Perioeci, Skiritai, and Neodamodeis to Olynthos (*HG* 5.2.24; 5.2.37; 5.3.8–9). Polydamas of Pharsalos insisted that a regular Spartan force was necessary against Jason, which suggests that a large force of Neodamodeis was out of the question (*HG* 6.1.14–15).

⁹⁹ Cf. Cawkwell 393.

¹⁰⁰ Cavaignac (above, note 87) 277–78.

¹⁰¹ Did the same persons serve as mercenaries abroad? Cf. H. W. Parke, *Greek Mercenary Soldiers* (Oxford 1933) for his list of mercenaries, pp. 242–43. They may have eventually used the recruiting station for mercenaries which developed on Cape Tainaron (Arr. *Anab.* 2.13.6(?); DS 17.111.1–2; 18.9.1–2; 18.21.1–3; 20.104.2).

tates in these 4 *morai* (HG 6.4.15), perhaps 625 of whom were aged 20–49. Another 313 Spartiates should be added from the other 2 *morai* for a total of 938 for those aged 20–49. The 2086 (2251 unadjusted) Spartiates 20–49 at Mantinea had declined 55% in the intervening 47 years (–1.7%/year) (Table IV.5A–B, p. 213).¹⁰² Xenophon reports the *enômotia* at c. 36 at Leuktra (HG 6.4.12). If the *mora* had 16 *enômotiai*, each had 576, which is consistent with the 500 of Ephoros, whose *morai* could have had fewer age-classes in a particular call-up. There were then 3456 Spartans in the 6 *morai* (2304 at the battle), of whom c. 3088 were aged 20–49 (Table I.6, p. 212). Of them, 938 were Spartiates and 2150 Perioeci. The proportion of Spartiates had declined from 38% to 30% (Table III.4, p. 212). The 3404 Perioecic hoplites at Mantinea had become 2150 hoplites (comparing those aged 20–49 in both cases), a decline of 37% (–1%/year) (Table IV.5B, p. 213). The Spartiates had declined at a faster rate than the Perioeci, although the decline of both groups is noteworthy. Diodorus put the Spartan dead at Leuktra at 4000 (15.56.4), which is impossibly high and contradicts Xenophon. Yet Diodorus might have mistaken the Spartan total (out of 10,000 hoplites) for the whole army's casualties. With Skiritai, Neodamodeis, cavalry, and mercenaries, the 2300 Spartans of the *morai* at Leuktra became 4000 men and the whole force with allies 11,000, including chiefly Phokians and Orkhomenians (Plut. *Pelop.* 20.1; cf. Frontinus *Strat.* 4.2.6).¹⁰³

B. The Aftermath of Leuktra

Lakonia could be described on the eve of the Theban invasion as *erêmos* “deserted” (HG 6.5.23, 25). The defenders of a Sparta under Theban attack were *mala oligoi* “very few” (HG 6.5.28). To Xenophon, Sparta is, for all its glory, *τῶν ὀλιγανθρωποτάτων πόλεων οὐσα* (RL 1.1). Yet the period after Leuktra is remarkable insofar as it did not witness the anticipated collapse of the Spartiate class and a reordering of Sparta's socio-political order. Leuktra saw 400 Spartiate (and 600 Perioecic) dead out of c. 1333 males over 20. The next year, the Thebans invaded the Peloponnesos whereupon the Skiritis was lost to Sparta (HG 6.5.24–26; 7.4.21), and more significantly, Messene was refounded (DS 15.66.1, 6; Paus. 4.27.9), leaving only the peripheral Perioecic towns in Messenia. Many individual defections among the Perioeci and

¹⁰² Toynbee 401–4 (cf. Lazenby 155–56) has 32 *enômotiai/mora* for 4480 (+ 300 Hippeis) men. In this case, one is left to inquire why the loss of 21% of this force (and 14% of the whole army) at Leuktra represented an irremediable catastrophe. The care exercised by Epameinondas that the Spartans recover their dead separately suggests otherwise (Paus. 9.13.12).

¹⁰³ The 5 *morai* invading Boiotia in 378 had with their (Peloponnesian) allies 18,000 men (DS 15.32.1).

Helots compounded the crisis (*HG* 6.2.25; 6.5.32; 7.2.2; *Ages.* 2.24; *Polyaen.* 2.1.15; cf. *Plut. Ages.* 32.7; *DS* 15.65.6).

Messenia contained more than half the *klêros*-land. Yet Spartan manpower after Leuktra does not reflect a commensurate decline (Table I.7, p. 212), although, to the best of our knowledge, mess dues continued as a prerequisite for citizenship (cf. *Aris. Pol.* 1264A10). During Epameinondas' attack on Sparta in 370, the Spartan *neoterói* were stationed in the sanctuary of the Tyndaridai, and numbered 300 (*HG* 6.5.31). If the *neotês* were 20–49 year olds, the *neoterói* might be 20–29 (or less possibly 20–39). The term *neoterói*, however, is used for the 300 Hippeis (*HG* 3.3.8–9), thought to have been 20–29 in age. That the Hippeis or “youths” in general numbered so many suggests a maintenance of the pre-Leuktra population. Aristotle numbers the Spartiates at 1000, in a presumably post-Leuktra calculation that refers to military effectives (*Pol.* 1270A30–31).¹⁰⁴ One thousand, not significantly fewer than before Leuktra, reflects a capacity to repair losses by some means other than natural increase.¹⁰⁵

The record of Spartan military activity in the 360s indicates an army comparable to the pre-Leuktra army of 4000–5000. In 370, albeit before the refounding of Messene, Agesilaos marched through Arkadia with impunity (*HG* 6.5.12, 15–21). Polytropos operated in Arkadia with 1000 Lakonian hoplites (*DS* 15.62.1–2; cf. *HG* 6.5.12–14). In 368 Arkhidamos defeated the Arkadians and Argives in the “Tearless Battle” (*HG* 7.1.29–32; *DS* 15.72.3; *Plut. Ages.* 33.5–8), in which 10,000 Arkadians supposedly fell (*DS* 15.72.3). In 365, Arkhidamos fought unsuccessfully a somewhat smaller Arkadian army at Kromnos (*HG* 7.4.20–25). Three *lokhoi*, at pre-Leuktra full strength, 864 men, were besieged there,¹⁰⁶ when Arkhidamos marched to their relief (*HG* 7.4.20). A second attempt was made by Arkhidamos during which a part of the circumvallation surrounding the *lokhoi* was seized and a portion of the besieged escaped. About 100 Spartiates and Perioeci were captured (*HG* 7.4.27).¹⁰⁷ The Spartans admittedly used mercenaries (*HG* 6.5.12;

¹⁰⁴ Cf., e.g., Chrimes (above, note 27) 349–50; also Cartledge 308.

¹⁰⁵ Beloch (143–44), W. G. Forrest (*A History of Sparta: 950–192 B.C.* [London 1968] 135), and Cozzoli (10–11) all put the only significant decline after Leuktra. Note that survivors of Leuktra were not disenfranchised as *tresantes* (*Plut. Ages.* 30.5–6).

¹⁰⁶ The term *lokhoi* here is not an indication of a further reorganization of the army: Cartledge 301.

¹⁰⁷ Agesilaos took 1000 hoplites to Egypt in 362/1 (*DS* 15.92.2); another 1000 went to aid the Phocians in 352/1 (*DS* 16.37.3). In the same year some success was achieved against Megalopolis (*DS* 16.39.2–5). The Megalopolitans were supported by the Argives, Sicyonians, Messenians, and 4500 Boiotians. The allies outnumbered the Spartans, who were supported by 3000 Phocians, 2 to 1. Their enemies cannot have numbered fewer than c. 14,000, so that the Spartans could still field their pre-Leuktra force of 4000–5000.

7.1.41; 7.6.27), troops from Dionysios (*HG* 7.1.20, 28; 7.4.12; *Plut. Ages.* 33.5; *DS* 15.70.1), mercenaries hired by Ariobarzanes of Phrygia (*HG* 7.1.27), Neodamodeis (*HG* 6.5.24; *DS* 15.65.6), exiles (*HG* 6.5.24; *DS* 15.62.1, 65.6; cf. *HG* 6.5.10), and their allies, but the amount of hard fighting of which they were still capable is notable.

This capacity included the endurance of considerable losses. Note the defeat of the garrison at Kromnos and the loss by Polytropos of 200 men. Even though their impact was shared among all groups contributing to the Spartan army, the following defeats are worth noting: c. 400 men lost at Oion in Skiritis in 370 (*HG* 6.5.24–26; cf. *DS* 15.64.3–5); another 200 men lost to the Argives (*DS* 15.64.2); the destruction of a garrison of 300 at Pellana in 369 (*DS* 15.67.2); and a defeat of the troops at Asine in 369 (*HG* 7.1.25).

Leuktra was disastrous in geopolitical terms: Arkadia was alienated and the Messenian *klêroi* were lost. There were, however, many Hypomeiones living at Sparta, as demonstrated by the existence of one group of 200 (τῶν πάλαι τινὲς ὑπούλων καὶ πονηρῶν), whose revolutionary plot was forestalled by Agesilaos during the Theban attack on Sparta (*Plut. Ages.* 32.6–8; *Nepos Ages.* 6.2; *Polyaen.* 2.1.14). With so many estates bereft of heirs through the casualties of Leuktra and of the battles of the 360s, many Hypomeiones may well have inherited enough real property to resume tendering mess dues and so to recover citizenship. The concentration of property in few hands which had created the background to the defeat at Leuktra paradoxically counterbalanced the disaster by setting in motion the return, for the moment, of déclassé Spartiates to their class. Reascended Hypomeiones probably were the members of a larger conspiracy also foiled by Agesilaos (*Plut. Ages.* 32.10–11). That would explain not only their continuing disaffection, but also why they could be the first Spartans executed without benefit of trial. Moreover, the Hippeis had probably suffered greatly at Leuktra, and the corps could not have been reconstituted from the remaining young men without a significant addition of the reenfranchised.

It was not a deficiency in the amount of land but a shortfall in the supply of labor to cultivate that land which lay at the center of Sparta's social crisis. This conclusion is incidentally supported by the disappearance of the sponsorship of *mothônes* who were marginal Spartiates. Yet the flight of the Helots always damaged more seriously Messenia, more distant and vulnerable. The Lakonian Helots, more exposed to conditioning by the Spartiates, were possibly more acquiescent in their dependency. Consequently, they may have provided more Neodamodeis, which created a relief valve for their restiveness. Even after Leuktra 6000 Helots, primarily Lakonian one assumes, were prepared to fight for Sparta, a prospect which the Spartans (with an eye toward the cultiva-

tion of their *klêroi*?) viewed with anxiety (*HG* 6.5.29).¹⁰⁸ By the time of the founding of Messene, the *klêroi* there may have been so short of workers that most holders of land exclusively in Messenia may already have fallen below the income necessary for belonging to a mess, and so have been lost to the Spartiate class. Most holders of Messenian *klêroi* with property in Lakonia might have been able to remain solvent after the loss of Messenia. Nevertheless its loss set a low ceiling for any possible recovery of Spartiate numbers without a thorough redistribution of property. The relatively modest military strength of refounded Messene, compared to the great fertility of its territory, suggests that there were not many Helots in the territory from which to form an independent citizen body (returning émigrés also became citizens).

CONCLUSION

Sparta appears similar to most other Greek cities in the late archaic period, despite its social and constitutional peculiarities. Spartan population grew during the sixth century. Growing manpower both permitted and perhaps stimulated an aggressive foreign policy by a government prepared to risk losses. Growth in population had the potential for putting pressure on the system of *klêroi*, but there is no evidence that such pressure reached an unacceptable level at any time. This period of demographic confidence ended with the Earthquake/Revolt, a joint catastrophe from which Spartiate numbers never recovered. The nature of Helot labor forbade a demographic recovery through enfranchisements, and the Spartiates opted for encouraging an incremental increase in their manpower. The crucial change in land tenure and inheritance, urged on the Spartans by the disruptions of the Earthquake, created a worsening problem of maldistribution of property.

Other *poleis* maintained middle and upper classes at an equilibrium, where the genetic identity of members of the groups changed from generation to generation. The rigidities associated with the *agôgê*, messes, and dues necessitated that each Spartiate generation closely duplicate its predecessor. Mechanisms for redistributing property broke down in the midst of the economic crisis brought on by the war with the Athenians. The challenge of adapting Spartan strategy to the conduct of operations against a naval empire promoted an acquiescence in disenfranchisements of Spartiates and the corresponding upward mobility for the Neodamodeis. Sparta before the Earthquake was a polity whose small elite was balanced by a large hoplite class, who, despite the considerable re-

¹⁰⁸ No enlistment of that size is reflected in the military record. It was also not a shortage of money that militated against such a mobilization, for the Spartans made considerable use of mercenaries. Finally neither Agis III nor Areus used Neodamodeis. See Welwei (above, note 80) 157–58; Cozzoli 200–201.

sources subsidizing their subsistence, were middle-class farmers in ethos and lifestyle. The division of property after the Earthquake expanded the elite and made of Sparta a classic plutocracy, one predicated on the paying of a high tax rate in order to sustain the full exercise of political rights. Although Spartan tradition forbade the acquisition of precious metals by Spartiates, the struggle to retain and to increase status provided a powerful stimulus to acquire wealth through political/military activity in order to supplement failing rents. Those secure in their status had every reason to uphold the letter of the laws prohibiting possession of precious metals and mandating the mess dues. Here one must depart from Aristotle's analysis of Spartan oliganthropy as based on the division of estates (*Pol.* 1270b5–6; 30–32). That would not have caused property to fall into very few hands (any more than it did elsewhere at the same time). The subjection of the labor supply to *political* rules of operation, rather than to an allocation of work inputs through economic factors, expressed through prices, doomed Sparta.¹⁰⁹

¹⁰⁹ I would like to thank Dr. Paul A. Cartledge of Clare College, Cambridge, for reading this article in draft and offering many helpful suggestions.

TABLE I: THE DECLINE OF SPARTAN MANPOWER

		Spartan Army	<i>Morai</i>	Spartiates (20–49)	Perioeci (20–49)
1	Plataia (479)	10,000 (20–49)	9400 (20–49)	5000	5000
2	1st Army Reorg. (455–446)	8004–8196 (20–49) (300 Hippeis, 600 Skiritai)	7104–7296 (20–49)	3055(?)	4541 (+ 600 Skiritai)
3A	Pylos (425)	7320 (20–49)	6720 (20–49)	2755	3965 (+ 600 Skiritai)
3B	Pylos Adjusted	7704–7896 (20–49)	7104–7296 (20–49)	2755	4349–4541 (+ 600 Skiritai)
4A	Mantineia (418)	7744 (20–54)	6144 (20–54)	2251	3239 (+ 600 Skiritai)
4B	Mantineia Adjusted	7744 (20–54)	6144 (20–54)	2086–2141	3349–3404 (+ 600 Skiritai)
5	Nemea River (394)	6600 (20–54)	5400 (20–54)	< 1833	2991 (+ 600 Skiritai?)
	2nd Army Reorg.	(5 <i>morai</i>)	(6 <i>morai</i>)		
6	Leuktra (371)	4000–5000	3456 (20–54)	938	2150 (+ 600 Skiritai?)
7	Post-Leuktra	4000–5000		876+	

TABLE II: THE SPARTAN ORDER OF BATTLE

A Spartan army during
the Peloponnesian War

mora (6 in all)*

2 *lokhoi* (12)

8 *pentêkostues* (48)

32 *enômotiai* (192)

* Not in Thucydides

B Spartan army during
the Corinthian War

mora (6)/*polemarch*

2 *lokhoi* (12)/4 *lokhagoi*

8 *pentêkostues* (48)/8 *pentêkontêres*

16 *enômotiai* (96)/16 *enômotarkhoi*

TABLE III: RATIOS OF SPARTIATES AND PERIOECI

	Whole Army		<i>Morai</i> (without Skiritai)	
	Spartiates	Perioeci	Spartiates	Perioeci
1 Plataia (479)	50%	50%	53%	47%
2 Pylos (425)	38%	62%	41%	59%
3 Pylos Adjusted	35–36%	64–65%	38–39%	61–62%
4 Leuktra (371)	*26% (?)	65% (?)	30%	70%

* Not counting Neodamodeis and mercenaries

TABLE IV: RATES OF DECLINE (MALES 20–49)

	Spartiates (of <i>morai</i>)	Perioeci (of <i>morai</i>)	Spartans (of <i>morai</i>)
1A Plataia–Pylos	–45% (–1.1%/year)	–10% (–0.2%/year)	–29% (–0.6%/year)
1B Plataia–Pylos*	–45% (–1.1%/year)	+1% (+0.05%/year)	–22% (–0.5%/year)
2A Plataia–Mantineia	–55% (–1.3%/year)	–26% (–0.5%/year)	–42% (–0.9%/year)
2B Plataia–Mantineia*	–58% (–1.4%/year)	–42% (–0.9%/year)	–35% (–0.7%/year)
3A Pylos–Mantineia			–18% (–2.8%/year)
3B Pylos*–Mantineia*			–25% (–4%/year)
4 Mantineia–Nemea River			–12% (–0.5%/year)
5A Mantineia–Leuktra	–58% (–1.8%/year)	–34% (–0.9%/year)	–44% (–1.2%/year)
5B Mantineia*–Leuktra	–55% (–1.7%/year)	–37% (–1%/year)	–44% (–1.2%/year)
6 Nemea River–Leuktra			–36% (–1.9%/year)

* Adjusted to account for the absence of some Perioeci at Pylos; adjusted strength of *enômotia* 38 at Pylos.