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AGRICULTURE AND SLAVERY IN CLASSICAL ATHENS¹

In the past twenty years there has been growing acceptance among ancient historians of the fundamental role of slavery in the classical economy.² That the most developed form of “true” or chattel slavery was found in those societies that exhibited the greatest flourishing of individual freedom is a more unpalatable pill to swallow but the facts are beyond dispute: Athens, which we know best, offers the clearest examples of both. One might almost say that in the ancient world there was no true freedom without true slavery.³ We can only hope to understand this seeming paradox by turning to the function of slavery within the various social systems of the Greek and Roman world, rather than concentrating on the problems of the absolute numbers of slaves and the proportion of slave to free.⁴

The distribution of slaves within the population clearly has a bearing on their function. It has been argued that their ownership was not widespread among Athenian citizens.⁵ On this problem we do not have useful figures and our opinions depend on how we read a few familiar pieces of evidence, together with what little is added from new epigraphic and papyrological discoveries. I find De Ste Croix’s arguments persuasive, that an Athenian had to be decidedly poor not to have a slave. The crippled client of Lysias (24.6) excuses his continuing to work at his trade while claiming public support because he is unable as yet (*oupō*) to acquire a slave to take his place.⁶ Few if any hoplites

¹This paper has its origins in a desire to understand the ways in which the Greek countryside has been used and changed over the centuries. I am still very far from confident of my knowledge of Greek agriculture and rural labor. I offer a hypothesis for discussion and correction, a sample of work in progress which draws not only on my own research but that of many others, published and unpublished. They do not necessarily agree with what I say and are certainly not responsible for any misinterpretation of their views I make. I owe an obvious debt to the work of M. I. Finley and to Geoffrey de Ste Croix, of whose succinct statement, in his review of Westermann, my paper may seem to be a somewhat hazardous elaboration. [Bibliographical references will be found at the end of this article].

²See, e.g., De Ste Croix; Finley 1959 and 1973; Vogt 25. For the contrary view, Starr, and Ehrenberg 183-84.

³Finley 1959: 164 [72]. A strikingly similar formulation is offered by Morgan discussing Colonial Virginia: “The rise of liberty and equality in this country was accompanied by the rise of slavery. That two such contradictory developments were taking place simultaneously over a long period of our history, from the seventeenth century to the nineteenth, is the central paradox of American history” (141). See also his *American Slavery–American Freedom: The Ordeal of Colonial Virginia* New York, 1976.

⁴See, e.g., Degler, disagreeing with Starr and Jones, and Finley 1959: 161 [69], echoing Vogt 103. For a summary of opinion on the numbers of slaves in Attica, see Vogt 4.

⁵E.g., Westermann 8, Jones 12-13; *contra*, De Ste Croix, Bicknell 1965, French 160.

⁶Late in the IVth cent. eligibility for public support was restricted to those with property worth less than 300 drachmas; the amount of support had evidently increased since the Vth cent. and the property limit may have been raised too (Arist. *Ath. Pol.* 49. 4, and the references cited in Sandys’ commentary). An unskilled slave might have cost 200 drachmas or less but if the cripple’s business required skill he would have had to pay a good deal more (see Busolt 200). He may well have had cheaper slave help in the house.

could have been without slaves. We cannot say how much farther down the social scale ownership went but it seems inescapable that the majority of Athenian households had one or more servile members and that, whatever the percentages between slave and free, to have slave help was considered the norm.⁷

Those who affirm the great number of slaves in Athens and their significance for the city's economy usually link them primarily to Athens' exceptional importance as a center for trade and industry.⁸ For two of the more clearly distinguishable types of slaves the connection is fairly obvious: (1) slaves with no particular skills, used often in large groups as in the silver mines, either in their owner's enterprise or hired out (cf. Xenophon *Vect.* 4. 14, but note also the workers on large estates, such as that of Xenophon's Kritoboulos, *Oec.* 1 ff.); (2) skilled or experienced slaves, either working closely with their masters in workshops or retail shops, or hiring out and bringing a wage to their master, or even, with still greater independence, running an enterprise for their master. This group often lives apart (*chōris oikountes*) and receives a salary from their owners from which some are able to save towards purchasing their freedom.⁹

Domestic slaves, it is granted, are another matter. They are thought to have made up a large proportion of the whole slave population, and in view of the large number of citizen and metic families that undoubtedly were so served their numbers would necessarily have been large. But far from contributing to the economy as producers they have been described as "not producers at all, but consumers, tokens of their masters' wealth."¹⁰ A word of caution is needed: the most common term for slave in such contexts, *oiketēs*, is not

⁷De Ste Croix, Bicknell 1965. The ruffianly actions of the tax collectors in Demosthenes 24. 197 were rendered by Jones 13 (in agreement with the Budé editors, Navarre and Orsini) as 'removing doors and seizing blankets and distraining on a servant girl, if anyone employed one' and taken to indicate that even the richest 6000 Athenians did not always have a domestic servant. Bicknell 1968 (in agreement with LSJ and Vince in the Loeb translation) translates the conditional clause (*καὶ διάκονον, εἴ τις ἐχρήτο*) 'if anyone was engaged in sexual intercourse with [the slave girl]' and marvels that such far-reaching demographic conclusions have been drawn from the passage. To get the full flavor of his interpretation, translate "tear down the doors, haul off the bedding (*ὑποσπᾶν*), and the servant girl on it, if one [not "anyone"] is in the midst of fornicating with her." I am not sure the sexual sense of *χρησθαι* would be obvious here as, from the context, it is in other examples of its use in that sense. But this dramatic description, with its movement from the outside appurtenances of the house, to the furnishings within, to the girl about her business in the heart of the house, would still make its point even if *chrēsthai* were understood in its more general sense: "and if one is employing a girl as a *diakonos*, they seize her too." With a person the verb often has the sense "use as," with or without *ὡς*. In any case, I do not see that the passage tells us much about the size or nature of the households of the top third of Athenian citizens.

⁸See especially Hopkins, for whom the rise of chattel slavery in Athens and Rome is closely related to the increase in labor required in international centers of trade and empire beyond what could be met from local sources after the abolition of debt slavery. Humphreys 14-15 sees the "demand for more mobile and legally responsible labour," in the absence of free labor, as producing the highly independent type of Athenian commercial slave.

⁹Such slaves manned the 'factories' of Lysias's family (12.8) and Demosthenes' father (27.9 and 24) and in the short list in Xenophon *Mem.* 2. 7. 6. They are those who are listed with their professions in the manumission lists of the later IVth cent. (see below). Pseudo-Xenophon *Ath. Pol.* 1. 11 explains their assimilation to citizens in dress and manners and their necessary independence, all of which he attributes in a rather compressed sentence to Athens having naval power (*nautikē dynamis*).

¹⁰Hopkins; on their numbers, Sargent, ch. II.

limited to the sense of “domestic.” Though *therapōn*, *diakonos* and *akolouthos* occur in contexts implying personal service, there seems to be no single word corresponding to “servant” or “domestic servant.”¹¹ One may doubt that, in any but the larger and richer households, male slaves at least were restricted to domestic or personal service. If possession of one or two slaves by a household was as common as I believe it to have been, their function, beyond personal comfort and ostentation, is still to be sought.

Is the pattern of slave ownership in Classical Athens the result of Athenian hospitality to commercial activity, both foreign and native, and has it thus passed over into the society as a whole without comparable economic foundations, or was the function of slavery tied to the typical economic and social roles of the Athenian, however the institution came into being? I favor the latter view and offer the following hypothesis.

I start with the assumption that Classical Greece was primarily an agricultural society and that the large role slavery played cannot, even in Athens, be separated from agriculture. The model Athenian citizen was a man owning farm land, supporting his family from the produce of that land, able to dower his daughters and endow his sons from that land, with sufficient surplus to purchase the specialized goods and services beyond the capacity of his own household, and with sufficient freedom from work to engage in his social functions—ritual, political and military. In these aspirations the Athenian was one with most other Greeks.

In practice it is likely that most Athenians could approximate this ideal, except in the disruption of the Peloponnesian War. The poorer could do less for their children and would need to put more of their own time into working the land in person and with their families' help; they would have less freedom for social functions (and less demand made upon them if unable to serve as hoplites), and they might have to practice a craft or have a small business in addition to working their land; for some the land might only be a supplement to the craft or shop. Some too would hire out to earn more, an abhorrent expedient according to our literary sources (e.g., Isocrates 14. 48; Dem. 57. 45) but clearly an option open to citizens in want; hiring out to the state, as dikast or oarsman, did not bear the stigma of serving another but we should not think of either as full-time employment. At the other end of the scale the richer men found others to do their farm work and devoted themselves more fully to social life (cf. Xen. *Oec.* 2. 6). In the Vth cent. they also, and they especially, found opportunities for enrichment through the empire without thereby abandoning their Attic base.

In exploiting the land all but the richest would be to some degree *autourgoi*, men who worked on the land themselves, and in this there was no disgrace (*autourgoi* “who alone preserve the land” Euripides *Orestes* 920). It is assumed to be a good thing in both Old and New Comedy and does not require knowledge of a *technē*—the point of Ischomachos's dialogue with Socrates in Xenophon's *Oeconomicus* is that anyone with his wits about him knows agriculture already. But if he possibly can he will have slaves working with him (Xen. *Mem.* 2. 3. 3).

¹¹Klees 29-30; Gschnitzer 16-23.

It is usually said, however, that slaves were insignificant in Athenian agriculture and that slave help is inefficient in cereal culture.¹² I would argue that at least in the conditions of the Classical period the addition of some slave help to the farmer's own capacity was essential for all but the richest and the poorest, that it extended the reach of the family's work force and that this permitted forms of intensification that enabled the farmer to be fully a citizen. This involves a more complex view of Greek agriculture than is commonly held. Beyond that there are implications for the relationship of free and slave and for the family that deserve exploration. Let me try to support these propositions.

As for the size and distribution of farm property in Attica, most recent writers on the subject, from differing perspectives and with differing arguments, agree that most Athenians owned some land and that most of those owned small properties.¹³ In 403 B.C. 5000 Athenians (out of 22,000?) would have lost their citizenship under an unsuccessful proposal to restrict citizenship to land-owners.¹⁴ Under the Macedonians two out of three Athenians may have had property worth at least 2000 drachmas.¹⁵ In addition to land owned, land was rented from large proprietors and public bodies.¹⁶ In the IVth cent. the countryside was not yet divided into large estates worked by slave labor or a dependent peasantry. We might expect that this would have been no less true in the VIth and Vth centuries. It may be that the maintenance of an independent peasantry is characteristic of Athenian history in contrast to Sparta and other Dorian states.¹⁷

How was this land used? Greek agriculture is commonly thought to have been technologically backward and stagnant.¹⁸ I suspect this view, fair enough

¹²E.g., Glotz 202-3, Jones 13, Westermann 9. On the other side De Ste Croix, Finley 1959: 149 [57] (cf. n. 58, below) and White 350, for Rome.

¹³E.g., Jardé 120-22, Finley 1951: 58, Andreyev 14, who believes that many plots in the IVth cent. were in the range of 2000-3000 dr. in value and 40-60 *plethra* (3.6-5.4 hectares = ca. 8.9-13.3 acres) in size. It has been suggested (Jones 31, 79, 142, n. 50) that 2000 dr. (200 *medimnoi* = 200 dr., $\times 10$) was the requirement for the zeugite census and that the same figure was required for citizenship by Antipater (see note 15, below). Alison Burford Cooper (in this issue of *CJ*) surveys the evidence for Attica and the Greek world in general and finds that it points to a traditional estate of some 60 *plethra*, i.e., just under 5½ hectares. I would add to her evidence that the Athenians divided the island of Melos among 500 Athenian citizens in 415 B.C. (Thuc. 5. 116. 4). The island was recorded as having 23.2 sq. km. of arable land in 1961 (Ethniki Statistiki Ipitesia tis Elládhos *Apotelésματα tis Apografis Yeoryias-Ktinotrofiás tis 19 Martiou 1961* Athens) which is considerably under its full potential; cf. Wagstaff 30. Estates of 60 *plethra* would suppose 27 sq. km. of agricultural land, which seems very reasonable. Athens may have had a law at some point restricting the size of holdings in Attica, cf. Arist. *Pol.* 1266b 14, attributing it to Solon.

¹⁴Dionysius in Hypothesis to Lysias 34; population in 403, Gomme 26.

¹⁵Diodorus Siculus 18. 18. 4-5, Plutarch *Phocion* 28, cf. Ctesicles ap. Athen. 6. 272c, 21,000 citizens in 317 B.C.

¹⁶Public bodies may have controlled something under 10% of all land, Andreyev 43, Lewis 1973: 199.

¹⁷Andreyev 23.

¹⁸E.g., Jardé 190, Finley 1951: 59, 250, n. 38. The unexamined modernist assumptions of Heichelheim and French weaken their books. Heichelheim is also misleading on technical change, French with his assumption of a thorough-going market economy before Solon. I do not understand the basis of some of French's statements on agrarian conditions. For Greek agriculture I have found Guiraud and Jardé useful, especially for their gathering together of the literary and epigraphic evidence, Semple for much wide-ranging geographical and agricultural information, White for the

as far as it goes, is affected by the notion that technological innovations of themselves lead to more efficient agriculture and greater productivity. With many anthropologists I find more helpful the approach of Ester Boserup for whom agricultural innovation is largely the product of population increase. Population pressures lead to more intensive exploitation of land with changes in the use of manpower and technology. Practices long known but of limited use may become more widespread. But intensification leads usually to greater increase in work than increase in rewards and this is apparent to those affected, without elaborate cost-benefit calculations alien to the thinking of pre-modern societies (cf. Xen. *Vect.* 4.5). To the outside observer a slow rate of population growth may mean that agricultural changes are hardly visible.¹⁹ In this light, a society is not so much the prisoner of its technological knowledge as it is responsive to its own existing values, selecting systems and techniques from its own repertoire and those of its neighbors that permit as much as possible the maintenance of its social system while providing for its material needs. Classical attitudes to work and to land are quite in accord with this view.²⁰

Of the traditional crops of the Mediterranean, wheat, barley, olives, figs and grapes, it is the cereals that form the basis of a subsistence economy and that bulk largest in our ancient references. Only moderate attention is given to the others so long as no regular markets are available to take what the growers do not consume. Herding, on mountains, poorer land and the stubble from cereal crops, will have a place in any Greek territory and no doubt had an impact on cultivators.²¹ The degree to which land is cropped in cereals depends on its quality and on the amount available or, to put it another way, on population density. Continuous, annual cropping results in lower yields in proportion to the effort expended. Long or "bush" fallow, allowing the land to return to maquis for several years and then burning it over, produces excellent yields for little effort: land rather than labor is needed.²² Short fallow, sowing the land every one or two years, makes for more work as the roots of grasses require breaking up with the plow, as opposed to the burning off of the bush in long

Roman evidence for comparison. One must be keenly aware of the lack of such a work as White's for the Greek world (and in view of the nature of the Greek evidence we are not likely to get one), and of the need for archaeological research for the cultural as well as material problems of agriculture, as was stressed by several participants in the Princeton conference. Cf. Pečírka, especially 136-37; for what some of us hope to do in this regard in the Argolid, see Jameson 1976a and 1976b. Much can be learned from traditional practices in modern Greece when used with the necessary safeguards; see for example Chandor, ch. II, and Forbes 1976b.

¹⁹Boserup 58.

²⁰See Aymard 1948, Vernant 1969, Finley 1973 *passim*.

²¹The notion that Late Bronze Age and Dark Age Greece subsisted largely on stockbreeding is a widely held misconception that P. R. Helm and B. R. MacDonald, of the Graduate Groups in Ancient History and Classical Archaeology, respectively, at the University of Pennsylvania, have done much to correct in papers at present unpublished. James Redfield in this issue of *CJ* discusses the value of cattle in early Greek society. One might say that the king can do little with large estates of arable land and their surplus (and so does not possess them) whereas cattle are conspicuous for status and useful for ritual and social functions. Hence the presence of herder slaves and the lack of specific reference to farming slaves; cf. Lencman 287.

²²Loukopoulos 130-31 gives an enthusiastic description of its use on poorer, upland fields in central Greece earlier in this century. For antiquity, cf. Plato *Legg.* 8. 843e, and the young Hermes, curling himself up like dust around the ashes of burnt stumps, *Hom. Hymn* 4. 237-38.

fallow. The oxen for the plow, which cannot work on steeper, narrower land, are an investment and require fodder, thus subtracting from the increased yield more frequent cropping produces. Next in work required comes the improvement of the fallow by repeated tilling so that it retains moisture, is free of weeds and uses the turned-over growth as manure, thus providing greater returns from each crop. In the Near East wheat and barley yields have been increased 74% over continuous cropping, and the wheat yields in rotation with tilled fallow are greater than in rotation with vetch, a legume that returns nitrogen to the soil.²³

Repeated tilling, resulting in the *tripolos*, "thrice-plowed field," or the *ne(i)os*, is warmly recommended by Hesiod (*Op.* 463-64) and is known from Homer (*Il.* 18. 542, *Od.* 5. 127). It is not the knowledge of the technique but the degree to which it is employed that is significant. It is so frequently mentioned and so firmly endorsed (cf. also Xen. *Oec.* 16. 10-15) that one might suppose the practice was universal.²⁴ These exhortations, however, can also be taken to suggest that the benefits were not always apparent or even real to all farmers. Just as we have been warned against the assumption of universal fallowing by the Romans,²⁵ so we should not suppose that short fallow or the multiple plowing of short fallow was practiced everywhere and at all times in Greece. Probably because the benefits of repeated tilling are short-term and so do not concern the lessor of a long lease, I know of only one possible case of its being required in a lease.²⁶ But the elimination of fallow through annual cropping without restorative measures lowers the quality of the land and is of concern to the lessor. There are several examples of its being prohibited, which suggests it was practiced by short-sighted, "greedy" or needy farmers. Xenophon (*Symp.* 8. 25) uses as an analogy the tenant who is not concerned with the value of the land but in getting the largest harvests.

We should think of all three methods—annual cropping, bare fallow whether short or long, and tilled fallow—as alternatives available to the farmer. The practice most admired by modern writers on ancient agriculture is the rotation of crops between cereal and legumes which, with their different soil needs, add a second crop of nutritional benefit to man when combined in the diet with cereals (I do not know whether this was appreciated by the Greeks) and in any case useful for animals.²⁷ The growing of legumes was certainly known in the Bronze Age and *erebinthos*, with its satisfactory pre-Greek sound, and *kyamos* are winnowed on a threshing floor in Homer (*Il.* 13. 588-90) but we do not know how they were used in relation to other crops before the Vth cent.²⁸ I

²³Keen 63. Writing twenty-five years later, Clawson, Landsberg and Alexander deplore the almost universal practice of short fallow, which they call "weed fallow", and are doubtful of the advantages of tilling fallow with less than six feet depth of earth, based on American experience (125, 127-28). Ancient experience in the Mediterranean could be relevant. On the whole subject, see Forbes 1976b.

²⁴Jardé 24.

²⁵White 120.

²⁶*IG* XII, 7. 62 (*SIG*³ 963) from the island of Amorgos forbids annual cropping and may require multiple plowing of fallow, though I do not understand the published restorations.

²⁷The cost is in lowered cereal yield compared to the crops sown on multiple tilled fallow; the gain is in contrast with annual cropping or grass (weed) fallow. For the soil, the full benefit of legumes is only achieved if they are plowed under for green fertilizer. Sheffer 66, Theoph. *Hist. Plant.* 8. 9. 1.

²⁸On the prehistoric evidence, see Renfrew 104 ff.

doubt that we should think of an increase in their use as an example of technological progress stemming from the discovery of their value to the soil.

Depending, as we have said, on the quality and the quantity of land, these traditional techniques permitted subsistence and more, with the necessary labor not continuous throughout the year, so that the farmer could share in the equally occasional and seasonal activities of the early polis, in the ritual, political and military spheres. But such conditions were not absolute—crop yields could suffer great fluctuations, crop losses from natural disasters or warfare threatened starvation. Poverty was the messmate of Hellas, as Herodotus reminds us (7. 102. 1).

When population rises and less land is available what are the choices open to the Greek farmer, short of emigration to town or colonies?²⁹ Intensification, diversification and specialization. Intensification (which can be used more broadly for all three strategies) in the sense of greater returns from traditional crops involves one or more of the following:

— use of all possible land, including marginal land on the hillsides that yields less rewarding returns for the effort; cf. the *eschatai* of IVth cent. Attica.³⁰ This may involve the removal of stones (Theophrastus *Caus. Plant.* 3. 6. 5 and 20. 5), a task for which the family can be helpful,³¹ and building terrace walls to prevent run-off of water and soil, particularly important on steeper land.³² In the Argolid today it is hard, time-consuming work that provides no immediate, tangible returns so that most people wait until terraces collapse; only the most well-to-do pay for the work to be done to show their status.³³ The digging of drainage ditches complements terracing. The draining of lakes and marshes to get arable land is a less common option in Greece but is attested.

— more careful preparation of the soil such as breaking up of clods at the time of sowing with a hoe or by harrowing; here again the farmer's wife can be helpful.³⁴

²⁹Colonization, both early and late, repeats overseas the existing social and agricultural patterns, at least initially. The Greeks' early acceptance of distant overseas emigration, when not undertaken primarily for trade, suggests a strong cultural commitment to extensive agriculture and the social structure with which it was linked. The movement to town has been examined by Humphreys who sees in the deliberate policy of abandonment of the countryside in the Peloponnesian War the cause of the accelerated growth of a class of landless poor living on state wages in preference to employment under private persons and, as a corollary, the emergence of a mobile, skilled and better-treated class of slaves (see esp. 7-16).

³⁰Lewis 1973: 210-12, and cf. the *bandes* in the Argolid today, Gavrielides 1976b: 99.

³¹Loukopoulos 127.

³²Eurymachos taunts Odysseus, disguised as a beggar, with being too lazy to work for wages in a field on the slopes (?) laying dry walls and planting tall trees:

“ξείν’, ἢ ἄρ κ’ ἐθέλοις θηπευέμεν, εἰ σ’ ἀνελοίμην,
ἀγροῦ ἐπ’ ἐσχατιῆς-μισθὸς δέ τοι ἄρκιος ἔσται-
αἵμασιός τε λέγων καὶ δένδρεα μακρὰ φυτεύων; *Od.* 357-59

Cf. Menander *Dysc.* 377, *IG* XII, 7. 62 (*SIG*³ 963).

³³Gavrielides 1976b : 90. On the whole question of terrace maintenance and the degradation of the landscape, see Forbes and Koster.

³⁴Loukopoulos 36; harrowing is said not to have been practiced in Classical Greece, but see Pritchett 1956: 297-98, on the *οκίστιον*.

— hoeing and weeding to protect the young grain (Xen. *Oec.* 17. 11-14); in Italy and until recently in central Greece this was done in two stages.³⁵

— fertilizing, with human and animal manure, which must be gathered when it is not from flocks grazing on the field and then applied (Menander *Dyscolus* 584).³⁶ Here we might include soil improvement by means of the application of top soil from elsewhere, though such effort was probably reserved, for the most part, for gardens and vineyards, as was irrigation.³⁷

— shortening of fallow, as outlined above, even to the point of annual cropping, and repeated tilling of the fallow, which requires more labor than is worthwhile in the Argolid today.³⁸ A major difference today is the use of chemical fertilizers so that even with reduced moisture in the soil the yields are well above the 1:3 or 1:4 normal return postulated for antiquity.³⁹

All the above require one major ingredient—labor. Total crop yields can be increased but the return per man-hour is always lowered. For increased specialization and diversification the rise in labor may not be so sharp but external factors are more important. Cultural and nutritional considerations limit changes in the diet of the farmer. Beyond that point markets are required for specialized crops such as olives and grapes, whether grown in increasing variety and quantity or almost exclusively. Specialization in response to markets frees large stretches of time for other employment in or beyond the community.⁴⁰ But a major restraint in turning to specialization for a peasant society such as that of the Attic countryside, once markets had developed, was the diminution of self-sufficiency, *autarkeia* (cf. Men. *Dysc.* 714), an admired ideal even when its practical limits were recognized.⁴¹ Diversification, less damaging to self-sufficiency, can lead to the fuller use of the various niches in the environment and can spread work more evenly throughout the year, but at the cost of the periodic leisure for social functions the Greek valued.⁴²

Some forms of diversification and specialization open to the Athenian were:

— spring as well as winter cereals; because of soil and climate probably not much used.⁴³

— legumes for food and fodder in alternation with cereals.

— irrigated gardens (*kepoi*) for vegetables, along with vineyards and young orchards the chief beneficiary of fertilizer, topsoil, water channels and wells. The more intensive collection of wild vegetables is also to be considered.⁴⁴

— greater investment in fruit trees, particularly the olive, in orchards or interplanted with cereals (which is what the tenant of *IG* 1² 94 must have done

³⁵White 181, Loukopoulos 184.

³⁶Guiraud 465-68, Jardé 25-30.

³⁷E.g., *IG* 1² 94. 20, 2² 2492. 27-29.

³⁸Forbes 1976b : 9-10; Gavrielides 1976b : 102, only the well-to-do.

³⁹Gavrielides 1976b: 101 has an average yield of 1:12 for his village in the southern Argolid, Forbes on the Methana peninsula has a ten year average for one family of 1: 8.75 and reports that in pre-fertilizer days 1: 3 or 1: 4 was not considered bad (personal communication). For antiquity, see Jardé 58-60, Semple 388.

⁴⁰Cf. Gavrielides 1976a : 273, 1976b : 260-62.

⁴¹Cf. Aymard 1943; for modern Greece, Campbell and Sherrard 323-24.

⁴²On diversification and spreading the risk, Forbes 1976a.

⁴³Chandor 16.

⁴⁴M. Clark Forbes 1976a and 1976b.

so as to have had some profit from his lease before the olives were ready to bear) or on poorer arable land.

— greater investment in vines, requiring the most labor.⁴⁵

— a higher degree of symbiosis with herdsmen, allowing them grazing rights in return for manure, dairy products, animals and farm work, or direct investment in herds and herdsmen (family, hired, or slave). Here again there are heavy demands on man-power.⁴⁶

As for the actual historical situation, perhaps we can begin with the proposition that from the VIth through the early Vth to the later Vth cent. the population of Attica grew, whatever the rate or the actual figures.⁴⁷ However the increase is divided between town and countryside, even allowing for imports of food that had to be paid for, so long as we grant some rise in both areas we have conditions of greater pressure on the land and a larger market in the city. An agricultural revolution was not required for the available strategies of intensification to be brought into play.

The earliest requirement for the growing of legumes comes in a fragmentary ten-year lease of the mid-Vth century which, to be sure, may also be our earliest surviving lease.⁴⁸ Presumably the lessee was to leave fallow or under legumes one half of the land each year, or specifically he was to plant the fallow in legumes in the tenth year (cf. *IG* 2² 1241. 23). That he would be tempted to crop annually someone else's land seems evident.

By the IVth cent. we find Attica producing over ten times as much barley as wheat, and since barley was primarily the food of the very poor, slaves, and animals, whereas white-flour bread had become popular, we should suppose that a great deal of the barley grown in Attica was for sale and most wheat was purchased from abroad.⁴⁹ Athens, of course, was the greatest importer of wheat by this time. Since the soil and climate of Attica favored barley (cf. Theoph. *Hist. Plant.* 8. 8. 2) we can see this concentration on barley as a form of intensification. A similar orientation is suggested by Pseudo-Aristotle (*Oec.* 1. 6. 2 and 6) whose contrast between the Attic and the Laconian and Persian systems implies production for cash with purchase for the household of what the farm did not produce, rather than the careful laying up of stores. But we should not go so far as to suppose that most Athenian farmers of the late Vth cent. concentrated on grapes and olives for cash.⁵⁰ Diversification

⁴⁵Cf. Columella, 9½-10½ man days per *iugerum* for wheat (*De Re Rustica* 2. 12. 1), 63 man days per *iugerum* for an established vineyard (*De Arboribus* 5. 3-4) and White 371-73. For Melos, Wagstaff 30 gives male labor coefficients of 9.29 for vines, 2.07 for wheat, and for Greece as a whole 6.5 and 2.0; cf. Pepelasis and Yotopoulos 110. French 16 is much mistaken in thinking that vines require less labor than wheat.

⁴⁶Koster and Koster, and H. Koster 1974.

⁴⁷See Patterson 98-161, "The Demographic Background."

⁴⁸*IG* 1² 38, to be published by David Lewis in the third edition of the corpus as 1³ 252, with the restoration ο]σπρενε in lines 12-13. (I cite this with his kind permission).

⁴⁹Jardé 136 ff. on *IG* 2² 1672, cf. Gomme 28; Moritz 1955 : 138.

⁵⁰As does Ehrenberg 73-75. The man who sells grapes and buys *alphita* (Aristoph. *Eccl.* 817-19) buys something the *alphitopoios* (Xen. *Mem.* 2. 7. 6) has processed, cf. Moritz 1949; we cannot assume he grows no grain himself. Market prices, however, do affect the small farmer (cf. Xen. *Vect.* 4. 6). Increased numbers of draft animals in connection with industrial activity could make much use of legumes and barley. Moritz 1949: 114 warns against the view that wheat was not grown and prized in earlier periods.

rather than thorough-going specialization is more consistent with the picture we get from the casual references of the orators and comedy, from the leases and from our two "economic" treatises, and diversification departed less from self-sufficiency. Furthermore the general attitude towards land should make us hesitate to assume the greatest cash return would naturally be sought.

So far we have seen some hints of deviation from a hypothetical pattern of subsistence farming. Consideration of some calculations made for ancient agricultural conditions in general and comparison with modern data may help to show that a fair degree of intensification was practiced by the IVth cent. To support a family of five about 1000 kilograms of wheat equivalent a year are needed; with return from seed of 1:3, 135 kg. of seed per hectare gives a gross yield of ca. 400 kg., a net of 265 kg. with seed subtracted. Thus, with this conservative estimate of yield, a family of five requires 4 hectares (almost 10 acres) cropped each year in wheat, a total of 8 hectares (about 20 acres) if half the land is left fallow, 6 (about 15 acres) if only a third.⁵¹ It has been suggested that 4-5 hectares was a common size for a single property in Attica.⁵² For such an area to support a family with no other source of income, intensification, and with it very hard work, would be required. Except for the few who could afford a long-term and large-scale investment in olive trees all the methods we have considered demand an increase in hours of work or in number of workers.

This could be achieved through (1) increase in the farmer's own labor, but at social costs, as can be seen in the case of the young Gorgias in Menander's *Dyscolus*; (2) increase in the size of his own family, with disastrous consequences for the division of property in the next generation;⁵³ (3) hired labor, welcome, since it meant expenditure only when work was needed. The harvester is the typical hired man (Demosthenes 53. 21, and woman, 57. 45). Some were slaves hired from larger farmers but we do not hear of large gangs, such as were

⁵¹These figures have been suggested to me by Keith Hopkins. Hamish Forbes finds them reasonable on the basis of his field work on Methana though he warns in general that relatively small adjustments in one set of figures can have a considerable effect on other estimates. He is concerned, however, that the suggested caloric intake is too low; cf. Clark and Haswell, ch. I. The ancient Greek diet does seem to have been remarkably spare. A *choinix* (the Attic measure was about 1.087 litres, Lang 46) of barley a day was the standard slave's ration, Athen. 6. 272b, Thuc. 4. 16. 1 (the Spartans' servants on Sphakteria; the Spartans got two and some wine and meat as well, perhaps shared by the helots, cf. Gomme on the passage in *Historical Commentary on Thucydides*). A litre of wheat may be taken as weighing approximately 0.75 kg. (using the relatively light Gallic and Chersonese wheat at 20 Roman lbs. per modius = 46.82 lbs. per cu. ft.; cf. Moritz 1958: 186, 221; Jasny 64, 85 and n. 49 where 0.75 kg. is mentioned as the standard weight per litre of soft wheat in Italy "in the last few years." For the lightness of Pontic and Attic wheat, Theoph. *Hist. Plant.* 8. 4. 5). With 1.087 litres per day in a 360 day year, we get 293.50 kg. of wheat (cf. Herodotus 7. 187.2 reckoning 1 *choinix* of wheat a day, and the Roman soldier's 32 per month, Polyb. 6. 39. 13). But for barley, figured at 0.65 : 1.00 in weight to wheat (Clark and Haswell 240), the wheat equivalent per year is 191.00 kg. The value may have been greater when the ration was in the form of prepared groats—I do not know what reduction in weight occurs by the removal of indigestible material in the crushing process. And of course we are not allowing for all the other elements in the diet. Some people were expected to eat heartily—Boeotian athletes ate five Attic *choinikes* of wheat to three of Boeotian, Theoph. *Hist. Plant.* 8. 4. 5!

⁵²See note 13, above.

⁵³Athens had partible inheritance, Harrison 130-32 and 48, for daughters' customary but not legal claim to dowries. They have played a large part in the fragmentation of modern Greek farm land, Campbell and Sherrard 329-30.

leased for mining, and in the absence of many large estates that is not surprising. In one case (Dem. 53. 21) we hear of a pair who, I would think, would also have been needed to work on their master's farm. For free men there was some stigma in working for another and so it is usually mentioned apologetically as an emergency measure. One may suspect hired labor was considerably more common than our sources show. But the small farmer can get just so much out of his land and may put in days of work for his wealthier neighbor without thereby acknowledging a change in status.⁵⁴ Neighbors of more equal wealth could assist each other without being hired or being subservient to one another. But the difficulty was that such help was not regularly, dependably available, especially at times of peak demand. (4) The fourth option, adding a slave to the family work force, was the surest way of greatly augmenting labor on a small farm. There were not the social costs that accompanied family members, the labor extractable was greater and the rewards to be paid were less.

The choices open to the farmer are shown well by the description of the misanthropic Knemon in the *Dyscolus*: "He always farms his land himself, alone, with no one to work with him, not a slave of his own, not a hired man from the neighborhood, not a neighbor, but all by himself" (328-31).⁵⁵ The remarkable thing is that Knemon has property worth two talents (327) but because of his misanthropy lives like the poorest farmer with an old slave woman for the house and his daughter keeping him company in the fields (333-34), lending a hand, one might think, though her presence there is dramatically motivated. His stepson, Gorgias, supports his mother on an adjoining farm of much less value by working the farm himself with a trusted slave. There is an amusing description of the rich boy, suitor to Knemon's daughter, who finds himself helping with the hoeing (he has gone to the fields to see the daughter) while the trusted slave repairs a terrace wall (*haimasia*). The young man seems to be fulfilling his mother's nightmare, which had stirred her into a fit of sacrificing, that Pan was putting her son in fetters, giving him a jerkin and hoe and telling him to dig on the farm, i.e., making him into a farm slave (414 ff.)⁵⁶

Old Comedy, too, has examples of slaves working on farms for men depicted as poor or of modest means (Aristoph. *Pax* 1127 ff., *Plutus* 26-29, 43-46, 254) and slaves on farms are mentioned in the orators (e.g., Lysias 7. 11, 16-17, 43;

⁵⁴Cf. Mossé 184-85. Xenophon's landless man prefers to work with his own *sōma*, presumably as an occasional day laborer, than to be a salaried farm-manager for another, a slavish role, *Mem.* 2. 9.

⁵⁵

τοῦτ' αὐτὸς γεωργῶν διατελεῖ
μόνος, συνεργόν δ' οὐδέν' ἀνθρώπων ἔχων,
οὐκ οἰκέτην οἰκεῖον, οὐκ ἐκ τοῦ τόπου
μισθωτόν, οὐχὶ γείτον', ἀλλ' αὐτὸς μόνος.
... μεθ' αὐτοῦ τὴν κόρην ἐργάζεται
ἔχων τὰ πολλά. (328-34)

⁵⁶Casson, arguing that the families of New Comedy are upper class, says that Knemon is in effect a millionaire and Gorgias cannot be a poor peasant since he has a slave (57). Indeed, Knemon is well off (with land worth four to six times as much as Andrejev's postulated standard holding), though by Casson's own reckoning two talents are not a fortune, but his life is depicted as meaner than that of an ordinary farmer. As for Gorgias, Casson follows Jones without question. (Cavaignac's reconstruction of Knemon's entire budget I find ingenious but not particularly helpful.)

[Dem.] 47. 53, Dem. 55. 31, 35).⁵⁷ The problem is not the reality of this evidence but how we are to interpret it. First, what is the economic position of the people who have the slaves? The evidence from all sources seems to me consistent with the view that slave ownership reached far down among the free, though just how far down we cannot say, and that therefore examples of slaves on farms need not be limited to the wealthy. I would suppose that comic poets aimed at a degree of verisimilitude. The second and more serious question is the significance of such ownership. It is sometimes granted that the presence of one or two slaves was common but it is doubted that it made much difference.⁵⁸ Before addressing that question, there is some other evidence that may be clarified.

A series of stelae of the late IVth cent. (probably in the decade 330-320 B.C.) records the names, demes of residence and, for the most part, the professions of a large number of slaves manumitted by a particular procedure; the names of the free persons involved in the manumitting procedure, not only the owners, are also listed.⁵⁹ It is worth bearing in mind that these lists come from a limited period and do not provide examples of all types of manumission. Thus slaves who can arrange the purchase of their freedom do appear, but slaves freed by will or in return for some remarkable service may not. Only a small fraction of the male slaves can be connected directly with agriculture. Of some 85 whose professions can be read or restored with probability, only 11 are *geōrgoi*, and two more *ampelourgoi*, vine-dressers, or 15.3% of the total. These figures have been used to show the insignificance of slavery for farming in Attica.⁶⁰ (To be sure, if those without professions after their names are taken not to be retired but as all-purpose slaves who worked in the fields as needed, the percentage jumps to near 40%, but clearly it is safer not to argue from silence.) However, even so the *geōrgoi* are the single largest profession, compared with between five and eight *skytotomoi*, leather-workers, six *kapēloi*, retailers, five *emporoi*, also sellers of some sort, and four muleteers (lumping together three

⁵⁷Euphiletos's household in Lysias 1 is sometimes taken to show that female help was normal, but not necessarily male help (Lacey 137). He has a slave girl for his wife in his little house (*oikidion*) in Athens, but he himself spends days on end in the *agros*, as do his friends who are not at home when he tries to rouse them at night (11, 13, 20, 22, 23). There is no reason to suppose these farmers are alone in the country. A stingy man may not buy a slave girl for his wife out of her dowry but hire someone to attend her when she has to go out (Theoph. *Char.* 22. 10). Surely it would depend largely on the composition of the household as well on its finances how many and what sort of slaves would be owned, and as both factors changed so would the slaves.

⁵⁸E.g., Ehrenberg 80, 166-68, 182; Finley 1959: 148[56] "Some proportion of these smallholders owned a slave, or even two, but we cannot possibly determine what the proportion was and in this sector the whole issue is clearly not of the greatest importance." But Finley's contention here is that "slavery dominated agriculture insofar as it was on a scale that transcended the labour of the householder and his sons" 149 [57].

⁵⁹Lewis 1959 republishes *IG* 2² 1554-59 with a new fragment from the Agora and comments briefly on *IG* 2² 1553, 1560-61, 1564-78, and on the character and date of the whole series. Lewis 1968 includes a further fragment, N. 50, relevant to our problem. The calculations I give in the text about these and the next set of epigraphic fragments have been arrived at inevitably with some arbitrariness in determining what is or is not sure enough to use, and what professions are to be identified or grouped together, not to mention likely errors of arithmetic. I find Tod's article the most useful discussion of the professions.

⁶⁰Gomme 46, Westermann 9.

different terms), whereas the rest are represented by three or less. But the fact remains that those involved in making, selling and transporting have a variety of designations and taken together outnumber the specifically agricultural workers by a wide margin. The more telling point is De Ste Croix's, that farm workers are the least likely to be living apart, earning money of their own after paying their master his *apophora*, and thus able to purchase their freedom through savings or loans, and thus the least likely to show up on such lists. Some, of course, did gain freedom by other means. There is, for instance, a freedman herder in Menander's *Heros* and freedom is recommended as a reward in prospect by Pseudo-Aristotle (*Oec.* 1. 5. 6; his concern is with farm-workers).

The argument can be taken further. The manumission lists of ca. 330-320 B.C. may be compared fruitfully with the inscription rewarding supporters of the democracy after the overthrow of the Thirty Tyrants at the end of the Vth cent.⁶¹ They are not citizens but their precise status, both before and after their recognition, is not clear. The distribution of professions is remarkably similar to that of the manumission lists some 80 years later. Not only are 16 professions found on both series (and of those which are not duplicated only two have as many as three people each), but if one distinguishes manufacture and crafts, sales, transportation, services and farming, the proportions are very similar. Thus there are 10 *geōrgoi* out of 66 identifiable professions plus a *kēpouros*, gardener, and a *phytourgos*, nurseryman, to make 18.18% of agriculturalists compared to 15.3% in the manumission lists. Those in manufactures and crafts are 41% and 34% in the Vth and IVth cent. lists respectively, in selling 23% and 32%, in transportation 7.6% and 8.2% and in skilled services (such as that of *mageiros*, *mantis*, *grammateus*) 5% and 5.8%. The precise figures are neither reliable in themselves nor significant but they help to show that we have essentially the same group in Athenian society, be they old metics, new metics or those about to become metics. They are small businessmen and craftsmen, working partly or entirely for themselves. The supporters of the *demos* who stood with it in the Peiraeus or at Mounychia would have been such. Those few who joined the *demos* on the borders of Phyle were either richer, more independent metics or conceivably the personal servants of the leaders, though none can be so identified; we may not in fact have names preserved from that presumably shorter list.

There is no mining slave⁶² and I doubt that any males can be identified as domestic servants, generally thought to be two of the largest categories.⁶³ If we

⁶¹*IG* 2² 10 and 2403, with the new fragments published by Hereward, with discussion. See also Tod *Greek Historical Inscriptions*, II, N. 100.

⁶²The man formerly identified as a miner (Gomme 42, n. 6) is shown by Lewis (231) to be connected rather with Kynosarges as a building-worker.

⁶³Tod 9 had argued that *paidion* and *pais* referred to household servants, and not children, with the exception of *IG* 2² 1576. 60 who is shown by his patronymic to be the son of the man preceding him, both freed along with a female wool-worker by a certain Bion. This looks very much like a family. In fact of the 16 examples of these words we have (all from the manumission lists), there are 4 more in groups comparable to this (Lewis A 472, B 37, B 118 and N. 50.37), another 6 that occur in groups freed by the same party and who therefore might be children (Lewis B 19, 96, 235, 238, 259, 341), 2 with no useful context preserved (*IG* 2² 1553. 40, 1578. 3), leaving three that differ from the rest. Sostrate, Lewis A 550, is freed along with Soterides the muleteer by Antimenēs, but

are right in supposing that *oiketai* who worked on the farm were also a sizable group, their absence is no more surprising. Indeed, the translation ‘farm-hand’ for *geōrgos* may be misleading.⁶⁴ On analogy with the other professions, these *geōrgoi* are likely to have been slaves who were largely or wholly responsible for an undertaking on their owners’ behalf, hiring out for particular tasks, serving as farm managers and supervising other slaves on their owners’ or others’ land, or working rented land. We know of one metic who worked rented land after his manumission, presumably continuing his earlier profession (Lysias 7.10). The residence of most of the *geōrgoi* and *ampelourgoi* was in the town area, as with the rest of those manumitted,⁶⁵ again suggesting a certain mobility. In all cases, they would have been in a much better position to accumulate the money needed to purchase their freedom than was the common farm worker. The term *geōrgos* itself is, of course, also used of the citizen farming his own land, as in Menander’s play of that name or the chorus of Aristophanes’ *Pax*.

In sum, these texts have to do with that particular type of slave that has been seen as characteristic of the commercial activity in the city itself. They do not give us a cross-section of Athenian slavery as a whole. The presence of even this number of, very likely, exceptionally independent agriculturalists is not inconsistent with the existence of a great many more less specialized and less responsible slaves, much of whose work as that of most Athenians was on the land.

Far-reaching conclusions have also been drawn from the rarity of slaves on the *horos* inscriptions marking property pawned against a loan. For the process known as hypothecation, slaves do not appear in conjunction with agricultural property.⁶⁶ They are mentioned four times in connection with *ergastēria*,

the two ex-slaves live in different demes, which is not the case with the possible families listed above (either they live in the same deme or we don’t know that they didn’t). Sostrate is the best candidate for a servant, though there might be other explanations for her apparent isolation. Chryson of Lewis A 514 has the words *παίδι* | ‘*Ἡρακλεί*’ after her name. Does this not refer to her father? Finally, Eupeithe (Lewis A 259) has the words *παίδι τίτθ* after her name; she is freed from the same master as Lampris, a *tithē* (wet-nurse), and lives in the same deme as she. Tod’s interpretation of the abbreviation after Eupeithe’s name as a “double designation” [servant-nurse?] seems much less plausible than Lolling’s *παίδιον τίτθης*, child of the nurse. It is significant that only two or three of the *paidia* are male (there are none on the all-male lists of 402 B.C.). The fact that the great majority of the women with professions are wool-workers, *talasiourgoi*, points to women in general being less specialized than men and being assigned to the most common household industry, while girls (if the 10 or 11 *paidia* should be so identified) were not initiated into a craft or trade as early as boys and did indeed work in the house. Gomme 42, n. 5, took all the professions to refer to the trade proposed to be taken. Most or all of the *paidion* designations, I suggest, mean “no profession yet.” Pritchett 1956: 277 understands a *paidion* (sold for 72 drachmas) and a *pais* (which sold for 174 drachmas, close to the average price of all slaves) both to be children.

There is a single *diakonos* from all the texts (Lewis A 333, male). This is likely to be a profession to be practiced by the freedman, not a function in the household he has left. Tod 9 translates “valet, waiter.”

⁶⁴Hereward 113, “ ‘farm-hand’ rather than ‘farmer’ ”, Tod 9.

⁶⁵Gomme 43 and n. 1.

⁶⁶Finley 1951: 73 “Though only three texts are involved, I find in this distinction a clear reflection of the fact that slavery in Athens played its chief role in mining and handicrafts, not in agriculture, a branch of the economy in which it was relatively unimportant.”

workshops, and are probably to be restored in connection with one more *ergastērion* and with a *kaminos*, smelting establishment; for three other *ergastēria* they are not mentioned.⁶⁷ Except for one *horos* inscription, not regarded as a hypothecation stone, which records a garden, *kēpos*, along with slaves (perhaps specialized *kēpouroi* one of whom was rewarded on the restoration of the democracy),⁶⁸ they are listed neither with land nor with houses, but only with workshops. Workshops owed most of their value to the skilled slaves who worked in them, as we can see from Demosthenes 27. 9-10, and were not the collections of machinery our word “factory” conjures up.⁶⁹ Slaves were rarely pawned because the owner “by giving them up . . . seriously weakens his economic position and hence his opportunity of repaying the debt and releasing the slaves.”⁷⁰ Their importance for the value of the workshop is shown by the fact that here alone they are included as often as not. But farming is everyone’s business and skilled slaves are not part of farm property that naturally go with it. The owner of a mining property, a house or a farm can expect to make profitable use of his slaves elsewhere and the new occupant has or can get his own. The very limited occurrence of slaves in these texts tells us nothing, one way or the other, about their employment in agriculture.⁷¹

One difficulty in identifying the farm slave is that there is no distinct term for him as in systems such as the Spartan where he coincided with a social class. Specialist *kēpouroi*, *ampelourgoi*, *phytourgoi*, and of course the more general *geōrgoi* are not distinctively servile. Thucydides (7. 27. 5) speaks of 20,000 slaves running away during the Decelean War, of whom a large part (not “the majority”) were skilled, *cheirotechnai*.⁷² De Ste Croix suggested that these would have been agricultural experts, vine-dressers and the like, but I doubt that specialists would have been very numerous among farm slaves and suppose these *cheirotechnai* came largely from the *ergastēria* in the mining district and elsewhere.⁷³ But the passage as a whole does imply significant losses in farm labor. Both Alcibiades, who advocated the occupation of Decelea (6. 91. 7),

⁶⁷*ergastēria* with slaves: *IG* 2² 2747=Finley 1951: 142, N. 88, *IG* 2² 2748=Finley 143, N. 89, *IG* 2² 2749=Finley 142, N. 90, and Fine 23, N. 32=Finley 191, N. 166A. Slaves restored by Lauffer (90-91 and 92-93): *IG* 2² 2746=Finley 143, N. 91, *IG* 2² 2750=Finley 143, N. 92. *ergastēria* without slaves: *IG* 2² 2760=Finley 121, N. 7, *IG* 2² 2677=Finley 165, N. 161, *IG* 2² 2752=Finley 142, N. 87.

⁶⁸*IG* 2² 2751=Finley 170, N. 178, Lauffer 92-93. Cf. note 61, above.

⁶⁹Cf. Finley 1951: 67-68, Burford 78.

⁷⁰Finley 1951: 262, n. 124.

⁷¹I have followed the general lines of Lauffer’s argument (87-97) against Finley. But it may be that both are mistaken in drawing conclusions from what is actually inscribed on the *horos*. A. R. W. Harrison, reviewing Lauffer’s book (*Classical Review* n.s. 7[1957] 241-43), warned that “. . . it is unsafe to argue from the absence of slaves from a *horos* that they did not form part of the relevant security. The main, if not the only object of the *horoi* was to warn possible creditors or purchasers that the land, house, or factory in question was not at the free disposal of the occupier and there was therefore no compelling need to include on it the full terms of the transaction to which it witnessed.” [I owe this reference to W. E. Thompson.]

⁷²Reading *πολὺ μέρος* of most manuscripts with the Budé editors and Lauffer (see his discussion, II, 140-43, 226-27) as against B’s *τὸ πολὺ μέρος* accepted apparently by Gomme (20), De Ste Croix, and Dover and Andrewes (*Historical Commentary to Thucydides*, ad loc.).

⁷³In Thuc. 6. 91. 7, with the Budé editors I find the emended *ἀπὸ γῆς καὶ ἐργαστηρίων* easier to swallow than the manuscripts’ *δικαστηρίων*.

and Thucydides here, in his own person, speak of the Attic *chōra*, the territory, and Thucydides now confirms Alcibiades' prediction to the Spartans that there would be desertions as well as seizures and loss of revenues from mines and land. A large number of the slaves were skilled, making their loss more grievous, but the majority, from land and mines, were not.

If we have trouble in identifying "agricultural slaves" in Athens it may be in part because they are everywhere. In our sources the standard terms used for slaves do not refer to their legal, social or economic positions so much as to the aspect in which they happen to be seen, the "gedankliche Zusammenhang" in which they occur.⁷⁴ The common term *oiketēs* refers, as we mentioned earlier, not to the slave's role as a domestic servant but to his place in the *oikos*, the household, and the word itself is not limited to slaves.⁷⁵ The Homeric and Hesiodic *dmōs*, *dmōios* have a parallel etymology.⁷⁶ New slaves are ritually introduced into the household.⁷⁷ The boorish man (*agroikos*) may go so far as to have more confidence in his *oiketai* than in his friends and relations, as well as discussing Assembly business with hired hands (Theophr. *Char.* 4. 5). In the household we do not hear of specialists, such as the great variety of those who go out into the world to earn money, but of slaves who do whatever work is needed. The categories scholars favor—industrial, domestic, agricultural—cannot be applied precisely. A slave may be put to a variety of tasks: we hear of a slave, Antigenes, of the *oikos* of Nikoboulos who was set to guarding mining works (without his master's knowledge, it is alleged, Dem. 37. 25-26), a trivial example to show what must be obvious in any case, that "job security" was the least of a slave's worries. A poor man uses his family and his ox as his slaves, says Aristotle (*Pol.* 1323a), that is, a slave does what work one has to do oneself, or one's wife and children must do, in the absence of a slave. Only the rich, I have suggested, will have had male house slaves who did not also work in the family business, including the farm.⁷⁸

Every Athenian was an actual or a potential farmer—there seems to have been no problem in finding colonists—and every Athenian slave was an actual or potential farm-hand. Nor should women be thought to have been of use only in the house. The Athenian upper-class ideal was that men's sphere was outdoors while women stayed indoors and supervised the stores and the work done inside (e.g., Xen. *Oec.* 7. 18-43). It was known that among Thracians and other barbarians women did farmwork, in no way differing from slaves (Plato *Legg.* 7. 805e, cf. Aristotle *Pol.* 1252b). But references to women doing farmwork in times of need (e.g., Dem. 57. 45) and to the family of the poor man

⁷⁴Gschnitzer 25-26.

⁷⁵Cf. Athen. 6. 267e and Gschnitzer 17-18. In some cases *oiketai* may refer to women and slaves, *σώζειν τέκνα τε καὶ τοὺς οἰκέτας*, Herod. 8. 44.1, cf. 4.2; in others to children and slaves, *καὶ τῶν γυναικῶν καὶ τῶν οἰκετῶν*, Thuc. 2. 4. 2, and 5. 82. 6 *καὶ αὐτοὶ καὶ γυναῖκες καὶ οἰκέται*.

⁷⁶Nussbaum 219, n. 1.

⁷⁷The evidence for *katachysmata* in Samter 1 ff.; Lacey 31, 246, n. 89-90.

⁷⁸The forced versatility of slaves in society where ownership was widespread is inescapable but has not been given much consideration; see however Sargent 73, French 139, Lauffer 107 who raises the possibility that large slave owners might have used their slaves for farming as well as for leasing to mines.

substituting for slaves suggests that even for the free the ideal was not always met. The existence of a number of feminine terms for those doing outdoor tasks also argues for a harsher reality.⁷⁹ Tradition spoke of a time before the Athenians, or the other Greeks, had slaves, when women and children performed such tasks as fetching water.⁸⁰ No doubt poor women and children still did. The implications for slave women are clear: within their physical capacity they too worked as needed on the farm. In one version of Hesiod's text, after saying "First get a house, a woman, and a plow ox," he adds "one bought, not married, who can also ['at a pinch'? Sinclair] follow the oxen" (*Op.* 405-6). But the chief task of country women would have been the unceasing labor of preparing food, in particular the unmilled staples of wheat and barley that required grinding and crushing (*Od.* 20. 105 ff.). With the 480 men left in Plataia there were 110 women *sitopoioi* (Thuc. 2. 78. 3), so basic a function that it is not found among the manumission-list professions. If we add male slave labor to the work force, female labor for food preparation grows too.

The richer might be able to leave the farm to a manager, or to oversee the work without dirtying their hands. But the bulk of the landowners would have been *autourgoi* and if possible would have purchased *oiketai* in order to have men work with them, *synergous* (Xen. *Mem.* 2. 3.3, who presumably is thinking of farmers, not craftsmen). Farming is a *syn anthrōpōis ergasia*, a working with men rather than a *technē* applied to nature (Xen. *Oec.* 5. 14). The familiar picture of owner and slave working side by side in craft or business⁸¹ (with the owner of course receiving all profit and disbursing only what is to his advantage), is matched by their working together in the fields, and this does not have the illiberal odor of confinement or working for a wage. This is not to say that the master will not leave as much work as he can to his slave, but to expect the slaves to do all the work on the land is Utopian,⁸² and is not even envisioned by Plato for the society of the *Laws*. The slaves of citizens are there to engage in agricultural and domestic service, are not to be *chōris oikountes*, living apart, or craftsmen, nor are they to be helots or the like. The poorer citizens will not be free to engage to the same degree as the rich in public service and will in fact be "tillers of the soil, shepherds and beekeepers" (VIII, 842d). Morrow noted that there was no distinction between agricultural and personal slaves in Platonic law, and no distinctive terminology, and concluded that "It is Attica, not the Lacedaemonia, of the fifth century that most aptly parallels the life described in the *Laws*."⁸³ The prohibition of the independent, craftsman slave

⁷⁹*erithos* (m. and f.), *thēristria*, *kalamētria*, *poastria*, *trygētria*, *phryganistria*, mentioned by Herfst 16-17, who concludes that the role of women in agriculture was of very little importance. On the usually separate and complementary, but sometimes joint, labor of women and men in traditional Greek agriculture today, see Campbell and Sherrard 335. Women's labor is indispensable on the typically small farms of contemporary Greece (3.75 hectares, average, Campbell and Sherrard 329) and there are no slaves.

⁸⁰Herod. 6. 137. Cf. Pherecrates (10 Kock, *CAF* I, p. 147) ap. Athen. 6. 263b: "At that time no one had slaves, not a Manes nor a Sekis ['Housekeeper', fem.] and the women had to do all the work of the house. It was they who, from dawn, had to grind the grain; they made the village resound with the noise of their mills." On this theme, see Vidal-Naquet 29.

⁸¹The Erechtheion building accounts are the clearest example; see the discussion by Randall.

⁸²Aristoph. *Eccl.* 651. Cf. Mossé 184, Vidal-Naquet 26-30.

⁸³Morrow 1939: 18-22; 1960: 148-52.

shows the dislike of that growing phenomenon by conservatives in Athens. The more traditional Athenian use of slaves is the one Plato favors.

The significance of what I take to be a typical pattern of a farmer who works his land with as many slaves as he can afford is that, at the very least, it doubles his ability to intensify by applying traditional methods within the framework of the traditional social system, not so that he can make a fortune but so that he can be a proper citizen.⁸⁴

It has been objected that to maintain a slave for the seasonally determined work of the Attic farm would have been uneconomical. Certainly for some it was and I would not suppose that all citizens, and all farmers, had at least one slave. "For the poor man his ox is his *oiketēs*" (Arist. *Pol.* 1252b). The depths of the Euripidean Electra's suffering is shown by her unfortunate spouse being an *autourgos* without a single slave (*El.* 71-76). But the question of the significance of some 10 to 12,000 slaves (by one rather cautious estimate)⁸⁵ remains. We need to ask in what sense would it be "uneconomical" for this society and this economy to own slaves for farm work. We need to consider:

(1) That diversification and intensification can spread farm work throughout much of the year (cf. Pseudo-Aristotle *Oec.* 1. 6. 2, work should be so ordered as not to make demands all at the same time); spreading of work also means spreading of risk, as we are beginning to understand from research being done on traditional Greek agriculture;⁸⁶ even the concept of rural underemployment when examined in detail in contemporary Greece has proved to be more complex than expected, alternating sharply as it does with shortage of manpower year by year as well as seasonally.⁸⁷

(2) The problem of the cost of slave-holding. We know roughly what an unskilled slave might cost at the end of the Vth and in the IVth cent. (ca. 150-200 drachmas)⁸⁸ and compared to a pair of mules costing 450 to 800 drachmas (Isaeus 6. 33) he was inexpensive, and we can figure roughly the cost of maintenance for a slave.⁸⁹ On the other hand, though I have referred to a possible minimum production per hectare for wheat, I do not as yet see how to put a figure to the increased production the various forms of intensification

⁸⁴Morgan writes of the ideas of republican liberty Jefferson shared with his countrymen: "It was an axiom of current political thought that republican government required a body of free, independent, property-owning citizens. A nation of men, each of whom owned enough property to support his family, could be a republic." ". . . both his [Jefferson's] distrust for artificers and his idealization of small landholders as 'the most precious part of a state' rested on his concern for individual independence as the basis of freedom. Farmers made the best citizens because they were 'the most vigorous, the most independant, the most virtuous. . . .'" (144-45); cf. also, "In Revolutionary America, among men who spent their lives working for other men rather than working for themselves, slaves probably constituted a majority" (150, citing Jackson Turner Main); "It was slavery, I suggest, more than any other single factor, that had made the difference, slavery that enabled Virginia to nourish representative government in a plantation society. . . ." (172).

⁸⁵Sargent 82, for the Vth cent.

⁸⁶Forbes 1976a.

⁸⁷Pepelasis and Yotopoulos.

⁸⁸Westermann 14-15. How more modest Athenians came to make an investment in a slave is a problem which no doubt has led many scholars to think they did not.

⁸⁹Busolt 201-4, Burford 139-41. I am not sure that to describe these costs as either high or low, without reference to other relevant considerations, tells us very much.

might achieve, nor to the extra man-hours needed for such an increase that might be forced out of a slave. Calculation of life expectancy or the loss of working days from disease are beyond me. But the prevalence, as I see it, of many small properties with one or two slaves makes me suppose that the system was viable and, by the same token, that the absence of these slaves would have profoundly altered the nature of the Athenian economy and social life. The essential point may be that the sharper rise in labor needed compared to production yielded, as properties had decreased in size, had social consequences for the farmer-citizen which could only be met by this form of dependent labor. To put it another way, without the availability of chattel slavery the eventual disjoining of farmer and citizen would have occurred much sooner.⁹⁰

(3) Unlike the farmer's sons and daughters who required a share of what might already be an inadequate estate, the slave (once acquired) makes no demand on the farmer's property other than maintenance while working and, very probably, at the end of his life when entirely unable to work, a good deal shorter period than in our own society.⁹¹ Before that time he could be sold or freed, if necessary.

(4) The slave attached to an *oikos* is not limited to farm work. If the family has other sources of income he may be of use there as well. He may accompany his master when the master campaigns as a hoplite or goes on a trip abroad, or he may be hired out when he is not needed at home (cf. Theoph. Char. 30. 17). The "hired man from the neighborhood" Knemon fails to use could be a slave from a nearby farm not needed at the time at home (Men. Dysc. 331-32).⁹²

(5) Finally, there is the social gain: the slave, minding the farm, permits the farmer to serve as hoplite or as juryman or to exercise his other civic rights. Under the most favorable circumstances, slaveholding enabled the Athenian to be a participant in a democracy. The public pay available through a democracy might not enable him to support his family but at least he could feed his slave. Under less favorable circumstances he "dropped out" of his society.

To conclude, the techniques available to the Greek farmer allowed adjustment to shortage of land and increase of population such as marked the development of Classical Athens. The price was manpower, to supplement the labor of the small farmer, to substitute for that of the larger farmer. Athenians obtained their dependent manpower, by means we do not understand fully, primarily from the non-Greek areas to their north and east.⁹³ It is usually held

⁹⁰Cf. Humphreys 6-7. The pattern I have tried to describe falls between Chayanov's peasant farm system and his slave farm system, neither of which operates entirely in terms of familiar economic criteria ("On the Theory of Non-Capitalist Economic Systems" 1-28). Studies of other societies that lie between primarily subsistence and primarily market economies may prove helpful.

⁹¹I know of no explicit evidence on this matter. [Dem.] 47. 55 (a nurse, freed, married, widowed and living with the family again) is interesting but not necessarily typical. Pseudo-Arist. *Oec.* 1. 6. 8 recommends as doorkeeper (*thyroros*) a slave who is unfit for other work.

⁹²On the importance of slaves hiring out in the American South, Degler 277. Hiring out in Colonial Peru, with the case of a widow living entirely off the earnings of a slave, Bowser 103-5. A single slave supports a woman and her daughter in Terence's *Adelphoe* 479 ff.

⁹³Boserup is instructive on the way in which high-population, short-fallow areas have preyed on those of low population and long fallow for their slaves (74). For antiquity, see especially Finley 1961, emphasizing organized trade rather than piracy as a source, cf. Burford on the recurrence

that the system worked so long as labor could be obtained from outside the economy, though one may suspect that the offspring of slaves deserve greater attention than they have received.⁹⁴ Athens was well placed, perhaps already in the VIth cent., certainly by the Vth, to tap the outside reservoirs of labor. To venture a guess at the historical development of slavery in Athens, as against the overly static picture I have been sketching, one might argue that a traditional pattern of taking servile members into the household, characteristic of the larger, richer *oikoi*, becomes common in time, as opportunities for such investment arise, both in the agrarian sector and for the more commercially and industrially oriented with interests in town and port. Humphreys has marked the Peloponnesian War as the "take-off" point in the development of the independent, 'professional' slaves. The Persian Wars, with the expansion of mining and ship-building before them and the influx of unprecedented booty after, may have provided the initial impetus in all three areas of slavery (mines, professions and household).

Statistically, it may well have been that the greatest number of slaves in Attica were employed in the mines and as urban workers. But the former hardly impinged on the lives of most citizens, for all their misery or their benefit to the economy; the latter, craftsmen and retailers, jostled citizens in the street and were indistinguishable in appearance from the free (Pseudo-Xen. *Ath. Pol.* 1. 10-12; Plato *Rep.* VIII. 563b). For most Athenian citizens the slave was the *oiketēs*, the lowest member of his household. There are implications in this situation for the Athenian family and for the ultimate fate of the slave that deserve exploration.

MICHAEL H. JAMESON

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of the same nationalities "which implies fairly steady contact between certain sources of supply and the Athenian slave market" (44-45). Pritchett 1971: 80-82, however, stresses the vast numbers captured in warfare, soldiers and civilians, during the Vth and IVth centuries. "... the army was the major slave supply instrument in the Greek world" (82). Aside from clearly foreign names and names that are ethnics, the many Greek names for slaves, such as the 12 in the Attic Stelae (Pritchett 1956), he thinks are often overlooked. But there is no obvious reason why a slave of foreign origin should not have a Greek name. I am struck, rather, by the scarcity of clear references to *Greek* slaves in Classical Athens. Could the solitary Messenian in the Attic Stelae (*Hesperia* 22 [1953] 288, X 9) not be a Sicilian from Messene (Attic for Doric Messana) instead of an unfortunate member of Athens' allies from the Peloponnesos? (And why on earth should one suppose that "One Messenian, at least, to our knowledge preferred slavery in Athens to the 'privileges' of helotage in his native land"? *Arethusa* 8 [1975] 81, n. 61.) From memory, I can think of Pausanias's man from Argilos (Thuc. 1. 132. 5), who might, like the Messenian, have been a native of the hinterland to these Greek towns, and Alcibiades' alleged Melian mistress (Pseudo-Andocides 4. 22). The selling into slavery of whole cities, or at least of the women and children, must have provided a good number of slaves of Greek origin momentarily. But warfare does not seem constant enough in those areas from which the most common slaves came to provide an explanation. I would take the enslavement of hoplites, at any rate, to be essentially an institution for extracting ransom.

⁹⁴Cf. Finley 1959: 152. Degler 275-76 warns that slavery in the South flourished as never before, after the closing of the slave trade, with reliance on home-breeding. Cf. White 370. For the contrary view, Chayanov 15-16, De Ste Croix.

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