

## The Village of Theadelphia in the Fayyum: Land and Population in the Second Century<sup>1</sup>

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EGYPT WAS ALWAYS PRIMARILY a land of rural settlement. Although recent research has suggested that the province became probably one of the most highly urbanised in the Roman Empire with as much as a third of its population living in cities, that still leaves at least two-thirds living in smaller settlements within the countryside.<sup>2</sup> Compared to the rest of the ancient world, our sources of evidence for studying rural settlement in the province are amazingly abundant and detailed, although it should be stressed that they are still primarily documentary rather than archaeological in nature. However, they are far from being spread evenly across the whole of the province. Although we can know a certain amount about rural settlement in parts of Middle Egypt and the Delta, the bulk of our sources derive from the Fayyum, which formed the administrative entity known as the Arsinoite Nome during this period. Even here there is no even spread of evidence, since a dozen or so villages almost entirely located on the edge of the

<sup>1</sup> Abbreviations employed for volumes of papyri and some journals may be found in Turner (1980), 154–79 and Oates *et al.* (1992). I employ the following abbreviations for units of currency and measurement: dr. = drachma, ob. = obol, ar. = aroura, art. = artaba.

<sup>2</sup> Rathbone (1990), 119–22 estimates an urban population of Roman Egypt, including Alexandria, of 1–1.5 million, or 20–25% of his estimated maximum total population of 5 million. Bagnall and Frier (1994), 53–6 estimate an urban population of 1.75 million, or 37% of their estimated total of 4.75 million, but they admit that ‘both figures seem high to us’. Both estimates of the total population are considerably lower than the figure of 7.5 million, excluding Alexandria, given by Josephus (*BJ* 2.385) for the first century CE, cf. Bowman (1996), 17.

nome are abundantly attested, while for the rest we have in general to make do with brief and scattered references.<sup>3</sup>

This chapter concentrates on the village of Theadelphia (modern Batn-Ihrit), located on the western edge of the Fayyum some 7 km south of the shore of Lake Moeris or Birket el-Qarun. It was founded in the third century BCE on land reclaimed as a result of the extensive engineering operations conducted in the region by the early Ptolemies.<sup>4</sup> By the early fourth century CE the village seems to have been largely abandoned, probably as a result of problems in ensuring a continuous water supply to its agricultural land.<sup>5</sup> A series of excavations conducted there between 1898 and 1913 uncovered a built-up area of c. 15 ha, including remains of houses, a temple, baths, and the cemetery.<sup>6</sup> The site has also yielded vast quantities of papyri. Indeed, Theadelphia has produced more papyri than any other Fayyum village with the possible exception of Karanis (modern Kom Aushim) and Philadelphia (modern Kom al-Hammam), located in the north of the nome, and Tebtunis (modern Umm al-Braygat), located in the south. A number of private archives are known to have originated there, including by far the largest archive to survive from Roman Egypt, the third-century Heroninos Archive.<sup>7</sup> In this chapter I focus on a group of related documents, mainly tax registers dating to the second century CE, which have received less attention than they deserve.<sup>8</sup> As a group, in conjunction with other relevant texts, they offer the potential to reconstruct the social and economic history of the village at the time of their compilation. Such a task cannot be undertaken here.<sup>9</sup> Instead I shall use this evidence to address a number of important issues concerning land and population in the context of a single village community during a limited period of time. It is frustratingly difficult to establish firm conclusions on many of the issues, but I hope that this study will at least delineate the potentialities and the limitations of the documentary evidence as a basis for reconstructing part of the Egyptian agricultural landscape.

<sup>3</sup> For studies of individual villages see Hohlwein (1949)—Euhemeria; Oates (1966) and (1970)—Philadelphia; Geremek (1969)—Karanis; Casanova (1975)—Theadelphia; Samuel (1981) and Hobson (1984b)—Soknopaiou Nesos; Hobson (1985) and (1986)—Heraklia; Battaglia (1982) and Hobson (1982)—Philopator alias Apias; and Rupprecht (1994), 167–71 for further refs.

<sup>4</sup> For further details see Thompson, above, chs. 5 and 6.

<sup>5</sup> *P.Sakaon* 35 and 44 reflect a crisis in 331/2 allegedly resulting from a failure by the village to receive water, see Bagnall (1979–82) and also (1985).

<sup>6</sup> Casanova (1975), 70–1, with further refs.

<sup>7</sup> See Bagnall (1980). The Heroninos Archive is estimated to comprise over a thousand texts, of which just under half have so far been published. Rathbone (1991) is a recent study of the published portion of the archive.

<sup>8</sup> Texts from Berlin are published in *P.Berl.Frisk*, *BGU IX* and both volumes of *P.Berl.Leihg.*, those from Columbia in *P.Col.* II and V. The later volumes of *P.Stras.* also contain several texts. There are related texts which remain unpublished (see *BGU IX*, introd. and Kambitsis (1988)).

<sup>9</sup> Jacques France (Katholieke Universiteit Leuven) is preparing a doctoral thesis consisting of an historical study of all the evidence from Theadelphia.

### The context

The total amount of cultivated land in the territory of Theadelphia in the middle of the second century was at least 6,300 ar. (= c. 1736 ha) and more probably about 6,800 ar. (= c. 1874 ha). Of this 7–8 per cent was devoted to vineyards and garden land, while the remainder was arable.<sup>10</sup> This figure is well above the average of 3,000 ar. (= c. 827 ha), for what it is worth, estimated for all Egyptian villages in the Roman period.<sup>11</sup> The average amount of cultivated land varied, though, depending on where in Egypt a village was located. In the Mendesian Nome in the Delta, it may have been about 3,500 ar. (= c. 965 ha),<sup>12</sup> whereas in the Oxyrhynchite Nome in Middle Egypt it may have been only 2,200 ar. (= c. 606 ha).<sup>13</sup> Although we cannot make a reliable estimate of the average for the Arsinoite Nome, the handful of villages the amount of whose cultivated land we do know reasonably well all yield figures significantly larger than the Egyptian average. But Theadelphia was far from being one of the largest villages in the nome in this respect. The total amount of cultivated land in Karanis is estimated to have been about 12,300 ar. (= c. 3,390 ha), and that in Philadelphia to have exceeded 10,000 ar. (= c. 2,756 ha).<sup>14</sup>

The residents of Theadelphia were not confined in their agricultural activities to the village's territory alone. There is abundant evidence for their cultivating

<sup>10</sup> The total amount of arable land can be gleaned from *P.Berl.Leihg.* I 5. 19 (158/9), just over 5,283 ar. of arable paying taxes to the *dioikesis* (see below, n. 32), plus *P.Stras.* VII 688. 13 (216), giving a figure of just over 563 ar. for imperially owned (ousiac) grain land. The latter figure is almost certainly too low for the total amount of the village's ousiac arable land in the middle of the second century for two reasons. First, the same document gives a much lower figure for the total amount of dioiketic arable land in 216 compared to that known from half a century earlier, suggesting that the same may be true of ousiac arable land (see below, p. 188 and Table 8.1). Second, *P.Berl.Leihg.* I 1. verso ii. 11–iii. 9 records the disbursement of almost 430 art. of wheat and 30 art. of barley as seed loans for ousiac land during the month of Hathyr (Oct./Nov.) 164, and further loans may have been disbursed during the following month; at the usual seed rate of 1 art./ar., this would account for an area very similar to or even larger than the 563 ar. under consideration. However, even if the total amount of seed loans did not exceed 563 art., it seems unlikely that the entire amount of ousiac arable land in the village would have been cultivated with wheat, or indeed cereals, in a single year. Although it is impossible to determine the exact amount of ousiac arable land in the village in the middle of the second century, the figure of c. 1,050 ar. (= c. 289 ha) suggested by Rathbone (1990), 133 may be of the right order of magnitude. The figure of c. 2,400 ar. (= 661 ha) proposed by Bagnall (1985), 294 seems to me too high. Rathbone rightly discounts the relevance for Theadelphia of the figure of 14,641 ar. (= c. 4,035 ha) given by *P.Stras.* VII 685 (149/50), the verso of VII 688. To the area of arable land must be added that of vineyards and garden land, estimated to be c. 400 ar. by Rathbone (1990), 133; however, calculations using another tax register suggest a figure of c. 500 ar. (= c. 140 ha), cf. Sharp (forthcoming).

<sup>11</sup> Rathbone (1990), 124.

<sup>12</sup> Rathbone (1990), 134.

<sup>13</sup> Rathbone (1990), 125.

<sup>14</sup> Rathbone (1990), 132–4.

Table 8.1 *P. Stras.* VII 688 col. i.

Land category	Area	Area
Under <i>dioikesis</i>		4302 7/128 ar.
of which: <i>en sitikois</i>	3067 71/128 ar.	
<i>en argyrikois</i>	1234 27/64 ar.	
Ousiak land		866 109/128 ar.
of which: <i>en sitikois</i>	563 99/128 ar.	
<i>en argyrikois</i>	303 21/32 ar.	
Under beans(?)		49 41/64 ar.
TOTAL		5218 35/64 ar.
Assigned from the plains of other villages:		
from Euhemeria		395 1/8+ ar.
from Polydeukia		431 7/16+ ar.
from Autodike		7 1/4 ar.
from Magais		20+ ar.

land belonging to the territories of neighbouring villages, some if not all of which were to a certain extent administratively dependent on Theadelphia.<sup>15</sup> Our evidence, however, almost entirely concerns public land elsewhere, at least some of which was assigned by the state to the residents of Theadelphia by a process called *epimerismos*.<sup>16</sup> We have a document recording the total amounts of seed loans distributed to Theadelphians for the cultivation of such lands in 164. Assuming the usual rate of 1 art. of seed per aroura to have operated here, the amounts of land involved would have totalled just under 936 ar. (= c. 258 ha), or perhaps a seventh of the total extent of Theadelphia's own arable land.<sup>17</sup> Land was also owned or leased privately by residents of Theadelphia in neighbouring

<sup>15</sup> Theadelphia was the centre of an administrative unit called a toparchy during this period, cf. *P.Fay.* 81. 4–5 (115). It consisted of a number of villages and functioned as a unit within the taxation system, although its importance may not have been confined to that realm alone. Some of these villages may have operated independently in other ways, however. Indeed, Euhemeria possessed its own *komogrammateus* (village scribe) at some point during the second century (cf. *P.Stras.* I 57), although at the same time it may have formed part of the toparchy based on Theadelphia given the frequency with which portions of its public lands were assigned by the state to the residents of that village for cultivation.

<sup>16</sup> See Poethke (1969), 36–46.

<sup>17</sup> *P.Berl.Leihg.* I 1 verso. iii. 10–v. 4. We probably ought to reckon the total amount of assigned land to have been much greater if we allow for the cultivation of crops other than cereals.

villages.<sup>18</sup> It is clear, however, that some land contained within Theadelphia's own territory was owned and leased by non-Theadelphians. Almost all our evidence points to their being either Alexandrian citizens or registered inhabitants of the metropolis, or chief settlement, of the nome, Ptolemais Euergetis (modern Madinat al-Fayyum).<sup>19</sup> However, that does not necessarily mean that they always lived outside the village. While our evidence for the employment of business managers, termed *phrontistai*, at Theadelphia may in some cases relate to absentee landowners from the metropolis and elsewhere, there are a number of documents indicating that non-Theadelphians owned houses and even normally resided in the village.<sup>20</sup> The presence of metropolitites fits with evidence from other parts of the province that, at least in the first and second

<sup>18</sup> *BGU IX* 1893. 578 (149) (cf. *P.Wisc.* I 33, introd.) and *P.Fay.* 33 (163); probably also *P.Oslo II* 28 (116), *P.Berl.Leihg.* I 4 verso v. 6–8 and vii. 5–13 (165) and I 25 (165), receipts for taxes paid at Theadelphia for private land at least partly located in other villages. *P.Wisc.* I 36 (147) is a registration of a house in Theadelphia by a woman from the village who also happens to be registered in Apias, a village some 30–40 km distant. This suggests that she probably owned property (including land?) there too. *P.Berl.Leihg.* I 16. B–E (161) and *SB XVIII* 13289 (161) are also census declarations made by Theadelphians living in other places.

<sup>19</sup> Alexandrians and metropolitites holding land at or assigned to Theadelphia: *SB XVIII* 13311 (131), *P.Stras.* VI 568 (138–47), *P.Stras.* VI 584 (141), *SB XII* 10920 (151), *BGU IX* 1894. 154, 217 (157), *P.Stras.* VI 511 (169), *P.Berl.Leihg.* I 24 (169), *BGU IX* 1899. 146–50, 168–70 (after 172), *SB VIII* 9906 (194), *P.Lund VI* 7 = *SB VI* 9357 (198); possibly *P.Ryl.* II 322 (2nd century), if it relates to Theadelphia. In particular cf. *P.Col.* V 1 verso 1b (c. 160), a list of taxes outstanding from metropolitites for land in Theadelphia, containing almost 50 names. In the following century we encounter a number of important Alexandrian citizens owning land in the village, such as Lucius Septimius Aurelius Posidonius, Valerius Titianus and Aurelius Appianus, cf. Rathbone (1991), 25–40 and ch. 2.2B. Residents of other villages: *BGU XV* 2551 (95) implies that a resident of Polydeukia either cultivated or leased for grazing some land in Theadelphia.

<sup>20</sup> Employment of a *phrontistes* or other business agent possibly by absentee landowners: *SB XVI* 12518 (104/5), *SB XVIII* 13311 (131), *P.Hamb.* I 8 (136), *P.Amh.* II 90 (159), *P.Berl.Leihg.* I 24 (169), *P.Hamb.* I 10 (2nd century) implies that Herais daughter of Dioskoros, although employing a *phrontistes*, normally resided in Theadelphia; she may, nevertheless, have been registered elsewhere. Outsiders resident or owning houses in Theadelphia: *SB XVI* 12728 (116), *P.Fay.* 31 = *M.Chr.* 201 (125–30), in which a female villager declares her wish to sell part of her house property there to a metropolitite, who may in fact be her sister's grandson, *P.Wisc.* I 18 (146/7), *SB XVIII* 13290 = 13291 (161), *SB XVIII* 13292 = 13293 = 13294 (161), *SB XII* 11008 (196); probably *P.Heid.* IV 298 (104/5), in which a metropolitite declares for the census the house in Theadelphia belonging to his ward, Gaius Petronius Abaskantos, and *P.Ryl.* II 175 (168), a loan of money between three metropolitites drawn up in the village; possibly *P.Ryl.* II 98a (154/5), an offer to lease hunting rights in the village, and *PSI V* 463 (c. 158–60), where the female petitioner owns a house in the metropolis and two houses inherited from her father in the village, in one of which she used to live with her estranged husband. Of course, owning a house does not necessarily imply the ownership of agricultural land. As a general point, we might add that the distance of Theadelphia from the metropolis (nearly 30 km as the crow flies) must have discouraged people normally residing there from personally undertaking the cultivation of lands which they owned within the village's territory.

centuries, people registered in the metropolis often actually resided in the countryside.<sup>21</sup>

The total population of the village during the late 120s and early 130s can be estimated reasonably accurately on the basis of poll-tax registers to have been between 2,100 and 2,300.<sup>22</sup> Privileged status groups such as Roman citizens and their slaves were exempt from this tax, but we do not know how many were normally resident in Theadelphia during this period.<sup>23</sup> However, the figures should probably not be understood to include metropolitans or those from other villages resident in Theadelphia, even though they may not have been obliged to pay the poll-tax in their places of registration. Given the figure of 6,300 ar. for the minimum total area of cultivated land calculated above and assuming a maximum population of *c.* 2,500 in order to allow for the number of resident outsiders, the population density would not have exceeded 150 persons per square kilometre. However, not only is 6,300 ar. almost certainly too low as a figure for the total area of cultivated land for the reasons already advanced,<sup>24</sup> but we should also allow for the substantial areas of pasture and commercially exploitable marshland possessed by the village near Lake Moeris.<sup>25</sup> One tax register explicitly records areas totalling over 1250 ar. (= *c.* 345 ha); however, other recorded tax payments suggest that the actual area was several times as large.<sup>26</sup> Comparable population data is much scarcer, but suggests that, just as in the area of its territory, so Theadelphia's population was considerably above the village average both for Egypt as a whole and for the Arsinoite nome in particular.<sup>27</sup>

Two other points must be made about Theadelphia's economy. First, a number of documents suggest the possible importance of pig-breeding, in part at

<sup>21</sup> Members of the family of the descendants of Patron (cf. Clarysse and Gallazzi (1993)) held civic offices in the metropolis but seem normally to have lived in Tebtynis, cf. Bagnall (1974), 179–82. For sons of metropolitane families residing at and supervising the management of country estates see, e.g., the sons of Sarapion from Hermopolis (modern El-Ashmunein), *P.Sarap.* 81; 83a. See in general Braunert (1964), 131–42.

<sup>22</sup> *P.Col.* II 1 recto 2 (128/9), *BGU IX* 1891 (133/4) and *P.Col.* II 1 recto 1a-b (134/5) suggest a total figure of between 680 and 750 taxpayers. Poll-tax was paid by all adult males between the ages of fourteen and sixty-two. Multiplication by a factor of 3.1, derived from a number of modern Egyptian censuses, gives a reasonable estimate of the total population figure, cf. Rathbone (1990), 130.

<sup>23</sup> Rathbone (1990), 133.

<sup>24</sup> Above, n. 10.

<sup>25</sup> At least some of the marshland was imperially owned, cf. Parássoglou (1978), Appendix 2 for refs.

<sup>26</sup> *BGU IX* 1894. i.8–25, 102–8 (157), cf. *P.Col.* V 1 verso 1a. ii., cf. 27–34 (160).

<sup>27</sup> Rathbone (1990), especially 133. The figure for the population of Karanis, derived from Boak (1955), is considered far too low by van Minnen (1994), n. 95.

least for urban consumption.<sup>28</sup> Second, consideration ought to be given to the extent of non-agricultural activity in the village. From the occupational designations scattered throughout our documentary sources, it is clear that Theadelphia possessed something of a service and commercial sector.<sup>29</sup> It is also interesting to find a weaver registered in the metropolis practising his trade in the village, no doubt taking advantage of the large local supplies of wool resulting from the availability of extensive areas of pasture.<sup>30</sup> Theadelphia's size and role as an administrative centre must have encouraged the development of its non-agricultural sector. However, its significance was probably always limited when compared to agriculture, and indeed some of those attested as practising non-agricultural occupations are at the same time known to have owned or leased land.<sup>31</sup>

## Arable land

### *Ownership and Distribution*

Land in Roman Egypt belonged to one of several juridical categories. As far as arable land was concerned, the classification not only affected the conditions of tenure but also had a significant effect on the level of tax to which it was liable. From this point of view, the main distinction was between the categories of public and private land.<sup>32</sup> In Theadelphia in the mid-second century about a third

<sup>28</sup> *P.Munch.* III 73 (150), *SB* IV 7469 (193) and possibly *P.Oxf.* 10 (98–117) for pig-breeding in Theadelphia by metropolitans. *P.Fay.* 108 (c. 171) is a petition from two pig-merchants from the metropolis who were attacked and robbed while returning from Theadelphia. *P.Mich.* XII 628 (183) is an application from one of these men for the concession to pickle and sell meat in the villages of Theadelphia and Argeias during the current year.

<sup>29</sup> Attested occupations include: miller (*BGU* IV 1067 (101/2), *P.Col.* V 1 verso 3. 192 (155), *P.Col.* V 1 verso 4. 101 (161–80), *BGU* IX 1900. 12, 94, 107, 123 (c. 196)); sellers of oil, wine and vegetables (*P.Berl.Leihg.* II 33. 5, 17, 20 (beginning of second half of 2nd century)); butcher (*P.Stras.* IX 827. 1 (117–61)); seamster (*P.Col.* V 1 verso 2. 10 (c. 160)); goldsmith (*BGU* IX 1896. 192 and 1897. 24 (166)); seller of pickled meat (*P.Mich.* XII 628 (183)); wool-carder (*SB* XII 11008 (196)); doctor (*P.Col.* V 1 verso 6. 25 (c. 160/1)); flute-player (*BGU* IX 1900. 131 (c. 196)). Note that we cannot be sure in every case that the holder of the occupation actually practised it in Theadelphia. For an earlier period, see Casanova (1975), 101.

<sup>30</sup> *P.Fay.* 59 (178).

<sup>31</sup> See, e.g., *BGU* IX 1900, introd., p. 191.

<sup>32</sup> Private arable land was normally assessed at a tax rate of a little more than 1 art./ar. of wheat at most, whereas public usually had to pay several times that amount, technically as rent. See Rowlandson (1996), ch. 2 for an excellent up-to-date discussion of the various land categories. Note, though, that for officials the main distinction lay between the various government departments to which the taxes and rents collected were to be accounted; the largest such department, the *dioikesis*, received the revenues from both public and private land.

of arable land was in private ownership.<sup>33</sup> Most of this land will have originated in individual allotments granted by the Ptolemies to military and other settlers, only becoming private after the Roman conquest towards the end of the first century BCE when the juridical concept of full private ownership of land was first introduced.<sup>34</sup> It has recently been argued that the proportion of public to private land always varied considerably throughout Egypt and was much higher in the Arsinoite Nome, which had undergone an extensive programme of land reclamation in the early Ptolemaic period, than in the Nile Valley and Delta. For example, at Naboo in the Apollonopolite Heptakomia in the reign of Hadrian (117–38), at least two-thirds of the arable land was private, while in the fourth-century Oxyrhynchite Nome the proportion was three-quarters.<sup>35</sup>

How many people held arable land in Theadelphia and how was it distributed? Here we must turn to an official register dated to *c.* 196 by its editor, *BGU IX 1900*, which lists groups of individuals each responsible for cultivating a certain area of land, usually of 80 ar. (= *c.* 22 ha) in extent. Fifty such groups are identified providing a total of 362 names, but at the end of each is the expression '*kai metochon*', which we would expect to be translated as 'and partners'.<sup>36</sup> What is meant by this? The editor suggests that it may either be formulaic or point to sub-lessees. It would certainly be strange if, after giving between five and nine names for each group, remaining members enjoying the same status were included anonymously under such an expression. In the absence of a satisfactory explanation I shall overlook this expression and any implications it may have in what follows.

The groups of individuals listed in *BGU IX 1900* are probably the *pittakia* known from other documents from Theadelphia of the same period.<sup>37</sup> Each group was headed by a *pittakiarch*, who seems to have been responsible for allocating land to the individual members as well as underwriting their tax payments to the state. It is clear from the other documents mentioning *pittakia* that they only operated in relation to public land, which, moreover, was located not simply in Theadelphia but in neighbouring villages as well.<sup>38</sup> However, the register must underrepresent the total number of landholders in Theadelphia because it does not mention women, who are otherwise quite commonly attested owning land

<sup>33</sup> *P.Berl.Leihg.* I 5 (158/9) gives a figure of 2,161 5/32 ar. (= *c.* 596 ha) of private arable land, which can be compared with the reconstructed total of at least 6,300 ar.

<sup>34</sup> Rowlandson (1996), 28–9. Contrast Manning, above, ch. 4.

<sup>35</sup> Rowlandson (1996), 65–7.

<sup>36</sup> I am unclear, however, as to the significance of the genitive case (the nominative form would be *kai metochoi*).

<sup>37</sup> However, compared to the documents which are explicitly concerned with *pittakia*, such as *P.Col.* V 1 verso 4 (161–80) and *P.Berl.Leihg.* II 33 (beginning of second half of 2nd century), there is a striking degree of equality in the amounts of land assigned to each group in this register.

<sup>38</sup> On *pittakia*, see *P.Berl.Leihg.* I 22, introd. and *P.Col.* V, pp. 144–64.

and even leasing it from the state.<sup>39</sup> We can also point to a complete absence of Alexandrian citizens and people bearing Roman names who were therefore probably Roman citizens, although there is a little evidence that such people owned arable land in the village.<sup>40</sup>

It is possible to make an estimate of the number of landholders excluded from this register. The main excluded category, as has been observed, is that of women. Now, an extremely long document from 149 (*BGU IX 1893*) contains copies of monthly reports made to the chief officials of the Arsinoite Nome by the officials of the public granary at the neighbouring village of Bernikis Aigialou which record daily payments by individuals of taxes in kind on arable land. The reports extend from Payni 17 to the end of Mesore (11 June–23 August), in other words the period shortly after the harvest. Although it is clear that many individuals paid their taxes in a number of instalments, the length and timing of the period covered by these reports makes it extremely likely that they record at some point the name of almost every single person registered as holding arable land at the village. Since a minimum of 65 women are mentioned as compared to a minimum of 202 men, we can therefore be fairly confident in stating that just under a quarter of those in possession of arable land at Bernikis Aigialou were female.<sup>41</sup> Other evidence and considerations suggest that this proportion

<sup>39</sup> On female landowning see Hobson (1983) and (1984a) and Rowlandson (1996), index, s.v. 'women'. The editors of *P.Col.* V 1 verso 4 suggest as a reason for the absence of women in connection with the *pittakia* that leases of land under the *pittakion* system may to some extent have been forced assignments (introd., pp. 151–2), since we know that women were exempt from the compulsory cultivation of public land, cf. Lewis (1982), 94 and 159–60. However, there is a striking general absence of women from the holding of public land proper. For example, *BGU IX 1893* (149), a register recording daily payments over two and a half months of land taxes in kind at the public granary of the neighbouring village of Bernikis Aigialou, only records payments for the main category of public land, *demasia ge*, by two women. (It is true that many of the tax payments made by or on behalf of women were for *ge prosodou*, or revenue land under the control of the state. However, this had probably originated as private land confiscated by the state and was only being held until a decision was made as to what to do with it, e.g. to auction it off. Indeed, it may even in some cases have been confiscated from the very women recorded as paying taxes on it in this register. On *ge prosodou*, which seems to have been confined largely to the Fayyum, see *P.Bour.* 42, introd., pp. 156–9.) Rowlandson (1996), 97–8 points out that many of the women attested holding public land in the Oxyrhynchite Nome had inherited plots assigned for compulsory cultivation.

<sup>40</sup> *P.Berl.Leihg.* I 14. 7–8, 12–14 (mid-2nd century) and *P.Dub.* 13. 11–17 (late 2nd century). *P.Berl.Leihg.* I 4 verso. vi. 18–22 records payment of taxes in kind by Thrakidas son of Thrakidas through Sambas alias Horigenes, an Alexandrian citizen. Since he is unlikely to be Thrakidas' agent, he had probably leased some land from him; it would be surprising, therefore, if he did not possess other land of his own in the village. Ten Roman citizens and one Alexandrian citizen are recorded paying taxes in kind at the neighbouring village of Bernikis Aigialou in 149, cf. *BGU IX 1893*, introd., p. 52.

<sup>41</sup> I have only included in these figures what I reasonably believe to be distinct individuals enough of whose name survives to determine their sex. About a dozen individuals have thereby been excluded.

provides a plausible approximation of the norm throughout Egypt. By far the most important means by which women acquired land were through inheritance or gifts from their parents provided in connection with their marriage. Although a recent study of the evidence from the Oxyrhynchite Nome suggests that on the whole the total value of what females received was no less than the portions of their male counterparts, it also identifies factors limiting the tendency towards full equality in the inheritance of land. First, the value of a woman's dowry seems normally to have reduced the value of the inheritance which she received from the giver of the dowry, yet dowries themselves did not generally consist of land, although this could be donated to the woman at the time of her marriage by other means. Second, there are some examples from the Oxyrhynchite Nome of testators discriminating against female heirs in the allocation of agricultural land. Moreover, other evidence exists to suggest that women were not always considered capable of handling landed property on their own. 'There may indeed be something of a distinction to be drawn here between the wealthiest families and those less well-off; not only need the former be less concerned to avoid undue fragmentation of their property, but also their women could enjoy the income of land while employing others to cultivate and even, perhaps, to manage it.'<sup>42</sup> This point seems to be reinforced by a study of the registers of contracts produced by the local record-office at Tebtunis in the 40s, which indicates that women appear much more frequently as owners of housing than of agricultural land.<sup>43</sup> It is true that in a separate study the same scholar has calculated that of the names of owners of private land attested in the tax rolls from Karanis published in *P.Mich.* IV, two-fifths are those of women.<sup>44</sup> However, these taxes almost all relate to vineyards and garden land and women may have been more prominent as owners of this than of arable.<sup>45</sup> Applying, therefore, the proportion of a quarter obtained from *BGU IX* 1893 to the minimum number of 362 drawn from *BGU IX* 1900, we would obtain a minimum figure of *c.* 450 for the total number of people, both male and female, in possession of arable land in Theadelphia; the actual figure will probably have been slightly higher to allow for some Alexandrian and Roman citizens and possibly other men who were not members of a *pittakion*, but it may not have greatly exceeded *c.* 500. (It would also be useful to know how many additional people may have owned some vineyards and/or garden land but no arable at the village. A register of private land at Philadelphia from 216 indicates that there the number was minute, but consideration of the Theadelphian evidence may suggest that it was rather

<sup>42</sup> Rowlandson (1996), 152–71; the quotation is taken from p. 170.

<sup>43</sup> Hobson (1984a), 389.

<sup>44</sup> Hobson (1983), 315.

<sup>45</sup> Below, pp. 182–4.

larger at that village, although it is impossible to propose even an approximate figure.)<sup>46</sup>

Poll-tax registers were used earlier to suggest that Theadelphia's population, excluding resident outsiders, in the 120s and 130s lay between 2,100 and 2,300. In order to compare these figures with the total number of holders of arable land in the village, we must first allow for the number of metropolite and other outside landholders included in the minimum estimate of *c.* 500 just given. The only evidence we have to suggest their numbers is the figure of nearly 50 metropolites recorded as still owing taxes on land in *P.Col.* V 1 verso 1b (*c.* 160). Of course, not all metropolite landholders in the village may still have owed taxes at the time of this register's compilation. Moreover, in most, if not all, cases the taxes relate to vineyards and garden land rather than arable, although no doubt the majority of the individuals listed were in possession of some arable land at Theadelphia as well. I shall therefore assume, somewhat arbitrarily, that the number of outside holders of arable land averaged about 100 or more in the middle of the second century, leaving a minimum estimate of *c.* 400 for the number of such landholders from within the village itself. This would mean then that just under a fifth of the total population held some arable land during this period, or approximately a quarter of the adult population.

What happened to those adult males who did not hold any land? The fact that they did not hold land in their own name need not mean that they lacked access to it. They could have been sons helping their parents to cultivate their own, while others may have sought a living by attaching themselves to the estates of larger landowners in the village. Moreover, they could have taken land on lease, either from private landowners or subleasing from tenants of public land. Others, however, may have become fishermen or shepherds or sought a living in crafts or services. It would also not be surprising if some chose to leave the village; indeed, the census returns appear to suggest appreciable levels of migration from the villages to the metropoleis.<sup>47</sup>

As for distribution, in the case of public land there does not appear to have been any marked inequality. Documents listing individual holdings within the *pittakia* reveal that the pittakiarchs held the largest amounts of land, as one would expect, but their holdings were never enormous: the most recorded is 16 3/16 ar. (= *c.* 4.5 ha).<sup>48</sup> A similar impression is produced from an examination of a register of seed loans issued by the village's public granary and dated to *c.* 160.<sup>49</sup> Seed loans were issued by the state only to those farming plots of public land

<sup>46</sup> Below, p. 185.

<sup>47</sup> Bagnall and Frier (1994), ch. 8.

<sup>48</sup> *P.Berl.Leihg.* II 33. 8–9 (beginning of second half of 2nd century).

<sup>49</sup> *P.Col.* V 1 verso 2.

and the rate regularly encountered is 1 art./ar.. The alphabetic nature of the register has enabled its editors to propose that it originally contained about 210 names and involved some 1,250 art., translating into 1,250 ar. (= c. 345 ha) of land. This corresponds very closely to the total amount of seed disbursed for the various categories of public land in the village in Hathyr (October/November) 164.<sup>50</sup> However, the absence of the names of women has led the editors to suggest that the loans were actually intended for lands assigned by the authorities for compulsory cultivation, at least some of which will have been located in the villages surrounding Theadelphia.<sup>51</sup> The areas suggested by the recorded seed loans vary from under 1 to 36 1/2 ar. and calculation of the Gini index, which measures inequality, gives a figure of 0.445, where 0.0 would represent complete equality and 1.0 complete inequality.<sup>52</sup>

Unfortunately, the Theadelphian tax registers offer us almost no help in determining how the private arable land was distributed. The exception is *BGU IX 1896*, a register of taxes on vine- and garden land dealing with the landholding situation of 164/5, which also gives details of areas of private katoikic land which are subject to payments of a money tax called the *naubion katoikon*.<sup>53</sup> Since the land in question does not appear to be liable for the other vineyard- and garden taxes, the natural assumption is that it is arable. This is supported by the large areas of land recorded in several instances. Holdings belonging to at least fifty-seven different individuals are mentioned and are generally small, in all but three cases falling below 10 ar. (= c. 2.8 ha). The largest holding is one of just over 43 (or just over 46) ar. (= c. 11.9–12.7 ha).<sup>54</sup> However, we cannot be sure that we are dealing with the entire landholdings of any of the individuals mentioned. The only other source of evidence is a small number of leases which provide figures for amounts of private land in the hands of individuals—the largest area recorded is 88 ar. (= c. 24 ha), which belonged to a former magistrate from the metropolis.<sup>55</sup> Again this cannot necessarily be assumed to represent his entire landholdings in Theadelphia. Nevertheless it is a substantial amount of land and may suggest that the distribution of private arable land displayed much greater inequality than that of public, with some people, perhaps all belonging to privileged status groups, possessing large hold-

<sup>50</sup> *P.Berl.Leihg.* I 1 verso. iii. 9.

<sup>51</sup> On women's exemption from the compulsory cultivation of public land, see above, n. 39.

<sup>52</sup> See Bagnall (1992), 129–30 and n. 9 for a brief explanation of the function and method of calculation of the Gini index. My calculation can only be regarded as approximate since there are several cases where the figures for amounts of seed are missing.

<sup>53</sup> On katoikic land, see Rowlandson (1996), 43–8.

<sup>54</sup> *BGU IX 1896*. 75.

<sup>55</sup> *P.Stras.* VI 511 (169).

ings.<sup>56</sup> It may be possible, however, to obtain some idea of the total number of owners of private arable land in Theadelphia using data from a land register from the Arsinoite village of Philadelphia from 216.<sup>57</sup> Here 196 people own 2,826 ar. (= c. 779 ha) of private arable. Since there were approximately 2,161 ar. (= c. 596 ha) of private arable land at Theadelphia in 158/9,<sup>58</sup> scaling would suggest a total of about 150 owners in that village.

Of course, we would ideally like to know the extent to which the categories of private landowners and tenants of public land overlapped. Unfortunately, there seems to be hardly any positive evidence for such overlap.<sup>59</sup> Evidence from the Oxyrhynchite Nome suggests that the intermingling of public and private land in the hands of the same people was relatively common, with even wealthy landowners taking an active interest in it.<sup>60</sup> However, there was probably far less public land there than in the Fayyum and the presence of groups designated *demosioi georgoi*, or public farmers, in Theadelphia and other villages in this region does suggest that a large number of people relied for their livelihood entirely, or almost entirely, on cultivating public land.<sup>61</sup>

We need to set these suggestive, but rather limited, data from Theadelphia beside other evidence for the distribution of land in Roman Egypt. A recent discussion has suggested that among villagers there tended to exist a broad middle range of landholders, and thus marked inequalities in the distribution of land were absent. Among non-residents, however, the overall degree of inequality was probably much greater, although it could vary considerably for the holdings of such groups within any given village.<sup>62</sup> The Theadelphian evidence could fit quite comfortably within this framework. Public land, the inequality of whose distribution seems on the whole not to have been great, was no doubt dominated by those from the village. It may also to some extent have been subject to periodic reallocation, a procedure that ought to have prevented its excessive concentration in the hands of a few people.<sup>63</sup> We would expect the addition of

<sup>56</sup> But note *P.land.* III 28 (104), in which two farmers from Theadelphia apply to lease well in excess of 200 ar. of public land at the neighbouring village of Philagris. The expression denoting the land makes one think of pasture, but part of the rent is to be paid in kind and it is possible that a deduction is to be made in the case of a poor inundation, both points perhaps suggesting a degree of cultivation.

<sup>57</sup> *P.Yale* inv. 296; Oates (1970) gives a presentation of some of the statistics to be derived from it. The register is currently receiving a full edition.

<sup>58</sup> Above, n. 33.

<sup>59</sup> The only clear example which I have been able to find is *P.Fay.* 85, although this dates to 247.

<sup>60</sup> Rowlandson (1996), 97–101.

<sup>61</sup> Rowlandson (1996), 93–7. Note, however, that the table drawn up by Bagnall (1992), 146–9 for the distribution of land in the Arsinoite village of Karanis in 308/9 indicates that both ‘public’ and private land were in the possession of virtually every individual whose holdings can be calculated. (At this date, ‘public’ land was actually privately owned but continued to be differentiated from private land proper by being taxed in wheat at a higher rate.)

<sup>62</sup> Bagnall (1992), 132–6.

<sup>63</sup> Rowlandson (1996), 80–3 and Hagedorn (1986), re-editing *P.Hamb* I 65 = *SB XVIII* 13995 (140/1).

villagers' holdings of private land to increase the level of inequality of the distribution of land among them, but probably not significantly. The holdings of outsiders, however, probably consisted mainly of private land. We would expect its distribution to display greater inequality than that of public land, in part owing to the vagaries of the inheritance process by which much of it was transferred between individuals. Explicit evidence from Theadelphia is lacking, but we do encounter at least one privileged outsider in possession of a substantial amount of such land.

Of course, to concentrate on the distribution of land among individuals is potentially misleading, although we are forced into this position by the nature of our evidence—land- and tax registers prepared by government officials for the purpose of assessing and collecting taxes from individuals. It is a commonplace of agrarian history that the basic unit of study ought to be the household. This could have the effect of evening out the distribution of land in some cases, while widening it in others. If the size of households in Theadelphia was typical of that estimated for villagers in Roman Egypt as a whole on the basis of the numerous census returns then, given a population of between 2,100 and 2,500, it would have possessed anything from c. 435 to c. 520.<sup>64</sup> When compared with the estimated minimum figure for the total number of landholders in the village, it seems quite likely that few households possessed no land of their own; even for those that did not leasing from individuals remained an option. But absolute landlessness was probably not a significant problem. Of greater concern, no doubt, was having access to sufficient land of suitable quality to enable the household to maintain itself and meet its obligations towards the state without falling into the trap of debt. Moreover, there is a risk of oversimplification even in the way I have been discussing households so far. Not only has it been amply demonstrated how their size and composition can change over time,<sup>65</sup> but there is also the fact that members from different households, especially if related by blood or marriage, will often have co-operated with one another in the leasing and cultivation of land. There is certainly evidence for joint cultivation at Theadelphia in this period, even if we cannot in general identify how many different households are involved.<sup>66</sup>

<sup>64</sup> Bagnall and Frier (1994), 66–9 estimate on the basis of the census returns that village households averaged 4.82 members; they also provide an average size of 4.46 members for village 'families', which exclude lodgers and slaves.

<sup>65</sup> Bagnall and Frier (1994), 64–5 present the evidence derived from the census returns for the evolution of households, citing discussions of the phenomenon outside Egypt at n. 46.

<sup>66</sup> The most striking example is *P.Stras.* VI 584 (141), in which ten men, probably from Theadelphia and the metropolis, apply to lease a huge area of land controlled by the state; over 200 ar. are mentioned in the document as it stands, but the text breaks off in the middle.

*Land Use*

A document of 164/5 very conveniently provides a snapshot of the state of cultivation of the arable land under the *dioikesis* at Theadelphia during that year.<sup>67</sup> Of the total of 5,283 ar., 5,023 ar. (= c. 1,384 ha) were cultivated. Just under 40 per cent was sown with wheat, about 22 per cent with lentils and just over 16 per cent with fodder crops. A large area was under barley, for which the figure has almost entirely disappeared,<sup>68</sup> with other legumes and fodder crops probably making up most, if not all, of the remainder.<sup>69</sup> We happen to know that approximately 426 art. of wheat and 29 art. of barley were distributed as seed loans for the imperially owned ousiac land at Theadelphia in the very same year;<sup>70</sup> the remainder of this land was presumably almost entirely cultivated with legumes and fodder crops, but we have no idea of its size.

Comparable evidence exists, but only from the Ptolemaic period.<sup>71</sup> This confirms the dominance of wheat, which was extremely important both in the Egyptian diet and as a medium of taxation, although in the Ptolemaic documents its proportion is higher, and sometimes substantially higher, than at Theadelphia in 164/5.<sup>72</sup> The cultivation of lentils, which were also important in the diet as well as being widely used to pay taxes at Theadelphia, generally occurred on a similar scale at the southern Arsinoite village of Kerkeosiris in the late second century BCE, but their proportion is extremely low in the third-century BCE documents from the Fayyum.<sup>73</sup> Although villages situated on the edge of the desert, and which must therefore have possessed more marginal land, may have cultivated a higher proportion of legumes, it is hard to believe that the extremely low proportions attested in these third-century BCE documents were the norm across the whole country.

No oil crops are mentioned in the Theadelphian crop schedule, although it is possible that they have been lost in one of the text's lacunae.<sup>74</sup> Although

<sup>67</sup> *P.Berl.Leihg.* II 32, cf. above, nn. 10 and 32.

<sup>68</sup> However, the size of the lacuna in the printed text suggests that the number of arourae was in the hundreds.

<sup>69</sup> Oil crops might be expected, although there is no explicit evidence for their cultivation at Theadelphia during this period, cf. below.

<sup>70</sup> *P.Berl.Leihg.* I 1 verso ii. 16–20, iii. 5–7. Assuming the usual rate of 1 art./ar. for seed loans will produce a close approximation, if not the exact amount, of the areas of land involved.

<sup>71</sup> It is tabulated and discussed by Crawford (1971), 112–17, with tables XIII–XVII.

<sup>72</sup> The proportion in the Arsinoite village of Kerkeosiris over several years towards the end of the 2nd century BCE is usually 50–60%, while in the 3rd century BCE at another village in the region, Ghoran, and in what may be one of the *merides* (administrative regions) of the Fayyum it rises to almost 75%. In the Fayyum documents the traditional Egyptian wheat, *olyra*, is at best of only marginal significance (see Thompson, above, ch. 6).

<sup>73</sup> On one-time kleruchic holdings at Ghoran it is 2%, while in a Fayyum *meris* (n. 72) it is a mere 0.7%.

<sup>74</sup> On oil crops, see Bagnall (1993), 29–31 with refs.

probably not mentioned here, we know that garlic was cultivated at Theadelphia at some point during the second century, if only on a very small scale.<sup>75</sup>

To understand properly the way in which land was used at Theadelphia, we would need to know more than just one year's crop schedule. Unfortunately, other evidence is very limited. The small number of land-leases from the village during this period only once provides definite evidence of the practice of crop rotation, although it is much more commonly attested by the same type of document from elsewhere.<sup>76</sup> Whether this is an accurate reflection of its extent is unclear. It has been suggested that the poorer sections of the population of Egypt will have needed to cultivate wheat every year, implying that the practice of crop rotation was actually much more limited than the numerous land-leases would lead us to believe.<sup>77</sup> Nevertheless, it is striking that quite large amounts of lentils were paid in taxes at the village, and possibly even small farmers were able to some extent to practise the regular rotation of cereals and lentils without impairing their ability to meet their taxes in kind.<sup>78</sup>

Double-cropping may have been practised according to the editors' interpretation of a passage in a tax register recording the addition of lands to *pittakia* after the yearly harvest.<sup>79</sup> If so, it was perhaps limited given the general paucity of evidence for its practice in Roman Egypt.<sup>80</sup> Finally, a single document provides explicit evidence for the intercropping of trees and field crops in the village in this period.<sup>81</sup>

### Vineyards and Garden Land

There is a good deal of evidence from Fayyum villages in the Roman period for vineyards and garden land. The papyri from Theadelphia give us some information which can be used to investigate the distribution of holdings of such land. This complements the information for arable land and illuminates some

<sup>75</sup> *P.Oslo* III 133. On garlic, see Crawford (1973).

<sup>76</sup> *P.Amh.* II 90 (159), a two-year lease, provides for the cultivation of wheat in the first year and grass on half the land in the second. For other evidence for crop rotation in Egypt, see Schnebel (1925), 230–9, Bagnall (1974), 118–24 and Rowlandson (1996), index, s.v. 'crop rotation'.

<sup>77</sup> Rowlandson (1996), 20.

<sup>78</sup> For example, *P.Berl.Leihg.* I 4 recto. i. 11 states that over 1,600 art. of lentils were received by the public granary between Payni 16 and Epeiph 4 (10–28 June), 165. It could be argued, however, that, if a piece of land could grow wheat, the government would wish to tax it in wheat, which was certainly more valuable and useful to it. In that case, the large amounts of taxes paid in lentils would simply indicate that there were large amounts of marginal land at Theadelphia which were unsuitable for growing wheat and were therefore taxed in lentils; poorer farmers may not in that case have engaged heavily in crop rotation.

<sup>79</sup> *P.Col.* V 1 verso 4. 134–5 n. (cf. also introd., p. 159).

<sup>80</sup> For double-cropping, see Schnebel (1925), 145–60 and Rowlandson (1996), 20, with refs.

<sup>81</sup> *P.Heid.* IV 329 (105/6?).

aspects which are absent from the documentation on arable land. The evidence to be considered in this section consists essentially of four tax registers.

The first, *BGU IX 1894*, records tax revenues in cash received at Theadelphia during the year 156/7, although those for vineyards and garden land relate to the previous year. The document is unfortunately incomplete and the figures derived from it must therefore be used with caution.<sup>82</sup>

Taxes on vineyards and garden land were levied entirely in cash during the Roman period at a fixed rate per aroura; thus a simple process of division yields a figure for the area of land liable to tax.<sup>83</sup> The last ninety or so lines of the account deal with the revenues from such land for 155/6 and, very interestingly, a distinction is sometimes drawn between those payments received from 'entopioi' and those received from Romans and Alexandrians.<sup>84</sup> The implication of this is that the term *entopioi* embraces not only registered inhabitants of Theadelphia but also residents of other villages and indeed the metropolis. It presumably includes citizens of the three Greek cities, Naukratis (in the Delta), Ptolemais (in the Thebaid in Upper Egypt) and Antinoopolis (in an enclave of the Hermopolite Nome in Middle Egypt). While it is highly unlikely that citizens of the first two were ever present in Theadelphia, there are possibly two or three attestations of Antinoites having connections with villagers, not really surprising given the fact that many of the founding citizens of Antinoopolis were drawn from the privileged inhabitants of the Arsinoite Nome and continued to own property and maintain connections, if not actually reside, there.<sup>85</sup> Whether the *entopioi* paid higher rates for some or all of the taxes than Romans and Alexandrians is less clear. A late second- or early third-century document indicates that Alexandrian citizens were charged a lower rate of tax on vineyards and garden land in the Mendesian Nome than everyone else,<sup>86</sup> but the amounts of taxes levied on the vineyards and garden lands at Theadelphia held by the Alexandrians and Romans listed in a later register, *BGU IX 1899*, do not reveal

<sup>82</sup> *P.Col. V*, pp. 30–1.

<sup>83</sup> Registers of such taxes organised by individual taxpayer tend to record the area of land liable to tax and thus enable us to work out how the sums due were calculated. We also possess part of a text containing mathematical exercises, which outlines the principles according to which such taxes were calculated (*SB III 6951* (138–61), re-edited at *P.Ryl. II*, pp. 420–3, cf. also *P.Lond. 372* (published in *P.Tebt. II*, pp. 339–43)). For full discussion of these taxes and their rates see *P.Ryl. II*, pp. 239–57.

<sup>84</sup> A distinction between Alexandrians and *entopioi* is also drawn in the land register *P.Lond. II 192* (p. 222) col. iv.

<sup>85</sup> Connections between Antinoites and Theadelphians: *SB VIII 9906* (194); possibly *P.Ryl. II 324* (139), if one of the two contracting parties really was a Theadelphian. Ptolemaios son of Diodoros alias Dioskoros' wife, Anoubiaina, stated in *P.Wisc. I 36* (147) to be an *aste*, may have been an Antinoite rather than an Alexandrian, cf. Delia (1991), 13–21.

<sup>86</sup> *P.Ryl. II 216*. Alexandrians paid only 2 dr. 3 ob., compared to 3 dr. paid by metropolitans and 8 and 10 dr. paid by others. Exactly how this tax was assessed is, however, unclear.

the existence of any special low rate applying to them. Also, the '8 dr. tax for the libation for Dionysos' in *BGU IX 1894* clearly suggests a standard rate, although payments received from Romans and Alexandrians are distinguished from those from *entopioi*.

Interpretation of the figures provided by *BGU IX 1894* for the revenues from vineyards and garden land is by no means straightforward or uncontroversial, and I have relegated a detailed discussion of them to another publication.<sup>87</sup> Here I shall simply summarise my conclusions.

The *entopioi* may have held about 135 ar. of productive vineland and perhaps about 135 ar. of productive garden land, making a total of 270 ar., of which just under 240 ar. was fruit-bearing.<sup>88</sup> Although the total holdings of such land by Romans and Alexandrians were probably not much smaller in size, it is very likely that they held rather more vine- than garden land. Indeed, their holdings of vineland could have been as much as three times the size of those of garden land. However, even if this were the case, the combined holdings of vineland of *entopioi* and Romans and Alexandrians would have been at most about one and a half times those of garden land. There were additional areas of imperially owned ousiac vineyards and garden land in the village; *BGU IX 1894* implies that they were extremely small, but it is possible that in this instance, as a result of the register's incompleteness, the recorded payments do not represent the full amounts due from this category of land.

An important point of interpretation must be stressed before continuing. We have no means of determining precisely the relationship between the *entopioi* and the Romans and Alexandrians and the land for which they paid taxes in *BGU IX 1894*. It has been shown that in two later registers, *BGU IX 1896* and *1899*, the assessment and payment of the taxes sometimes related to the landowner and sometimes to another person who must be a registered lessee.<sup>89</sup> Thus to say that the total holdings of the Romans and Alexandrians were probably not much smaller in size than those of the *entopioi* does not necessarily mean that they actually owned almost half of all the vine- and garden land in Theadelphia. They may well have owned and cultivated themselves a large proportion of the land for which they paid taxes, but they could have leased some from *entopioi*. Similarly, some of the land for which *entopioi* paid taxes could have been leased from Romans or Alexandrians. This caveat should not, however, obscure the important fact that the amounts of taxes paid by Romans and Alexandrians reveal that they had a huge interest in vine- and garden land in Theadelphia in the middle of the second century.

<sup>87</sup> Sharp (forthcoming).

<sup>88</sup> I do not count reedland as fruit-bearing, even though it was treated as productive vineland.

<sup>89</sup> France (forthcoming).

How many Romans and Alexandrians were there compared to *entopioi*? Here we must turn to the evidence provided by a *per capita* tax levied on owners of vineyards and garden land called the '8 dr. tax for the libation for Dionysos'.<sup>90</sup> From the total sums received for this tax for 155/6—80 and 696 dr.—we might deduce that in that year ten Romans and Alexandrians held almost half of all such land in Theadelphia as compared to 87 *entopioi*.<sup>91</sup> The numbers, particularly of *entopioi*, may have been larger, however. Of course we must remember that we perhaps do not possess the complete figures for the sums due from this tax.<sup>92</sup> In addition, there is a possibility that in second-century Theadelphia the 8 dr. tax may only have been collected from owners of vineyards, thereby excluding those in possession only of garden land. (This would, though, appear to contrast with the situation in Philadelphia in 78.)<sup>93</sup> If so, we would need to add the owners of garden land alone in order to achieve a more accurate total. I suspect that the number would be very small, perhaps no more than ten or so, but there

<sup>90</sup> For this tax, see Eitrem (1937), 27–37 and Wallace (1938), 62–3.

<sup>91</sup> What we can safely deduce is that at least 97 different individuals owned such land in 155/6. How we proceed further depends on whether we interpret the amounts paid as received for the benefit of Romans and Alexandrians and *entopioi*, or from these two groups. If the former, then simple division by eight yields the numbers of ten Roman and Alexandrian owners and 87 *entopioi*. If the latter, the picture becomes more complicated. This is partly because some of the Romans and Alexandrians may have been lessees paying on behalf of their *entopioi* landlords and *vice versa*, and partly because we know from *BGU IX 1897* (165/6 for 164/5) that some landowners delegated the responsibility for payment of the 8 dr. tax to more than one of their lessees, cf. France (forthcoming). However, I rather doubt that substantially more than ten Romans and Alexandrians had an interest in vineyards and garden land in Theadelphia in 155/6. It is worth observing here that in *BGU IX 1897* seven people are listed as liable for a 12 dr. tax after the list of 106 individuals liable to the 8 dr. tax, with apparently only one person falling in both lists. This 12 dr. tax is mentioned several times in *BGU IX 1896* from the same year, always in connection with a category of sacred land planted normally with palm groves (ll. 54, 103–4, 163–4 and 279). Those liable in *BGU IX 1897* must therefore also have been owners of vine- and/or garden land on top of the 106 liable to the 8 dr. tax. There is no mention of the receipt of payments for the 12 dr. tax in *BGU IX 1894*, but that may be due to the register's incompleteness.

<sup>92</sup> Above, n. 82.

<sup>93</sup> For Philadelphia, see *SB XII 11245*, in which Lucius Ignatius Fronto Tiberinus pays the 8 dr. tax for himself along with the other taxes due on a plot of garden land, and then again for Ptolema daughter of Dionysios along with the other taxes due on a vineyard. However, in *BGU IX 1896* and 1899 from Theadelphia no one who holds only garden land is recorded paying the 8 dr. tax, although it must be admitted that this is not a decisive argument in favour of their exemption. (In every case they could be either owners who had delegated the entire responsibility for paying the 8 dr. tax to their lessees but retained some of their land under direct cultivation, or lessees who were not required by their lease contracts to pay any part of this tax on behalf of their landlords; see the convincing explanation in France (forthcoming) as to why numerous holders of vineland in both registers were not liable to pay the 8 dr. tax.) Nevertheless, in outlining the principles of calculating vineyard and garden taxes *SB III 6951* (138–61) appears to rule out the levying of the 8 dr. tax on garden land.

seems to me to be no reliable way of making a more exact estimate.<sup>94</sup> However, none of this uncertainty should detract from the important point that a small number of Romans and Alexandrians held a disproportionately large amount of the vine- and garden land at Theadelphia in the mid-second century.

What was the relationship of the members of each of these groups to the village? The Alexandrian citizens were probably all absentees. They may normally have resided in the Arsinoite metropolis or that of another nome rather than in Alexandria, but they probably never lived for long periods in Theadelphia, even if they maintained a house there for the purpose of occasional visits. Some of these Alexandrians may also have possessed Roman citizenship. However, probably most of the Roman citizens will have been either veterans of the army or the descendants or freedmen (and their descendants) of such veterans. The Arsinoite villages of Philadelphia and Karanis are known to have been centres of veteran settlement and it seems likely that some settled in Theadelphia, even if in smaller numbers;<sup>95</sup> Roman citizens attested owning land in the village should not, therefore, automatically be assumed to have been outsiders.<sup>96</sup> As for the *entopioi*, not all will have resided in Theadelphia and its satellite villages. Reference has already been made to a register recording the outstanding taxes, almost all of which pertain exclusively to vineyards and garden land, of nearly fifty metropolites.<sup>97</sup>

The other three registers which I shall discuss are completely different from *BGU IX 1894* and I shall begin by giving a brief description of each. The first, *BGU IX 1896*, consists of a list of people paying taxes for vineyards and/or garden land and an analysis of their holdings together with a calculation of the assessment of the various taxes owed by each individual. We are also frequently informed of the name of the previous person who paid the taxes on each plot of land<sup>98</sup> as well as that of anyone who had assumed responsibility for this from the individual named at the head of the entry. There are 91 entries referring to

<sup>94</sup> The two later registers, *BGU IX 1896* and *1899*, which list individual taxpayers, might at first appear promising. Indeed, if we examine the entries relating to different individuals in both registers, we find that *BGU IX 1896* has 22 taxpayers holding garden land alone compared to 70 (or 71) possessing at least some vineland (a proportion of just under 24%) while the figures in *BGU IX 1899* are 5 to 42 (a proportion of almost 11%). The essential problem lies, however, in the fact that we do not know whether those holding garden land alone are actually the owners or simply lessees.

<sup>95</sup> Philadelphia: Oates (1966); Karanis: Alston (1995), ch. 7. There is also evidence for veterans at the neighbouring village of Euhemeria, cf. Hohlwein (1949), 91. But none seem to have settled in the village of Soknopaiou Nesos located just north of Lake Moeris, cf. Samuel (1981).

<sup>96</sup> Nor should we assume that Roman citizens, with their privileged legal and social status, were necessarily much more economically prominent than the rest of the population of the communities in which they lived, cf. Whitehorne (1990) and Alston (1995), ch. 7.

<sup>97</sup> *P.Col.* V 1 verso 1b, cf. above, n. 19.

<sup>98</sup> For this identification of the individuals whose names follow the word '*proteron*', see France (forthcoming).

different individuals and the total amount of land accounted for is just under 100 ar. (= c. 28 ha). There is no obvious overall order to the listing, although there is a noticeable element of alphabetic clustering. The editor suggests that it may have been organised topographically. We can reasonably safely assume the land to have been located in Theadelphia, although there is no explicit statement to that effect.<sup>99</sup> It is not entirely certain whether the document as it stands is complete or not, although it clearly does not deal with the vast majority of vine- and garden land in the village. Many of the notes about payment state that the taxes are charged for the fifth year (of Marcus Aurelius and Lucius Verus, i.e. 164/5), but are being paid late in the sixth or occasionally even at the beginning of the seventh year. That suggests a date for the composition of the register late in 165/6.

Written on the same roll immediately following on from this text is the second register of interest, published as *BGU IX 1897*. It is a list, complete and organised alphabetically by initial letter, of all those from whom payment has been or is expected to be received for the '8 dr. tax for the libation for Dionysos' followed by a similar list concerning the 12 dr. tax. The first list contains 106 names, the second a mere seven.<sup>100</sup> The majority of entries is followed by the preposition 'pros' together with the names of one or more different individuals. It is possible that the latter are registered lessees to whom the responsibility for paying the whole or part of the relevant tax had been delegated.<sup>101</sup> The notes recording actual payment generally mention the sixth year, so that the document must also have been composed in 165/6, again referring to the landholding situation in 164/5.

The third register, *BGU IX 1899*, is apparently similar to *BGU IX 1896*, although it lists individuals alphabetically by initial letter; the text as we have it begins at the end of the letter 'nu'. It contains 47 entries and accounts for just over 150 ar. (= c. 41 ha) of vine- and garden land. It thus presents a very different picture from *BGU IX 1896*, where just under 100 ar. was accounted for by 91 entries. What must be happening is that estates were being broken up for lease far more commonly in 164/5 than at the date of *BGU IX 1899*. The editor's assumption of a date for its composition after 172 has recently been shown to be wrong. Instead the relationship between it and *BGU IX 1896* and 1897 indicates that it very closely predates those two registers and may even have been compiled during the previous year to them. If so, it would have been compiled in 164/5 and would thus refer to the landholding situation in 163/4.<sup>102</sup>

<sup>99</sup> Three estates are, however, located explicitly in nearby villages (ll. 191, 194, 243).

<sup>100</sup> Given that *BGU IX 1894* suggested a figure of 97 people liable to the 8 dr. tax in 155/6, there has been a slight increase in the number of owners of vine- and garden land during the previous decade.

<sup>101</sup> France (forthcoming).

<sup>102</sup> France (forthcoming).

What can these three registers tell us about the distribution of vineyards and garden land lying within Theadelphia's territory? I shall confine myself here to three observations that strike me as both interesting and problematic.

First, let us take the balance between vineyards and garden land. *BGU IX 1894* suggests that the total amount of vineland may have been at most about one and a half times the size of that of garden land, while *BGU IX 1896* indicates a slight imbalance in favour of vineland for the small amount of land which it records. However, there is a large discrepancy in *BGU IX 1899*, where there is three times as much vineland as garden land. How we explain all this depends on what we imagine the overall scenario to have been. Let us assume that in the early 160s the balance between vineyards and garden land was in fact similar to that suggested by *BGU IX 1894* for 155/6. *BGU IX 1896* should then present no problem, but the only way in which we could explain the anomaly presented by *BGU IX 1899* would be to assume that some person(s) whose name(s) began with a letter coming before 'xi' in the alphabet held a very large amount of garden land and little or no vineland, thus enabling the balance to be redressed. Now, on the other hand, let us assume that the balance in the early 160s was different from that in 155/6. *BGU IX 1896* would then perhaps have to be explained by assuming that it is in fact topographically organised and that it happens to be dealing with an area of the village in which the balance was fairly even. As for *BGU IX 1899*, we do not need to assume that the proportion of vine- to garden land of 3:1 which it presents was the actual one across the whole of the territory of Theadelphia since garden land may have been more strongly represented in the missing portion of the register. On balance I prefer the latter scenario whereby a change in the balance of vineyards to garden land had occurred between the dates of *BGU IX 1894* and *BGU IX 1896* and 1899. Unfortunately, we have no means of determining precisely how such an imbalance may have arisen. Had the overall amount of such land increased, with almost all the new land planted with vines? Or had the opposite occurred, namely that the overall amount of such land had decreased, with the cultivation of garden- rather than vineland being abandoned? A third possibility is that the overall amount of such land had remained roughly the same and that some garden land had been converted into vineyards.

The second area of interest concerns the Roman and Alexandrian citizens.<sup>103</sup> *BGU IX 1894* suggests that in 155/6 they numbered at least ten and together held an area of vine- and garden land in the village not much smaller than that

<sup>103</sup> Male Alexandrian citizens can easily be identified by the tribal and demotic designations accompanying their name, cf. Delia (1991), 21–3. Some caution has to be adopted in identifying people bearing Roman names as Roman citizens, cf. Alston (1995), 64–5. However, I have assumed as a minimum that individuals are Roman citizens if they possess more than one name, at least one of which is Roman.

of the *entopioi*. Only a single Roman citizen is mentioned at the head of an entry in *BGU IX* 1896,<sup>104</sup> although *BGU IX* 1897 lists at least five Romans and Alexandrians as owners of vineland that year with perhaps as many as seven more as lessees.<sup>105</sup> In *BGU IX* 1899 there are five Roman and two Alexandrian citizens mentioned at the heads of entries. However, when the total size of their holdings is compared with that of the *entopioi*, the ratio is now close to 7:2 in favour of the latter. Indeed, although the individual holding perhaps the largest amount of land is a Roman citizen, Flavia Antonina, with over 19 ar., almost all the other clearly identifiable Romans and Alexandrians are notable for the small size of their holdings. It is possible to narrow the gap slightly if we take into account land definitely belonging to Romans and Alexandrians but leased by them to *entopioi*.<sup>106</sup> However, even then the holdings of the *entopioi* are nearly three times as large as those of Romans and Alexandrians.<sup>107</sup> Now it seems strange that the interest of the latter in vineyards and garden land in Theadelphia would have declined so sharply within a single decade. So how might we explain the discrepancy? First, the possibility must be considered that some of those individuals whom I have treated as *entopioi* are actually disguising Romans and Alexandrians. The most likely cause is that their landholdings actually belong to Roman or Alexandrian citizens but that there is nothing in the text of the register as we have it to make this clear. We have already seen two cases where

<sup>104</sup> Gaius Domitius Celer (ll. 63–4). Moreover, at ll. 46–9 his name is mentioned in connection with officials whose responsibility lay with the revenues from sequestered land.

<sup>105</sup> It is possible that Dioskoros son of Sarapion (l. 42) is also an Alexandrian citizen despite the absence of tribal and demotic designations. This is because a man of exactly the same name and patronymic who is clearly designated as an Alexandrian citizen is listed as the holder of some vineland at l. 146 of *BGU IX* 1899, possibly from the previous year.

<sup>106</sup> Two plots are affected. The first is the 4 5/16 ar. held by Ptolemaios son of Posidonios (ll. 8–11) and leased from a man whose alias is Horigenes, in whose name the 8 dr. tax is to be paid. A Horigenes who is an Alexandrian citizen is mentioned at *BGU IX* 1897. 72, where he appears to act on behalf of a landowner called Herakleia. Moreover, a Herakleides alias Horigenes son of Sarapion who is an Alexandrian citizen heads the last main entry in *BGU IX* 1899. In fact Ptolemaios makes his payments through an Alexandrian citizen called Herakleides, whose alias has not been read by the editor. Since the tribal and demotic designations are identical in all three cases, I suggest restoring Herakleides alias Horigenes son of Sarapion's name at both l. 8 and l. 11 of *BGU IX* 1899, which would mean that the owner of Ptolemaios' landholding was an Alexandrian citizen. The second plot in question is the 1 1/8 ar. belonging to Antonius Lucius Romaio (ll. 90–1), in whose name the 8 dr. tax is to be paid, which has been leased to Tamaron daughter of Theon, but for which the taxes are to be paid by Sentia Frimilla and a Lucius, who may be Antonius' son, cf. *BGU IX* 1897. 16.

<sup>107</sup> The gap would be narrowed to a ratio of about 2:1 if Sabina daughter of Sabinus the ex-gymnasiarch were to be a Roman citizen and her 11 17/32 ar. counted under the landholdings of Romans and Alexandrians. Although the names both of her and her father are clearly Roman and her father's exalted social status as a former magistrate of the metropolis would fit well with his being a Roman citizen, I have refrained from automatically assuming that we are dealing with Roman citizens here, cf. above, n. 103.

such a situation *can* be clearly identified.<sup>108</sup> It may also be the case that one or two of the individuals with Greek names are actually Alexandrian citizens whose tribal and demotic designations have for some reason been omitted. Again, we have already seen an instance in *BGU IX 1897* where this may have happened.<sup>109</sup> The second approach to the problem is to consider whether the ratio would be much more even if we were able to take account of the holdings of Romans and Alexandrians listed in the missing portion of the register from which *BGU IX 1899* derives.<sup>110</sup> Here I would like to put forward one possibility for consideration. By the middle decades of the following century, it has been estimated that 150 ar. of vineyards and garden land in the village were in the hands of the Alexandrian councillor, Aurelius Appianus.<sup>111</sup> If we were to suppose that already in the early 160s one or two individuals of Appianus' class were accumulating large areas of this very profitable type of land but that they are absent from *BGU IX 1899* because the initial letters of their names preceded the letter 'xi' in the alphabet, then the ratio between the total amounts of land held by Romans and Alexandrians on the one hand and *entopioi* on the other would become substantially more even. Indeed, if this were so, since we know nothing about the distribution of vineyards and garden land among the Romans and Alexandrians mentioned in *BGU IX 1894*, it is possible that already by 155/6 or even earlier there was a concentration of large areas of such land in the hands of one or two individuals.<sup>112</sup>

Third, the most immediately striking aspect of all three registers listing individuals is probably the prominence of women holding vineyards and garden land. In *BGU IX 1897* women account for 57 of the 106 landowners liable to the 8 dr. tax, together with a substantial number of the lessees; of the seven liable to the 12 dr. tax, three are women. In *BGU IX 1896* the proportion of

<sup>108</sup> Above, n. 106.

<sup>109</sup> Above, n. 105.

<sup>110</sup> *BGU IX 1897* lists three landowners whose names might be expected to appear in the missing portion of this register given the alphabetic nature of its organisation: Antonius Lucius Romaios, the Alexandrian citizen Isidoros son of Sarapammon, grandson of Menelaos, and Julius Petronius Valens. We also know of three other Roman citizens with an interest in vine- and garden land in Theadelphia at this time, at least two of whose names might be expected to appear in the missing portion: Gaius Domitius Celer, Gaius Musonius Marion and Gaius Petronius Philoxenus. Of course the missing portion of the register may also have listed land belonging to but leased out by Romans and Alexandrians recorded at the head of entries in the extant part.

<sup>111</sup> Rathbone (1991), 33–8. Most Egyptians were now also Roman citizens as a result of the general grant of citizenship to the empire made by the Emperor Caracalla in 212, known as the *Constitutio Antoniniana*.

<sup>112</sup> Note that a tax register from the reign of Tiberius (*P.Lond.* II 195 (pp. 127f.), re-edited at *P.Ryl.* II, p. 255) reveals clearly the accumulation by certain individuals of massive holdings of vineyards and garden land in the Arsinoite Nome; this was achieved partly through planting on a colossal scale and partly by the amalgamation of smaller existing plots previously belonging to many different individuals.

entries in the names of women is also just over a half, while in *BGU IX 1899* it is even higher at over three-quarters. In addition, most of the Roman citizens mentioned in the latter document are women, while almost all the taxpayers with the largest holdings in both documents are female. Given the evidence of *BGU IX 1897* women must be assumed to be similarly prominent in the missing portions of the registers from which *BGU IX 1896* and *1899* derive. However, we must not automatically assume that the ratio of the total amounts of vineyards and garden land held by men and women respectively attested by the surviving portions of the registers can be extrapolated to the missing remainder of each. A register of vineyard- and garden taxes from second-century Thebes (modern Luxor) seems to point to a similar prominence of women holding such land.<sup>113</sup> However, in a register of private land in the Arsinoite village of Philadelphia from 216 only 8 of the 83 owners of orchard land are women, a proportion of under a tenth.<sup>114</sup> Nevertheless, they own c. 126 out of a total of 757 ar. of such land, so that their holdings are on average nearly twice as large as those of men.

The numerical prominence of female holders of vineyards and garden land at Theadelphia, and apparently also at Thebes, seems to demand explanation. Unfortunately there are too many uncertainties to provide a firm answer. We are particularly hampered by our ignorance of whether most of the women in question also held arable land.<sup>115</sup> Certainly the female ownership of such land was extremely common, and we can, for example, note the number of women in 149 paying taxes in kind levied on arable at the village of Bernikis Aigialou situated close to Theadelphia.<sup>116</sup> Are we at Theadelphia and elsewhere dealing with large numbers of women whose only land was devoted to vines and gardens or were their vineyards and garden land complemented by holdings of arable? It is conceivable that some of the women were the only surviving heirs of their parents and accordingly received their entire estates; in this instance they are likely to have possessed both arable and vine- and garden land. Perhaps women at Theadelphia and elsewhere in this period, whether they also held arable or not, were particularly keen investors in vineyards and garden land. It certainly seems that the practice of property devolution from parents to children often left the females in possession of larger amounts of valuable gold, jewellery and coin than the males, thus providing them with the means with which to purchase and

<sup>113</sup> *P.Lond.* I 119 (pp. 140ff.).

<sup>114</sup> Oates (1970), 387, cf. above, n. 57.

<sup>115</sup> However, several of the taxpayers listed in *BGU IX 1896*, including some women, are also recorded as being liable for payments of *naubion katoikon*, which was levied on katoikic land, however utilised. Here it can be assumed to refer to arable, cf. above, p. 170. Moreover, several of the individuals for whom payments of *naubion katoikon* were made are women who are known from the various Berlin registers also to have held some vine- and/or garden land.

<sup>116</sup> Above, n. 39.

develop such land.<sup>117</sup> It is also possible that in parts of Egypt during this period, just as some testators are known to have discriminated against female heirs in the allocation of agricultural land,<sup>118</sup> so others, while content to bestow such land on women, nevertheless preferred to give them vineyards and garden land rather than arable. Their motivation could have been based on a perception that the former were easier or more suitable for women to deal with than arable. Unfortunately, however, I know of no actual example of a will or property transfer which bequeaths only or mainly vine- and/or garden land to the female heirs.

Although the previous paragraph has been concerned with trying to explain the prominence of women as owners of vineyards and garden land at Theadelphia, it is worth underlining their similar prominence as lessees. Clearly a large number of women were actively engaged in agriculture in the village.

Finally, something can be said about the degree of specialisation in agricultural production among the holders of vineyards and garden land at Theadelphia. The data are mostly derived from the registers *BGU IX* 1896 and 1899, and it must be remembered that neither by any means gives a complete picture. The proportion among those individuals named at the heads of entries who cultivated land of both types is very different in each register, from 28.6 per cent in the former to 44.7 per cent in the latter; however, in both just under half cultivate vineyards alone. Those cultivating garden land seem largely to have concentrated on date-palms, with much of the remainder growing olives, a crop whose extensive cultivation was confined to the Fayyum and the area around Alexandria.<sup>119</sup> A few cultivated both, but there are also several instances where we simply do not know how the garden land was used. Our evidence is rather less satisfactory when considering the degree of overlap between the cultivation of arable and orchard land. In addition to the incompleteness of two of our registers of taxes on vineyards and garden land, it has been observed earlier that we know rather little about the ownership of private arable land in Theadelphia in the second century, while the women so prominent in the registers we have just been considering are absent from *P.Col. V* 1 verso 2, the register of seed loans for public land. The only promising direction is provided by the large number of individuals (at least fifty-seven) recorded in *BGU IX* 1896 in whose names sums are owed for the *naubion katoikon*, most probably levied here on arable land.<sup>120</sup> About a quarter recur in *BGU IX* 1896 and the other registers as own-

<sup>117</sup> Rowlandson (1996), 171.

<sup>118</sup> Above, p. 168.

<sup>119</sup> Strabo 17.42, writing at the time of the Emperor Augustus (30 BCE–14 CE) shortly after the Roman conquest of Egypt. There is a notable difference between Theadelphia and Karanis, the overwhelming majority of whose garden land seems to have been cultivated with olives, cf. Geremek (1969), 105–6.

<sup>120</sup> Above, p. 170.

ers of vineyards and/or garden land. Otherwise isolated correspondences can be observed between individuals listed in these registers and those mentioned in the register of seed loans or registers of grain taxes, although I have not attempted a comprehensive search for recurrences.<sup>121</sup> In Philadelphia in 216, almost all those attested owning orchard land also owned some arable, indicating that there orchard land was generally cultivated in addition to arable and not separately.<sup>122</sup> While at Theadelphia this situation probably applied among male landholders, it is uncertain whether we should imagine all the large number of women owning vineyards and garden land as also possessing some arable.<sup>123</sup>

### The Antonine Plague

Given the date of the evidence under discussion in the second century, it is natural to enquire whether it displays any signs of the impact of the Antonine plague. This pestilence began in 165, apparently brought back by the Emperor Lucius Verus' armies from the East, and is supposed to have been introduced to Egypt in 166/7. We know that it contributed to the depopulation of villages in the Mendesian Nome in the Delta. Moreover, it has been used to explain the fall by a third in the population of the Arsinoite village of Karanis between 149/50 and the early 170s, while it is the likely cause of the sudden death of almost a third of the priestly population of another Arsinoite village, Soknopaiou Nesos, during January and February 179.<sup>124</sup> Even though Theadelphia was located close to the western edge of the Fayyum, it would be surprising if it entirely escaped the effects of the plague. Depending on its severity and persistence, a variety of direct and indirect effects could be expected, the most obvious of which are depopulation and, as a consequence, land falling out of cultivation.<sup>125</sup>

<sup>121</sup> For example, appearing in both *BGU IX* 1896 and *P.Col.* V 1 verso 2: Philippos son of Aphrodisios and Ptollas son of Mystharion; possibly Herakleides son of Dioskoros, Ptolemaios son of Ptolemaios and Nikandros son of Nemesion; people attested both in *BGU IX* 1896 and paying grain taxes in the same year: Philippos son of Aphrodisios (*P.Berl.Leihg.* I 4 verso x. 4) and Ptollas son of Mystharion (*P.Berl.Leihg.* I 4 verso i. 2); possibly Thaubarion daughter of Herakleides (*P.Berl.Leihg.* I 3 ii. 10) and Syros son of Sambas (*P.Berl.Leihg.* I 4 verso ix. 9). The prosopographical work currently being undertaken by Jacques France (above, n. 9) may shed further light on this area.

<sup>122</sup> Only 5 out of 201 landowners did not possess any arable land, and there were 83 owners of orchard land, cf. Oates (1970), 386.

<sup>123</sup> Above, pp. 168–9.

<sup>124</sup> Rathbone (1990), 114–19, with refs.; also Savorelli (1989) for arguments relating to the population of Soknopaiou Nesos in 178.

<sup>125</sup> Duncan-Jones (1996) discusses all the evidence for the Antonine plague and its impact across the Roman Empire. He demonstrates a number of significant changes indicated by the Egyptian documentary and numismatic evidence as a whole for the period of the plague and its aftermath. These include a marked overall reduction in the areas of land taken on lease, an abandonment at least of the recording of leases lasting three years or fewer, an absence of the higher levels of monetary rents attested in the preceding and following periods and a suspension of the minting of billon tetradrachms for most of the decade of the 170s.

Unfortunately, we do not have any fragments of poll-tax registers from the second half of the century to compare with those from the late 120s and 130s. There is, though, an interesting document which may be connected with the plague.<sup>126</sup> It is a list of groups of cultivators and the location of their holdings, together with the level of the taxes assessed on them. Although there is no explicit reference, one thinks immediately of the *pittakia* known from other documents to have held large areas of public land at Theadelphia.<sup>127</sup> In every case, however, the cultivation of the lands has been taken over by another group of farmers, a list of whose names is appended to each entry. What is striking is that in at least three, and probably at least six, of the nine entries preserved in col. ii it seems that all, or almost all, the original members have died.<sup>128</sup> Although the text is mutilated at the beginnings of the lines in col. i, which would have contained the crucial information, the editors have assumed that the same applied in each of its seventeen entries; given the trend apparent in col. ii, it seems likely that it did so in many, if not in all.

Now the crucial question to be asked is when all these farmers died. Was it during a long or a short period of time? Let us consider the first possibility. It seems quite plausible to assume that a local official such as the village scribe would periodically have compiled a complete register of the membership of the *pittakia* in the locality, and the size and location of their landholdings. Indeed, the suggestion has been made that the document was composed in a census year, which occurred every fourteen years.<sup>129</sup> If so, then the first group of farmers in each case could have been recorded in the previous such register, while the

<sup>126</sup> Hombert (1934), a full edition of *P.Oxy.* XII 1446. It is dated by the original editors to the period 161–210.

<sup>127</sup> See above, p. 166.

<sup>128</sup> In each such entry, after the initial list of names there follows the phrase καὶ (μέτοχοι) τετελ(υθηκότες), which the editors have resolved as τετελ(ευθηκότες), meaning “deceased”. Although at least three different resolutions are theoretically possible whenever this abbreviation is found in the papyri from Egypt, a form of the perfect participle of the verb τελευτώ = ‘I die’ alone seems to make sense when it is applied adjectivally to a person, as here, cf., e.g., *SB XVI* 12816 (178), where the same abbreviation recurs several times clearly in the context of recording the deaths of taxpayers. Moreover, the alternative suggestion of a form of the perfect participle of the verb τελέω = ‘I complete’ seems very weak given that this word, when written out in full, is never applied to people. Although it is conceivable that it was only the partners, described as μέτοχοι, who had died, whenever the phrase NN. καὶ μέτοχοι is repeated in other contexts in the papyri, then whatever qualifying nouns or adjectives follow are understood to describe both the named and unnamed members of the group. This may not, however, militate against the original editors’ understanding of the abbreviated epithet ἀπο(), which follows the first name in a few of the entries, as a term opposed in sense to τετελ(ευθηκότες). I should add that I am puzzled by the restoration τετελ(ευθηκότος) in l. 80 after Τουρβων Μύσθου τοῦ Κάστορος; surely the compiler of the document was interested in Tourbon rather than in his grandfather and thus τετελ(ευθηκόως) should be restored instead?

<sup>129</sup> *BGU IX* 1900, introd., p. 190. Note the reference at l. 93 to an official event occurring in year 23 of Antoninus Pius (159/60). Could this be the census known to have been held that year?

second group representing the current cultivators could have taken over their lands at some point during the interval between the composition of the two registers. One striking aspect of the document is that the first group of farmers always consists of only one or two named individuals, often followed by the expression 'and partners', while the second is always named in full, often comprising five or more individuals. Perhaps the named individuals in the first group were all that survived of each *pittakion* at the date of composition of the previous register, the other members having died before that. During the succeeding interval these survivors either died themselves or were forced to withdraw from cultivation of their lands, being replaced by the members of the second group of current cultivators. Indeed, there are two examples of members of the latter group themselves having died before the register could be composed, their places being taken by others.<sup>130</sup> According to this interpretation, the deaths of the first group of farmers could have occurred gradually over a period of time. It is not clear, though, why they were not replaced just as both members of the second group were. Possibly the state was not concerned to do so as long as the surviving members kept up with their tax payments.

Let us now consider the second possibility, namely that the deaths of the first group of farmers occurred during a short period of time. We would then have to suppose that the one or two named individuals were the chief members of each *pittakion* and that there was no need to name the other members because they were listed in other records and were in any case dead. It was perhaps more important to name all the current cultivators because they were new and had not been properly recorded elsewhere. Now in the normal course of events it would be very surprising to find every, or almost every, member of so many groups of cultivators dying at much the same time, and a natural disaster such as plague appears to offer the only explanation. If that was so, then the document would seem to reveal a determination by state officials to maintain the cultivation of the lands of the deceased. There remain some questions, however.<sup>131</sup> First, if col. ii really does attest to some groups of farmers being replaced without any of them having died, why were they replaced at the same time as the others who had in fact died? Second, is it not surprising that a natural disaster such as plague should devastate almost the entire membership of the *pittakia* but leave untouched numerous other individuals who could then be brought in to replace them?

<sup>130</sup> A son of Ptolemaios (l. 37) and Chairemon son of Asklepiades (l. 40).

<sup>131</sup> There may also be a problem with the date. If the Chairemon son of Asklepiades who is said to be dead in this register was identical to the man of the same name at *BGU IX 1900. 83* and in *SB XII 11008*, then he must have been alive in or possibly shortly after 196. That would push the date of this register to at least the very end of the second century and thus, even if plague is involved, it might be hard to relate it to the specific outbreak during the reign of Marcus Aurelius in the 160s and 170s.

Although the exact interpretation and possible relevance are uncertain, the register merits consideration in this context. Perhaps more clearly revealing is *P.Stras.* VII 688, which has already been cited in connection with estimating the extent of Theadelphia's agricultural land.<sup>132</sup> It is a report drawn up in 216 for the purpose of making an assessment of a levy, probably to be paid in wheat and barley, for the Emperor Caracalla's campaign in Syria. The layout of the document can be seen in Table 8.1. The key to understanding this document lies in knowing to what the terms *en sitikois* and *en argyrikois* refer. The editor understands the nature of the taxes assessed on the land falling within either category; thus land *en sitikois* pays in kind, and most often in wheat, while that *en argyrikois* pays in cash. This seems to me to be the natural way in which to understand these terms, but it leads to some striking conclusions. Arable land had its taxes assessed in kind, although there is evidence that they could be commuted into a cash payment, while vineyards and orchard land had them assessed in cash, as we have seen. This means that in 216 Theadelphia had just over 3,600 ar. (= c. 990 ha) of arable land compared to just over 1,500 ar. (= c. 415 ha) of vineyards and orchard land, whereas fifty years earlier the estimated figures were at least 5,800, if not c. 6,300, and c. 500 ar. respectively. The total of almost 5,200 ar. is over 1,000 ar. less than that estimated as a minimum for the mid-second century. If my interpretation of the figures is correct, what could account for such changes? Plague is obviously one possibility. If it caused substantial depopulation lasting for at least several years, large amounts of land, particularly of the marginal kind, could have fallen out of cultivation. But a concerted effort to switch large amounts of land from arable cultivation to the rather more profitable vineyards and gardens seems also to be indicated. Possibly consumption of such foodstuffs as wine, dates, and olives was rising due to increasing urbanisation and even an increased standard of living among the survivors of plague.<sup>133</sup>

Two additional points would appear to support my (and the editor's) interpretation of *P.Stras.* VII 688. First, the Philadelphian land register already mentioned<sup>134</sup> was drawn up under similar circumstances relating to a levy in support of Caracalla's campaign in Syria in 216/17. Although only private land is listed there, it is divided into two categories, '*sitika*' and '*dendrika*' (*edaphe*); these refer not to the nature of the taxes assessed but instead to the nature of the cultivation: grain crops (presumably including all field crops) and trees (presum-

<sup>132</sup> Above, n. 10.

<sup>133</sup> In fourteenth-century England the higher wages and lower rents in the aftermath of the Black Death enabled many peasants to improve their standard of living, including their diet, cf. Waugh (1991), 90–1. It is not certain, however, that the Antonine plague led to an overall increase in peasants' standard of living in Egypt. Wages may have risen, but it can also be demonstrated that the overall range of prices doubled between the 160s and 190s, cf. Rathbone (1996), 329–35.

<sup>134</sup> Above, n. 57.

ably including vines). So if land planted with trees at Philadelphia was liable to the levy, it adds weight to the interpretation of *en argyrikois* in *P.Stras.* VII 688 as referring to vineyards and garden land. Second, no division into land *en sitikois* and land *en argyrikois* is made in the case of the lands at neighbouring villages listed in *P.Stras.* VII 688 as assigned to Theadelphia. This must be because assigned lands always fell into the category of arable, and so there was no question that taxes in cash will have been assessed on them.

The question of the impact of the Antonine plague is both vexed and important. If my arguments are valid, they offer a contribution to the debate. There are two documents which may lend support to the idea that this pestilence had a substantial effect on Theadelphia. One could suggest a substantial degree of depopulation within a short period of time, although the numbers may eventually have recovered. The other, however, could suggest a longer-lasting effect both on the amount of land under cultivation and possibly on the nature of what was grown.

### Conclusions

The aim of this chapter has been to present a brief overview of an Egyptian village in its agricultural setting in the second century CE. The discussion has necessarily been rather technical, but I should also stress that it is by no means definitive. Important documents still remain unpublished, while the comprehensive work on Theadelphian prosopography currently in progress<sup>135</sup> should help to shed much light on those already known. However, notwithstanding the many problems thrown up, some preliminary results have emerged from this discussion.

While in size second-century Theadelphia does not represent the norm for Egypt, the picture obtained of landholding and land use seems to fit in important ways with that drawn by studies of the evidence from other parts of the province. There was probably a broad base of landholding among the population, with the huge areas of public land providing an outlet for those with insufficient of their own. Nevertheless, concentration of landholding did occur, and is particularly visible in the case of the more valuable vineyards and garden land. Here the holdings of a small number of privileged Romans and Alexandrians seem to have dwarfed those of everybody else. Even in the case of arable land, we find a little evidence for large areas being owned by members of another privileged group, the metropolitae. However, the evidence does not allow us to specify any one of these groups as being obviously dominant, nor did they all necessarily reside outside the village. The evidence may be compatible with the notion that a few much larger external landowners of the kind we encounter in

<sup>135</sup> Above, n. 9.

the third century were already active during this period. There may also be some evidence for change in agrarian conditions in the village during the second half of the second century, notably a fall in the area of cultivated land and an expansion in the area of vineyards and garden land. If so, I suggest that the Antonine plague may have been an important causal factor in such changes.

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