The historiography of the economy of Byzantine Egypt has undergone a dramatic transformation in the last century: the literature has shifted from articulating a regressive, proto-feudal ‘servile state’ to stating that the province contributed to a ‘wave of economic expansion’ that arose in the eastern Mediterranean beginning in the fourth and fifth centuries. Central to this sea change have been recent ‘rationalizing’ interpretations of the ‘great estates’ belonging to the bureaucratic and military elites who rose to prominence during the period through imperial patronage. That the ‘feudal model’ is no longer tenable, most would agree; Gascou’s seminal ‘Les grands domaines, la cité et l’État en Égypte byzantine’ delivered the mortal blow twenty years ago. Economic expansion, however, and the importance of aristocratic landholdings for any such expansion are matters requiring further investigation. Notions of the former need (at the least) to be contextualized within the history of the ancient economy (to say nothing of contextualization from the perspective of global history), and research energies must be directed from qualitative description towards quantitative analysis – a task that we cannot treat as impossible, given the wealth of evidence (textual and otherwise) that has been preserved. A similar imperative exists for the matter of aristocratic landholdings. If one argues

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1 I must alert the reader to Zuckerman 2004, which reached me after I had submitted this paper. Zuckerman’s stimulating monograph is relevant for several of the topics broached here, including the impact of the Justinianic plague and the social structure of the village of Aphrodite. (I have prima facie reservations about Zuckerman’s conclusions concerning the latter issue, but these cannot be explored here.)

2 ‘Servile state’: Bell 1917, elaborated in Hardy 1931. ‘Wave of economic expansion’: Sarris 2004a: 69; cf. also, e.g., Banaji 2001. Keenan 1993 provides a nice historiographic survey but of course does not cover the most recent developments.


5 Cf. the remarks in Saller 2002: 257ff.
that aristocratic wealth in the late antique East increased substantially, it is reasonable, given the primacy of agriculture in the ancient economy, to hypothesize that any late antique economic expansion was tied to the exploitation of elite rural property; but then one is obligated to test one’s hypothesis by going deep down into the muck of the evidence, as some recent contributions on the subject have failed to do.

That noted, the problem of the economy of Byzantine Egypt is not an easy one with which to grapple. The same abundance of evidence (at least by the standards of ancient history) that endows the question with such great potential also furnishes a significant hurdle, one made all the higher by the difficulty of controlling essential sources without specialist (papyrological, archaeological, etc.) training. Unedited papyri present obvious problems of decipherment, but a text’s challenges do not, as a rule, end on publication. Important volumes of late antique texts contain nothing but the barest transcriptions, and even when substantial energy has been devoted to commentary, the interests of the editor and the historian often do not overlap. It should come as no surprise, then, that despite a surge in interest in the economy of Byzantine Egypt in the last decade or so, the scholarly literature on the topic is hardly plentiful, and much fundamental synthetic work remains (to say nothing of efforts crossing disciplinary boundaries).

The present essay has been written as an entrée into the economy of Byzantine Egypt, or rather, into the study of the aristocratic estates that are believed to have dominated that economy. It also aims to provoke reconsideration of some of the current positions on this topic. Its chronological termini are, roughly, AD 450 and 700. Although certain central late antique economic institutions (e.g., Constantine’s rock-stable solidus) and trends (e.g., the commutation of fiscal payments in kind into gold) pre-date this period, it was in the second half of the fifth century that the ‘great estates’ emerged as a prominent feature on the late antique landscape. At the other

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6 So, e.g., Sarris 2004a: 59–60.
7 Cf., e.g., the assessment in Goldsmith 1987: 34–59.
8 For example, Sarris 2004a and 2004b draw conclusions based on an imperfect understanding of a basic term (chôrion; see Bagnall 1999 and, for the Byzantine Oxyrhynchite in particular, Hickey 2001: 30ff.). Criticisms of this nature are more appropriately addressed elsewhere, but it must be said that the argument in Sarris 2004b concerning the Apions’ autourgia (285–6), which is critical for the thesis of that paper, is egregiously unsupported. For the Apions’ holdings at Oxyrhynchos, see pp. 295–6, 301–3 below.
9 SPP comes most immediately to mind. (Revised versions of SPP III and VIII will be appearing shortly.)
10 Incidentally, the term ‘estate’ should only be used with the recognition that it does not imply contiguity, cf. p. 295 below.
11 For the period before 450, see Bagnall 1993.
end of the chronological range, the Islamic conquest of 639–42 disrupted
the forces (political, social, and economic) that had created the estates and
had permitted them to flourish.\textsuperscript{12}

For the most part, I will limit myself to consideration of texts on papyrus;
they are absolutely essential for the question of aristocratic landholding
(and are more than adequate for the limited goals of this paper). It is the
papyrus archives and dossiers – and the rare isolated text like the 562-
line estate account preserved in \textit{P.Bad. IV 95} – that are especially valu-
able.\textsuperscript{13} These are witnesses that, through their accumulation of interrelated
data, allow us to ask the kinds of economic questions – about decision-
making, risk tolerance, investment, labour deployment, and so forth – that
I believe are the most interesting and broadly significant. The ‘answers’
to these questions are of course impacted by the limitations of the cor-
pus of Byzantine papyri.\textsuperscript{14} Because this corpus is dominated by texts from
Nile Valley settlements like Oxyrhynchos and Aphrodite, the economic
history of Byzantine Egypt, at least when it is at its fullest, is the his-
tory of such places, or rather, the history of certain agents in these par-
ticular localities – as opposed to the history of these agents’ complete
portfolios.\textsuperscript{15}

The agents in question are invariably those who were educated enough
to leave an economic record themselves or wealthy enough to afford
scribes – typically the possessors of landed property, be they people or insti-
tutions (i.e., the church, including, of course, monasteries, and the state).\textsuperscript{16}
Less affluent members of society are represented in the documentation only
when they become an interest of the propertied (e.g., a tenant, a debtor,
the provider of some service, a taxpayer). Even then, such relationships are
not always recorded: the extremes of permanence (e.g., customary arrange-
ments) and transience (e.g., casual labour) tend to remain unwritten.\textsuperscript{17} The
impact of such silence on the investigation of the deployment of labour, for
example, is obvious. Needless to say, the fragmentary papyrological record

\textsuperscript{14} Further discussion: Hickey forthcoming, Bagnall 1995 is an excellent introduction to the employment
of papyri for the writing of history.
\textsuperscript{15} The holdings of the Flavii Apiones (for which see below, as well as Mazza 2001), so influential in the
historiography of the economy of Byzantine Egypt, are well documented only in the Oxyrhynchite;
their possessions in other areas in Egypt (e.g., the Herakleopolite), to say nothing of other locales in
the empire, are poorly illuminated by the sources.
\textsuperscript{16} For the role of the aristocracy in the administration of church and state/imperial holdings, cf. p. 296
below and Banaji 2001: 144 n. 63. Of course lower-level elites (e.g., \textit{clarissimi}) would also administer
the estates of those higher up the social ladder, cf. the recently published \textit{CPR XXIV} 29.
\textsuperscript{17} As, for the most part, does the economic contribution of women and children; for the situation
elsewhere in antiquity, see Scheidel 1995, 1996.
also hinders the documentation of change, including the impact of economically critical events (such as the Justinianic plague) recorded in our literary sources.\textsuperscript{18}

Any consideration of landholding (aristocratic or otherwise) in Egypt should begin with the land itself, and a fundamental aspect of the land is the limit of its extent. This limit is not merely an ancient phenomenon: one need only read the current Egyptian government’s literature on the ‘New Valley Project’\textsuperscript{19} or view images from space (see Fig. 14.1): fertile land

\textsuperscript{18} See, however, n. 33 below. For the Justinianic plague in Egypt, see Sarris 2002 with refs.

currently makes up less than 4 per cent of Egypt’s area.\textsuperscript{20} The upshot of this limitation for the economy of Byzantine Egypt is that the avenues for agricultural investment were somewhat constrained. If one had solidi that one wished to invest in agriculture – for the aristocracy, at least, still the most socially acceptable form of investment\textsuperscript{21} – there were no substantial undeveloped tracts available for acquisition.\textsuperscript{22} One was left with the option of purchasing others’ land or developing one’s current holdings. One might also provide credit, which in turn could lead to the acquisition of property.\textsuperscript{23} The development of one’s land might be accomplished through investment in labour-intensive cash crops like grapes and/or the addition of irrigation machinery, typically during the Byzantine period the \textit{saqiya}, the \textit{mêchanê} or \textit{organon} of the papyri (cf. Fig. 14.2).\textsuperscript{24} Cash-crop investments often required irrigation expenditures; that is, to a large extent, the development options went hand in hand. The rigidity of the post-Diocletianic tax system no doubt encouraged investments in irrigation, which resulted in more stable yields and allowed for summer watering.\textsuperscript{25} The machinery also enabled elevated portions of a property, formerly unwatered, to be brought under cultivation; these were the typical locations for vineyards and orchards.

The expansion of vineyards and orchards was no doubt stimulated by the increased monetization of taxes, such as occurred under the emperor Maurice.\textsuperscript{26} The important role of the Byzantine state in crop selection may be seen clearly in the Islamic period: without the artificial demand created by the \textit{annona}, a good portion of the land once sown with wheat came to be planted with the cash crop flax.\textsuperscript{27} The papyrological documentation suggests that aristocrats invested significantly in the \textit{saqiya}, which might

\textsuperscript{21} Cf., e.g., Cod. Just. 4.63.3 (= Bas. 56.1.19).
\textsuperscript{22} The Fayyum might be an exception; i.e., it is conceivable that it provided some opportunities for redevelopment. The traditional view is that there was a general (and, during the period under consideration here, irreversible) contraction of agricultural land as a result of the breakdown of the irrigation system that began in the third century, but see now Keenan 2003: 138: ‘The village topography of the Fayyum was not static but shifting, and not always for the worse. This should be a caution to those who see the late antique Fayyum only in terms of simple decline.’ That noted, the net result over the Byzantine and medieval Islamic centuries was surely diminution.
\textsuperscript{23} The process is nicely illustrated in P.Oxy. LXIII 4397, which reveals in detail how the Flavii Apiones ended up with the property of a terminally indebted \textit{clarissimus} named Diogenes. The Justinianic plague may also have provided opportunities for acquisitions.
\textsuperscript{24} There is nothing revolutionary, of course, in seeking profits through viticulture (or, in other regions, oleiculture). The irrigation devices were, however, a more recent development, cf. Bonneau 1993: 103ff., 220ff., and refs.
\textsuperscript{25} Cf., e.g., Rowlandson 1996: 63ff.
\textsuperscript{26} Monetization of taxes: Gascou 1985: 11 and refs. The classic formulation of the concept is Hopkins 1980 (revised 1995–6).
\textsuperscript{27} Mayerson 1997.
Figure 14.2 (a) Pot-garland and (b) saqiya (after M. Venit, *The Monumental Tombs of Ancient Alexandria: The Theater of the Dead*, Cambridge 2002).
be considered a hallmark of their estates. The papyri give us a sense of the yield of these investments, which initially amounted to around ten solidi per installation. The fixed rent for about two thirds of an acre of vineland on the Apion estate at Oxyrhynchos was three solidi, the annual wage of a goldsmith’s assistant on the estate, and a sum not too far removed from the purchase prices attested for arable land in contemporary papyri. Yet no matter how widespread irrigation technology was, we should hesitate to credit it with transforming economic growth. One could argue persuasively that any growth that it created was not sustainable, and it needs, in any case, to be considered in conjunction with other endogenous factors (e.g., population shifts), as well as exogenous forces like the Justinianic plague.

When we address growth, we must also consider trade, which contributes to growth through the specialization that it allows. In Egypt, the same geography that limited landowners’ options also presented them with easy access to markets in the metropoleis, where they might also purchase specialized labour and products (a potential disincentive for autarky). The structure of the land also would have afforded elites, via the Nile, a relatively inexpensive entrée into the great markets in Alexandria and beyond (e.g., Constantinople). The actual extent of landowners’ participation in this sort of trade, especially trade outside the borders of Egypt, is an intriguing

28 Cf. Banaji 2001: 132. P. Oxy. XVIII 2197 and XIX 2244 (both from the Apion documentation) are witnesses worthy of special note.
29 Cf. P. Bad. IV 95, 457 (twelve solidi less seventy-two keratia). Bonneau 1993: 303, proposes five solidi, which she calls ‘lourd’. Of course the parts (wheels, axles, etc.) of the machines would need maintenance and, eventually, replacement (cf. Bonneau 1993: 224), while the humans and animals tending and driving the equipment, respectively, required nourishment, etc. (For the receipts for parts of irrigation machinery, a characteristic feature of the papyrological documentation from the Byzantine Oxyrhynchite, see P. Oxy. LXX 4780.)
31 P. Oxy. LVIII 3933. For other wages of the period, see tables 11a and 11b in Banaji 2001.
33 As in Banaji 2001. For stagnancy (or worse) on the Oxyrhynchite estate of the Apions, cf. Hickey 2001: 200–2. It occurs to me now that the first gross revenue figure quoted there should reflect the situation in the immediate wake of the plague. The term ‘growth’ is bandied about carelessly by ancient historians, usually with only vague qualification (e.g., ‘significant’). At the least, ‘aggregate’ or ‘per capita’ should be employed.
34 Cf. Saller 2002’s remarks on the watermill (265), along with his references (261–2) to recent development literature, which has shifted emphasis from ‘exogenous technical innovation to human capital accumulation as the key source of growth and development’ (quote from Erlich 1990: S7).
37 Cf. Bagnall 1993: 70–1, 78ff.; note also Varro, RR 1.16.2–4. The proximity of these urban areas would also facilitate the involvement of elites, at least those of lower statuses, in the management of their property. Sarris 2004b: 305 sees over-optimistic about the involvement of the Apions in their estates.
problem. T. Varie 3 provides a tantalizing glimpse of long-distance trade; dating to 621 or 636, it documents the shipment of at least 12,700 litres of Egyptian wine to Constantinople by a Hermopolite emporos. Recently, this anecdote has been combined with the relatively small numbers of late Egyptian amphorae that have been found at several sites outside Egypt, and it has been concluded that, beginning in the late sixth century, Egyptian landowners felt the need to market their production beyond Alexandria. This seems too hasty; the matter needs additional investigation. Although the opportunity furnished by the annona ships, the possibility of tied trade, would seem a promising point of departure, the current ceramic evidence does not support the notion.

The landed property of an Egyptian aristocrat would not have been contiguous; there were no extensive tracts like the latifundia of Roman Sicily (or the latifundios of contemporary Venezuela). The ‘large estate’ of Byzantine Egypt par excellence, the one that is the focus of Edward Hardy’s 1931 book of similar title, the Oxyrhynchite estate of the Flavii Apiones, was comprised of a multiplicity of holdings, perhaps distributed unevenly (with a greater concentration of property in the north) throughout the Oxyrhynchite nome. The foci for these holdings were the epoikia, the settlements, typically the property of a single landowner, that we might render in English as ‘farmsteads’ or ‘hamlets’; on average, five of these were under the control of an administrator, a pronoëtes, on the Apion estate. Not all of the land surrounding an epoikion was exploited directly; leasing, for a fixed rent in cash or in kind or a fixed share of the yield, is well attested on the Apions’ farmsteads. There was no uniform exploitation strategy for the Apions or, for that matter, other landowners, even for plots bearing the same kind of crop, though the crop grown, as well as local practice and tradition, wealth, power, and risk tolerance, was certainly an important factor in the calculus. Throughout Egypt, certain critical tasks (e.g., the year-round work in vineyards and irrigation) might be governed by labour contracts or the so-called ‘lease of work’ (Greek misthosis tòn ergôn). Labour for seasonal tasks was of course hired as needed. As noted above, temporary arrangements often were not recorded; a series of

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39 That Alexandria exerted a strong economic ‘pull’ seems unavoidable.
40 Cf. Banaji 2001: 18 n. 19 and refs. (My figure is lower because I have allowed for smaller knidia.)
41 E.g., those recovered during the excavations at Hagios Polyeuktos in Constantinople, Hayes 1992: 66–7.
48 Banaji 2001 and Sarris 2004b place far too much emphasis on direct exploitation; see the case study below.
ostraka in part concerning the vintage on an estate near Abu Mina may provide an exception.\footnote{Wortmann 1971 (perhaps mirrored in the texts discussed in Fantoni 1991).}

\textit{Epoikia} were not simply an Oxyrhynchite phenomenon, but there were certainly other solutions to the problem of estate management. One might employ a system of local agents and leases. Such a system, which has been described at Aphrodite by Keenan 1985, would be most appropriate for medium-sized properties and the less concentrated portions of large holdings. The church both employed local aristocrats as managers (Greek \textit{phrontistai}) and leased its property to middlemen, to individuals like Apollos, the father of the poet Dioskoros;\footnote{Cf. Banaji 2001: 195–6 (with n. 16 above).} often these leases would have been perpetual, that is, \textit{emphyteuseis}.\footnote{\textit{Emphyteuseis}: See \textit{P.Oxy. LV} 3805 and refs.} Imperial property was handled in a similar fashion; the first attested member of the Apion family was a \textit{curator} of these estates,\footnote{See Mazza 2001: 52–3.} and, not surprisingly (given their connections), the Apions continued to be involved with them in later years.\footnote{Later years: see, e.g., \textit{P.Oxy. XVI} 1915. Connections: cf. Mazza 2001: 58.} The imperial bureaucracy, or rather, imperial methods, very probably had a significant influence on the management of large estates like those of the Apions.\footnote{Banaji 1999: 203.} Of course smaller properties would generally have been managed (if not worked) directly.

The distribution of land was by no means uniform throughout Egypt. At Oxyrhynchos, the Apions were (as the accounts in the secondary literature might lead one to expect) the dominant private landowner. Their holdings were not, however, as vast as A. H. M. Jones wrote in the \textit{Later Roman Empire}, 112,000 \textit{arourai}, about 75,000 acres or 120 square miles;\footnote{Jones 1964: 784.} by my calculation, the family possessed 21,000 \textit{arourai} (5,788 ha) at most.\footnote{\textit{Jones 1964: 784.} 112,000 \textit{arourai} actually \(\approx 76,243\) acres \(\approx 30,853\) ha.} It should not be forgotten that there were other significant players. In the 560s, the \textit{oikos} (‘house’) of Kometes, the son of the \textit{patricius} John, was assessed a sum half that of the Apions (see \textit{Fig. 14.3}).\footnote{Hickey 2001: 71–2.} By way of comparison, the church at Oxyrhynchos was charged an amount roughly 38 per cent of that of the Apions. The wealth of John’s family is further indicated by some affidavits of his daughter Christodote; Kometes apparently owed her sixty-one pounds of gold (4,392 solidi).\footnote{Oikos: an estate ‘held in joint ownership and thus immune to the devastating fragmentation of partible inheritance’ (so Banaji 1999: 205). Half: the figures could indicate that the Apions possessed (approximately) twice as much land as Kometes, but the sums that were to be collected by the two \textit{oikoi} might have included monies from other landholders (and it is not certain what the basis of assessment was or if it was uniform).} Kometes provides, incidentally, a
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Fiscal Assessments in P.Oxy. XVI 2040 (366/67)

Note: Pagarchy sum shared equally between Justus and his brothers and the heirs of Ptolemaios.

Figure 14.3 P.Oxy. 2040 (table created by Todd M. Hickey).

wonderful object lesson about the state of our sources, a caveat for those who would write history from the papyri: though a wealthy and doubtlessly influential man, he is mentioned by all of four papyri, and two of these are copies. Others have noted a ‘polarization’ of wealth in the Oxyrhynchite, and the available evidence can indeed be interpreted as indicating that the highest elites (more precisely: aristocrats at least possessing the dignity of gloriosissimus) owned more land in the district than any other bloc. Since these high elites also had a role in the administration of the property of two other significant landholders, the church and the state, there can be no doubt that they were powers that one could not ignore. Yet I would suggest that too much emphasis has been placed – decades ago and just recently – on these high elites and, for that matter, at the other end of the spectrum, on that portion of their labour force, clearly a small minority, that was governed by the coercive, ‘between free and slave’ adscripticate.

63 ‘Small minority’: cf. Hickey 2001: 105–6 (on the Apion situation). Lo Cascio 1997 is a good place to begin delving into the scholarly industry that is the late antique colonate. ‘Between free and slave’ (metaxu eleutherón kai douλón); a reference from the second-century Onomasticon of Julius Pollux (3.83), referring to groups like the helots. But similar locutions have also been used to describe the coloni, cf., e.g., Westermann 1945.
The texts actually reveal a much more nuanced social and economic landscape in the Oxyrhynchite, one also populated by lower-level aristocrats and truly substantial ‘peasants’ (geôrgoi). The possibility of mobility, of improvement, has also received little attention. The lower-level aristocrats and, perhaps, mobility are well represented by Flavia Anastasia. Anastasia apparently started out as a magnificentissima; she paid only 25 per cent of Kometes’ charge in the early 580s, and, unlike the Apions (and a similarly positioned Euphemia in the immediately preceding generation), she appears never to have possessed land outside of the Oxyrhynchite. Despite this, she, or rather her patrimonium, is known to have been responsible for a portion of that ‘quintessential’ munus of large landowners, the pagarchy; and before 587 she seems to have been promoted, if that is the proper word, to the rank of gloriosissima. Regarding the substantial geôrgoi, obvious examples are provided by the headmen (meizones) of the Oxyrhynchite villages. The relative wealth of these individuals is clearly indicated by two texts: one a report of stolen property with a value of eighty-six solidi; the other, a division of an inheritance valued at 360 solidi. These meizones were capable of leasing the Apions’ expensive fixed-rate vineyards without the assistance of partners.

The distribution of land appears to have been notably different further south. There were certainly aristocrats in the Hermopolite, but their ranks seem typically to have been lower: lamprotatos (clarissimus) might be identified as characteristic. If, as seems probable, the Theodora who is referenced in P.Bad. IV 95 was the initial owner of the estate documented by that account, then she (given the notable presence of lower-grade aristocratic women in the seventh-century fiscal codex P.Sorb. II 69) and her estate of less than 300 arourai might be considered representative. No figure is as conspicuous in the late Hermopolite documentation as Hyperechios with his 5,000-plus arourai in the late third and early fourth centuries. A logical hypothesis is that the number of arourai devoted to cash crops in the Byzantine Hermopolite was notably lower than in the

64 Banaji 2001, e.g., records their existence, but they are overshadowed by his emphasis on the great landowners’ deployment of wage labour.
67 Euphemia: cf. P.Oxy. LXIX 4755, 5n. Possibly also in Fig. 14.3.
68 None of the texts in her archive (which I am preparing for publication) state that she is a landowner elsewhere, i.e., she is a geouchousa entautha, not kai entautha.
69 Pagarchy and large landowners: Banaji 2001: 140–1 and passim.
73 Cf. P.Sorb. II 69.
74 Cf. P.Sorb. II 69.
75 Theodora as owner: Johnson and West 1949: 57. The estate is one of the case studies below.
Oxyrhynchite, with its more prominent elites. This was certainly the case upriver from Hermopolis in the Antaiopolite nome, where it is extremely unlikely that the entire district (192,753 *arourai*, including waste, according to Bagnall 1993: 334) had even ten times as much vineland as the Apion estate in the Oxyrhynchite.\textsuperscript{77}

The documentation for the Byzantine Fayyum is quite fragmentary – less central in its concerns – and much of it was published in the infancy of papyrology;\textsuperscript{78} as a result, it is much harder to reconstruct the social and economic landscape there. There surely were landowners with large properties, holders of the patriciate like Flavia Sophia, whose estate has been estimated at 10,000 *arourai*,\textsuperscript{79} and Strategios *paneuphēmos*, the monophysite magnate who was instrumental in the union of the Coptic and Jacobite churches.\textsuperscript{80} Strategios certainly possessed land throughout the Fayyum, as well as property in the Oxyrhynchite and Herakleopolite nomes.\textsuperscript{81} Also worthy of mention is Theodosios, the *dux et Augustalis* of Arcadia, who in 633 made a significant payment of 4,000 artabas of grain, presumably for fiscal dues.\textsuperscript{82} The presence of such individuals, in addition to the fact that share tenants in the Fayyum were generally poorer and subject to harsher terms than those elsewhere in Egypt,\textsuperscript{83} suggests that the distribution of land in the Fayyum was closer to that in the Oxyrhynchite than that in the Hermopolite. The Fayyum’s percentage of vineland was undoubtedly higher than that in either locale, which very probably indicates more land concentrated in the hands of high elites.\textsuperscript{84}

Although outright ownership of villages (Greek *kômai*) is attested elsewhere in the empire,\textsuperscript{85} there is no explicit testimony for it in Egypt, not even in those areas with a significant presence of high-level elites. This means that, despite the commonplace references to the growth of aristocratic power

\textsuperscript{77} For the Antaiopolite, see *P.Cair. Map.* I 67057 III.4; the Apions, Hickey 2001: 65ff.
\textsuperscript{78} By Wessely in the *SPP* series (mentioned above, p. 289).
\textsuperscript{79} By Rémondon 1974: 368–9. This article was published posthumously (without notes, etc.); he does not tell us the basis of his estimate. It seems likely that it was *SPP* VIII 1091; if so, it should be recognized that the payments in this text probably include sums for properties besides her own (cf. n. 60 above; the orders for payment from her dossier suggest that she was acting on behalf of a minor son at the least). That noted, Rémondon’s estimate does not strike me as unreasonable.
\textsuperscript{80} See Palme 1997: 99 and refs.
\textsuperscript{81} For Strategios’ holdings, see most recently CPR XXIV 24–9.
\textsuperscript{82} The payment appears in *SPP* X 249 II.8; at the tax rate for arable land in *P.Cair. Map.* I 67057, it equates with 3,200 *arourai*. (But again, this amount likely includes the payments of others.) For Theodosios, see Banaji 2001: 146, 156, 174–5. Banaji (142 n. 52) suggests that he may have been Sophia’s son.
\textsuperscript{83} Jördens 1999: 122ff.
\textsuperscript{84} Cf. Banaji 2001: 159: ‘In the Fayyum almost every major rural site can be associated with wine production even and indeed especially in this late period.’
\textsuperscript{85} The purchase of the seaside village Porphyreon by the *rhētûr* Evangelos (Procopius, *Anecdota* 30.18–19) comes most immediately to mind, but there are other examples.
and large estates during our period, the village, though hardly immune to outside pressures, remained the realm of lesser (and typically local) officials, substantial peasants, and so on, continuing a pattern noted for earlier centuries. The principal difference was in the holdings of the church. The aristocratic presence in the village of Aphrodite was minimal. In the ‘Cadastre of Aphroditê’ (SB XX 14669), the principal landowner is the Monastery of Apa Sourous, with over 300 arourai (vineyards and gardens, more than 5 per cent); seven monasteries hold about a third of the total acreage. The fragmentation attested in the Cadastre is noteworthy: the Monastery of Apa Sourous’ property is held in over forty parcels. The comes consistorii Ammonios is the prominent aristocratic landholder, with under seventy arourai in over ten parcels (vineyards and gardens, not surprisingly, more than 10 per cent). The provincial middle bureaucracy is somewhat better represented; the scholastikos Theodosios, whose heirs are attested holding about sixty-five arourai in at least ten parcels (vineyards and gardens, remarkably, about 18 per cent), might be cited as an example of this group. In the smaller Hermopolite village of Temseu Skordon, the pattern is similar: church payments account for about 15 per cent of the total. In Temseu Skordon, however, even the middle bureaucracy is all but absent.

Though some of the more recent studies concerning the agrarian economy of Byzantine Egypt might leave the impression that landowners like the first-century grammarian Remmius Palaemon were typical, there clearly was diversity in the approaches of elites to the land, in the mentalities that governed their economic behaviour, in their decision-making. This does not mean, of course, that there was no clustering on the spectrum, but one should anticipate variation and even outliers (like Palaemon, in my view). As interesting as the decisions themselves are the fault lines, the factors determining variant behaviours. These all are complicated matters, but a rudimentary examination of them, via two summary case studies of estates belonging to aristocrats at the high and middle to low ends of the socio-economic spectrum, is nonetheless illuminating. The obvious choice for the high end is the well-known (at least in the Óxyrhynchite) aikos of the

87 SB XX 14669; see Gascou and MacCoull 1987. When considering the data in the Cadastre (and the observations made above), it must be remembered that the text does not account for about 75 per cent of the village’s land (since the kômêtiêka onomata are missing; for these, see now Zuckerman 2004).
88 P.Lond. Capt. 1075, which is being prepared for publication by Bagnall, Keenan, and MacCoull; I thank Bagnall for this information. See also MacCoull 1987.
89 Based on the description in MacCoull 1987. Bagnall informs me, however, that the Gini (inequality) index is quite high (.653); the top 30 per cent of the population owns 79.2 per cent of the land.
90 For Palaemon’s ‘model’ estate, see Pliny, NH 14.49–51.
Aristocratic landholding and the economy

Apion family; while the well-studied Hermopolite estate documented by P.Bad. IV 95 seems a good selection for the lower end. An additional study, of Aurelius Phoibammon, the son of Triadelphos, and other members of the village elite of Aphrodite, will provide further points of comparison.

The Apions’ Oxyrhynchite oikos possesses the most complicated structures that the Byzantine papyri have revealed to date. It was overseen by an extensive management hierarchy, running from the antigeouchos (vice-dominus, or landlord’s representative) down to figures like the foremen (ergodiëuktai) in the epoikia. Alongside those managing or directly engaged in agricultural production was a host of salaried support staff (clerical workers, bankers, and so forth) as well as artisans. There was also a multi-layered system of accounts, more elaborate than any other that has come to light in the late antique period, much more sophisticated than those of, say, Flavia Anastasia. In short, the potential for economies of scale, for the careful management of expenditures, and for other means of increasing profits clearly existed.

Although the oikos’ owners and management certainly cared about returns, I would propose that other factors (e.g., the oikos’ extensive fiscal responsibilities and concerns about access to specialized workers) were critical in the development of the complicated apparatus just described. The oikos produced a variety of crops, but careful consideration of the extant documentation reveals that only flax and wine were potential market sectors. Quite a lot of wheat was grown, but it has long been recognized that the oikos produced little beyond that which was required to pay its fiscal dues and to meet its own consumption and planting needs. Though research has revealed that Oxyrhynchos was a major centre for commercial textile production in the mid-third century (and despite the fact that the former Oxyrhynchite was a major producer of flax for export in the Middle Ages), there is no evidence whatsoever for the Apions’ direct involvement with flax production. They may have let out flax land. With wine, the picture is similar: by my estimate, at least 55 per cent of the Apions’ vineland was governed by fixed-rent leases in cash. The strong presence of such

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91 Well-studied: see Schnebel 1928, although an investigation taking account of the plethora of revised readings (and involving a re-examination of the extant frames of the papyrus, including the unpublished fragments) would be welcome. The discussion below assumes (for the most part) that Schnebel’s data is accurate.
92 Phoibammon: discussed in detail by Keenan in this volume.
93 See Mazza 2001: 134–47.
95 These texts are being prepared for publication by the author.
96 Hickey 2001: 189ff.
97 Hickey 2001: 191 and refs.
leases in what was very probably the only significant direct market sector of the oikos suggests an aversion to market risk, a desire for safe and consistent income. It is hardly indicative of the proto-capitalism that has recently been argued.\textsuperscript{100} My assessment of the oikos’ marketable surplus in wine confirms this: the wine available for sale after expenditures was certainly worth less than 1,000 solidi, probably much less.\textsuperscript{101}

By my calculation, at least 90 per cent of the estate’s after-tax income, about 13,000 solidi annually in the mid-sixth century, came from rents.\textsuperscript{102} The Apions’ predilection for gold has been noted since Hardy’s day,\textsuperscript{103} but this observation is less important than the family’s deployment of the gold itself. Was it invested, or was it employed in such a way that it negatively impacted the wealth of the community? The matter needs further investigation, but a significant portion of the Apions’ income must have left rural Egypt, to be expended on things like houses near the Hippodrome in Constantinople and consular diptychs.\textsuperscript{104} Much of it was probably accumulated, withdrawn altogether from the economy.\textsuperscript{105} It is also clear that the Apions were a powerful special interest group with the ear of some emperors (i.e., the opportunity to take liberties was very likely to have been present). Kehoe has in fact characterized the behaviour of aristocrats like the Apions as rent-seeking.\textsuperscript{106} Yet the realities of agricultural investment in late antique Egypt are probably also pertinent to these questions. Relatively speaking, it would not have taken much gold to exhaust the local investment possibilities: an expenditure of 20 per cent of the estate’s after-tax income (\textasciitilde2,600 solidi) on improvements would have been sufficient to build approximately 260 sawaqi, enough m\textsuperscript{\textae}chanai to irrigate over 2,000 arourai, i.e., about 5.5 km\textsuperscript{2}.\textsuperscript{107} This level of expenditure for irrigation was surely not needed annually (if in any year) on the estate. Pessimism, in any case, should be tempered by the knowledge that we are only seeing one part of the Apion ‘enterprise’. We do not know if their other oikoi (with different levels of investment, e.g., in viticulture) were managed more aggressively or to what extent rents (etc.) from the conservative Oxyrhynchos branch were

\textsuperscript{102} Cf. Hickey 2001: 200-1, where the anal\textae\nomat\textaccentuml{a} have been misunderstood; they are the taxes.
\textsuperscript{103} Hardy 1931: 100.
\textsuperscript{104} House near the Hippodrome: Malalas 18.135; for their investments on their Oxyrhynchite proastion, see Mazza 2001: 84ff. Consular diptych: \textit{CIL} II 2699. Incidentally, the dimensions of the ivory slabs that make up Apion’s diptych are particularly large, measuring nearly 41 \times 16 cm each.
\textsuperscript{105} Cf. the confiscated fortune of the usurper Heraclian, which included twenty centenaria of gold (144,000 solidi; Olympiodorus, frag. 23). It should be noted that Olympiodorus indicates that less gold was found than expected. The sum is about eleven times the after-tax rural income of the Apions’ Oxyrhynchite oikos.
consumed (or invested) elsewhere. We also are ignorant of the family’s engagement with non-agricultural sectors like trade. The wealth creation possible in the luxury trade during earlier centuries is simply astonishing.

Moving upriver, the Hermopolite estate documented by *PBad. IV* 95 seems to have been managed by a *pronotion*ès, that is, by an individual with the same title as an Apion manager of several *epoikia*; but the Apion estate seems to have had about twenty such units, or *prostasiai*, under the supervision of *pronotion*ai. The receipts in the Hermopolite account consist of rents from various properties: from its land, including, explicitly, orchards, and from buildings and installations, e.g., a bakery, an oil press, dovecotes, and living quarters and/or storage rooms (*kellia*). Cereals contributed about 20 per cent of the average net income from the holdings, and the surface area devoted to cereals has been estimated at 225 *arourai*. The land under fixed-rent money leases almost surely did not exceed seventy-five *arourai*. The estate also included vineyards, and these may well have been exploited directly or governed by sharecropping agreements (i.e., not reflected in the cash rent figures). References to the purchase of empty jars are not terribly helpful; there are too many unknowns. Some of the vessels in question could have been for wine that had been purchased, since sales in advance often specified that the purchaser would supply the jars. Mentions of freight charges for the transport of wine are similarly ambiguous; they could reference either ‘home-grown’ or purchased wine.

The owners of the Hermopolite estate were not oblivious rentiers; the account reveals their direct intervention in the estate’s affairs. The owners probably lived nearby. Though the prejudice for gold that we have seen

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109 Rathbone 2001. For trade with the East during our period, see Mango 1996.
110 Schnebel 1928: 34. He raises the possibility of other *pronotion*ai; I would be surprised by their existence.
111 Cf. Hardy 1931: 82.
112 Average net income: Johnson and West 1949: 57. The account covers four indictions.
113 Johnson and West 1949: 58.
114 Estimate = the highest (theoretical) amount of cash receipts attested in *PBad. IV* 95 (c. 223 solidi) divided by the fixed-rate vineyard rent on the Apion estate (three solidi/*aroura*) ≈ seventy-four *arourai*. One would expect, however, that vineyards and orchards accounted for considerably less than 25 per cent of the owner’s acreage, cf. Hickey 2001: 71–2.
115 Cf. Schnebel 1928: 42, who notes, however: ‘In the main . . . we must be dealing with new plantations of vineyards.’
116 Line 313 (originally read: empty jars for sixty-six *arourai*) has been corrected, cf. *BL XI* 13. The maximum annual purchase is 5,381 jars (ninth indiction; a check of l. 236 (on a digital image) reveals 480 *mikra* in addition to the eighty *megalai* indicated by *BL XI* 12).
118 Freight charges: lines 227 (eighteen keratia), 330 (six keratia); cf. Schnebel 1928: 42.
119 Cf. Schnebel 1928: 35 n. 3.
on the Apion estate is also present here, the intensity and damage of any rent-seeking, given the owners’ undoubted residence in Egypt and probable lack of high-level connections, were certainly much lower. The accounts reveal that significant amounts of money were rolled back into the estate. The owners invested between 5 and 10 per cent of their net income in irrigation. They seem to have acquired additional land during the years covered by the account, conceivably through purchase or money-lending, and they invested between 15 and 30 per cent of their annual net income in (non-irrigation) improvements, principally in the development of a vineyard. This investment diminished only 6 per cent in the face of a 19 per cent reduction in receipts during the year in which the inundation failed. It would be wrong to suggest that the property was managed like a proto-capitalist enterprise – there clearly were steps that the owners could have taken had they wished to increase their profits – but the impression that one gets from the documentation (which sadly is not as rich or informative as that for the Apions) is that the desire for a secure income was more in balance with that for expansion and gain.

For less risk aversion (and more acquisitiveness), one must (typically) look around the edges of the aristocratic estates or to the villages. Aurelius Phoibammon, the son of Triadelfhos, is a good representative of this group, but others might just as easily be put forward. Phoibammon, who is attested in about two dozen documents dating to the middle two quarters of the sixth century, was a member of the village elite, one of the ktêtores (landowners) of the kômê of Aphrodite. He thrived on the social and economic conditions of his village – on the relative absence of high aristocrats; the predominance of institutional landowners; and the presence of holdings of low-level elite absenteees. The last two of these needed labour to work their properties, and Phoibammon supplied it, by becoming a tenant and then subleasing or directly managing the leasehold. Though it now appears

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120 Banaji 2001: 224: ‘Wheat taxes work out to 28.39% of receipts [sic; ‘targets’ is more accurate], money taxes to 9.30%. Cf. also Schnebel 1928: 38: ‘Of the total tax yield for the 9th–11th indictions . . . almost 47.33% [of the solidi] are defrayed in kind, while we have seen above that payments in kind figure at only 23.55% of the quota of receipts.’ Schnebel attributes this emphasis to the state. Note also Olympiodorus frag. 41, which states that Roman oikoi of the first class received 75 per cent of their revenue in specie.

121 Regarding expenditures on the ‘private account’ of the kyra, see Schnebel 1928: 43.

122 Schnebel 1928: 44. These investments did not prevent the loss of over fifty-one solidi as a result of a poor inundation during the eleventh indiction.

123 Cf. Schnebel 1928: 36 (regarding the geòrgion tou Ótianiskou).

124 Schnebel 1928: 41. 44. ‘Though I would quibble with an item or two that he classifies under ‘improvements’, I would not dispute the emphasis.

125 Schnebel 1928: 44.

that he may have also benefited via inheritance, that he did not rise up from a subsistence existence, there can be no doubt that his economic activities (which, critically, also included providing credit) enabled him to continue to add to his portfolio. Keenan refers to him as an ‘entrepreneur,’ and this he certainly was, though more in the sense of someone who bears risk for others, and who brings together various agents, than in the sense of an economic innovator.

Phoibammon seems to have retained the lower-status gentilicium Aurelius throughout his life. Elevation to the Flaviate – crudely put, to the ‘upper class’ – is, however, attested in the family of the poet Dioskoros. Dioskoros’ father Apollos behaved in much the same way as his sister’s son-in-law Phoibammon and was similarly successful; in an imperial rescript, he is called the premier landowner of the village. Near the end of his life he comes to be referred to as Flavius Apollos, for reasons that are not clear. His son’s elevation to the Flaviate, in contrast, is readily explainable: it is the direct result of an investment that Apollos made in human capital, the consequence of the money he expended on Dioskoros’ education, which opened doors into the law and civil service. In other words, Dioskoros’ social advancement owed something significant to Aphrodite itself, that is, to his being the product of an environment that was relatively free from aristocratic interests and demands.

The story is an appealing one (at least to someone rooted in the rural Midwest), but we must not let it carry us away. Aphrodite was hardly a free-market paradise; Dioskoros’ own papers make clear its sufferings at the hands of rapacious officials. And Dioskoros himself seems much more exception than rule; he does not define the experience of village elites, but provides one endpoint of a spectrum. Though one can certainly draw parallels between his life and those of the ‘wandering poets’, Dioskoros was functioning in a completely different stratum; instead of globetrotting with a dancing parrot, he would remain (like other Aphroditans) firmly grounded in his home town. On two occasions he did visit Constantinople, and one might imagine him crossing paths with Apion II, the former

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127 Keenan, this volume, p. 237 with refs. 128 Keenan, this volume, p. 235.
131 *P.Cair.Masp.* 1 167024.3, *kekîmenon prónon genomenon.* The perspective is local.
132 *P.Cair.Masp.* 1 67126 (441-7).
133 Cf. Fournet 1999: 688. (That Dioskoros was a *scholastikos* has been disputed recently, see van Minnen 2003: 130 n. 44.)
137 The allusion is to Olympiodorus (frag. 35). 138 Fournet 1999: 318–21.
consul ordinarius, perhaps near the colonnade of Moschianos; their social and economic trajectories, however, would never, could never, cross.

REFERENCES


