Introduction

The Edfu land survey

1 The Edfu land survey in context

Through most of its long history Egypt's prosperity and wealth has derived from the Delta and the fertile valley of the river Nile. Until the completion of the Aswan dam in the first years of the twentieth century the annual Nile flood covered the land, bringing silt and minerals to enrich the agricultural land for cultivation once the flood subsided. Whoever ruled the country depended on the success of Egypt's agriculture, from the sale and taxation of crops grown in the irrigation basins and in fields along the river edge. For any administrative regime, control of land and the revenue derived from it was crucial.

This book provides a glimpse into how, and with what success, this process was managed at a particular moment of time – the late second century BC – when Egypt was ruled by an immigrant dynasty of Greek-speaking pharaohs from Macedon whose kings all took the name of Ptolemy. The focus of our study is the administrative area or 'nome' that was centred on the city of Apollonopolis Magna,[1] modern Edfu – the Apollonopolite or Edfu nome (see Map, p. xviii).

Administratively as well as geographically, this nome formed part of the broader area known as the Thebaid. Located some 745 km south of Cairo and 83 km south of Luxor (Thebes), the city of Edfu itself lay perched on a sandstone ridge – a *gezira* or turtleback – on the west bank of the Nile at around the halfway point of the nome. Best known to modern travellers for its impressive temple of Horus, Edfu stood above the flood plain on a bend in the river. The city thus enjoyed both natural protection when the annual flood arrived in late summer and considerable cultivable land in its immediate vicinity.[2] The flood plain surrounding the city extended 6 km across at its broadest point and stretched along the western bank of the Nile some 13 km north to Saᶜayda and 12 km south to Nag el Hassaya, the site of Edfu's cemetery in the Ptolemaic period. This plain provided some of the

1 We adopt the better-known Roman form of the name; the Greek form used in the land survey edited here is *Apollônos polis (hê) Megalê*.
2 Bietak 1979: 100; Manning 2003b: 61.

most fertile basins of the nome and a network of canals facilitated irrigation. For the further 12 km south from Nag el Hassaya to the border of the nome at Gebel el-Silsila the desert comes down to the Nile leaving very little agricultural land on the west bank and none at all to the east. Along the eastern bank of the Nile a narrow strip of land, known as Arabia, stretched the full length of the nome. The desert escarpment on either side lowered over the fertile green strip of the valley.

The papyrus text edited here is an official survey of the land of the Apollonopolite nome dating from 119/118 BC.[3] It provides details both of landholdings and of the level of tax revenue expected by the crown from this land. This is the first nome survey to be published and, coming from the south where far fewer Greek papyri have survived than from further north, it provides a unique insight into the different conditions of that region. Through its classification of land by area it throws light on the fertility of different regions in the nome – the cultivable fields and those actually cultivated, the areas covered in brushwood, the high land, the low land and that unfit for agriculture. It also charts the changing features of the valley under the occasionally destructive force of the flood. Though some parts of the text are lost, it nevertheless provides an overview of changes in landholding during much of the previous century, from the period even before the great revolt of the south when much of Upper Egypt was lost to Ptolemaic control and ruled by native pharaohs (207–186 BC). It shows what land was held by temples, what by military men, and in a pattern of ownership that differed greatly from the situation further north, how much was private land, though subject still to taxation. The information contained in the Edfu survey makes it clear that the prevailing view of Ptolemaic landholding, based on texts from Middle Egypt, needs to be reviewed.[4]

The strategic position of Edfu, where routes met on all sides – upstream and downstream along either bank, with caravan routes to the west and out towards the mineral resources of the eastern desert and the Red Sea ports – made the whole area one of interest to the Ptolemies from early on.[5] Troops were stationed here from the third century BC and by the time of the survey a number of military men had been settled with land grants in the area. The pattern of military settlement differed in intensity from the situation further north but seems likely to have played a similar role in both

3 On the Apollonopolite or Edfu nome in general, see Vandorpe and Clarysse 2003.

4 See already Manning 2003a; Monson 2012: 75–102.

5 See map in Baines and Málek 1980: 71; *P. Hal.* 1, ll. 166–85 = *C. Ord. Ptol.* 24 (mid-third century BC), a royal order concerning problems with military billets near Apollonopolis.

rewarding and retaining troops loyal to the king. With grants later made to Egyptian infantrymen, it also formed a means of intercultural integration. However, it is further recorded that the land granted to Egyptian soldiers was subsequently tithed, with a proportion applied to the cost of building work on the Horus temple; details of how this worked on the ground remain obscure. Moreover, in an extension to the programme of land grants not previously documented, members of important local Edfu families – those who played a significant role in the administration, in the army and also in local cults – were here endowed with large plots of land, which must have added significantly to their standing in the community and their loyalty to the crown.

Then there were the temples, both large and small, whose continuing importance is a feature of the period. Well before Egypt's conquest by Alexander of Macedon, Upper Egypt (the Thebaid) was renowned for the number and strength of its temples. Keen to make their own mark and to gain acceptance in their new home, the Ptolemies followed Alexander's example in continuing the Pharaonic tradition of temple building. The great temple of Horus at Edfu remains one of the best-preserved and most impressive temples from this period (see Plates 11–12). Lying just to the north of Edfu, the Ptolemaic temple was started under Ptolemy III (in 237 BC); it was still under construction in the late second century BC, as may be seen from the land survey edited in this volume. Horus of Edfu, lord of Behdet (Bakhthis), was a large landowner in the pre-Ptolemaic period, with interests stretching over four different nomes in Upper Egypt.[6] Though the situation for temples and their holdings was modified under the Ptolemies, the land of Horus and other gods and goddesses was still important throughout the Thebaid.

The cult of the falcon god Horus, whose temple dominated the city of Edfu and the central region of the Edfu nome, may not in fact have been the major cult of the area. The ram god Chnum of Elephantine held far more land in the nome than did Horus of Edfu. So if economic strength may be taken as a measure of importance, then the cult of Chnum was the more important of the two. In Egypt sacred geography rarely took account of administrative boundaries and for the inhabitants of Egypt the regular exchange of visits among their gods and goddesses served as a constant reminder of the larger scene. Thus Horus, lord of Behdet, received an annual visit from his consort Hathor of Dendera, some 170 km to the

6 See Meeks 1972 with Manning 2003a: 77–9 and 245–66, English translation.

north, for the Festival of the Joyous Union. Similar visits of gods and goddesses on a regular basis – with stop-overs on the way – served to link cult centres within the wider scene. Such sacred progresses formed part of the regular cultic calendar of the Thebaid. More mundane travellers on the Nile might well meet up with a sacred barge with a deity on board engaged on such a visit. Somewhat disconcertingly, regular temple land is not recorded in the Edfu survey. Since, however, this survey is incompletely preserved, such land presumably figured in part of the survey now lost. Just a few small plots of land dedicated to minor gods are listed in the surviving text, land with cultic connections not only to Horus' consort Hathor and their divine child Harsemtheus, but also to the first Ptolemaic ruler, deified as the 'god Soter'.

The extent of private land in the region, which represented approximately 38 per cent of the total agricultural area, is one of the most unexpected features of the Edfu land survey. Probably as a result of confiscations following the great revolt of the Thebaid, large chunks of land appear to have been auctioned off from that which earlier came under temple control. Equally striking is the high rate of tax that was levied by the crown on private land, at least on that which was cultivated; such taxes were known as 'harvest taxes'. So whereas the regime of land tenure in the area differed significantly from that of Middle Egypt, as appears from contemporary land surveys from the Arsinoite and Herakleopolite nomes (where private land is just occasionally found), in terms of the levy of taxes similar rates were imposed by the central administration on different categories of land throughout the country. It is even possible that harvest taxes were charged on some of the land grants recorded here and on other categories of land (that, for instance, termed 'in release'), which at this date were certainly not levied further north.[7] The details of land tenure might differ in the south but in the Ptolemaic period taxes remained a constant, ineluctable fact of life for the inhabitants of Egypt. Land surveys such as that from Edfu provide the details of their charge, to be examined further in later sections of this introduction.

2 Acquisition and physical description

P. Haun. inv. 407, written in Greek, consists of the surviving section of a dark brown papyrus roll severely affected by damp. The roll is now divided into eight sheets, each of two columns, in all a little more than 1.60 m long.

7 See discussion in 6.3 below.

One further column survives only in the form of a transcript made in 1909 by Wilhelm Schubart. Originally this roll may have formed part of the same (unofficial) find in the ruins of Tell Edfu near the Ptolemaic temple as the long demotic rolls *P. Carlsberg* 409 and 410 (*c.* 131 BC), acquired by the dealer Robert de Rustafjaell. These latter rolls were put up for auction in 1913 and eventually became part of the Papyrus Carlsberg Collection founded by H. O. Lange.[8] P. Haun. inv. 407, by contrast, was acquired by the University of Copenhagen already at a date before November 1909, when its content was given an initial description in a letter from Schubart to Lange. It was then kept in the Institute for Greek and Latin as part of the Papyri Haunienses Collection; the papyri from the Institute are now preserved together with those of the Papyrus Carlsberg Collection of the University of Copenhagen, but they retain their original inventory numbers.

The roll P. Haun. inv. 407 was sent to Berlin for conservation by Hugo Ibscher. Work was slow and still far from complete in June 1912, the last recorded date of a letter from Ibscher to Lange. At that stage, 'die ersten Proben', eight sheets with in total sixteen columns, had been treated by Ibscher and sent back to Copenhagen. The length and fate of the rest of the roll, still awaiting conservation in 1912, remains unknown. The transcription by Schubart of one further column turned up in the archives of the Papyrus Carlsberg Collection of the University of Copenhagen in 2013. It was attached to Schubart's letter to Lange of 1909 and described as '[e]ine flüchtige Abschrift, die ich auf gut Glück von einer Kolumne genommen habe'.[9] This is published here as ll. 374–402, but it must be noted that it nowhere physically joins the previous columns.

Sheets 1–3 (cols. i–vi) are somewhat abraded, supporting an original position on the outside of the roll, damaged at some stage in its existence. There are some significant holes in the top layers, but the later (inner) sheets of the roll show no similar damage. *Kollemata* are regularly visible at intervals of 15.1–15.9 cm. Columns contain between twenty and twenty-seven lines (with just seven in col. xii), with margins above and below of *c.* 1.5 cm. Writing is normally aligned to the left but indented when the record of an item runs over one line. Check marks are a recurrent feature. The semi-cursive script is that of a professional scribe, and generally clear though small; specific features, such as sections surrounded by round brackets and thus marked for deletion, are discussed below (pp. 17, 55 and commentary to ll. 120–49).

8 See Ryholt 2014 for full discussion.
9 Egyptological Archive, inv. B144.1–3, see Plate 11; also Ryholt 2014: 187, Plate 6.

The effect of humidity has made the text illegible to the naked eye. The infrared photographs which allowed the *editio princeps* of Thorolf Christensen in his PhD thesis (Cambridge 2002) were made by Adam Bülow-Jacobsen using a Kodak HS-IR 4143 film. These remain at the base of the following text.

3 Date and nature of the survey

P. Haun. IV 70 is a land survey from year 52 (119/118 BC), which also takes account of information from the previous year (120/119 BC); in year 52 important changes took place that may have post-dated the actual survey of year 51.[10] It was compiled at nome level for the whole of the Apollonopolite nome. The survey dates to a period after the sowing season since areas actually sown are recorded, though lacking details of individual crops. Land is presented in its various administrative categories ('land in release', cleruchic land, private land subject to tax, derelict land), with plots located in their relevant tax areas (i.e. the city of Apollonopolis, the upper and lower toparchies on the west bank, and Arabia, running the full length of the nome on the east bank of the Nile). Land is further recorded as either dry (χέρσος) or fertile (σπόριμος); in the latter category, the number of arouras is recorded – sometimes for land which has been either flooded (βεβρεγμένη) or not reached by the flood (ἄβροχος) and regularly for that which has been sown (ἐσπάρθαι). Whether land was dry or fertile, its theoretical tax revenue was often added in artabas of wheat (e.g. ll. 21–2: 196 1/16 arouras of high land at 7 artabas, i.e. 1,372 1/3 1/12 artabas).

The Edfu nome survey draws together information collected at the local level in February–March 119 (for year 51) and 118 BC (for year 52) through surveys known as 'crop reports'. Annotations recording comments from village scribes (ll. 120–1, 190, 229) imply that the Edfu survey was that discussed during a spring meeting, which perhaps took place in the nome capital between the relevant scribes (see below, pp. 11–12).[11] An approximate date for the compilation of the Edfu nome survey, presumably by the royal scribe, may thus be **spring 118 BC**. Data from this and similar nome surveys may well have been used in the preparation of the royal ordinances of 118 BC (*P. Tebt*. I 5 = *C. Ord. Ptol*. 53).

10 The survey regularly reads: 'Land remaining for year 51 as also for year 52' (καταλείπεθ' ἡ ὑπάρχουσα εἰς τὸ να ἢ καὶ εἰς τὸ νβ (ἔτος)), see ll. 134–5, 166, 198, 237; ll. 349–51 read: 'From the (derelict) land (in existence) up to year 1 (180 BC) under the brother of the king up to year 51 as also for year 52.'

11 Such meetings are known from the Arsinoite nome, where they took place in March, see Verhoogt 1998: 98–101.

As it stands, the survey is incomplete and covers only a portion of the full territory of the nome. Recorded is agricultural (arable) land which is 'in release', cleruchic or private land, amounting to about 22,000 arouras (60 km^2). If we assume a total of *c.* 55,000 arouras (150 km^2) for the entire Edfu nome, including both agricultural and non-agricultural land, then only 40 per cent of the land is represented in what survives of this survey. The area of the nome used here for the Ptolemaic period is that of Christensen 2002: 114–15 (57,143, i.e. *c.* 55,000 arouras); Butzer 1976: 74, Table 3 suggests *c.* 50,000 arouras (137 km^2) for the Pharaonic period.

It is not clear whether the land survey belongs to the same archive as the other, demotic rolls found near the Edfu temple in the early twentieth century (see p. 7 above). Whereas the Greek land survey must have formed part of an official archive, the demotic rolls P. Carlsberg inv. 409 and 410 (accounts from the temple's wine magazine of *c.* 132/131 BC, that is more than a decade earlier) were more probably kept by the temple administration. (P. Carlsberg inv. 409 has been published as *P. Carlsberg* 9; for P. Carlsberg inv. 410, see K. Ryholt in *ZPE* 190 (2014), pp. 173–87.) The only features in common seem to be the presence in each of vineyards in the Edfu nome, of works carried out at the Horus temple (*pronaos*, see ll. 152–3 n.) and of homonymous persons such as Piyris and Psempchois (see ll. 42 n. and 44–5 n.); the temple rolls are similarly affected by humidity.

Some data from the Edfu survey may be compared with those of the Edfu donation text,[12] a survey of land donated to the temple estate of Horus, lord of Behdet (Bakhthis), in the reigns of Darius I, II and Nectanebo II (521–344 BC). That earlier text possibly reflects the area of Horus' temple domain as surveyed shortly after the reign of Nectanebo II, in the period that is when Ptolemy still held the post of satrap.[13] Finally the third-century BC archive of Pabachtis son of Paleuis, known as *P. Hauswaldt Manning*, provides parallels for some of the fiscal categories of land in the Edfu nome.

4 Survey operations and the officials involved

Different forms and levels of land survey have survived from Ptolemaic Egypt (Crawford 1971: 5–38). The two main survey operations well-documented to date were a cadastral survey, drawn up after the flood (in

12 Meeks 1972; see Manning 2003a: Appendix 1, for an English translation.

13 Meeks 1972: 134; Manning 2003a: 77, in connection with the Karnak ostracon, raises the possibility of a date under Ptolemy II. The Edfu donation text was later inscribed in hieroglyphic script on the outer wall of the Edfu temple under Ptolemy X Alexander I (107–88 BC).

September–October, at the start of the Egyptian year), which covered all land and its holders,[14] and the crop report or survey of agricultural production (κατὰ φύλλον γεωμετρία in Greek), drawn up in February–March after sowing and before the harvest.[15] As a preliminary to taxation, land under cultivation was measured, crops were listed and tax or rent revenues estimated in what was an annual operation, except in times of trouble.[16]

Both main operations gave rise to many forms of subsidiary listings at different levels: by area, land category, landholders and crops. In such surveys and crop reports, the relevant information was collected first at village level,[17] then at the levels of toparchy and nome.[18] Numerous surveys at village level are documented among the *Tebtunis Papyri* (I and IV). Reports at toparchy level are implied in the Edfu survey, where data are recorded by toparchy; actual examples of toparchy surveys survive from the Herakleopolite nome, similarly dating from the late second century BC.[19]

The Edfu survey, however, is a **summary report** compiled at **nome level** on the state of all land, whether subject to tax or otherwise. The survey serves to record the expected income to the crown from all land within the Apollonopolite nome. To date this is the only known survey produced at nome level, though references to such registers survive in the Kerkeosiris archive.[20] These were the surveys presented to the *dioikêtês* in Alexandria in

14 For Greek cadastral surveys, see Crawford 1971: 10–14, described as 'topographical surveys'; Verhoogt 1998: 133, as 'surveys of land usage'; *P. Bagnall* 46, introduction, p. 242; several demotic Fayum surveys may now be added: *P. Agri.* 1 (216 BC), with further examples listed on p. 39; 2, cols. v–vi (216/215 BC); 3 (216/215 BC?).

15 For crop reports, see Crawford 1971: 15; Cuvigny 1985; Verhoogt 1998: 133–4, 'survey of agricultural production'; *P. Bagnall* 46, introduction, p. 245; cf. demotic surveys *P. Agri.* 1 and 4 (216 BC?), recording crops sown and already compiled in November–December.

16 A papyrus from Lycopolis, dated *c.* 190 BC, illustrates the purpose of this survey (ll. 46–8): 'of the cultivated (σπόριμος) area nothing has been overlooked, because the land measurement of what is sown (τῶν σπειρομένων) has taken place each year (καθ' ἔτος), and the payments on the produce (τὰ ἐκφόρια) are being exacted', see McGing 1997: 301–10.

17 For Arsinoite examples, see Crawford 1971: 15–19; for Kerkeosiris, also Verhoogt 1998: 133–6. In the Thebaid surveys were often written in demotic, even in the second century BC; for one (largely unpublished) example from the Pathyrite nome, see *ZÄS* 65 (1930), pp. 53–4 (W. Spiegelberg) + *ZÄS* 121 (1994), pp. 75–91, descr. (P. Berlin inv. 13 608); further examples in Kaplony-Heckel 1994: 90 and 1998.

18 The Fayum may also have had a *meris*-level. For data processing in the reports, see Reggiani 2016.

19 *BGU* XIV 2441–50, with Scholl, in *C. Ptol. Sklav*. p. 977, for a second-century date; cf. Scheuble-Reiter 2012: 334; K. Maresch, in *P. Herakl. Bank*, pp. 10–12. For the toparchy level in tax matters, cf. *P. Tebt*. III 703, ll. 122–3; Clarysse and Thompson 2006: II.65 with Figure 3:1, 116–22.

20 Verhoogt 1998: 141.

early summer,[21] with copies also kept in the nome, as in the present case. At this level local details (the names of landholders, for instance, with the exception of some cleruchs) have disappeared. The surviving sections of this summary text provide information on the agricultural potential (*sporimos, chersos*) and the areas actually sown for both dedicated and cleruchic land; for private land the sown sections are missing.[22]

The nome survey was the responsibility of the royal scribe. At spring meetings in the nome capital, a draft of this survey was discussed in the presence of the village scribes and probably also the *topogrammateis*, as suggested by the Kerkeosiris material.[23] As already noted above, the Edfu land survey shows that after the first compilation of the survey, additional information, written in smaller characters often between or before the lines, was provided in the main by 'the village scribes' (ll. 120–1, 190, 229, 342–3), implying their presence at such nome-level meetings. Lines 120–1, for instance, have the later addition:

οἱ κωμογρα(μματεῖς) τὴν ἀνταναιρ(ουμένην) οὕ(τως)

The village scribes (report on) the land subtracted as follows.

An indirect reference to the involvement, if not the presence, of *topogrammateis* at the spring meeting is to be found in ll. 339–43, in part added in a second hand, and in the lack of check marks for the lower toparchy in col. xvi and the Schubart column. Further officials concerned with the compilation of the survey are not mentioned in the Edfu land survey.[24]

A few other officials are, however, named in the Edfu survey, officials involved in on-going enquiries and decisions on matters of landholding. Royal scribes were primarily involved but some others too:

- *dioikêtês*: this official could issue instructions (*chrêmatismoi*) involving cleruchic land (l. 395 and probably l. 78):
  - Heroides, with the court title *archisômatophylax, c.* 164/163 BC, ll. 78–9 with n.

21 Verhoogt 1998: 83–9, 101–2, 145–6.

22 Since, however, a large part of the survey is missing, it is possible that the area described as ὑπόλογος was followed by details of fertile private land and areas of land actually sown.

23 See Verhoogt 1998: 98–102, 143, on two such meetings in March.

24 Among these are the 'scribes of Pharaoh' (*sẖ.w Pr-ʿ3*), who measured the land under cultivation according to demotic evidence from the Thebaid (Vandorpe 2000: 176). Such scribes may correspond to the *grammateis* of the Fayum material (Crawford 1971: 32), probably twice called *basilikoi grammateis* in Greek texts of the third century BC (not to be confused with the *basilikos grammateus* or royal scribe at the head of the nome administration); for the problematic plural use of *basilikoi grammateis* in *PSI* V 502, l. 15 and *P. Cair. Zen.* III 59387, l. 13, see Crawford 1971: 29.