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1. Abbreviations for editions of Greek, Latin, Coptic and Demotic documentary texts should conform to those in J. Oates, R. Bagnall, K. Worp, J. Sosin, S. Clackson, T. Wilfong and A. O'Brien, *Checklist of Editions of Greek, Latin, Coptic and Demotic Papyri, Ostraca and Tablets*, 5th edition, *BASP* Supplements 9, now available on-line at: <http://scriptorium.lib.duke.edu/papyrus/texts/clist.html>. The volume number of the edition should be included: e.g., *P.Oxy.* XLI 2943.1-3; 2968.5; *P.Lond.* II 293.9-10 (p.187).
2. Other abbreviations should follow those of the *American Journal of Archaeology* and *Transactions of the American Philological Association*.
3. For ancient and Byzantine authors, contributors should consult the *Oxford Classical Dictionary*³ (Oxford 1996) xxix-liv, and *A Patristic Greek Lexicon*, ed. G.W.H. Lampe (Oxford 1961) xi-xiv.

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EDITORIAL FOREWORD

The present volume of the *Bulletin* is notably longer than previous issues. The quantity as well as the wide range and quality of the contributions make evident not only that Papyrology is a very active field, but also that papyrological research is gradually moving in new directions and is developing alliances with other disciplines. The pace is slow, but steady. The volume is divided into two main sections. The first (pp. 7–166) contains publications and discussions of literary and documentary texts in Greek and Coptic, as well as several essays on various aspects of Graeco-Roman and late antique Egypt, and ends with a *Checklist of Arabic Papyri*. The thematic section on Papyrology and Archaeology that follows (pp. 169–272) contains papers and responses that were delivered at a special workshop during the annual meeting of the American Institute of Archaeology (AIA) in Boston in January 2005 and was organized by Jennifer Gates, Andrew Wilburn, and the writer. The volume ends with book reviews, a list of books received, and the plates accompanying the contributions.

This is my last volume as Editor-in-Chief. During the past six years I have had the privilege to work with many senior and younger colleagues. This alone has been an invaluable experience. Following in the footsteps of the founders of the *ASP* and *BASP* I and my co-editors have tried to solicit contributions from younger scholars—the future of our field. Furthermore, I took it up personally to encourage colleagues in other fields to co-operate with papyrologists or to publish their work in the *Bulletin* (see for instance the first article in this issue; J. Foufopoulos is an Assistant Professor of Natural Resources at the University of Michigan). Driven by the same motives, I have included papers from conferences with cross-disciplinary topics in special thematic sections of the *Bulletin* on two occasions (volumes 37 and 42). Finally, I should note that *BASP* is now a fully refereed journal with an international advisory board. One of my last actions was to digitize all past volumes to no. 40. Those will be available on-line in the course of 2006. New volumes will be added with a delay of two years.

My successor is Peter van Minnen. All contributions and books for review in the *Bulletin* should now be addressed to him at: University of Cincinnati, Department of Classics, P.O. Box 210226, Cincinnati, OH 45221-0226, USA.

All past six issues were produced at the University of Michigan. I wish to express my thanks to the University for making its facilities available to the *Bulletin* and would like to acknowledge in particular a generous editorial subvention from the Dorot Foundation. Further support was provided by the Rackham School of Graduate Studies at the University of Michigan. Finally, I wish to thank my two graduate student assistants for vol. 42, Albertus Horsting (Classical Studies) and Philip Deloria (School of Information). Their help in producing this long volume has been invaluable.

Traianos Gagos
Editor-in-Chief

Crows and Ravens in the Mediterranean (the Nile Valley, Greece and Italy) as Presented in the Ancient and Modern Proverbial Literature*

ABSTRACT

Throughout the ages birds have played a prominent role in the life of the people occupying the Eastern Mediterranean Basin. Because of their importance as food sources, agricultural pests, domestic pets, as well as inspirations for various art forms, they figure prominently in historical texts, fables and the public lore of these civilizations. Corvids, the bird group containing crows, ravens and magpies, is of particular importance because of the large size, conspicuous presence and significant potential for agricultural damage that these birds exhibit. The present paper was written to complete the study of this group of birds, as they appear in civilizations of Egypt, Greece and Italy.

At present a basic bibliography has been published concerning ravens and crows as they are considered in myths, fables, stories and everyday life in the Graeco-Roman world and in Greek and Latin literature.¹ While this published body of information provides a detailed account of Greek and Roman literature, it is quite sparse for ancient Egypt. In addition, to our knowledge, no published information exists to date on how birds in general and corvids in particular, are viewed in either Greek, Roman or Egyptian proverbs

* For modern Greek text and citations appearing in this article, we have used the monotonic system and the standard forms of the letter *sigma*.

¹ See N. Douglas, *Birds and Beasts of the Greek Anthology* (Florence 1927); D'Arcy Wentworth Thompson, *A Glossary of Greek Birds* (London 1936) 159–64, 168–72; G. Jennison, *Animals for Show and Pleasure in Ancient Rome* (Manchester 1937) 100, 118–19; J.M.C. Toynbee, *Animals in Roman Life and Art* (London 1973) 273–75; J. Pollard, *Birds in Greek Life and Myth* (London 1977) 25–27.

and how these accounts relate to the actual ecology and behavior of these species.

The present article has, therefore, a two-fold goal. First, it aims at compiling and discussing the existing information on corvids as it appears in Egyptian sources from the Dynastic to the Byzantine period and relating that information to the biology of the species involved. Secondly, it endeavors to summarize all published information on corvids as it explicitly appears in proverbs from Greek, Latin and Egyptian sources spanning the classical period to modern times and relate this information to the current biological knowledge of these birds.

Hence, this article is divided into three sections. Section A provides a brief biological background of the most common species of corvids occurring in Egypt, Greece and Italy. Section B discusses the perception of corvids based on ancient Egyptian references such as myths, stories, proverbs, phrases and drawings. Section C discusses the perception of corvids in the language of the people, as this appears in Classical and Byzantine Greek, as well as in Latin and Arabic proverbs. The frequent appearance of these birds in the myths (e.g. the myth of Coronis), and fables or stories (e.g. Aesop's fables 126, 127, 129, 218, 258) has been already discussed in other literature, so a repetition of the same details is not proper here.

We include an Appendix where all the proverbs and proverbial phrases have been collected in the respective languages of the areas studied, that is Classical and Byzantine Greek, Latin, Modern Greek and Arabic.

Section A

Biological background of the species involved

Hooded Crow (Egypt: *Corvus corone pallescens*; Greece, Italy: *C. c. sharpii*), [*Κουρούνα* (GR), *Cornacchia* (IT), *Ghuraab baladii*, *ghaaq*, *qaaq*, *zaagh* (AR)]

Distribution and habitat. Hooded (or carrion) crows are widely distributed throughout Europe, as well as Asia north of the Himala-

yas, but are largely absent from North Africa and the Arabian Peninsula. The species does breed, however, along the Mediterranean coasts of Lebanon and Israel and penetrates along the Nile Valley south to Lake Nasser.² In Egypt, hooded crows can be found predominately in well-vegetated areas and occur in dense populations in the Nile Valley; recently the species has extended its range into the Nile Delta region where it was previously absent.³ The species rarely occurs in the same area as brown-necked ravens, except along the immediate transition zone along the edge of the Nile Valley.⁴ In Greece and Italy, hooded crows are ubiquitous and are distributed throughout the countryside, from the coastlines and small islands to the highest mountains.⁵ They have catholic habitat preferences, but can be especially common in agricultural areas and in the vicinity of human settlements.

Raven (*Corvus corax*) [*Κόρακας* (GR), *Corvo imperiale* (IT), *Ghuraab asham* (AR)]

Distribution and habitat. This species has a very wide distribution in the temperate and arctic regions of the northern hemisphere, but has only a marginal presence in the southeastern Mediterranean basin. In Egypt, the species is known only from a few scattered records along the western Mediterranean coast and is completely absent from the Nile Valley and the interior deserts.⁶ In Greece and Italy, ravens, though widespread, are encountered primarily in open country and mountainous regions.⁷ They are also found regularly throughout the islands of the Aegean and Ionian Seas, and the

² S. Cramp and C. M. Perrins, *Handbook of the Birds of Europe, the Middle East and North Africa. The Birds of the Western Palearctic. Vol. VIII Crows to Finches* (Oxford 1994).

³ S.M. Goodman and P.L. Meininger, *The Birds of Egypt* (Oxford 1989)

⁴ *Ibid.*

⁵ G. Handrinos and T. Akriotis, *The Birds of Greece* (London 1997).

⁶ Goodman and Meininger, *op.cit.* (above, n. 3) and Cramp and Perrins, *op.cit.* (above, n. 2).

⁷ Handrinos and Akriotis, *op.cit.* (above, n. 5).

distribution of the species appears to be often limited by the presence of suitable nesting sites such as rocky outcrops, cliff faces, or man-made structures. Ravens avoid closed canopy forests, dense vegetation and human cultivations or settlements. The species occurs generally at low population densities, although larger aggregations of mostly non-breeding individuals can be occasionally seen at rich food sources such as carcasses or garbage dumps.

Brown-necked raven (*Corvus ruficollis*), [*Corvo collobruno* (IT), *Ghuraab nuuhii*, *ghuraab* (AR)]

Distribution and habitat. Brown-necked ravens are distributed throughout the deserts of North Africa, the Horn of Africa, the Arabian Peninsula and western Asia. In Egypt, the species is widespread in the Western and Eastern deserts, as well as the Sinai Peninsula. However, it is notably absent from the Nile Valley, with only a marginal presence in regions where nesting sites such as cliff faces are available along the valley-desert ecotone (e.g. south of Luxor).⁸ Brown-necked ravens are primarily desert and semi-desert birds that avoid areas of cultivation. Nevertheless, they can be encountered in small numbers at the fringes of human settlements where feeding opportunities such as refuse dumps may draw in birds from the neighboring desert. The species is adaptable and opportunistic and will feed on a variety of food items ranging from insects and plant matter to carrion. Where not prosecuted, brown-necked ravens can be very tame, foraging fearlessly near humans.

Section B

Analysis of references to ravens and crows from Egypt

Although up to six species of corvids have been reported from Egypt (*Corvus corone pallescens* [Linnaeus 1758], *C. frugilegus* [Linnaeus 1758], *C. ruficollis* [Lesson 1830], *C. corax* [Linnaeus 1758], *C. rhipidurus* [Hartert 1918] and *C. splendens* [Vieillot

⁸ Goodman and Meininger, *op.cit.* (above, n. 3).

1817])⁹, most of them have either marginal distributions (*C. rhipidurus*, *C. corax*), are rare winter visitors (*C. frugilegus*), or are recent colonists from the Far East (*C. splendens*). Only two species, the brown-necked raven (*C. ruficollis*) and the hooded crow (*C. corone*), have had a long-term presence in the Nile Valley and will be considered in the further discussion. Although *Corvus* species have been documented from early on in Egyptian sources, there is little distinction between the two taxa, as it appears in the Demotic and Coptic language.¹⁰ Both ostraca and references from the Pharaonic periods testify to the familiarity of the ancient Egyptians with corvids as crop raiders, but paintings are rendered with insufficient detail to allow for species identification.¹¹ In one reference from the Ptolemaic period they were also recognized as regular visitors of carcasses both human and animal.¹² Indeed marks on exhumed bones suggest that crows and other birds fed at least occasionally on the corpses of soldiers fallen in battle.¹³

Aristotle first recognizes the existence of both the hooded crow and the brown-necked raven in Egypt and correctly reports that the κορώναι in Egypt are the same size as the ones in Greece, which is not a surprising given that they belong to the same species.¹⁴ He also reports the Egyptian κόρακες are smaller than the ones found in Greece. Indeed, brown-necked ravens are at average 10% smaller than the ravens breeding in Europe and in Greece.¹⁵

⁹ *Ibid.*

¹⁰ See W. Vycichl, *Dictionnaire étymologique de la langue Copte* (Leuven 1983) s.v. ⲁⲈⲠⲔ (masculine) "corbeau" (κόραξ), "corneille" (κορώνη). Also the feminine ⲁⲈⲠⲔⲈ, ⲁⲈⲠⲠⲔⲈ (pl.) and ⲁⲈⲠⲠⲔ, ⲁⲈⲠⲠⲔ (pl.). In Demotic the form ʿbḳ is attested.

¹¹ See for example figs. 186-92 in P.F. Houlihan, *The Birds of Ancient Egypt* (Warminster 1986).

¹² *P.Ent.* 70,8 (221 B.C.) ὕστερον δὲ αὐτὴν εὐρομεν ὑπὸ τῶν [κυνῶν καὶ τ]ῶν κοράκω[ν διαβεβρ]ωμένην.

¹³ Houlihan, *op.cit.* (above, n. 11).

¹⁴ *HA* 606a24-25 καὶ ἐν Αἰγύπτῳ τὰ μὲν ἄλλα μείζω ἢ ἐν τῇ Ἑλλάδι, καθάπερ οἱ βόες καὶ τὰ πρόβατα, τὰ δ' ἐλάττω, οἷον οἱ κύνες καὶ λύκοι καὶ λαγωοὶ καὶ ἀλώπεκες καὶ κόρακες καὶ ἰέρακες, τὰ δὲ παραπλήσια, οἷον κορώναι καὶ αἶγες.

¹⁵ Cramp and Perrins, *op.cit.* (above, n. 2)

Aristotle also correctly reports that ravens can occur either singly or in pairs in areas where food is scarce, or aggregated in large flocks at rich food sources.¹⁶ This behavior is well documented in the ornithological literature for all species of corvids.¹⁷ Most species of crows and ravens can be found either in reproductively active pairs defending a stable territory, or in large, widely roving flocks. Such flocks are generally comprised of non-breeding individuals, whether juvenile or older, and can form any time of the year, though they are most common during winter, migration, or other adverse times. Joining a flock has several advantages for an individual bird. First, since many birds can search a larger area, it allows for the discovery of rich but widely dispersed food sources, such as fruiting trees or cadavers. Secondly, it allows otherwise weaker birds to overcome the defenses of the territory-owning local birds, and lastly it facilitates defense against superior aerial predators such as hawks and falcons.

Theon, a grammarian in the Alexandrian Museum (1st century B.C. – 1st century A.D.), wrote *περὶ σημείων καὶ σκοπῆς ὀρνέων καὶ τῆς κοράκων φωνῆς* (Suda, s.v. Θέων), but this work did not survive. It is only during the Roman period that sources concerning Egypt distinguish between crows and ravens: with Aelian (2nd – 3rd century A.D.), there is distinction between the two species, although not all the information appears to be based on accurate observations. For example, while he correctly points out that ravens can be very vocal when trying to access food, he also claims that when they do not receive any, they will attack the ropes of Nile boats in order to force sailors to feed them¹⁸. While it is conceivable for hungry birds to be

¹⁶ Apud Aelian, *NA* 2.48 λέγει Ἀριστοτέλης εἰδέναι τοὺς κόρακας διαφορὰν γῆς εὐδαίμονός τε καὶ λυπρᾶς, καὶ ἐν μὲν τῇ παμφόρῳ τε καὶ πολυφόρῳ κατὰ τὰ ἀγέλας καὶ πλήθη φέρεσθαι, ἐν δὲ τῇ ἀγόνῳ καὶ στερίφῃ κατὰ δύο.

¹⁷ See corresponding species accounts in Cramp and Perrins, *op.cit.* (above, n. 2) and S. Madge and H. Burn, *Crows and Jays: A Guide to the Crows and Jays of the World* (New York 1994).

¹⁸ *NA* 2.48 Κόρακες Αἰγύπτιοι, ὅσοι τῷ Νείλῳ παραδαιπῶνται, τῶν πλεόντων τὰ πρῶτα εἰκάσιν ἰκέται εἶναι, λαβεῖν τι αἰτοῦντες· καὶ λαβόντες μὲν κυχάζουσιν, ἀτυχῆσαντες δὲ ὧν ἦττον κυμπέτονται, καὶ ἑαυτοὺς καθίσαντες ἐπὶ τὸ κέρασ τῆς νεῶς τῶν σχοίνων ἐς θίουσί τε καὶ διατέμνουσι τὰ ἄμματα.

picking on ropes while sitting on the rig of a sailing boat, this most likely constitutes a displacement behavior rather than an intentional activity aimed at coercing humans into feeding them.¹⁹ Given the relative weakness of a raven's beak any damage Aelian claims they inflicted on the rigs of a Nile boat is likely to be grossly exaggerated. Furthermore, his reference to ravens rather than crows is almost certainly wrong, given that the brown-necked raven is a desert bird not likely to be encountered on the Nile River. Instead it is more likely that this story refers to hooded crows, which breed exclusively in the Nile Valley.

Aelian also provides an interesting story regarding the way "Lybian" ravens (most likely referring to *C. ruficollis*) will drop pebbles into a water container in order to force the water to rise so they can drink it.²⁰ Although it is difficult to verify this story, corvids are known to occasionally use tools and regularly display a dropping behavior either in nest defense context or, more likely, during food foraging.²¹ Furthermore, both ravens and crows have been shown to rapidly adapt to new food sources, for example learning to peck through the lids of milk bottles to obtain cream.²²

¹⁹ See related behavior descriptions in the *C. corax* account in Cramp and Perrins, *op.cit.* (above, n. 2) 215.

²⁰ *NA* 2.48 Λίβυες δὲ κόρακες, ὅταν οἱ ἄνθρωποι φόβῳ διψοῦσιν ὑδρευόμενοι πληρώσωσι τὰ ἀγγεῖα ὕδατος, καὶ κατὰ τῶν τεγῶν θέντες ἑάσωσι τῷ ἀέρι τὸ ὕδωρ φυλάττειν ἄσχητον, ἐνταῦθα ἐς ὅσον μὲν αὐτοῖς τὰ ράμφη κάτειν ἐγκύπτοντες, χρῶνται τῷ ποτῷ· ὅταν δὲ ὑπολήξῃ, ψήφους κομίζουσι καὶ τῷ στόματι καὶ τοῖς ὄνυξι, καὶ ἐμβάλλουσιν ἐς τὸν κέραμον· καὶ αἱ μὲν ἐκ τοῦ βάρους ὠθοῦνται καὶ ὑφιζάνουσι, τό γε μὴν ὕδωρ θλιβόμενον ἀναπλεῖ. καὶ πίνουσιν εὖ μάλα εὐμηχάνως οἱ κόρακες, εἰδότες φύσει τινὶ ἀπορρήτῳ δύο σώματα μίαν χώραν μὴ δέχεσθαι.

²¹ A.S. Alex, J.C. Weir, and A. Kacelnik "Shaping of Hooks in New Caledonian Crows," *Science* 297 (2002) 981; B. Heinrich, "Winter Foraging at Carcasses by Three Sympatric Corvids with Emphasis in Recruitment by the Raven, *Corvus corax*," *Behavioral Ecology and Sociobiology* 23 (1988) 141-56; Cramp and Perrins, *op.cit.* (above, n. 2) 216; G. Creutz, "Beeren und Früchte als Vogel-nahrung," *Beiträge zur Vogelkunde* 3 (1953) 91-103; T. Terne, "Kråka försöker krossa musslor på gråtrutsmanér," *Vår Fågelvärld* 37 (1978) 255-56.

²² D.J. Bates, "Carrion Crow Opening Milk Bottles," *Scottish Birds* 10 (1979) 276-77.

As a result it is conceivable that during drought periods ravens would go to such great lengths to obtain water.

One further story mentioned by Aelian is about a crow (κορ νη) that was used to carry messages for king Mares in Egypt and then was honored with a sepulchre at lake Moeris.²³

Plutarch provides a fascinating story of a human-corvid interaction during the visit of Alexander the Great in Egypt.²⁴ Plutarch refers here almost with certainty to brown-necked ravens, as this is the only species likely to be encountered in the deep desert between the Nile Valley and the Siwa Oasis. Curiosity towards humans is a well-known characteristic of this species, with individuals reportedly following military convoys traveling through the Israeli desert, or circling humans lying on the ground in E. Saudi Arabia.²⁵ Such inquisitive behavior, interpreted by Plutarch as a sign of the favor of the gods towards Alexander, is less unusual than it appears initially. For birds living in extremely resource-poor desert environments any potentially food item warrants careful inspection. This is especially true for a carrion-feeding species like the raven that can track any lost animal until it dies.

When explicitly referring to crows (κορῶναι) Aelian describes how they were considered symbols of monogamy and marital fidel-

²³ NA 6.7 Ἐν τῇ Αἰγύπτῳ περὶ τὴν λίμνην τὴν καλουμένην Μοίριδος, ὅπου Κροκοδείλων πόλις, κορ νης τάφος δείκνυται, καὶ τὴν αἰτίαν ἐκείνην Αἰγύπτιοί φασι. τῷ βασιλεῖ τῷ τῶν Αἰγυπτίων (Μάρης δὲ οὗτος ἐκαλεῖτο) ἦν κορώνης θρέμμα πάνυ ἡμερον, καὶ τῶν ἐπιστολῶν ὡς ἐβούλετό οἱ κομίσθῃναι ποι θᾶπτον ἐκόμιζεν αὐτῆ, καὶ ἐν ἀγγέλων ὠκίστη, καὶ ἀκούσασα ἤδει ἐνθα ἰθύναι χρῆ τὸ πτερόν, καὶ τίνα χρῆ παραδραμεῖν χῶρον, καὶ ὅπου ἤκουσαν ἀναπαύσασθαι. ἀνθ' ὧν ἀποθανοῦσαν ὁ Μάρης ἐτίμησεν αὐτὴν καὶ στήλη καὶ τάφος; cf. also below Appendix, *cornix*, Classical and Byzantine Greek proverbs, no 4)

²⁴ *Alex.* 27.3 ἔπειτα τῶν ὄρων οἵπερ ἦσαν τοῖς ὁδηγοῖς συγχυθέντων, καὶ πλάνης οὐχης καὶ διασπασμοῦ τῶν βαδιζόντων διὰ τὴν ἄγνοιαν, κόρακες ἐπιφανέντες ὑπελάμβανον τὴν γεμονίαν τῆς πορείας, ἐπομένων μὲν ἔμπροσθεν πετόμενοι καὶ σπεύδοντες, ὑστεροῦντας δὲ καὶ βραδύνοντας ἀναμένοντες· ὁ δ' ἦν θαυμασιώτατος, ὡς Καλλιθένης φησί, ταῖς φωναῖς ἀνακαλούμενοι τοὺς πλανωμένους νύκτωρ καὶ κλάζοντες εἰς ἴχνος καθίστασαν τῆς πορείας.

²⁵ D. Goodwin, *Crows of the World* (London 1986); U. Paz, *The Birds of Israel* (Tel Aviv 1987); and J. Palfery in Cramp and Perrins, *op.cit.* (above, n. 2).

ity.²⁶ Indeed both crows and ravens are strictly monogamous with a strong bond formation that persists past the mating season. In migratory populations, there is evidence that upon return to the breeding area in spring, birds mate with the same partner from the previous year. In general such bonds seem to frequently persist until one of the two birds dies.²⁷ Given the potential for longevity for both ravens and crows, this can lead to the establishment of bonds that can last many years.²⁸ This was not lost to the early inhabitants of the Nile valley, who must have observed that individual birds remain together through long periods of time. These observations of monogamy were however further embellished, with later sources claiming that once one of the birds lost its partner, it would never mate again.²⁹ Further exaggerated reports claimed that a 'widowed' crow would rip its tongue with its claw to alter its voice.³⁰ Over time the crow became a symbol of widowhood and the sight of a single crow became a bad omen. As Horapollo (4th – 5th century

²⁶ NA 3.9 κορώναι ἀλλήλας εἰς πιτότατα, καὶ ὅταν ἐς κοινωνίαν συνέλθωσι, πάνυ σφόδρα ἀγαπῶσι φῶς, καὶ οὐκ ἂν ἴδοι τις μιγνύμενα ταῦτα τὰ ζῶα ἀνέδην καὶ ὡς ἔτυχεν. λέγουσι δὲ οἱ τὰ ὑπὲρ τούτων ἀκριβοῦντες ὅτι ἂν ἀποθάνῃ τὸ ἕτερον, τὸ λοιπὸν χηρεῦει. ἀκούω δὲ τοὺς πάλαι καὶ ἐν τοῖς γάμοις μετὰ τὸν ὑμέναιον τὴν κορώνην ἄδειν, εὐνήματα ὁμοιοῦσά τοῦτο τοῖς συνιοῦσιν ἐπὶ παιδοποιίᾳ διδόντας. Οἱ δὲ ἔδρας ὀρνίθων καὶ πτήσεις παραφυλάττοντες οὐκ εὐκύμβολον ὀπτεύουσιν εἶναι φασὶν ὑπακοῦσαι κορώνῃ μία.

²⁷ Cramp and Perrins, *op.cit.* (above, n. 2).

²⁸ R. Staav, "Åldersrekord för fågler ringmärkta i Sverige," *Fauna och Flora* 78 (1983) 265-76.

²⁹ *Physiologus* 27 καλῶς ὁ Ἱερεμίας ἔλεγε τῇ Ἱερουσαλήμ· ἐκάθισα ὡσεὶ κορώνῃ ἠρημωμένη. ὁ Φυσιολόγος ἔλεξε περὶ τῆς κορώνης ὅτι μονόγαμος ἐστὶ, καὶ ὅταν ὁ ταύτης ἀνὴρ τελευτήσῃ, οὐκέτι συγγίνεται ἑτέρῳ ἀνδρὶ, οὐδὲ ὁ κόραξ ἑτέρα γυναικί; Horapollo, *Hieroglyphica* 1.8 ἑτέρως δὲ τὸν Ἄρεα καὶ τὴν Ἀφροδίτην γράφοντες, δύο κορώνας ζωγραφοῦσιν ὡς ἄνδρα καὶ γυναῖκα, ἐπεὶ τοῦτο τὸ ζῷον δύο ὡὰ γεννᾷ, ἀφ' ὧν ἄρρεν καὶ θῆλυ γεννᾶσθαι δεῖ· ἐπειδὴν δὲ γεννήσῃ, ὅπερ σπανίως γίνεται, δύο ἀρσενικά ἢ δύο θηλυκά, τὰ ἀρσενικά, τὰς θηλείας γαμῖσαντα, οὐ μίγεται ἑτέρα κορώνῃ, οὐδὲ μὴν θήλεια ἑτέρα κορώνῃ μέχρι θανάτου, ἀλλὰ μόνα τὰ ἀποζυγῆντα διατελεῖ· διὸ καὶ μιᾷ κορώνῃ συναντήσαντες, οἰωνίζονται οἱ ἄνθρωποι ὡς χηρεῦοντι συνηθηκότερος ζῶω, τῆς δὲ τοιαύτης αὐτῶν ὁμοιοῦσά χάριν, μέχρι νῦν οἱ Ἕλληνες ἐν τοῖς γάμοις· "ἔκκορὶ κορὶ κορώνῃ" λέγουσιν ἀγνοοῦντες. Γάμον δὲ δηλοῦντες, δύο κορώνας πάλιν ζωγραφοῦσι τοῦ λεχθέντος χάριν.

³⁰ See *Lexikon der Ägyptologie* V, 74-75 referring to the Coptic *Physiologus*.

A.D.) reports, members of wedding parties, would exclaim: ἐκκορή κορή κορώνη ('bride shoo the crow away') as a way to protect herself from widowhood.³¹ Interestingly, there exist no ornithological observations that would support the notion of widowhood in corvids. Instead there are many records of mate replacement once one of the partners dies. Such replacements can often be quite rapid (in a matter of days or even hours!).³² Neither does prolonged widowhood make sense from an evolutionary perspective. In the natural world where success is measured in the lifetime number of offspring successfully raised into adulthood, any birds that would forfeit new matings constitute an evolutionary dead end. Hence, we have here the case of sayings rooted in valid observations of monogamy, that over the centuries obtained a life on their own and became increasingly exaggerated.

In general, both crows and ravens appear to have been despised in early Egyptian culture.³³ The fact that they can be crop and nest raiders, in combination with their somber color and unpleasant voice made them bad omens.³⁴ This was further exaggerated by their habit of feeding on carrion (*P.Ent.* 70, 8). Early writers were particularly revolted by the preference of both crows and ravens to feed on the eyes of carcasses, which was interpreted as a sign of

³¹ For a discussion of the phrase see Thompson, *op.cit.* (above, n. 2) 170-71; also G. Willis, "Phoenix of Colophon's ΚΟΡΩΝΙΣΜΑ," *CQ* 20 (1970) 112-18, esp. p. 112, footnote 1.

³² J. K. Charles, *Territorial Behaviour and the Limitation of Population Size in Crows Corvus corone and Corvus cornix* (U. Aberdeen Diss. 1972) in Cramp and Perrins, *op.cit.* (above, n. 2).

³³ Cf. also that the Christian author Olympiodorus from Thebes in the fifth century A.D. wrote that (*PG* 93, 777) ὡσπερ γὰρ κορώναι. Ἡ κορώνη πτηνὸν ἀκάθαρτον. Ἀκάθαρτοι οὖν εἰσιν οἱ δαίμονες, οὔτε ἐπουράνιοι ὄντες διὰ τὸ ἀτιμοῦ, οὐ τε ἐπίγειοι, διότι ψευδώνυμοι· καὶ ἄλλως δὲ, ἀπὸ μὲν οὐρανίων ἀψίδων ὑπὸ Θεοῦ ἐξεβλήθησαν, ἀπὸ δὲ τῆς γῆς περιελαύνονται ὑπὸ ἀγίων ἀνθρώπων διὰ τῆς τοῦ Χριστοῦ βοηθείας. Κατὰ δὲ λόγον μυστικὸν καὶ ὁ Σωτὴρ εἰς τὸν σταυρὸν ἀνήλθεν, τὸν ἀέρα καθαίρων ἐκ τῆς αὐτῶν ἀκαθαρσίας· καὶ εἰς τὰ καταχθόνια παραγέγονεν, καταλύων αὐτῶν ἐκεῖ τὴν τυραννίδα;

³⁴ Houlihan, *op.cit.* (above, n. 11), and Madge and Burn, *op.cit.* (above, n. 17).

particular malice (Appendix, Class. Greek proverbs 14).³⁵ While there is a plethora of records in the modern ornithological literature documenting this feeding preference for eyes and tongues, there is also a simple biological explanation for it.³⁶ Corvids, with their relatively weak beak, are not able to break through the tough hide of especially larger carcasses. In the absence of any larger carrion feeders, such as jackals, dogs, hyenas or vultures, both crows and ravens can only access soft internal tissues through the eyes, mouth or anus.³⁷ If a larger predator has opened the carcass they will happily consume other soft tissues as well.³⁸

Section C

1. Analysis of proverbs and proverbial phrases in Classical and Byzantine Greek

Both crows and ravens are widely distributed in Greece. Although several other species (e.g. the jackdaw, *Corvus monedula* [Linnaeus 1758] and the rook, *C. frugilegus* [Linnaeus 1758]) occur in the general region, only two, the common raven (*C. corax*) and the hooded crow (*C. corone sharpii*) are widespread enough to be considered here. In contrast to ancient Egypt, in Greece there has always been a distinction between ravens and crows.³⁹

³⁵ Cf. Ar. *Av.* 582; see N. Dunbar, *Aristophanes Birds* (Oxford 1995) 130 and commentary on ll. 582-84, and *eund.*, *Ach.* 92. Also, see E. Fraenkel, *Aeschylus Agamemnon* (Oxford 1950) 700, commentary on l. 1473 (as a bird that feeds with corpses).

³⁶ M. Marquiss and C.J. Booth, "The Diet of Ravens, *Corvus corax*, in Orkney," *Bird Study* 33 (1986) 190-95; and Heinrich, *op.cit.* (above, n. 21).

³⁷ Heinrich, *ibid.*

³⁸ Cramp and Perrins, *op.cit.* (above, n. 2)

³⁹ Michael Ephes., *In libros de partibus animalium commentaria* (*ad Aristot.*), 22 διὰ τὸ μὴ πολὺ διεστάναι ἀπ' ἀλλήλων, ὁποῖόν ἐστιν ὁ ὄρνις (τοῦτον γὰρ ὡς ἔν τι γένος καὶ μίαν φύσιν νομίζεσθαι ἔθοντο διὰ τὸ μὴ πολὺ διεστηκέναι κόρακα κορώνης, καὶ τοὺς ἄλλους ὀρνιθας ἀπ' ἀλλήλων). See also Hesychius s.v.

A. Ravens

Perceptions of ravens in Greece during the Classical and Byzantine times parallel to a large extent those in Egypt during the same period. Ravens were known, from early on, primarily as carrion feeders (see Appendix, Class. Greek-Raven 1, 9, 11, 12, 13, 14, 16). They were recognized as keeping close company with vultures, sharing with them their unsavory carcass-eating habits (Appendix, Class. Greek-Raven 1). Today we know that because both ravens and vultures feed extensively on carrion; they have a relationship of mutual competition but also interdependence. Vultures, on the one hand, clearly benefit from any carcass that the more numerous but competitively inferior ravens discover. Because of their strong flying abilities and wide-ranging habits (Appendix, Class. Greek-Raven 15), ravens are often the first to discover the carcass of a freshly dead animal and through their activity reveal its presence to the vultures.⁴⁰ On the other hand, ravens frequently depend on vultures that have much stronger beaks to rip open the tough hide of large carcasses. As previously mentioned, in the absence of such help, both crows and ravens are restricted to the easily accessible eyes and tongue of a carcass, a fact frequently mentioned with disgust in classical Greek sources (Proverbs, Class. Greek-Raven 13, 14).⁴¹

Ravens, like dogs, were also considered to be 'impure' creatures (δύσαγνοι) since they were known to sacrilegiously steal offerings from the altars of the gods (Appendix, Class. Greek-Raven 8).⁴² Such behavior appears to be very much in line with our present understanding of raven foraging ecology. The species is well known for its great behavioral plasticity and its ability to opportunistically

κορώνη· κόραξ. Douglas, *op.cit.* (above, n. 2), states that the terms κόραξ and κορώνη are apt to be used indiscriminately by poets according to their meter.

⁴⁰ Cramp and Perrins, *op.cit.* (above, n. 2).

⁴¹ See also Heinrich, *op.cit.* (above, n. 21).

⁴² See T.G. Tucker, *The Supplices of Aeschylus* (London 1889) n. *ad loc.* "a type of birds of prey which are δύσαγνοι, carrying off even the offerings from the altars, and in this respect as sacrilegious as dogs."

exploit newly available food sources. Indeed, ravens have been observed feeding on anything from flying ants to elk carrion and have been known to steal food from other birds such as golden eagles, peregrine falcons or gulls.⁴³

Another Greek proverb regarding ravens, κόραξ ύδρεύει (see Appendix, Class. Greek-Raven 4), was used to describe people who only managed to complete a task with great difficulty. This was probably based on early observations of an interesting raven provisioning behavior. On hot days raven parents sometimes tend to their overheated young by transporting water in their gular pouch to them.⁴⁴ Alternatively, a female may soak her under-parts in water and brood the young that way, or even open a hole in the nest to provide ventilation from below (Cramp and Perrins, *op.cit.*). Transport of water in either case is accomplished slowly and laboriously and in spite of the fact that the birds do not really have a good way to transport liquids.

In summary, ravens in Classical Greek and Byzantine societies were viewed as low, impure creatures (Class. Greek-Raven 1, 3, 7) that were particularly revolting because of their habit of feeding on carcasses and pecking out the eyes of dead animals (Class. Greek-Raven 13, 14). Consequently, not only were they considered evil (Class. Greek-Raven 7) but anything that went to the ravens was considered to have gone to waste (Class. Greek-Raven 9, 12).

B. Crows

Hooded crows (*C. corone sharpii*) with their dusky torsos and black heads were clearly recognized in Greece as the grey-bodied (πολιαί = grey) sibling taxon to the black ravens (Appendix, Class. Greek – Crow 8) and even early sources appear to be well aware of many interesting aspects of the species' life history (Appendix,

⁴³ R.P. Bille, "Remarquable Comportement du Grand Corbeau," *Nos Oiseaux* 35 (1980) 227-31; H. Latscha, "Kolkraben jagen Wanderfalken seine Beute ab," *Ornithologische Mitteilungen* 31 (1979) 225.

⁴⁴ R. Hauri, "Beiträge zur Biologie des Kolkraben (*Corvus corax*)," *Ornithologischer Beobachter* 53 (1956) 28-35.

Class. Greek – Crow 4, 5, 6, 7).⁴⁵ Hooded crows were considered to be extremely vociferous birds (Appendix, Class. Greek – Crow 7), annoying to both humans and other birds (Appendix, Class. Greek – Crows 2). They were noted as aggressive tormentors of eagles despite the fact that eagles were considered to be both more powerful and noble birds (Appendix, Class. Greek – Crow 3). Indeed, even today, in areas where these species coexist, it is not unusual to observe crows taking advantage of their numbers and mobbing solitary raptors such as Bonelli's eagles (*Hieraetus fasciatus* [Vieillot 1822]) or even white-tailed eagles (*Haliaeetus albicilla* [Linnaeus 1758]).⁴⁶

Reflecting similar Egyptian beliefs, hooded crows in Greece appear to have enjoyed a reputation for longevity, with early Greek writers claiming that they can live five times as long as man (Appendix, Class. Greek – Crow 9).⁴⁷ Indeed recent mark-recapture studies of banded birds reveal that both crows and ravens can attain high ages in the wild (record for *C. corone*: 19 years; *C. corax*: 16 years).⁴⁸ Although the majority of all wild crows and ravens most likely do not attain these record ages, some individuals can even exceed them. At any rate, these are remarkable longevities for passerine birds – for comparison, most songbird species live no more than two or three years.

⁴⁵ See N. Dunbar, *op.cit.* (above, n. 35) 130 and commentary on lines 967-68. See also Thompson, *op.cit.* (above, n. 1) 172.

⁴⁶ D.A. Bannerman, *The Birds of the British Isles* (Edinburgh 1956); V. Wendland, "Einiges vom Verhalten der Nebelkrähe (*Corvus corone cornix*)," *Journal für Ornithologie* 99 (1958) 203-08; Cramp and Perrins, *op.cit.* (above, n. 2). Probably the shape of the crows beak and their aggressiveness is the reason that the noun κορώνη was used as a slang term for the male genitalia (penis); See G. Willis, *op.cit.* (above, n. 31); J. Henderson, *The Maculate Muse. Obscene Language in Attic Comedy* (New York 1991) 20. In the beggar's song (fr. 2 of Phoenix of Colophon) we read the phrases: Ἐσθλοί, κορώνη χεῖρα πρόοδοτε κριθέων (l. 1), καὶ τῇ κορώνῃ παρθένος φέροι κύκα (l. 2), and νόμος κορώνη χεῖρα δοῦν' ἐπαιτούσῃ (l. 20).

⁴⁷ See also *Lyc.* 794; see *Scholia ad Lyc.*, raven as Odysseus, who lived for many years. *Aus. Ecl.* 5.5.

⁴⁸ Staav, *op.cit.* (above, n. 28).

Paralleling similar beliefs in Egypt, Greek sources indicate that hooded crows were considered symbols of both monogamy and widowhood (Appendix, Class. Greek – Crow 1).

It is interesting to note that a masculine noun is used for one species (raven) and a feminine for the other (crow). These consistent gender attributes are most likely traced to body size and call characteristics. Whereas ravens reach body lengths of 69 – 98 cm and call with a distinctly sonorous croak, hooded crows rarely grow beyond 56 cm and have a call best described as a vibrant, higher-pitched "cra".

2. Analysis of proverbs and proverbial phrases in Latin

The main species of large corvids likely to be encountered in the Italian peninsula both today and in ancient times are the common raven (*C. corax*) and the hooded crow (*C. corone sharpii*)⁴⁹. Early inhabitants of the Italian peninsula also made a clear distinction between the two taxa referring to the raven as '*corvus*' and to crows as '*cornix*.' In analogy to the reports from Greek references, there is also a clear recognition among Latin sources of the longevity of these birds (Appendix, Crow – Latin 14).

Both taxa were also known for their loud and incessant calls (Appendix, Raven – Latin 29, Crow – Latin 15)⁵⁰ and they were regularly compared in an unfavorable way to nightingales (*Luscinia megarhynchos*; Brehm 1831), which were considered to have the most beautiful song of all birds (Appendix, Raven – Latin 17). In fact, it was noted that their call set them apart from most other birds (Appendix, Crow – Latin 16, 17). The negative impression of ravens in particular was further exacerbated by their unattractive, black coloration (Appendix Raven – Latin 22, 26). Even when com-

⁴⁹ Cramp and Perrins, *op.cit.* (above, n. 2).

⁵⁰ Concerning their voice and the never stopping cawing, see also Mart. 14.74: *corve saluator*: "welcoming crow, why are you considered a cock-sucker? No penis has entered your head," see T.J. Leary, *Martial Book XIV. The Apophoreta* (London 1996) 132-33. See also Jennison, *op.cit.* (above, n. 1) 100, 118-19, concerning the crows and ravens as "talking birds" in the Roman life.

pared to jackdaws (*Corvus monedula*), a bird of somber black and gray colors, ravens were considered to be inferior (Appendix, Raven – Latin, 24). Latin sources did recognize the existence of white ravens, although the existence of these rare albino individuals was used to denote something very unusual (Appendix, Raven – Latin 22). In general ravens appear to have been held in low esteem in Roman society and are frequently treated with so much contempt (Appendix, Raven – Latin 18, 30, 31, 33) that, as in Classical Greek and Byzantine societies, any food that they consumed was considered wasted (Appendix, Raven – Latin 20).⁵¹

3. Analysis of proverbs and proverbial phrases in modern Greek

Both ravens (κόρακες) and crows (κορώναι) are among the most frequently mentioned birds in modern Greek proverbs. This can be attributed to the birds' large size, conspicuous color, potential for agricultural damage and the fact that they often live in close proximity to humans. Paralleling references among early Egyptian and Greek sources, most of the modern Greek proverbs draw on characteristics of the birds' color, voice and feeding behavior.⁵²

⁵¹ Cf. also as the characterization of the crow as a cunning and crafty bird in Pl. *Mos.* 832 (*cornix*) *ubi ludificat una cornix volturios duos*.

⁵² In modern Greek poetry the noun used mainly for the crows or ravens is κοράκια (in the neutral). The main characteristics noted are their color (μαύρα), their cawing, being a bad omen, their feeding on carcasses, the fact that they pick out and consume the eyes of the corps, and their solidarity; cf. Ειρήνη Σαββίδου, *Τα πουλιά στην ελληνική ποίηση* (Athens 1991), 117, 158, 208, 251, 271-72, 385-86, 435-36, 487, 521, 568, 598, 600, 624. The noun κόραξ or κορώνη (κορούνα) appears in the translation of Aesop's myths; cf. also pp. 21, 41-42, 360 and two other poems in pp. 224, 283-86. In all cases it seems that the poets referred to some stereotypes of the birds, mostly simplified and used metaphorically. The only exception could be the poem in pp. 283-86, where the poet seems to know specific characteristics of the bird and has used them in his verses. Moreover, crows and ravens appear in many popular verses, e.g. in the Cretan mantinades; cf. Αλεξ. Δρουδάκη, *10.000 μαντινάδες της Κρήτης* (Chania 1982) 206, 483, 582 (concerning the black color and the bad luck). In addition, ravens and crows appear in riddles; e.g. cf. Χάρης Στρατιδάκης et al., *Το κρητικό αίνιγμα* (Rethymno

Perhaps the most defining characteristic of ravens in Greek folk lore is their blackness – even though rare white albinotic individuals (άσπρος κόρακας) are noted, their presence only underscores the fact that ravens have been, are, and will remain completely black (Appendix, Modern Greek 5, 6). Nevertheless, several proverbs also recognize that ravens do not hatch black – their pink skin shows at hatching and only as they age it becomes progressively more obscured by black plumage feathers (Appendix, Modern Greek 1, 2). Modern Greek proverbs contrast black ravens with doves that frequently have a pure white plumage (Appendix, Modern Greek 3, 4, 5, 19). While the former are considered loud, obnoxious and damaging, the latter are thought to be peaceful, beautiful and useful human companions.

Another defining characteristic of ravens in the eyes of the general public has always been their voice. Although it is well established today that the species possesses one of the richest and most varied calling repertoires among birds, ravens are instead noted in public lore for their repetitive, cawing call (κραα) (Appendix, Modern Greek 8, 9, 12, 13, 14).⁵³ Also, in Egyptian sources, the call of the raven is compared unfavorably to the song of the nightingale (*Luscinia megarynchos*), a species that possesses a complex and varied song of great beauty (Appendix, Modern Greek 10, 11).

Many modern Greek proverbs are based on careful observations of raven behavior (Appendix, Modern Greek 15, 16). For example it is noted that lazy people will stay at their place of birth while the enterprising ones will leave to seek new opportunities abroad. Similarly, ravens stay behind when all other birds migrate away in

2005), "επά βουνό κι εκέ βουνό, στη μέση μαύρος κόρακας" ("here a mountain, there a mountain, and in the middle a black raven." The solution of the riddle is a cooking pot placed on the trivet. See also five more riddles where the ravens or crows appear either in the question or the answers in Χρυσούλα Χατζητάκη-Καψωμένου, *Θησαυρός νεοελληνικών αινιγμάτων* (Heracleion 2001) 620, no 7591ι; 621, no 759 3γ; 329, no 279; 267, no 190; 513, no 585 6αβ. Cf. also a children's play with verses referring to ravens in Ευαγγ. Λαμπιθιανάκη-Παπαδάκη, *Λαογραφικά Κρήτης*, τομ. Β' (Heracleion 1982) 182.

⁵³ E. Gwinner, "Untersuchungen ueber das Ausdrucks- und Sozialverhalten des Kolkrahen (*Corvus corax corax* L.)," *Z. Tierpsychologie* 21 (1964) 657-748.

winter (Appendix, Modern Greek 17). Indeed, ravens are one of the few species of passerine birds in the Balkans that do not undertake a distinct winter migration.⁵⁴ Instead, high elevation populations may descend to the lowlands in winter or may undergo other dispersive short-distance movements.

Other proverbs are based on raven feeding habits, such as their predilection to raiding crops or their willingness to probe the for insects and seeds (Appendix, Modern Greek 20, 27, 28, 29). A significant number of proverbs relates to the previously discussed preference of ravens for carrion (Appendix, Modern Greek 33, 34, 35, 36, 37, 38, 39). This is paired with the observation that when food is available ravens are liable to overeat – 'eating [like] a raven' refers to someone who has eaten a great deal.

In general neither ravens nor crows enjoy a very high status in the eyes of traditional Greek society (Appendix, Modern Greek 17, 18, 24, 25, 39, 42). Based on their habit of feeding on carrion and of raiding crops they are thought to be evil and thankless birds (Appendix, Modern Greek 21, 29) as well as harbingers of bad news (Appendix, Modern Greek 40).⁵⁵ Crows are further considered to be inept and stupid (Appendix, Modern Greek 24, 25, 32) something that is surprising given that both crows and ravens are today considered to be among the most intelligent of all birds. For example, in laboratory experiments ravens have been shown to be able to process complex information and to even fashion tools.⁵⁶ The fact that ravens have one of the widest distributions of all birds, breeding in most of Europe, Asia and N. America and the fact that they are able to survive in a stunning diversity of environments, ranging from rainforests to arctic mountains and from city edges to remote islands, stands testimony to the behavioral flexibility and adaptability of this species.

⁵⁴ Handrinos and Akriotis, *op.cit.* (above, n. 5).

⁵⁵ Ravens and crows were considered to be birds skilled in augury as well as weather-prophets, both in the Greek and Latin literature. Cf. Thompson, *op.cit.* (above, n. 1) 161-63 for ravens and 171-72 for crows; to her references add Hor. *C.* 3.27.11.

⁵⁶ Alex et al., *op.cit.* (above, n. 21).

3. Analysis of proverbs and proverbial phrases in modern Egyptian (Arabic)

As Section A. documents, there is a dearth of proverbs that can be attested to either literary or documentary texts coming from ancient (Pharaonic or Graeco-Roman) Egypt. In contrast, in modern Arabic we find a number of such proverbs, referring more or less to the same conspicuous species characteristics as Greek proverbs do.

Modern Egyptian society in general exhibits a strong dislike for both ravens and crows (e.g. Appendix, Egyptian proverbs, 2). Their association with carcasses is both known and despised (Appendix, Egyptian proverbs, 6). In addition, they are considered to be greedy (Appendix, Egyptian proverbs no 7) and stingy animals (Appendix, Egyptian proverbs no 1), and their awkward, jumping gait is noted (Appendix, Egyptian proverbs, 8). Their harsh voice, together with their predilection for vociferousness, has made people liken them to inept preachers (Appendix, Egyptian proverbs, 5) and their cawing calls are compared to scalding (Appendix, Egyptian proverbs, 4). Yet, modern Egyptians also recognize that, despite their lack of appeal in human eyes, corvids are social animals that exhibit strong bond formation with each other (Appendix, Egyptian proverbs, 3).

In summary, the analysis of references from Egypt, Rome, as well as ancient and modern Greece, reveals that all societies retain a negative, and surprisingly consistent image of ravens and crows. This perception was based on often remarkably insightful and careful observations of the birds' behavior. Nevertheless, interpretation of many of these behaviors is often deeply flawed, either because of exaggeration or because of attribution of human traits, values or motivations to the behavior of these birds. As a result, crows and ravens today enjoy a relatively negative image despite the fact that they are highly intelligent creatures that provide important ecological functions by removing from the Mediterranean landscape large amounts of carcasses, refuse and agricultural pests.

APPENDIX

Proverbs or Proverbial Phrases Concerning Ravens and Crows

RAVEN (ΚΟΡΑΞ)

CLASSICAL AND BYZANTINE GREEK

Proverbs

1. γῦψ κόρακα ἐγγυᾶται: *CPG* I: App I, 90; *CPG* II: DV II 26; cf. Ν.Γ. Πολίτης, *Παροιμίες*, τομ. Α' (Athens 1899) p. 3, no 7; Ν.Γ. Πολίτης, *Παροιμίες*, τομ. Δ' (Athens 1902) 645–46, s.v. ἐγγυᾶται no 2. Used for those who keep peace between them for doing something out of malice.

2. ἐς κόρακας: *CPG* I: Z III, 87 nott; D IV, 86; *CPG* II: Ap VII 96; see Thompson, *op.cit.* (above, n. 1) 164.

3. κόρακος ἀηδόνων αἰδεσιμώτεροι: for unlike things; *CPG* II: Ap IX, 90.

4. κόραξ ὑδρεύει: *CPG* I: Z IV, 56; see Thompson, *op.cit.* (above, n. 1) 161.

5. λευκῶ τοίνυν κατὰ τὴν παροιμίαν ἔοικε κόρακι: see Galen, 1,17; see Thompson, *ibid.* 163 (varieties).

6. φωνήσας ὁ κόραξ πονήσεται: Ap XI, 89a.

7. κακοῦ κόρακος κακὸν ὄν: *CPG* II: GCL II, 43; Ap IX, 20; Ael. NA 3.43.

Proverbial phrases

8. A. *Supp.* 730: δυσάγνοις γρεσίν, κόρακες ὥστε, βομῶν ἀλέγοντες οὐδέν.

9. Lucianus *Tim.* 8: κόραξι καὶ λύκοις χαρίζεσθαι.

10. epigr. ap. Philostr. *Her.* 19.17: ἄγκειμαι μέγα δεῖπνον ἀμετροβίους κοράκεις.

11. A. A. 1473: ἐπὶ δὲ σώματος δίκαν [μοι] κόρακος ἐχθροῦ στα-

θεός ἐκνόμος.

12. Thgn. 833: πάντα τάδ' ἐν κοράκεσσι καὶ ἐν φθόρῳ.

13. Plu. fr. 28 (Bernardakis): ὥσπερ οἱ κόρακες παρεδρεύοντες ἐξορύπτουσι τοὺς τῶν νεκρῶν ὀφθαλμοὺς.

14. *P.Cair.Masp.* 67353, fr. 5, 19 (A.D. 569): κορακοβροσίαν γεγ[έσθ]αι καὶ ὀμματωρυξίαν.

A father in a deed of disownment writes about his children in a very strict way that "it is no longer lawful for you in future to call me father, inasmuch as I reject and abhor you from now to the utter end of all succeeding time as outcasts and bastards and lower than slaves ... and 'for ravens to devour the flesh and peck out the eyes,' in this manner I debar you from receiving or giving anything on my behalf, whether I am alive or dead..." (transl. from A.C. Hunt and C.C. Edgar in *SelPap* I 87).

15. *P.Turner* 43, 12-13: someone is described ὡς ὅπου οἱ κόρακες ἀπέρχονται; see N. Litinas, "The Lack of Linen-Weavers," *BASP* 41 (2004) 115-18.

16. Sept., *Prov.* 30, 17 ὀφθαλμὸν καταγελῶντα πατρὸς καὶ ἀτιμάζοντα γῆρας μητρὸς, ἐκκόψαισαν αὐτὸν κόρακες ἐκ τῶν φαράγγων, καὶ καταφάγοισαν αὐτὸν νεοσσοὶ ἀετῶν.

LATIN

Proverbs

17. *corvi lusciniis honoratiores*: cf. Greek proverbs **3**; Erasmus, *Collectanea adagiorum* (Paris 1500) 3208 = IV.3.8.

18. *mali corvi malum ovum*: cf. Greek proverbs **7**; Erasmus, *ibid.* 825 = I.9.25.

19. *ad corvos*: cf. Greek proverbs **2**; Erasmus, *ibid.* 1096 = II.1.96.

20. *corvus ab aquila relictis cadaveribus vescitur* ("the carrion which the eagle has left feeds the raven"): see A. Henderson, *Latin Proverbs and Quotations* (London 1869) 63; Polydorus Vergilius, *Proverbiorum libellus* (Venice 1498) prov. 297.

21. *corvus nuncius*: see Polydorus Vergilius, *ibid.* prov. 281.

22. *corvus albus*: Erasmus, *op.cit.* (above, #16) 3635 = IV.7.35; see Thompson, *op.cit.* (above, n. 1) 163 (varieties); also cf. the phrase *corvo quoque rarior aldo* in Juv. 7.202; see also Cic. *Fam.* vii 18.2.

23. *corvus aquat*: Erasmus, *ibid.* 2103 = III.2.3; cf. Greek proverbs 4.

24. *corvus serpentem*: Erasmus, *ibid.* 3079 = IV.1.79.

25. *corvus, absente graculo, pulcher*: see Henderson, *op.cit.* (above, #19) 63; see Iacobo Masenio, *Palaestra styli romani quae artem et praesidia Latine ornateque quovis styli genere scribendi complectitur cum brevi Graecarum et Romanarum antiquitatum compendio, et praeceptis ad dialogos, epistolas, et historias scribendas legendasque necessariis* (Coloniae Agrippinae 1659) 401.

26. Petr. 43.7: *niger tamquam corvus*; see A. Otto, *Die Sprichwörter und sprichwörtlichen Redensarten der Römer* (Leipzig 1890) 95.

27. Juv. 2.63: *dat veniam corvis, vexat censura columbas*; see *ibid.*; Erasmus, *op.cit.* (above, #16) 2473 = III.5.73; see S. Morton Braund, *Juvenal Satires Book I* (Cambridge 1996) n. *ad loc.*

28. *corvus corvo nigredinem obiicit.*

Proverbial phrases

29. Hor. *Ep.* 1.17.50: *tacitus pasci si corvus posset, haberet plus dapis, et rixae multo minus invidiaeque*; see Otto, *op.cit.* (above, #25); Erasmus, *op.cit.* (above, #16), 3094 = IV.1.94.

30. Hor. *Ep.* 1.16.48: *(non) pasces in cruce corvos*; see Otto, *ibid.*

31. Hor. *Sat.* 2.5.55: *corvum deludet hiantem*; see Henderson, *op.cit.* (above, #19) 428; Erasmus, *op.cit.* (above, #16) 615 = I.7.15.

32. Catullus 108.5: *effosos oculos voret atro gutture corvus, canis intestina, cetera membra lupi.*

33. Petr. 58.2: *crucis offla, corvorum cibaria.*

CORNIX (ΚΟΡΩΝΗ)

CLASSICAL AND BYZANTINE GREEK

Proverbs

1. Jo. Chrys., *Ad Theodorum lapsum* 14: ἐκάθισα προσδοκῶσα αὐτοὺς ὡσεὶ κορώνη ἡρημωμένη; cf. Cyrillus *PG* 68, 805; 69, 209; 69, 337; also *PG* 55, 234: ἐκάθισα ἐν τῇ ἐρήμῳ, ὡς κορώνη; *PG* 64, 31; *In sancta lumina* 1, 3; Theodoretus, *PG* 81, 44; Cyrillus, *PG* 70, 49; also *PG* 64, 781: ἐπὶ ταῖς ὁδοῖς ἐκάθισα αὐτῆς, ὡσεὶ κορώνη ἐρημωμένη, ταυτέστιν ὡς μεμονωμένη κορώνη γέγονα παντὸς καλοῦ στερηθεῖσα. See also Physiologus 27, 1: καλῶς ὁ Ἱερεμίας ἔλεγε τῇ Ἱερουσαλήμ: "ἐκάθισα ὡσεὶ κορώνη ἡρημωμένη". ὁ Φυσιολόγος ἔλεξε περὶ τῆς κορώνης ὅτι μονόγαμός ἐστι, καὶ ὅταν ὁ ταύτης ἀνὴρ τελευτήσῃ, οὐκέτι συγγίνεται ἐτέρῳ ἀνδρὶ, οὐδὲ ὁ κόραξ ἐτέρα γυναίκα.

2. *Scholia in Aristoph. Plutum* 370: οἶδ' ὁ κρώζει· Ὁ βοᾶς ὁ λέγει. παροιμία ἐπὶ τῶν μάτην θρυλούντων, ὡς αἱ κορώναι· ἀντὶ τοῦ, εὐ ἄνω καὶ κάτω περὶ τοῦ κεκλοφέναι μοι διαλέγη. γινώσκω, διὸ φωνεῖς, ἀκαίρως φθέγγῃ καὶ ὀχλεῖς μᾶς, ὡς κορώνη. For the crow-song see Thompson, *op.cit.* (above, n. 1) 171.

3. *CPG* II: Ap I 42: ἀετὸν κορώνη ἐρεσχελεῖ· παροιμία σαφῆς. Ταῖς γὰρ κορώναις ἔργον ἐστὶ τοὺς ἀετοὺς ἐρεσχελεῖν· οἱ δὲ ὑπερφρονοῦσιν αὐτῶν καὶ ἐκεῖνας μὲν ἀπολείπει τὴν κάτω φέρεσθαι πτήσιν, αὐτοὶ δὲ τὸν αἰθέρα ὑψηλότερον ὄντα τοῖς ὠκίστοις τέμνουσιν αὐτῶν περοῖς· οὐ δὲ που δεδιότες, πῶς γὰρ ἂν τοῦτο εἴποι τις, τὴν τῶν ἀετῶν ἀλκὴν ἐπιστάμενος; ἀλλ' ἰδίᾳ τινὶ μεγαλονοίᾳ ἐῶσιν ἔρρειν ἐκεῖνας κάτω.

4. κορώνη γράμμα κομίζει: *CPG* II: Ap IX 97; for those who bring the news very quickly.

5. κορώνη σκορπίον [ἦρπασε]: *CPG* I: Z IV, 60; D V, 59, *CPG* II: GCM III, 85, Ap IX, 99; also in *AP* 12.92; cf. also Suda and Hesychius s.v. κορώνη. *LSJ*, s.v. κορώνη 2 "catch a Tartar". Also see Thompson, *op.cit.* (above, n. 1) 172.

6. λευκὸς κορώνας: *CPG* II: M V, 52.

7. ἄλλο γλαῦξ, ἄλλο κορώνη φθέγγεται: *CPG* I: Z I, 69; *CPG* II: DV I, 31.

Proverbial phrases

8. Ar. *Av.* 697: *πολαιὰ τε κορώναι*; see N. Dunbar, *Aristophanes Birds* (Oxford 1995) n. to ll. 967-68 and introduction, p. 130.

9. Ar. *Av.* 609: *πέντ' ἀνδρῶν γενεὰς ζῶει λακέρυζα κορώνη*; see *ibid.* n. to l. 609; Also in Hes. fr. 304 (M-W); also Opp. C. 3.117: *πολύζωοι τε κορώναι*; Babr. 46.9: *κορώνην δευτέραν ἀναπλήσας*; AP 10.361: *βίον ζῶοιτε κορώνης*; AP 11.389: *εἰ μὲν ζῆς ταναὸν ἐλάφου χρόνον ἢ ἐ κορώνης*; CAF 912-13: *ὑπὲρ τὰς ἐλάφους βεβιωκῶς, ὑπὲρ τὰς κορώνας*.

LATIN

Proverbs and proverbial phrases

For the Latin proverbs and phrases see Otto, *op.cit.* (above, #25 Raven) 93; M.C. Sutphen, *A Collection of Latin Proverbs Supplementing Otto's Sprichwörter und sprichwörtlichen Redensarten der Römer* (Baltimore 1902) 26.

cornicibus vivacior ("a crow's age and more"): Erasmus, *op.cit.* (above, #16 Raven) 564 = I.6.64.

10. *cornicum oculos configere* ("to catch a weasel asleep"): Cic. *Mur.* 25: *scriba quidam qui corvicum oculos confixerit*; id. *Flac.* 46: *hic hercule "cornici oculum" ut dicuntur*; Erasmus, *op.cit.* (above, #16 Raven) 275 = I.3.75.

11. Macr. 7.5.2: *tamquam cornix cornici oculos effodiat*; also *cornicum eruere genas*.

12. *cornix scorpium rapuit*: cf. Greek proverb 5. See Henderson, *op.cit.* (above, #19 Raven) 62; Erasmus, *op.cit.* (above, #16 Raven) 58 = I.1.58.

13. *aquilam cornix provocat*: cf. Greek proverbs 3 and Erasmus, *op.cit.* (above, #16 Raven) 2218 = III.3.18.

14. *cornicibus vivacior* ("A crow's age and more"): Erasmus, *op.cit.* (above, #16 Raven) 564 = I.6.64. It was noted for its longevity in Mart. 10.67.5: *cornicibus omnibus superstes*; Lucr. 5.1084: *cornicum seacla vetusta*; Juv. 10.247: *exemplum vitae fuit a cornice secundae*; Hor. *Carm.* 3.17.16: *annosa cornix*; id. 4.13.25: *servatura diu parem cornicis vetulae remporibus*; cf. Cic. *Tusc.* 3.28.69: *quod*

cervis et cornicibus vitam diuturnam ... dedisset (natura); Ov. *Metam.* 7.274: *novem cornicis saecula passae*; Priap. 57.1: *cornix et caries vetusque bustum*; cf. also the Plin. *Nat.* 7.48; Ov. *Am.* 2.6.36; Aus. *Epist.* 24.8: *cornix non ideo ante cycnum*; *id.* *Ecl.* 5.3–4.

15. *cornice loquacior*: see Henderson, *op.cit.* (above, #19 Raven), p. 62.

16. Calp. *Ecl.* 6.7: *si vincat acanthida cornix*; cf. Erasmus, *op.cit.* (above, #16 Raven) 783 = I.8.83

17. *aliud noctua sonat, aliud cornix*; Erasmus, *ibid.* 2174 = III.2.74

18. *daulia cornix*: *ibid.* 2588 = III.6.88

THE RAVENS/CROWS IN MODERN GREEK

Proverbs or phrases based on color

1. 'Άσπρος γεννιέτ' ο κόρακας και κίτρινος μαλλιιάδζει και μαύρος κατασταίνεται και του κυρού του μοιάδζει ("The raven is born white and its hair is yellow; it ends up black as his father"; cf. "like father, like son"): Σ.Αλ. Καρανικόλας, *Παροιμίες και φράσεις από τη Σύμη*. Επιτροπή Συμμακίων Εκδόσεων (Athens 1980) 128, no 696. Cf. also Διαλεχτή Ζευγώλη-Γκλέξου, *Παροιμίες από την Απειράνθο της Νάξου* (Athens 1963) 166, no 1, s.v. κόρακας: 'Άσπρος γεννιέτ' ο κόρακας και ερανιός κανιάζει και μαύρος καταστήνεται και του κιουρού του μοιάζει ("The raven is born white and its hair is blue; it ends up black as his father"). Cretan *mantinada* by Σηφογιώργης in his LP "Αντικριστές μαντινάδες": 'Άσπρος γεννάται ο κόρακας και μαύρος κατασταίνει, όποιος φρουκάται κοπελιάς πολλά να περιμένει ("The raven is born white and ends up black; whoever listens to a girl must be ready for anything"). Also άσπρος γεννάται ο κόρακας και μαύρος κατασταίνει, όποιος φρουκάται κοπελιάς το ναι να περιμένει ("The raven is born white and ends up black; whoever listens to a girl, must expect a 'yes' "); see Αλεξ. Δρουδάκη, *10.000 μαντινάδες της Κρήτης* (Chania 1982) 362. See also the first verse in Γ.Α. Ρήγας, *Σκιάθου λαϊκός πολιτισμός*, τομ. Γ' (Thessaloniki 1968) 77, s.v. κόρακας, no 2. Cf. also Χρυσούλα Χατζητάκη-Καψωμένου, *Θησαυρός Νεοελληνικών Αινιγμάτων* (Heracleion 2001) 329, no 279.

2. –Πώς πάνουν, κόρακα, τα πιδιά σ'; –'Όσου πάνουν κι μαυρίζουν ("Raven, how are your children are doing? As they grow up, they become black"): Δ. Σαλαμάγκας, *Γιαννιώτικες παροιμίες* (επιμ. Δ.Σ. Λουκάτου) s.d., p. 72, s.v. κόρακας, no 3; Γ.Δ. Καψάλης, *Οι παροιμίες του Θεσπρωτού λογίου Κώστα Αθ. Μιχαηλίδη* (Athens 1998) 337, no 330; –Πώς σοι έχουσι, κόραξ, οι νεοσσοί; –Μελάντεροι. Ν.Γ. Πολίτης, *Παροιμίες*, τομ. Α' (Athens 1899) 129, no 88, 2; Δ.Σ. Λουκάτος, *Νεοελληνικοί Παροιμιόμυθοι* (Athens 1972) 90, no 317.

3. Του κόρακα τ' αυγό δε βγάζει περιστέρι ("A dove cannot hatch from the egg of a raven," "ravens do not breed doves"): Καψάλης, *ibid.* 383, no 651; 237, no 448; Ευαγγ. Λαμπιθιανάκη-Παπαδάκη, *Λαογραφικά Κρήτης*, τομ. Β' (Heracleion 1982) 254.

4. Μα, ο κόρακας περιστέρια θα κάμη; κορακόπουλα θα κάμη ("Can a raven breed doves? It can breed only crows"): Ζευγώλη-Γλέζου, *op.cit.* (above, #1) 149, no 7, s.v. κόρακας.

5. 'Όταν ασπρίσει ο κόρακας και γίνει περιστέρι, κι όντας να στύψει η θάλασσα και γίνει περιβόλι, τότε θα γίνεις ό,τι θέλεις ("When the raven becomes white and a dove, and the sea runs out of water and becomes a garden, then you will become whatever you want"): Καψάλης, *op.cit.* (above, #2) no 888; cf. Σαλαμάγκας, *op.cit.* (above, #2) 72, s.v. κόρακας, no 2: όντας ασπρίσ' ου κόρακας "when the raven becomes white". Also 'Όντε θ' ασπρίσ' ο κόρακας και θα μαυρίσ' ο γλάρος, ετότεσά θα παντρευτείς να μπω κι εγώ κουμπάρος "when the raven becomes white and the seagull becomes black, then you will get married and I will be the best man" in Δρουδάκη, *op.cit.* (above, #1) 362.

6. 'Αλλάξε γνώμη, κόρακα, όσο ν' ασπρίσουν τα μαλλιά σου ("Change your mind, raven, until your hair become white"). Used for the incorrigible people, because the crow's hair never becomes white: Ν.Γ. Πολίτης, *Παροιμίες*, τομ. Δ' (Athens 1902) 58, s.v. γνώμη, no 2.

7. Ρώτησαν τον κόρακα "γιατί 'σαι μαύρος", κι εκείνος είπε "γιατί είμαι σόγαμπρος" ("The raven was asked 'why are you black?' and it said: 'because I am a *sogambros*' " (*sogambros* is a person who lives with his in-laws after the wedding); Λουκάτος, *op.cit.* (above, #2) 91, no 320; used for stating the miserable life ("black life") of a man

living with his in-laws.

Proverbs or phrases based on cawing

8. Από κοράκου στόμα κρα θ' ακούσεις ("From the mouth of a raven you will hear 'cra' "): Παν. Ι. Παναγούλιας, *Παροιμίες του λαού μας* (Athens 1981) 107, no 459; Φ. Τότσκας, *Ελληνικές Παροιμίες* (s.d.) 117; Καψάλης, *op.cit.* (above, #2) 175, no. 175; 130, no 479; εκ στόματος κοράκων εξελεύσεται κρα: Ν.Γ. Πολίτης, *Παροιμίες*, τομ. Α' (Athens 1899) 126, no 73, 11; cf. also *eund.*, *Παροιμίες*, τομ. Β' (Athens 1900) 73, s.v. κόρακας, no 1.

9. Μίλιε του κοράκου να σου λήη "κρα" ("Speak to the raven, and it will say to you 'cra' "). Ζευγώλη-Γλέζου, *op.cit.* (above, #1) 166, s.v. κόρακας, no 3.

10. Κι αν κελαιδίησει ο κόρακας, δεν γίνεται αηδόνι ("Even if the raven sings, it cannot become a nightingale"): Αποστολία Νάνου-Σκοτεινώτη, *Παροιμίες της Μακρινίτσας* (Volos 1979) 74.

11. Τόσον έχει ο κόρακας τη φωνή του ωσάν αηδόνι ("The raven estimates his voice the same as that of a nightingale"): Ν.Γ. Πολίτης, *Παροιμίες*, τομ. Β' (Athens 1900) 73, no 3.

12. Ότι τραγουδεί ο κόρακας, τραγουδεί και το παιδί του ("Whatever the raven sings, the same his offspring sings"): Μαρίνα Μηλολιδάκη-Κώτσηρα, *Παροιμίες του Κρητικού λαού*, (Athens 1975) 64, no 309.

13. Κόρακας να σε κόψει ορ βγάλε τον κόρακα ("Take out the raven (from your voice)": used for people who disturb either by screaming or coughing: Δημητράκος, *Μέγα Λεξικό*, s.v. κόρακας.

14. Είπε η κουρούνα "κρα" ("The crow cawed 'cra' "); used for the obvious things: *ibid.* s.v. κόρακας.

Proverbs or phrases based on the environment

15. Αδειανός αρκάτης θωρεί τον Μάιν κορώναις ("The idle worker sees crows in May"): Ν.Γ. Πολίτης, *Παροιμίες*, τομ. Α' (Athens 1899) 292, s.v. αδειανός, no 1; used for people who neglect their work claiming that they were occupied with the unusual

spectacle of crows in the plains. In Cyprus, from where this proverb comes, there are no crows in the plains in May because they have moved into the mountainous regions to breed.

16. Ένα χαλί ξεροσυκιά του κόρακα η βάρδεια ("A branch of a dead fig-tree is the raven's watch"): Ν.Γ. Πολίτης, *Παροιμίες*, τομ. Γ' (Athens 1901) 33 s.v. βάρδεια; used for people guarding or watching things that are insignificant.

17. Βούλα τα πουλιά μισσεύγουν, τσ' αι κοράτσοι δω πομένουν ("All the birds are migratory, but the ravens remain here"): Ν.Γ. Πολίτης, *Παροιμίες*, τομ. Β' (Athens 1900) 388-89 s.v. απομένω, no 4; used for enterprising people who emigrate for education or for enrichment compared with the sluggish ones who remain at home.

Proverbs or phrases based on the behavior

18. Κακού κόρακος κακόν ων or κακού κόρακος κακό αυγό ("From an evil raven, an evil egg"): Ι. Βενιζέλος, *Παροιμίες Δημώδεις* (Hermoupolis 1867²) 127, no 154.

19. Ο όμοιος τον όμοιο πρέπει να κάμη ταίρι, κι όχι ο μαύρος κόρακας το άσπρο περιστερί ("Similar people should be partners, and not the black raven with the white dove"): Ζευγώλη-Γλέζου, *op.cit.* (above, #1) 225, s.v. κάνω, no 3.

20. Αν άκουε ο Θεός τον κόρακα, γαιδούρι δε θα γκάριζε ("If God had heard a raven, no donkey would bray"): Παναγούλιας, *op.cit.* (above, #8) 49, no 180; Δ. Λουκόπουλος and Δ. Λουκάτος, *Παροιμίες των Φαράσων* (Athens 1951) 58, no 314. Αρ' ο Θιος να κούνκεν τα καζβάρες, κατά μέρα χα ψοφήσει α γαιρίδι; Πόντ. Α ΙΙ, no. 1022: Ο Θεός κορώνας να έκουεν, 'ς σον κόσμον άλογα 'κει θα επέμειν'ναν. Ν.Γ. Πολίτης, *Παροιμίες*, τομ. Α' (Athens 1899) 81, no 688: ει θεός κορώνης ήκροάτο, όνοι πάντες άπωλούντο: Ν.Γ. Πολίτης, *Παροιμίες*, τομ. Δ' (Athens 1902) 674 s.v. εισακούομαι, no 1: αν εισακούονταν οι κουρούνες, όλοι οι γάιδαροι θε να ψοφούσαν; cf. also Καρανικόλας, *op.cit.* (above, #1) 105, no 541; Ζευγώλη-Γλέζου, *op.cit.* (above, #1) 128, s.v. θεός, no 1: (Ν)α γρίκαν ο Θεός των γοράκω ("If God had listened the ravens!"); Λουκάτος, *op.cit.* (above, #2) 47, no 168. (Interpretation: if the will of ravens was fulfilled, so many

donkeys would die that none would be left alive.)

21. Θρέψε τον κόρακα για να σου βγάλει το μάτι ("Raise a raven and it will take your eye out"): Καψάλης, *op.cit.* (above, #2) 214, no 75; Λουκόπουλος and Λουκάτος, *op.cit.* (above, #20): 55, no 295; Ζούλεπ' την γαζβάρα, να γλυμήσει τα 'φτάλμε σου; Λεβ. 33. Ποντ. Α.Π: Πεσλέεψον κορώνα, ας κρούση κ' έβγαλ' τ' όμματα σ'. Ν.Γ. Πολίτης, *Παροιμίαι*, τομ. Β' (Athens 1900) 194, s.v. αναθρέφω, no 2.

22. Κόρακας κοράκου μάτι δε βγάνει ("A raven does not take out the eye of another raven" [engl. "dog does not eat dogs"]): Παναγούλιας, *op.cit.* (above, #8) 127, no 541; Γ.Α. Ρήγας, *Σκιάθου λαϊκός πολιτισμός*, τομ. Γ' (Thessaloniki 1968) 77, s.v. κόρακας, no 1; Σαλαμάγκας, *op.cit.* (above, #2) 72, s.v. κόρακας, no 1; Τότσκας, *op.cit.* (above, #8) 118; Καψάλης, *op.cit.* (above #2) 237, no 447; Καρανικόλας and Καρανικόλας, *op.cit.* (above, #1) 128, no 697; Ζευγώλη-Γκλέξου, *op.cit.* (above, #1) p. 166, s.v.κόρακας, no 2; Βενιζέλος, *op.cit.* (above, #18) 143, no 409; Ν.Γ. Πολίτης, *Παροιμίαι*, τομ. Β' (Athens 1900) 73, s.v. κόρακας, no 2; Λαμπιθιανάκη-Παπαδάκη, *op.cit.* (above, #3) 257.

23. Κορώνη πασάλοικ πολλοϊς έμπηδώση πήγγυται τις έν αυτῆ ("If a crow jumps from one stake to the other, it will be stuck in one of them"): Ν.Γ. Πολίτης, *Παροιμίαι*, τομ. Α' (Athens 1899) 93, no 1298; used for people who move from place to place.

24. Αν είχε η κουρούνα γνώση, μας εδάνειζε καμπόση ("If the crow had some wit, it could lend us a little bit"): Ν.Γ. Πολίτης, *Παροιμίαι*, τομ. Δ' (Athens 1902) 66, s.v. γνώση, no 4; p. 69, s.v. γνώση, no 19; used for foolish people who insist on consulting others that are considered less intelligent.

25. Κάν' η κουρούνα τάματα, να παίξουν τα δαιμόνια ("The crow promises a church offering for the demons to play"): Βενιζέλος, *op.cit.* (above, #18) 136, no 294; used for referring to the results of incompetent people.

26. Έχει κι' ο κόρακας γενιάν, κ' η αχελώνα γένεια ("Even the raven has an ancestry and the turtle a beard"): Ν.Γ. Πολίτης, *Παροιμίαι*, τομ. Γ' (Athens 1901) 531, s.v. γενιά, no 9; used to state that even people of humble birth can have integrity and substance

(note the pun in the use of the words γενιάν and γένεια).

Proverbs or phrases based on food and the way they eat

27. Τ' αφράτο μήλο ο κόρακας το τρώει ("The raven eats the soft apple"): Τότσκας, *op.cit.* (above, #8) 119; Καψάλης, *op.cit.* (above, #2) 360, no 154; cf. also Ν.Γ. Πολίτης, *Παροιμίες*, τομ. Β' (Athens 1900) 111, s.v. σύκον, no 3: τα καλύτερα τα σύκα οι κουρούνες τα τρώνε ("The crows eat the best figs"); also p. 38, s.v. απίδι, no 1; p. 40, s.v. απίδι, no 1; p. 349, s.v. απίδι, no 1; p. 535, s.v. άσπρα, no 6: απίδα (άσπρα) θέλει ο κορωνιός και όχι πεταλούδες.

28. Μο την γαζβάρα του 'νεγκώθει, ο μυτής του 'ς τα κάκε λειψόν τζου 'ίνεται ("Whoever goes with the ravens, his nose is not short of the dung"): Λουκόπουλος and Λουκάτος, *op.cit.* (above, #20) 102, no 536; also Λεβ. 60.

29. Για το κορωνίδιν εμείναμε άσποροι ("We did not sow the field, because we were afraid of the crows [who would eat the seeds]"): Ν.Γ. Πολίτης, *Παροιμίες*, τομ. Β' (Athens 1900) 533-34, s.v. άσπορος, no 2.

30. Και κουρούνα και τετράδη ("Both a crow and on the fourth day"): Βενιζέλος, *op.cit.* (above, #18) 123, no 87; Ν.Γ. Πολίτης, *Παροιμίες*, τομ. Α' (Athens 1899) 90, no 1161: και κορώνη και τετράς; used for people doing something inadvisable both because it is unpleasant and illegal (when someone is pressed to eat a [bad-tasting] crow on a day that meat should not be eaten).

31. Τρώω τον κόρακα ("Eat like a raven", [engl. "eat fit to burst"]): Δημητράκος, *Μέγα Λεξικόν*, s.v. κόρακας.

32. Έγινε κουρούνα στο μεθύσι ("Someone became drunk like a crow"); used for people who are blind drunk: *ibid.*, s.v. κόρακας.

Proverbs or phrases based on being scavengers

33. Πέφτουν σαν τα κοράκια (να φάνε, να κατασπαράξουν, κτλ.) ("They fall like the crows [to eat, devour, etc.]). [This is a widely used every-day expression].

34. Όπου οι κόρακες, εκεί και τα ψοφίμια ("Wherever the ravens

are, there the carcasses are"); in Crete (communicated to Nikos Litinas by Agamemnon Chliaoutakis, at Kentrochori, Rethymno).

35. Αν του κοράκου ακολουθάς, σε ψοφημιό θα φτάσεις ("If you follow a raven, you will find a carcass"): www.Paroimies.com.

36. Όταν έχει ένας λύκος, έχουν εκατό κοράκια ("When a wolf has something, then one hundred crows have it [too]"); used for referring to the habit of ravens to steal food from the kills of large predators. www.Paroimies.com.

37. Όπου ψοφήσει γάιδαρος, μαζεύονται κοράκια ("Wherever a donkey dies, there ravens gather"): in Crete (communicated to Nikos Litinas by Agamemnon Chliaoutakis, at Kentrochori, Rethymno).

38. Ο κοντριασμένος γάιδαρος, σαν ακούση των κοράκων να φωνάζουνε, λέει "Για τη ράχη μου είναι" ("When a donkey with many sores in his body [because of the hardships] listens to the ravens cawing, says: "It is for my back"): Ν.Γ. Πολίτης, *Παροιμιαί*, τομ. Γ' (Athens 1901) 347, s.v. γάδαρος, no 60; Λουκάτος, *op.cit.* (above, #2) 58, no 208; used for people without protection who know (or expect) that they will be victims of a powerful and unfair person.

39. Να σε φάει ο κόρακας; or να σε φάνε τα κοράκια; or πήγαινε στον κόρακα ("May the raven(s) eat you"; "go where the ravens are"; "get out of my face, disappear"): Ν.Γ. Πολίτης, *Παροιμιαί*, τομ. Δ' (Athens 1902) 88-89, s.v. γονιός, no 19, comment. Cf. Classical Greek no 2, above.

Proverbs or phrases based referring to bad omens

40. Ο κόρακας ποτέ του δεν έφερε καλά μαντάτα ("The raven has never brought good news"): Καψάλης, *op.cit.* (above, #2) 278, no 232.

Proverbs or phrases based on comparison with other birds

41. Καλήτερ' αξίζει ένας κόρακας, παρ' ένας παπαγάλος ("A raven is worth more than a parrot"): Βενιζέλος, *op.cit.* (above, #18) 128, no 167.

42. Από ένα χρόνο κουρούνα, κάλλιο μια μέρα γεράκι ("Better one day as a hawk, than one year as a crow"): Ν.Γ. Πολίτης,

Παροιμίες, τομ. Δ' (Athens 1902) 554-55, s.v. κάλλιον, no 1.

43. Παρά αηδόνη στο κλουβί, κάλλιο κουρούνα στο βουνί ("Its better to be a crow in the mountains rather than a nightingale in the cage"): Ν.Γ. Πολίτης, *Παροιμίες*, τομ. Β' (Athens 1900) 65, s.v. κάλλιον, no 5.

44. Άλλα τα μάτια της γλαυκός και άλλα της κορώνης ("The eyes of the owl and the crow are not the same"): Ν.Γ. Πολίτης, *Παροιμίες*, τομ. Α' (Athens 1899) 524-27, comm. in p. 526; p. 549, no 140: άλλο τομματ' του κουκουδά και άλλο της κορώνας.

45. Ο κόρακας επήγε να κάμει τση πέρδικας το ζάλο και ήχασε και το δικό του ("The crow wanted to imitate the gait of the partridge and lost even its own"); referring to the ungainly movement of ravens and used for people who want to do greater things falsely: Λαμπιθιανάκη-Παπαδάκη, *op.cit.* (above, #3) 253.

THE RAVENS/CROWS IN MODERN EGYPT

A number of Arabic proverbs reflects how modern Arab societies view crows and ravens.

1. أيش جاب الغراب لأمه

("What a crow brought to his mother!"); it refers, in an ironic way, to a person, known as miser or stingy who brought something, such as a gift, to somebody he knows.

2. غراب خبيث بيضه خبيثه

("An evil crow, an evil egg"); trouble begets trouble: Kamal Khalaili, *A Gem Dictionary of Comparative Proverbs. English – Arabic – French – Latin* (Beirut 1994) 41, no 150.

3. أنتي الغراب تظن أن صغارها هي الأجمل

("The crow thinks her own birds fairest"); every man likes his own thing best: *ibid.* 25, no 96.

4. غراب يعير غراباً بسواد لونه

("A crow reproaches another crow because it is black"); refers to

people who condemn others for something they do themselves: *ibid.* 110, no 376.

5. غراب قال الله حق قال بقي نباش الخرا واعظ

("A crow exclaimed 'God is the truth'; "then", said one, "the dirt scraper has become a preacher"); J.L. Burckhardt, *Arabic Proverbs or the Manners and Customs of the Modern Egyptians. Illustrated from their Proverbial Sayings Current at Cairo* (London 1875²) 153, no 458.

6. اذا كان الغراب دليل قوم يمر بهم علي جيف الكلاب

("When crows are the guides of people, they lead them to the carcasses of dogs"); not much is to be expected from evil or incapable people: *ibid.* 190, no 524.

7.

("He descends (like) the foot of a crow, and ascends (like) the hoof of a camel"); said of an ill-bred person, whose hand, when it descends into the dish, appears very small to the company (as small as the crow's foot), but when withdrawn from the dish and ascending towards his mouth, encloses such a large piece within its grasp that it resembles the hoof of a camel: *ibid.* 272, no 756.

8. تحجل مثل الغراب

("Hopping on one leg like a crow"); relating to the gait of *Corvus corone*, which is described as a direct walk, varied by clumsy hops or sliding jumps. The crows give the impression that they actually do not walk when they are on the ground, but rather make small jumps with both legs simultaneously: communicated to Nikos Litinas by Egyptian farmers.

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Some Curious Prescripts (Native Languages in Greek Dress?)

ABSTRACT

The core of the article is a discussion of the formulation $\acute{\epsilon}\gamma\acute{\omega}$ + *name in nominative* + $\gamma\rho\acute{\alpha}\phi\omega$ + *name in dative*, occasionally found in prescripts of Greek papyrus letters from late antiquity. Its Coptic equivalent is very common, which may suggest that the Greek construction goes back to the Coptic. The article closes with a brief examination of a few further cases of possible bilingual interference in documents of this period.

SB XVI 12943 (P.Vindob. G 22743, ed. pr. *JEB*yz 34 (1984) 43f., with plate opposite p. 44) is a letter assigned to the sixth century (but the hand may better be placed in the seventh century). It starts off in this fashion:

[† Αὐρ(ήλιος) Γεώρ]γιος σιδηροχαλκεὺς τῆς μεγάλης ἐκκλησίας
γράφων σοι Πέτρῳ τέκτονι Ψίντε'ω'

It would be odd to find someone calling himself Aurelius in a letter of this date; it is also noticeable that the addressee is not styled Aurelius. The practice of adding this *gentilicium* to the names of correspondents seems to have enjoyed a relative popularity in the first decades after the grant of Roman citizenship by the *Constitutio Antoniniana*, but practically disappeared thereafter. To remove the oddity of the restored Αὐρ(ήλιος), I suggest reading $\acute{\epsilon}\gamma\acute{\omega}$ in its place:

[† $\acute{\epsilon}\gamma\acute{\omega}$ Γεώρ]γιος σιδηροχαλκεὺς τῆς μεγάλης ἐκκλησίας
γράφω{ν} σοι Πέτρῳ τέκτονι Ψίντε'ω'¹

Parallels are not lacking. Compare the prescript of *P.Oxy.* XLIII 3149, a letter assigned to the fifth century: † $\acute{\epsilon}\gamma\acute{\omega}$ γράφω σοι, ἅπα Θεών, Ἡρᾶς χρητιανὸς ἐν κυ(ρίῳ) θ(ε)ῶ χέρειν. The editor of this text notes: "This is a new expression for the opening of a letter; it

¹ There is no need to restore $\chi\acute{\alpha}\rho\epsilon\iota\nu$ at the start of l. 2.

finds a parallel in declarations of an administrative character of the late Byzantine period, cf. P. kl. Form (SPP III) 132.1-2, 133.1." The relevant parts of the two *SPP* texts run as follows: (*SPP* III 132 = *W.Chr.* 7 = *SB* III 6257) † ἐγὼ Χαραχην βασιλείκος τῶν Βλεμῶν γράφω τοῖς τέκνοις Χαραχην Χαραπατχοῦρ καὶ Χαραζιετ; (*SPP* III 133 = *SB* III 6258) † ἐγὼ Πωκατιμνε ἐπιφ(ανέστατος) βασιλικκος γράφω Πωαε τῶ εὐγενεστᾶτω ἱερεῖ. We find similar constructions in *P.Michael.* 39.3 υἱὸς Εἰσοῦδουριανοῦ ἐγὼ γράφω [, and *P.Mon.Apollo* 31.1 ἐγὼ Οὐερενοῦφ[ιο]c Θεοδόρου γράφω τογ[.²

All in all, this type of letter-prescript is rare; but this applies only to Greek documents. Numerous Coptic letters and other documents start with the sequence λNOK *name* $\epsilon\text{IC}\varrho\lambda\text{I}$ $\bar{\text{N}}/\epsilon\text{name}$, "I, *name*, write to *name*,"³ which conveys the same idea as the Greek construction ἐγὼ + *name in nominative* + γράφω + *name in dative*. The rarity of this expression in Greek texts implies that the Coptic formula is not a translation from the Greek. It is worth noting that *P.Mon.Apollo* 31 and *P.Oxy.* XLIII 3149, cited above, stem from monastic, and most probably Egyptian (Coptic) speaking, environments, while the two *SPP* texts are the work of scribes who also wrote in Coptic.⁴ Are we dealing with Coptic couched in Greek? A seventh-century letter from Nessana seems to disprove this: cf. *P.Ness.* III 158.1] ἐγὼ Cαρος [c. 5]λ.ε[.]εἰ γράφω σοι κυρ(ι)φ Γεωργ[ι]φ. I have considered whether we are dealing with an epistolary prescript common in the letters of the peoples of the ancient

² τογ may be articulated as το (l. τῶ) γ[, unless it stands for τῶ (accusative used instead of dative).

³ See A. Biedenkopf-Ziehner, *Untersuchungen zum koptischen Briefformular unter Berücksichtigung ägyptischer und griechischer Parallelen* (1984) 47 ("Typ VII"). It may also be noted that the pronoun λNOK ("I") and the verb $\epsilon\text{IC}\varrho\lambda\text{I}$ ("to write") occur in several other "types" of Coptic epistolary prescripts (see Biedenkopf-Ziehner, *op.cit.* 40–52), including legal documents (cf. e.g. *CPR* IV 114, 121, 126).

⁴ *SPP* III 132 is by Sansnos, who also produced the Coptic *BKU* III 350, 359, and 361, while *SPP* III 133 is by Agathon, also responsible for the Coptic *P.Köln ägypt.* I 13 (his Greek subscription is reprinted as *SB* XVIII 13633). These "Blemmyan" texts receive extensive discussion in the re-edition of *SPP* III 129–238 by Fritz Mitthof, to whom I am grateful for a preview of his introduction. See also below, n. 8.

Near East; but there seems to be nothing comparable in Syriac or Arabic epistolography.⁵ Whatever the case, it is hard to escape the thought that these 'curious' prescripts in Greek letters from late antique Egypt reflect Coptic constructions.

The issue of bilingual interference goes beyond letter-prescripts. In Greek legal agreements dating from the sixth century onwards, we increasingly find the pronoun ἐγώ (or ἡμεῖς) placed immediately before the name of the contracting party expressed in the nominative. As it happens, most Coptic contracts of this date have the first person singular pronoun ΔΝΟΚ (or the plural ΔΝΟΝ) before the name of one of the parties to the transaction. Even more, the Coptic pronoun precedes almost every personal name in first-person statements. Thus we find some "peculiar" constructions at the openings of contracts written in Greek, such as *name (and title) in dative* + ἐγώ + *name in nominative*,⁶ or ἐγώ + *name in nominative* + (κοι +) *name in dative*;⁷ the latter construction is most often preceded by ἔχω.⁸

The tendency to add the personal pronoun before a name in the nominative may also be observed in subscriptions; here too Coptic parallels are very many. This is the case with constructions such as

⁵ I thank David Taylor and Petra Sijpesteijn for answering queries.

⁶ Cf. *P. Michael*. 35.frA.6 (VII; see *ZPE* 153 (2005) 171), *P. Oxy.* LVIII 3958.11 (614), *PSI* VIII 894.8 (624). All examples are Oxyrhynchite.

⁷ Cf. e.g. *P. Mich.* XV 748.4f. (Oxy.; VII), *P. Ross.-Georg.* III 56.3f. (Heracl.; 707), and the Arsinoite *P. Lond.* I (pp. 223–4) 113.11A.1f. (VI/VII), *SPP* III 239.1f. (VI/VII), 344.1f. (643/658; see *BL* VIII 439), 384.1 (VII).

⁸ Cf. *CPR* VIII 64.1 (VI *ed.pr.*, but rather of early VII—cf. plate), *P. Brookl.* 16.1f. (mid-VII), *P. Gen.* I 15.1 (VI/VII *ed.pr.*, but perhaps somewhat later—cf. plate), *P. Lond.* II (p. 332) 390.1 (VI/VII *ed.pr.*, but clearly post-642), *SB* XVI 12279.1 (VI *ed.pr.*, but probably of VII—cf. plate), and scores of texts published in *SPP* III 119 ff. All examples are Arsinoite. A distinct group is made up of five texts deriving from a Blemmyan environment, which have *coṽ* instead of *coi*: *BGU* III 795.1, 796.1, 797.1f., *SB* X 10552.1, 10554.1 (all of VI; the first three were republished as *SPP* III 129–31); all of them were written by the scribes mentioned above, n. 4. The issue is discussed in the introduction to *SPP* III² 129–238.

ἐγώ + *name* + μαρτυρῶ,⁹ ἐγώ/ἡμεῖς + *name* + στοιχ(),¹⁰ or ἐγώ + *name* + ἔγραψα.¹¹

This was a time when notaries made increasing use of Coptic in recording legal transactions; further study will surely reveal several other "Copticisms" in Greek legal documents.

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⁹ Cf. *SB* VI 9402.23 (VII?; see *BL* X 197), *SPP* XX 227.10 (VII?; see Z. M. Packman, *ZPE* 90 (1992) 258), *P.Dubl.* 24.11 (VII; see *P.Paramone* 16.3 n.), *SB* VI 8987.44f., 47 (644/5), etc.

¹⁰ Cf. *SB* VI 9153.31ff. (596), *P.Oxy.* LXI 4130.33ff. (600), *SB* VI 9750.8 (642), 8987.42f. (644/5), *BGU* I 304.23ff. (647; see *BL* VIII 222), *SPP* III 73.8 (VI), *P.Grenf.* II 102.4 (VII), *P.Mert.* II 98.19f. (VII), *P.Prag.* I 65.6 (VII), *PSI* X 1122.31 (VII; see *ZPE* 153 (2005) 171), *P.Wisc.* I 11.30f. (VII; see *BL* VIII 201), *SB* VI 9590.25 (VII *ed.pr.*, but a later date, i.e. VII/VIII, is more likely; see *Byz. Not. Tafel* 19, Herakl. 10.2.1), etc.

¹¹ Cf. *P.Harr.* I 81.9f. (VI), *P.Dubl.* 24.11 (VII), *SB* VI 9151.9f. (VI/VII), 9750.8 (642), I 5556B.1, 5557B.1 (both of 749—these are Greek subscriptions of Coptic documents), etc.

Change and Continuity in the Administration of Ptolemaic Lycia: A Note on *P. Tebt.* I 8*

ABSTRACT

P. Tebt. I 8 preserves summaries of four letters by the *dioiketes* in Alexandria on the financial affairs of Lycia. Most historians believe that all of these letters were directed to Nikostratos, a Ptolemaic officer cited in line 15. Careful analysis of the text, however, together with some previously neglected epigraphic evidence suggests that only three letters were sent to Nikostratos and one to another chief financial official of Lycia. This reading prompts consideration of the role that continuity and change played in Lycian history, and has implications for our understanding of the patterns of administrative organization in the Ptolemaic territories.

P. Tebt. I 8, a document from the reign of Ptolemy IV¹ or Ptolemy V,² reproduces in lines 15-33 of the first column abstracts of four letters by the διοικητής in Alexandria dealing with financial and administrative matters of Lycia: monetary taxes, gate tolls, trade of wine and revenues derived from the harvesting of forests as well as from the purple industry.³ Most historians who have used

* I am grateful to Isabella Andorlini (Florence), Zachary Biles (Lancaster/PA), John Lendon (Cologne) and two anonymous referees for their comments and criticisms.

¹ R. S. Bagnall, "Ptolemaic Foreign Correspondence in *P. Tebt.* 8," *JEA* 61 (1975) 177-80.

² W. Huß, *Untersuchungen zur Außenpolitik Ptolemaios' IV* (Munich 1976) 229; E. Lanciers, "The Date of *P. Tebt.* I 8," *ZPE* 89 (1991) 71-74.

³ Although the preserved part of the third letter, the most fragmentary one (lines 24-28), does not mention Lycia, everything indicates that this letter also refers to Lycia: the two previous letters and the following one are on Lycian issues, while the reference to revenues related to the harvesting of forests (ξύλική) also points to Lycia. As M. Rostovtzeff, *The Social & Economic History of the Hellenistic World* (Oxford 1941) vol. 1, 336, points out, "we must remember

this valuable source of information, among others David Cohen, Claire Préaux, Michael Rostovtzeff, Hermann Bengtson and Michael Wörrle, assume that these letters were addressed to a certain Nikostratos mentioned in line 15, who may have been the οικονόμος (chief financial official) of Lycia.⁴ An examination of the text of the papyrus, however, together with some new epigraphic evidence, challenges this reading, and indicates that another interpretation is more plausible: that only three letters were sent to Nikostratos and one to another representative of the Ptolemaic administration in Lycia. This interpretation has, as we shall see, implications for our understanding of both Lycian history and the patterns of Ptolemaic administration in the territories outside Egypt. Before addressing these more general matters, however, let us first analyze the passages of the papyrus that concern Lycia:

15 Νικοστράτωι· ἔγγρά(φαμεν) ἑ τὴν εἰς τὸ δ (ἔτος) διάπρα(σιν)
 τῶν κατὰ Λυκίαν ἀργυ(ρικῶν) προσόδων
 ἐπιτετακέναι (τάλαντα) σ Ἀτιβ (τετρώβολον)
 ἐπηνεκέναι καὶ εἰς τ[ὸ] λοιπόν.

ἀλ[λ.]η· διαφυλίου οὗ γεγρ(άφαμεν) ἀφευρηκέναι
 20 τὴν ὠνήν (τάλαντα) β Ἀτξσ γραφήν
 [ἀ]προς(τεῖλαι) ἀπὸ τοῦ ισ (ἔτους) τοῦ εἰσηγμέ(νου)
 [δι]ὰ τῶν π[ωλ.]ητῶν οἴνου κατ' ἐνιαυτὸν
 [ὠ]σ ἀντι[τεθ]ῆι πρὸς τὸ ἀφεύρεμα.

that Lycia was rich in timber and that a regular supply of timber was a matter of great concern to the Ptolemies." On the importance of Lycian forests see R. Meiggs, *Trees and Timber in the Ancient Mediterranean World* (Oxford 1982) 46, 394.

⁴ D. Cohen, *De magistratibus Aegyptiis externas Lagidarum regni provincias administrantibus* (The Hague 1912) 64; Cl. Préaux, *L'économie royale des Lagides* (Brussels 1939) 419-20; Rostovtzeff, *op.cit.* (above, n. 3) vol. 1, 335-36; H. Bengtson, *Die Strategie in der hellenistischen Zeit* (Munich 1952) vol. 3, 174-75 n. 4; M. Wörrle, "Epigraphische Forschungen zur Geschichte Lykiens I," *Chiron* 7 (1977) 59-60.

- [.] , ου γεργ() `μη´ πεπρα(χέναι)
- 25 [.] των ἢ διαπεφωνηκέναι
 [.] αι τῆς ξυλικῆς καὶ
 [τῆς] ης φό(ρ--) ὅπως μὴ καταλυθῆι
 [. . . διασ]αφῆ(σαι) τὴν γενομένην οἰκονο(μίαν)
- [.] τωι· κατὰ Ζῆθον καὶ .. [. .] . . . ην
- 30 [τοῦ] ε ἔγλαβόντας τὴν κατὰ Λυκίαν
 [πο] ρφυρικὴν εἰς (ἔτη) ε οὖς ἐγράφη
 [πρ] ᾧξει τὸν φόρον κατ' ἐνιαυτὸν
 [ἀργ] υρίου (τάλαντον) α 'Αω καὶ τὸν τοῦ δ (ἔτους)⁵

The first letter is certainly addressed to Nikostratos, as its beginning indicates (Νικοστράτωι). The second one starts with ἄλ[λ]η, that is to say, it is "another [letter]"⁶ for Nikostratos. The beginning of the third letter cannot be read, and the fourth one was addressed to someone whose name ended in dative with -τωι. The crucial consideration for us is how these last two letters began, since the lost portion of their openings conceals their actual addressees. If the scribe was consistent, there are only three possibilities: a) the third letter also started with ἄλλη, in other words, it was also addressed to Nikostratos, and the fourth letter was intended for a different person (otherwise the scribe would have written ἄλλη again); b) the fourth letter was intended for Nikostratos, but not the third one, and for this reason the scribe wrote in the fourth letter the name Nikostratos again, of which only -τωι remains; c) both the third and the fourth letters were addressed to people other than Nikostratos.⁷

⁵ I am using the text as printed by Bagnall, *op.cit.* (above, n. 1) 169.

⁶ *Ibid.* 175.

⁷ I consider this the most likely set of possibilities based on the admittedly slight evidence of the papyrus, though of course the scribe may not have been consistent at all.

In favor of possibility a) is the fact that we would then have the letters arranged according to the addressees (three letters for Nikostratos followed by one for another official). The ending $\text{-}\tau\omicron\iota$ of the name in the fourth letter, on the other hand, might lend some support to possibility b), to the extent that it fits with $[\text{Νικοστρά}\tau\omicron\iota]$. In any event, either possibility leads us to the same result: that the $\delta\iota\omicron\kappa\eta\tau\acute{\eta}\varsigma$ dealt with two chief financial officials of the Ptolemaic administration in Lycia. Possibility c) would increase the number of officials to three, but this seems the most improbable assumption, since it would imply an even larger division of power in the administration of finances than the two previous hypotheses, and this contradicts, as we will see, what we observe in other provinces. Alternatively, and just as unlikely, assuming three addresses might imply that the $\delta\iota\omicron\kappa\eta\tau\acute{\eta}\varsigma$ preferred to do business on highly important issues such as the farming of taxes in Lycia with subordinate officials rather than with the highest financial authority in Lycia.

These alternatives have not been taken into account by most historians, who have mechanically identified Nikostratos as the only addressee of all four letters.⁸ The main reason for this is that until recently we have had only evidence of Ptolemaic provinces in which a sole chief official was in charge of the finance system, usually an $\omicron\iota\kappa\omicron\nu\omicron\mu\omicron\varsigma$.⁹ But in 1977 Michael Wörrle published a decree from Limyra (Lycia) from the time of Ptolemy I, according to which honors were granted to Amyntas and Sosigenes, "the $\omicron\iota\kappa\omicron\nu\omicron\mu\omicron\iota$ of the country" (i.e., Lycia).¹⁰ In light of this information, the suggestion proposed here, namely that the $\delta\iota\omicron\kappa\eta\tau\acute{\eta}\varsigma$ of *P.Tebt.* I 8 addressed his letters to two different chief officials, becomes more worthy of consideration: although one of the officials could have been the $\kappa\tau\alpha\tau\eta\gamma\acute{\omicron}\varsigma$, who by the late third century may well have

⁸ An exception is Bagnall, *op.cit.* (above, n. 1) 176, who considers the possibility that $\text{-}\tau\omicron\iota$ could have belonged to a name other than Nikostratos.

⁹ See R. S. Bagnall, *The Administration of the Ptolemaic Possessions outside Egypt* (Leiden 1976) 224-29; W. Huß, *Ägypten in hellenistischer Zeit. 332-30 v. Chr.* (Munich 2001) 315-16.

¹⁰ Wörrle, *op.cit.* (above, n. 4) 44.

been involved in financial affairs,¹¹ Wörrle's inscription strongly suggests that the διοικητής was dealing with the two οικονόμοι of Lycia, Nikostratos and his colleague, whose name has been lost to us.¹²

The two οικονόμοι of Ptolemy I are not the only or earliest evidence for the existence of two equally ranked officers heading the administration of Lycia. A trilingual inscription from Xanthos indicates that just before the Ptolemaic conquest, in the period of Achaemenid-Hecatomnid rule, there were two ἄρχοντες (Hieron and Apollodotos) under the satrap Pixodaros.¹³ Lycia is a mountainous region, which could easily have been better administered by dividing it into two different areas, a Western part and an Eastern part. In addition, during the 5th and 4th centuries, in the time of the so called dynasts, the rulers of the cities in Western Lycia and those in Eastern Lycia issued coins on two different standards, and at the end of this period the two main dynastic centers were in the West and in the East respectively (Xanthos and Limyra). Therefore it has been suggested, that the two ἄρχοντες were in charge of these two separate regions and the two Ptolemaic οικονόμοι may represent continuity in this pattern of administration.¹⁴

While the hypothesis that the Ptolemaic οικονόμοι were the successors of the Hecatomnid ἄρχοντες seems to be correct and fits well with the fact that several other points of continuity from the

¹¹ On the participation of the Ptolemaic στρατηγοί in financial affairs see Bagnall, *op.cit.* (above, n. 9) 224-27.

¹² The problem is addressed differently by Wörrle, *op.cit.* (above, n. 4) 60. Starting from the traditional assumption that the διοικητής was dealing with just one person in Lycia, he suggests that if this person was an οικονόμος, an institutional reform consisting in the change from two οικονόμοι to just one must have taken place at some point during the third century: "Im Lauf des 3. Jahrhunderts muß diese Kollegialität zugunsten einstelliger Besetzung des Amtes aufgegeben worden sein, wenn der lykische Briefpartner (...) tatsächlich der dortige οικονόμος ist."

¹³ H. Metzger et al., *Fouilles de Xanthos. VI. La stèle trilingue du Létôon* (Paris 1979).

¹⁴ Wörrle, *op.cit.* (above, n. 4) 59-60.

Hecatomnid to the Ptolemaic periods have been recognized,¹⁵ the distribution of powers between the two ἄρχοντες may have been based on different areas of competency rather than on geographic criteria. There is indeed some evidence for this hypothesis which has until now received little attention, and our interpretation of *P. Tebt.* I 8 would reinforce it. From a passage in Xenophon's *Oikonomikos* we can infer that among the top officials in the Achaemenid territories there were pairs of ἄρχοντες and that each ἄρχων had different responsibilities.¹⁶ On the other hand, the Limyreans did not honor one οἰκονόμος but two and *both* οἰκονόμοι are honored for their services to *the Limyreans* and their περίοικοι. To this evidence it should now be added that the first and fourth letters of *P. Tebt.* I 8 refer respectively to the collection of money taxes and to taxes on (or the monopoly of) purple production "throughout Lykia" (κατὰ Λυκίαν). This suggests that at least one of the high officers mentioned in the papyrus supervised financial activities in the whole Lycian territory. In conclusion, if the main thesis of this article is correct, *P. Tebt.* I 8 not only constitutes another piece of evidence for the flexibility of the Ptolemaic administration in adapting to pre-existing conditions, but also sheds some light on the administrative organization of Lycia in Ptolemaic times and even in the times before the Ptolemaic occupation.

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¹⁵ For example: the division in some poleis between citizens and περίοικοι, the institution of the ἐκκλησία κυρία, and probably the tax named ἀπόμοιρα. See M. Domingo Gygax, *Untersuchungen zu den lykischen Gemeinwesen in klassischer und hellenistischer Zeit* (Bonn 2001) 19-40, 127-30, 167, 175-82, 185, 191, 193-95, 199, 210-11.

¹⁶ X., *Oec.* 4, 5-6. On this passage and the different functions of the ἄρχοντες see M.-L. Chaumont, "Un nouveau gouverneur de Sardes à l'époque achéménide d'après une inscription récemment découverte," *Syria* 67 (1990) 605, and P. Briant, *Histoire de l'Empire perse* (Paris 1996) 353.

κῑτος/πυρός in Egypt as Deliberate Mixtures of Wheat with Barley¹

ABSTRACT

From as early as Pharaonic times, Egyptian farmers sowed and reaped "maslins," mixtures of wheat and barley in which wheat was the dominant grain. In the Greek papyri the product of this practice was called κῑτος or πυρός, "wheat." The Roman tax collector, however, did not regard Egyptian wheat as pure wheat and insisted that the percentage of barley and non-wheat elements, averaging about 10%, be removed and that the wheat be certified as καθαρός. The refining process required labor-intensive sieving to remove the barley and other contaminants, the evidence for which is found in the terms used to qualify καθαρός.

The word κῑτος is defined in *LSJ*⁹ as "grain, comprehending both wheat and barley"; πυρός is simply given as "wheat, *Triticum vulgare*." In Egypt, however, both κῑτος and πυρός often comprehended wheat and barley mixed together, with wheat being the dominant grain. κῑτος or πυρός could be a deliberate mixture of the two grains that was sown, reaped, and winnowed not as two crops, but as one planted together in the same field.

Among plant biologists such a combination of two grains is called a maslin. The deliberate sowing, by traditional agriculturalists, of two or more species of cereals or pulses together is seen especially as reducing the risk of crop failure for a single species. As noted most recently by M.A. Murray, ethnographic observations suggest that mixtures of wheat and barley in archaeobotanical samples from Egypt and the Near East may, "in some cases, . . . have occurred at the sowing stage rather than as a later accident of storage or through the subsequent mixing of debris during dis-

¹ I wish to thank Tim Renner for his invaluable editorial assistance in bringing this article to its final form.

posal."² Recent studies of traditional agricultural practices in late 20th century Amorgos and Karpathos have documented the living practice of sowing mixed crops and provide insights into how such a system might function in an ancient context.³

In an earlier article on three-grain crops in Ptolemaic Egypt (*ZPE* 141 [2002] 210-13), this writer viewed the terms κριθόπυρον and ὄλυρόκριθον in the Ptolemaic documents as evidence that wheat mixed with a percentage of barley was regularly sown. Modern archaeobotanical investigators of Pharaonic settlements found possible evidence for this practice in the form of seed remains which often consisted of mixtures of wheat and barley. Although such archaeologically documented mixtures could be explained by careless handling during the processing and storage of the harvested grain, they could also result from deliberate maslin cropping of the type referred to above. I hope that the incorporation of perspectives from the documentary papyri of the Graeco-Roman period can shed additional light on the possibility that such mixtures resulted from growing the grains together intentionally and not simply from contamination due to the sprouting of seeds in the field from a previously planted crop or the use of the same threshing floor to process both crops.

The absence of citations of the term κριθόπυρον in papyri of the Roman period led me to conclude, in the study mentioned above, that by this time the practice of sowing maslins had come to an end in Egypt. I now propose that in the transition from Ptolemaic to Roman rule, the indigenous farming community continued growing substantial mixtures of wheat with barley, although not under the title of κριθόπυρον. Thus, *cītoc* and *πυρός* in the papyri of the Roman and early Arab periods, as well as the Ptolemaic, would of-

² M.A. Murray, "Cereal Production and Processing," in P.T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology* (Cambridge 2000) 505-36, at 519.

³ See Glynis Jones and Paul Halstead, "Agrarian Ecology in the Greek Islands: Time Stress, Scale and Risk," *JHS* 109 (1989) 41-55, especially 51; "Maslins, Mixtures and Monocrops: On the Interpretation of Archaeobotanical Crop Samples of Heterogeneous Composition," *Journal of Archaeological Science* 22 (1995) 103-14.

ten be the equivalent of κριθόπυρον, a mixture of wheat with barley.

The concept that κῖτος and πυρός signify deliberate mixtures of wheat with barley is not an easy one to swallow, especially since papyrologists generally take the abundant citations of πυρός to refer to mean wheat in the sense of pure wheat.⁴ It is on that basis that they seek to make assessments of the productivity of the land, its relevance to the tribute that Rome imposed upon Egypt, the price structure for its grain and other comparative economic data, and even the character of the bread that the Egyptians ate. κῖτος, on the other hand, is often translated as either "grain" or "wheat" and is not regarded by papyrologists as offering the specificity of πυρός. I believe, however, that both terms carry the same meaning of wheat mixed with barley, i.e. unrefined wheat.

In the absence of a single specific term, corresponding to the English word "maslin," to denote a mixture of grains in Graeco-Roman Egypt, what evidence demonstrates that κῖτος and πυρός in the papyri represent wheat mixed with barley? That evidence is the qualifier—or string of qualifiers—that is applied to κῖτος and πυρός. When the defining qualifier καθαρός is applied to the two terms, wheat from the maslin crop has been separated from barley and other non-wheat substances.⁵ The wheat can now be considered "pure, refined wheat." When κῖτος/πυρός is qualified by ῥυπαρός, it unquestionably denotes that the wheat is not pure—that it is an unrefined mixture consisting mainly of wheat but with some barley.

⁴ The terms κῖτος and πυρός were most likely interchangeable, with the same meaning. H. Cadell, *Akten III Int. Papyrologenkongresses* (München 1974) 64-65, treating κῖτος as either "grain" or "wheat" depending on context, contends that after AD 340 the term κῖτος supplanted πυρός. R. Bagnall, *P.Col.* VII, p. 109, places the date somewhat later. The fact that κῖτος replaced πυρός so widely was, perhaps, based on the recognition that the wheat it denoted was really a "grain" consisting of wheat mixed with some barley.

⁵ Note that in *P.Ryl.* II 90.40-43 (AD III) the concern that public wheat be free of foreign substances was to be the responsibility of two propertied men who were to undertake it as a compulsory service. They were "to make sure that the wheat [brought to the state granary] was clean and honestly measured out: τὸ πρόνοιαν ποιήσασθαι τ[οῦ] καθαρὸν εἶναι καὶ ἄδωλον τοῦ μετροῦ[μ]έν[ου] δημοσίου πυροῦ (read τὸν μετροῦμενον δημόσιον πυρόν and cf. 5-6).

καθαρός and ῥυπαρός are the two prime qualifiers that indicate whether the wheat is either pure or unrefined. To these qualifiers, others were added to detail the cleaning process and to strengthen the meaning of καθαρός: e.g. ἄκριθος (without barley), ἄβωλος (without dirt), κεκοκκινευμένος (sieved/sifted). If barley and dirt were found in a shipment that was supposed to be pure wheat, it could be declared οὐ καθαρός. That was the situation set forth in *P.Oxy.* IV 708 (AD 188), where an inspection of the δείγματα accompanying a shipment of 2,000 artabas of tax wheat revealed that they contained 2% barley and 1/2% dirt. In other words, the barley and dirt were the result, intended or otherwise, of careless processing of mixed wheat and barley that was supposed to have produced a known quantity of pure wheat.

The evidence for the processing of mixed grain into a purer form comes in large part from documents that are concerned with the *embole*, the tax in wheat that Rome imposed upon Egypt with the insistence that the grain collected was to be at a minimum "pure, clean wheat" (πυρός or κῆτος καθαρός). It was that demand that led to the use of supporting qualifiers stating that the κῆτος/πυρός was free of barley or dirt and sieved.ⁱⁱⁱ In commercial transactions where pure wheat was required, the same adjectival qualifiers were applied to either κῆτος or πυρός. κῆτος or πυρός without qualification and unassociated with the *embole* most often referred to unrefined wheat used as payment for local services or labor.⁶

Let us consider several late Roman examples from *P.Oxy.* XVI where there is evidence for the percentage difference in volume between κῆτος ῥυπαρός and, after the grain has been cleaned, the same lot becomes κῆτος καθαρός. I believe that when that figure ranges about 10%, it does not represent contaminants such as dirt and weed seeds (cf. the 1/2% dirt found in *P.Oxy.* IV 708), but rather it reflects, for the most part, the removal of barley from the

⁶ H. Cadell (above, note 2) does not view κῆτος as a deliberate mixture of the two grains. Her analysis does not consider the addition or the absence of adjectives qualifying κῆτος.

wheat. This amount is not insignificant and bears directly on the mixed nature of *κῖτος*.⁷

P.Oxy. XVI 2021 (VI/VII) is an account of wheat (λόγος κίτου) for the *embole* of the village of Takona for a 13th indiction. It begins by citing as received a total of 10,010 artabas of *κῖτος καθαρός*. In lines 3-6 the text lists the following amounts of *κῖτος* received: 925 artabas ὑπὲρ κριθολογί(ας) αὐτῶν (sc. ἀρταβῶν); 50 artabas for the μειζότερος; 92 artabas for the *κυομέτρης*; 11,077 *cancellus* artabas of *κῖτος ῥυπαρός*, with this entry being presented as the total of amounts received for the 13th indiction. If we read this account backwards, the provision for the *embole* of Takona started with 11,077 artabas of wheat mixed with barley, for which 1,067 artabas of mixed wheat and barley were expended in order to produce 10,010 artabas of *κῖτος καθαρός*, "pure wheat." The 1,067 artabas paid out to make 10,010 artabas of wheat available for the *embole* represent 9.6% of the initial 11,077 artabas of *κῖτος ῥυπαρός*. If the figure of 925 artabas for κριθολογία refers to the amount of barley sieved out of the initial 11,077 and given as payment for doing the work, then barley would represent 8.3% of the volume of the overall 11,077 artabas originally delivered to the village officials.⁸ However you look at it, 1,067 or 925 artabas represent a considerable expenditure in connection with the initial 11,077 artabas of *κῖτος ῥυπαρός*.⁹ At the rate of 10 artabas to the solidus,¹⁰ the cost of re-

⁷ It should be noted that the index to *P.Oxy.* XVI does not contain a single reference to *πυρός*, since the documents date from the late fifth to the sixth and seventh centuries. The texts do, however, contain numerous references to *κῖτος* without qualifiers such as *ῥυπαρός* or *καθαρός*. The term *καθαρός* appears in only four documents which have an association with grain (1887.9; 1902.7; 2016.4, 7, 11, 12, 15, 16; 2021.2). Conspicuously absent in the texts are the usual qualifiers ἄκριθος and κεκοκκινευμένος.

⁸ See my article, "An Insight Into *P.Oxy.* XVI 1902 by Way of 2021," *BASP* 39 (2002) 119-20. On the meaning of κριθολογία see my article "κριθολογία and κριθολογηθῆναι," *BASP* 41 (2004) 127-137, esp. 130-131. A relatively small volume of dirt would also have been removed during the cleaning process; this may often have been subsumed under κριθολογία.

⁹ Johnson and West (*Byzantine Egypt*, 245-46) view the term *ῥυπαρός* in earlier documents as "unclean wheat for which a penalty was imposed." They go on to say, "In the sixth century at Oxyrhynchus it seems to mean wheat on which a supercharge has been collected. This is clear in the account (*P.Oxy.* 2021) at the

fining the wheat for the *embole* would run between 90 and 100 solidi, a significant sum.

The process of eliminating barley from *c̄itos* was not always signaled by the term *κριθολογία*. *P.Oxy.* XVI 1902 (VI A.D.) provides one example. It is a simple receipt that accounts for a total of 226 artabas of *c̄itos ῥυπαρός* as food for crews of the fleet, *ὑπὲρ ἀννωνῶν λιβερναρίων* (-ριον παρ.). The 226 artabas were put through a cleansing process, presumably *κριθολογία*, which yielded 200 artabas of *c̄itos καθαρός*. The difference between the two figures—26 artabas, or 11.5% of the original amount—represents, I believe, the amount of barley and other contaminants that were removed from the maslin. It might also reflect payment for turning 226 artabas of *c̄itos ῥυπαρός* into 200 artabas of *c̄itos καθαρός*.

Another document in the same volume, 1906 (VI/VII), takes us back a step in the process, into the granary of a large estate. This text contains an accounting of very large amounts of *c̄itos ῥυπαρός* that had been dispensed, essentially for the *embole*, over four indiction years. For three successive years, the amounts were identical: 79,067 artabas of *c̄itos ῥυπαρός* to which a percentage of 14% was applied. The 14% in my view represents the amount of barley and other non-wheat products that had been removed by sieving from the 79,067 artabas in order to provide the pure wheat, *c̄itos καθαρός*, required for the *embole*. For each indiction year, the deduction of 14% from 79,067 artabas would amount to the removal of 11,069.38 artabas of barley and other contaminants. Removing that quantity of non-wheat substances closely approximates—the result is shy by just 2.38 artabas—a neat, round (tribute?) figure of 68,000 artabas of "pure wheat" for the *embole*. These are retrospective figures for at least three years. The precise number of artabas of *c̄itos*

village of Tacona where receipts of clean wheat were designated as *ῥυπαρόν* after extra charges were added." Johnson and West's analysis of 2021 rejects the editor's view of *κριθολογία* as a charge for cleaning because "the receipts are already stated to be clean wheat and this charge is extra." In my view, the 10,010 artabas of clean wheat designated for the *embole* do not become *ῥυπαραί* because of the addition of charges: the 11,077 artabas were unclean (*ῥυπαραί*) before they were handed over to be cleaned through the process known as *κριθολογία*.

¹⁰ *Ibid.* 177.

ρύπαρός and the percentage figures were calculated after the cleansing process and the shipment of the tax grain took place.¹¹

The 14% figure in *P.Oxy.* 1906 is not unusual. Figures in *Stud.Pal.* XX 246 (VI/VII) appear to characterize κῖτος as containing a similar percentage of non-wheat substances and thus to fit into the pattern to which I have referred. The document is a brief statement of five lines, most likely by a κίτομετρῆς of an estate granary, to account for 2,100 artabas of pure wheat for the *embole* that were put aboard three boats. Lines 4-5 are the most important for our purpose: εἰς κάθαρ(κιν) κί(του) (ἀρτάβαι) 2,100 ποι(οῦσαι) κ[οκ]κ(ινευμένου) κί(του) (ἀρτάβας) 2,436. Although the syntax as printed would seem to be in need of improvement (for instance, logic would suggest that the position of the two amounts in artabas within the text be reversed), I suspect that 2,100 artabas of pure wheat have been sieved out of 2,436 artabas of κῖτος. The difference between the two figures is 13.88% and represents 336 artabas of barley and other contaminants that were removed by sieving.¹²

If we take yet another step back, from the granary to κῖτος as seed for sowing (εἰς σπερμοβολίαν), we can observe in *P.Oxy.* I 133 that the seed being referred to was a mixture of wheat with barley that was presumably to be sown as such. Dated to AD 550, the document is a receipt given to Flavius Apion by the officials of the village of Takona for the loan of 200 artabas of seed grain. The terms of the loan are revealing. In lines 14-15 the officials acknowledge having received 200 *cancellus* artabas of unrefined grain "without consideration of a charge": κίτου ῥυπαροῦ ἐκτὸς διαπίσματος καγκέλλῳ ἀρτάβας διακοσίας. Why was the loan of un-

¹¹ For the fourth year (lines 25-26) the amount of κῖτος ῥυπαρός is recorded as 110,444 artabas, to which a 7% charge is applied and recorded as 7,759 artabas.

¹² To judge from the DDBDP, the phrase εἰς κάθαρ(κιν) is mostly found in Ptolemaic papyri but without any connection with grain. The term κ[οκ]κ(ινευμένου), as resolved by the editors makes good sense in the context of the account—although one would expect the perfect, κκοκκινευμένου—but DDBDP has no match for the use of that participle. What would have been expected to describe the 2,436 artabas is the usual phrase ῥυπαροῦ κίτου. Lastly, the use of ποι(οῦσαι) in place of the common term γίνεται is more than rare in the papyri.

refined grain made without consideration of a payment?¹³ What was the economic dynamic in the transaction? In the year following the loan, Flavius Apion was to receive 200 artabas of new grain that was—and here the operative word is κεκοκκινευμένον—sifted or sieved. Without this qualifier, *κῖτον νέον* (line 17) could be taken for "new mixed grain." However, the processed grain that was to be returned would be pure wheat (*κῖτος καθαρός*) and barley. To judge on the basis of the figures given in connection with the documents discussed earlier, and taking, say, an average of 10% for the non-wheat contents of the uncleansed grain, Apion would receive 180 artabas of wheat and about 20 artabas of barley. In addition, the grain tax on the 200 artabas would be paid for, and Apion would not have to pay for the labor of sifting 200 artabas of mixed grain. For the village of Takona, the 200 artabas of seed grain would yield, on a modest five-fold return, 1,000 artabas of *κῖτος νέος* less the 200 returned to Flavius Apion. A good investment for both Apion and Takona.

Documents of the earlier Roman period provide additional relevant information. In *P.Oxy.* VII 1040 (AD 225), a certain Aurelius Pekusis attests to having received a loan of 4 artabas of wheat (*πυρός*) from the crop of the previous year at an interest rate of 50% among other obligations. He guarantees that he will repay 6 artabas in (line 15) [*πυ*]ρ[ὸ]ν νέον καθαρὸν ἄδολον ἄβω[λον] ἄκριθον κεκοκκινευμένον, "wheat that is new, pure, in good faith, without dirt, without barley, and sifted." In short, Pekusis received a loan of 4 artabas of wheat mixed with barley and obligated himself to re-

¹³ The editor omits the translation of this phrase. At the time the document was edited there was no clear understanding of the meaning of *διάπεισμα* (more properly, *διάπεισμα*). In his note to line 14, the editor remarks that the meaning of the term was obscure. In *WB* IV, E. Kiessling defines the word as referring to a "zusätzliche Zahlung" in connection with money transactions. The editor of *P.Iand.* IV 63 (p. 151, n. 2) sees the term as a charge in kind because the grain has not been cleansed. Johnson and West (*Byzantine Egypt*, pp. 243, 289, 295, 304) translate it as "gratuity." *LSJ*⁹, apparently influenced by Johnson and West, gives the meaning as "present, 'douceur'." In the recently published *Diccionario griego-español (DGE)*, *διάπεισμα* is defined in this way: "para compensar al comprador habida cuenta de que el objeto de pago es de calidad inferior." The term *διάπ(ε)ισμα* in *P.Oxy.* I 157 (VI) appears to refer to something physical, as there it is possible to seal it (*σφραγίσαι*).

turn 6 artabas of pure wheat that had been processed by sieving. *P.Oxy.* VII 1024 (AD 129) is one example of a class of orders to supply seed grain ranging from the first century BC through the second century AD. This particular text contains instructions by a strategus to a sitologus to provide a loan of 1 1/4 artabas of seed to one Apollonius who cultivated 1 1/4 arouras of land. The sitologus was instructed to see to it that the seed was "pure, in good faith, without dirt, sifted" (πυροῦ καθαροῦ ἀδόλου ἀβόλου ἀκρίθου κεκοκκινευμένου, lines 24-26). Apollonius, however, was only obligated to repay the equivalent amount out of the new crop (unsieved?) plus the taxes due on his land. The majority of the dozen-odd similar texts have similar provisions, with minor variations¹⁴

As mentioned above, when *cī*τος without a qualifier was indicated for local services or labor, payment was made in the form of mixed wheat and barley, not in pure wheat. To illustrate this, we turn to a list of sundry expenditures of *cī*τος and money in *P.Oxy.* XVI 1913 (ca. AD 555?). In lines 26-28 occur two entries that provide evidence concerning the character of *cī*τος: one for 16 artabas εἰς τροφ(ήν) τῶν πουύλων and another for 1 artaba εἰς τροφ(ήν) τῶν ὀρνίθ(ων). There can be little doubt that the *cī*τος which was fed to the chickens and other fowl was not pure wheat but a mixture of the two grains, probably more barley than wheat. Other expenditures of *cī*τος in 1913 refer to amounts of unprocessed wheat paid out in exchange for the services of local potters, gardeners, guards, stable men in the express post, and so on. In more formal transactions, as in the orders for payment *P.Oxy.* XVI 1947.2-3 and 1948.3-5 (VI), the adjective ῥυπαρός was appended to *cī*τος in order that there might not be questions as to the quality of the wheat used as payment for services rendered.¹⁵

¹⁴ For an analysis of this class of documents see *P.Oxy.* LVII, p. 119.

¹⁵ I have noted above that the index to *P.Oxy.* XVI does not contain a single reference to πυρός. It should be further pointed out that, save for κριθολογία in 2021, in this volume we also find no citations for the terms κεκοκκινευμένον or ἀκρίθος indicating that *cī*τος had its barley removed by sieving. In this respect *P.Lond.* IV, containing texts from late seventh and early eighth century Aphrodito, seems a match for *P.Oxy.* XVI. The editor of *P.Lond.* IV 1335 (AD 705)

As for *πυρός*, it is, as I have stated, identical in every respect with *κῆτος* and, when unqualified, may be understood to denote a mixture of wheat with barley. The similarity of the two terms can be observed in *P.Col.* VII 160 (AD 345-354; Karanis), a list of 17 receipts for direct deliveries of tax wheat to boats in the harbor: Ten receipts use the phrase *κῆτου καθαρῶ* (lines 5, 22, 25, 26, 28, 29, 30, 38, 40, 43), while seven have *πυροῦ καθαρῶ* (lines 9, 12, 16, 33, 47, 52, 71). However, *πυρός*, unlike *κῆτος*, is rarely modified by *ῥυπαρός*, and documents referring to distributions from granaries by *sitologi* either use simply *πυρός* or provide only amounts in *artabas*, to which editors for the sake of clarity add (*πυροῦ*).¹⁶ This often leads to the assumption that we are dealing with pure wheat. It is only when *πυρός* is modified by such terms as *καθαρός*, *ἄκριθος*, or *κεκοκκινευμένος* that we can be assured that the grain is said to be pure wheat; otherwise it is an unrefined mixture deserving to be labeled *ῥυπαρός*.¹⁷

Of the scant five examples of *πυρ-* *ρυπ-* from the Roman period that are revealed by the DDBDP, *P.Mich.* VI 372 (179/180 or 211/212) is relevant for the present discussion. The papyrus is an assessment covering anticipated wheat yields of the *διοίκησις* and six estates of Karanis for a total of 41,672 *artabas*. Col. II, line 9 gives the total expected wheat yield of the *διοίκησις* as 29,065 $\frac{2}{3}$ $\frac{1}{8}$ *artabas* of unrefined wheat: *γίνεται ἐπ(ὶ τὸ αὐτὸ) διοικ(ήσεως)*

in his note to line 7 comments that "*κῆτος* in these papyri is several times distinguished from *κριθῆ* and means specialty 'wheat.' *πυρός* does not occur in any of the Aphrodito papyri." Not only is *πυρός* lacking in *P.Lond.* IV, but equally absent is any mention that a sieve had been applied to *κῆτος*, or that it is free of barley. In lines 11-12 of the official letter 1335 (AD 709), the writer specifies that if the requested 2,000 *artabas* of *κῆτος* are not forthcoming, the village would be compelled to pay for them at the rate of 13 *artabas* of "clean" wheat per *solidus* per transportation (*κατὰ δεκατρεῖς ἀρτάβας καθαρὰς σὺν ναύλ[ω]*).

¹⁶ For example *P.Lond.* II 254 (AD 133-134; Karanis), a record of 10,022 $\frac{3}{4}$ *artabas* of wheat dispensed as seed to various localities, mentions (*πυροῦ*) only twice (lines 17, 96) in 259 lines of text. Barley is also mentioned but in each case it is clearly distinguished from (*πυροῦ*).

¹⁷ A check of the DDBDP for *πυρ-* *καθαρ-* and *πυρ- νε- καθαρ-* produced 319 citations. A check of *κῆτ-* *καθαρ-* and *κῆτ- νε- καθαρ-* yielded 132. *ἄκριθ-* associated with *πυρ-* produced 64; *κεκοκκινευμέν-* 77.

(πυροῦ) (ἀρτάβαι) ῥυ(παραί) 29,065 (δίμοιρον) (ὄγδοον). There follows a breakdown of numbers of artabas that made up that total. The individual figures for the estates are given simply in numbers to which the editors added (πυροῦ) (ἀρτάβαι) for clarification. However, it should be understood that these numbers do not represent artabas of pure wheat; rather, the term ῥυ(παραί) in line 9 indicates that processing would be required if pure wheat were called for.¹⁸

Thus, I suggest that although they are generally taken as "wheat," the terms κῖτος and πυρός in the Roman and early Arab period refer, on their most basic level, to unrefined, mixed grain probably resulting from the widespread planting of wheat-barley maslins. The prominent qualifier καθάρως applied to κῖτος/πυρός indicated that barley and other foreign materials, mainly weeds and dirt, had been removed by sieving. When there was the need to signify specifically that the wheat was unrefined, the term ῥυπάρως was applied to κῖτος/πυρός. Καθάρως and ῥυπάρως were the two defining adjectives which characterized the quality of Egyptian wheat. That the same two adjectives could also be applied to Egyptian barley (κριθή) emerges from the documents, although with far less frequency than is the case for wheat: The number of citations produced by the DDBDP for κριθη- in the Roman period is 4,359, and among these the examples of the combination κριθη- καθαρ- are few—those for κριθη- ρυπαρ- even fewer¹⁹. That these examples are not comparable in number to similar citations for πυρ- and κιτ- is to be expected because of the attention given to wheat as a prestige foodstuff, but they do attest to the fact that, like Egyptian

¹⁸ In their note on ῥυ(παραί) in line 9, the editors state that "the total includes the extra charges. For the same use of ῥυπάρως with money taxes see Wallace, *Taxation*, 324." Wallace has little to say that would apply to this line.

¹⁹ For κριθη- ρυπαρ- there are *P.NYU* 11a v.3.200 (AD 323-327/338-342); *P.Oxy.* XII 1542.7, 10 (AD 307); *O.Mich.* I 770 (III/IV). For κριθη- καθαρ- we have *BGU* XI 2024.10 (AD 294); *CPR* X 120.11 (AD 523), XIV 7.16 (VI), XVIIa 7.2.29 (AD 317); *P.Cair.Isid.* 47.3.43 (AD 309); *P.Col.* VII 165.5 (AD 349), 183.11 (AD 372); *P.Köln* III 139.4 (AD 387); *P.Neph.* 43.11 (AD 315-316/330-331); *P.Oxy.* XXXVI 2766.15 (AD 305); *P.Sakaon* 21.7 (AD 319-320); *P.Sarap.* 48.7 (AD 123); *P.Stras.* IV 186.5 (V-VI); *SB* I 4717.4 (AD 323-342), XIV 11550.9 (AD 334/335), 11551.10 (AD 324-337); *O.Bodl.* II 2100.6 (IV); *Stud.Pal.* III 123.3 (VI), XX 148.9 (VI).

wheat, barley was often mixed with other substances that had to be removed in order for it to be classified as "pure barley."

It is well to remember that the practice of sowing maslins—in fact their very existence, or lack thereof—must have varied considerably with customs and conditions across the ancient Mediterranean world. For instance, the Latin agricultural writers, although they refer to sieving or sifting (*cribrare*) and to the sieve (*cribrum*) as an item of farm equipment, do not give any indication of the need to use this technology to separate wheat and barley. As noted earlier, modern ethnographic studies show that maslin crops continued to be grown in at least two Greek islands under dry-farming conditions in the late 20th century AD. In particular, it should be noted that the proportions of wheat to barley in maslins planted by the islanders varied considerably. The terminology used was subject to cultural interpretation and could be somewhat fluid: A crop that was 90% wheat and 10% barley could sometimes be referred to as a monocrop, for instance. There may well have been considerable variations of fact, and of perception by farmers, in Egypt as well. Clearly, future investigation of the practice of sowing maslin crops in Ptolemaic and Roman Egypt ought to take into account possible parallels from other agricultural situations where maslins may have been planted in conjunction with irrigation.

As a postscript, the contrast between agricultural practices in different regions of the eastern Mediterranean is underscored by *Deuteronomy* 11:1-10, in which the Israelites, about to cross the Jordan into a land flowing with milk and honey, are reminded by Moses that "the land which you are about to enter and occupy is not like the land of Egypt from which you have come, where, after sowing your seed, you regulate your water by means of your foot as in a vegetable garden. But the land into which you are about to cross is a land of mountains and valleys watered by the rains of heaven."

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Geographical Information Systems (GIS) in Papyrology. Mapping Fragmentation and Migration Flow to Hellenistic Egypt*

ABSTRACT

Just as in the modern world, in antiquity too almost everything that happened, happened somewhere. But knowing where something had happened may appear no longer critically important to us and in papyrology. In this article, I argue that spatial context matters for making the most of papyrological information and for understanding past human interaction. The concept of *Geographical Information Systems* (GIS) is briefly introduced and requirements for its application in papyrology discussed. In a second part, GIS is used to study the migration flow into Hellenistic Egypt. The concept of *distance per capita* is suggested as an indicator for the economic costs of migration.

1. GIS in Papyrology: Some Theoretical Thoughts

1.1 Introduction

In the modern world, "almost everything that happens, happens somewhere. Knowing where something happens is critically important."¹ This is the view of several geographers, who have recently published an introduction to the field of Geographical Information Systems and Science (GIS). They are also convinced that all human activities have a spatial dimension and that GIS is becoming the main tool for mastering and for understanding the spatial dimension. If all areas of human activity have a spatial dimension, GIS would have an infinite number of application areas and there would be no limit to how far the application of GIS could spread. There are, however, some areas of human activity into which GIS has not

* I am much indebted to the *Gerd-Henkel-Stiftung* for financial support, which allowed me to undertake the research for this article.

¹ P.A. Longley, M.F. Goodchild et al., *Geographical Information Systems and Science* (Chichester 2001) 2.

yet been introduced. One such area without any GIS applications is papyrology.

Longley and his co-authors have discussed the diffusion of GIS applications.² According to them, GIS usage has been passing through a number of phases. First, there were the "venturesome innovators," who were willing to accept risks, followed by "early adopters." The latter were succeeded by a "deliberate early majority" who considered the adoption of GIS only after it had already shown its potential, and then by a "sceptical late majority," who were pressured into using this system. GIS seems to be in the period of transition between the "early majority" and "late majority stages." A last stage and still to come, may be characterised by "traditional laggards—people orientated to the past." Incidentally, this is a standard model for the diffusion of new technologies and by no means confined to GIS. Papyrologists are by default stuck to the past in terms of data they use, but whether this is the reason for the lack of GIS application, we shall see below. The question is why papyrologists have been slow in implementing GIS and how this area too may be colonized by GIS users. What can GIS contribute to reconstructing ancient society from papyri and other documents? It is obvious that even in antiquity, almost everything that happened, happened somewhere. But is knowing where something happened critically important to us for understanding antiquity? I shall briefly discuss the possibilities and limitations of the application of GIS in papyrology, before turning to a case study, which will highlight how GIS can contribute important new perspectives.

1.2 What is GIS?

GIS is a complex array. For some, it is a computer-based technology,³ for others a neat way for automating the production of maps, again for others a tool for solving geographical problems and for supporting spatial decision-making, or lastly, a space for maintaining data inventories.⁴ GIS has a multitude of application areas which all ask for different requirements (see below). GIS has conse-

² *Ibid.* 32-33.

³ D. Wheatley and D. Gillings, *Spatial Technology and Archeology. The Archaeological Application of GIS* (London 2002) 1, 9-11.

⁴ P.A. Burrough, *Principles of Geographical Information Systems* (Oxford 1986) and Longley, *op.cit.* (above, n. 1) 11.

quently not one distinct shape, but many. In its basic form, a GIS evolves around and contains software, hardware, procedures, people and, most importantly, data. GIS deals with the world and processes as abstraction and oversimplification, so-called geographical data. Geographical data have three elements: geometric (spatial) data, attribute data, and time (Fig. 1). The physical world is broken up into geometric shapes. Rivers and streets become lines or a set of lines. Towns and lampposts become points. Lakes and forests become areas and so on. Geometric data have geographical coordinates associated with them and are stored in a GIS as a spatial layer. Such layers can be bought or created individually as suits the purpose of the application.

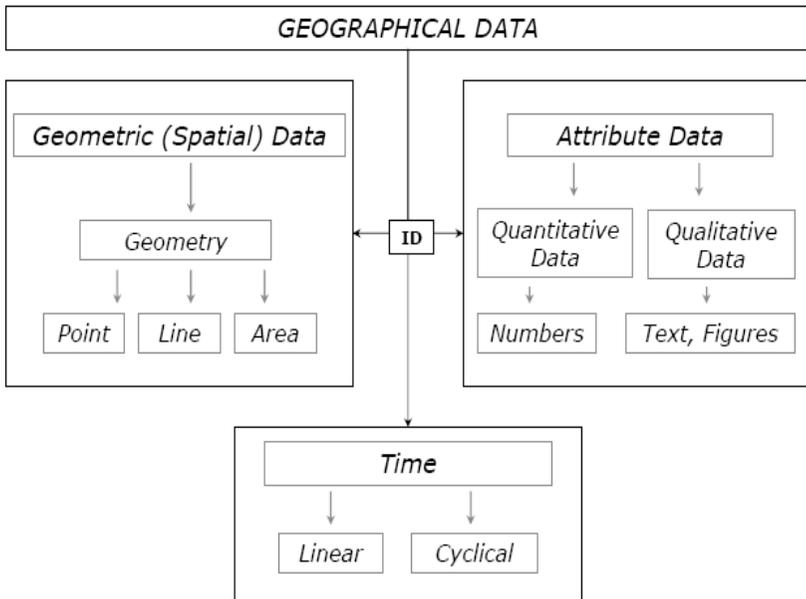


Fig. 1 Components of geographical data in a GIS

Data which describe the properties of geometric data are called attribute data. Attribute data are additional information on spatial objects and frequently stored outside a GIS, separately from the geometric data. A common ID links geometric and attribute data.

Attribute data consist of two main forms, quantitative and qualitative. In qualitative terms, a geometric point with the ID 1 can be described as a 'town' and another point ID 2 nearby as a 'village.' In quantitative terms, point 1 (the town) may accommodate 10,000 people, point 2 (the village), 300 people. Because of the existing link between geometric and attribute data, the attribute data gains geographical coordinates—town and village have a place in space. They can now be displayed visually or spatially analysed in relationship to other objects. Attribute data without this link to geometric data—hence without us knowing where the town with 10,000 persons is located—has no spatial context and cannot be displayed in a GIS. As I shall discuss below, this requirement is an important factor constraining GIS applications in papyrology.

The world changes over time. Geometric objects should necessarily be adapted to such changes. Therefore all geometric and attribute data should, in theory, be stamped with a time datum to allow processing changes to an object's property. At present, most common GIS's are badly equipped to deal with time and geometric change. However, there is some hope. Over the last decade, a subgroup of temporal GIS has emerged. It explores the integration of geometric change and time into the field of common GIS.⁵ This development will eventually benefit those working in the field of historical GIS.

1.3 What is a Papyrus: Source or Object?

How GIS can assist papyrological research depends on how we define the nature of papyri. I propose a twofold concept. First, papyri are archaeological objects and as such are part of a group of similar objects (a papyrus archive). Second, papyri are also textual sources. Given these two aspects—object and source—geographical information can be derived from papyri in various forms (Fig. 2). A papyrus may describe the shipment of grain to ancient Alexandria in 250 B.C., but it may have been found in the ruins of a small settlement 200 km south of modern Alexandria and have been written elsewhere. Geographical information can be traced from the activi-

⁵ T. Ott and F. Swiaczny, *Time-integrative Geographic Information Systems. Management and Analysis of Spatio-temporal Data* (Berlin 2001) and G. Christakos, P. Bogaert et al., *Temporal GIS: Advanced Functions for Field-based Applications* (Berlin 2002).

ties mentioned in the papyrus. I have termed this the *spatial content* of a papyrus. The find context and the contemporary context in which the papyrus is being kept (museums, private collections etc.), provide the *spatial context*. Both, *spatial context* and *spatial content* information can be converted into *geometric data* (see above, Fig. 1) and papyri so linked to a GIS.

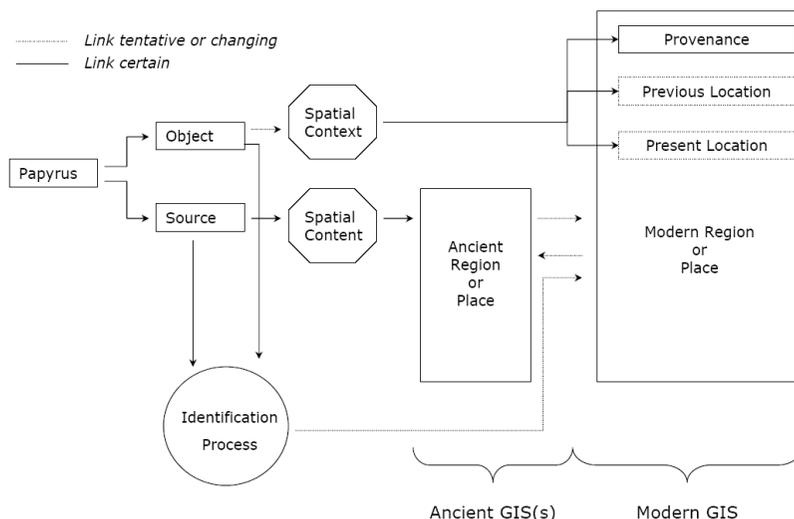


Fig. 2 Spatial information and identification flow

In theory, each papyrus has a *spatial context* and carries some *spatial content*. In practice, much information has already been lost on both sides. Most papyri were recovered during the nineteenth and early twentieth centuries, not by archaeologists, but illegally by Egyptian farmers digging up ancient mud-brick settlements in search of fertilizer. Recording the provenance of what they found was not in their interests. The provenance of many papyri often remains doubtful. The origin of a papyrus, its provenance, always relates to a modern place and environment. In contrast, papyrological texts give exclusively ancient place-names (toponyms). These ancient settlements need to be located in modern space. This is fre-

quently a complicated process with multivariant outcomes. In the worst case, the ancient place remains unidentified too.

The time factor has clearly played a major role in obscuring geographical information. If this information is not available and cannot be reconstructed and fitted to modern geographical coordinates, GIS cannot be applied. The issue brings us also back to how GIS deals with time and changes to geometric data. Modern GIS applications deal with perhaps changing, but still modern, environments. In contrast, for GIS to be applicable in Greek and Demotic papyri (600 B.C. to A.D. 600) requires two and possibly more sets of geometry—an ancient and a modern one. Modern and ancient settlement systems rarely coincide. A first major prerequisite of applying GIS would be the reconstruction of an ancient GIS environment (i.e. ancient geometric data) or, in the future, the merging of modern and ancient geometric data into one GIS—temporal GIS.

1.4 Potential Issues and Limitations

I have set out some issues and problems that can hamper the application of GIS. But leaving these problems aside, there is a large potential for GIS in papyrology. Much spatial information has been lost. It is one of the reasons why GIS has not yet been picked up as a technology by papyrologists. Most are only all too aware of how much information is unforgivably lost. But the perception that there is, nonetheless, a substantial amount of spatial information left to work with has not yet grown sufficiently strong to make GIS applications a worthwhile enterprise. Existing fields in which GIS applications are employed offer interesting parallels as to how GIS could shape itself in papyrology based on the twofold concept of object and source (Fig. 3). The following discussion is intended to illustrate potential directions for GIS. It is not an all-inclusive guide. On the contrary, I hope this list could soon be replaced by a list of actual applications of GIS in papyrology.

As archaeological objects, papyri may be treated as any other archaeological objects. Having been removed from Egypt, most papyri are nowadays kept in museums and private collections. Papyri of ancient archives are dispersed over numerous different collections. To relate papyri and their attributes to an individual museum is an important issue for those reconstructing papyrus archives and for those managing the conservation of papyri. In the

second case, where papyri are primarily seen as texts, their proximity to historical studies and social sciences is apparent.

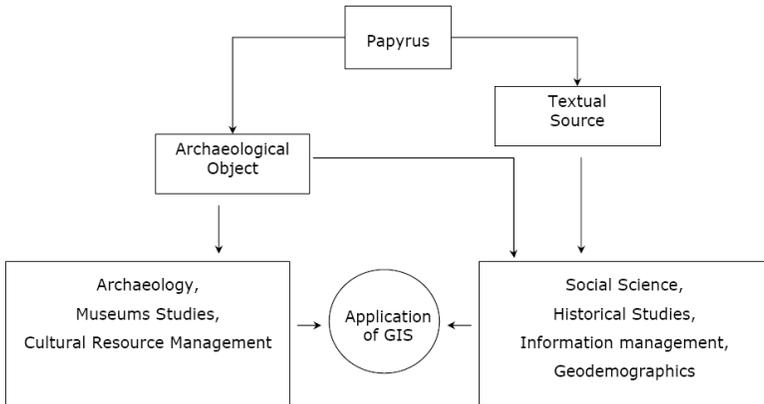


Fig. 3 Papyri and their relationship to GIS application areas

Archaeology: there are four main applications of GIS in archaeology: spatial analysis, visibility studies, cultural resource management and predictive modelling.⁶ Archaeologically based Cultural Resource Management (CRM) uses GIS as a spatial database by means of which information on sites and objects can be queried and updated. The data sets of traditional papyrology are continuously changing with the purchase, finding, relocation or publication of new papyri. As with CRM, GIS could here serve as or replace existing papyrological databases (see below, section 1.5). Other archaeological GIS applications such as visibility studies and predictive modelling seem less meaningful for papyrological studies. These two areas apply regional perspectives to human sites and settlement networks. Papyri generally lack this dimension, being intra-site objects. Although papyri may—as does pot-

⁶ T. Church, R.J. Brandon et al., "GIS Applications in Archaeology. Method in Search of Theory," in K.L. Westcott and R. J. Bradon (eds.), *Practical Applications of GIS for Archaeologists. A Predictive Modeling Toolkit* (London 200) 135, and D. Wheatley and D. Gillings, *op.cit.* (above, n. 3) 234, Fig. 12.1

tery—define a human site and support predictive modelling, compared to pottery they are rare objects. As far as intra-site research is concerned, the spatial analysis of the distribution and deposition of papyri could result in new insights into the socio-economic network.⁷

On another plane of spatial analysis, a major modern issue in papyrology is reconstructions of so-called papyrus archives. Papyri are not isolated objects, but often form a group that was collected, kept and stored away in antiquity. Illegal excavations have destroyed these links and scattered papyri across museums, collections and continents. Papyrologists actually spend painful hours locating similar documents distributed throughout the world and reconstructing papyrus archives.⁸ GIS could assist in mapping and in understanding the spatial distribution of papyri in the modern world. Such an approach already crosses into the area of cultural studies and may help in assessing the birth of modern papyrology and papyrus collections out of antiquarianism.

Modern social science is fundamentally concerned with understanding modern human behaviour. Developments in the social sciences have never had any great impact on papyrology, although both are concerned with similar issues and have access to demographic data. Geo-demographics is a subgroup of social science, but may equally be perceived as an entity with its very own trajectories. In terms of modern marketing, geo-demographics is little else than classifying people based on socio-economic data, identifying spatial clusters and the targeting of potential customers with purchase or service offers.⁹ Admittedly, dead people are bad customers. However, the basic question underlying this approach, i.e. how people use and spatially relate to particular services, can be addressed for ancient cultures too.

With respect to social science, applications of GIS cover a wide range of topics, from public health, ethnic cluster analysis to under-

⁷ For example, see P. van Minnen, "House-to-House Enquiries: an Interdisciplinary Approach to Roman Karanis," *ZPE* 100 (1994) 227-51.

⁸ W. Clarysse et al., *Ancient Papyrus Archives and Papyrus Collections World Wide* (<http://lhpc.arts.kuleuven.ac.be>).

⁹ J.R. Beaumont, "GIS and Market Analysis," in D.J. Maguire, M.F. Goodchild et al. (eds.), *Geographical Information Systems. Vol. 2: Applications* (Harlow 1991) 140.

standing urban crime patterns. Data frequently derive from census records and other population surveys.¹⁰ Similar information is available from papyri, although hardly with the same degree of spatial or temporal density. The Romans, for example, counted their population every 14 years. Bagnall and Frier have gathered the surviving Roman census data from Egypt.¹¹ A recent book lists the origin and destination of Greek immigrants into Egypt between 300 and 30 B.C.¹² Yet another author has studied the distribution and progress of diseases in Roman Egypt.¹³ These are three examples that illustrate both the data available and the absence of spatial visualisation in papyrology.

1.5 From APIS to GAPIS

GIS in papyrology has the potential to change our view of how we present and understand ancient life in Egypt. But before this can be achieved, before GIS can be implemented, a number of practical issues need to be resolved, such as database schema, the design of spatial and attribute data, software and hardware, personnel costs and benefits, potential users, and so on.¹⁴ These can vary from one GIS project to another and there is neither the place nor space to dwell on these issues at length here.

With a view to where one may start for attribute data, a promising aspect of papyrological studies is the employment of databases for cataloguing papyri and for making papyrological data accessible online.¹⁵ Three projects may be highlighted: *Advanced Papyrological Information System* (APIS), *Heidelberger Gesamtverzeichnis der*

¹⁰ D.W. Rhind, "Counting the People: the Role of GIS," in D.J. Maguire, *op.cit.* (above, n. 9) 128, and N. Walford, *Geographical Data. Characteristics and Sources* (Chichester 2002) 113-19.

¹¹ *The Demography of Roman Egypt* (Cambridge 1994).

¹² C.A. La'da, *Prosopographia Ptolemaica X. Foreign Ethnicity in Hellenistic Egypt*. Stud.Hell. 38 (Leuven 2002).

¹³ W. Scheidel, *Death on the Nile. Disease and the Demography of Roman Egypt* (Leiden 2001).

¹⁴ J.E. Harmon and S.J. Anderson, *The Design and Implementation of Geographic Information Systems* (Chichester 2003).

¹⁵ K. Ruffing, "Elektronische Ressourcen in der Papyrologie," in A. Cristofori et al. (eds.), *La rete di Arachne - Arachnes Netz* (Stuttgart 2000) 174-77.

griechischen Papyrusurkunde (HGV) and *Prosopographia Ptolemaica* (PP Online).¹⁶ These three databases could provide a suitable starting point for the use of GIS in papyrology. All three databases are important steps towards making papyri accessible online, searchable and visible to professionals. They are a first attempt at collecting information on papyri, which through illegal excavations and time have become scattered. All three databases have different aims shaping their data input and scope. The information overlaps only at the basic level: the general description of the papyrus date, provenance, language, material, publication and text type (Fig. 4). The *Checklist of Editions*¹⁷ offers a standard form of reference for each papyrus. It ensures the compatibility of data between databases and acts as a unique identifier to each published papyrus.

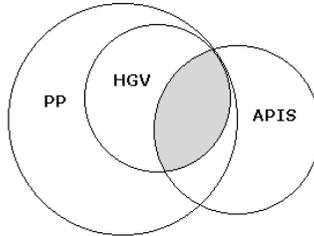


Fig.4 Information overlap between APIS, HGV, PP.
Shaded area: basic papyrus details.

HGV and APIS would probably be better suited to serving GIS strands with papyrus conceived as objects rather than as texts, whereas PP might be useful for both GIS applications with papyri conceived of as source and as objects. The sheer amount and variability of papyrological data renders any attempt to implement one large database infeasible. The future of GIS in papyrology may lie

¹⁶ APIS: <http://www.columbia.edu/cu/lweb/projects/digital/apis/index.html>; HGV: <http://aquila.papy.uni-heidelberg.de/gvzFM.html>; PP: <http://lhpc.arts.kuleuven.ac.be>

¹⁷ J.F. Oates, R.S. Bagnall et al., *Checklist of Editions of Greek, Latin, Demotic and Coptic Papyri, Ostraca and Tablets*. BASP Suppl. 9 (Oakville, CT 2001⁵) and on line at: <http://scriptorium.lib.duke.edu/papyrus/texts/clist.html>.

rather with discrete, thematic, small-scale GIS projects. Although geographical information is part of all three databases, there is little or no coherence in the treatment of geographical place and names. Geo-referencing data would be time-consuming to provide and there is still some way to go before GAPIS (*Geographical Advanced Papyrological Information Systems*) could be launched.

2. People on the Move: Mapping Migration Flow

Throughout the centuries, Egypt was both the scene and part of migration processes taking place throughout the Eastern Mediterranean. For Ptolemaic and Roman Egypt, Braunert's study on *Binnenwanderung* (1964) remains exceptional in its scope and its effort to draw general conclusions about internal migration and mobility patterns.¹⁸ Migration is a complex phenomenon with different forms and trajectories. A recent discussion defines migration "as a change of residence beyond a communal boundary, be it a village or town." Geographically, then, migration includes moves from one village to another as well as those across national borders and oceans. Temporally, migrations may be short-term or permanent; seasonal harvest movements and permanent departures from home are both migrations.¹⁹

This definition has two main anchors, a spatial and a temporal one. Various forms of migration encompass space and time in different ways; they become historical and geographical experiences. Migration was and is also a very real human experience. Migrants form part of a network of human relationships, of families and cultures, which eject them or from which they depart voluntarily. Lucassen and Lucassen have proposed to add two human components

¹⁸ For forced settlement during the Middle Kingdom Egypt, see R. Gundlach, *Die Zwangsumsiedlung auswärtiger Bevölkerung als Mittel ägyptischer Politik bis zum Ende des Mittleren Reiches* (Stuttgart 1994), with corrections by T. Schneider, *Ausländer in Ägypten während des Mittleren Reiches und der Hyksoszeit I. Die ausländischen Könige* (Wiesbaden 1998). For immigration and emigration in the ancient Near East, see K. Van Lerberghe and A. Schoors (eds.), *Immigration and Emigration within the Ancient Near East. Festschrift E. Lipinski* (Leuven 1995).

¹⁹ L.P. Moch, *Dividing Time: an Analytical Framework for Migration History Periodization*, in J. Lucassen and L. Lucassen (eds.), *Migration, Migration History, History: Old Paradigms and New Perspectives* (Berlin 1997) 43.

consisting of those who migrate and those who respond officially to migration.²⁰

With the arrival of the Ptolemies, immigration to Egypt reached an unprecedented scale. Most scholars agree that the majority of Ptolemaic settlers were Greek and Macedonian mercenaries in Ptolemaic service.²¹ Some have gone so far as to identify all Ptolemaic soldiers as Ptolemaic settlers. Literary figures for the size of the Ptolemaic army, which are plentiful, have been used to estimate the volume of land allotments.²² I do not wish to return to such estimates. My aim here is to suggest a method for the quantification of Hellenistic migration to Egypt and to show how GIS can contribute to solving current questions relating to migration.

2.1 Where Did Settlers Come from?

Under Ptolemy I, in the late fourth century B.C., people fled from the troubled city of Cyrene to Egypt. Ptolemy I himself took Seleucid mercenaries from Coele-Syria and Jews as hostages to Egypt. His own soldiers had by then already taken root in Egypt.²³ A decree from Ptolemais Hermiou in Upper Egypt founded by Ptolemy I, gives us another interesting insight. It reads: "Resolved

²⁰ *Ibid.* 32-33.

²¹ H. Heinen, "Heer und Gesellschaft im Ptolemäerreich," *Anc.Soc.* 4 (1973) 109, G.M. Cohen, "Colonization and population transfer in the Hellenistic world," in E. Van't Dack (ed.), *Egypt and the Hellenistic World. Proceedings of the International Colloquium. Leuven 24-26 May 1982*, (Leuven 1983) 69, and R.S. Bagnall, "The origin of Ptolemaic Cleruchs," *BASP* 21 (1984) 8.

²² E.G. Turner, "Ptolemaic Egypt," *CAH* (2) 7.1² (1984) 167, reckons with 100,000 immigrants. Cf. G. Shipley, *The Greek World after Alexander. 323-30 BC* (London and New York 2000) 223. R.D.M. Murrin, *The Ptolemaic Army: Its Organisation, Development and Settlement* (U. College, London, Diss. 1998) 23-25 has estimated that the Ptolemaic soldiers who participated in the battle of Raphia in 217 B.C. would have required land allotments of 2,120,000 *arouras* (=5842.72 km²) in total. In comparison, the Fayum had a probable size of 1400 km² = 508,200 *ar*. For a similar approach for Late Period Egypt, see W. Huss, *Ägypten in hellenistischer Zeit 332-30 v.Chr* (Munich 2001) 31: Egyptian *machi-moi* cultivated two thirds of the Delta region.

²³ According to D.S. 19.85.3-4, over 8000. Cf. Plu. *Demetr.* 5.2, *J. AJ* 12.7, *Letter of Aristaeus* 12-14, and J. K. Winnicki, "Militäroperationen von Ptolemaios I und Seleukos I in Syrien in den Jahren 312-311 v. Chr. (II)," *Anc.Soc.* 22 (1991) 150-62.

by the *boule* and *demos* ... *Theos Soter* [founded] a Greek city in [the Thebaid]....making its name Ptolemais [from himself, and becoming its patron.] To it the king sent [... settlers from ...] and from Argos [and from...and from Lacedaimon and from The[saly?]] and from ...the [council and people] decreed [to...]."²⁴ The inscription itself is a Hadrianic copy of an early Ptolemaic decree. King Ptolemy²⁵ introduced new settlers from a number of regions. The new city of Ptolemy I appears to be Greek with settlers from Greek-speaking regions, from the Peloponnese and possibly Thessaly.

The 'foundation decree' is itself a Hadrianic copy. A second, almost contemporary inscription concerns the same city: the epigram of Kelsos. Inscribed on Hadrian's gate at Philae, it dates to the middle of the second century A.D. and reads: "To Isis Karpotokos, I, Kelsos, have dedicated this writing to commemorate my wife, my beloved children and my sweet fatherland, Ptolemais, which Soter built, a sanctuary of the Greeks and product of the Nile."²⁶ It reinforces the impression of *Greekness* as a main feature of immigration under the early Ptolemies. Some four centuries later, Ptolemy I's foundation activities were seen as a brave attempt at *hellenization*. Whether Ptolemaic foundation activities were originally executed under the heading of *hellenization* is not of importance. Central to such nostalgic sentiments was that they associated a contemporary concept of things believed to be of value, although now endangered or already lost, to the past.

What does *Greekness* signify in spatial terms? The spatial dimension can be broken down into two main characteristics: *location*, i.e. from where did migrants come and to where did they migrate, and *distance*, i.e. what was the distance between the *location* migrants hailed from and where they finally settled in Egypt.

²⁴ P.M. Fraser, "Inscriptions from Ptolemaic Egypt," *Berytus* 13 (1960) 123-33, n. 1, *SEG* 20.665 = *SB* VIII 9820 [II A.D.], *I.Philae* II 163.

²⁵ Fraser, *ibid.* 127, argues that two different Ptolemies were involved in the settlement, for Ptolemy I could not possibly have been designated in two different forms in the same inscription. Nonetheless, it seems rather odd that the King was not named in full, if he was different from Ptolemy I (Theos) Soter. For further discussion, see K. Müller, *The Cities of the Ptolemies. On Aspect of Ptolemaic Settlement* (Cambridge University, Diss. 2002).

²⁶ E. Plaumann, *Ptolemais in Oberägypten. Ein Beitrag zur Geschichte des Hellenismus in Ägypten* (Leipzig 1910) 2. *I.Philae* II 166.

2.1.1 Some Simple Descriptive Statistics

Generally speaking, a multicultural mix of immigrants arrived in Egypt and came from all over the Eastern Mediterranean. Attestations of foreign ethnic designations in Hellenistic Egypt allow us to draw a clearer picture.²⁷ These ethnic designations appear in great numbers in documentary papyri and inscriptions, but are by no means unproblematic and unbiased. The great majority of foreign ethnics derives from Greek sources. Demotic-Egyptian foreign ethnics are rare. Initially self-descriptive, Greek ethnics eventually developed into formalized and even fictitious labels of origin, if nothing else. They show the greatest variety and frequency in the middle of the third century B.C., with over 170 different labels from cities and regions outside Egypt. From the end of the third century B.C., there is a significant drop in the variation of ethnic designations. This may reflect a reduction in the number and diversity of immigrants. Progressive acculturation may have led earlier immigrants to abandon their own ethnic designations.²⁸ Ethnic labels can also be inherited and handed down through a family. The bearer of an ethnic designation may not actually have immigrated to, but grown up in, Egypt.

Ethnics relate to either a *city* or a *region*.²⁹ Both types can be collapsed into a common frequency measure of regional ethnic designations (Table 1).

²⁷ C.A. La'da, *Ethnic designations in Hellenistic Egypt* (Cambridge University, Diss. 1996), and *op.cit.* (above, n. 12).

²⁸ D. J. Thompson, "Hellenistic Hellenes: The Case of Ptolemaic Egypt," in I. Malkin (ed.), *Ancient Perceptions of Greek Ethnicity* (Cambridge 2001) 301-22 and La'da, *op.cit.* (above, n. 27) 87-91.

²⁹ The data for the analysis and mapping procedure relied upon the electronic version of La'da, *op.cit.* (above, n. 12) as accessible in the *Prosopographia Ptolemaica Online* at <http://prospol.arts.kuleuven.ac.be>. I excluded all fictitious ethnic: Hellenes, Macedonians and Persians, see La'da, *op.cit.* (above, n. 27) 92-140.

Ethnics (by region)	Number of cases	City ethnics	# of cases
Cyrenaica	201	Cyrene	173
Thrace	199	Athens	58
Ioudaia	102	Heracleia*	29
Crete	80	Miletos	21
Attika	63	Syracuse	19
Thessaly	58	Magnesia*	18
Caria	53	Corinth	18
Arabia	49	Chalcis	17
Pamphylia	40	Aspendos	14
Ionia	37	Argos	14
...
Total	1632		821

Table 1. Frequency of Greek Ethnic designation attested in Hellenistic Egypt.
(*ethnic designations with uncertain location)

People with the ethnic designation of Cyrenaean, Thracian, Jew or Cretan are the most frequent. Of the 1632 of all attested cases with ethnic designations, 935 can be dated precisely. Their distribution is shown in Fig. 5a. The size and exact boundaries of many ancient regions are notoriously difficult to establish. In what follows, I confine myself to the Greek city ethnics. Here, people from Cyrene are the most frequent, followed by those from Athens, Miletos, Syracuse, Corinth and Chalcis (Table 1). Of these 821 cases with foreign city ethnics, only 391 can be precisely dated to a particular year or decade (Fig. 5b). The spread of documents for both groups of documents is very similar. It steadily increases from 300 B.C. to 215 B.C., drops sharply after 210 B.C. to continue on a modest level into the mid-first century B.C. There is very little evidence for the presence of foreigners after 100 B.C. and before 320 B.C. The uneven temporal distribution of papyri overall throughout Hellenistic Egypt will have contributed somewhat to this pattern, and it has to remain unclear in how many different waves migrants entered Egypt.³⁰

³⁰ W. Habermann, "Zur chronologischen Verteilung der papyrologischen Zeugnisse," *ZPE* 117 (1997) 180-82.

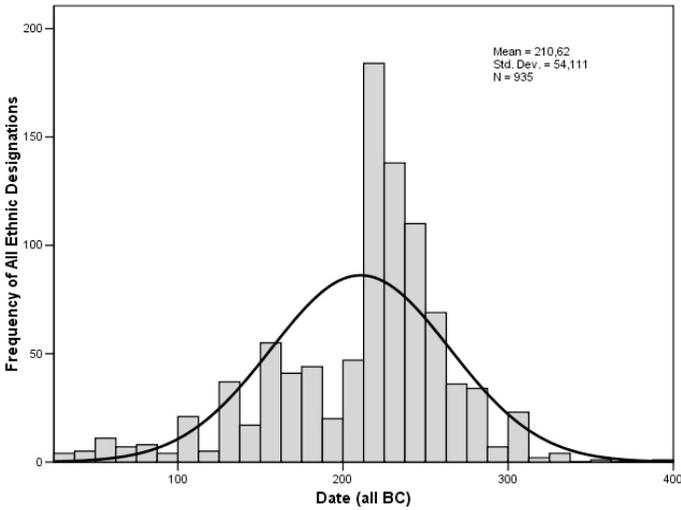


Fig. 5a Frequency of all ethnic designations (incl. only precisely dated cases). The solid line is the *Normal Gaussian Curve*.

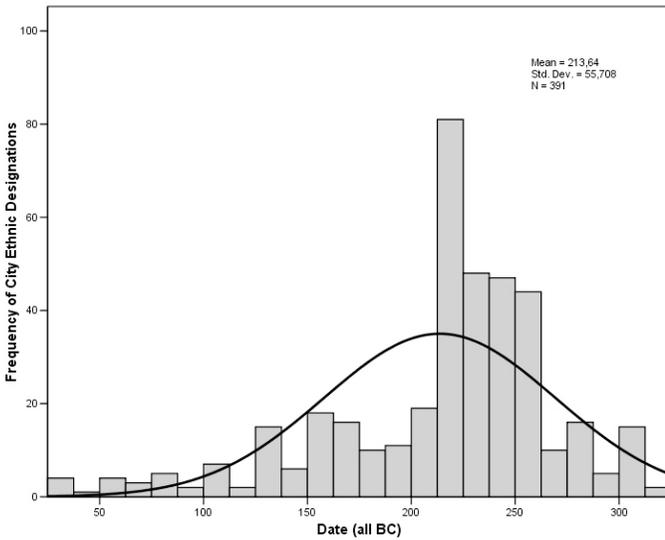


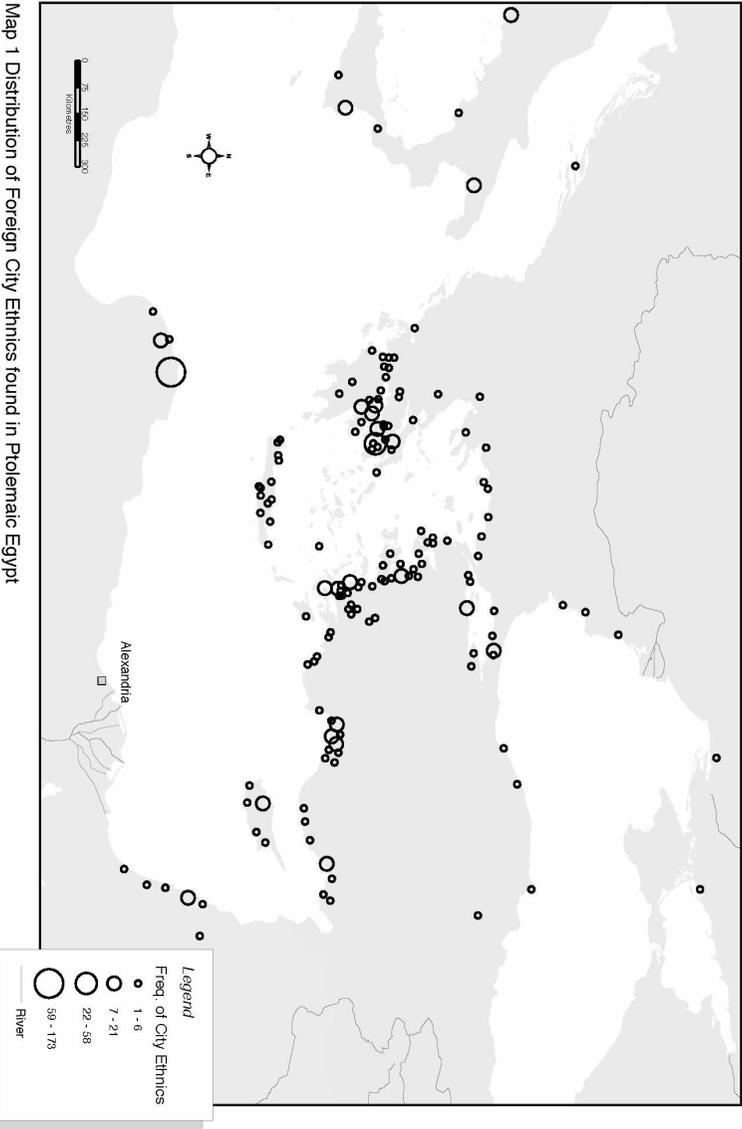
Fig. 5b Frequency of ethnic city designations (incl. only precisely dated cases). The solid line is the *Normal Gaussian Curve*.

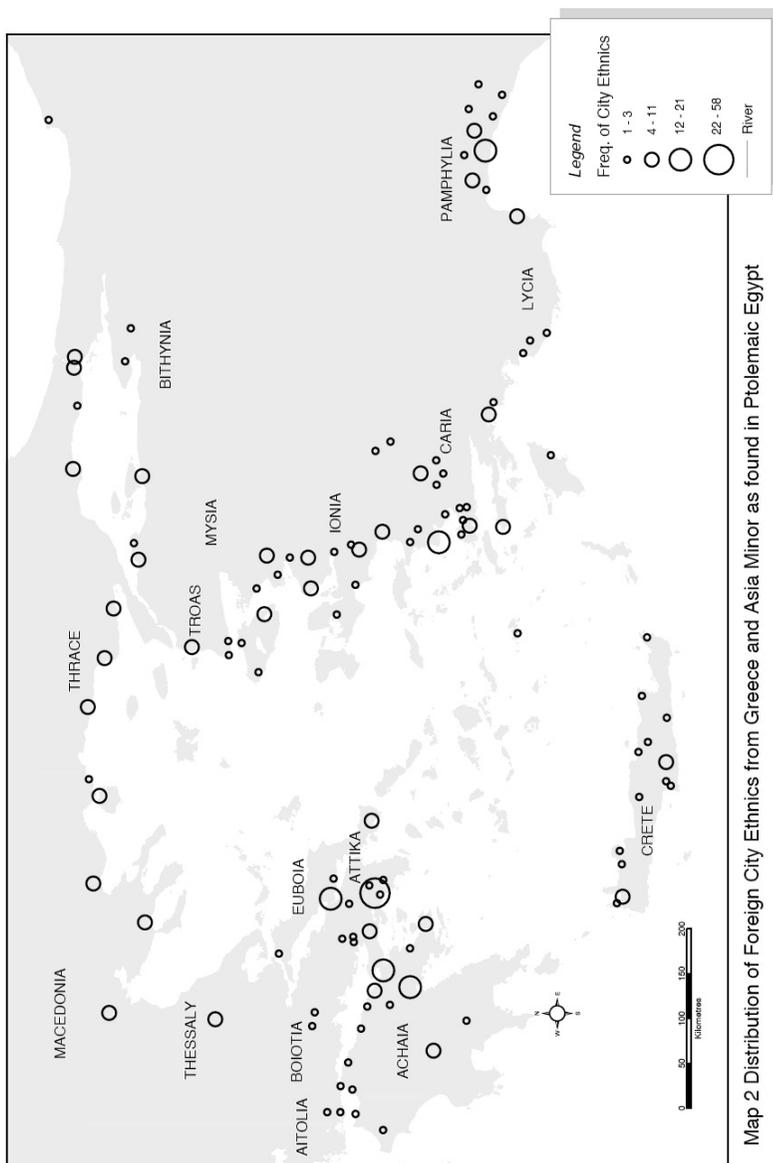
2.1.2 Visualising Migration: GIS as a Cartographic Tool

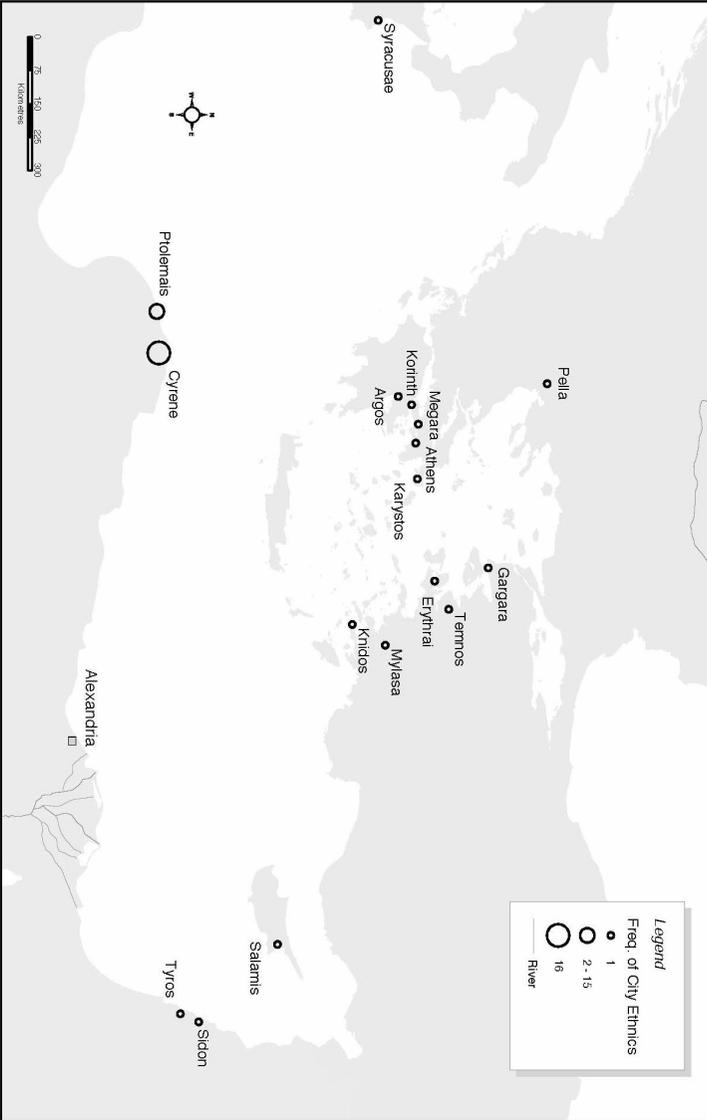
Descriptive statistics are an easy method for deriving a first impression of the data and its main characteristics. If the reader has no excellent mental map at hand, however, it is impossible to understand the spatial relationships within the data. GIS is here used as a cartographic tool, for visualising and visually understanding patterns in the data.

For a first impression, the ethnic origins of foreigners in Hellenistic Egypt can simply be mapped. Given the Greek bias, it comes as no surprise that when one maps the attested foreign city ethnics, they cluster in the Greek-speaking parts of the Eastern Mediterranean (Map 1). Many settlers came from Cyrenaica, the coast of Asia Minor, Crete and Attica. Zooming in to Central Greece and the Aegean basin, a more differentiated picture emerges. Along the coast of Asia Minor, three regions in particular were home to foreigners in Egypt: Ionia, Caria and Pamphylia (Map 2). Very few women are attested with foreign ethnics in Egypt (Map 3). The distribution pattern overlaps with that of all foreign city ethnics. Again women predominantly came from Cyrenaica, Attica, Ionia and Caria. Crete is noticeably empty on the map. But it is unwise to make too much of this emptiness considering how few city ethnics for women have survived. Indeed, two Cretan women were buried in early Hellenistic Alexandria. They carried the unspecified regional ethnic.³¹

³¹ SB I 1655 [III B.C.]; *I.Métriques* 28. 1-5; La'da *op.cit.* (above, n. 12) E1109, E1110.







Map 3 Distribution of Foreign Women City Ethnics found in Ptolemaic Egypt

2.2 The Costs of Migration: GIS as an Analytical Tool

Migration and its various forms are often characterised by the factor of distance. There is long-distance migration at the one end and short-distance migration at the other end of the spectrum. But distance is a continuous measure. What is short and what is long-distance becomes a matter of definition and of convention. City ethnics allow us to measure continuous distance. However, some caution is required. For Hellenistic Egypt, La'da lists no more than c. 1600 persons with mainly Greek ethnic designations.³² Immigrants must have come to Egypt not in hundreds, but in several thousands. Many settlers and their ethnic designation have simply vanished. Moreover, some groups of settlers never needed to use an ethnic designation like Egyptian settlers. They moved short-distance within Egypt. Documentary evidence rarely attests to or distinguishes between their place of birth and place of residence. As a result, it is almost impossible to trace this type of short-distance migration.

Nonetheless, short-distance migration within Egypt must have taken place. Some Fayumic toponyms preserve information on the origin of settlements and of the origin of those who settled there first. Settlements such as Samareia, Syron Kome or Arabon Kome were named after those who provided the highest proportion of initial settlers—Jews, Syrians and Arabs. These three groups also surface in the collection of ethnic designations. Other Fayumic toponyms bear witness to an Egyptian origin of new settlements. These carry the same name as settlements in the Nile Delta and in Middle Egypt.³³ As the case of Oxyrhyncha shows, this is no mere coinci-

³² *Ibid.*

³³ M. Rostovtzeff, *A Large Estate in Egypt in the Third Century B.C. A Study in Economic History* (Madison 1922) 9, H. Braunert, *Die Binnenwanderung. Studien zur Sozialgeschichte Ägyptens in der Ptolemäer- und Kaiserzeit*, (Bonn 1964) 48. See: Athribis (H), DGT 1(1): 33 (2) [III B.C.]. Boubastos (H), DGT 2: 60-61 (2) [245 B.C.]. Bousiris (T), DGT 2: 66 (1) [255-250 B.C.]. Heliopolis (T), DGT 2: 205 [230-220 B.C.]. Hermopolis (T), DGT 2: 175. Kanopias (T), DGT 3: 66 [after 238-237 B.C.]. Kynopolis (P), DGT 3: 166-167 (3) [246-245 B.C.]. Letopolis (H), DGT 3.2: 197-198 [260 B.C.]. Memphis (P), DGT 3: 262 (2) [251-250 B.C.].

dence. On 24 February 230 B.C., Dionysodoros wrote to Asklepiades informing him that the farmers of Oxyrhyncha in the Fayum would soon come back to make offerings at the temple in the city of Oxyrhynchos in the Oxyrhynchite nome, as was their custom.³⁴ Egyptian settlers often continued to maintain strong links with the settlements of their origin, their 'mother-cities.' Lastly, during the second century B.C., Egyptian settlers like Tanupis, the daughter of Theophis, settled in the new city of Euergetis in Upper Egypt.³⁵ Unfortunately, in this case and in many others, the previous place of residence is uncertain.

2.2.1 Distance Per Capita Index

Documentary evidence offers the occasional glimpse of the migration flow into and within Egypt, either as short- or long-distance migration. The question is whether this flow, its changes in distance and direction as well as its virtual costs, can be quantified. Who contributed the lion's share to Greek settlement in Egypt, not in terms of the sheer number of settlers, but in terms of potential travelling costs?

In economic studies distance is a negative factor. "The history of economic development is to a large extent the story of overcoming the obstacles posed by distances between trading partners."³⁶ But it is usually not distance *per se* that matters, but the degree to which obstacles (mountains, rivers, borders, deserts, seas, etc.) obstruct the traversing of physical space. This applies to migration too.

Mendes (H), DGT 3: 264-265 (2) [III B.C.]. Oxyrhyncha (P), DGT 3: 392-393 [251 B.C.]. Pelousion (T), DGT 4: 121 (2) [224-217 B.C.]. Pharbaitos (H) 5 : 62 [259 B.C.]. Sebennytos (H), DGT 4: 252-253 (2) [261-260 B.C.]. Tanis (H), DGT 4: 353-354 (2) [259 B.C.]. Legend: H= Herakleides Meris, P= Polemon Meris, T= Themistos Meris. Dates in brackets are those for which the settlement is first attested.

³⁴ R. Pintaudi, "Oxyrhyncha e Oxyrhynchites (P.Vat.Gr. 65 = SB XX 14699)," *Tyche* 5 (1990) 101-4. SB XX 14699.

³⁵ B. Kramer, "Der *ktistes* Boethos und die Einrichtung einer neuen Stadt Teil I," *APF* 43 (1997) 315-39.

³⁶ F. Hill, C.G. Gaddy, *The Siberian Curse. How Communist Planners Left Russia Out in the Cold* (Washington 2003) 11.

Migration is characterised by overcoming obstacles and traversing space and distances. The cost of migration grows with the increase in distance and with the number of obstacles in the path. In general, long-distance migration is more costly than short-distance migration. *Distance* is a key to quantifying change in and cost of migration. Ethnic city designations allow us to measure the distance migrants travelled and thus to estimate the distance-related cost of migration.

I shall now introduce the concept of *Distance per Capita* (DPC).³⁷ *DPC* is simply the average of the migration distances measured as *Euclidean distance*³⁸ (from the place of origin to Alexandria) weighted by the number of migrants 'taking' this route. This can be calculated by the equation:

$$DPC = \frac{\sum_{i=1}^n d_i z_i}{t}$$

Equation (1)

where d is the migration distance, the variable z being the number of migrants traversing the same distance d , and t being the total number of migrants from a region or country.

DPC allows a comparison of migration to one country (here Hellenistic Egypt) with others. We lack sufficient data to compare the data for Hellenistic Egypt with other contemporary, that is, ancient regions. However, *DPC* can also be used to compare the development of migration over different periods. Essentially, it gives a measure of how many immigrants arrived from what distance. If

³⁷ This concept is applied to ethnic city designations only, though a modified approach for region ethnics may be feasible. Hill and Gaddy's estimation of the *Temperature Per Capita Index* has served me as a model (*ibid.* 36).

³⁸ The Euclidean distance applies the Pythagorean rule and describes the shortest path between two points. Cf. R. Laurini and D. Thompson, *Fundamentals of Spatial Information Systems* (London 1992) 135-39.

the majority of immigrants came from regions close to Egypt, the *DPC Index* would necessarily be low. With many people arriving from as far away as the Black Sea region, the *DPC Index* would increase, since this group receives mathematically more weight due to the greater distance. When we assume that distance is linearly related to migration cost, the *DPC Index* also offers a measure for judging which cities and their migrants carried the highest cost of migration.

To apply this concept to Hellenistic Egypt, three assumptions are being made. First, settlers with city ethnics actually travelled from that place to Egypt. Second, since the exact location at which migrants finally settled in Egypt is frequently unknown, distances are calculated with Alexandria as the *virtual* place of settlement. Third, there are no obstacles in the migration path. Given the limited information on possible obstacles to Hellenistic migration and travelling routes, I here use the more simple measure of *Euclidean distance*. Distance and cost-distance are easily measured in a GIS.

As a result, the total *DPC* for Hellenistic Egypt is 917.31. The main contributors to the total *DPC* are: Cyrene (20.93%), Athens (8.20%), Syracuse (4.31%), Corinth (2.65%), Chalcis (2.53%), Miletos (2.32%) and Argos (2.04%) (Appendix 1).

One may challenge each of the assumptions made and discard the whole concept as too crude. But this method has its advantages. It leads us away from the current assessment of Ptolemaic settlement, which is solely based on frequency. It would be more innovative to improve the concept than to discard it in its infancy.

The first assumption is that all those with a foreign ethnic designation travelled from there to Egypt. Ethnic designations could unfortunately be inherited. Some persons who bore them never made that voyage and never set foot in their parents' country of origin. It is prudent to select a period for which the probability is high that people with a foreign designation actually immigrated to Egypt. We would avoid including second or third generations of migrants who were already born in Egypt. But simultaneously, we would also avoid possible later waves of migration to Egypt. The early Hellenistic period with its first wave of migration to Egypt after the death of Alexander the Great offer safe grounds. Naturaliza-

tion may not yet have set in too frequently among migrant families. The *DCP Index* for Egypt between 320 and 250 B.C. is, with 921.33, slightly higher than for the whole set. More interesting is, however, that the main contributors to the DCP are different: Cyrene (15.28%), Temnos (8.40%), Ptolemais in Cyrenaica (4.29%), Taranum (3.75%) and Syracuse (3.67%). The picture has changed. Cyrenaica and Italy figure prominently. Mainland Greece and the Peloponnese played no role.

The second assumption of the place of settlement is largely beyond our control. Too much data has been lost or was never mentioned in context of migration. As a substitute, the origin or find context of the source (papyrus) mentioning the ethnic designation might be used. But instead of solving, it would cause new problems.

Lastly, there remains how to estimate the cost of migration. The Euclidean weighting may be extended to include some measure of obstacle weighting. The most natural of these would be the number of days taken to travel the distance.

2.2.2 The Costs of Migration

Notionally speaking, several cities and their emigrants carried the majority of costs of Hellenistic migration into Egypt. The question is, of course, who actually paid the costs of migration. Did the Ptolemies maintain facilities to encourage and to ease migration to Egypt throughout the Eastern Mediterranean or did the individual emigrant carry the burden?

In the third century B.C., the Ptolemaic empire reached temporarily from the coast of Thrace to Lower Nubia, and from Cyrenaica to Rough Cilicia and Coele-Syria. Ptolemaic possessions were as diverse as the origins of Ptolemaic immigrants. The Ptolemaic state covered a large number of Greek-speaking areas. Some immigrants came from outside and beyond the Ptolemaic empire—Central Greece and the Greek islands, Athens, Thessaly, Macedonia.³⁹ Ptolemaic rule over their home country was not a prerequisite for

³⁹ R. S. Bagnall, "The Origin of Ptolemaic Cleruchs," *BASP* 21 (1984) 7-20, counts 453 men over 140 years.

immigrants who headed for Egypt, though it could ease the immigration of those who sought new opportunities in Egypt.

The cost of migration for those who went to Egypt from the fringes or beyond must have been considerable. High costs and long-distances constrained the volume of immigration. For mercenaries employed by the Ptolemies no such cost might have arisen. The Ptolemies paid their expenses. There is no evidence that within their possessions the Ptolemies encouraged civil immigration through financial subsidies.

One incident suggests, however, that the Ptolemies provided the infrastructure for travel and migration to Egypt (a payment in kind to immigrants). In 250/249 B.C., Aratos of Sikyon traveled to Alexandria with the aim of receiving financial support for his political ambitions back home from Ptolemy II. He embarked at Arsinoe-Methana in the central Aegean. A number of Ptolemaic garrisons—at Arsinoe-Koressos in Keos, the island of Thera and Itanos on Crete—lined the naval passage to Alexandria.⁴⁰ In the Aegean of the second century B.C., these few sites were the last outposts of a crumbling Ptolemaic empire, finally abandoned on the death of Ptolemy VI Philometor in 145 B.C. They were undoubtedly important to Ptolemaic foreign and home policy.

Aratos and other settlers arrived in Egypt from regions outside direct Ptolemaic rule. The question is whether cities would ever have sponsored emigrants to leave for Egypt. In the process of Archaic Greek colonisation, the Greek city, the metropolis-to-be, initiated and supported the foundation of a new settlement with ships, manpower and settlers. Evidence for something similar at a later period is non-existent. There are only some rather exceptional cases of temporary migration. On the foundation of the great Ptolemaic festival in honour of Ptolemy I Soter, the *Ptolemaieia* of Alexandria, the "League of Islanders" agreed to send three sacred envoys to Egypt. They were to present crowns to King Ptolemy II. The cities

⁴⁰ Plut. *Arat.* 12.2, K. Buraselis, "Ambivalent Roles of Centre and Periphery. Remarks on the Relations of the Cities of Greece with the Ptolemies Until the End of Philometor's Age," in P. Bilde et al., *Centre and Periphery in the Hellenistic World* (Aarhus 1993) 253.

of the league paid for the crowns, for the journey and the expenses of the sacred envoys.⁴¹ These envoys were on a diplomatic mission and expected to return from Egypt. Some diplomats, however, stayed for a longer period. Some never made it home. They were buried in Alexandria.⁴² These were clearly exceptional cases. The same did not apply to the majority of immigrants.

The Ptolemies fostered good relations with the Greek cities in Asia Minor and Greece.⁴³ Whether this led to any of these cities agreeing to send settlers to sustain Ptolemaic settlement in Egypt is doubtful. At the present stage, there is no indication that the Ptolemies, or cities outside the Ptolemaic empire, entertained any system of assisted immigration other than for their mercenaries. But the Ptolemies did not leave the matter entirely to voluntary, individual decision-making. In the aftermath of the battle of Gaza in 312 B.C., Ptolemy I took captives and settled them in Egypt.⁴⁴ This constitutes forced settlement, a process of involuntary migration at "no cost" to the individual.

3. Conclusion

Hampered by fragmentation and geographical information loss, the case for the application of GIS in papyrology is not as straightforward as in other GIS application areas, but there is no good reason to abandon prematurely its implementation. GIS in papyrology has a future. The current trend of large-scale digitization and cataloguing projects is an indicator that papyrologists have accepted the benefits available from computer-based technology as part of their research routine. GIS fits neatly into this *zeitgeist*. It can be publicized as a new research aid for addressing a wide range of papyrological and historical issues.

⁴¹ *SIG*³ 390.55-60 [c. 280 B.C.].

⁴² B.F. Cook, *Inscribed Hadra Vases in the Metropolitan Museum of Art* (New York 1966) no. 1-3, 7-10 [233-212 B.C.] and H. Braunert, "Auswärtige Gäste am Ptolemäerhofe," *JDAI* 65-66 (1950-51) 231263.

⁴³ *RC* 14 [262/1 B.C.], *OGIS* 55 [240 B.C.], Buraselis, *op. cit.* (above, n. 39).

⁴⁴ Cohen, *op. cit.* (above, n. 20) 65.

This case study on Hellenistic migration into Egypt has shown that new perspectives and new data can be derived with the help of GIS. For migration, distance and space to be traversed were a decisive and frequently limiting factor. When the distance is too great, migration is hardly profitable for the individual migrant. I have introduced here the *Distance per Capita Index*. At present, it provides a somewhat crude measure for evaluating the virtual costs of migration for individual cities and their migrants to reach Egypt. But this approach can be extended to include other measures of distance and spatial factors likely to impact on the path of migration. It leads us away from the solely frequency-based assessment of Ptolemaic settlement. Some migrants may have arrived in few numbers, but their relative long travel distance to Egypt required more investment than it did for migrants arriving from a closer range. The former group may have contributed as much to building the Ptolemaic empire and for settling Egypt than the latter group.

APPENDIX 1: CALCULATING THE DISTANCE PER CAPITA INDEX

City of Origin	# of Immigrants	Distance to Alexandria (in km)	'Immigrants-city' Product	% of Total DPC
Cyrene	173	800	138400	20.39
Athens	58	960	55680	8.20
Syracuse	19	1540	29260	4.31
Corinth	18	1000	18000	2.65
Chalcis	17	1010	17170	2.53
Miletos	21	750	15750	2.32
Argos	14	990	13860	2.04

Rome	7	1930	13510	1.99
Byzantion	11	1120	12320	1.81
Tarantum	7	1570	10990	1.62
Massalia	4	2570	10280	1.51
Aspendos	14	680	9520	1.40
Barke	10	880	8800	1.30
Amphipolis	6	1230	7380	1.09
Kyzikos	7	1054	7378	1.09
Sikyon	7	1015	7105	1.05
Temnos	8	880	7040	1.04
Ainos	6	1140	6840	1.01
Kardia	6	1140	6840	1.01
Megara	7	975	6825	1.01
Perge	9	670	6030	0.89
Thasos	5	1175	5875	0.87
Mytilene	6	945	5670	0.84
Perinthos	5	1132	5660	0.83
Halikarnassos	8	705	5640	0.83
Pantikapaion	3	1770	5310	0.78
Sillyon	8	660	5280	0.78
Pella	4	1250	5000	0.74
Olynthos	4	1180	4720	0.70
Tyros	8	590	4720	0.70
Knidos	7	670	4690	0.69
Maroneia	4	1162	4648	0.68
Larisa	4	1160	4640	0.68
Ptolemais Cyrenaica	5	900	4500	0.66

Chalkedon	4	1115	4460	0.66
Phokaia	5	875	4375	0.64
Lampsakos	4	1079	4316	0.64
Alexandreia Troad	4	1027	4108	0.61
Tarsos	5	820	4100	0.60
Megalopolis	4	1010	4040	0.60
Kaunos	6	660	3960	0.58
Soloi	7	550	3850	0.57
Troizen	4	940	3760	0.55
Salamis	6	620	3720	0.55
Karystos	4	925	3700	0.55
Pergamon	4	910	3640	0.54

NB: This table includes only settlements with a contribution > 0.5% to the total *DPC Index*. For the raw data, see La'da 2002.

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Chairemon: Alexandrian Citizen, Royal Scribe, Gymnasiarch, Landholder at Bacchias, and Loving Father

ABSTRACT

In this article I offer a new interpretation for *BGU* III 981 and I will show that the combination of this text with other documents yields for the first time a view on the business affairs and private life of a royal scribe (*basilikos grammateus*) in Roman Egypt. The article also contributes to the study of landownership in the Egyptian *chora* by Alexandrian citizens in the first century A.D. and to the study of checks in Graeco-Roman Egypt.

BGU III 981 contains two columns of writing and consists of four documents:

Document A (= col. I.1-35): copy¹ of a labor contract between Ptolemaios² and Chairemon, who engages Ptolemaios as his secretary. Chairemon, Alexandrian citizen, is royal scribe of the Small Diopolite nome in the Thebaid (after April 15, A.D. 77³).

Document B (= col. I.36 - II.5): copy⁴ of an agreement, in which X stands surety for his brother Ptolemaios (after April 15, A.D. 77).

Document C (= col. II.6-20): Chairemon orders his *phrontistes* Apollonios to hand over a check to Ptolemaios, enabling the latter to collect his salary. I offer this text in translation:

"This is what you need to send to the person who will be my secretary, as follows: Apollonios, son of Apollonios, *phrontistes* of Chairemon, son of Andromachos alias Dioskoros, grandson of

¹ See col. I.1: [Ἀντίγραφον χ]ειρογρά[φου]. The supplement is above doubt.

² His name follows from col. I.41.

³ For the date of document A, see T. Kruse, "BGU III 981 und der Monat Νερόναιος," *ZPE* 107 (1995) 91.

⁴ See col. I.36: [Ἀντίγραφον ἐνσυή(ε)ω(c)]. The supplement is above doubt.

Chairemon, of the phyle Agathodoteia and the tribe Althaius, royal scribe of the Small Diopolite nome in the Thebaid to a banker X, son of Y,⁵ greetings. Pay to a scribe X, son of Y,⁶ who is the scribe of the aforesaid Chairemon on account of his salary, in accordance with a cheirograph which I received from him 900 silver drachmas on account. Year, month, day (*sic*). When you have finished this as I have written to you above in accordance with all (stipulations), wrap up the three [documents?], the cheirograph of the scribe himself, that of the guarantor [...] and similarly a copy of the bank payment and send it through one of my people."⁷

Document D (= col. II.21-29): Copy of a copy (*sic*) of a bank payment: the royal scribe Chairemon pays 48 drachmas through a bank in Arsinoe to Tasouchion for the rent of a hay-barn and a courtyard, where donkeys are kept (after March 29, A.D. 77).

According to Kruse, *BGU* III 981 is probably a *tomos synkollesimos* in which the royal scribe Chairemon pasted together copies of his financial documents.⁸ In my view, *BGU* III 981 is a single papyrus kept by Apollonios, the *phrontistes* of Chairemon.

At first sight, a scan of *BGU* III 981 indeed points to a *tomos synkollesimos*, since there is a *kollesis* which *seems* to run between column I and II and which suggests that column II was pasted to the right of column I.⁹ But a *tomos synkollesimos* always consists of *separate* documents pasted together, whereas document B (= col. I.36 - II.5) starts in the first column and continues into the second. Secondly, if column II would have been pasted to column I to form a

⁵ τινί | τινος(c) τρ[α]π(εζίτηι).

⁶ τ[ιν]ί | τ[ιν]ος γρ[α]μμ[α]τεῖ.

⁷ The edition has in col. II.15-20: τελε[ι]ωθέντων τούτων ὡς σοι προέγραφα | ἀκολ[ούθ]ως πᾶσι τὸ χειρόγραφον τὸ [τ]ε αὐτοῦ τοῦ γραμματέως καὶ τοῦ του | ἐγγυη[τ]οῦ δὲ ὁμοίως καὶ τὸ τῆς τραπ(έζης) ἀντίγραφο(ν) | δια[γρα]φῆς συνελίσσας τὰ τρία [.] . . . φαν^ω ἔμοι | πέμψον σὺν ἐνὶ τῶν ἐμῶν.

⁸ See Kruse, *op.cit.* (above, n. 3) 90 and T. Kruse, *Der königliche Schreiber und die Gauverwaltung: Untersuchungen zur Verwaltungsgeschichte Ägyptens in der Zeit von Augustus bis Philippus Arabs (30 v. Chr.-245 n. Chr.)*. APF Beihefte 11 (Munich 2002) 782, 790.

⁹ See *op.cit.* (above, n. 3) Plate I for an image of *BGU* III 981. A scan of *BGU* III 981 was kindly put at my disposal by Dr. Thomas Kruse.

tomos synkollesimos, then the writing of column I cannot exceed the *kollesis*. Although the writing stops in most lines just before this *kollesis*, a scan of *BGU* III 981 shows that the *upsilon* of νομοῦ in col. I.6 exceeds the *kollesis*.¹⁰ Therefore, I suggest that *BGU* III 981 was a papyrus cut from a roll, in which the join of two sheets made during the production of the roll coincides in most places with the end of the first column of *BGU* III 981.

That documents A and B would be kept by Chairemon raises questions. They are copies (see above) of contracts on a single papyrus and Chairemon demands in document C (col. II.16-20) to Apollonios to send him three *separate*¹¹ documents, i.e. the contract of Ptolemaios, the contract of the guarantor and the copy of the payment of salary. In my view, Apollonios (not Chairemon) concluded the contract with the secretary and the guarantor *on behalf of* Chairemon. He was ordered to send the original contracts to Chairemon. Before Apollonios sent them he ordered copies of the contracts and these are documents A and B.¹²

Document D is a copy of a copy (*sic*) of a διαγραφή, recording that Chairemon has paid rent to Tasouchion through a bank in Arsinoe, the capital of the Fayum. A διαγραφή is a document drawn up by a banker, which attests a payment to X. The διαγραφή is normally signed by the receiver and kept by the bank. Copies of διαγραφαί were taken by the interested parties.¹³ In my view,

¹⁰ The *upsilon* of Γε[ρμα]νικείου in l. 16 and the *omega* of ἐγώ in l. 31 also seem to cross the *kollesis*.

¹¹ See n. 5 for a transcription of ll. 16-20. Although the word after τρία is illegible, the verb συνελίττω in combination with τὰ τρία no doubt refers to the wrapping up of three *separate* documents (instead of copies on one papyrus).

¹² In theory, these copies could have been kept by the acknowledging party, Ptolemaios, and the guarantor (who was the brother of Ptolemaios). But since documents C and D of *BGU* III 981 (see above) were of no interest to Ptolemaios, that option should be left out.

¹³ See P. Drews, "Die Bankdiagraphie in den gräko-ägyptischen Papyri," *JJP* 18 (1974) 95-155, esp. 96-97, 140-41, 144. For a clear example of the procedure, see *P.Soter*. 24 and the excellent commentary of S. Omar: Soterichos' wife Thaisas pays 300 drachmas through a bank to Isidora. A διαγραφή of this pay-

Chairemon (royal scribe in the Small Diopolite nome) ordered Apollonios (apparently living in the Fayum) to pay rent to Tasouchion, thereby asking him to send a copy of the διαγραφή drawn up by the bank.¹⁴ Apollonios carried out Chairemon's orders, but he ordered himself a copy of this copy, which is document D.

Document C contains orders *from* Chairemon *to* Apollonios (see the translation above). I tentatively suggest that it is a partial copy of a letter from Chairemon *to* Apollonios. For some reason, it was written between the copies of the other documents.

In the foregoing, I suggested that *BGU* III 981 is rather expected in the archive of Apollonios, *phrontistes* of Chairemon, than in the archive of Chairemon himself. Below I will argue that this Apollonios and Chairemon are known from eighteen other papyri.

Recently, I attributed sixteen texts to the archive of Apollonios of Bacchias.¹⁵ Five are letters written by Chairemon to Apollonios and two are letters from Apollonios to Chairemon. Although the names Chairemon and Apollonios are very common, *BGU* III 981 was certainly part of this archive. Both *BGU* III 981 and fifteen out of sixteen texts of the archive come from the earliest purchases of the Berlin collection (all published in *BGU* I-III). The archive contains letters from Chairemon to Apollonios dated to A.D. 76-77,¹⁶ whereas *BGU* III 981 was written after April 15, A.D. 77. That Apollonios of Bacchias is a *phrontistes* of Chairemon (*BGU* III 981 col. II.8) would be plausible, because the letters from Chairemon contain instructions concerning the management of estates and Chairemon regularly asks to send agricultural products. That Chairemon is called royal scribe in *BGU* III 981 and gymnasiarch¹⁷ in two texts of the archive is not a problem, since Kruse gives two

ment was drawn up by the bank of and subscribed by the receiver Isidora. *P.Soter*. 24 is Thaisas' copy of the document.

¹⁴ This is not an unusual demand, since Chairemon ordered Apollonios to send a copy of the bank payment to his secretary in document C (see above).

¹⁵ R.Smolders, "Two Archives from the Roman Arsinoites," *CdÉ* 79 (2004) 233-40.

¹⁶ See *BGU* II 596, note.

¹⁷ *BGU* II 594.1, 12 and *BGU* II 595.1.

examples of Alexandrians who held both offices.¹⁸ In my view, part of the correspondence (*BGU* II 594-95) between Apollonios and Chairemon dates from the period that Chairemon was a gymnasiarch¹⁹ and another part (*BGU* III 981) dates from the period that he was a royal scribe. It is impossible to say during which of Chairemon's two offices the other letters (*BGU* I 248-49, II 531, III 850 and *P. Michael.* 15) from Chairemon to Apollonios were written.

The Berlin collection contains more texts from this archive. The handwriting of *BGU* II 417 (A.D. 50-100²⁰), a letter from Chairemon to his son Dioskoros,²¹ is the same as that of the texts written by Chairemon to Apollonios. The larger part of the letter contains instructions concerning viticulture and related business matters, but the letter becomes personal in ll. 21-2 (ἵνα εἰδῶ ὅτι | με φιλεῖς) and l. 31 (γλυκύτατε). Dioskoros seems to have a hard time and his father advises him: "Set yourself free from all unfinished business in order that you may become unconcerned."²² Chairemon's advice, however, is not free from self-interest, since he adds: "and so that my little unfinished matters will finally have a good end,"²³ which is

¹⁸ Apollonios the younger, who had been gymnasiarch, *strategos* and royal scribe and Asklepiades, who had been gymnasiarch and royal scribe (*I. Alex.* 29 = *IGRR* 1060 = *SB* V 8780.28-9 and 30-1). See Kruse, *op.cit.* (above, n. 8) 926.

¹⁹ P.J. Sijpesteijn, *Nouvelle liste des gymnasiarques des métropoles de l'Égypte romaine*. Stud.Amst. 28 (Zutphen 1986) 3, n. 21 lists Chairemon as gymnasiarch of Arsinoe. It is indeed possible for an Alexandrian citizen to hold a municipal office outside his *idia*. See B.A. Van Groningen, *Le gymnasiarque des métropoles de l'Égypte romaine* (Groningen 1924) 34, 44. But there is no proof in the case of Chairemon and it is not excluded that he had been a gymnasiarch in Alexandria.

²⁰ *BGU* II 417 and *BGU* I 33 (see below) were dated palaeographically to A.D. II-III. I here change their date to A.D. 50-100, since *BGU* III 981 shows that Chairemon was alive in A.D. 76-77.

²¹ It is striking that Chairemon's father is called Andromachos alias *Dioskoros* in *BGU* III 981 col. II.8-9. Boys were often named after their grandfathers.

²² Lines 5-6: ἀπάλλαξον οὖν σεαυ | τὸν ἀπὸ παντὸς μετερου ἵνα | δη ποτὲ ἀμέριμνος γένη

²³ Lines 6-7: καὶ τὰ ἐμὰ μετεωρίδια | δη ποτὲ | τὲ τύχην εὐχῆ.

followed by a list of Chairemon's business affairs which Dioskoros should take care of.

BGU I 33 (A.D. 50-100²⁴), a letter from Apollonios to his son Apollonios containing instructions about viticulture and farming, explains how *BGU II 417* ended up in the archive: Apollonios asks his son to send him an answer "through Dioskoros, son of Chairemon, or any other person you may find (ll. 20-22)." Dioskoros apparently stayed sometime in Bacchias with Apollonios and added Chairemon's letter *BGU II 417* to the archive of Apollonios. *BGU I 33* is the first letter of Apollonios' father in the archive. From the greetings, we learn that Apollonios has a wife or sister (ἀδελφή), a brother and a daughter (ll. 16-19).

The new texts of the archive of Apollonios of Bacchias are important for the study of royal scribes in Roman Egypt, since Kruse regrets that the papyri very rarely contain information about their private life.²⁵ The archive of Apollonios of Bacchias contains one letter (*BGU III 981*) written by an acting royal scribe dealing with his business affairs, two letters (*BGU II 594-95*) addressed to him while he was a gymnasiarch (before or after his office of royal scribe) and five letters sent by him to his *phrontistes* either before, during or after his office of royal scribe.²⁶ These five letters contain information about Chairemon's social and religious life²⁷ and about the management of his possessions (particularly vineyards) at Bacchias in the Fayum.²⁸ *BGU II 417*, the personal letter from Chairemon to his son, shows us a glimpse of his family life.

²⁴ See n. 20.

²⁵ Kruse, *op.cit.* (above, n. 8) 906.

²⁶ Municipal offices could in all probability be held before or after state offices; *ibid.* 906.

²⁷ Chairemon seems to be a member of the same association as Apollonios: Ὅμνυμι δέ σοι κατὰ τ[ῶ]ν Δ[ιο]σκ[ο]ύρων, ὧν κοινῇ σεβόμεθα καὶ αὐτὸν ε[.]ε[.] . . . ἐπιθυμεῖν τῶν ἡθῶν σου ἀπολαῦσαι, ὁμῶς τ[έ]λειον ε[ὔ]ρῃσεται . . . περὶ τοῦ κοινοῦ (*BGU I 248.12-16*). From *BGU I 248.12, 28* we know that he attended to (and made preparations for) the *Soucheia* festival. See also Smolders, *op.cit.* (above, n. 15) 233-40.

²⁸ I use the term *possessions*, since Chairemon is nowhere mentioned as *owner* of an estate, and it cannot be excluded that he was a lessee.

The correspondence between Apollonios and Chairemon is also interesting for the landownership of Alexandrian citizens in Roman Egypt. Though there is nothing new about Alexandrians owning or leasing land in the *chora* in the early Roman period,²⁹ this archive offers the first proof of an Alexandrian possessing *vineyards* in the *chora* in the first century A.D.³⁰ and it shows how an Alexandrian actually managed these possessions in this period. Chairemon's letters to his *phrontistes* contain instructions about viticulture in particular, which seems to confirm the suggestion made from second century papyri that Alexandrians were rather more interested in vineyards than arable land.³¹

Document C also contributes to the study of banking in Roman Egypt. Bagnall and Bogaert showed that *P. Meyer* 6 offers the only irrefutable proof of the existence of payment orders handed over to the payee (= modern checks) in Graeco-Roman Egypt.³² Document C offers a second example since Chairemon asks his *phrontistes* to send a payment order to Ptolemaios.³³ That Chairemon does not order to send a similar payment order to the bank, raises doubt on

²⁹ The Iulii Theones, Alexandrian citizens, owned and leased land in first century Oxyrhynchos. For this family and examples from later centuries, see J. Rowlandson - A. Harker, "Roman Alexandria from the Perspective of the Papyri," in A. Hirst - M. Silk (eds.), *Alexandria, Real and Imagined*. Publications for the Centre for Hellenic Studies, King's College, London 5 (Aldershot 2004) 91-94.

³⁰ See K. Ruffing, *Der Weinbau im römischen Ägypten*. Pharos: Studien zur griechisch-römischen Antike 12 (Sankt Katharinen 1999) 215-16, for a list of lessees and 264-84 for a chronological list of vineyard owners. *P.Freib.* IV 58 (A.D. I/II), an application for lease of a vineyard (?) was drawn up by an Alexandrian citizen and *could* belong to the first century. *BGU* IV 1119.7 (5 B.C.) shows an Alexandrian woman owning a vineyard at the beginning of the Roman period. Since all other occurrences come from the second and third centuries A.D., K. Ruffing (*ibid.* 288) considered the numbers of Alexandrians owning vineyards in the first century A.D. to be of a limited extent.

³¹ See Rowlandson - Harker, *op.cit.* (above, n. 29) 92-93.

³² R.S. Bagnall - R. Bogaert, "Orders for Payment from a Banker's Archive: Papyri in the Collection of Florida State University," *AncSoc* 6 (1975) 103-4.

³³ *BGU* III 981 col. II.6-14, translated at the beginning of the article.

the rule that there were always *two* orders for payment made — one for the bank and one for the payee— when checks were used.³⁴

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³⁴ For this rule, see U. Wilcken in *P.Brem.* 108 and Bagnall - Bogaert, *op.cit.* (above, n. 32) 106. My *argumentum e silentio* is of course no proof. But doubts are justified, since there is —to my knowledge— no hard proof for the contrary either.

Due frammenti di un unico rotolo?
P.Duke inv. 756 e P.Mil. Vogl. inv. 1358
(Herodotus IV 144.2-145.1 e 147.4-5)
(Plate 1)

ABSTRACT

The following article sets forth a small papyrus fragment belonging to the collection Milano-Vogliano. It bears some lines of Herodotus IV written in a rather unusual literary hand, which can be dated to the late Ptolemaic period. The same hand occurs in P.Duke inv. 756, published in *BASP* 39, a fragment preserving an adjacent passage from the same book. Both fragments are judged to come from the same roll.

Il numero del 2002 del *Bulletin*¹ ha ospitato l'edizione di P.Duke inv. 756, un frammento papiraceo del quarto libro delle Storie erodotee. Al medesimo rotolo, dal quale proviene il papiro Duke, si è persuasi appartenga un reperto conservato presso la collezione dell'Università degli Studi di Milano inv. 1358, acquistato sul mercato antiquario. Si tratta di un frammento (6.7 cm x 6 cm) dai contorni abbastanza netti, appena intaccato da non significative lesioni e da sporadiche fratture, recante le reliquie di due colonne di testo: della prima non sussistono che un'infinitesima traccia e due lettere conclusive di rigli, ubicate in margine al tratto di intercolunnio (della larghezza di circa cm 2) conservato nell'appendice prominente dal lato sinistro del corpo principale. Questo reca parte di 11 rigli di scrittura, il primo e gli ultimi tre mutili del principio, i restanti superstiti nei 2/3 della agevolmente ricostruibile estensione originaria: intorno alle 17-18 lettere.

La pressoché inalterata nitidezza dell'inchiostro, a tacere di alcune evanescenze in prossimità dei lembi, offre all'osservazione

¹ R. G. Hatzilambrou, "A Duke Papyrus of Herodotus iv 144.2-145.1," *BASP* 39 (2002) 41-45. Si ringrazia la Special Collections Library della Duke University per la liberalità con cui ha fornita una buona immagine digitale del reperto.

quella che parrebbe la medesima mano, nella quale il papiro Duke è vergato: una grafia dal *ductus* fluido e dal tratteggio scarsamente regolare, sobriamente sinuosa e pressoché del tutto priva di apicatura, cadenzata da interlinee di ampiezza costantemente doppia rispetto al rigo. L'analisi del disegno delle lettere, di modulo prevalentemente allargato e distanziate le une dalle altre mediante un'abbastanza ariosa spaziatura, potrebbe confermare l'identità della mano, che si ritiene innegabile negli ampi α dalla sacca appuntita, negli ϵ di forma accentuatamente ovata, il cui tratto mediano, collocato in prossimità dell'arco superiore, è talora staccato dall'anello, negli η presentanti una barra mediana leggermente obliqua, discendente da sinistra verso destra; nei κ si scorge la medesima giustapposizione di un'asta verticale talora tenuemente ricurva e di un acuminato cuneo. Degni di nota sono i μ , nei quali i montanti tendono a divaricarsi verso il basso terminando in un esiguo *empatement* e l'insenatura risulta spostata sulla destra. Gli o , talora di dimensioni assai ridotte e collocati nella parte alta del rigo, sono talaltra maggiormente cospicui ed esibiscono forma a goccia. I τ mostrano assai pronunziata la parte sinistra della spezzata asta orizzontale, mentre negli ω un poco appiattiti e sospesi all'ideale rigo superiore, si evidenzia una curva destra dalla sagoma maggiormente *bombé*. Il bilinearismo è infranto in misura significativa dal solo φ , lettera che non compare nel papiro della collezione americana e che è dotata, ai piedi dello stelo, di un vistoso apice. Certo fortuitamente differente il disegno del ρ del reperto milanese, *cfr.* l. 7: l'occhiello, intersecata l'asta prosegue sino a invadere il campo della lettera precedente. Nel frammento Milano Vogliano si distinguono tracce di una *paragraphus* tra le ll. 7 e 8; difficile appurare se essa comparisse anche tra le ll. 3 e 4, data l'attenuazione della testura fibrosa e il concomitante raggrinzamento che sfigurano le tre lettere iniziali di l. 4. Lo ι è ascritto.

L'editore del frammento Duke data il manufatto al *late I / early II A.D.*, adducendo paralleli paleografici che non paiono pertinenti alla scrittura in esame. La si riterrebbe piuttosto collocabile cronologicamente tra la fine del II e l'inizio del I secolo a. C., *cfr.* l'assai affine mano di un documento, *P.Rein.* I 26 = *P.Dion.* 25, Pl. XXXIII, datato al 104 a. C., nonché P. Louvre inv. 9331+10438, *cfr.* E.

Revillout, "Le nouveau papyrus d'Hypéride," *REG* 2 (1889) 1-16, con una tavola = F. G. Kenyon, *The Palaeography of Greek Papyri* (Oxford 1899) 67-68, Pl. XII = Schubart, *Pal.*, 107-108, Abb. 70, ritenuto successivo al II sec. a. C. Secondo simile datazione si sarebbe dinanzi ai frammenti del testimone di maggiore antichità sinora noto del testo di Erodoto.

Il papiro Milano Vogliano restituisce un passo di poco successivo a quello serbato dal lacerto della Duke University. Considerando tanto l'uno che l'altro reperto appare verisimile congetturare come il rotolo recasse un testo nel quale non irrilevante dovette essere la quantità delle coloriture iperioniche. Tale peculiarità non è stata rilevata² dall'editore di P.Duke inv. 756, che interpreta inoltre in modo non convincente alcune tracce d'inchiostro nella linea iniziale³. Il papiro Milano Vogliano conferma poi l'accusativo tradito di un raro e morfologicamente controverso onomastico, Μεμβλίαρος, accolto dal Rosén⁴, come dagli editori precedenti, fuorché dallo Hude⁵, che propose l'innovativo quanto forse mal compreso emendamento Μεμβλίαρων.

In merito ai papiri restituenti brani delle Muse e al testo da essi recato, *cfr.* A. Maravela-Solbakk, "Fragments of Literary Papyri

² A l. 3 si distingue la forma ἔααν, interpretata dall'editore come "wrong variant" di ἔαν, nella quale "the first α... was perhaps written in anticipation of the second." Si tratterà invece di una non altrimenti nota III^a plurale dell'imperfetto, assai plausibile, se raffrontata con dizioni erodotee di probabile autenticità come ἔα (II 19), ἔα (I 87, *v.l.* ἔα), ἔατε (V 92), forme esibenti la nota Ἰωνικὴ τμητικ τοῦ η εἰς ε καὶ α, e certo modellata sul presente ἔαεν (I 66; 125, *v.l.* cod. C); in generale, *cfr. e.g.* H. W. Smyth, *The Sounds and Inflections of Greek Dialects. Ionic* (Oxford 1894) 591; P. Chantraine, *Grammaire homérique. I* (Paris 1958³) 71; E. Schwyzer, *Griechische Grammatik. I* (München 1939) 677.

³ Perplessità suscita la lettura di l. 1 λχ. A giudicare dall'immagine ad alta risoluzione del reperto messa a disposizione dalla Special Collections Library della Duke University, parrebbe probabile una lettura λχτ, la quale permetterebbe di postulare un'interessante variante testuale: la posposizione dell'infinito finale κτίζειν al sostantivo del costrutto di genitivo assoluto.

⁴ Herodoti *Historiae*, editit Haiim B. Rosén, Leipzig 1987.

⁵ Herodoti *Historiae*, editit Carolus Hude, Oxonii 1927³.

from the Collection of the Oslo University Library I: Herodotus 9.47-75," *SO* 79 (2004) 102-108, nota 5.

Col. I

].....
]
]
]ελ
].....

1 Si scorge un vestigio d'inchiostro assai minuto ed evanescente. **3** Le due lettere superstiti sono situate all'altezza dell'interlinea compresa tra i righi 7 e 8 di col. II.

Col. II

..... χω-]
 [ρη] ηρ[ε]σε ειτε κ[αι αλλωσ]
 ηθελησε ποιησ[αι τουτο]
 καταλειπει γα[ρ εν τη]
 5 νησωι ταυτηη[ι αλλουσ]
 τε των φοινικω[ν και δη]
 και των εωυτου [κυγγε-]
 νων μεμβλιαρο[ν ουτοι]
 ενεμοντο την κ[αλλι-]
 10 [στην] καλεομεν[ην επι]
 [γενεασ] πριν η θη[ραν ελ-]
 [θειν εκ λα]κεδαμιο[νοσ]

Col. I

3]ελ: ricorrendo nella narrazione immediatamente precedente a 147.4-5 a breve distanza le une dalle altre le voci ἔστελλε, ἀδελφεός, ἀδελφιδέων e risultando pertanto impossibile attribuire

con sicurezza tale superstite sillaba a una delle tre, appare quanto mai aleatorio il proposito di ricostruire l'originaria estensione delle colonne, nelle quali il contenuto del rolo era scandito.

Col. II

5 ταυτη[ι: il dimostrativo è omesso da D; le edizioni moderne mai recano simili forme. Si tratta di entità morfologica interessata da Ἰωνικὴ ἐπένθεσις τοῦ ε, caratteristica di una categoria di iperionismi, che in misura massiccia si riscontra nella tradizione manoscritta del testo erodoteo, *cfr.* W. Dindorf, *Dialectus Ionica Herodotum cum dialecto Attica veteri comparata*, trattazione introduttiva all'edizione didotiana (Parisiis 1887) xx-xxi, *d*); H. Lindemann, *De dialecto Ionica recentiore* (Diss. Keil 1889) 80-81 (occorrenze negli scritti pseudo-ionici); R. Kühner - F. Blass, *Ausführliche Grammatik der griechischen Sprache* I.1 (Hannover 1890³) 397-98; Smyth, *op.laud.*, 354, *praesertim* 446-47; Schwyzer, *op.laud.*, 114 (con rilievi intorno alla presenza di forme consimili nell'oralità, *cfr.* anche Gignac, *Grammar* I, 311c). Un giudizio equanime sul valore effettivo delle forme in questione non può trascurare la prudente ammissione enunziata in W. Schmidt - O. Stählin, *Geschichte der griechischen Literatur* I.2 (München 1934) 657 ("ob sie nicht dem ionischen Vulgär angehörten, wissen wir freilich nicht"), *cfr.* anche C. J. Ruijgh, *Études sur la grammaire et le vocabulaire du grec Mycénien* (Amsterdam 1967) 214, n. 13. Di ardito fascino la teoria formulata dal Rosén nella esaustiva *praefatio* all'edizione teubneriana, *cfr.* xix: le forme pronominali esibenti, nei tre generi, "ε intercalare" sarebbero un "*residuum vetustioris... conditionis grammaticae*," nella quale, in maniera analoga a quanto si osserva in altre lingue indeuropee, ancora vigeva una "*differentia inter declinationem pronominum et substantivorum*."

8 μεμβλιαρο[v: il papiro conferma il nesso -μβλ-, contro la lezione Μεβλ. recata da SV, sotto il profilo fonetico assai improbabile, *cfr.* Schwyzer, *op.laud.*, 277. Tanto la *Romana* quanto la *Florentina* attestano l'accusativo proprio dei temi in o. Hude propone invece Μεμβλιάρεων, così come del medesimo onomastico accoglie il sospetto genitivo Μεμβλιάρεω (147.4; 148.3), che di primo acchito altro non parrebbe se non un trascurabile iperionismo, "*in quo solo*

libri omnes consentire videntur veteris culpa librarii, qui quum Μεμβλιάρου τοῦ Ποικίλεω scriptum videret, prius nomen alteri sive consulto sive calami lapsu assimilavit" (Dindorf, *op. laud.*, xiii, §10). Intorno a tale desinenza "*non magis ferenda*" (Dindorf, *ibid.*) per voci della II^a declinazione, *cfr.* anche Kühner-Blass, *op. laud.*, 397 e Smyth, *op. laud.*, 374. Hude scorse nel *consensus codicum* prova della bontà di tale lezione, che interpretò non certo quale banale espressione di *dialectus facticia* alla stregua dei grevi e unanimemente ripudiati Βάπτειω, Δημοκρίτειω, Κλεομβρότειω, Κροίσειω, bensì come corretta forma genitivale della cosiddetta declinazione attica; nella speculazione del filologo dunque la forma genuina del raro onomastico sarebbe Μεμβλιάρειω, assai probabile, allorché la si raffronti *e.g.* con l'autenticamente erodoteo Ἀμφιάρειω (I 46). Rosén, pur seguendo Hude nella scelta del dibattuto genitivo tradito, opta poi per l'accusativo in ο, ammettendo in apparato: "*huius nominis flexio quae sit nescio, at formam consensu codd. transmissam proprio arbitrio mutare minime audeo, cf. etiam Ποικίλεω (supra) cuius nominativus in -λος cadere videtur.*" Nell'ambito insomma della raffinata ποικιλία, alla quale l'originale *Kunstsprache* erodotea sarebbe stata improntata, il colonizzatore fenicio avrebbe potuto essere a un tempo Μεμβλιάρειω e Μεμβλιάρω, *cfr.* l'analoga alternanza Τυνδάρειω/Tyndarus.

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The Reply of Jesus to King Abgar: A Coptic New Testament Apocryphon Reconsidered

(P. Mich. Inv. 6213)*

(Plates 2-3)

ABSTRACT

P.Mich. inv. 6213, a Coptic papyrus in the University of Michigan collection, is a copy of the apocryphal letter by Jesus to King Abgar that is mentioned in both Eusebius' *Ecclesiastical History* and the Syriac *Doctrine of Addai*. This papyrus is distinctive among the many extant copies of the letter because it mimics the appearance of a documentary letter. The present article is intended to present a new edition of this papyrus, to argue for its use as a protective amulet, and to situate this papyrus and the larger Abgar legend in their early Christian context.

I. Introduction

The words of Jesus were of great importance to the early Christians. The words believed to have been *spoken* by Jesus were recorded in the narratives and sayings of the New Testament. However, unlike so many other well-known figures of early Christianity, such as Paul, the New Testament does not contain any words ostensibly *written* by Jesus, and, as far as canonical tradition goes, no such writings existed. Even non-canonical Christian works were reluctant to ascribe writings to Jesus. However, a single apocryphon—the Reply of Jesus to Abgar, king of Edessa—does

* Images of P.Mich. inv. 6213 are published courtesy of the University of Michigan Library Papyrology Collection, and we thank Prof. Traianos Gagos for his generous help in obtaining images and facilitating our study of this papyrus. T.G. Wilfong would also like to thank Profs. David Frankfurter and Paul Mirecki for suggestions and references. Kevin Sullivan would like to thank T.G. Wilfong for collaborating on this paper.

purport to be a letter written by Jesus.¹ Although never credited with scriptural authority by the early church, the Reply of Jesus to Abgar was widely circulated and translated into many languages.² These words were especially popular in Egypt, where many copies of the Coptic version have survived. One such copy, P.Mich. inv. 6213—a Coptic papyrus in the University of Michigan collection that presents the words attributed to Jesus in the format of an actual letter—is the focus of this paper.

The tale of a written correspondence between Jesus and Abgar is found in both Eusebius' *Ecclesiastical History* 1.13.5-22 (ca. 303 C.E.)³ and in the Syriac *Doctrine of Addai* (ca. 400 C.E.).⁴ A brief overview of these two stories will be illuminating for discussion of P.Mich. inv. 6213,⁵ because they (a) provide the origin for the original Coptic translation of the text and (b) the Michigan papyrus appears to be an attempt at a rough simulation of the letter from these stories.

First, the story as recounted by Eusebius: during his reign, a certain king Abgar hears of the healing powers of Jesus.⁶ When Abgar is afflicted with a disease that none of his physicians can

¹ J. Elliot, *The Apocryphal Jesus* (Oxford 1996) 64-65 states that the letter as recorded by Eusebius "represents the only example of a text written in Jesus' name: such vehicles for Jesus' direct communications were not made use of in the apocryphal tradition."

² The apocryphal nature of this tradition was recognized even in antiquity. Pope Gelasius officially rejected it in the year 494 C.E.

³ For translations of Eusebius see K. Lake, *Eusebius. Ecclesiastical History* (Cambridge 1926); E. Hennecke, *New Testament Apocrypha*, ed. by W. Schneemelcher, trans. R. McWilson (Philadelphia 1963) by W. Bauer 1:437-44 in revised ed. by H. Drijvers 1:492-500.

⁴ For translations of the *Doctrine of Addai* see R. Beylot, *Histoire du roi Abgar et de Jésus* (Paris 1993); G. Howard, *The Teaching of Addai* (Chico 1981).

⁵ On the Abgar legend see K. Samir, "Abgar" in Aziz S. Atiya (ed.), *The Coptic Encyclopedia* (New York 1991) 1:7-8; W. Bauer, *Orthodoxy and Heresy in Earliest Christianity* (Philadelphia 1971) 1-12; and M. Fretz, "The Epistle of Christ to Abgar," in D. Freedman, *The Anchor Bible Dictionary* (New York 1990) 1:12-13.

⁶ This is ostensibly Abgar V Ukkama ("the Black"), who was king of Edessa between the years 4 B.C.E.-7 C.E. and again from 13-50 C.E. On this, see J. Segal, *Edessa. The Blessed City* (Oxford 1970) 67-73.

treat, he dispatches a messenger who beseeches Jesus to come to Edessa. Jesus tells the messenger that his work on earth is complete, so he must return to the Father; however, "he [Jesus] deemed him [Abgar] worthy of a personal letter in which he said that he would send one of his disciples to cure his disease, and at the same time promised salvation to himself and all his house" (*E.H.*, 1.13.3). Not long after Jesus had made this promise, Thomas, one of the twelve apostles, sends Thaddeus (Syriac "Addai") to evangelize in Edessa, thus fulfilling Jesus' promise (*E.H.*, 1.13.13). Eusebius says that the letter from Jesus to Abgar still existed in his own day in the archives of Edessa. Translating from the alleged Syriac original, he quotes it in his *Ecclesiastical History*:

Blessed are you [Abgar] who has believed in me [Jesus] without having seen me. For it is written concerning me, that they who have seen me will not believe in me, and that they who have not seen me will believe and be saved. But in regard to what you have written me, that I should come to you, it is necessary for me to fulfill all things here for which I have been sent, and after I have fulfilled them thus to be taken up again to him that sent me. But after I have been taken up I will send to you one of my disciples, that he may heal thy disease and give life to you.⁷

The content of this letter contains two elements that show it clearly to be a later fiction. First, Jesus knows of the writings about himself, all of which modern scholars believe were written long after his own death.⁸ Second, there appear to be direct quotations from the Gospel of John regarding not seeing, but believing in Jesus (Jn 20:29) and regarding work that Jesus must complete on earth before he can return to the one who sent him (Jn 16:5 and 17:4).⁹ The quotations from the Gospel of John (written ca. 100 C.E.) as

⁷ Translation based upon K. Lake, *op.cit.* (above, n. 3) 1:89-90.

⁸ The widely accepted dating for the Gospels is Mark ca. 70 C.E., Matthew ca. 80 C.E., Luke ca. 90 C.E., and John ca. 100 C.E. For a discussion of the issues surrounding dating see R. Brown, *An Introduction to the New Testament* (New York 1997) 163, 216, 273 and 373; see also, J. Robinson, *Redating the New Testament* (Philadelphia 1976).

⁹ The idea of Jesus sending a disciple after him is akin to the concept of the Paraclete (παράκλητος) in John's Gospel (Jn 14:6, 26; 15:26; 16:7).

well as the reference in Eusebius (written ca. 312 C.E.) indicate a range for the development of the Abgar tradition between 100-300 C.E. Beyond this it is difficult to date the origins of the Abgar legend. Bauer argues that there is no need to date this tradition to any earlier than the beginning of the 4th century C.E.; however, Segal has suggested that it developed much earlier.¹⁰ Regardless of the date of origin for this tradition, it is clear that after Eusebius' account the Abgar legend spread widely in the Christian world, since versions of the story have survived in Syriac, Greek, Latin, Armenian, Arabic, and Coptic.¹¹

The basic narrative sequence of the *Doctrine of Addai* is very similar to that of Eusebius; however, there are three significant differences.¹² First, within his letter to Abgar, Jesus includes a blessing for the city of Edessa (*Doc. Addai* 8.19-20). Second, since Jesus will not go to Edessa himself, the messenger paints a portrait of Jesus to bring to Abgar along with the letter (*Doc. Addai* 8:20-9:4). Third, in the letter as recorded by Eusebius, Jesus is referred to as 'savior,' but in the *Doctrine*, he is referred to as a healer.

The relationship between Eusebius' account and the *Doctrine of Addai* is uncertain. It seems likely given the widely accepted dates of authorship that Eusebius' story was written well before the Syriac *Doctrine*. Even with this being the case, it is difficult to determine whether the *Doctrine* is literarily dependent upon Eusebius' *Ecclesiastical History*. It is possible that Eusebius utilized the same Syriac source as that of the *Doctrine*.¹³ Whatever the relationship between these two texts, it is clear that the Coptic version of the Reply of Jesus to Abgar is derived from Eusebius' Greek, although the Coptic contains significant differences. Étienne Drioton, in his standard study of the Coptic version, saw these dif-

¹⁰ W. Bauer, *op.cit.* (above, n. 5) 11-12; J. Segal, *op.cit.* (above, n. 6) 64-65.

¹¹ See J. Segal, *op.cit.* (above, n. 6), 62-63, 71-72; R. Lane Fox, *Pagans and Christians* (New York 1986) 278-80.

¹² For a comparison of Eusebius' story and the *Doctrine of Addai* as well as their implications for understanding the history of the Syrian church see S. Brock, "Eusebius and Syriac Christianity," in H. Attridge & G. Hata (eds.), *Eusebius, Christianity and Judaism* (Leiden 1992) 212-34.

¹³ On this topic see J. Segal, *op.cit.* (above, n. 6) 62-65.

ferences as deliberate and motivated by anti-Arianism; he postulated a date for the original of the Coptic version between 359-62 C.E. and collected all the then-known Coptic versions as well.¹⁴ Numerous publications of additional manuscripts followed,¹⁵ including a rather inadequate edition of the present text.¹⁶ The present article is intended to publish a new edition of this papyrus, to argue for its use as a protective amulet, and to situate this papyrus alongside the larger Abgar legend in an early Christian context.

II. The Text of P.Mich. inv. 6213

P. Mich. inv. 6213 is a fragment of papyrus containing the end of the letter of Jesus to Abgar in Sahidic Coptic in 10 consecutive lines of text, 8 on the front and 2 on the back (Plates 2-3). It is difficult to know how large the papyrus originally was and thus how much is missing; although manuscripts of the full text of the letter of Jesus to Abgar in Coptic are much longer than the present fragment, amuletic uses tend to abridge the text (e.g. *O. Mon. Epiph.* 50) and it may be that little more than half of the papyrus is missing (see note on l. 1 below). The formatting of the text is suggestive: the scribe reached the bottom of the papyrus, flipped it over and wrote the last two lines upside-down with regard to the text on the front—exactly as a scribe would have done with a documentary letter. The hand is a rather irregular uncial hand, closer to that of certain magical and documentary texts than literary ones.¹⁷ These sorts of hands are not always so easy to date; the forms in P.Mich. inv. 6213 (especially the λ , τ and ϱ) are quite similar to those of

¹⁴ E. Drioton, "Un Apocryphe antiarien: la version copte de la Correspondence d'Abgar roi d'Edessa avec notre Seigneur," *Revue de l'Orient chretien* 20 (1915) 306-26, 337-73.

¹⁵ S. Giversen, "Ad Abgarem: The Sahidic Version of the Letter of Abgar on a Wooden Tablet," *Acta Orientalia* 24 (1954) 71-82; Y. Abd Al-Masih, "An Unedited Boharic Letter of Abgar," *BIFAO* 45 (1946) 65-80 and 54 (1954) 13-43; H. Youtie, "A Gothenburg Papyrus and the Letter to Abgar," *HThR* 23 (1930) 299-302.

¹⁶ Y. Abd Al-Masih, "An Unedited Boharic Letter of Abgar," *BIFAO* 54 (1954) 25-26.

¹⁷ See, for example, the various hands reproduced in plate 7 of Viktor Stegemann, *Koptische Paläographie* (Heidelberg 1936), described as "Urkundenschrift des IV., IV./V.-VI. Jahrhdts.", but also including two magical texts.

P.Ryl.Copt. 293, which is usually dated to the 5th-6th centuries C.E. The papyrus bears traces of vertical and horizontal folds, suggesting strongly that it was folded up in a fashion similar to a contemporary Coptic documentary letter. This folding, the documentary hand, and the format would all have contributed to its qualities as a simulacrum of *the* letter of Jesus and also facilitated its magical use.

This magical use of the text is referred to directly in the text itself (ll. 5-9 below), where it is specified as a manuscript protecting a place where it is affixed. At least one example of the Abgar letter in Coptic shows direct evidence of this practice,¹⁸ while several others are clearly intended for amuletic purposes.¹⁹

The papyrus was published with a transcription and negative photograph of the recto by Y. Abd al-Masih,²⁰ who did not note the fact that this papyrus presents unique variants on the standard text of the letter in Sahidic Coptic. In two cases, phrases have been transposed and there are a few other peculiarities as well. It is unclear whether the transposition of phrases was a scribal error in the present text, an error in the scribe's *Vorlage* or a deliberate rearrangement of the text.

Because of the peculiarities of the text, a diplomatic transcription is presented here rather than attempting a critical text incorporating readings from other manuscripts:

P.Mich. inv. 6213
Recto ↑ (Plate 2)

¹⁸ The John Rylands Library writing board, published in S. Giversen, *op.cit.* (above, n. 15), which also contains extensive discussion of the amuletic uses of the Abgar letter in other cultures.

¹⁹ The Vienna papyrus and parchments and the Leiden papyrus discussed in A. Kropp, *Ausgewählte Koptische Zaubertexte* (Brussels 1930-1) II: 72-80, III: 220, these and the other manuscripts described as amulets in E. Drioton, *op.cit.* (above, n. 14) 306-26, and note the inscribed version from Bawit in René-Georges Coquin, "Un nouveau témoin de la 'Letter (apocryphe) de Jésus à Abgar'," *BIFAO* 93 (1993) 173-78.

²⁰ Y. Abd al-Masih, "An Unedited Bohairic Letter of Abgar," *BIFAO* 54 (1954) 25-26.

- 1 ... [± 4] ο [
 ΔΥΩ ΝCΕCΟΤΜΕϸ ΩΔ [ΔΡΗΔϸ ΜΠΚΔϨ ???]
 ΝΕΓΝΕΔ ΤΗΡΟΥ ΕΤΝΗΥ Μ[ΝΝCΩΚ ϨΡΔΙ ϨΝΤΕΚ-]
 ΠΑΤΡΪΔ ΤΗΡC ΔΝΟΚ ΤC ΠΕΝΤ[ΔΪ CϨΔΪ ΝΕΤΕΙΕ-]
- 5 ΠΙCΤΟΛΗ ϨΝΤΑCΪΔ ΠΜΔ ΕΤΟΥΝ[ΔΤΩCΕ ΕΒΟΧ]
 ΝϨΗΤϸ ΝΤΕΪCΪΔ ΝCϨΔΪ ΝΕΧΔΔ[Υ ΝΔΗΝΔΜΙC Ν-]
 ΤΕ ΠΑΝΤΪΚΪΜΕΝΟC ΟΥΔΕ ΧΔΔΥ ΝΕ[ΝΕΡΓΙΑ Μ-]
 ΠΝΔ {ΝΔ} ΝΔΚΑΘΑΡΤΩΝ ΕΩCΜC[ΟΜ ΕϨΩΝ ΕϨΟΥΝ]

Verso → (Plate 3)

- ΕΠΜΔ ΕΤΕΜΔΥ ΟΥΔ ΧΩΩΝϸΕ[???]
- 10 ΩΔ ΕΝΕϨ ΟΥΔΔΙ ϨΝΟΥCΪΡΗΝ[Η ϨΔΜΗΝ]

...[...] ... And they will hear it to [the end of the world, and?] the generations who will come a[fter you in your] whole country. It is I, Jesus, who have writ[ten this] letter with my hand. (As for) the place where one [will affix] this manuscript, no [power of] the adversary, nor any [activity of] the unclean spirit will be able [to come near] that place ... [...], forever. Farewell, in peace. Amen.

1 Only an omicron is visible, roughly above the tau of line 2; given the confusion of the text at this point, it would be difficult to reconstruct line 1 with certainty. It is also impossible to know how many lines before this are missing, but it is unlikely that this was the first line and probably at least half of the papyrus is missing. Amuletic use tended to abridge the text, although none so drastically: note the examples cited above.

2 In all other instances of the Coptic version, the phrase ΔΥΩ ΝCΕCΟΤΜΕϸ ΩΔ etc. comes later, after ϨΝΤΕΚΠΑΤΡΙΑ ΤΗΡC. It is difficult to know how the line would have been resolved in the present configuration, assuming that the transposition was intentional; if the

phrase were completed (ΔΥΩ ΝCΕCOTMΕϸ ΩΔ[ΔΡΗΞϸ ΜΠΚΔΞ], the space could accommodate ΔΥΩ "and" or the conjunctive prefix, but neither is entirely satisfactory grammatically.

5 Most copies of the Coptic version have ΞΝ ΤΑΓΙΔ ΜΜΙΝ ΜΜΟΙ "with my own hand"; was it omitted from the present copy, formatted like a letter presumably to make it a sort of facsimile, because it would have been redundant?

8 Our scribe has added a superfluous ΝΔ here, an easy mistake to have made given the two already present.

9 Again there is a transposition here; all other versions give ΕΠΜΔ ΕΤΜΜΔΥ (or variations thereon—some versions use ΤΟΠΟC instead of ΜΔ) at the end of the clause, just before ΩΔ ΕΝΕΞ. The words following ΕΠΜΔ ΕΤΕΜΔΥ in the present text are confused; most versions have ΟΥΔΕ ΕΞΩΝϸ ΕΞΟΥΝ "nor fall upon" or something similar, but here the scribe seems to have dropped the first two epsilons and began to write the word ΞΩΩΜΕ "book" here but caught himself and wrote ΞΩΩΝϸ (could this be indicative of oral dictation?). Note that the scribe of the Leiden manuscript also had difficulties with this phrase, and rendered it as ΕΞΩΞ ΕΞΟΥΝ.

III. Function of P.Mich. Inv. 6213

1. Content

P.Mich. inv. 6213 is a fragmentary copy of a well-known text and, using the many other extant examples of the Coptic version of the text as a basis, we may assume that the missing parts of this papyrus would have contained a greeting directed to King Abgar, a blessing, a word of healing based upon the fact that he has faith in Jesus' power, and lastly a continual blessing over Edessa. The content of the Coptic version is similar to that of the other versions; however, there are two points worth noting. The first is the use of the first-person pronoun in line four. The use of the first-person is not surprising, since all versions have it at this point in the text. However, what is interesting is that while in the Coptic the first-person might have easily been conveyed simply through the past tense verb, the translator instead chose to use the cleft sentence

construction with a relative clause to emphasize "I" = Jesus.²¹ This suggests that the author of the Coptic version of the text found in P. Mich. inv. 6213 wanted to emphasize Jesus' identification within this text as *the* source of power.

Second, the vocabulary of the Coptic version as seen in P. Mich. inv. 6213 contains two notable Greek words "adversary" (ἀντικείμενοι)²² in l. 7 and "unclean spirit" (ἀκαθάρτων)²³ in l. 8. Again, the use of these words from the Greek original is not surprising, but these terms are also often found in New Testament passages where the context is resistance to the development of Christianity in the form of human opponents to the message (ἀντικείμενοι) and more importantly in the form of unclean (ἀκαθάρτων) spirits. Lines 7 and 8 suggest that this text would offer specific protection from these adversaries wherever it was affixed. Further, if the transposition in l. 9 of P. Mich. inv. 6213 was an intentional act of the scribe, then this individual copy of the text would have emphasized its place-specific protective powers.

2. Physical Appearance

As was noted, the folding pattern of P. Mich. inv. 6213 is indicative of documentary texts from the period, which may have been intended to convey the illusion of it being an actual letter. That same folding that gave the text the appearance of a documentary letter also evokes its use as an amulet in specific ways. When folded, the text would not have been immediately readable, but still maintained its powers and indeed was made more usable. The folded papyrus may have been affixed to a wall in its folded form, as the text itself suggests, but more likely it was either placed into a small container (likely made of wood or metal) that would then have been worn around the neck, or inserted into a crevice or hole in a wall or threshold.²⁴ Used in this way, it would have served as a per-

²¹ See B. Layton, *A Coptic Grammar* (Wiesbaden 2000) §464.

²² Lk 13:17, 21:15; 1 Cor 16:9; Phil 1:28; 2 Thes 2:4; Tim 5:14.

²³ Mt 10:1; Mk 1:23, 5:2, 6:7, 9:25; Lk 4:33, 6:18, 8:29, 9:42; Acts 5:16.

²⁴ For the former, see Dominic Montserrat, "The Representation of Young Males in 'Fayum Portraits'," *JEA* 79 (1993) 215-225 at 224; for the latter, see, e.g., P. C. Smither, "A Coptic Love charm," *JEA* 25 (1939) 173-174.

sonal or space-specific protective amulet. An amulet is "an object, supposedly charged with magical powers ... to ward off misadventure, disease, or the assaults of malign beings, demonic or human."²⁵ D. Ogden adds, "Amulets were the most pervasive magical tools in antiquity. At the simplest level, they were a protective or empowering magical band: the basic Greek term for amulet, *periamma* (or *periapton*) literally means 'object tied around.'"²⁶ The practice of wearing amulets as protection from evil spirits, powers, etc. is, of course, very well attested in ancient Egypt.²⁷ S. Giversen noted the extensive use of the Jesus-Abgar letter as an amulet in other cultures and concluded in his study of the Coptic apocryphon on a wooden tablet that "there can be no doubt that the tablet has been used as an amulet."²⁸ The folding of P.Mich. inv. 6213 both allowed for the papyrus to be employed in an amulet and at the same time made it all the more like a contemporary documentary letter.

3. Traditions about Jesus' Power over Adversaries

It is necessary then to consider what traditions existed about Jesus that would have made him a good candidate for being invoked as a protector. From the earliest writings about Jesus, much attention was given to his miraculous powers. The Gospels contain many stories about Jesus as both healer and exorcist.²⁹ In the ancient Jewish context in which Jesus (and likely the Gospels)

²⁵ T. Gaster, "Amulets and Talismans," in *Encyclopedia of Religion* (New York 1987) 1:243.

²⁶ D. Ogden, *Magic, Witchcraft, and Ghosts in the Greek and Roman Worlds: A Sourcebook* (Oxford 2002) 261.

²⁷ For some studies of this see C. Bonner, "Magical Amulets" *HThR* 39 (1946) 25-55, *eund.*, *Studies in Magical Amulets, chiefly Graeco-Egyptian* (London 1950); R. Ritner, *The Mechanics of Ancient Egyptian Magical Practice* (Chicago 1993).

²⁸ S. Giversen, *op.cit.* (above, n. 15). See also H.J.W. Drijvers, "The Abgar Legend," 495.

²⁹ For recent monographs on these aspects of Jesus, see S. Davies, *Jesus the Healer: Possession, Trance, and the Origins of Christianity* (New York 1995) and G. Twelftree, *Jesus the Exorcist: A Contribution to the Study of the Historical Jesus* (Peabody 1993).

arose there was little or no distinction made between those who could heal and those that exorcised demons. In fact, most ancients would have seen the exorcising of demons and healing as one and the same activity. As D. Martin states, "Early Christians seem generally to have believed that disease was caused by the invasion of hostile, cosmic, personal agents."³⁰

Jesus' power over adversaries manifests itself in many forms, but one example will suffice to demonstrate the significant power that Jesus was believed to possess over his non-corporeal adversaries.³¹ In Mark 5, Jesus encounters a man who has an unclean spirit (πνεύματι ἀκαθάρτῳ) (5:2). The man dwelled among tombs, caused injury to himself, and he was so strong that no one could restrain him even with chains (5:3-5). When the afflicted man saw Jesus, he ran up to him, and asked "What have you to do with me, Jesus, Son of the Most High God?" (5:7). Jesus asks the demon his name to which it responds, "Legion is my name, for we are many" (5:9). Despite the fact that the demon is extremely powerful, which is manifest both in the severe symptoms and in the fact that it is "Legion," i.e., it is numerous, Jesus is able to cast the demon out into a nearby herd of swine (5:10-13). Once the demon is gone, the man is healed and even seeks to follow Jesus (5:15, 18-20). This example demonstrates that the authors of the Gospels believed that Jesus (during his earthly ministry) was able to heal and to defeat "unclean spirits" and other non-corporeal adversaries, regardless of their number or strength.

Other traditions suggest that Jesus continued to be understood as an effective force against adversarial powers, even *after* his death. In Acts 19:13-20 we read:³²

³⁰ D. Martin, *The Corinthian Body* (New Haven 1995) 164. Martin notes that there are some exceptions, such as the Gospel of John, but concludes that "Despite these voices to the contrary, the overriding etiology of disease in early Christian texts is that of invasion" (p. 165).

³¹ Some other important examples from the New Testament of Jesus' power include: the raising of Jairus' daughter (Mk 5:21-43); the raising of Lazarus (Jn 11:1-4); the healing of the centurion's servant (Mt 8:5-13 & Lk 7:1-10); and Jesus' healing of a possessed boy (Mk 9:14-29), but there are many other examples.

³² A commonly accepted date for Acts is ca. 85 C.E., see R. Brown, *op.cit.* (above, n. 8) 273-74.

Then some of the itinerant Jewish exorcists undertook to pronounce the name of the Lord Jesus over those who had evil spirits, saying, "I adjure you by the Jesus whom Paul preaches." Seven sons of a Jewish high priest named Sceva were doing this. But the evil spirit answered them, "Jesus I know, and Paul I know; but who are you?" And the man in whom the evil spirit was leaped on them, mastered all of them, and overpowered them, so that they fled out of that house naked and wounded. And this became known to all residents of Ephesus, both Jews and Greeks; and fear fell upon them all; and the name of the Lord Jesus was extolled. Many also of those who were now believers came, confessing and divulging their practices. And a number of those who practiced magic arts brought their books together and burned them in the sight of all; and they counted the value of them and found it came to fifty thousand pieces of silver. So the word of the Lord grew and prevailed mightily.

The historicity of this tale need not concern us here.³³ The importance of this passage for the present discussion instead lies in the fact that the story demonstrates that it was at least conceivable even within the canonical tradition for people to see exorcists calling upon Jesus' name to help them against demonic powers. The ironic twist in this passage is that while the exorcists try to invoke Jesus' name, they are not successful. In fact, they themselves are overcome. The intent of the story seems to be to send a clear message that people must be faithful believers in Jesus if they are to be successful when invoking his name.³⁴ Here we can see the beginnings of the trajectory upon which the Abgar legend lies, one in which Jesus from the earliest period was believed to have power over adversaries both during his ministry and after his death.

³³ For a detailed exegetical discussion of this passage, see C. K. Barrett, *A Critical and Exegetical Commentary on The Acts of the Apostles* (Edinburgh 1998) 2:900-14.

³⁴ For another example of outsiders calling upon the name of Jesus for exorcisms, see Mk 9:38-40; cf. Mt 7:22-23.

Echoes of this same tradition appear in the pseudepigraphical text, *Testament of Solomon*, which dates to the first-third centuries C.E. In the text we find the following reference to Jesus as an angel: "I [Solomon] said to him [Ephippas, a powerful demon from Arabia], "By what angel are you thwarted?" He said, "By the one who is going to be born of a virgin and be crucified by the Jews, [whom the angels (and) archangels worship. He is the one who thwarts me and saps me of my great power which has been given to me by my father the devil]" (22:20).³⁵ What is striking about this tradition is that the post-resurrection Jesus is referred to as an angelic being that has power over a demon.³⁶ Such beliefs about Jesus were likely to have been influential in the formation of the Abgar tradition. It would be requisite for people to believe that Jesus' power over demons continued even after his death for them to have faith in the efficacy of something like an amulet of protection with the Abgar letter as its source of power. This text helps us to see that in the early centuries of Christianity a wide variety of beliefs about Jesus was extant and that the Abgar legend did not develop in a vacuum, but can be seen as part of a continuum in early Christian beliefs about Jesus.

While somewhat obvious, it is important nevertheless to call to mind the many texts of the magical tradition that call upon Jesus in spells for a variety of purposes.³⁷ Here again one example (ca. 4th-5th centuries C.E.) should suffice to demonstrate that there were strong traditions in which Jesus could be evoked for protection:

I invoke you, [god] of heaven and god of the earth and [god] of the saints through [your blood], the fullness of the aeon who comes [to us], who has come to the world and has broken the claw of Charon, who has come through Gabriel in the womb

³⁵ D. Duling, "The Testament of Solomon," in J. Charlesworth (ed.), *The Old Testament Pseudepigrapha* (New York 1980) I:984-985 [section in brackets from fn. 22 (from Ms. P)]; cf. *T.Sol.* 12:3.

³⁶ On Jesus as an angel, see K. Sullivan, *Wrestling with Angels: A Study of the Relationship between Angels and Humans in Ancient Jewish Literature and the New Testament* (Leiden 2004) 114-18.

³⁷ For numerous examples, see M. Meyer and R. Smith, *Ancient Christian Magic: Coptic Texts of Ritual Power* (San Francisco 1994) and H.D. Betz, *The Greek Magical Papyri in Translation, Including Demotic Spells* (Chicago 1986).

of the virgin Mary, who was born in Bethlehem and raised in Nazareth, who was crucified [...] for this reason the curtain of the temple was torn by itself, who, after rising from the dead in the grave on the third day of his death, showed himself in Galilee, and ascended to the height of heave, who has myriads of myriads of angels on his right calling out three times with one voice, Holy, holy is the king of the aeon, so that the heavens are full of his divinity, who goes on his way with the wings of the winds.

Come, O mercy, god of the aeon, who has ascended to the seventh heaven, who has come from the right of the father, the blessed lamb through whose blood the souls have been freed and through whom the bronze gates have opened by themselves, who has broken the iron bars, who has loosed those bound in the [darkness], who has made Charon impotent, who has bound the hostile rebel that was cast into his own places. The heavens were blessed and the earth was glad that the enemy withdrew from them and that you gave freedom to the creature who prayed to the lord Jesus, the voice that absolved of sins all of us who call upon your holy name. The sovereigns [and] the powers and the world-rulers of darkness, whether an unclean spirit or a demon falling at the hours of midday, or a chill, or a mild fever or a shivering fever, or ill treatment from people, powers of the adversary—may they not have power against the figure, since it was formed from the hand of your divinity, [because] yours, O mercy of the aeon, is [all] power, which prevails for ever.³⁸

This spell makes quite clear the fact that it is calling upon Jesus, detailing many facts about his identity from the Gospels and other books of the New Testament. The spell refers specifically to adversaries (ἀντικειμένου) and unclean spirits (ἀκαθάρτων πνεῦμα)—the same Greek terms as we saw in P.Mich. inv. 6213—and asks for protection from these forces as protection from illness.

³⁸ Translation from M. Meyer and R. Smith, *ibid.* 35-36 (#10). Original text in K. Preisendanz, *Papyri Graecae Magicae* (rev. ed. 1973-74) 2.220-22.

These literary traditions suggest that not long after the earthly ministry of Jesus, writings arose that understood Jesus to be an effective force against non-corporeal powers.³⁹ Moreover, these writings likely lie on a continuum of belief that sustained for many centuries and influenced the legendary correspondence of Jesus and Abgar and its use as a magical protection device.

4. Use of the Abgar-Jesus Correspondence in Inscriptions

Lastly, beyond the use of the apocryphal correspondence as a mobile protective device in amulets, there is also evidence of the letter being placed in fixed positions outside cities as an inscription. In fact, the text itself suggests that it be affixed, but the fold pattern of P. Mich. inv. 6213 suggests instead that it was placed in a mobile format. Two cases of the fixed form are relevant to this discussion. First, the words of Jesus were engraved into an inscription that was put onto the gate into the city of Edessa.⁴⁰ This makes a great deal of sense given that the Syriac tradition says that Jesus blessed the city.

Somewhat more surprisingly, however, the letter of Abgar in inscriptional form has also been discovered in other parts of the Mediterranean, in Euchaita (northern Anatolia) and Philippi (Northern Greece).⁴¹ The Abgar inscription in Philippi is particularly interesting in that it was placed in very close proximity to an Isis altar.⁴² About this placement V. Abrahamsen concludes, "Rather than view the juxtaposition of Jesus and Isis as competi-

³⁹ For the continuing impact of Jesus' exorcist powers and the worship of Christ, see E. Klutz, "The Grammar of Exorcism in the Ancient Mediterranean World: Some Cosmological, Semantic, and Pragmatic Reflections on How Exorcistic Prowess Contributed to the Worship of Jesus," in C. Newman, J. Davila, and G. Lewis (eds.), *The Jewish Roots of Christological Monotheism*, (Leiden 1999) 156-65.

⁴⁰ See J. Segal, *op.cit.* (above, n. 6) 75; H.J.W. Drijvers, "The Abgar Legend," 493-95.

⁴¹ J. Segal, *op.cit.* (above, n. 6) 75; C. Picard, "Un texte nouveau de la correspondance entre Abgar D'Ostroène et Jésus-Christ gravé sur une porte de ville, à Philippes (Macédoine)" *BCH* 44 (1920) 41-69.

⁴² V. Abrahamsen, *Women and Worship at Philippi* (Portland 1995) 179-91.

tive...we should perhaps see it as yet another example of the gray area of religious sensibilities in the city [Philippi]..."⁴³

These two inscriptional uses of the Abgar tradition allow us to flesh out the picture of the apocryphal tradition a bit further. Not only was the apocryphon understood to have protective powers, but it also seems that it was not uniquely Christian (despite the story in Acts 19), but could be used as effective magic outside of Christian circles or in mixed religious cultures.

IV. Conclusion

The Reply of Jesus to King Abgar is unique among ancient literary sources about Jesus in its claim to have been *written* by Jesus himself. Such a letter would have been understood as very powerful by those who believed the *tradition* to be authentic. This is not, of course, to suggest that whoever came into possession of P. Mich. inv. 6213 when it was new would have believed that they had the actual autograph original. But the formatting of the papyrus as a letter clearly invites the user to see it as a sort of facsimile or simulacrum of an original document.

The main emphasis of the apocryphal tradition, namely that Jesus had power over adversaries, unclean spirits, demons, etc., is very much in keeping with the earliest, canonical traditions. From these first writings about Jesus in the New Testament, through pseudepigraphal writings and magical texts, and in later inscriptions, people appear to have believed strongly in the protective power of Jesus.

If the number of copies of the Jesus-Abgar correspondence that have survived is any indication, belief in the efficacy of the Coptic version of this text was strong in Egypt. The function of P. Mich. inv. 6213 was as the source of power for a protective amulet. P. Mich. inv. 6213 adds an interesting variation to the other known copies in that it not only reproduces the standard Coptic text of the Reply of Jesus (with a few odd variants), but it also does so in the format of a Coptic letter—written in a documentary hand on a letter-sized piece of papyrus, folded like a letter and following the

⁴³ *Ibid.* 187.

other formal conventions of written correspondence of the time in which it was produced. This apparent resemblance to a putative original could have only enhanced the efficacy of these words that were already considered so powerful, rendering P. Mich. inv. 6213 a very powerful document indeed.⁴⁴

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⁴⁴ So powerful in fact that it continued to be used for many centuries on into the Middle Ages: J. Segal, *op.cit.* (above, n. 6) 75; P. Considine, "Irish Versions of the Abgar Legend," *Celtica* 10 (1973) 237-57.

An Addition to *P.Yale I 24*
(Demosthenes, *Against Phaenippus* 14–15)
(Plate 4)

ABSTRACT

A survey of the Beinecke Library's papyrus holdings has turned up a small scrap belonging to *P.Yale I 24*. The following brief note describes the new fragment and supplies an updated transcription of the entire piece. It concludes with corrections to the original publication and some additional information about the layout of the manuscript.

P.Yale 24, assigned by its editors to the second century CE, is still the only witness on papyrus to Demosthenes' *Against Phaenippus*.¹ Since the publication of *P.Yale I* in 1967, a second small fragment belonging to the same roll has come to light. The discovery was made by Stephen Emmel during the course of his conservation survey of the Beinecke collection in the 1980s. This scrap, measuring 2.8 x 1.5 cm and containing portions of six lines, attaches to *P.Yale 24* at the top, supplementing lines 1-3 of the original transcription and adding three new lines above those. The dimensions of the combined fragments are 6.5 x 5 cm. What follows is the complete text of the composite piece, including minor corrections to the transcription supplied in the *editio princeps*.

[τῆ]ν [ἀπό-]
[φρακτιν, οὗτος δέ,] ὅπερ κ[αὶ]
[μικρῶ πρότερ]ον εἶπ[ον,]
4 [πρῶη]ν ἔδ[ω]κέ μ[οι] β[ι-]
[βλίον, οὐδ]ὲν [ἄλ]λο βο[υλό-]
[μενο]ς ἦ δ[οκ]εῖν με[ν δε-]

¹ *Yale Papyri in the Beinecke Rare Book and Manuscript Library*, ed. John F. Oates, Alan E. Samuel and C. Bradford Welles (New Haven 1967) 50; Mertens-Pack³ 329.1. For a complete list of Demosthenes papyri, see Mertens-Pack³ (http://promethee.philo.ulg.ac.be/cedopal/getPack.asp?_auteur=258), which contains 170 entries.

- 8 [δωκέ]γαι τὴν ἀπόφασι[ν,]
 [μὴ ἔχε]ιν δέ με[.] τοῖς ἐ[ν]
 [αὐτῷ γ]εγραμμένοις ὅ[τι]
 [χρήσοι]αι. χρὴ δέ, ὡ ἄνδρες
 [δικαστ]αί, μὴ τοῖς ἰσχυρο-
 12 [τέραν] νομίζουσιν τῶν νό-
 [μων]

In general, the original publication may be consulted for a basic physical description of the papyrus and some paleographical notes; however, two statements that appear there require some clarification. The editors assert that there is "an intercolumnar margin of 1.1 cm. on the right," giving the impression that the distance between the transcribed column and the adjacent column can be measured. In fact, there is no trace of a second column. One may say only that the intercolumn was greater than 1.1 cm. They also state that "the right margin was even." This is patently not the case. Only two line endings are fully visible; line 11 (in the new transcription) terminates 0.3 cm short of line 10.

The following data may be added to the commentary contained in *P.Yale* I. For lines 2-12, the average number of characters per line is 18.5, with a maximum of 20 and a minimum of 16. The column width may be estimated at 5 cm, which falls into William Johnson's prose column width class I (4.5-6 cm, or narrow).² As the trend in the second century CE was toward narrower columns, the Yale Demosthenes appears to be quite typical. It is not possible, on the other hand, to determine the original number of lines per column or the original column and roll heights. Finally, the new fragment, supplying more text in lines 5/6 (lines 2/3 of the earlier edition), confirms that the papyrus does contain ἄλλο βουλόμενος ἢ (the reading of manuscripts S and A), as conjectured by the original editors, and not ἄλλ' ἢ βουλόμενος.

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² William A. Johnson, *Bookrolls and Scribes in Oxyrhynchus* (Toronto 2004) 100-08.

Checklist of Arabic Papyri*

(Beta Version) [Last Updated April 2006]

ABSTRACT

The *Checklist of Arabic Documents* aims to facilitate and advance the use of Arabic documents. By providing this inclusive bibliography of editions of Arabic documentary texts—on papyrus, paper, parchment, leather, ostraca, wood, stone and bone—in monographs and articles, and setting out a standardized system of abbreviations for monographs of Arabic document editions, we hope it will serve to enhance the transparency of citations and improve the accessibility of editions, functioning as a useful point of reference for Arabists and non-Arabists, specialists and non-specialists alike.

Arabic Papyrology

Scholars have long acknowledged the importance of papyri and other documents for our understanding of early and medieval Islamic culture and society. Tens of thousands of papyrus documents survive, in Greek, Coptic and Arabic, and among the vastly diverse and significant information they contain are the only contemporary records of the Muslim conquest of Egypt in the mid-seventh century, a cornerstone event not only in the history of Mediterranean civilization but in the development of one of the most populous religions of the world. Never intended to be read by later generations, the documents not only offer a useful check on the data preserved in narrative and literary sources, but also record aspects of life and strata of society to which we would otherwise have no access, and with a richness, immediacy and variety unmatched by any other source. Together, these documents have the potential to shine a fresh and detailed new light on early Islamic Mediterranean culture and society. The field can no longer afford to be without them.

* I would like to thank Andreas Kaplony, Lesley Wilkins and Amalia Zomeño for making their bibliographies available to me (P.M.S.).

Despite their importance, however, papyri from the Islamic period continue to be underused. The philological complexity of Arabic papyri combined with the poorly developed infrastructure of the field (with few catalogues and hand-lists) seriously impedes the edition of new documents. Of the tens of thousands of Arabic documents preserved in museum and library collections around the world, only some two thousand have been published so far. The relative neglect is especially striking when Arabic papyrology is compared to older disciplines such as Greek, Latin and Coptic papyrology, all of which have benefited from such essential tools as electronic and printed databases, lexicographic, geographical, onomastic and linguistic reference works and compilations of corrigenda—all of which Arabic papyrology lacks.

The Development of Arabic Papyrology

Change, however, is in the air. In March 2002 the International Society for Arabic Papyrology (ISAP) was founded in Cairo as part of an ongoing campaign to promote the study of this important resource and to ensure it is accessible to the larger scholarly community (<http://www.ori.unizh.ch/isap.html>). The need to offer a professional forum for scholarly exchange has begun to be met by an electronic mailing list, the ISAP newsletter. ISAP has also organized three conferences, in Cairo, Egypt in 2002, in Granada, Spain in 2004, and in Alexandria, Egypt in 2006, at which more than fifty scholars from around the world joined in a discussion of Arabic documentary sources, the challenges they pose and the rewards they offer. An important aspect of these conferences has been to integrate research conducted in the other languages of the medieval Middle East: Greek, Coptic, Judaeo-Arabic, and Persian. The high attendance among non-Arabists shows the extent to which Arabic papyrology is of interest to scholars beyond its own linguistic borders and heightens the need to make this field accessible to non-Arabic users.

On another front, in 2002 the Oriental Institute at the University of Zurich launched the internet-based Zurich Arabic Papyrology School offering initial training in the reading of Arabic papyri (http://orientx.unizh.ch:8080/aps_test_2/home/index.jsp). The uni-

versity is also building up a fully searchable Arabic Papyrology Database (<http://orientx.unizh.ch:9080/apd/project.jsp>), which contains editions of Arabic documents with translations and corrections. Another development has been the offering of training courses in Arabic papyrology. A first workshop was organized in January 2006 at the Oriental Institute of Oxford University by Petra Sijpesteijn, Teresa Bernheimer, and Case Robinson, sponsored by the Hulme University Fund and the Oriental faculty. An Arabic papyrology summer school is planned to take place in Vienna at the Papyrussammlung in the Nationalbibliothek in 2007. There still remain, however, large obstacles for scholars wishing to use Arabic documents. Most importantly, a comprehensive bibliography of edited Arabic documents, which are often published in journals and unique publications unknown except to the informed scholar, is completely lacking.

The Checklist for Arabic Documents

The *Checklist for Arabic Documents* seeks to fill this void by collecting the editions of Arabic documents published in monographs and those editions even harder to find published in Festschriften, obscure journals and other scattered publications. The system of standardized abbreviations of monograph editions makes referencing easier for Arabic papyrologists editing documents and facilitates the use of these editions by other scholars unfamiliar with the literature. Arabists and non-Arabists, papyrologists and other scholars interested in using documents in their research will find in the *Checklist* all published editions of Arabic documents grouped conveniently together and, using the uniform system of abbreviations, they should be able to reconstruct all cited bibliographical information with some ease.

The format of the abbreviations used in the *Checklist for Arabic Documents* (www.ori.unizh.ch/isap/isapchecklist.html), including some of the actual abbreviations, follow those of the J.F. Oates et al. (eds.), *Checklist of Greek, Latin, Demotic and Coptic, Papyri, Ostraca and Tablets*, BASP Suppl. 9, and the online version (http://scriptorium.lib.duke.edu/papyrus/texts/clist_papyri.html). The initial 'P.' refers to the papyrus, paper or parchment on which

the documents are written. The next item in the abbreviation refers to (in order of precedence): (1) the name of the place or other geographical reference, or the individual or group of individuals with which the documents were associated in antiquity; (2) the modern-day collection to which the documents belong; (3) the title, when the documents are thematically related; or (4) the names of the editor(s). Those abbreviations in the *Checklist for Arabic Documents* which already exist in the *Checklist of Greek, Latin, Demotic and Coptic, Papyri, Ostraca and Tablets* are followed by 'Arab.' to distinguish them from similar editions in Greek, Coptic and Demotic.

Boundaries and Expected Expansion

The geographical boundaries for editions included in the *Checklist for Arabic Documents* are determined by the use of Arabic in the medieval Muslim world and include, for example, Egypt, Andalusia, Sicily, Palestine and Khurasan. The chronological limit is set by the Ottoman conquest of the Levant and Egypt in the sixteenth century. The *Checklist for Arabic Documents* includes, firstly, monographic editions of Arabic documents on papyrus, paper, parchment, and leather from the entire medieval Arabic world, consisting in most cases of an introduction, edition and translation of each text and with a comprehensive word index to all texts (I). Secondly, editions of texts on papyrus, paper, parchment, leather, wood, stone, ostraca and bone from Egypt or related to Egypt found in articles in scholarly journals, or editions of separate papers (e.g. Festschriften and symposium volumes) (II). Some instrumenta, including dictionaries, grammars, paleographical studies and the like are listed in section IV. Finally, a list of abbreviated journals used in the *Checklist* appears at the end.

Excluded are for the moment waqf-documents which become especially numerous in Egypt from the Mamluk period onwards and often fall between the documentary and literary genre. Also left out for the moment is the Andalusian material that appeared in articles. Amalia Zomeño provided the information for the Andalusian Arabic document editions in monographs included in the present *Checklist for Arabic Documents* and will add the editions in articles to future versions of the *Checklist*. Only a sample of Judeo-Arabic

editions are included among the monograph editions and the articles. These documents were written in Arabic in Hebrew characters often interspersed with Hebrew and Aramaic phrases. Although this material is closely related in content and format to contemporary Arabic documents, we have decided not to include the vast bibliography of Judaeo-Arabic editions in articles as good bibliographies of the Genizah material exist and more are being composed at the moment; see S. Reif, *Published Material from the Cambridge Genizah Collections: a Bibliography 1896–1980* (Cambridge 1988), Hunter, E.C.D. and R.J.W. Jefferson, *Published Material from the Cambridge Genizah Collections: a Bibliography 1980–1997* (Cambridge 2004), and S. Shaked, *A Tentative Bibliography of Geniza Documents*. Prepared under the direction of D.H. Baneth and S.D. Goitein (Paris 1964). A large-scale project to gather bibliographical information on all Genizah fragments and which will include transcribed texts is currently being undertaken as part of the Friedberg Genizah Project.

As is clear from these last remarks, the Checklist for Arabic Documents remains a work in progress. This printed edition was closed on March 31, 2006. The Checklist (scriptorium.lib.duke.edu/papyrus/texts/clist_arabic.html) will be kept up-to-date on line and any corrections, suggestions and additions are very welcome and should be directed to one of the editors, Petra M. Sijpesteijn (petra.sijpesteijn@chch.ox.ac.uk), John F. Oates or Andreas Kaplony (kapolny@oriental.unizh.ch).

I. PAPYRI PUBLISHED IN MONOGRAPHS

CPR

= *Corpus Papyrorum Raineri*, Vienna

III, *Series Arabica* I, ed. A. Grohmann. 1924. Pt. 1, *Allgemeine Einführung in die arabischen Papyri*; Pt. 2, *Protokolle*, Nos. 1–377, nos. 1–107 are bilingual, Arabic and Greek; Pt. 3, *Protokolle, Tafeln*. The following texts have been republished:

27 = *Chrest.Khoury* I 2

59 = *Chrest.Khoury* I 3

65 = *Chrest.Khoury* I 4

111 = *Chrest.Khoury* I 5

186 = *Chrest.Khoury* I 6

XVI, *Arabische Briefe aus dem 7.–10. Jahrhundert*, ed. W. Diem. 1993. Vol. 1, Textband; vol. 2, Tafelband. Nos. 1–35.

XXI, *Arabic Agricultural Leases and Tax Receipts from Egypt, 148–427 A.H. / 765–1035 A.D.*, ed. G. Frantz-Murphy. 2001. Nos. 1–90. Nos. 36–37, 80–81, 83–90 are paper, 66 is vellum.

P.Ardabil

= *Arabische und persische Privaturkunden des 12. und 13. Jahrhunderts aus Ardabil (Aserbeidschan)*, ed. M. Gronke. Islamkundliche Untersuchungen 72 (Berlin 1982). 26 documents numbered 1, 3–18, 20–25 plus documents on the versos of 7, 11, and 15. All are on paper. Nos. 1, 4, 6 and 7 are Persian.

P.Berl.Arab.

I, *Ägyptische Urkunden aus den königlichen Museen zu Berlin, Arabische Urkunden*, ed. L. Abel. Berlin Part 1, 1896, nos. 1–14; part 2, 1900, nos. 15–22. Nos. 12–14, 18–22 are paper; nos. 10, 16, 17 are parchment. See J. Karabacek, *WZKM* 11 (1897) 1–21 and S. Fraenkel, "Zu den arabischen Papyri der königlichen Museen zu Berlin," *ZDMG* 51 (1897) 170. The following texts have been reedited:

5 = *CPR* XXI 39

6 = *CPR* XXI 56

10 = *Chrest.Khoury* I 55

11 = *Chrest.Khoury* I 56

12 = *Chrest.Khoury* I 47 = *P.Vente* Appendix 1

18 = *Chrest.Khoury* I 32

II, *Arabische Briefe des 7. bis 13. Jahrhunderts aus den Staatlichen Museen zu Berlin*, ed. W. Diem. *Documenta Arabica Antiqua* 4 (Wiesbaden 1997). Vol. 1 Textband; vol. 2 Tafelband. Nos. 23–85. Nos. 31–37, 66–71, 81–85 are paper.

P.Bodl.Arab.

= *Arabic Papyri of the Bodleian Library*, ed. D.S. Margoliouth (London 1893). Nos. 1 and 2.

P.Cair.Arab.

= *Arabic Papyri in the Egyptian Library*, ed. A. Grohmann. Cairo.

I, 1934. Nos. 1–72. Nos. 37, 39, 41–42, 44, 50, 54, 58–60, and 62–69 are parchment; nos. 45, 47, 57, 61 and 70–72 are paper; nos. 48 and 56 leather. Cf. W. Diem, "Philologisches zu den arabischen Aphrodito-Papyri," *Der Islam* 61 (1984) 251–75.

The following texts have been republished:

11 = *Chrest.Khoury* I 2

14 = *Chrest.Khoury* I 3

31 = *Chrest.Khoury* I 5

37 = *Chrest.Khoury* I 21

45 = *Chrest.Khoury* I 11

48 = *Chrest.Khoury* I 14

49 = *Chrest.Khoury* I 13

52 = *Chrest.Khoury* I 23

62 = *Chrest.Khoury* I 1

II, 1936. Nos. 73–145. Nos. 73, 75–76, 119, 125 are parchment; nos. 74, 83–85, 105–13 and 131–41 are paper. The following texts have been republished:

77 = *CPR XXI* 3

81 = *CPR XXI* 15

82 = *CPR XXI* 16

83 = *Chrest.Khoury* I 70

85 = *Chrest.Khoury* I 71

86 = *CPR XXI* 31

87 = *CPR XXI* 32

88 = *CPR XXI* 17

96 = *Chrest.Khoury* I 61

- 98 = *Chrest.Khoury* I 31
 101 = *Chrest.Khoury* I 28
 106 = *Chrest.Khoury* I 35
 111 = *Chrest.Khoury* I 36
 114 = *Chrest.Khoury* I 38
 121 = *Chrest.Khoury* I 58
 137 = *Chrest.Khoury* I 86
 138 = *Chrest.Khoury* I 76
 139 = *Chrest.Khoury* I 8
 141 = *Chrest.Khoury* I 9

III, 1938. Nos. 146–214. Nos. 194–95, 199, 212 are paper. No. 167 is Greek, Coptic and Arabic, for which see R. Guest, "An Arabic Papyrus of the 8th Century," *JAOS* 43 (1923) 247–48. For nos. 146–152, 155, 157, 158 cf. W. Diem, "Philologisches zu den arabischen Aphrodito-Papyri", *Der Islam* 61 (1984) 251–75.

IV, 1952. Nos. 215–87. No. 255 bone; nos. 276, 278, 280 and 281 are paper.

V, 1955. Nos. 288–361. Nos. 291, 293, 298–300, 302, 306–08, 311, 312, 315, 316, 320, 322, 324–31, 335, 340, 347–49, 353, 354, 357, 358 and 360 are paper.

VI, 1962. Nos. 362–444. Nos. 362, 364, 365, 370, 376, 383, 386, 387, 390, 396, 397, 399, 400, 403, 408, 412, 422, 424 and 436 are paper.

P.Cair.Archives

= *Catalogues des documents d'archives du Caire de 239/853 à 922/1516 (depuis le IIIe/IXe siècle jusqu'à la fin de l'époque mamlouke) suivi de l'édition critique de neuf documents*, ed. M.M. Amin. *Textes arabes et études islamiques* 16 (Cairo 1981). Description of 865 documents and an edition of 9 texts on paper.

PERF

= J. von Karabacek, *Papyrus Erzherzog Rainer: Führer durch die Ausstellung* (Vienna 1894). "Arabische Abteilung," pp.

131–278, items nos. 550–1400, descriptions and some translations.

P.Fatimid

= *Fatimid Decrees: Original Documents from the Fatimid Chancery*, ed. S.M. Stern (London 1964). Nos. 1–10 on paper.

P.Fay.Monast.

= *The Monasteries of the Fayyum*, by N. Abbott. *Studies in Ancient Oriental Civilizations* 16 (Chicago 1937). Nos. 1–3 on parchment. No. 3 republished as *Chrest.Khour*. I 74.

P.Flor.Arab.

= *I diplomi arabi del r. archivio fiorentino*, ed. M. Amari (Florence 1863). Nos. 1–84 on paper. Nos. 1–5, 7–10, 12, 14, 16, 38, 42, 47, 49–50, 57–58, 69 are in Latin; nos. 6, 13, 17, 20, 23, 44, 53, 62 are bilingual Arabic/Latin; nos. 60, 64, 83–84 are bilingual Arabic/Italian; nos. 11, 41, 45–46, 51, 54, 59, 63, 65–67, 68 (Venetian dialect), 71–74, 76, 80, 82 are in Italian; nos. 15, 19, 21–22, 24–37, 39–40, 43, 48, 52, 55, 61, 70, 75, 77–79, 81 are in Arabic; no. 56 contains Italian written in Arabic characters.

P.GenizahCambr.

= *Arabic Legal and Administrative Documents in the Cambridge Genizah Collections*, ed. G. Khan (Cambridge 1993). Nos. 1–159. Nos. 1, 3, 10, 21–22, 24–26, 32, 33, 43, 44, 47–57, 60–118 and 120–59 are paper. The others are parchment. See J.D. Latham, *Journal of Semitic Studies* 41 (1996) 164–69.

P.GenizahJewishFound.

= *Documents of the Jewish Pious Foundations from the Cairo Genizah*, ed. M. Gil. *Publications of the Diaspora Research Institute, Tel Aviv University* 2 (Leiden 1976). Nos. 1–147 on paper. All texts are Judeo–Arabic.

P.GenizahKingdom

= *Jews in Islamic Countries in the Middle Ages (Be-malkhut Yishmael bi-tekufat ha-geonim)*, ed. M. Gil (Tel Aviv 1997). 4 vols. The first introductory volume has been translated into English under the same title (tr. D. Strassler. Leiden 2004.

Etudes sur le judaïsme médiéval 28). Nos. 1–846 on paper. Nos. 115, 231, 279 and 500 are entirely in Arabic. The others are Judeo–Arabic, many have Arabic addresses.

P.GenizahPalestine

= *A History of Palestine 634–1099 (Erets-Yisra'el ba-tekufah ha-Muslemit ha-rishonah, 634–1099)*, ed. M. Gil (Tel Aviv 1983). 3 vols. The first introductory volume has been translated into English under the same title (tr. E. Broido. Cambridge 1997). Nos. 1–619 on paper. Nos. 141, 195–96, 249, 311, 315, 332, and 593 are entirely in Arabic; nos. 167–68, 346–47, 353, 355–57, 460 are partially in Arabic and nos. 197 and 456 contain one page in Arabic. The others are Judeo-Arabic, many with addresses in Arabic.

P.Giss.Arab.

= *Die arabischen Papyri aus der Giessener Universitätsbibliothek*, ed. A. Grohmann. Nachrichten der Giessener Hochschulgesellschaft 28 (Giessen 1960). Nos. 1–48. Nos. 16 and 17 are leather; no. 37 is paper and no. 43 is parchment. Nos. 1–18 also appeared in *Bulletin of the Faculty of Arts* (Cairo University) 17 (1955) 45–109.

P.Granada

= *Documentos arábigo-granadinos*, ed. L. Seco de Lucena (Madrid 1961). Nos. 1–95 on paper.

P.Hamb.Arab.

I = *Arabische Papyri aus der Papyrussammlung der Hamburger Staats- und Universitäts-Bibliothek*, ed. A. Dietrich. Abhandlungen für die Kunde des Morgenlandes 22, 3 (Leipzig 1937). Nos. 1–19. Nos. 1, 4–6 and 11–13 are paper. The following text has been republished: 4 = *Chrest.Khoury* I 44

II = *Arabische Briefe aus der Papyrussammlung der Hamburger Staats- und Universitäts-Bibliothek*, ed. A. Dietrich. Veröffentlichungen aus der Hamburger Staats- und Universitätsbibliothek 5 (Hamburg 1955). Nos. 1–69; nos. 6, 33, 41 and 56 are paper.

P.Haram

= *Wathā'iq maqdisiyya tā'rīkhiyya. (Jerusalem Historical Documents)*, ed. K. J. 'Asālī.

I, Amman 1983. Corrections of nos. 7, 8, 9, 11–16, 19–25, 32, 74 as nos. 3–18 in W. Diem, "Philologisches zu mamlukischen Erlassen, Eingaben und Dienstschriften des Jerusalemer al-Haram al-sharif," *ZAL* 33 (1997) 7–67.

II, Amman 1985. Corrections of nos. 58, 60 as nos. 19, 20 in W. Diem, "Philologisches zu mamlukischen Erlassen, Eingaben und Dienstschriften des Jerusalemer al-Haram al-sharif," *ZAL* 33 (1997) 7–67.

P.HaramCat.

= *A Catalogue of the Islamic Documents from al-Haram As-Sharif in Jerusalem*, by D.P. Little. Beirut Texts and Studies 29 (Beirut 1984). Not an edition of texts but a catalogue of 883 documents. The items are organized by type. 28 are Persian; the others Arabic. The medium is either parchment or paper; the catalogue does not specify for individual items. Nos. 214 and 68 are edited as nos. 1 and 2 in W. Diem, "Philologisches zu mamlukischen Erlassen, Eingaben und Dienstschriften des Jerusalemer al-Haram al-sharif," *ZAL* 33 (1997) 9–20. Nos. 245, 219, 243, 245, 243, 270, 244, 243, 244–45, 244, and 264 are edited as nos. 1–11 in D.S. Richards, "The Qasāma in Mamlūk Society: Some Documents from the Ḥaram Collection in Jerusalem," *AnIsl* 25 (1990) 245–84.

P.Harrauer

= *Wiener Papyri als Festgabe zum 60. Geburtstag von Hermann Harrauer*, ed. B. Palme (Vienna 2001). Nos. 1–62. Nos. 1–3, 28–36, 38–45, 47–56 and 58–60 are Greek. Nos. 4 and 57 are Coptic. Nos. 5–11, 12–15 and 32–33 are Demotic. No. 37 is Latin. No. 61 is Arabic. Nos. 26–27 are Demotic and Greek. No. 46 is Greek and Latin. No. 62 is a medieval bilingual glossary (Latin/Greek). Nos. 1–2, 4, 12–36, 38–61 are papyri; nos. 5–11, 26–27 and 37 are ostraca. No. 3 is a tablet. [Holzhausen]

P.Heid.Arab.

I = *Papyri Schott-Reinhardt I*, ed. C.H. Becker. Veröffentlichungen aus der Heidelberger Papyrussammlung 3 (Heidelberg 1906). Nos. 1–22 with an appendix of 12 Strasbourg texts. Nos. 5, 7–9, 21, 22 and the 12 texts in the appendix are bilingual, Arabic and Greek. The Greek texts have been reprinted in *SB I* 5638–55. Cf. W. Diem (1984), "Philologisches zu den arabischen Aphrodito-Papyri," *Der Islam* 61, 251–75.

The following Arabic texts have been republished:

1 = *Chrest.Khoury I* 90

3 = *Chrest.Khoury I* 91

5 = *Chrest.Khoury I* 93

6 = *Chrest.Khoury I* 94

II = *Arabische Briefe auf Papyrus und Papier aus der Heidelberger Papyrus-Sammlung*, ed. W. Diem. Heidelberger Akademie der Wissenschaften. Philosophische-Historische Klasse. Kommission für Papyrus-Editionen. Vol. 1, Textband; vol. 2, Tafelband (Wiesbaden 1991). Nos. 1–70. Nos. 2–4, 11, 13–16, 19, 20, 22, 23, 34–41, 44–48 and 59–70 are paper. There is a line of Coptic in no. 34. [OH]

P.Horak

= *Gedenkschrift Ulrike Horak*, ed. H. Harrauer and R. Pintaudi. Pap.Flor. XXXIV. 2 volumes of texts and studies. Nos. 1–6, 8–14, 16–82 are Greek. No. 7 is a drawing. No. 83 is Demotic and no. 85 Arabic. No. 15 and no. 84 are Coptic. No. 1 and 31–62 are ostraca; no. 14 is parchment; no. 18 is on wood; no. 28 is an inscription; nos. 68–79 are graffiti. [LGF]

P.KaraiteGenizah

= *Karaite Marriage Documents from the Cairo Genizah*, ed. J. Olszowy-Schlanger. Études sur le judaïsme médiéval 20 (Leiden 1998). Nos. 1–57. Only no. 7 is Arabic; the remainder Hebrew. [EJB]

P.Khalili

I = *Arabic Papyri: Selected Material from the Khalili Collection*, ed. G. Khan. Studies in the Khalili Collection 1 (Oxford

1992). Nos. 1–36. No. 13 is parchment. No. 1 is bilingual, Greek and Arabic, for which see N. Gonis, *Cd'É* 75 (2000) 128–32. For nos. 28, 32 and 35, W. Diem, "Philologisches zu den Khalili Papyri," *WZKM* 83 (1993) 39–81, nos. 1–3 and *WZKM* 84 (1994) 57–92, nos. 1 and 2.

II = G. Khan, *Bills, Letters and Deeds. Arabic Papyri of the 7th to 11th Centuries*. Publications of the Nasser D. Khalili Collection of Islamic Art 6 (Oxford 1993). Not an edition but an illustrated catalogue of the papyri in the Khalili Collection. Nos. 1–258 including the 36 texts edited in *P.Khalili* I. See also J. D. Latham, *Journal of Semitic Studies* 41 (1996) 158–63. For nos. 18 and 19, see W. Diem, "Philologisches zu den Khalili Papyri II," *WZKM* 84 (1994) 57–92, nos. 1 and 2.

P.KölnKauf.

= *Eine arabische Kaufurkunde von 1024 n. Chr. aus Ägypten*. Schriften der Max Freiherr von Oppenheim Stiftung 16 (Wiesbaden 2004). One text on parchment. [OH]

P.Khurasan

= *Arabic Documents from Early Islamic Khurasan*, ed. G. Khan (London 2005). Nos. 1–32 on leather. [The Nour Foundation–Azimuth Editions]

P.Marchands

= *Marchands d'étoffes du Fayyoun au IIIe/IXe siècle d'après leurs archives (actes et lettres)*, ed. Y. Ragib.

I, *Les actes des Banū 'Abd al-Mu'min*. AnIsl. Supplément 2 (Cairo 1982). Nos. 1–12. See W. Diem, "Neues zur arabischen Papyrologie," *Der Islam* 64 (1987) 272–77. The following texts have been republished:

1 = *Chrest.Khoury* I 60

8 = *Chrest.Khoury* I 30

II, *La Correspondance administrative et privée des Banū 'Abd al-Mu'min*. AnIsl. Supplément 5 (Cairo 1985). Nos. 1–42. The following texts have been republished:

12 = *P.Berl.Arab.* II 47

32 = *P.Berl.Arab.* II 48

III, *Lettres des Banū Thawr aux Banū 'Abd al-Mu'min*. AnIsl. Supplément 14 (Cairo 1992). Nos. 1–44. The following texts have been republished:

2 = *P.Berl.Arab.* II 45

12 = *P.Berl.Arab.* II 46

13 = *P.Berl.Arab.* II 44

V/I, *Archives de trois commissionnaires*. AnIsl. Supplément 16 (Cairo 1996). Nos. 1–23.

P.Mil.Vogl.

= *Papiri della Università degli Studi di Milano*, ed. A. Vogliano (Milan 1961). There are 10 Arabic texts edited by A. Grohmann on pages 243–69. Nos. 2–10 are documentary; no. 3 is paper and has been republished as *Chrest.Khoury* I 27.

P.Mird

= *Arabic Papyri from Khirbet el-Mird*, ed. A. Grohmann (Leuven 1963). Nos. 1–100. Nos. 2–4 and 74–75 are bilingual, Greek and Arabic protocols. The following texts have been republished:

28 = Kister, M. J., "On an Early Fragment of the Qur'an," in S.R. Brunswick, ed., *Studies in Judaica, Karaitica and Islamica Presented to Leon Nemoy on His Eightieth Birthday*. Ramat-Gan 1982. 163–66.

47 = Kister, M. J., "On a Fragment of a Private Letter of the First Century A.H.," *JSAI* 3 (1981) 237–39.

P.Moriscos

= *Spanisch-islamische Urkunden aus der Zeit der Nasriden und Moriscos*, ed. W. Hoenerbach. Bonner Orientalistische Studien 15; also as University of California Publications: Near Eastern Studies 3 (Bonn 1965). Nos. 1–60 on paper. Nos. 6–9, 14–18, 20–23, 28, 32, 38–39, 41, 45–47, 50–51 and 60 are written in al-Jamiado (SpanoArabic); no. 55 is bilingual Arabic-al-Jamiado list of plants and drugs; no. 56 is a bilingual Arabic-German wordlist.

P.Mozarab.

= *Los Mozarabes de Toledo en los siglos XII y XIII*, ed. A. Gonzalez Palencia (Madrid). All texts are parchment.

I, 1926. Nos. 1–382.

II, 1926. Nos. 383–726.

III, 1928. nos. 727–1151.

A further volume of studies contains the indices and, in Appendix 3, nos. 1152–75. 1930.

P.Ness.

= *Excavations at Nessana*.

I, *Introductory Volume*, ed. H.D. Colt (London 1962). Pages 259–62 contain a summary by P. Mayerson of Nessana papyri relating to agriculture.

III, *Non-Literary Papyri*, ed. C.J. Kraemer, Jr (Princeton 1958). Nos. 14–195. Nos. 56 and 60–67 are bilingual, Arabic and Greek; the rest are Greek.

P.Panop.Bisch.

= *Zwei Urkunden aus den bischöflichem Archiv von Panopolis in Ägypten*, ed. F. Bilabel and A. Grohmann. *Quellen und Studien zur Geschichte und Kultur des Altertums und des Mittelalters. Reihe A: Mehrsprachige Texte 1* (Heidelberg 1935). 2 texts on paper. Each has text in Greek, Coptic and Arabic.

P.Philad.Arab.

= *Arabic Papyri in the University Museum in Philadelphia (Pennsylvania)*, ed. G. Levi della Vida. *Atti della Accademia Nazionale dei Lincei. Anno 378 1981. Memorie. Classe di Scienze morali, storiche e filologiche. Serie VIII 25.1* (Rome 1981). Nos. 1–188. Nos. 1–116 are documents. Nos. 5, 18, 26, 29, 42, 43, 78, 62–73 and 111–12 are paper; nos. 27 and 35 are parchment. No. 26 is Coptic with some Arabic words; no. 31 contains a few Coptic letters.

P.Prag.Arab.

= *Arabische Papyri aus der Sammlung Carl Wessely im Orientalischen Institute zu Prag*, ed. A. Grohmann. Published

in 4 parts in *Archív Orientální*, 10 (1938) pp. 149–62, 11 (1939) 242–89, 12 (1941) 1–112, 14 (1943) 161–260. Nos. 1–96. Nos. 7, 9, 10, 30, 33, 36–49, 56, 63, 66, 67, 72, 73, 76, 78, 84–87, 89–92 and 96 are paper. Nos. 1 and 2 are bilingual, Arabic and Greek protocols. The following text has been republished:

4 = *Chrest.Khoury* I 69

P.Quds

= *al-Quds al-Mamlūkiyya: A History of Mamlūk Jerusalem Based on the Haram Documents*, ed. H. Lutfi. Islamkundliche Untersuchungen 113 (Berlin 1985). There are editions of 10 documents on pp. 37–66.

P.Qurra

= *The Qurra Papyri from Aphrodito in the Oriental Institute*, ed. N. Abbott. Studies in Ancient Oriental Civilization 15 (Chicago 1938). Nos. 1–5.

P.QuseirArab.

= *Commerce, Culture and Community in a Red Sea Port in the Thirteenth Century: the Arabic Documents from Quseir*, ed. L. Guo. Leiden 2004. (Islamic History and Civilization: Studies and Texts 52). Nos. 1–80 on paper. Nos. 42, 53, 39, 56, 46, 59, 63, 64, 7, 20, 9, 74 are republications of Guo, L., "Arabic Documents from the Red Sea Port of Quseir in the 7th/13th Century, Part I: Business Letters," *JNES* 58 (1999) 161–90, nos. 1–8; and of Guo, L., "Arabic Documents from the Red Sea Port of Quseir in the 7th/13th Century, Part II: Shipping Notes and Account Records," *JNES* 60 (2001) 81–117, nos. 1–4.

P.Ross.Georg.

= *Papyri russischer und georgischer Sammlungen*. Tiflis. [Rp. AMH]

IV, *Die Kome-Aphrodito Papyri der Sammlung Lichačov*, ed. P. Jernstedt. 1927 (repr. Amsterdam 1966). Nos. 1–27. There is an Arabic fragment at no. 27, I, h.

V, *Varia*, ed. G. Zereteli and P. Jernstedt. 1935. Nos. 1–73. No. 73 is bilingual, Greek and Arabic.

P.Ryl.Arab.

I = *Catalogue of Arabic Papyri in the John Rylands Library Manchester*, ed. D.S. Margoliouth (Manchester 1933). The texts are divided into 15 categories (nos. I–XV) with texts numbered sequentially within each category. A. Grohmann, "Neue Beiträge zur arabischen Papyrusforschung," *Anzeiger AkadWien* 85 (1948) 228–342, has reedited the following: III 8, V 2, X 2, XI 11, XII 12. Reedition of I 14 in W. Diem, "Der Gouverneur an den Pagarchen. Ein verkannter arabischer Papyrus vom Jahre 65 der Hiġra," *Der Islam* 60 (1983) 104–11. Republication of I 14 as *Chrest.Khoury* I 85.

II = *The Arabic Papyri of the John Rylands University Library of Manchester*, ed. G. Rex Smith and Moshalleh al-Moraekhi. *Bulletin of the John Rylands University Library of Manchester*, 78.2 (Manchester 1996). Part I is a Supplementary Catalogue of all the pieces not in vol. I. Part II is an edition of texts from the collection, nos. 1–11. No. 4 has been reprinted as *CPR XXI* 5. See also W. Diem, *Journal of Semitic Studies* 18 (1998) 89–110.

P.Ryl.Copt.

= *Catalogue of the Coptic Manuscripts in the Collection of the John Rylands Library*, ed. W. E. Crum (Manchester 1909). Nos. 1–467. There is Arabic at nos. 119, 214 and 401.

P.Sinai.Arab.

= *Die mamlukischen Sultansurkunden des Sinai-Klosters*, ed. H. Ernst (Wiesbaden 1960). Nos. I–LXXII. All texts are listed in A.S. Atiya, *Arabic Manuscripts of Mount Sinai*. There is a concordance on pp. xiii–xvi. See also Stern, S.M., "Petitions from the Mamluk Period," in section IB.

P.Vente

= *Actes de vente d'esclaves et d'animaux d'Égypte médiévale I*, ed. Y. Ragib. *Cahier des AnIsl* 23 (Cairo 2002). Nos. 1–28 and appendix nos. 1–5. Nos. 1–5 and 15–23 are papyrus; no. 9 is parchment and the rest are paper.

P.Vind.Arab.

I = *Arabische Geschäftsbriefe des 10. bis 14. Jahrhunderts aus der Österreichischen Nationalbibliothek in Wien*, ed. W. Diem. *Documenta Arabica Antiqua* 1. Vol. 1, Textband; vol. 2, Tafelband (Wiesbaden 1995). Nos. 1–68, all documents are paper; there are two lines of Coptic in no. 24. [OH]

II = *Arabische Privatbriefe des 9. bis 15. Jahrhunderts aus der Österreichischen Nationalbibliothek in Wien*, ed. W. Diem. *Documenta Arabica Antiqua* 2. Vol. 1, Textband; vol. 2, Tafelband (Wiesbaden 1996). Nos. 1–52. All documents are paper.

III = *Arabische amtliche Briefe des 10. bis 16. Jahrhunderts aus der Österreichischen Nationalbibliothek in Wien*, ed. W. Diem. *Documenta Arabica Antiqua* 3. Vol. 1, Textband; vol. 2, Tafelband (Wiesbaden 1996). Nos. 1–80, all documents are paper.

II. PAPYRUS EDITIONS PUBLISHED IN ARTICLES

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Abbott, N., "Arabic Marriage Contracts among Copts," *ZDMG* 95 (1941) 59–81. Nos. 1–2. Both texts have been republished as *Chrest. Khoury* I 10 and 15.

Abbott, N., "A New Papyrus and a Review of the Administration of 'Ubayd Allāh b. al-Ḥabḥāb," in G. Makdisi, ed., *Arabic and Islamic Studies in Honor of Hamilton A.R. Gibb* (Leiden 1965). 21–35.

'Abd el-Tawab, 'A., "Deux investitures du calife abbaside, al-Mustangīd billā Abūl Muẓaffar," *AI* 11 (1972) 153–62. Nos. 1–2. Material unknown.

Anawati, G. and Jomier, J., "Un papyrus chrétien en arabe (Égypte, IXe siècle ap. J.–C.)," *MéIIslam* 2 (1954) 91–102. The first 3 volumes of *AnIsl* were titled *MéIIslam*.

Bachatly, C., "Document sur un pèlerinage à la Mecque au début du X^e siècle de l'hégire," *Bulletin de la Société Royale de Géographie d'Égypte* 21 (1943) 23–27.

Baramki, D.C., "Excavations at Khirbet el Meşjer. III," *The Quarterly of the Department of Antiquities in Palestine* 8 (1938) 51–53. No. 1 on marble.

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7 = Becker (1911) 4 = *P.Cair.Arab.* 147

12 = *P.Cair.Arab.* 150

14 = Becker (1911) = *P.Cair.Arab.* 151

Becker, C. H., "Neue Arabische Papyri des Aphroditofundes," *Der Islam* 2 (1911) 245–68. Nos. 1–16. The following texts have been republished:

1 = *P.Cair.Arab.* 146

2 = *P.Cair.Arab.* 148

3 = *P.Cair.Arab.* 149

4 = *P.Cair.Arab.* 147

5 = *P.Cair.Arab.* 151

6 = *P.Cair.Arab.* 153

8 = *P.Cair.Arab.* 154

9 = *P.Cair.Arab.* 155

10 = *P.Cair.Arab.* 152

11 = *P.Cair.Arab.* 156

13 = *P.Cair.Arab.* 160

14 = *P.Cair.Arab.* 161

15 = *P.Cair.Arab.* 162

16 = *P.Cair.Arab.* 163

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David-Weill, J., "Une nouveau titre de propriété daté," *Mélanges Gaudefroy-Demombynes* (Cairo 1939–45). 141–46.

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David-Weill, J. "Papyrus arabes du Louvre I–II," *JESHO* 8 (1965) 277–311. Nos. 1–10; *JESHO* 14 (1971) 1–24. Nos. 11–20. No. 14 has been republished as *Chrest.Khoury* I 7.

David-Weill, J. and Cahen, Cl. et al., "Papyrus arabes du Louvre III," *JESHO* 21 (1978) 146–64. Nos. 21–30.

Denoix, S., "Les ostraca de Istabl 'Antar, 1985" *AI* 22 (1986), 27–33. Nos. 1–12.

Diem, W., "Der Gouverneur an den Pagarchen. Ein verkannter arabischer Papyrus vom Jahre 65 der Higra," *Der Islam* 60 (1983) 104–11.

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13 = *Chrest.Khoury* I 12

15 = *Chrest.Khoury* I 16

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- 1 = P.QuseirArab. 42
- 2 = P.QuseirArab. 53
- 3 = P.QuseirArab. 39
- 4 = P.QuseirArab. 56
- 5 = P.QuseirArab. 46
- 6 = P.QuseirArab. 59
- 7 = P.QuseirArab. 63
- 8 = P.QuseirArab. 64

Guo, L., "Arabic Documents from the Red Sea Port of Quseir in the 7th/13th Century, Part II: Shipping Notes and Account Records," *JNES* 60 (2001) 81–117. Nos. 1–8 on paper. The following texts have been republished:

- 1 = P.QuseirArab. 7
- 2 = P.QuseirArab. 20
- 3 = P.QuseirArab. 9
- 4 = P.QuseirArab. 74

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1 = *Chrest.Khoury* I 96 = *P.Heid.Arab.* II 1 (with edition of verso)

8 = *Chrest.Khoury* I 97

12 = *Chrest.Khoury* I 98

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ments and Artefacts. Islamic Studies in Honour of D. S. Richards. Islamic History and Civilization. Studies and Texts 45 (Leiden 2003) 157–90. Parchment.

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(Moscow–Leningrad 1955) 182–212. There is a description and depiction of the text in Y. A. Petrosyan et al., eds., *Pages of Perfection* (Logano & Milan 1995) 122–23.

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47 = *P.Vente* appendix 1

53 = *P.Vente* 9

54 = *P.Vente* 25

67 = *CPR XXI* 7

69 = *CPR XXI* 12

72 = *CPR XXI* 1

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16 = *P.Vente* 10

17 = *P.Vente* 14

18 = *P.Vente* 17

28 = *CPR XXI* 10

IV. INSTRUMENTA

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There are 84 texts published on pages 113–213 of this volume. The majority derives from the Vienna collection, Papyrus Erzherzog Rainer. The following is a concordance to those that had been published elsewhere. At the left are page numbers of Grohmann, *Arabic Papyri*.
- 115 = *SB XX* 14443 (Greek text; note also that on pages 113 and 131 there are 2 bilingual, Greek and Arabic, texts.)
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- 121 = *P.Cair.Arab.* 172
- 122 = Levi della Vida, G., "A papyrus Reference to the Damietta Raid of 853 A.D.," *Byzantion* 17 (1944–45) 212–21.
- 123 = *P.Ryl.Arab.* I 6
- 124–25 = *P.Heid.Arab.* I 1
- 126–28 = *P.Cair.Arab.* 148
- 129 = *P.Cair.Arab.* 154
- 138 = Grohmann, "Texte zur Wirtschaftsgeschichte," *Arch Orient* 7 (1935). No. 25
- 140 = Grohmann, "Texte zur Wirtschaftsgeschichte," *Arch Orient* 7 (1935). No. 7
- 141 = Grohmann, "Texte zur Wirtschaftsgeschichte," *Arch Orient* 7 (1935). No. 8
- 142 = Grohmann, "Texte zur Wirtschaftsgeschichte," *Arch Orient* 7 (1935). No. 9
- 147–48 = Grohmann, "Texte zur Wirtschaftsgeschichte," *Arch Orient* 7 (1935). No. 10
- 148 = Karabacek, *MPER* II/III (1887) 162
- 153 = Grohmann, "Texte zur Wirtschaftsgeschichte," *Arch Orient* 7 (1935). No. 11

- 154–55 = Grohmann, "Texte zur Wirtschaftsgeschichte," *Arch Orient* 7 (1935). No. 17
- 158 = Grohmann, "Texte zur Wirtschaftsgeschichte," *Arch Orient* 7 (1935). No. 26
- 166–67 = Grohmann, "Einige bemerkenswerte Urkunden," *ArchOrient* 18 (1950). No. 19
- 168–70 = Grohmann, "Texte zur Wirtschaftsgeschichte," *Arch Orient* 7 (1935). No. 2
- 171–72 = *P.Ryl.Arab.* I 5
- 175–76 = *P.Ryl.Arab.* VI 15
- 177 = *P.Ryl.Arab.* VI 1
- 178–79 = *P.Ryl.Arab.* VI 6
- 179–80 = *P.Ryl.Arab.* VI 14
- 180–81 = *P.Ryl.Arab.* VI 18
- 184–85 = Jahn, "Vom frühislamischen Briefwesen," *Arch Orient* 9 (1937). No. 6
- 185–86 = Jahn, "Vom frühislamischen Briefwesen," *Arch Orient* 9 (1937). No. 7
- 189–90 = *P.Cair.Arab.* 37
- 191–93 = *P.Cair.Arab.* 48
- 196–97 = *P.Cair.Arab.* 45
- 200–01 = *P.Cair.Arab.* 52
- 202–03 = *P.Cair.Arab.* 53
- 203–05 = *P.Cair.Arab.* 54
- 207–08 = *P.Cair.Arab.* 81
- 208–09 = *P.Cair.Arab.* 96
- 209–10 = *P.Cair.Arab.* 98
- 210–11 = *P.Cair.Arab.* 105
- 212–13 = *P.Cair.Arab.* 111
- Grohmann, *Chronologie*
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- = *The Development of the Arabic Scripts* by B. Gruendler. Harvard Semitic Studies 43 (Atlanta 1993).

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Erweiterte Auflage. Stand: Band II, 24.Lieferung (4.Lieferung
von II, Teil 3) (Wiesbaden 1996).*

V. SERIES

Codices Arabici Antiqui. Wiesbaden. [OH]

V, see *Chrest.Khoury* II

Documenta Arabica Antiqua. Wiesbaden. [OH]

I, see *P.Vindob.Arab.* IV

II, see *P.Vindob.Arab.* V

III, see *P.Vindob.Arab.* VI

IV, see *P.BerlinArab.* III

ABBREVIATIONS USED FOR PERIODICALS AND SERIALS

AnIsl = Annales Islamologiques

ArchOrient = Archív Orientální

BullÉtudesOrient = Bulletin d'études orientales

BIÉ = Bulletin de l'Institut d'Égypte

BIFAO = Bulletin de l'Institut Français d'Archéologie Orientale du
Caire

BSOAS = Bulletin of the School of Oriental and African Studies

IJMES = International Journal of Middle East Studies

IOS = Israel Oriental Studies

ILS = Islamic Law and Society

JAL = Journal of Arabic Literature

JAOS = Journal of the American Oriental Society

JARCE = Journal of the American Research Center in Egypt

JEA = Journal of Egyptian Archaeology

JESHO = Journal of the Economic and Social History of the Orient

JNES = Journal of Near Eastern Studies

JQR = Jewish Quarterly Review

JRAS = Journal of the Royal Asiatic Society of Great Britain

JSAI = Jerusalem Studies in Arabic and Islam

MSR = Mamluk Studies Review

MéIslam = Mélanges Islamologiques

MIFAO = Mémoires publiées par les membres de l'Institut
Français d'Archéologie Orientale du Caire

PSI = Papyri Societ  Italiana

SB = Sammelbuch griechischer Urkunden aus  gypten

WZKM = Wiener Zeitschrift f r die Kunde des Morgenlandes,
known until vol. 29 (1915) as the Vienna Oriental Journal.

ZA = Zeitschrift f r Assyrologie und verwandte Gebiete

ZAL = Zeitschrift f r arabische Linguistik

ZDMG = Zeitschrift der Deutschen morgenl ndischen Gesellschaft

ZNTW = Zeitschrift f r die neutestamentliche Wissenschaft

ZPE = Zeitschrift f r Papyrologie und Epigraphik

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SPECIAL THEMATIC SECTION

Traianos Gagos, Editor-in-Chief
Jennifer E. Gates, Andrew Wilburn, Guest Editors
Timothy Renner, John Whitehorne, Editors

Material Culture and Texts of Graeco-Roman Egypt: Creating Context, Debating Meaning

PREFACE

In the nineteenth century, excavations in Egypt began to uncover numerous fragments of papyri along with other remains dating from the Graeco-Roman period. The years following these discoveries witnessed the development of two separate fields related to the study of materials from Graeco-Roman Egypt: papyrology and archaeology. These two disciplines remain the primary laboratories for synthesizing Graeco-Roman Egypt, yet because of the technical and disciplinary demands of each field, research is frequently pursued using highly specialized methodologies with little interdisciplinary interaction or communication. The intense investigation of a single village or city through its material or papyrological remains has also encouraged a site-specific focus that limits discourse in both fields. Yet papyrologists and archaeologists ultimately look towards a comparable goal: the nuanced reconstruction of the ancient past. Both fields address context and, ultimately, meaning, in their search for interpretive frameworks.

Context encompasses both the physical place of an object, whether it is an artifact or a papyrus, and its intellectual space as part of a corpus of related materials, such as the finds from an archaeological site or other texts within an archive. The papers within this thematic section of *BASP* 42 focus on context and the struggle to place a text or object within a larger framework. All the papers were written by papyrologists and archaeologists whose work attempts to cross the disciplinary divide in order to consider shared approaches to texts and objects. These five papers as well as the responses of two eminent scholars of ancient Egypt were first presented at the Joint American Institute of Archaeology and American Philological Association meeting held in Boston, January 7, 2005. We believe that they demonstrate the mutual benefits that result from interdisciplinary communication while exploring the complexity of forming larger models of social history and encouraging dialogue around context and its meaning for both archaeology and papyrology.

Traianos Gagos, Editor-in-Chief

Jennifer E. Gates and Andrew T. Wilburn, Guest Editors

Material Culture and Texts of Graeco-Roman Egypt: Creating Context, Debating Meaning

ABSTRACT

The archaeology of Graeco-Roman Egypt and its sister-discipline papyrology were born together from the same colonial stew of illicit and sanctioned excavations that produced massive quantities of papyri and artifacts from Egypt during the late nineteenth and early twentieth centuries. In the 1920's, a small number of researchers began to record findspots and stratigraphic levels for the artifacts that were added to the collections of their respective institutions and to produce cohesive syntheses of the papyri and other objects brought out of Egypt. The following decades, however, were marked by processual trends that solidified methodological and philosophical divides between the two disciplines as each sought to define its role in the creation of knowledge about Egypt's Graeco-Roman past. The disciplinary divide became more pronounced, so that, by the 1990's, much of the cross-disciplinary dialogue consisted of accusations of neglect for the concerns of the other field.

In this paper, we address the sources of this divergence through historiographic analysis and consider interdisciplinary commonalities by exploring the mutual concern with the contextualization of papyri and artifacts. In particular, we address the spatial, temporal, ideational and textual considerations that papyrologists and archaeologists employ in their search for meaning and interpretive frameworks, as well as the investigative ramifications of objects and texts that have been stripped of their physical context. Throughout our discussion, we regard context as not merely the recognition of physical association and patterns, but as part of an investigative apparatus for creating and debating meaning within both disciplines.

Context, contextual, contextuality, contextualism: these words are thrown about with near reckless abandon in the literature of almost every humanistic discipline. Frequently, the term *context* is given multiple connotations, and may even have multiple meanings within a single discipline. For archaeologists, *context* is equally

tenacious in the processual and post-processual literature and encompassing vastly different phenomena in both cases. For the processualist, *context* is largely physical.¹ It is the systemic framework of behavior, as well as the positivistic and associative physical relationship of one artifact with another that lead to the creation of meaning through relationships to other objects and entities.² For the post-processualist, the possible implications of '*context*' explode into a celebration of subjectivity and numerous—often competing—discourses about the past.³ In the discipline of papyrology, on the other hand, context has often been perceived as a textual device: a word or a text must be understood relative to other words in texts. Meaning is often derived through the interlocking layers of philological relationships in individual texts, authors, and genres. Like the processual archaeologist, the "processual" papyrologist, as editor and interpreter of texts, utilizes intertextual relations to determine the "correct" arrangement of fragments, letters and words as the source for historical evidence.⁴ In both

¹ I. Hodder et al. (eds.), *Interpreting Archaeology: Finding Meaning in the Past* (London 1995); M. Shanks and I. Hodder, "Processual, Postprocessual and Interpretive Archaeologies," in *ibid.* 3-29.

² For an overview of this analytical approach, see D.L. Clarke and B. Chapman, *Analytical Archaeology* (New York 1978); J. Moreland, *Archaeology and Text* (London 2001).

³ I. Hodder and S. Hutson, *Reading the Past: Current Approaches to Interpretation in Archaeology* (Cambridge and New York 2003): "A more precise definition for the context of an archaeological attribute is *the totality of the relevant environment* where 'relevant' refers to the significant relationship to the object—that is, a relationship necessary for discerning the object's meaning" (188). Hodder suggests that a vast array of contexts can be identified for any given object, so that culture itself is but one of a myriad of choices for defining the meaning of an artifact. For another useful summary of these issues with regard to both archaeological and textual materials, see M. Carver, "Marriages of True Minds: Archaeology with Texts," in B. Cunliffe, W. Davies, and C. Renfrew (eds.), *Archaeology: The Widening Debate* (Oxford 2002).

⁴ This concept reached its apex in the masterful works of H.C. Youtie, "The Papyrologist: Artificer of Fact," *GRBS* 4 (1963) 19-32 = *Scriptiunculae* I (Amsterdam 1973) 9-23; "Text and Context in Transcribing Papyri," *GRBS* 7 (1966) 251-58 = *Scriptiunculae* I, 25-33; *The Textual Criticism of Documentary Papyri. Prolegomena*. Institute of Classical Studies. Bulletin Supplement 33 (London, 1974). Further on this, see below pp. 181-182. The intense (and some times exclu-

archaeology and papyrology, interpretation has been largely predicated on constructing meaning from the small building blocks of the discipline: artifacts and spaces, and letters and lacunae, respectively.⁵

The divergent employment of context as a principle for establishing historical meaning varies widely as a result of disciplinary development, but it is also symptomatic of a larger disjunction between approaches to the past. As Deborah Hobson has noted, the study of ancient Egypt is divided into an astonishing number of specialized fields, each of which demands its own linguistic specializations.⁶ In turn, these phenomena have fostered divergent approaches to the function and value of evidence. While we are interested in the manner in which taxonomic distinctions impact the interpretation of the past, in this paper, we will focus on the disjunction between the fields of papyrology and archaeology as they are practiced in relation to Graeco-Roman Egypt, with particular attention to the role of the notion of context in scholarly discourse. Our perspective on this issue and the papers in this volume **have** developed out of our own experiences at the University of

sively) philological approach to documentary texts must originate in the study of ancient Greek literature for which see P.J. Parsons, "Summing up," in *Proceedings of the 20th International Congress of Papyrologist. Copenhagen 23-29 August 1992* (Copenhagen 1994) 122: "Once upon a time, we papyrologists had a respected place among the pillars of scholarship. Now we are in danger of being dismissed as technicians; employment is for Generalists. That is a false opposition. It is not just, as Professor Haslam hinted, that our activities fit with curious aptness into modernist discourse: in the most literal way, our texts are artifacts, our readings creative. The construction of a text is itself a critical act: decipherment determines supplement, supplements build up context, contexts combine in form, form interrogates readings and supplements and so circularly; eye and understanding provoke each other" (the reference in this quote is only to literary texts).

⁵ As R.S. Bagnall has put it bluntly "Papyrology has tended to be one of the most resolutely technical and positivistic disciplines of antiquity. ... Many papyrologists do not seek to go beyond reading, translating, and commenting on unpublished papyri, or improving the texts of those already published," *Reading Papyri, Writing Ancient History* (New York 1995) vi.

⁶ "Towards a Broader Context for the Study of Greco-Roman Egypt," *Échos du Monde Classique/Classical Views* 32 (1988) 353-54.

Michigan where we have wrestled with the problem of integrating texts, objects and excavations in our research. By necessity, we bring a "Michigan" perspective to these issues and will offer comments that are by no means a total explanation of the development of our fields, but rather draw on aspects of the field's development at Michigan as symptomatic of broader trends.

By sketching brief snapshots of events from our disciplinary histories, with main focus on Egypt, we hope to shed light on how context came to have multiple meanings, and finally, how this differential understanding of context has impacted each discipline's approach to the past. We will focus on developments in the two fields in the late nineteenth and twentieth centuries, a period that Peter van Minnen has called the "Century of Papyrology," and the era that witnessed the development and crystallization of the two disciplines.⁷ Although we recognize that the eighteenth and early nineteenth centuries witnessed numerous developments—most notably the excavations of papyri and artifacts at Pompeii, the publication of the *Charta Borgiana*, and the extensive investigation and documentation of Napoleon's cadre of scientists and explorers—our focus will be on the fissure between the two fields and its causes.⁸ Through a consideration of context and its various employments, we aim to access not only our differences, but also our commonalities. To that end we will use this paper to frame the development of contextual study in the practice of Egyptian archaeology and papyrology, paying particular attention to some critical moments in the historical development of each field and the resulting investigational paradigms.

During the earliest phase of archaeological investigation in Egypt, meaning and interpretative frameworks were derived from a system of documentation that catalogued like with like: pottery was

⁷ "The Century of Papyrology (1892-1992)," *BASP* 30 (1993) 5-18.

⁸ On the early history of papyrological investigations, see E.G. Turner, *Greek Papyri, an Introduction*, (Oxford 1980²) 17-41. On early archaeological work in Egypt, see B.M. Fagan, *The Rape of the Nile: Tomb Robbers, Tourists, and Archaeologists in Egypt* (New York 1975); D.M. Reid, *Whose Pharaohs? Archaeology, Museums, and Egyptian National Identity from Napoleon to World War I* (Berkeley 2002); A. Schnapp, *The Discovery of the Past* (New York 1997); J.D. Wortham, *The Genesis of British Egyptology, 1549-1906* (Norman 1971).

compared with other pottery, glass with other examples of glass etc. Typology was the order of the day. The origins of this approach lay in the late nineteenth century, when Flinders Petrie began his revolutionary work in Egyptian archaeology, excavating countless sites under the aegis of the Egypt Exploration Fund. Petrie's archaeological publications, and his development of sequential dating, became the standard for the dissemination of archaeological knowledge.⁹ In Petrie's published work, the physical space of discovery was not considered of vital importance, nor were other materials discovered with the object in question; the significance of an object lay in its relationship to other, similar objects.¹⁰

The same period witnessed the growth of papyrology as a distinct discipline. Prior to the 1890's papyri had been published sporadically, as significant texts entered into collections held by museums and private individuals, but 1891 saw the publication of the first volume of papyrological texts (a mixture of literary and documentary material) by the Rev. John P. Mahaffy (*P. Petrie I*), that had been extracted from mummy cartonnage discovered by Petrie in the Ptolemaic necropolis at Tell Kurob.¹¹ These volumes were soon followed by *P. Lond. I* (London collection) and *P. Petrie II*

⁹ Petrie himself held this view. In a letter to a friend, he wrote "I look mostly to the production of a series of volumes, each of which shall be incapable of being altogether superceded, and which will remain for decades to come—perhaps centuries—as the sources of facts and references on their subject" in Fagan, *ibid.* 237-38.

¹⁰ Although Petrie's carefully recorded plans incorporated both architecture and sections with levels, artifacts were not closely linked to findspots. For example, Petrie illustrated a section of Tell el-Hesi in Palestine, but did not analyze the artifacts in relation to their findspots. M.S. Drower, *Flinders Petrie: A Life in Archaeology* (London 1985) 615. Petrie's main achievement was that he recognized objects and papyri as bearers of historical evidence, but only as individual tokens of a past civilization without appreciation for the context in which they were found; see E. Gazda, *Karanis. An Egyptian Town in Roman Times*, (updated ed., Ann Arbor 2004) 2.

¹¹ The introduction to the volume provides information about circumstances of the discovery of the texts, the historical importance of the documentary material and attempts a synthesis of the new evidence. In many respects, this discussion can be considered as a brief introduction to the status of papyrological studies until 1891.

in 1893, and *CPR* I (Vienna) and *BGU* I (Berlin) in 1895. At this time, there were no standards for editing texts, and most of these early editions provide no translations, commentary, or any introduction. With the notable exception of the initial *P.Petrie* volumes and the *CPR* edition of Carl Wessely, which included some of these elements, most early editions reflect the same a-contextual presentation of materials as the contemporary artifact catalogs.¹²

The publications of these early volumes occurred amidst an acquisitional frenzy on the part of museums and collections in the late nineteenth century, but by 1894, the supply of new documents coming from Egypt—papyri that had been discovered by local entrepreneurs and sold to dealers in Cairo and elsewhere—had dwindled drastically.¹³ Grenfell and Hunt, the Oxford papyrological scholars, set upon a novel approach and began to acquire papyri through their own excavations. At Oxyrhynchus, the town's trash heaps provided a wealth of materials, prompting further exploration at sites throughout the Fayyum; these investigations were costly, but the duo successfully recovered numerous papyri through strategic digging at ten different town sites.¹⁴

Grenfell and Hunt's publication of the first volume of the *Oxyrhynchus Papyri* series in 1898 established the standard layout of a papyrological publication that has been maintained up until the present: a short introduction, transcription of the text followed by the *apparatus criticus*, translation—in many respects a novel idea at the time—and very brief notes.¹⁵ This publication also for-

¹² For *P.Petrie* I, see above, p. 175. A brief introduction preceded the texts in vol. II, but most of the documents lack translation. *CPR* I is an impressive volume that contains only contracts (sales, leases, etc.) with translations (of the more complete documents), substantial commentary and more discussions of the legal aspects of the edited texts in special sections/chapters.

¹³ Grenfell and Hunt report that papyri had "become more scarce in the dealers' shops," B.P. Grenfell et al., *Fayûm Towns and Their Papyri* (London 1900) 19.

¹⁴ *Ibid.*

¹⁵ It should be noted that *P.Grenf.* I and II, edited by B. Grenfell, and B. Grenfell and A. Hunt respectively, were produced only a couple of years earlier (1896 and 1897) and provide no translations. As Grenfell and Hunt state in the

malized the order of textual presentation: theological texts, new classical fragments, fragments of extant classical authors, followed by subliterate material (often under the rubric "miscellaneous") and/or Latin texts, and finally the documentary material, with smaller and shorter texts in no particular order at the end, several described only briefly.¹⁶ The early Oxyrhynchus publications provide an informative glimpse into the relationship between papyrological presentation and the physical context of finds during the early years of publication. Records of findspot or area for the recovered documents were not kept and thus later publication of the text relied instead on an organizational number associated with the box in which the object was stored rather than its original location.¹⁷ The publication of the excavated towns in the Fayyum continued to order documents according to type, rather than provenance, so that the documents from one location appear in both the literary and documentary sections of the volume.¹⁸

Admittedly, the early fieldwork of Grenfell and Hunt was less about archaeology than the hunt for papyri. While some artifacts of obvious value were retained and described, the primary focus of the excavations was on finding inscribed materials, rather than recovering other kinds of data about the settlements or their inhabitants. The formal publication of *P.Fayum* exhibits a similar emphasis on the ancient documents, a common trend throughout papyrological

preface to *P.Oxy.* I, the translations were added "at the request of several subscribers of the Graeco-Roman Branch" of the Egypt Exploration Fund (preface, v).

¹⁶ The Berlin papyri were disseminated in a markedly different manner. While the *BGU* series was used for the publication of documentary texts, literary papyri appeared in a different series, *BKT* (first published in 1904) and Coptic texts were published in *BKU* (first published 1895). On the views of philologists concerning documentary texts, see van Minnen, *op.cit.* (above, n. 7) 11.

¹⁷ The labeling system by box appears for the first time in *P.Oxy.* XL (1972) and is explained retroactively in XLII (1974), p. xiv. A plan of Oxyrhynchus "drawn by B.V. Darbishire, 1908, from sketches by Grenfell and Hunt," was printed for the first time in *P.Oxy.* L (1983) vii. However, the note under the plan states that "the key to the numbers" inscribed on the map "is lost."

¹⁸ Grenfell et al., *op.cit.* (above, n. 13).

studies in the late nineteenth and early twentieth centuries.¹⁹ The format of the older publications, grouped without reference to archaeological context, led to a reliance on the individual text as the formative research kernel. Researchers did not recognize the recovered texts as artifacts that bore a specific relation to their findspot; as we shall see, context was instead derived from within the text itself and its relationship to other texts. This approach would be crystallized in later decades, as scholars turned to previously "excavated" papyri, many of which lacked sufficient archaeological provenance to warrant consideration of physical context.

In several respects Kelsey's undertaking of the excavations in Karanis in 1924 was in response to the activities, method of collection and academic ethos of the British-based Egypt Exploration Fund and its emissaries Grenfell and Hunt, and of Petrie. Kelsey, in both his public and private writings, was relatively reticent about the motivation for his new research in Egypt. He was an avid collector of papyri and other antiquities on behalf of the University of Michigan and had traveled extensively across the Mediterranean and in Egypt where he noticed the shocking destruction of Graeco-Roman sites. Since most of the previous archaeological investigations in Egypt had explored sites of the Dynastic era, he decided instead to focus on a site of a much later date: Karanis. As he wrote, "the obligation to fill so serious a gap in the knowledge of this important part of the Graeco-Roman world must rest upon Americans."²⁰ His vision was "... the reconstruction of the environment of life in the Graeco-Roman period ... and the increase of exact knowledge rather than the amassing of collections."²¹ By setting this goal, Kelsey moved one step closer to the German school of *Alttertumswissenschaft*, which aimed to gather all possible avenues of information about the past in order to reconstruct ancient culture

¹⁹ Although there are sections dedicated to archaeological remains of the various ancient villages, the descriptions are short and often dedicated to larger monuments, such as temples.

²⁰ Gazda, *op.cit.* (above, n. 10) 2 and n. 10.

²¹ *Ibid.* 4.

in totality, but his aim is local and regional rather than a *Totalitätsideal*.²²

Kelsey had previously undertaken excavations in Carthage, but after one season of work, the project was terminated as it seemed unlikely that ancient architecture could be recovered in areas that were not covered by modern settlement.²³ The first excavation season at Karanis revealed the potential of the site, but it was not until the second season, when Enoch Peterson, following Kelsey's death, became field director, that the team settled on the recording methods that would be used for the next nine years. Houses and other areas of the site were excavated systematically, and artifacts and papyri were recorded according to the house, room and level in which they were unearthed.²⁴ Detailed maps, plans and elevations allowed the Michigan researchers to pinpoint where the excavated materials were discovered and to propose functions for the town's architecture. Furthermore, the team at Karanis retained a vast number of remains of daily life, including such diverse objects as combs, spindle whorls, beads, gems, and agricultural implements, very little of which possessed an intrinsic or artistic value according to the standards of the day.

The data collection practice employed by the Michigan team from 1925/6 onwards sharply separated their methodology from that of the papyrus hunters a mere twenty years earlier. This new system represented a revolutionary, paradigmatic change in the approach to the Graeco-Roman past in Egypt. The first assertion of a contextualized, joint study of texts and archaeological remains at Karanis appears in an article in the *Ann Arbor Daily News*, dated May 26, 1934: "Scripts of papyri...had told of many things and

²² For this German school and the role of U. Wilcken, see van Minnen, *op.cit.* (above, n. 7) 9.

²³ F.W. Kelsey, *Excavations at Carthage, 1925: A Preliminary Report* (New York 1926).

²⁴ Similar methods were used in the 1924-1925 season, but Peterson reorganized the recording methods in the 1926-1927 season. See A.E.R. Boak and E.E. Peterson, *Karanis: Topographical and Architectural Report of Excavations During the Seasons 1924-28*, University of Michigan Studies. Humanistic Series 25 (Ann Arbor 1931) 5-7.

these fired the imagination of University of Michigan scientists. Papyri only told half of the story of ancient life. Only the uncovering of a city with its burden of original objects used by these ancient peoples could tell the rest of the story."

Despite the potential for contextual study provided by the recording methods in use at Karanis, which allow scholars to reconstruct the physical and relational contexts of papyri and artifacts, the majority of the subsequent publications have employed more traditional, typologically based analyses. The impulse to catalogue and quantify both papyri and the finds from Graeco-Roman sites has persisted and the increasing corpus of comparative materials has often encouraged a referential style of publication that frequently ignores the broader associative relationships of the text or artifact, even in relation to its place of origin. This has resulted in publications in which the site, building or room is often ignored as a meaningful entity while objects and texts, standing in isolation, are compared to like materials from across Egypt.²⁵

In 1936, faced with the looming threat of World War II and due to financial reasons, the Karanis excavations were closed. Although the team intended to return to the site following the end of hostilities, Egypt's increased aversion to foreign intervention effectively closed the country to foreign excavations. With fewer new papyri coming from Egypt (either through excavations or purchases from dealers), American and European scholars turned to the vast numbers of previously excavated or acquired papyri and artifacts that

²⁵ In each of the catalogues of object types, the various artifacts are presented in comparison to one another, and a typology is established. The findspot is given in the description of each catalogue, and a concordance is typically present as an appendix, but a substantive discussion of context as a meaningful analytic tool is absent. Karanis publications: E.M. Husselman, *Karanis Excavations of the University of Michigan in Egypt 1928-1935: Topography and Architecture*, Kelsey Museum of Archaeology Studies 5 (Ann Arbor 1979); B. Johnson, *Pottery from Karanis: Excavations of the University of Michigan*, Studies, The University of Michigan, Kelsey Museum of Archaeology 7 (Ann Arbor 1981); R. Haatvedt, *Coins from Karanis: The University of Michigan Excavations, 1924-1935* (Ann Arbor 1964); L. Shier, *Terracotta Lamps from Karanis, Egypt: Excavations of the University of Michigan* (Ann Arbor 1978), J.G. Winter and H.C. Youtie, *Papyri and Ostraca from Karanis*, vol. 2. University of Michigan Studies. Humanistic Series 50 (Ann Arbor 1951).

comprised the collections of universities and museums on both sides of the Atlantic. Despite the shared origin of their subjects, scholars in the developing fields of papyrology and archaeology often worked in disciplinary isolation rather than in tandem as they published these materials. In each discipline, researchers focused on the unique contribution of their evidence and remained intent on the characteristic challenges of their field. This disassociation of papyrology from archaeology was physically accomplished for the University of Michigan collection of Karanis materials. In 1954, the University of Michigan Papyrus Collection was moved, along with its curator, Elinor Husselman, from the Kelsey Museum of Archaeology to the Graduate Library, where it currently resides.

In papyrological circles, Herbert Youtie represents the culmination of the papyrologist as perfect editor of texts and "artificer of fact," a term coined by Youtie himself.²⁶ In a series of important articles written in the early 1960s, Youtie sketched the ideal editor of papyri by describing the mental processes of transcribing a text and how progress on the text continuously changes the perspective of the transcriber and broadens his perspective.²⁷ In "Text and Context in Transcribing Papyri" Youtie writes: the papyrologist "constantly oscillates between the written text and his mental picture of its meaning, altering his view of one or both as expanding knowledge of them seems to make necessary. Only when they last cover each other is he able to feel that he has solved the problem."²⁸ For Youtie, the papyrologist creates and broadens his "context" by progressively recovering more of the text he studies or by consulting typologically similar documents (parallels); the more the papyrologist can read and transcribe in a particular document, the greater the context for subsequent transcription. In at least one instance, however, he notes the importance of a broader cultural context, when he writes "In order to relate his texts to the environment which produced them, he can also afford to be and in fact must be an amateur in other aspects of Graeco-Roman civilization, espe-

²⁶ H.C. Youtie, "Artificer of Fact," (above, n. 4).

²⁷ For a complete bibliography, see above, n. 4.

²⁸ H.C. Youtie, "Text and Context," (above, n. 4) 27.

cially history, law, and theology."²⁹ The absence of archaeology from this list is striking, and, despite co-editing two volumes of excavated papyri, none of Youtie's articles makes any reference to archaeology as a field or the archaeological context of the papyri.

In contrast to Youtie, Elinor Husselman, the first and only female papyrologist employed by the University of Michigan, was intrigued by the potential interpretive benefits of assessing text and artifact in tandem. Although Husselman never mentions the term "context" in her work, two important studies on the granaries and the dovecotes of Karanis (1952 and 1953) adopt an early contextual approach to the material. Husselman writes:

The study of the granaries of Karanis ... was the first of a projected series in which it is planned to correlate the archaeological evidence from the excavations of the University of Michigan at the site with the written evidence from the papyri of Greco-Roman Egypt. Since nowhere else has such exhaustive work been carried on at the site of an Egyptian village of this period, it is to be hoped that the archaeological findings may illuminate some of the doubtful papyrus passages, and that papyri may sometimes provide answers to questions raised by the excavations.³⁰

Husselman herself discarded this innovative approach 20 years later. Faced with serious stratigraphic problems, she concluded that: "the papyri from Karanis, considered in relation to the particular areas in which they were found, indicate quite clearly that in general they can contribute little of significance with respect to the dating of archaeological finds..."³¹ It is noteworthy that Husselman, who was not trained as an archaeologist, expressed the relationship between the papyri and archaeological remains in terms of the positivistic aspect of chronology: papyri may help date finds and likewise the archaeological remains "may illuminate some of the doubtful papyrus passages."³² Husselman's dissatisfaction is readily understandable; the Karanis material is riddled with stratigraphic and chronological problems, and only recently have scholars begun to reassess the established typologies of objects. The assess-

²⁹ H.C. Youtie, "Textual Criticism," (above, n. 4) 11.

³⁰ E.M. Husselman, "The Dovecotes of Karanis," *TAPA* 84 (1953) 81-91, at 81.

³¹ *P.Mich.* IX 9.

³² *op.cit.* (above, n. 30) 81.

ment and re-analysis of previously excavated artifacts and papyri represents one area of scholarly inquiry that can benefit from increased collaboration and dialogue between the two disciplines. Similarly, new field projects in which papyri and artifacts are being discovered offer a unique opportunity to position disciplinary inquiries that cross over the divide that exists between our two fields.

We suggest that the modern disciplinary disjunction developed through the application of two competing approaches to the past on a flawed and insufficiently documented data set. First, the papyri and artifacts that form the bulk of the European and American museum collections, with few notable exceptions, lack provenance or are illicitly acquired objects, purchased on the antiquities market. They have been disconnected from their immediate archaeological or cultural context and are often treated as lifeless relics of a dead culture, useful for display or investigation as "treasures," but not themselves fragments of a much larger and accessible narrative about the past. Even famous literary papyri such as the "Cairo codex of Menander" originally discovered as part of the library of the fifth century lawyer and poet, Dioscorus of Aphrodito, was dislocated from both its find-spot in Aphrodito and the larger Dioscorus archive and renamed after its modern repository in Cairo.³³

Secondly, publication of both papyri and artifacts does not take into account the richness of the evidence from Egypt, and has largely occurred in formats dictated by the disciplinary boundaries of philology on the one hand and Mediterranean archaeology on the other. Papyrologists, many of whom were trained as philologists specializing in the Classical languages, read almost exclusively Greek (and occasionally) Latin papyri through other similar texts. The primary goal of papyrological study has been—and must continue to be—the establishment of a coherent text, often reconstructed from several fragments. While most philologists arrive at their final edited text through collation of multiple copies of the

³³ See T. Gagos and P. van Minnen, *Settling a Dispute. Towards a Legal Anthropology of Late Antique Egypt.* = *P.Mich.Aphrod* (Ann Arbor 1992) 33 and n. 66.

same work, papyrologists frequently reconstruct their text or fill in the *lacunae* by making use of similar in type, contemporary or later, documents (parallels). The intense focus on and attention to words, letters and texts has often led Greek papyrologists to a disregard for other forms of context or even texts written in the Egyptian scripts, but this is again symptomatic of the deep specialization of the fields and the lack of graduate programs to train students in both languages.³⁴ The group of scholars that have mastered both languages is very small, but their studies have clearly had already an impact in the scholarly discourse of Graeco-Roman Egypt in the last two or three decades.³⁵ In the same more or less period, there has been a sincere effort among Greek papyrologists to move beyond pure text editing by recognizing and incorporating broader contexts in their research.³⁶

Similarly, modern archaeological training in classical materials, as it has developed over the past twenty years, has shifted its attention to the theories and methods of archaeology, and students and scholars have moved away from a strict grounding in philological study. Processual and post-processual archaeologies concentrate to a much larger degree on finds from the soil, making sense of the

³⁴ As P. van Minnen has pointed out, "new literary papyri are as a rule studied in splendid isolation from the culture that produced them. The amount of attention lavished on new texts is caused by the philologist's natural focus on establishing texts as such," *op.cit.* (above, n. 7) 11.

³⁵ In brief see Bagnall, *op.cit.* (above, n. 5) 19-22 for both Demotic and Coptic examples. The pioneer in this effort is P.W. Pestman for which see the Preface (p. v) and contributions in A.M.F.W. Verhoogt and S.P. Vleeming, *The Two Faces of Graeco-Roman Egypt. Greek and Demotic and Greek-Demotic Texts and Studies Presented to P.W. Pestman*. Pap.Lugd.Bat. 30 (Leiden 1998). For a recent study see e.g. J.G. Manning, "Interpreting Ptolemaic Egypt: Greek and Demotic Egyptian Texts and the Reconstruction of Greco-Egyptian Society," in S. Sato (ed.), *Genesis of Historical Text. Text/Context = 21st Century Program*. Proceedings of the Fourth International Conference, Studies for the Integrated Text Science (Nagoya 2005) 31-38 and 38-42 (for discussion).

³⁶ See in brief, T. Gagos, "The University of Michigan Papyrus Collection: Current Trends and Future Perspectives," *Atti del XXII Congresso Internazionale di Papirologia* (Florence 2001) 511-13 (I. Evolving Realities); some good examples are discussed by Bagnall, *op.cit.* (above, n. 5) esp. 32ff.

past without reliance on—and sometimes in opposition to—texts.³⁷ While this approach to material culture minimizes the divide between the practice of "Egyptian" and "Classical" archaeology in Graeco-Roman Egypt, the reduced attention given to the study of Greek and Latin consequently limits the direct and immediate effect of textual sources on archaeological method and practice.

It need hardly be pointed out that documentary papyri are unlike most other texts from Classical antiquity. On the one hand, they often represent the writings and the lives of non-elites, recording the taxes that residents pay, the items they purchase or transport, and spaces that they encounter in their daily lives. Perhaps more importantly, papyri are archaeological objects in themselves. Frequently, archaeologists pass these artifacts on to other specialists for study after the completion of the excavation season or even the entire project, and the texts do not impact archaeological decision-making in the field. Like papyrological publications, the end results of archaeological inquiry (site reports), although they offer a wealth of information, are often written for a small audience of specialists. This approach to publication has severely limited interpretive and collaborative approaches to the past on both sides.

The history of our disciplines is not a cause for depression. Contemporary work in Egypt presents new opportunities to bridge the disciplinary divide, and indeed, a number of recent and ongoing field projects have pioneered the re-incorporation of text and artifact and have seen the meaningful collaboration of both textual and archaeological scholars. Archaeological projects at Kellis, Berenike, Tebtunis, Bacchias, Mons Claudianus and in the Oases have uncovered exciting finds of both papyri and artifacts.³⁸ As these ongoing

³⁷ Carver, *op.cit.* (above, n. 3).

³⁸ C.A. Hope, A.J. Mills, and M. Birrell, *The Dakhleh Oasis Project: Preliminary Reports on the 1992-1993 and 1993-1994 Field Seasons* (Oxford 1999); C.A. Marlow, A.J. Mills, and G.E. Bowen, *The Oasis Papers 1: The Proceedings of the First Conference of the Dakhleh Oasis Project* (Oxford 2001); G.E. Bowen and C.A. Hope, *The Oasis Papers 3: Proceedings of the Third International Conference of the Dakhleh Oasis Project* (Oxford 2003); V. Maxfield and D.P.S. Peacock, *The Roman Imperial Quarries: Survey and Excavations at Mons Porphyrites 1994-1998*, vol. 1, *Topography and Quarries* (London 2001); *eid.*, *Mons Claudianus*

projects approach publication, we urge continued close disciplinary collaboration. In the field, a greater integration of papyrological and archaeological study is a necessity. Archaeology is, by its very nature, an inexact science, and decisions about where, what and how to excavate can benefit from on-site study and collaboration with scholars involved in the study of texts on site. Likewise, papyrologists present on site and conducting their work in collaboration with other specialists gain a new appreciation for the connectivity of their materials to a total material record. The immediacy of this experience offers a greater incentive to both groups to make their publications accessible and readable for a diverse scholarly audience.

Similarly, we would also urge a reconsideration of how material is presented and published. The dissemination of archaeological and textual data should closely integrate specialists from both disciplines; even when separate volumes on texts, artifacts and stratigraphy are produced, we would suggest that material be presented with reference to the totality of the site, including maps, plans and

1987-1993: *Survey and Excavation* (Cairo 1997); S. Pernigotti, *Gli dèi di Bakchias e altri studi sul Fayyum di età tolemaica e romana* (Bologna 2000); S. Pernigotti and M. Capasso, *Bakchias I: Rapporto preliminare della campagna di scavo del 1993* (Pisa 1994); eid., *Bakchias II: Rapporto preliminare della campagna di scavo del 1994* (Pisa 1995); eid., *Bakchias III: Rapporto preliminare della campagna di scavo del 1995* (Pisa 1996); eid., *Bakchias IV: Rapporto preliminare della campagna di scavo del 1996* (Pisa 1997); eid., *Bakchias V: Rapporto preliminare della campagna di scavo del 1997* (Pisa 1998); eid., *Bakchias: Una città del deserto egiziano che torna a vivere* (Naples 1994); S. Pernigotti, M. Capasso, and P. Davoli, *Bakchias VII: Rapporto preliminare della campagna di scavo del 1999* (Pisa/Bologna 2000); eid., *Bakchias VII: Rapporto preliminare della campagna di scavo del 2000* (Bologna 2001); S.E. Sidebotham, W.Z. Wendrich, and F. Aldsworth, *Berenike 1994: Preliminary Report of the 1994 Excavations at Berenike (Egyptian Red Sea Coast) and the Survey of the Eastern Desert* (Leiden 1995); S.E. Sidebotham and W.Z. Wendrich, *Berenike 1995: Preliminary Report of the 1995 Excavations at Berenike (Egyptian Red Sea Coast) and the Survey of the Eastern Desert* (Leiden 1996); eid., *Berenike 1996: Report of the 1996 Excavations at Berenike (Egyptian Red Sea Coast) and the Survey of the Eastern Desert* (Leiden 1998); eid., *Berenike 1997: Report of the 1997 Excavations at Berenike (Egyptian Red Sea Coast) and the Survey of the Eastern Desert* (Leiden 1999); S.E. Sidebotham, W.Z. Wendrich, and R.S. Bagnall, *Berenike 1998: Report of the 1998 Excavations at Berenike and the Survey of the Egyptian Eastern Desert, Including Excavations in Wadi Kalalat* (Leiden 2000).

summaries of excavation data in papyrological publications and conversely, archaeological publications which pay close attention to the content of textual documents and the written records of a site's residents. To a large degree, this involves reframing our notions of context, and closely integrating our understanding of texts, artifacts, and archaeology.

Finally, we would urge scholars to produce research that crosses the disciplinary divide in a self-conscious way. The papers included in this special volume do just that and along the way, address many of these issues. Each presents a case study that demonstrates the functional solutions to our common disciplinary problems, bridging the boundaries between papyrological text and archaeological artifact. These papers were originally presented in a panel session at the 2005 Annual Meeting of the American Institute of Archaeology entitled "(Con)textual Encounters in Egypt: Bridging the Disciplinary Divide between Archaeology and Papyrology." We have chosen to publish them in a papyrological journal, emphasizing our commitment to collaboration between studies of texts and artifacts.

This volume contains four papers that explore multiple questions of context and contextuality. In an article co-authored by a papyrologist and an archaeologist, Arthur Verhoogt and Robert P. Stephan present a re-analysis of the archive of Claudius Tiberianus, deriving context both from the physical location of the finds, a single structure at Karanis, and from the interconnections of the individual texts that comprise the archive. James G. Keenan's analysis of Uthman al-Nabulsi's *Tarikh al-Fayyum* presents a textually derived tour of the Fayyum and connects the literary past to the physical landscape. Paola Davoli combines archaeological and papyrological evidence in a cross-regional comparison of the urban landscapes of two prominent Fayyum towns with famous textual legacies, Soknopaiou Nesos and Bacchias. In the final paper, text, context, and archaeological evidence are closely integrated in J.G. Manning's investigation of the economic history of the Ptolemaic period. This volume also includes the comments of two respondents who contributed to the panel, Alan Bowman and Janet Johnson, who share their responses to the written versions of the papers, including this one. Each of the contributors explores the complexity

of forming larger models of social history, and through this dialogue, we hope to work towards a correction of the fragmentation of knowledge in the study of Graeco-Roman Egypt and to instigate an ongoing and dynamic conversation between these fields that will continue beyond this volume.

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Text and Context
in the Archive of Tiberianus
(Karanis, Egypt; 2nd Century AD)¹
(Plates 5-7)

ABSTRACT

The archive of Tiberianus consists of sixteen texts, in Greek and Latin, which were found under a stairway in a house in Karanis, Egypt. All of the texts are personal letters, the majority of them from Claudius Terentianus to Claudius Tiberianus. The archive of Tiberianus has received much scholarly attention, largely focused on the Latin letters contained within it, and particularly those with information related to the lives of Roman soldiers and veterans in the Egyptian countryside.

In this paper we discuss the documents collected by Tiberianus as an archive. These texts can be identified as an archive through internal references and historical cohesion; additionally, all of the documents were discovered in the same archaeological context. Why were the texts placed together in the location in which they were found? Who were the texts' senders and addressees and how are they related to one another? How does the archaeological record support or refute the information provided by the texts?

The re-analysis of these documents is necessitated by a recent re-examination of the excavation records from Karanis, which showed that there are approximately a dozen more texts from the same locus as the published archive of Tiberianus. These texts include letters that were

¹ The authors would like to thank the organizers and discussants of the AIA/ASP session in Boston for their valuable comments and remarks. Thanks are also due to Robin Woodruff-Meadow and Sebastián Encina of the Kelsey Museum of Archaeology of the University of Michigan, for their permission to work on the material from House C/B167, and their invaluable help in accessing the records of the Karanis excavations, and to Prof. Traianos Gagos of the Papyrus Collection of the University of Michigan, for his permission to publish the documents found in House C/B167. The conservators of the Kelsey Museum, Suzanne Davis, and the Papyrus Collection, Leyla Lau-Lamb, have done valuable work on the artifacts and documents currently kept in Ann Arbor and have facilitated our work immensely. Permission to publish the figures was graciously granted by the Kelsey Museum of Archaeology of the University of Michigan.

not addressed to Tiberianus, a fragment of court proceedings and a petition. The newly associated texts shed further light on the archive of Tiberianus and prompt a restudy of the group of texts as a whole.

The archive of Tiberianus is one of the most important sources for the life of active soldiers and veterans of the Roman army in Egypt.² The archive consists of letters to Claudius Tiberianus, both during his period of active service and after his retirement from the Roman army. The senders of the letters vary, although most were written by Claudius Terentianus, who identifies himself as the son of Tiberianus.

In this paper, we will sketch the circumstances that led to the discovery of the papyri belonging to Tiberianus' archive at the site of Karanis and re-associate the documentary texts with their archaeological context. As was the case with many of the papyri unearthed from the Egyptian town of Karanis, the data related to the discovery of the documents, which was recorded in the *Karanis Record of Objects*, was not published in *P.Mich.* VIII (1951). Only a brief account appears in the introduction. This information succinctly appears in the introduction: "(the papyri) were discovered under a stairway in a house on the second level from the top of the mound."³ No further attempt was made to relate the papyri to the house where they were found or to the associated artifacts. The re-consideration of these papyri within their archaeological context reveals that their findspot offers a broader framework for interpretation, one that takes into account not only the nature of their contents, but also the relationship of the documents to other artifacts.

The recontextualization of papyri from Karanis has its problems, as it is often difficult to reconstruct relationships between artifacts from the same findspot.⁴ In this approach, the archaeological

² E.g. R.A. Alston, *Soldier and Society in Roman Egypt: A Social History* (London and New York 1985).

³ *P.Mich.* VIII (1951) 16.

⁴ For previous exercises in re-contextualization, see P. Van Minnen, "House-to-House Enquiries: An Interdisciplinary Approach to Roman Karanis," *ZPE* 100 (1994) 227-51.

records should be studied afresh and with an open mind.⁵ In the case of the archive of Tiberianus there is even more reason to take this approach, because the study of the original excavation notes by one of the authors revealed that there were sixteen additional papyri discovered in the same house, many of which were from the same locus as the papyri belonging to the archive of Tiberianus. These new papyri—their publication is in progress—shed further light on the archive, adding to its external context.⁶

Architecture

The papyri that came to be known as the archive of Tiberianus were found in house B167, that is, in the "B" level of house 167. (Plate 5) The excavators of Karanis distinguished five levels, with the A-Level being the uppermost, and B-Level through E-Level below. Excavators believed that these levels were persistent over the entirety of the site. Van Minnen has demonstrated some of the problems with this approach, as it does not account for the development of individual houses, streets, and blocks.⁷ Reconstruction of the occupation phases of each house should instead be predicated on the individual structure; we can read the history of a single house through its successive layers.

House B167, and its predecessor, House C167, are well documented in the excavation records currently held at the Kelsey Museum of Archaeology at the University of Michigan. These documents include numerous photographs of both the architecture and finds, as well as semi-detailed floor-plans. Smaller scale maps of house B167 permit it to be viewed in relation to the entire site, and profile maps connect the house to the vertical stratigraphy of Karanis as a whole, allowing stratigraphical comparison with neighboring structures.

⁵ Cf. N. Pollard, "The Chronology and Economic Condition of Late Roman Karanis: An Archaeological Reassessment," *JARCE* 35 (1998) 147-62.

⁶ A. Verhoogt and R.P. Stephan, *The House of Claudius Tiberianus. Text and Artifact from House C/B167 in Roman Karanis* (forthcoming).

⁷ See van Minnen, *op.cit.* (above, n. 4)

The excavators associated structure B167 with the second stratigraphic level beneath the modern surface. The house reused earlier materials, and was constructed on the ruined walls of house C167, the earliest occupational level in this particular part of the site. Such re-use was a well-established practice at Karanis, and in this way, the ruined walls and extant bricks from the previous house could be recycled in the new construction. Likewise, structure A154 was later built above structure B167, using building materials from the earlier construction. Over this period of time, while the exterior appearance of the house changed very little, there were numerous alterations in the interior structure of the building.⁸

C-Level

House C167 was originally constructed as part of an insula block that also contained structures C146, C168, C5034, and C5036. (Plate 6) This insula is located near center of the town, approximately one block west of the north-south thoroughfare CS210. Houses along this street were dated to the late first or early second century AD by recovered papyri, ostraca, and coins. The proximity of C167 to this firmly dated area should allow it to be included within this date range.

The arrangement of the house can be reconstructed using the detailed floor plan created by the excavators. (Plate 7) Structure C165 was imposing in size; measuring from the outside of the exterior walls, the area of C167 was approximately 165m², roughly equal to the combined size of the two houses to the north, C5036 and 5034. The walls, themselves, were in the area of two-thirds of a meter thick. The courtyard (including loci C167K, L, M, and N) is located to the east of the living quarters, and encompasses over half of the interior space, about 75m². The courtyard is connected to the living quarters through a doorway in room E. This area was used for cooking and general storage, as well as housing for domestic animals; the plan reveals an oven (which nearly blocks the entrance

⁸ E.M. Husselman, *Karanis Excavations of the University of Michigan in Egypt 1928-1935: A Summary of the Reports of the Director, Enoch E. Peterson* (Ann Arbor 1979) 22.

to the courtyard), storage bins, pens and mangers.⁹ The walls, made of mudbrick and uncut stone, were approximately two-thirds of a meter thick and were probably low, as they do not appear in the B-Level.¹⁰

The main part of the house was comprised of at least two stories; the lower story is divided into five different rooms. Originally this area would have been roofed, but no remains were preserved.¹¹ A door in the west wall of Room A provides access to the north-south street CS145. This street runs parallel to the main thoroughfare CS210 and, at three meters wide, is one of the larger streets in Karanis.

Room A likely functioned as an *atrium*, a public place where family members would meet and interact with their daily visitors. This room also served to restrict access to the more private areas of the house; the interior of the house was accessible through two doors in room A.¹² One door in the southeast corner of the room led to room E, another large room which was connected to the courtyard. Another door in the north wall of room A led to spaces B and D. B is the staircase that led to the second floor while D¹⁻³ were three ground floor recesses or niches beneath this staircase. These niches would have been accessible only through trap doors in the stairs.

D², one of these niches, is listed as the primary findspot for many of the papyri and moveable artifacts that were discovered in structure C167, including most of the documents from the Tiberianus archive.

B-Level

The B-Level at Karanis is typically dated to the end of the second century; at this time, the excavators have supposed partial

⁹ A.E. Boak, *Topographical and Architectural Report of Excavations during the Seasons 1924-1928* (Ann Arbor 1931) 392.

¹⁰ *Ibid.*

¹¹ Husselman, *op. cit.* (above, n. 8) 37.

¹² Cf. A. Wallace-Hadrill, "The Social Structure of the Roman House," *PBSR* 56 (1988) 43-97.

abandonment of the site due to a small economic recession and a subsequent reconstruction.¹³ Total abandonment throughout the site is unlikely, and it seems that in many areas, B- and C-Level structures were in contemporary use.¹⁴

Although it is not certain that structure 167 was completely abandoned, changes in the internal structure and the accumulation of debris suggest that some areas of the house had fallen out of use.¹⁵ The nearby houses 5036 and 5034 were abandoned and replaced by B156 and B157. In the courtyard, which was not roofed, there was an accumulation of debris, and the low walls that had previously delineated bins and other structures were covered during the B-Level. Three new storage bins, Y¹⁻³, were constructed in the northwest corner, built over an oven.¹⁶ The south wall of the courtyard was also partially reconstructed, this time with a passageway connecting B167Y with the courtyard of the adjacent house to the south, B168K.¹⁷ Along with the reconstruction of a small section of the northern wall, these were the only renovations to the exterior of the house.

The interior of the house remained relatively unaltered with only a few minor modifications. A *mastaba* was constructed directly in front of the doorway, and was perhaps built on the remains of a previous *mastaba*.¹⁸ The staircase (B) was no longer in use during the B-Level. Whether or not this reflects the elimination of the upper floor(s) is not certain. A ladder may have been used to access the second floor, but it is also possible that this area was abandoned during this time. The absence of the stairway was significant, as it

¹³ Husselman, *op.cit.* (above, n. 8) 21.

¹⁴ van Minnen, *op. cit.* (above, n. 4) 229.

¹⁵ Boak, *op. cit.* (above, n. 9) 391.

¹⁶ *Ibid.* 393.

¹⁷ That this passageway existed, suggests that there were strong ties between the inhabitants of house B167 and house B168. The possible consequences of this will be discussed in Verhoogt and Stephan, *op.cit.* (above, n. 6)

¹⁸ Boak, *op.cit.* (above, n. 9) 392.

exposed the ground floor niches, previously only accessible by trap door.¹⁹

A-Level

The A-Level at Karanis—the most recent strata beneath the surface, approximately 5th century AD—is identified as the final occupation phase. There appears to have been a significant break or change in occupation between the late B-Level and the A-Level. While houses and streets may still have been oriented in the same direction, pre-existing walls were no longer incorporated into new buildings. On average, A-Level houses were typically three meters above their B-Level predecessors.²⁰ Damage by the sebakkhin also resulted in poorly preserved materials from the occupation phase.

House C/B167 was eventually abandoned and covered with debris, and none of the original walls are reused in the A-Level. Three new houses were constructed in the space previously occupied by C/B167: House 154 has been built over part of what was previously the courtyard of B167. At 60m², this structure is less than half the size of its predecessor. It is oriented in essentially the same way as B167, with the main area of the house to the west, and the courtyard to the east. The living area can only be identified as one room, 154B, and the courtyard is labeled as 154A.

The courtyard of house 154 is of particular interest due to the six ovens, A¹⁻⁶, that were discovered there. Three of these, A¹⁻³, were discovered along the south wall of the courtyard, where they were actually built on top of three previous ovens, A⁴⁻⁶, built in an earlier part of the A-Level phase. The size of the ovens is also quite intriguing since they take up almost half the area of the courtyard, and it appears as though part of the wall that divided the courtyard from the rest of the house had to be removed to make room for the westernmost oven.²¹

¹⁹ *Ibid.*

²⁰ Husselman, *op.cit.* (above, n. 8) 26.

²¹ Boak, *op.cit.* (above, n. 9) 644-45

Two open areas occupy the remainder of the space where C/B167 previously stood. Area 413 lies above the northwestern part of the house, mainly rooms A, B, C, and D, while Area 408 covers the southern half of the house B167's courtyard and room E.

Archaeological finds

The stratigraphy suggested by the architecture is complicated by the artifacts attributed to the house. Each year, finds were recorded as they were excavated in the *Records of Objects*, so that A-Level is recorded in the 1924-1925 Record of Objects; B-Level in the 1928 and C-Level in the 1929 volume. These records indicate that only B-Level yielded artifacts. No items are recorded for the A-Level or the C-Level. While there probably was a substantial amount of material that was simply not recorded—mostly fragmentary ceramic sherds—it remains strange that only the B-Level produced moveable objects.²² A-Level and C-Level produced nothing, or at least nothing deemed sufficiently interesting to record. The apparent absence of finds from the C-Level is especially troubling when compared to the detail and precision evidenced in other aspects of the excavations in 1929. In comparison with previous years, the 1929 season produced significantly more detailed maps, and by this point in the excavations, the Michigan team had established a definitive system for recording finds.

The fact that there is nothing recorded for the C-Level can have two possible explanations: either there really was nothing of interest there (apart from unrecorded potsherds), or the moveable objects from the C-Level had been mistakenly excavated in an earlier season and recorded as part of the B-Level. The latter explanation, perhaps, is the most likely.

We may suggest that in 1928, the Michigan team excavated House 167 as a single stratum. After the 1929 season, they may have recognized two separate strata in the architecture; this may have led them to propose two different occupation phases for the

²² E. Peterson, Karanis Record of Objects, 1928 (Kelsey Museum of Archaeology, Ann Arbor) 410-19. On not recording some of the ceramics, see Pollard, *op.cit.* (above, n. 5) 149 n. 9.

structure: C167 and B167. Typically, as noted above, there was no dramatic architectural change between the B-Level and the C-Level; these two occupation phases may represent a later reassessment based on the finds and architecture. In addition, the interest and quantity of the finds themselves could have induced the excavators to mistakenly excavate both levels during the 1928 season.

Furthermore, discrepancies between recorded find spots and published plans, and, more importantly, the location of the papyri suggest the mixing of the B-Level and the C-Level. Apart from the uneven division of moveable objects over the levels, it is notable that a number of the findspots recorded for the objects in the B-Level do not correspond with the plans for that level, but refer instead to locations in the C-Level. A case in point is the largest group of papyri, which was attributed to locus D². D² is only attested for the C-Level, and is not indicated on the drawing for the B-Level. Similarly, one of the papyri from the B-Level was recorded as coming from locus L (inv. 5417). Again, this locus is not accounted for in the B-Level, but only in the C-Level. It seems likely that the excavators mapped the B-Level artifacts into the C-Level plan.

Further evidence for the hypothetical blending of levels is found in the papyri that are associated with the house; these documents can be dated to two distinct periods. While some of the papyri can be palaeographically attributed to the beginning of the second century AD (the C-Level for this part of Karanis), other texts date to the late second and early third century AD (ca. 200-325 AD, the B-Level).²³ The chronological diversity of the texts is mirrored in their find spots within the house. Twenty-four of the papyri (P.Mich. inv. 5389-5412) were found in one locus (D²), together with a significant number of artifacts. These papyri—including the texts from the archive of Tiberianus—date from the beginning of the second century

²³ The B-Level in this block may even go beyond the early fourth century, because one of the texts found in the adjacent house B168 contained a Coptic text (inv. 5421; published in G.M. Browne, *Michigan Coptic Texts*. *Papyrologica Caesariensis* 7 [Chicago 1979] #2). For the redating of Karanis' last phases into the fifth century, thus allowing extending earlier phases as well, see Pollard, *op.cit.* (above, n. 5).

AD to the late second century AD (e.g. P.Mich. inv. 5409, court proceedings mentioning the epistrategos Claudius Xenophon, active between 1979 and 192 AD). The remaining seven papyri can be associated with different rooms in the house:

D1	inv. 5388 (discovered in pot)
E	inv. 5387
A	inv. 5386, 5413 (Thucydides, <i>Hist.</i> II, 62, 5f.), and 5414
K	inv. 5415
L	inv. 5417

In addition, there were four ostraca were discovered in room A. Three of these were dated on paleographic grounds to the third century AD, while one was dated to the third/fourth century AD.

The moveable objects recorded in the 1928 *Record of Objects* for the B-Level likely include objects and documents from the earlier level. While it was possible to associate the architectural remains with two distinct phases, a comparable re-assessment was not possible for the moveable objects.

We suggest that it is possible to attribute the artifacts from locus D², the storage niche under the staircase, to the C-Level of occupation. All papyri discovered in this unit date to the period which coincides with C-Level in this part of Karanis. Furthermore, the staircase associated with this niche was no longer in use during the B-Level occupation. We propose that the artifacts discovered in the niche were materials that were cleared from the C-Level and stored away when structural modifications were made to house C167. During the B-Level, these artifacts were forgotten and not removed from storage; they were discovered still *in situ* nearly two millennia later.

Prosopographic connections between the documents support this possibility. One document was discovered "high in the fill" of locus L, one of the loci that is attested for only the C-Level. This sender and recipient named in this document are known from the papyri associated with the storage niche. It seems likely that this papyrus became part of the fill when the transition from C-Level to

B-Level took place, and therefore should be associated with the C-Level. Possibly the fact that the objects that were also found in the niche were largely made of wood (including architectural elements and furniture parts) could suggest that what we have here is a storage place that was no longer actively used.

Therefore, the papyri and objects found in the storage niche under the staircase can be associated with an earlier phase of habitation; we can suggest two different occupation phases for structure C167, discernable in both the architecture and movable objects. We can now move from the analysis of the objects to the individuals in the past who used and owned these artifacts. While it is not possible to demonstrate conclusively that the same individuals lived in the house during both phases, it seems likely that there may have been some continuity, as the earlier (C-Level) documents were not removed during the B-Level. We can be certain, however, that the family living in the house during the B-Level was literate; we can recognize a fragment of Thucydides among the unpublished documents.

The Inhabitants of House C/B167

In the final part of this paper we will discuss what we can glean from the papyri and artifacts about the family, or families who lived in the house during C- and B-Levels. This work is ongoing, and may change as more information becomes available from texts currently kept in Cairo for which we still have no photographic evidence.

We can suggest that the family of Tiberianus occupied the house during the second century AD (the excavators' level C-Level). Most of the papyri from the storage niche have been published as the archive of Tiberianus in the eighth volume of *Michigan Papyri* (1951), and these papyri received much scholarly attention. The documents detail the early second century AD life and deeds of Tiberianus and Terentianus, probably Tiberianus' son. Both men were soldiers in the Roman army, and our documents also recount Tiberianus' life as a veteran.²⁴ Various family members and military colleagues also appear in the texts.

²⁴ Alston, *op.cit.* (above, n. 2) 135-37.

The unpublished texts from the niche (which are currently under study) add more individuals to the family, probably among later generations. In an undated letter, we find a Didumarion and her children, greeted by her daughters Heros and Tolis, who apparently were residing elsewhere at that time. This pattern is known from the archive of Tiberianus; Tiberianus' daughter resides elsewhere when she writes to her father. The unpublished documents also include a petition from a certain Sansneus to the assistant (*boethos*) of Aelius (papyrus damaged).

It remains unclear whether Tiberianus ever lived in the house at Karanis. The argument for Tiberianus' residence is bolstered by the discovery of his archive in the niche. However, a text from the Cornell collection complicates matters. In *SB VI 9636*, dated to 136 AD, Valerius Paulinus introduces a new veteran, Terentianus, to his friend Valerius Apolinarius; Valerius Paulinus rents his house and field to Terentianus. Naphtali Lewis, the original editor, suggested that the Terentianus named in the Paulinus letter is the same individual as the sender of the letters to Tiberianus.²⁵ This arrangement would suggest that the family would not already have had a house in the village, or else it would not have been necessary for a stranger to introduce Terentianus. Tiberianus would not have settled at Karanis.

This arrangement would necessitate the conclusion that Terentianus settled in Karanis and brought his family papers, among which were letters from him received by his father (and then somehow returned to Terentianus). In our opinion, this is an unlikely hypothesis. Rather, we are inclined not to accept the proposed identification for the Terentianus in *SB VI 9636* with the Terentianus who features in the texts from House B167.²⁶

Research on the objects attributed to the B-Level is currently underway. There is as yet no identification of the agents of the archaeological record in this level, because we are still waiting for images from Cairo of the unpublished texts. Here, however, the ar-

²⁵ N. Lewis, "A Veteran in Quest of a Home," *TAPA* 90 (1959) 139-46.

²⁶ See further S. Strassi, *L'archivio di Tiberianus e Terentianus: P.Mich. VIII 467-481 + P.Mich. VIII 51* (forthcoming).

chaeological remains offer interesting insights about the inhabitants of the house. The archaeological record suggests that the residents, presumably a family, were fairly well-to-do. P.Mich. inv. 5413, discovered in room A, is a fragment of Thucydides (*Histories*, Book 2); this suggests that at least one resident was literate.²⁷ Other objects, including four fragments of faience vessels, discovered in Room A, show remarkable craftsmanship, and their quality is among the highest of comparable faience vessels found in Karanis. High quality glass objects were also found in the house.²⁸

Conclusion

In the course of the twentieth century, the archive of Tiberianus has been studied extensively using various approaches. A number of studies have looked at the Latin of the letters, the variant uses of Latin and Greek in the archive, and the social status of Roman soldiers and veterans. With the recovery further documents and artifacts from the archive of Tiberianus, it is necessary to re-assess each of these studies. Our work has focused on re-associating the documents with their archaeological context in order to allow future studies to fully assess all aspects of the evidence. Although the stratigraphic record of Karanis is problematic, we feel that the papyri allow us new avenues to approach this data. Our current tasks are clear: to analyze archaeological data, edit the new papyri, and re-assess those papyri that were previously published. Only by evaluating the texts, artifacts and architecture in tandem will we be able to fully reconstruct the life, work and documents of Tiberianus and Terentianus.

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²⁷ See J.N. Adams, *Bilingualism and the Latin Language* (Cambridge 2003).

²⁸ D.L. Harden, *Roman Glass from Karanis Found by the University of Michigan Archaeological Expedition in Egypt 1924-29* (Ann Arbor 1936).

Landscape and Memory: al-Nabulsi's *Ta'rikh al-Fayyum*

Toute profonde mutation de la méthodologie
historique s'accompagne d'une transformation
importante de la documentation.

—Jacques LeGoff, *Histoire et Mémoire*¹

ABSTRACT

Uthman b. Ibrahim al-Nabulsi composed his description of Egypt's Fayyum province in the 1240s A.D. His *Ta'rikh al-Fayyum* starts with nine summary chapters followed by a massive tenth chapter, a geographical gazetteer arranged alphabetically by villages. The text is predominately concerned with the author's present day, leaving no doubt the region's landscape had changed significantly since late antiquity. Almost all the village names were Arabic. The people had been Arabized—and Islamicized: only small Christian pockets remained. The sacred landscape had been correspondingly reconfigured. Additionally, the Fayyum, which had experienced a shrinkage of arable land and a loss of villages in late antiquity, had within more recent memory experienced further shrinkage. Most important, the villages on the Fayyum's fringes, the ones that had been abandoned in late antiquity and provided in the 19th and early 20th centuries an abundance of documentary papyri, were (almost) wholly forgotten.

Despite such unpromising premises, this article suggests by examples that the *Ta'rikh al-Fayyum* has much to offer the papyrologist, the archaeologist, and the ancient historian, respectively: a nearly full ecological and geographical template within which to set the ancient documentary evidence; a "virtual" tour of the whole province; and the chance to stretch the history of the pre-modern Fayyum another half millennium.

Uthman b. Ibrahim al-Nabulsi, whose text forms the basis of my article, composed his description of Egypt's Fayyum province in

¹ Éditions Gallimard, 1988, 337. cf. S. Randall and E. Claman, trans., *History and Memory* (New York 1992) 206.

the 1240s A.D. He had been assigned by the last Ayyubid sultan, al-Salih Ayyub (reigned 1240–1248), to make a fact-finding tour.² The goal was to reverse the province's declining productivity.

Al-Nabulsi's written report is conveniently referred to as *Ta'rikh al-Fayyum*. The author, so he tells us, aimed for accuracy and utility, eager that his reader would come away with a knowledge of the Fayyum equal to that of any native (*TF* 3–4). The work starts with nine relatively brief summary chapters. These are followed by a massive tenth chapter, in effect a geographical gazetteer of the whole province arranged alphabetically by villages. The usefulness of this arrangement for information retrieval is unfortunately compromised because (as usual) the alphabetization is by initial letter only and a disproportionate number of village names begin with alpha (largely because of the Arabic definite article) and mim (largely because of the word for hamlet or satellite village). The text itself is almost exclusively concerned with the author's present day, leaving no doubt in the mind of any student of the ancient Fayyum that its landscape had changed significantly since late antiquity. New to the region were cane fields, sugar mills, and water buffalo.³ Almost all the village and hamlet names had become Arabic (*TF* passim, but especially Chapter 7). The population itself had been Arabized, or perhaps more accurately "Bedouinized" (*TF* passim, but especially Chapter 5)—and Islamicized. The sacred landscape had been correspondingly reconfigured. Al-Nabulsi (*TF* Chapter 8) could count some 80 mosques scattered throughout the Fayyum, with a concentration of 31 in the provincial capital, Madinat al-Fayyum. Nevertheless, a few villages remained Christian, and thirteen monasteries remained active. These included the famous, but as yet unlocated, Monastery of Samuel of Qalamun and the monastery at Naqlun, still active today and the object of Polish excavation from 1986 to 1993.⁴ Twenty-five churches survived, but five of these were reportedly in unredeemable disrepair. Also note-

² B. Moritz (ed.), *Description du Fayoum au VII^{me} siècle de l'Hegire par Abou 'Osmân il Naboulsi il Safadi* (Cairo 1899). [Abbreviated in my text as *TF*.]

³ Cf. R.S. Bagnall, *Reading Papyri, Writing Ancient History* (London and New York 1995) 70–71.

⁴ See the forthcoming chapter on Naqlun in G. Gabra (ed.), *Christianity and Monasticism in the Fayoum Oasis* (Cairo).

worthy is that the Fayyum, which had experienced a shrinkage of arable land and attendant loss of villages in late antiquity, had within more recent memory experienced still further contraction. Some of this is probably to be associated with the famine and dearth in the latter half of the eleventh century during the difficult reign of the sultan al-Mustansir. Finally, and most importantly for present purposes, the villages on the Fayyum's fringes, the ones that had been abandoned in late antiquity and had contributed in the nineteenth and early twentieth centuries to an "explosion" in the recovery of documentary papyri, were (almost) wholly forgotten in al-Nabulsi's day.

Accordingly, the prospects of applying al-Nabulsi's medieval document in any meaningful way to the ancient Fayyum seem bleak. Examination of any traditionally-compiled modern map of the ancient Fayyum,⁵ that is, one compiled by means of papyrology and archaeology, will show that it operates, as it must, from a perspective entirely the opposite of al-Nabulsi's: any such map will present a Fayyum with habitational sites plotted almost exclusively on its outer edges.⁶ The main part of the Fayyum's anciently inhabited environment will look very roughly like a triangle, with its apex in the south and its northern base receiving longitudinal definition from the slightly aslant east-west expanse of Lake Moeris.⁷ The map's interior, were it enlarged, would present the kind of blank space that would in his boyhood have entranced Marlow, the internal narrator of Joseph Conrad's *Heart of Darkness*. You may

⁵ See now, however, K. Mueller, "Places and Spaces in the Themistou Meris (Fayum/Graeco-Roman Egypt): Locating Settlements by Multidimensional Scaling of Papyri," *Ancient Society* 33 (2003) 103–25; *ead.*, "Mastering Matrices and Clusters. Locating Graeco-Roman Settlements in the Meris of Herakleides (Fayum/Egypt) by Monte-Carlo-Simulation," *APF* 49 (2003) 218–54; K. Mueller and W. Lee, "From Mess to Matrix and Beyond: Estimating the Size of Settlements in the Ptolemaic Fayum/Egypt," *Journal of Archaeological Science* (forthcoming) (references thanks to T.M. Hickey and J.G. Manning).

⁶ See, for example, Fig. 5.1.1 ("The Fayyum") in R.S. Bagnall and D.W. Rathbone (eds.), *Egypt from Alexander to the Copts: An Archaeological and Historical Guide* (London 2004) 128.

⁷ For Lake Moeris as a misnomer of the Greek geographers, without authentication from Egyptian sources: K. Vandorpe, "The Henet of Moeris and the Ancient Administration of the Fayum in Two Parts," *APF* 50 (2004) 61–78.

recall the famous, or perhaps now infamous,⁸ passage where Marlow early on talks of having been a "little chap...with a passion for maps. I would," so he tells his listeners,

look for hours at South America, or Africa, or Australia, and lose myself in all the glories of exploration. At that time there were many blank spaces on the earth, and when I saw one that looked particularly inviting on a map . . . I would put my finger on it and say, "When I grow up I will go there."

There are nonetheless significant exceptions to the ancient Fayyum's interior cartographic blankness, the most significant being its capital city, Krokodilopolis, or Arsinoe. This place is so significant an exception that when I see a map of the ancient Fayyum I sense, whether right or wrong, a construction where the fringe villages look *inward* from the edges to their capital city.

Al-Nabulsi's conception of the Fayyum was much different. Whether he ever compiled a true map or not,⁹ he makes it clear that in his mind he pictured the Fayyum as a circular depression ringed by mountains (*TF* 5, 7), with Arsinoe's successor, Madinat al-Fayyum, at its notional center. He used this as his base of operations, living there, as he tells his readers, for over two months "in a high building with a spacious courtyard" (*TF* 8). In the year or so that he spent in the Fayyum it would seem difficult for him to have visited all the nearly 200 villages and hamlets he notes both within and outside of his alphabetical gazetteer; but he must have traveled quite a bit, on horseback, passing through and even stopping at many of them. At each stop he would (*TF* 3) observe the village's "layout" and "physical appearance," and establish, among other relevant concerns, its distance from Madinat al-Fayyum, and its location, in terms of travel time and compass point direction, thereby providing an alluring invitation to any scholar interested in using the medieval Fayyum as a laboratory for applying central place theory.¹⁰ On the basis of al-Nabulsi's distances and directions, it

⁸ Infamous because colonialist. See D. Wood, *The Power of Maps* (New York and London 1992) 44–45, quoting B. Harley's paper, "Victims of a Map."

⁹ Cf. R.J.A. Talbert, "Small-Town Sources of Geographic Information in the World of Imperial Rome," *CB* 80 (2004) 15–25, esp. 16, for the relationship between data collection (specifically Ptolemy's) and the *possibility* of map-making.

¹⁰ Cf. R. Alston, *The City in Roman and Byzantine Egypt* (London and New York 2002) 349. Amenable to this approach in a small way would be al-Nabulsi's treatment of cane-producing villages and the center (Madinat al-Fayyum) and

would be possible to construct what our British colleagues (I am thinking here of Dominic Rathbone) would call a "tube map" of the Fayyum with its villages as stops of the Underground. No one, as far as I know, has tried this, the exercise seeming pointless because so many of the places named by al-Nabulsi survive today as active villages on or near the sites where they stood in the thirteenth century. As examples (three in place of many), I would cite Sinnuris, Itsa, and Biyahmu (discussed below). In any case, both my projected tube map and actual maps based on al-Nabulsi¹¹ would have disappointed young Marlow: their interiors are much too full. More to the point: it is only occasionally, and usually only at the outer edges of the Nabulsi map, that the medieval and ancient maps truly converge.

There are a number of leading examples. Of these it is best to start with the village of Talit in the far south Fayyum. This is a village that has not itself been the provenance of papyri, but it is well known for being mentioned in documents emanating from the nearby villages of Kerkeosiris, in the Ptolemaic period, and Tebtunis, in the Roman period. It is also named in late, that is, eighth-century, village lists in papyri from the rubbish mounds of Kiman Faris. These were papyri from the famous "First Fayyum Find" of 1877, the lion's share of which was acquired by Theodor Graf, eventually to become the basis for the Austrian National Library's collection. The village was never excavated; today it is mostly stripped, but its remains were surveyed under Dominic Rathbone's direction in July 1995.¹² The surveyed ancient village, with its rock-cut water channels, street grid, fractured millstones, and red-slip wares of the

sub-centers (especially Sinnuris and Damushiyya) to which they sent their cane for processing. See J.G. Keenan, "Egyptian Villages in the 13th Century: al-Nabulsi's *Tarikh al-Fayyum*," in C. Morrison and J.-P. Sodini (eds.), *Les Villages dans l'Empire byzantin IV^e-XV^e siècle*, Réalités byzantines 11 (Paris 2005) 567-76.

¹¹ I think specifically of the map that attends G. Salmon's "Répertoire géographique de la province du Fayyûm d'après le Kitâb Târîkh al-Fayyûm d'an-Nâboulsî," *BIFAO* 1 (1901) 29-77. See also A.S. Bey's map of the canal system: "Fayoum Irrigation as Described by Abu [sic] Nabulsi in 1245 A.D. with a Description of the Present System of Irrigation and a Note on Lake Moeris," *Bulletin de la Société Géographique d'Égypte* 20 (1940) 283-327.

¹² C. Kirby and D.W. Rathbone, "Kom Talit: The Rise and Fall of a Greek Town in the Fayoum," *Egyptian Archaeology* 8 (1996) 29-31.

fifth to the seventh centuries, is presumably the large village reported by al-Nabulsi (*TF* 128) to have been abandoned in the eleventh-century reign of al-Mustansir: it had been fully covered with sand, but new houses for a small village had been built at the edge of the fields of the ancient village. This is the village al-Nabulsi entered into his tax record.¹³

In al-Nabulsi's mode of reckoning, the new village of Talit was a half day's ride south of Madinat al-Fayyum. Its water was derived from the Bahr Tanabawayh, the medieval equivalent of the ancient Polemon Desert Canal. Villages along this canal had become vulnerable in the time before al-Nabulsi. In the latter half of his sixth chapter he lists twenty that had been abandoned within memory. These include, near the very end of the canal in the Fayyum's far northwest, Qasr Qarun, the ancient Dionysias, an important archaeological site¹⁴ and famous, though the papyri themselves were discovered elsewhere, as the ultimate source of the fourth-century archive of the military officer Flavius Abinnaeus.

Surviving into al-Nabulsi's time, also in the Tanabawayh canal system and not far from Talit, was a small village called Tutun. Al-Nabulsi, however, also knew of a village farther south that had itself once been called Tutun, but had come to be known as Tutun Da'rt—"Abandoned Tutun" (*TF* 86). Most scholars are inclined to accept the names of both villages as corruptions, apparent in both Coptic and Arabic documents, of the ancient Tebtunis, a legendary archaeological site ever since Grenfell and Hunt's excavations in the winter of 1899–1900.¹⁵ Al-Nabulsi presumably did not see the site of Tutun Da'rt, the ancient Tebtunis, but the new Tutun that continues in existence today and through which access is to be had to the site of Tebtunis several kilometers to the south near the modern village of Umm el-Buraygat.

¹³ This new Talit is recorded in cadasters of the 14th and 15th centuries before final abandonment: information supplied by L. Sundelin and reported in the Leuven database of Fayyum villages (<http://fayum.arts.kuleuven.ac.be>).

¹⁴ P. Davoli, *L'archeologia urbana nel Fayyum di età ellenistica e romana*, Missione Congiunta delle Università di Bologna e di Lecce in Egitto, Monografie 1 (Naples 1998) 301–23.

¹⁵ J.G. Keenan, "Deserted Villages: From the Ancient to the Medieval Fayyum," *BASP* 40 (2003) 119–39, at 129–37.

What al-Nabulsi would have seen there had he visited ancient Tebtunis, we do not know. Since al-Nabulsi was an administrator, on a mission from the sultan, laboring under constraints of time, a serious, even dour personality, he seems unlikely to have made unnecessary sidetrips as an archaeological tourist. He does, however, mention at the beginning of his fifth chapter the pyramid at Illahun because for him it marked the beginning of the string of hills that encircled the Fayyum and the recommended point of departure for anyone inclined to make the three-day trip along the rim of the mountains enclosing the province. Al-Nabulsi seems to have seen the pyramid personally, and seems also to have visited the village of Biahmu (*TF* 66) in the central Fayyum, an hour north (by his reckoning) of Madinat al-Fayyum. There, in the matter of course, he saw the colossal pedestal bases that are now known to have been for statues of the Middle Kingdom pharaoh Amenemhat III. Al-Nabulsi refers to them as "stone idols, very ancient, colossal," one facing west, the other south, both inscribed "with ancient writings like those one sees on the pyramids and temple ruins." It had been rumored that ancient treasure was concealed inside them; but certain curious treasure-seekers who had dismantled the tops of the monuments had come out empty-handed. There was, nevertheless, to the east of the two monuments a wide waterhole whose water had curative properties. According to al-Nabulsi—and this does have the ring of autopsy about it—people who came to Biahmu for cures threw carob pods, and myrtle, and dirhems (silver coins) into the waterhole, presumably for good luck.

These monuments of Biahmu, to quote and paraphrase selectively from a passage in Susan Alcock's *Archaeologies of the Greek Past*, were "set within a landscape," a term embracing the total physical environment, settlement patterns, holy places, fields, in fact, just about everything.¹⁶ And so Biahmu's noteworthy monu-

¹⁶ *Archaeologies of the Greek Past: Landscape, Monuments, and Memories* (Cambridge 2002) 30: "Monuments, of course, live within a wider matrix of human activity; they are set within a landscape. Landscape, a capacious and currently much utilized concept, contains a multitude of meanings, all of which revolve around human experience, perception and modification of the world. Landscape thus embraces the physical environment, patterns of settlement, boundaries and frontiers, fields, cities, natural features, monuments, pathways, holy places, wilderness, and much much more. . . ."

ments were set within the wider landscape of the village itself, which was, in other respects, a fairly typical Fayyum village. It was mid-sized and had a congregational mosque. Its people were descended from a branch of the great tribe of the Bani 'Ajlan. They drew their water from the channel of the Bahr Sinnuris that ran north out of Madinat al-Fayyum. Although the Fayyum was generally remarkable for its orchards, Biyahmu like most Fayyumi villages remained principally a producer of staple crops: wheat, barley, and fava beans. It did, nevertheless, also have vineyards and oliveyards besides plantings of slightly over thirty feddans in sugar cane. Again, as typical of Fayyum villages in antiquity and today, its agricultural economy was mixed with the pastoral: cattle, sheep and goats were part of the village's assessment for payment of the *zakat*, or alms tax.

Identified by Carl Wessely as the village that in Ptolemaic and Roman papyri went by the name Ἀνδριάντων κώμη,¹⁷ "The Village of Statues," Biyahmu clearly has an archaeological and documentary history, more discontinuous than full, that runs from at least Amenemhat III down to today. Its proximity to Madinat al-Fayyum, therefore in the Fayyum's interior, assured Biyahmu of a more dependable water supply; it ran fewer risks than the villages on the Fayyum's outer fringes. Thus it is no surprise to find Biyahmu listed with other Fayyum villages in papyri of the eighth century, in the early Islamic period, well after the Fayyum's supposed fourth-century eclipse. Most of these papyri are now to be found in the Vienna collection and derive from the first Fayyum find mentioned above. In these village lists Biyahmu is known, in Greek, as Πιαμούει.¹⁸ In the most complete of the alphabetical lists (*SPP* XX 229), which names 59 villages from the second half of the Greek alphabet, Piamouei appears with about a dozen other villages whose names can be traced back to antiquity and forward to al-Nabulsi

¹⁷ See A. Calderini and S. Daris, *Dizionario dei nomi geografici e topografici dell' Egitto greco-romano*, vol. I, part 2 (Madrid 1966) 33: 7 references from the 3rd century B.C. to the 3rd century A.D.

¹⁸ A. Calderini and S. Daris, *Dizionario dei nomi geografici e topografici dell' Egitto greco-romano*, vol. IV, part 2 (Milan 1984) 126: 8 references from the 7th–8th centuries.

and even to the Fayyum's modern set of place names.¹⁹ These village lists are unfortunately usually barren of incidental detail. They were probably for that reason, in addition to the earlier scholarly disdain for late-period papyri, generally ignored after their publication and close study by Carl Wessely in the early twentieth century. They have recently, so to speak, been "rediscovered" by Jairus Banaji and Federico Morelli,²⁰ who have made, respectively, important topographical observations and editorial corrections. More can be expected.

An extended treatment of the late Byzantine/early Islamic Fayyum, this much-neglected time and place, awaits its dedicated scholar. In the shorter term, the survival of identifiable and locatable Fayyum villages in the eighth-century papyri suggests, among other things, that scholarly impressions of the Fayyum's fourth-century eclipse, based on anecdotal evidence from places like Karanis and Theadelphia, may have been exaggerated. Al-Nabulsi adds yet another dimension to the broad demographic shape of the Fayyum. Besides recording or recalling several villages whose history is ancient, he leaves no doubt that villages were the atoms of the Fayyum's administrative structure and that there was a hierarchy of villages, ranging from the tiniest of hamlets to substantial villages with their own satellite villages and hamlets. He also shows that although villages in crisis had been abandoned, some villages, like Talit or Tutun, simply moved to more promising ground, that as some villages declined, others began to flourish. We must imagine a fluid rather than a static topography, in the medieval and, by retrojection, in the ancient Fayyum.²¹

Further, it is clear that the reconstruction of the history of the late Byzantine/early Islamic Fayyum must not rely solely on the documentary papyri or what can be derived from al-Nabulsi,

¹⁹ Discussed by me under the title "Fayyum Villages in SPP XX 229," at the XXIV International Congress of Papyrology in Helsinki, 1–7 August 2004; forthcoming in the *Congress Acta*.

²⁰ J. Banaji, *Agrarian Change in Late Antiquity: Gold, Labour and Aristocratic Dominance*, Oxford Classical Monographs (Oxford 2001) 176–80 and 241–50 (= Appendix 3); F. Morelli, "I χωρία in α dell'Arsinoite. Le liste alfabetiche SPP X 37, 40, 81, 134, 135, 240 (= SPP XX 226), 265, 269, *P.Münch. inv.* 294, *P.Prag.* I 26," *ZPE* 149 (2004) 125–37.

²¹ Keenan, *op.cit.* (above, n. 15) 136–39.

whether in terms of data or the long view of Fayyumic history to which his text so immensely contributes. The old archaeology of Karanis needs to be reassessed for its chronological implications: as evidenced by late-dated pottery, terra-cottas, and two stray coins, the site of Karanis died off papyrologically well before it was archaeologically exhausted. (It is not alone in this regard.) Fortunately, the renewed and continuing excavations at Tebtunis have not ignored the site's Islamic remains, though the results published so far, archaeological and papyrological, have been limited.²² Finally, and I think most appropriately, a project whose beginnings I am sketching here provides an ideal opportunity to honor, though with a slight twist, Emily Vermeule's plea in her sprightly and provocative presidential address to the American Philological Association in December 1995,²³ an opportunity, that is, to join in harmony "the dirt and the word," archaeology, on the one hand, papyrology and al-Nabulsi, on the other.

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²² *Ibid.* for some details.

²³ E. Vermeule, "Archaeology and Philology: The Dirt and the Word," *TAPA* 126 (1996) 1–10. See further J. Moreland, *Archaeology and Text* (London 2001) with ample bibliography (128–41).

Examples of Town Planning in the Fayyum¹ (Plates 8-18)

ABSTRACT

The Joint Archaeological Mission of Bologna and Lecce Universities has been working at the sites of Bacchias and Soknopaiou Nesos in the Fayyum since 1993. It is now possible to analyze and compare the plans and the stratigraphy of two of the best preserved town sites of the Fayyum: Soknopaiou Nesos and Bacchias. The survey allowed us to recognize new temples, public baths and granaries. Aerial photographs and satellite imagery also allowed us to examine the area in which these settlements were established. By comparing the new data collected through archaeological and topographical investigation with the record derived from hundreds of Greek and Demotic papyri, we are able to further our understanding and knowledge of these two important settlements and their role within the landscape of the North-Eastern Fayyum.

The Joint Archaeological Mission of Bologna and Lecce Universities, directed by S. Pernigotti and M. Capasso, has been working in Bacchias (Kom Umm el-Atl) since 1993, with P. Davoli as field director since 1995. The same Mission started working in Dime (Soknopaiou Nesos) in 2001.² By 2004, the topographical surface surveys of Bacchias and Soknopaiou Nesos were nearly complete and the two georeferenced plans with contour lines and all visible buildings had been drawn.³ The Soknopaiou Nesos plan was completed during the 2005 season.⁴

¹ paola.davoli@unile.it. I would like to thank Timothy Renner for his comments on a version of this paper and for correcting my English.

² The Joint Archaeological Mission completed its work in May 2004. At present, the Soknopaiou Nesos Project is directed by M. Capasso and P. Davoli of Lecce University. An expedition directed by S. Pernigotti of Bologna University continues to work at Bacchias.

³ E. Giorgi, "Il rilievo per la documentazione dei siti archeologici," (paper presented at the VI Conferenza nazionale ASITA, Varese, 2002: <http://www.asita.it/>)

The method used in the survey has been the same in both sites. The project involved four teams: the first team was composed of surveying researchers from the Dipartimento di Ingegneria delle Strutture, dei Trasporti, delle Acque, del Rilevamento del Territorio (DISTART) of Bologna University Engineering Faculty; the second, of archaeologists from the Department of Archaeology of Bologna University; the third, of archaeologists from Lecce University and from AR/S Archeosistemi; the fourth team consisted of Papyrologists of the Centro di Studi Papirologici of Lecce University.⁵

The first task of the field project was to collect geographic and spatial information for both sites. The sites were georeferenced with GPS (Global Positioning System), using absolute and relative high precision geodetic positioning techniques, thereby establishing a common reference frame and a local network connected to the national cartographic system. This approach permitted the team to frame the measurements derived from the topographical surveys carried out with the total station. A series of metric images, taken at low altitudes using a specially equipped aerostatic balloon and a specially developed kite system with an electronic remote control, permitted the creation of a digital elevation model (DEM) and digital photogrammetric products, such orthophotos, high resolution contour maps and 3D plotting.⁶

SITO_ASITA_2002/ASITA2002.htm); *id.*, "Il rilievo planimetrico di Bakchias," in *Fayyum Studies* 1 (2004) 49-55.

⁴ The contour lines of the kom will be surveyed in the season 2006. The Soknopaiou Nesos plan has been completed by Lecce University in collaboration with I. Chiesi and S. Occhi of the AR/S Archeosistemi (Reggio Emilia).

⁵ G. Bitelli and L. Vittuari of DISTART, Bologna University carried out the GPS surveys and aerial and terrestrial photogrammetry. S. De Maria and his staff from Bologna University undertook the ground survey using a total station during the 2001 and 2002 seasons.

⁶ G. Bitelli, P. Davoli, L. Vittuari, "Geomatics, Information Technologies and Archaeological Work: the Bakchias Experience," in *Proceedings of the 14th Table ronde Informatique et Egyptologie, Pisa 8-10 July 2002* (Pisa 2003 on CD-ROM); G. Bitelli, V.A. Girelli, M.A. Tini, and L. Vittuari, "Utilizzo di un sistema non convenzionale di fotogrammetria aerea per la produzione di ortofoto a grande scala in ambito archeologico," (paper presented at the VI Conferenza nazionale ASITA, Varese, 2002: http://www.asita.it/Sito_ASITA_2002.htm); G. Bitelli, M.A. Tini, L. Vittuari, "Low-Height Aerial Photogrammetry for Archaeological Orthoimaging Production," in *The International Archives of the Photogrammetry*,

As of 2004, the topographic survey was nearly complete, and the first scientific, topographic plans of Bacchias and Soknopaiou Nesos⁷ are under development. These plans show contour lines and plans of all the buildings that are visible on the surface (Plates 8 and 13 show the portions of the sites that have been surveyed up to the present). The cartographic base for the plans derives from the total station and GPS survey of the site.

The second stage of the project, which is still in progress under the responsibility of DISTART, is to analyze the archaeological site and its surrounding area through satellite imaging at different geometric resolutions studied in tandem with low altitude photographs and the survey plan. Moreover, the office of SIBA (Servizi Informatici Bibliotecari di Ateneo) at Lecce University, a department that coordinates the computer services of the University,⁸ collaborates with the mission in elaborating the survey and excavation data from Dime.

The topographic survey has enabled us to learn a great deal about the two archaeological areas. For example, we have been able to compare contemporary levels of preservation for single buildings and the archaeological area as a whole with archival photographs, drawings and plans. This allows us to better understand earlier descriptions of ancient sites and to formulate hypotheses about the causes of site decay. Moreover, this scientific documentation is particularly important for the future, as it attests the present state of preservation of areas that continue to be eroded by the weather and plundered by local inhabitants and tourists.

Remote Sensing and Spatial Information Sciences, XXXIV, Part 5/W12 (2003) 55-59; G. Bitelli, V.A. Girelli, M.A. Tini, L. Vittuari, "Low-Height Aerial Imagery and Digital Photogrammetrical Processing for Archaeological Mapping." (paper presented at the XXth International Society for Photogrammetry and Remote Sensing Congress, Istanbul 2004: <http://www.isprs.org/istanbul2004/comm5/papers/605.pdf>).

⁷ The only complete plan of Dime was created by Lepsius in 1843: K.R. Lepsius, *Denkmäler aus Aegypten und Aethiopien I* (Berlin 1849) B1. 52.

⁸ V. Valzano and her staff are working on this project in tandem with the Centro di Studi Papirologici.

Bacchias and Soknopaiou Nesos were similar settlements of the Graeco-Roman period.⁹ Until now, we have not had a clear and thorough archaeological understanding of both sites, although we know much about their economic life, society and religion thanks to a great number of papyri found between the last decades of the 19th century and the first half of the 20th century. Many Demotic papyri from Dime are still unpublished, but recently, they have attracted the attention of scholars.¹⁰

Contemporary archaeological methods and aims are completely different from those of the past, and field research is significantly slower and more meticulous for numerous reasons. It is not possible to obtain a great amount of data from an extensive excavation that is only undertaken for a few years. For this reason the analysis of archaeological plans together with the available data from excavated sectors of the site is of great importance for understanding the urban development of the settlements. Such an analysis, integrated with data from written sources, is essential for a wide assessment of the individuals living in these settlements during the various periods and for understanding the causes of changes in settlement patterns and behavior.¹¹ The analysis of Bacchias and

⁹ Cf. P. Davoli, *L'archeologia urbana nel Fayyum di età ellenistica e romana* (Naples 1998) 39-71 and 117-37.

¹⁰ Among the most recent publications: G. Vittmann, "Ein Entwurf zur Dekoration eines Heiligtums in Soknopaiou Nesos (pWien D 10100)," *Enchoria* 28 (2002/2003) 106-36; Abd-el-Gawad Migahid, "Zwei spätdemotische Zahlungsquittungen aus der Zeit des Domitian," *BIFAO* 104/2 (2004) 477-90; S.L. Lippert and M. Schentuleit, "Die Tempelökonomie nach den demotischen Texten aus Soknopaiou Nesos," in S.L. Lippert and M. Schentuleit (eds.), *Tebtynis und Soknopaiou Nesos. Leben im römerzeitlichen Fajum* (Wiesbaden 2005) 71-78; B. Muhs, "The Grapheion and the Disappearance of Demotic Contracts in Early Roman Tebtynis and Soknopaiou Nesos," in Lippert and Schentuleit, *op.cit.* 93-104; G. Widmer, "On Egyptian Religion at Soknopaiou Nesos in the Roman period (P.Berlin P 6750)," in Lippert and Schentuleit, *op.cit.*, 171-84; *ead.*, "Sobek, who Arises in the Primaeval Ocean," in M. Capasso and P. Davoli (eds.), *Proceedings of the International Meeting of Egyptology and Papyrology: New Archaeological and Papyrological Researches on the Fayyum, Lecce 8th-10th June 2005* (forthcoming); M. Stadler, "Between Philology and Archaeology: the Daily Ritual of the Temple in Soknopaiou Nesos," in Capasso and Davoli, *op.cit.*

¹¹ Numerous articles and studies have been published on the papyri and it is not possible to list them all here. On urbanism cf. S. Daris, "Urbanistica pubblica

Soknopaiou Nesos proposed in this article is based on my personal knowledge of the sites and on the data collected by the end of 2004 excavation season.¹²

Bacchias

Bacchias measures ca. 500 x 600 m and is divided into two *kiman*, of which the largest is Kom North, where the main settlement of the Hellenistic and Roman periods stood. The second, Kom South, a small area situated near the modern village of Gorein where Late Roman and Medieval period settlement was centered, has been almost completely destroyed by the *sebbakhin*.¹³ A surface study of the Kom North together with the stratigraphic data collected during 12 seasons enabled me to understand the real situation of the area from the point of view of conservation. Kom North is characterized by the presence of long and high dunes of sand along the north-west, north and north-east edges, on which very few remains of buildings are visible.

In contrast, the central and south area of Kom North is almost flat, and preserves many standing buildings as well as a number of deep trenches. Stratigraphic analysis of the excavated sectors suggests that a massive destruction of a great part of the *kom* was carried out according to the *sebbakhin* method of dismantling, probably in the first half of the 20th century. During this activity, the central and southern parts of the stratified settlement were destroyed, but some of the buildings of the Hellenistic period were left behind

dei villaggi dell'Arsinoite," in *Atti del Convegno Internazionale 'Archeologia e papiri nel Fayyum.'* Siracusa, 24-25 maggio 1996 (Syracuse 1997) 173-96; *eund.*, "Strutture urbanistiche di Soknopaiou Nesos nei papiri," in Capasso and Davoli, *op.cit.* (above, n. 10).

¹² The discovery during the 2005 season at Bacchias of other two temples has been announced: S. Pernigotti, "La cronologia di Bakchias," *REAC* 7 (2005) 44-45. These temples will be evaluated and assessed after the publication of a scientific report by the excavator. In fact, we are still waiting for the publication of one building found in 1993 season, which has been questionably identified as an Iseion.

¹³ According to Pernigotti, Kom South should be identified as ancient Hephaistias, but there is as yet no evidence that can support this hypothesis: S. Pernigotti, *Gli dèi di Bakchias e altri studi sul Fayyum di età tolemaica e romana* (Bologna 2000) 34.

for unknown reasons. Among these preserved structures are the temples and auxiliary buildings of the sacred area.

The excavations of the Italian Mission were carried out in two sectors: the first was located on the north edge of Kom North and the second in its centre, focused around the main temple of Soknobkonneus found by B.P. Grenfell, A.S. Hunt and D.G. Hogarth in 1896.¹⁴ I will concentrate my attention on this latter sector, which provided significant stratigraphic and religious information that can be compared with evidence from the Greek papyri and with the archaeological remains of other sites.

As is well known, Bacchias differs from many of the other Graeco-Roman settlements of the Fayyum because the *dromos* and the *temenos* are missing. Many articles have been written about the existence of one or more temples in Bacchias, following the discovery of the temple of Soknobkonneus by the British Mission and that of the archives of Soknobraisis' temple by *sebbakhin* during the 1930s.¹⁵

After eight excavation seasons in the temple area, I am able to propose a partial reconstruction of the principal building phases that occurred here.¹⁶ We can recognize seven building phases in five levels from the Late period to the Late Roman period. From the surface to the bottom they are:

¹⁴ B.P. Grenfell, A.S. Hunt and D.G. Hogarth, *Fayûm Towns and Their Papyri* (London 1900) 36-38.

¹⁵ For a re-examination of the sources, see M. Capasso, "I templi di Bakchias nei papiri," in *Proceedings of the XXIII International Congress of Papyrology, Wien 22-28 July 2001* (forthcoming).

¹⁶ Unfortunately, the excavation of the temple area is not finished and many questions are still unanswered. For a survey of the finds, see G. Bitelli, M. Capasso, P. Davoli, S. Pernigotti and L. Vittuari, *The Bologna and Lecce Universities Joint Archaeological Mission in Egypt: Ten Years of Excavations at Bakchias (1993-2002)* (Naples 2003); P. Davoli, *Oggetti in argilla dall'area templare di Bakchias (El-Fayyum, Egitto). Catalogo dei rinvenimenti delle Campagne di Scavo 1996-2002* (Pisa/Rome 2005) 27-55. The preliminary reports were published after every season from 1993 to 2001: S. Pernigotti, M. Capasso, and P. Davoli (eds.), *Bakchias*, vol. I-IX (Pisa/Rome and Bologna 1994-2002).

Phase	Date (centuries)	Stratigraphic Level	Description
Phase I	ca. 4 th -6 th AD	Surface	Occupation following the abandonment of the temple
Phase II <i>Roman period (III)</i>	2 nd -3 rd AD	Level I (30.50 m a.s.l.)	House construction in area
Phase III <i>Roman period (II)</i>	second half 1 st – first half 2 nd AD	Level II (29.00 m a.s.l.)	Construction of temple of Soknobrais
Phase IV <i>Roman period (I)</i>	end 1 st BC – beginning 1 st AD	Level II	Temple of Soknobkonneus raised and propylon constructed in front of it
Phase V <i>Hellenistic period (II)</i>	2 nd BC	Level III (25.80 m a.s.l.)	Construction of temple of Soknobkonneus and minor temple XL
Phase VI <i>Hellenistic period (I)</i>	3 rd BC	Level IV (25.20 m a.s.l.)	Construction of houses in front of temple at different orientation
Phase VII <i>Late period</i>	pre-3 rd BC	(23.00 m a.s.l.)	Pottery kiln near the north corner of temple of Soknobkonneus ¹⁷

To summarize the finds from the temple area (Plates 9 and 10): three temples were brought to light, two in mud-brick and one in sandstone blocks.¹⁸ The largest is the temple of Soknobkonneus (41

¹⁷ C. Tassinari, "Attestazioni di attività artigianali in età pretolemaica a Bakchias," *Fayyum Studies* 1 (2004) 57-68. The chronology proposed for the pre-Ptolemaic level (7th cent. BC) is based on the presence of one Canaanite amphora. Sherds from several unfired vessels were found near the kiln but were not examined or published.

¹⁸ This reconstruction of the building phases is based on the interpretation of the complex stratigraphy found in front of the temple. For a different interpretation see Pernigotti, *op.cit.* (above, n. 12) 41-44, and figs. 2-3. In this article, how-

x 26, h 10 m, Plate 11.2), probably built in the 2nd century BC (Phase V) together with the smaller temple XL, dedicated to an unknown crocodile god (16.20 x 12.70, h ca. 3 m, Plate 12.2). After a period of decay during which the settlement was covered with sand from the nearby desert (probably at the end of the Hellenistic period), the floor of the temple of Soknobkonneus was raised three meters (Phase IV): the original rooms were filled with sand and new floors were set. A *propylon* in sandstone blocks was built in front of the renovated temple. The minor temple (XL) was completely covered by sand and was abandoned.

In the second building phase of the Roman period (Phase III), probably during the reign of Nero or shortly after, a new large temple (57.70 x 16.60 m) in sandstone blocks was built in front of the older one (Plate 12.1). Its position is quite unusual, but it seems evident that it was deliberately built in this way in order that the two gateways could be very close to each other. This latter temple has been dismantled considerably, as its superstructure was used as a stone quarry until very recently; only parts of the foundation walls survive. Elements of the decoration of the temple were found scattered throughout the destructions levels in the surrounding area: a lintel with an unfinished solar disc, several pieces of torus cornices,¹⁹ a capital of a small column,²⁰ blocks decorated in rustica style²¹ and one block decorated in Egyptian style and bearing a hi-

ever, the description of the phases does not correspond, and is in contrast, with their graphic reconstruction made by C. Tassinari in figs. 2 and 3. In both the interpretations the stratigraphy and the elevations of the buildings are not always taken into account properly.

¹⁹ P. Davoli, "Lo scavo 2000. Relazione preliminare," in S. Pernigotti, M. Capasso, and P. Davoli (eds.), *Bakchias VIII. Rapporto Preliminare della Campagna di Scavo del 2000* (Bologna 2001) figs. 52-53.

²⁰ P. Davoli, "Lo scavo 2001. Relazione preliminare," in S. Pernigotti, M. Capasso, and P. Davoli (eds.), *Bakchias IX. Rapporto Preliminare della Campagna di Scavo del 2001* (Bologna 2002) fig. 68.

²¹ These blocks were initially associated with the temple of Soknobkonneus because they were found before the discovery of the Roman temple: E. Giorgi, "I materiali da costruzione e le tecniche edilizie del tempio di Soknobkonneus," in S. Pernigotti and M. Capasso (eds.), *Bakchias V. Rapporto Preliminare della Campagna di Scavo del 1997* (Pisa/Rome 1998) figs. 11-12.

eroglyphic inscription.²² The plan and the architectural style of the sanctuary are Egyptian, datable to the Roman period; a pylon of an estimated height of 10 meters preceded the temple. Although there is no conclusive evidence concerning the god to whom the temple was dedicated, present archaeological and papyrological evidence allows us to state with high probability that he was Soknobraisis.²³

A new *temenos* was probably also constructed during this last building phase (Phase III).²⁴ We do not know anything about the Hellenistic *temenos*, and only a few pieces of the Roman *temenos* remain due to the destruction caused by *sebbakhin* in this area; these survive in the area located in front of the Soknobkonneus' temple. Preservation of the east and south corners allows us to state that the *temenos* was about 96 m wide. In this Roman *temenos*, there were at least two gates, one placed in front of the entrance of Soknobkonneus' temple and the second one in front of the pylon of the Soknobraisis' temple.

The *dromos* has disappeared completely, but I think there must have been one or perhaps two *dromoi* in the Roman period, placed at right angles, one for each temple (Plate 11.1). If we examine the plan, we will realize that in both directions where the *dromoi* might have stood there are vast plundered areas with no buildings. It is

²² The inscription has been dated to the beginning of the Ptolemaic period according to palaeography: S. Pernigotti, "Bakchias IV: le iscrizioni geroglifiche," in S. Pernigotti and M. Capasso (eds.), *Bakchias IV. Rapporto Preliminare della Campagna di Scavo del 1996* (Pisa/Rome 1997) 53-54 and fig. 1. In my opinion, there is no real evidence to support this date. Instead, the block might have been part of the decoration of the Roman temple, as suggested by both the place where it was found (area AD) and its material (the same kind of sandstone used in the masonry of the Roman temple).

²³ For a discussion of the archaeological and papyrological evidence cf. Capasso, *op.cit.* (above, n. 15).

²⁴ According to Pernigotti, there are no traces of a *temenos* in satellite images of Bacchias: Pernigotti, *op.cit.* (above, n. 12) 43 n. 27. However, sections of its east wall and two corners were found during the seasons 2002 and 2003: P. Davoli, "Dieci anni di lavoro a Bakchias, El-Fayyum: bilancio archeologico (1993-2002)," *RISE* 1 (2004) 53. The *temenos* seems to have had the same characteristics of that of the Karanis south temple, with sectors of different thickness and with outer walls of some houses served as *temenos* walls: A.E.R. Boak, *Karanis. The Temples, Coin Hoards, Botanical and Zoological Reports. Seasons 1924-31* (Ann Arbor 1933) 30-35.

evident that *sebbakhin* worked extensively in these zones. The presence of the Soknobkonneus *dromos* is, in my opinion, quite certain. A hypothetical line, traced from this point, would pass through a square building that is similar in construction to the foundation retaining walls of a similar gateway. It seems to me that this small building served as the foundation retaining walls of a similar gateway, probably placed at the beginning of the street. The building has not been excavated yet, but the visible remains and their elevation suggest a building phase datable to the Roman period. To the south along the *dromos* line lies a building facing north that, to judge from its plan, may have been a temple. Perhaps, here, a kiosk in sandstone blocks was placed on the *dromos*. The remains of a building in sandstone blocks are visible on the surface on top of a small hill along the line of the *dromos*.

The second *dromos*, south of the pylon of the Soknobraisis temple, is only hypothetical because the area was heavily exploited by the *sebbakhin*. Nevertheless, its presence in front of a monumental pylon is highly probable.

Of the numerous buildings spread over the area, we may notice that they follow a fairly regular orientation, the same of that of the three temples and of the two proposed *dromoi*. The elevation of these buildings suggests that they belong to different periods, ranging from Phase V (Hellenistic period II, 2nd century BC) to Phase II (Roman period III, 3rd/4th century AD). The earliest buildings (Phase VI, Hellenistic period I, probably 3rd century BC) had a different orientation. Some of these structures are apparent in the south corner of Soknobkonneus' temple (and in the deepest layer in the north sector that was excavated in 1995).²⁵

In conclusion we may say that Bacchias was a pre-Hellenistic settlement. It was enlarged or refounded in the 3rd century BC during the project of land reclamation²⁶ under Ptolemy II. After a period of time, probably during the 2nd century BC, the general ori-

²⁵ P. Davoli, "Lo scavo 1995. Relazione preliminare," in S. Pernigotti and M. Capasso (eds.), *Bacchias III. Rapporto Preliminare della Campagna di Scavo del 1995* (Pisa 1996) 24 fig. 15 (feature 101).

²⁶ On the early Ptolemaic period in the Fayyum see K. Müller, "Ptolemaic Settlements in Space. Settlement Size and Hierarchy in the Fayum," *APF* 48 (2002) 121-22.

entation of the settlement was changed: two temples were built in mud-brick, both dedicated to crocodile gods.²⁷ The new rearrangement of the settlement and of the temple area followed a period of decay in which a heavy layer of sand covered streets and buildings. This crisis might have occurred during the reign of Cleopatra VII, when low floods are well attested by papyri.²⁸ At this time, the main temple of Soknobkonneus was raised. Despite the crisis attested in the documentary sources, the Soknobkonneus temple continued to be the most important religious structure on the site, and the orientation of streets and buildings remained the same. Around the middle of the 1st century AD, during the reign of Nero or slightly after it,²⁹ the temple area was enlarged and the temple of Soknobraisis and a new *temenos* were constructed.

Contemporary papyrological evidence attests the presence in Bacchias of the worship of Soknobkonneus from 3rd cent. BC (*P. Enteuxeis* 54.1 of 219/218 BC)³⁰ and of that of Soknobraisis from AD 113/114 (*P. Berlin* 21899). It is clear that the two gods were worshipped in two different temples, as *BGU XIII* 2215 and *P. Yale* 363 testify during the 2nd century AD. In particular the Berlin³¹ papyrus attests the presence in Bacchias of two "important temples" (*hiera logima*). This papyrological data has prompted significant scholarly discussion of the two temples at Bacchias.³² The discussion has focused either around the economic situation of the settlement, which often has been described as "a small and poor

²⁷ No archaeological remains of previous temples were found in this area until the 2003 season. The existence of a "proto-Ptolemaic" temple in the same place of that of Soknobkonneus suggested by Pernigotti is not supported by any textual or archaeological evidence: Pernigotti, *op.cit.* (above, n. 12) 43.

²⁸ D.J. Thompson, "Cleopatra VII: the Queen in Egypt," in S. Walker, S.-A. Ashton (eds.), *Cleopatra Reassessed*, The British Museum Occasional Papers 103 (London 2003) 31-34.

²⁹ According to stratigraphic evidence: Davoli, *Oggetti in argilla*, (above, n. 16) 28-29.

³⁰ P. Bottigelli, "Repertorio topografico dei templi e dei sacerdoti dell'Egitto tolemaico. II," *Aegyptus* 22 (1942) 184-85.

³¹ W. Brashear, *Greek Papyri from Roman Egypt* (Berlin 1976) 6-11.

³² See P. Piacentini, "Les dieux de Bakchias: état de la question," *SEAP* 11 (1992) 37-46; M. Capasso, *op.cit.* (above, n. 15).

village," or the absence of a second temple, as the British expedition discovered only one temple in 1896. The discovery in 1998 of the monumental temple in sandstone blocks and its associated pylon, all dated securely to the Roman period, allows the attribution of this structure to the god Soknobraisis.

Additionally the smaller Hellenistic temple XL was dedicated to a crocodile god, as some archaeological evidence testifies (the shape of the *naos*, several crocodile bones and a statuette of a crocodile found inside some rooms). Papyri of the Hellenistic period from Bacchias are scarce, however, and they do not mention any temples.³³

Papyri from the Soknobraisis archives³⁴ attest the presence of two other crocodile gods at Bacchias: Suchos and Pnepheros (*P.Lund* IV 1; *P.Lund* IV 9; *P.Yale* 363; *P.Yale* 902+906, *P.Lund* III 5, *P.Lund* III 6, *P.Lund* IV 2). We must keep in mind that the majority of the papyri found in Bacchias belong to the Roman period, and for this reason we are well informed about the religion and cults of this period but not of the previous ones.

Soknopaïou Nesos

Dime measures 640 m from north to south and 320 m from east to west. It is divided into two parts by a paved *dromos* six meters wide that originally would have been 400 meters long but now measures 320 m.

The central area of the town is lower than the periphery, where the buildings are still completely covered (for this reason, on the borders of the plan few buildings are visible, Plate 13). The presence of exposed buildings and of numerous round holes of various dimensions suggests that *sebbakhin* and plunderers were active on the site. The *sebbakhin* probably worked in the south-western part

³³ A. Calderini and S. Daris, *Dizionario dei nomi geografici e topografici dell'Egitto greco-romano*, vol. II (Milano 1973) 22-30; Suppl. I (Milano 1988) 75-76; Suppl. II (Bonn 1996) 33; Suppl. III (Pisa/Rome 2003) 25.

³⁴ E.H. Gilliam, *The Archives of the Temple of Soknobraisis at Bacchias*, Yale Classical Studies 10 (New Haven 1947) 181-281.

of the kom, where the surface is now flat. We have found a similar situation inside the great *temenos* of the Soknopaios' temple.³⁵

The *sebbakhin* have not worked on a massive scale at Dime since at least 1909; this is apparent when photographs taken by F. Zucker³⁶ in 1909-10 and those taken by the University of Michigan Expedition³⁷ in 1932 are compared with the present appearance of the mound.

Moreover, if we compare the town plan drawn by K.R. Lepsius in 1843 (Plate 14) with the new one, we can observe that Lepsius's plan is generally correct, and that the state of preservation at the site and of the buildings is almost the same. This evidence allows us to say that Dime was far less exploited by the *sebbakhin* than the other *kiman* in the Fayyum.³⁸ The shape of the *kom* is mainly due to the original stratigraphy, which is lower in the middle;³⁹ there may have been considerable differences in the elevation among the streets of the town.

The *dromos*, for example, seems to have been used from the time it was built until the town was abandoned. On the other hand, the living quarters excavated by the University of Michigan on both sides of the *dromos* show that the streets levels consistently rose over the centuries. The *dromos* itself was built on stone foundations which, as we can see along its western side, were deeper in the southern area. Along the *dromos*, the slope rises from 21 m above

³⁵ B.P. Grenfell and A.S. Hunt, "Excavations in the Fayûm" in *Egypt Exploration Fund. Archaeological Report 1900-1901* (London 1901) 4-5; B.P. Grenfell, A.S. Hunt, and E.J. Goodspeed, *The Tebtunis Papyri II* (London 1907) 348; A.E.R. Boak, *Soknopaiou Nesos. The University of Michigan Excavation at Dimê in 1931-32* (Ann Arbor 1935) vi-viii.

³⁶ Some of these photographs will be published by G. Poethke, "Ulrich Wilcken (1862-1944) und Wilhelm Schubart (1873-1960)," in M. Capasso (ed.), *Hermæ. Figures and Paths of Papyrology* (forthcoming).

³⁷ These photographs are now kept in the Kelsey Museum at the University of Michigan in Ann Arbor. Thanks to the kindness of T. Wilfong and R. Meador-Woodruff I have been able to examine most of them.

³⁸ There were no reasons for large scale exploitation of *sebbakh* before Lepsius' visit in 1843: P. Davoli, *Archeologia e papiri* (Naples 2001) 4-7.

³⁹ This happens also in other Graeco-Roman places in the Fayyum: cf. Davoli, *op.cit.* (above, n. 9).

sea level in the south to 24 m in the north, an increase in elevation of approximately one meter for every 100 meters in length.

In general, it is possible to assume that there was an increase in elevation along a north-south axis, with the northern end of the town at a higher elevation, probably due to the natural topography. The temple seems to have been built in the highest part of the settlement. Two other slopes were created over the centuries along both sides of the *dromos* through human occupation; the rising of the street levels was more apparent as one moved away from the *dromos*, which continued to be used.

The excavation of the University of Michigan (1931-32) took place in two sectors, one on the east side of the *dromos* and one on its west side, near the *temenos*. In the latter, five levels were found, dated from the 3rd century BC to the 3rd century AD. All the buildings of each level are oriented along the axis of the *dromos*. During the preliminary survey of the *dromos* undertaken by the Joint Archaeological Mission of Bologna and Lecce Universities, some relevant data were collected:⁴⁰ at present, the street is 320 m long and the pavement is quite well preserved along its length with some marks chiseled on the surface. At a distance of 170 m from the south gateway there are two shallow steps across the street, 5 and 8 cm high and 51 cm large, rising to north (Plate 17.1). Immediately south of them, on the borders of the street, there are five columns drums of the same stone as the pavement (Plate 17.2). On the east side one drum is circular with a diameter of 70 cm and a thickness of 21 cm; a second one is probably a block (95 x 81 cm) for a corner with a semi-column with a diameter of 74 cm and a thickness of 28 cm; a third one is a drum with a rectangular appendix in which is a seating for a vertical cramp. This drum has a diameter of 70 cm and a thickness of 25 cm. On the west side are two drums; one probably belonged to a corner of a door jamb with a semi-column. This drum has a diameter of 75 cm and a thickness of 25 cm. The second is a block with a semi-column with the same dimensions.

⁴⁰ Limited excavations were made by Major R.H. Brown in 1892 on the street and by G. Caton-Thompson and E.W. Gardner in 1925-1926 on the south gate: R.H. Brown, *The Fayûm and Lake Moeris* (London 1892) 51-52; G. Caton-Thompson and E.W. Gardner, *The Desert Fayum* (London 1934) 153-56.

With the current state of preservation, it is difficult to imagine what kind of building these architectural fragments belong to. The most likely possibility is that the remains should be associated with a kiosk in this location, as is normal on processional ways. We can recall the two kiosks at Tebtunis, as well as the kiosks preserved at both Narmouthis and Dionysias: a single kiosk was discovered at each site. In Dime there seems to have been a shortage of space on the paved street; therefore, we should imagine a wider kiosk with walls and foundations on each side of the *dromos*. At present, there are two trenches full of clean sand flanking the street, and we cannot verify this hypothesis. I think, however, that the elements we have are sufficient to suppose the existence of a kiosk of small dimensions,⁴¹ probably located to the north of the two steps on the *dromos*.

Along the *dromos*, the slabs of the pavement are of different dimensions; the slabs located along the sides have an east-west orientation. On these side slabs, there are one or two parallel chiseled lines that probably mark the borders of the street. Another chiseled, but finer line, marks the middle of the *dromos*. Moreover, Greek letters are engraved on some slabs, particularly those along the border; until recently, it has not been possible to ascertain the purpose of these inscriptions. They may mark the positions where objects were placed; this may be the reason for the inscription Satabous, which was a common name at Soknopaiou Nesos. K. Lembke⁴² suggested that some of the statues found in Dime and now in the Cairo, Alexandria and Berlin museums may have been placed on the *dromos*, but we do not have evidence of this. The pavement of the *dromos* at Tebtunis does not seem to have these kinds of marks.

It is quite certain that the *dromos* reached the *temenos* and its main gateway, but in the gap of 75 m the only things we can see are fragments of sandstone blocks, quarters of drums and lumps of white mortar scattered in the sand. There are no traces of the slabs

⁴¹ The Dime columns (diameter 0.70 m) can be compared with those found in the Tebtunis kiosk, which measure 1.00 m: V. Rondot, *Tebtynis II. Le temple de Soknebtynis et son dromos* (Cairo 2004) 154-55.

⁴² K. Lembke, "Dimeh. Römische Repräsentationskunst im Fayyum," *JDAI* 113 (1998) 109-37.

of the *dromos*, and a deep, wide pit lies in front of the gateway. We can suppose the presence of a stone building of squared sandstone blocks and decorated with columns. The kind of stone used in it is the same as that of the temple ST 20 inside the *temenos*, a building that is discussed in more detail below. The hypothetical structure at the end of the *dromos* may have been a propylon, a kiosk or a *vestibulum*, as is the case at Tebtunis.⁴³

The great *temenos* (122.30 x 84.37 m, h 12 m) is not well known from an archaeological point of view, and the Italian Mission decided to begin its exploration there in 2003.⁴⁴ First we collected information on about twenty buildings that are still visible inside the walled area (Plate 15). In the middle of the area, three buildings can be identified as temples (labeled ST 18, ST 19 and ST 20) by their positions and plans.

ST 19 is a small, east-facing mud-brick sanctuary measuring approximately 14.30 x 9.96 m. Few of the limestone blocks from the doorway survive. This position of the building suggests that it was a *mammisi*.⁴⁵ The presence of a *mammisi* at the site of Dime is attested by a religious text written in Demotic (*P.Berlin* P 6750).⁴⁶

The main temple ST 18 (32.53 x 18.90 m) faces south, opposite the original gateway in the *temenos* and the *dromos*. This temple is preserved to a height of at least five meters and was built in rough slabs of the local marl limestone. The walls were originally covered with a thick layer of plaster moulded to resemble isodomic blocks, now partially preserved in the central rooms and on the original façade. The building is surrounded by a mud-brick wall, and its general plan (Plate 16) is similar to that of other small temples of the

⁴³ A.M. Badawy, "The Approach to the Egyptian Temple in the Late and Graeco-Roman periods," *ZÄS* 102 (1975) 79-90.

⁴⁴ P. Davoli, "New Excavations at Soknopaiou Nesos: the 2003 Season," in Lippert and Schentuleit, *op.cit.* (above, n. 10) 29-39; *ead.*, "Excavations at Soknopaiou Nesos (Dime)," *EA* 25 (2004) 34-36.

⁴⁵ For the discussion of this hypothesis, see P. Davoli, "The Temple Area of Soknopaiou Nesos," in Capasso and Davoli, *Proceedings* (above, n. 10). On religion and cults in Soknopaiou Nesos, see Widmer, *op.cit.* (above, n. 10); W.J.R. Rübsam, *Götter und Kulte in Faijum während der griechisch-römisch-byzantinischen Zeit* (Bonn 1974) 163.

⁴⁶ Widmer, *ibid.* 175.

Hellenistic period in the Fayyum.⁴⁷ This temple, however, has a second door in the northern wall, in front of the main entrance and at the rear of the *naos*. To the north of this door and in the middle of the enclosure, a large number of blocks and lintels of different kinds of local stone were discovered in an area that measures approximately 60 x 20 m. This situation leads us to believe that there might have been one or possibly more totally unknown monumental buildings present here (labeled ST 20). Travelers and scholars who previously worked at Dime noted and identified the ruins as a second temple. Further to the north of these ruins (Plate 15), we can recognize a colonnaded building: two rows of columns are visible, and each row preserves at least two columns and a half-column. A fragmentary *naos* is also visible in the sand.

The first two seasons of excavations (2003-2004) were concentrated on a sector of 20 x 7 m between ST 18 and the ruins of ST 20. A paved courtyard⁴⁸ and two subsidiary buildings were found. The courtyard connected buildings ST 18 and ST 20, which are certainly parts of the same temple but were constructed during different periods.

At this stage, we can hypothesize that building ST 18 was the original temple dedicated to the crocodile god Soknopaios and founded during the Hellenistic period. Although the inside of temple ST 18 awaits excavation, we can recognize subsequent building phases, which gradually altered its plan.⁴⁹ The five gateways, of which three are internal, were built with fine sandstone blocks on the longitudinal axis and probably can be dated to the last of these

⁴⁷ Compare the plan with those of the temple XL at Bacchias, temple C at Narmouthis and a temple found by Zucker at Philadelphia, all built in mud-brick: E. Bresciani, "Rapporto sulle missioni archeologiche nel Fayum nel 1998. Il nuovo tempio di Medinet Madi," *EVO* 20-21 (1997-1998) 96, fig. 1b; Davoli, *op.cit.* (above, n. 9) 148 and figs. 64-65.

⁴⁸ The surface of the floor is an average of 25.60 m above sea level.

⁴⁹ Work on the temple is attested by Demotic papyri dated between 153 and 144 BC (reign of Ptolemy VI and VIII): E. Bresciani, *L'archivio demotico del tempio di Soknopaiou Nesos nel Griffith Institute di Oxford* (Milano 1975) 50, 51, 58.

restructuring phases. A fifth gateway was opened⁵⁰ in the rear wall of the *naos* and led into the courtyard, which was uncovered in 2003 (Plates 18.1 and 18.2). On the opposite side of the courtyard and along the same axis, there was another gateway in the sandstone block wall of building ST 20. It is therefore likely that the courtyard, building ST 20 and the sandstone gateways in ST 18 are all contemporary and can be dated to the end of the Hellenistic period or to the beginning of the Roman period. At this stage in our research, we are unable to date this building phase more precisely.

As part of our investigation of building ST 20, we have brought to light the façade of the southern external wall, which measures 20 m in length, 1.44 m in width and is preserved to a maximum height of 1.53 m in seven courses of blocks. A door, measuring 2.40 m in width, was located at the halfway point along the wall (Plate 18.2). The wall was built with isodomic blocks (67-77 x 40 x 20 cm), bounded with white and pinkish mortar. Its southern face is quite rough, with blocks showing bosses surrounded by four chiseled bands. This part of the building was not completely finished: stylized letters of the Greek alphabet were engraved on the bosses of some of the blocks as mason's marks. The masonry, similar to those of other Fayyum temples (such as Bacchias, the southern temple at Karanis, Dionysias, and the Roman kiosk at Tebtunis),⁵¹ suggests that construction of this wall should be dated to the Roman period.

G. Vittmann has recently published a Demotic papyri from Dime, dated to the 1st-2nd century AD and now in the Vienna Collection (*P. Wien D10100*),⁵² that provides us with a description of the internal decoration of the temple of Soknopaios, which was carried

⁵⁰ Similar doors were opened in the *naoi* of Ptolemaic temples at Philae during the reign of Ptolemy VIII, in the temple of Hathor, the temple of Arsenouphis, and the mammisi of Isis. See D. Arnold, *Temples of the Last Pharaohs* (Oxford 1999) 202-4 and figs. 120, 127 and 141.

⁵¹ On the characteristics of architecture in the Graeco-Roman period, see J.-Cl. Golvin and J. Larronde, "Etude des procédés de construction dans l'Égypte ancienne I. L'édification des murs de grès en grand appareil à l'époque romaine," *ASAE* 68 (1982) 166-90; J.-Cl. Golvin and R. Vergnien, "Etude des procédés de construction dans l'Égypte ancienne IV. Le ravalement des parois, la taille des volumes et des moulures," in *Hommages à F. Daumas* (Montpellier 1986) 299-321.

⁵² Vittmann, *op.cit.* (above, n. 10).

out in the Egyptian style. This papyrus seems to record a copy of a Ptolemaic project concerning the ornamentation of the temple's interior. According to the papyrus, the interior decoration was subdivided into registers, with an unspecified Ptolemy as the offering king. Current archaeological evidence does not allow us to know with certainty which structure was decorated as part of the project outlined in the papyrus. Building ST 20 is likely dated to the Roman period on the basis of masonry, and it would be extremely interesting to compare the ruins of this temple with the papyrological description. In the next season, we hope to investigate the interior of ST 20; our research should reveal new data about the temples that we will be able to compare with the evidence coming from papyri.

Preliminary publications of other religious papyri written in Demotic from the temple archives illustrate the richness of these sources. Several documents from the 1st to the beginning of the 3rd century AD are copies of an earlier text with the Daily Ritual of Soknopaiou Nesos.⁵³ According to this text, the priests had to pass five gates in a condition of purity and then enter into a broad hall and, finally, into the *naos*. If we compare this description with the buildings preserved in the *temenos*, we can provisionally suppose that the five gates mentioned in the text might refer to the five gates in ST 18, the Hellenistic temple transformed into a *pronaos*. The broad hall mentioned might be identified with the paved courtyard between ST 18 and ST 20, the *naos* or the temple proper.

Conclusion

As a final point, I would like to make some observations on three temples areas in the Fayyum. The newly created, scientific plans of Bacchias, Soknopaiou Nesos and Tebtunis⁵⁴ provide us with some interesting data about their temples, the *temene* and the *dromoi*. Some conclusions can be drawn from a comparison of their dimensions:

⁵³ Stadler, *op.cit.* (above, n. 10).

⁵⁴ Rondot, *op.cit.* (above, n. 41).

Tebtunis

<i>Temenos</i> :	113 x 63 m
Temple:	37 x 20 m (reign of Ptolemy I)
<i>Dromos</i> :	210 m long, 6.35 m wide (North-South orientation, constructed in three phases: 3 rd century BC; 2 nd century BC; reign of Augustus)

Soknopaiou Nesos:

<i>Temenos</i> :	122.30 x 84.37 m
Temple:	32.53 x 18.90 m (Hellenistic period)
<i>Dromos</i> :	ca. 400 m long, 6 m wide.

Bacchias:

<i>Temenos</i> :	96 m ca. wide (Roman period)
Temple I:	41 x 26 m (Hellenistic period)
Temple II:	57.70 x 16.60 m (Roman period)
<i>Dromos</i> :	100 m long (at least) (East-West orientation)

It can be noted that the dimensions of the three temples that were founded in the Hellenistic period are surprisingly similar. The presence of a *dromos* in the Hellenistic period is certain at Tebtunis (3rd century BC) and probable at Soknopaiou Nesos. Therefore we can suppose a comparable *dromos* at Bacchias, likely from the 2nd century BC on the basis of the settlement plan.

The dimensions of the 3 *temene* are quite similar also. We do not know the exact date of each foundation, but it seems likely that at Bacchias and Soknopaiou Nesos, the *temene* belong to the Roman period,⁵⁵ and are contemporary with the construction of the new

⁵⁵ The wide *temenos* of Dendera was built during the Roman period: P. Zignani and D. Laisney, "Cartographie de Dendara, remarques sur l'urbanisme du site," *BIFAO* 101 (2001) 428-32. For a discussion of the possible date of the Soknopaios *temenos* see Davoli, *op.cit.* (above, n. 45); *IG Fay* I. 43 (24 BC).

temples in isodomic sandstone blocks. Surprisingly, the *temenos* of Bacchias seems to be the widest of the three; its general dimensions suggest that it was also the greatest in size.

The *dromos*, or the street of the god, is one of the characteristic features of the Egyptian temples. Virtually every temple would have possessed a *dromos* that was used for processions and feasts associated with the god worshipped in the sanctuary. In towns and cities with more than one important temple there were different *dromoi*.⁵⁶ The preserved *dromoi* at Tebtunis and Soknopaiou Nesos are paved and have approximately the same width. At Tebtunis, on both sides of the *dromos* there were sphinxes and trees, following traditional Egyptian practice⁵⁷ and two kiosks were set along its length. At Soknopaiou Nesos, remains of two buildings with columns, perhaps two kiosks or a *propylon* and a kiosk, are visible on the *dromos*; on both sides of the paved road, there were wide spaces that were free of buildings, perhaps used to house monuments and trees. At Dionysias, the *dromos* was about 320 m long and 5.7 m wide, with a kiosk on its end and statues of lions on both sides.⁵⁸ A similar situation might have also occurred at Bacchias.⁵⁹

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⁵⁶ At Soknopaiou Nesos the presence of a *dromos* of Pramarres is attested by an inscription dated to 104 BC (*IG Fay* I 69).

⁵⁷ Rondot, *op.cit.* (above, n. 41) 200-2; A. Cabrol, *Les voies processionnelles de Thèbes* (Leuven 2001) 453-67.

⁵⁸ At present, these monuments are in a poor state of preservation: J. Schwartz and H. Wild, *Fouilles franco-suissees. Rapports I. Qasr-Qarun / Dionysias 1948* (Cairo 1950) 7 and plates II and VI.

⁵⁹ The forelegs of a lion or sphinx in red granite was discovered in the Kom South: P. Davoli, "Materiali fuori contesto da Bakchias," in S. Pernigotti and M. Capasso (eds.), *Bakchias I. Rapporto Preliminare della Campagna di Scavo del 1993* (Pisa 1994) 73 and fig. 2. Two smaller, additional fragments of statues of a lion or a sphinx in limestone were found inside and in front of the Soknobkonneus' temple during the 1997 season: P. Davoli, "Due frammenti di sculture dal tempio," in S. Pernigotti and M. Capasso, *Bakchias V., op.cit.* (above, n. 21) 79-83.

Texts, Contexts, Subtexts and Interpretative Frameworks. Beyond the Parochial and toward (Dynamic) Modeling of the Ptolemaic Economy

ABSTRACT

My concern in this paper is the historical interpretation of the Greek and demotic documentary papyri of the Ptolemaic period, the role of archaeology in the context of Ptolemaic economic history, and the application of social science theory towards an understanding of Ptolemaic Egypt. The papyri from Ptolemaic Egypt comprise the richest corpus for the study of the ancient economy and the formation and expansion of the Ptolemaic government, but using the information recorded in the texts in the wider context of state development, economic performance and institutional change presents enormous interpretive challenges. The texts must be grounded within a general understanding of the ancient state, its formation, and the manner in which social networks were interwoven within governmental institutions. I demonstrate how social science theory can expand our model of state development beyond the usual "despotic" or "predatory" model. The documentary papyri suggest some aspects of this evolution, particularly in the Fayyum, but because of the accidental nature of survival, they do not represent a complete record. For such questions, archaeological survey may provide answers. Indeed, surveys outside of the Fayyum may demonstrate an expansion of arable land during the Ptolemaic period in areas without papyrological finds. Recently published Greek papyri, such as the Boethos archive, mention the founding of new cities in the south, although their locations frequently remain unknown. Detailed information about land reclamation and city foundation will allow us to assess the "reach" of the Ptolemaic state with a greater degree of clarity.

I am concerned with two things in this paper. First, with the economic history of Ptolemaic Egypt, and how Papyrology (in the broadest sense, to include the important corpora of Greek and Demotic ostraca) and Archaeology can help build a better, more dynamic, model of the Ptolemaic economy. That goal is, after all, what should unite papyrologists, archaeologists, numismatists and others. My ideas presented here are merely a sketch, and they can

hardly be comprehensive with respect to recent literature or to the possibilities (and limitations). I must confess that I have stated my own skepticism in the past about developing a dynamic model of the Ptolemaic economy.¹ The main point I want to make is that whereas the history of the Ptolemaic economy has been written generally from an ideal and static perspective (and mainly from a state-centric perspective), I think now, with the combination of social science thinking and the better use of archaeological material together with the papyri and inscriptions, we may begin to understand at least some Graeco-Roman developments over time, and the economy as a whole. The relationship of economic history to the many specialized, technical fields that together make up the study of Graeco-Roman Egypt (I use the term merely for convenience to refer to the historical period from 332 BC to the fourth century AD), is too large to tackle in this brief paper, but that it should be tackled there is no doubt.

My second concern is building an institutional case study of Graeco-Roman Egypt. Dominic Rathbone has elegantly made the case that Roman Egypt matters a great deal to Roman history generally.² Similarly, I argue that Graeco-Roman Egypt matters (or should matter) to economic history because Graeco-Roman Egypt, as an historical unit, provides an excellent laboratory for studying institutions over time and their effects on the economy.

The question of how Papyrology and Archaeology can benefit from each is actually, in my view, a subordinate question to how both fields can help us understand economic history. The gap between Papyrology and Archaeology is created by the fact that both fields tend to be descriptive rather than question driven. Furthermore, in Rathbone's words, both "...tend to produce competing hypothetical explanatory models on a grand scale."³ There are, of course,

¹ J.G. Manning, "The Relationship of Evidence to Models in the Ptolemaic Economy (332 BC-30 BC)," in J.G. Manning and I. Morris (eds.), *The Ancient Economy. Evidence and Models* (Stanford 2005) 163-86, at 164.

² "The Ancient Economy and Graeco-Roman Egypt," in W. Scheidel and S. von Reden (eds.), *The Ancient Economy* (New York 2002) 155-69.

³ *Ibid.* 156.

notable exceptions.⁴ Both fields also require years of specialized training, which tends to create sunk costs in a specialization. This has not always been the case (e.g. Vogliano and Breccia at Medinet Madi), but the last two generations of scholarship have seen increasing specialization grow with the increased amount of information available. I have neither the space nor the time here to propose a research agenda for the whole of Graeco-Roman Egyptian history, but there can be little doubt that an agenda, and a unified set of questions, is necessary. And it is surely worthwhile for us, although we tend to forget, to ask broad questions: what are our aims, what are we trying to accomplish, and what would we like to know?

More specific questions are also important, and I shall ask a few of them below. Roger Bagnall's recent survey of archaeological work in Egypt from 1995-2000 and Traianos Gagos' summary of work at Michigan provide excellent starting points for what might yet be accomplished. Recent work is considerable, and there is much yet to digest even for specialists.⁵ An outsider citing work done even in the 1990's is apt to be far off course without an easy guide to know why. What I want to do here is to suggest some ways that social theory and Archaeology can advance the economic history of Ptolemaic Egypt, and how we can build a unified picture of Ptolemaic and Roman Egyptian society. Both of these will help place the study of Graeco-Roman Egypt at the center of many important debates.

Papyrology, or where we've been

The study of Ptolemaic and Roman Egypt is distinguished from earlier periods in Egyptian history in the amount of documentary

⁴ e.g. D.W. Rathbone, *Economic Rationalism and Rural Society in Third Century AD Egypt. The Heroninus Archive and the Appianus Estate* (Cambridge 1991).

⁵ R.S. Bagnall, "Archaeological Work on Hellenistic and Roman Egypt, 1995-2000," *AJA* 105 (2001) 227-43; T. Gagos, "The University of Michigan Papyrus Collection: Current Trends and Future Perspectives," in *Atti del XXII Congresso internazionale di Papirologia* (Florence, 2001) 511-37. An excellent and valuable survey of Italian archaeological and papyrological activity, often in conjunction, is provided in M. Casini (ed.), *One Hundred Years in Egypt. The Path of Italian Archaeology* (Milan 2001) esp. 87-183.

papyri dating from the former, and it is the study of the documentary papyri, together with numismatics, that has dominated work on the Ptolemaic and Roman Egyptian economies.⁶ The papyri, by the way, give Ptolemaic and Roman Egypt a special status in Economic history—these are the best-documented pre-modern economies in the world—that remains to be exploited.⁷ In other words, to be brief, what we do matters to several fields (*inter alia* economic history, historical sociology, legal history) outside of our traditional "audience." Yet despite the clear value of the papyri, some historians have dismissed the documentary papyri as merely of parochial interest because of the limited space and time that they document, and, importantly I think, because of Egypt's marginal status in ancient history. Attitudes are changing, if slowly. Fields are still highly specialized, and there is rarely work across the Ptolemaic/Roman/Late Antique divide.⁸ From an economic history perspective, though, crossing this divide is essential. The nature of Papyrology cuts against this, dividing up work into narrow historical categories: Ptolemaic, Roman or Byzantine. This is particularly true of documentary specialists who tend to focus on new texts and archives. As a result, different questions are, implicitly, asked of the sources.

Despite the abundance of papyrological material from the Ptolemaic period, there are severe interpretive problems that limit our ability to study economic behavior. These interpretive problems are well known and have been treated by many scholars. I will only summarize a few of them here.⁹ Among the most important limitations of the papyri is the fact that while some villages are very well documented at certain moments in time, there are very few places

⁶ Important new insights have been generated from work at Alexandria by O. Picard: "L'apport des monnaies des fouilles d'Alexandrie," *Études alexandrines* 10 (2004) 81-90.

⁷ See R.S. Bagnall. "Evidence and Models for the Economy of Roman Egypt," in Manning and Morris, *op.cit.* (above, n. 1.) 187-204.

⁸ A.K. Bowman's historical survey *Egypt After the Pharaohs 332 BC- AD 642: from Alexander to the Arab Conquest* (Berkeley 1996²) is a great exception.

⁹ See in general R.S. Bagnall, *Reading Papyri, Writing Ancient History* (New York 1995); J.G. Manning, *Land Tenure in Ptolemaic Egypt. The Structure of Land Tenure* (Cambridge 2003) 13-21.

where we have sufficient documentation to understand change over time. It is also important to note that the range and type of documentation differs substantially from the Ptolemaic and Roman periods. Here, Egyptian climatic history, burial practices, and an archaeological research design driven by the hunt for papyrus has combined to yield papyri and ostraca from two main sources for the Ptolemaic period: (1) The Zenon archive from Philadelphia, and Greek papyri found in villages from the south Fayyum and from the nearby Herakleopolite nome, and (2) demotic Egyptian papyri from family archives, bilingual family archives from Graeco-Egyptian military families, and tax receipts, all from the Thebaid, that narrow stretch of the Nile valley from, roughly, modern Sohag up to Aswan.

The practical consequences of these facts are that the main lines of historical investigation have been supported on the rather flimsy foundation of two archives from the Fayyum, the famous Zenon archive (which comprise nearly a third of the Ptolemaic Greek papyri) from third century BC Philadelphia in the northeast, and the Menches archive from late second century BC Kerkeosiris. Both archives, one documenting the administration of a large estate of the finance minister of Ptolemy II, the other an official archive of a village scribe, the lowest rung in the bureaucratic ladder, provide us with a state-centered view of the economy in the Fayyum. Rostovtzeff's work on the Zenon archive is perhaps still the most widely read historical analysis of the Ptolemaic economy, but his view that the archive stood proxy for the whole of Ptolemaic Egypt, an "Egypt in miniature" as he put it, is no longer a tenable view. The family archives from southern Egypt do offer a different perspective on the lived human experience of Ptolemaic Egypt, Egyptian family structure, inheritance patterns, contractual relationships and the like, but the contracts that are preserved in these archives are laconic concerning local village economies and, in contrast to the Zenon or Menches archives, we get the near total absence of the state with one important exception, taxation.

Demotic specialists, on the other hand, tend to shy away from historical interpretation altogether, focusing their energies on family archives from the south, and on editing new material. Needless to say these two foci have emphasized two different aspects of

Ptolemaic society. While the bulk of the important Ptolemaic Greek papyri were already published by the 1950's, the publication of demotic papyri still has some way to go. That is not to say that there have been no important Ptolemaic papyri published recently, or that corrections to old texts, and new ideas brought to bear on older texts, do not matter. Indeed one need only think of the current work on the University of California-Berkeley papyri (from Ptolemaic Tebtunis) or the late second century BC Copenhagen land survey from Edfu studied recently by Thorolf Christensen.¹⁰

General conceptual frameworks that treat Egyptian society as a whole, or that would engage Egypt in larger debates about the ancient economy, are largely absent. In the final analysis, the papyri, as any quick read of Bagnall's survey article would reveal, offer us only a limited (and generally a static) view of the Ptolemaic economy from some parts of Egypt. There has been little synthetic work since Préaux and Rostovtzeff, both now more than fifty years old. Archaeology has already helped us understand regions such as the eastern desert that take us well beyond the Fayyum/southern Thebaid bias of our documents. But the integration of texts with this new evidence requires a more theoretical framework, which is where I turn first.

Graeco-Roman Egypt, the "ancient economy" and some theoretical questions

One of the main conclusions of a book that my colleague Ian Morris and I have just finished editing on the ancient economy is that the types and the scatter of the evidence that survive across the eastern Mediterranean basin have strongly shaped our understanding of the economies of this region, and has led scholars, incorrectly, to see substantive differences that probably did not exist

¹⁰ "The Edfu Nome Surveyed. *P.Haun.* inv. 407 (119-118 B.C.)" (Ph.D. thesis, Cambridge University 2002). Although the bulk of recent work in demotic studies has centered on Roman period literary papyri, there have been important demotic texts published. Among them is a family archive from early Ptolemaic Thebes published by M. Depauw, *The Archive of Teos and Thabis from Early Ptolemaic Thebes* (Brussels 2000).

in reality.¹¹ The main contrast is, of course, the one between the northern and the southeastern Mediterranean that shaped academic departments in the nineteenth century, and many of the debates driven by Moses Finley. There have been major intellectual shifts after Finley, and it is clear that Egypt can no longer be left out of mainstream ancient economic work. Another result of the Stanford ancient economy volume, I think, is that ancient economic historians can ignore economic theory only at their peril. We can debate which economic theories are useful and, where possible, which theories can be improved by the ancient evidence, but the lack of a conceptual framework based broadly in the social sciences is no longer tenable.

A major part of that framework, it seems to me, a framework by the way that should unite archaeologists and papyrologists and indeed other specialists, should be centered on institutional change and on the performance of the economy.¹² The former, of course, the issue of continuity and change, has been a staple in Egyptian history for some time, but for the Ptolemaic period it has tended to focus on culture (literature, religion) rather than on the overall institutional structure of the state or on institutional change. The issue is important in understanding how the Ptolemaic economy functioned, and how and why it changed over the course of the three centuries of Ptolemaic rule. The papyri by themselves can tell us little about the velocity of circulation of coinage, the changes in settlement patterns over time, the total amount of land under cultivation, the internal movement of population, the standard of living and so on.

In his seminal paper on the future of the study of Hellenistic economies, John Davies, discussing the implications of Susan Alcock's work on Hellenistic settlement patterns, has laid out four parameters by which to understand the archaeological evidence: (1) level of urbanization, (2) signs of colonization, (3) demographic

¹¹ *op.cit.* (above, n. 1).

¹² This is the view advocated above all by D. North. See, e.g., *Structure and Change in Economic History* (New York 1981).

variability, and (4) agricultural (dis)intensification.¹³ Graeco-Roman Egypt is the only region that can offer both a sufficient documentary and archaeological record with which to assess change over time with respect to these four parameters. Dominic Rathbone's work on sites in the Fayyum has demonstrated how fruitful the study of the documents and the archaeological record in tandem can be. We are beginning now, with work in the Delta, the western oases, and the eastern desert, to move beyond the Fayyumic bias of Graeco-Roman Egyptian history, and we can look forward to revisions, perhaps major, in our understanding of settlement patterns in this period.

In order to analyze change over time, we must first understand structure, i.e. the historical institutions in Egypt, and we must then understand how and why institutions change, and how we can measure this change. We need, then, a theory of institutions.¹⁴ An institutional perspective on Ptolemaic development and economic performance raises several questions. Among the most important, it seems to me, are the following:

(1) Do institutions matter in explaining change, or are the demographic regime and climate change the main drivers of history? This is, of course, an enormously important and much debated question. I ask it here because I think that Graeco-Roman Egypt is the perfect laboratory to answer it. I don't have the space to treat demography in this paper, but needless to say it is of the highest importance.¹⁵

¹³ "Hellenistic Economies in the Post-Finley Era," in Z.H. Archibald, J. Davies, V. Gabrielsen, and G.J. Oliver (eds.), *Hellenistic Economies* (London 2001) 11-62, at 30.

¹⁴ The literature on institutional theory embraces several large fields, Economics, Law, Sociology and Political Science among them. A good overview may be gained in W.R. Scott, *Institutions and Organizations* (Thousand Oaks, CA 2001²).

¹⁵ For theoretical considerations, and a model of demographic development in Alexandria, see W. Scheidel, "Creating a Metropolis: a Comparative Demographic Perspective," in W.V. Harris and G.R. Ruffini (eds.), *Ancient Alexandria between Egypt and Greece* (Leiden 2004) 1-31. The forthcoming study by W. Clarysse and D. Thompson of the Ptolemaic census will be a major contribution to the demographic history of Egypt and will also, we must hope, stimulate further archaeological work with respect to settlement survey, population densities and the like.

(2) What is the nature of the state? Our conceptions with respect to this question have been centered on "colonial" or "multi-cultural" models. It is fair to say that at this point both "models" have been undertheorized.

(3) What was the impact of Ptolemaic fiscal institutions on the economic development of the Ptolemaic state?

(4) Is there a difference between Ptolemaic and Roman economic performance, and if so, can institutions help to explain it?

Social scientists have long recognized the importance of the Ptolemaic and Roman Egyptian sources, if not the papyri themselves. Max Weber, for example, devoted long sections of his book *The Agrarian Sociology of Ancient Civilizations* to Graeco-Egyptian society. We, of course, can make many modifications to his views, especially those concerned with the origins of "modernity," but this is not to diminish the kind of thinking that is very much needed in Papyrology. The use of social theories to explicate the documentary material has hardly been seen outside of a few Marxist historians. Rather, models (often implicit) of a highly centralized, dirigiste, colonial state have been the basis for understanding the papyri, especially the Greek papyri that are concerned with the new state bureaucracy and agricultural production in the newly settled Fayyum.¹⁶ The vast amount of new material published in the last few decades has made older analyses obsolete, but very little has yet been done on the general issues of Ptolemaic state formation and development. New texts beget new text editions, older texts get re-edited, and our understanding of the issues involved, outside of the cultural issues of ethnic relations between Greeks and Egyptians for example, remains locked within old debates.

There has been little done to map the data derived from the papyri onto dynamic social processes. This is changing. A forthcoming study on monetization will be an important step, and there are

¹⁶ See, for example, D.W. Rathbone, "Ptolemaic to Roman Egypt: The Death of the *dirigiste* State?" in E. Lo Cascio and D.W. Rathbone (eds), *Production and Public Powers in Classical Antiquity* (Cambridge 2000) 44-54.

other hopeful signs.¹⁷ Another obvious phenomenon to study is what Sociologists call "decoupling." Put simplistically, this is the notion that social norms can be separated, or "decoupled," from actual behavior. Rules and expectations of state officials were established in writing, and presumably loyalty was reinforced by the power of the state to appoint officials. While the state carefully tried to control officials, including, importantly, those in charge of the temples, it was impossible to control every official's behavior at all times. The decoupling of social norms from actual behavior must have been more of a problem under the Ptolemies than in ancient Egypt since we are dealing with a new elite and the emergence of a new administrative language, Greek. The natural loyalties of family and other social groups that centered around occupations (and language) may have been increasingly challenged by the new Ptolemaic realities of Greek administration, realities that demanded loyalty in the chain of command of the bureaucratic authority, no doubt reinforced by personal visits of higher officials. It is this tension between the vertical, power relations of the state and the horizontal relationships between family and friends in villages, or, to put it in sociological terms, between the formal and the informal social networks within the Ptolemaic state, that I am most interested in, since these tensions must have been major factors in economic performance and state development.

Another key issue in economic performance in modern theory is property rights. Defining, distributing, and enforcing property rights is one of the keys to economic development and growth, and understanding the legal system with respect to these is also fundamentally important. Can the theory accommodate the ancient evidence? That is to say, are there notable differences in the structure of property rights between Ptolemaic and Roman Egypt that explain economic performance? A property right is "an enforceable authority to undertake particular actions in specific domains."¹⁸

¹⁷ S. von Reden, *Money in Ptolemaic Egypt*. (Cambridge forthcoming). See also G.R. Ruffini, *Social Networks in Byzantine Egypt*. (Ph.D. diss., Columbia University 2005).

¹⁸ E. Ostrom, "Private and Common Property Rights," in B. Bouckaert and G. De Geest (eds.), *Encyclopedia of Law and Economics*, vol. 2. *Civil Law and Economics* (Cheltenham 2000) 332-79.

The right of access, withdrawal, management, exclusion and alienation can be separately assigned to different individuals, or it can be viewed as a cumulative scale moving from minimal right of access through possessing full ownership rights. But there are specific conditions—private property depends on the existence and the enforcement of a set of rules that define who has a right to undertake which activities on their own initiative, and how returns on this activity are allocated. Property rights are complex, and it is not simply a matter of state property versus private property as the situation in Egypt is so often couched. This bifurcation better reflects the status and organization of the holder of a particular right rather than the "bundle" of property rights that is usually involved.

Recently, the Economist John Powelson, in his universal history of land tenure, echoed Weber and earlier papyrological work. He summarized Ptolemaic land tenure this way:

In the early Ptolemaic period, there was little private property, mainly smaller tracts not suitable for corn. These were planted with vegetables, orchards, palm trees, vineyards. Large estates began to be granted in lifetime concessions to high officials, reverting to pharaoh on death. As the dynasty progressed, the greater part of Egyptian soil fell into private hands. It was all registered and controlled by the state. The state determined the crop for every land holder, reserved the right to purchase whatever portion of it it wished at a specified price...¹⁹

In the end, Powelson concludes, "it became difficult to assign tenure to loyal people." In part the answer to the problem of assigning tenure lies in the incentive structures of the state, and in the conception and enforcement of property rights. The idea of a property rights evolution goes back at least as far as Taubenschlag's work, and it is something with which I disagree. Powelson, of course, as an Economist, had different concerns than papyrologists do with respect to the land tenure regime of Egypt, and he can be forgiven for some of his lack of detail. But his treatment of Egypt gives, I think, the wrong impression of the history of property rights in Egypt and of the role of the state with respect to private rights in real property. I simply raise the work of Powelson here to show that there are many scholars and even entire fields of

¹⁹ *The Story of Land. A World History of Land Tenure and Agrarian Reform* (Cambridge, MA. 1988) 21.

which papyrologists may not be aware whose work touches on our own, and whose work would greatly benefit from contact with Papyrology no less than our own work can benefit with contact from the generalizing theories produced in the historical social sciences.

Even a cursory glance at demotic Egyptian conveyances shows that a well-defined concept of private property existed in the Ptolemaic period—the right to manage, the right to exclude, the right to convey (the main right of private property), specified boundaries—are all elements of demotic conveyances of real property. There are, of course, other elements such as inheritance patterns and transaction costs to consider. Transaction costs are the costs of exchange, and also, importantly, the cost of enforcement. This last element is an important aspect of private property rights, and it is crucial for understanding Ptolemaic developments and, more importantly, for arguments about the causes of growth and Roman improvements in property law.

Economists traditionally understand the form of land tenure as arrangements for the supply of labor. Either in Marxist terms of power and class struggle between landowners and peasants, or in terms of what is called the "principal-agent" problem—the principal in this case being the landowner, and the agent being, usually, the lessee, and the issue being the enforceability of contract.

Another approach to land tenure is to understand it as arrangements for finance.²⁰ There are three choices, all of them in evidence in Graeco-Roman Egypt. These are the wage contract, the fixed-term contract and the share contract. Again, in the history of land tenure, most of the theory has derived from the analysis of Medieval and early modern European examples, but certainly the rich material from Ptolemaic and Roman Egypt can contribute enormously to the discussion, and the issue of finance and contractual arrangements is central for understanding legal developments and the performance of the economy. Once again I lack the space to develop arguments here, but I believe that study of contract type and the enforcement of contract may help explain important differences between the Ptolemaic and Roman periods.

²⁰ M. Cohen, "A Finance Approach to Understanding Patterns of Land Tenure," working paper, Department of Economics, Dartmouth College, 2001.

The choice of contract produces well-known costs and benefits, and these, too, must have played themselves out along the Nile. Broadly speaking, there are some regional differences in the Ptolemaic period that are the result of historical circumstances, institutions and organizations (i.e. people making use of institutions). On state-controlled and new land, leases dominated tenure conditions. On temple land, predominant in the south of Egypt, there was another type of tenure, or at least, if we are not too misled by the documents themselves, the temple functioned as an intermediary, or an agent, between the central state and agricultural production. The mediation of temples over land in the Thebaid had practical political and economic consequences for Ptolemaic exploitation. It explains well the fact that tax receipts were issued by the state for the private exploitation of land in the Thebaid, with its history of private property on temple estates, and not in the more directly state-controlled Fayyum. The difference between the "state" and the "temple" may not matter all that much except as it concerns service, and the flow of rents, as Katelijm Vandorpe has recently suggested²¹ and with which I agree. How, or whom, one serves, of course, is a matter of loyalty, which is something of great concern in new state formation. In either case, as I have suggested, economic incentives are involved. It is a reason, no doubt, why the Fayyum remained quiet while the Thebaid followed its common pool incentives—because of the structure of land tenure and the economic benefits of independence—and broke away from the Ptolemaic state for a generation (207-186 BC) at the end of the third century BC.²²

Patterns emerge in the case of early modern Europe and the same general patterns, I believe, would be seen if we were to ex-

²¹ "Temple Land and Temple Revenues in Upper Egypt. From 'Apportioning Domains' to 'Syntaxis'" (paper presented at the International Congress of Papyrology, Helsinki, August 2004).

²² On the Theban revolt in general, see A.-E. Vélisse, *Les "Révoltes égyptiennes." Recherches sur les Troubles intérieurs en Égypte du règne de Ptolémée III Éuergete à la Conquête romaine*. Studia Hellenistica 41 (Leuven 2004). For the suggestion that the Theban revolt may be understood as an illustration of a region following its common pool incentives, see J.G. Manning, "Property Rights and Contracting in Ptolemaic Egypt (332 BC-30 BC)," *Journal of Institutional and Theoretical Economics* 160/4 (2004) 758-64.

amine the choice of contract in Graeco-Roman Egypt.²³ In early modern Europe, share contracts are associated with those who had little capital, and with certain types of crops—vines, olives, fruit trees—and with absentee urban landowners. Share-cropping has been associated with viticulture because of the problem of asset-stripping, that is, maximizing the short term or present value of the crop while neglecting long term production. In short-term leases (and in Egypt we are usually dealing with the very short-term) the lessee has the incentive to increase current income at the expense of residual value of the land. There are safeguards to prevent this—reputational issues are important. This generates what Economists call relational contracts (i.e. you do business with those whom you know). Another response to the tendency toward asset-stripping is to spell out carefully in the lease contract the rights and responsibilities of the lessee. Share contracts also prevent asset-stripping, but there is also the incentive for the lessee to under-report, and to keep the best part of the harvest. So share leases are better suited to crops that are easily measured. The manner in which crops are measured becomes an important part of institutional analysis, as does the enforcement and collection of rent and taxes.

If lease contracts are fairly well understood in Ptolemaic and Roman Egypt, they are on the whole less well explained in terms of regional variation or in terms of state finance. The nature of access to land by other means is not altogether clear, at least under the Ptolemies. Of course those who served within temple estates were granted land, and landholding within temple estates remained an important mode of land tenure throughout the Ptolemaic period. There was also the possibility of acquiring land by public auction, a Greek institution introduced by the Ptolemies to assign property rights.²⁴ How extensively this institution was used to acquire land is difficult to know, but it appears to have been fairly restricted and not a regular feature of Ptolemaic land tenure. It is significant,

²³ For Roman period contracts, see D.P. Kehoe, *Management and Investment on Estates in Roman Egypt During the Early Empire* (Bonn 1992).

²⁴ J.G. Manning, "The Auction of Pharaoh," in J. Larsen and E. Teeter (eds.), *Gold of Praise. Studies in Honor of Edward F. Wente* (Chicago 1999) 277-84.

though, that priests acquired temple land by this process, and it is normally assumed that auctions show the dominance of the state even over ancient institutions like temple land tenure. The public auction of land appears to have been a particularly important tool of the state in gaining (better?) control of land in the Thebaid after the major revolt there during 207-186 BC.

Here I will just note that people shifted to the new institutional game of the Ptolemaic state not out of coercion, although coercion played a role (historically people do not like to change land tenure rules²⁵) but out of trust and incentives, in a similar way that the Ptolemaic economy became monetized. Egyptians must have opted into the system, but there is also much evidence to suggest that individuals were not always loyal to the state. We note from Willy Clarysse's recent study of the Milon archive from Edfu how it was possible for an individual to function within a local social network to the detriment of state revenue, shunning the clearly defined rules of the public auction process (*P.Eleph.* 14)—a good example of the phenomenon of "decoupling" that I explained above.²⁶ On the other hand, new Ptolemaic institutions may have served to override local tensions, disputes and enforcement issues. It seems clear, for example, that Ptolemy II's "legislation" was an effort to incorporate Egyptian legal institutions and traditions into the new state system, and that the Ptolemaic state was committed to enforcing existing property rights. The success of the comprehensive Ptolemaic legislation is observed, for example, in the famous second century BC family probate dispute from Assiut, and in other legal disputes between Egyptian parties.²⁷

²⁵ For an overview, see R.C. Ellickson, "Property in Land," *Yale Law Journal* 102 (1993) 1315-1400.

²⁶ W. Clarysse, "The Archive of the *praktor* Milon," in K. Vandorpe and W. Clarysse (eds.), *Edfu, an Egyptian Provincial Capital in the Ptolemaic Period* (Brussels 2003) 17-27.

²⁷ H. Thompson, *A Family Archive from Siut from Papyri in the British Museum* (Oxford 1934). Cf. *P.Tebt.* III 780 (171 BC, Fayyum). On this "legislation," see H.-J. Wolff, "Plurality of Laws in Ptolemaic Egypt," *RIDA* 3 (1960) 191-223; J. Méléze-Modrzejewski, "The Septuagint as Nomos: How the Torah Became a 'Civic Law' for the Jews in Egypt" in J.W. Cairns and O.F. Robinson (eds.), *Critical Studies in Ancient Law, Comparative Law, and Legal History* (Oxford 2001) 183-99.

There is a related issue involved in the relationship between the Ptolemaic state and the ancient Egyptian institutional structure, and this is the concept of path dependence. In other words, institutions once created tend to follow a certain path. This issue is important in understanding Ptolemaic state development, and the regional differences between the Fayyum and the Thebaid. Concerning the issue of property rights, path dependence is certainly involved in the Thebaid land tenure regime in contrast to new areas like the Fayyum in which there was less interference from old institutions. I don't see a property evolution, as Powelson and many papyrologists have argued for, but rather a continuation of the ancient system linking the holding of land to state finance, expanded by new populations, not by new land tenure rules, or by conceptual shifts in property rights. It was in the early Roman period when the important changes in the property rights regime occurred—changes in loan registration and the broadening of investment incentives—and this had major implications for economic performance. Other institutions such as accountancy are equally important in understanding economic change.²⁸

Archaeology, or where we should go

Until recently, the archaeology of Graeco-Roman Egypt was largely confined to papyrus-hunting and to Fayyum towns.²⁹ Because of this hunting for papyrus, the archaeology was often an afterthought at best. This has given rise to "museum archaeology," and important results in establishing the archaeological context of earlier papyrus finds previously without precise context have been made in the last decade or so.³⁰ Recent archaeological work has

²⁸ D.W. Rathbone, *op. cit.* (above, no. 4) 331-387.

²⁹ Discussed T. Gagos, J.E. Gates and A.T. Wilburn, this volume, p. 171-187; summarized in the briefest of terms by M.C. McClellan, "The Economy of Hellenistic Egypt and Syria. An Archaeological Perspective," in B.B. Price (ed.), *Ancient Economic Thought*, vol. 1 (London 1997) 172-87. Even in the Fayyum, however, only a few town sites have been adequately excavated.

³⁰ K. Vandorpe, "Museum Archaeology or How to Reconstruct Pathyris Archives," in *Acta Demotica. Acts of the Fifth International Conference for Demotists. Pisa, 4th-8th September 1993* (Pisa 1994) 289-300; P. van Minnen, "House to House Enquiries: An Interdisciplinary Approach to Roman Karanis," *ZPE* 100

concentrated on the eastern and western deserts, about which we are now much better informed, but as is often the case in Egypt, there are major gaps in our knowledge of the Nile valley and the Delta. Indeed, there is little work in the archaeology of settlement patterns for the whole of the first millennium BC, and that limits our ability to understand changes from the Saite and Persian periods to the Ptolemaic. This might be improved, although the usual problem of settlement site archaeology in the Nile valley remains. Ancient town sites are difficult to excavate because of the high water table and because the ancient settlements have often been replaced by modern ones.³¹ The issue of regionalism is an important one in understanding the development of the Ptolemaic state. Even if, as I have suggested, the legislation of Ptolemy II had a wide impact on the countryside, the process of "ptolemaicizing" Egypt may have occurred at different rates in different parts of the country because of regional institutional differences. The pattern of Greek settlement throughout Egypt, therefore, is important and must be better understood.

The exception to the lack of regional survey is, of course, the Fayyum, where Dominic Rathbone's work is the best example of what can be accomplished. The settlement history of the Fayyum, has, from the result of this recent work, been considerably revised, and James Keenan's work on el-Nabulsi is sure to give us a better perspective of the *longue durée*. Many of the towns in the Fayyum require further excavation. The Thebaid, in contrast, has been even more neglected. To be sure, the archaeology of the Nile valley presents severe challenges, not in the least ameliorated by the historically poor attitude that Egyptology has had toward the period. More than one site has been stripped of its later archaeological layers to

(1994) 227-51; D. Hobson, "House and Household in Roman Egypt," *YCS* 28 (1985) 211-29; G. Husson, *Oikia. Le Vocabulaire de la maison privée en Égypte d'après les Papyrus grecs* (Paris 1983). R. Alston, *The City in Roman and Byzantine Egypt* (London 2002) 44-127, surveys the post-Ptolemaic evidence but does not specifically address comparative median house sizes, or correlations with family size.

³¹ See, in general, M. Bietak, "Urban Archaeology and the 'Town Problem' in Ancient Egypt" in K. Weeks (ed.), *Egyptology and the Social Sciences* (Cairo 1979) 97-144.

get to pharaonic material. There are of course more practical problems, among which are the water table (in the Delta especially, but the problem exists throughout Egypt), and the continued occupation of ancient town sites (as at the southern capital Ptolemais, modern el-Manshah). Until recently, we knew less about the Ptolemaic capital than we did about the town of Tebtunis, but the underwater work at Alexandria has allowed us the hope of an improved understanding of this great city, its construction, the volume of trade, and a firmer grasp of the city's population, among other things. The intriguing possibility that we have texts from the late Ptolemaic palace in Alexandria has attracted a good deal of attention, and justifiably so.³² (How the texts made it upriver to become cartonnage in the Herakleopolite is another story entirely.) As van Minnen has stressed, there is also good documentary material that concerns Alexandria found at other places in Egypt that may enhance the current archaeological work.

There are very good examples from recent studies that combine archaeology and documentary finds. The French work in the Kharga oasis, for example, using the demotic ostraca found at a site known as Ain Manawir, has been decisive in dating the Persian underwater irrigation networks (qanawats) to the fifth century BC. Other sites promise great results combining text and artifact: Tebtunis, Karanis, Kellis, Mons Claudianus to name just the most obvious. Work in the eastern desert has revealed much new information on trade, mining and quarrying activities and the specific connections of this region to the Nile valley.

Basic excavation continues, and it is to be hoped that as more is published from the Delta, we may yet begin to understand this important part of Ptolemaic and Roman Egypt. Despite the fact that the carbonized rolls from Boubastis appear to be mostly anepigraphic,³³ there are texts found at other places, as Bagnall points out, that document the Delta and there is hope that we can use this material to expand our knowledge of this important region. And we must never forget the longer-term issues. While Egypt was histori-

³² P. van Minnen, "Further Thoughts on the Cleopatra Papyrus," *APF* 47 (2001) 74-80.

³³ D. Devauchelle, personal communication.

cally oriented southward and toward the Red Sea, the shift northward and to the Mediterranean began not with the Ptolemies but in the Ramesside period ca. 1200 BC, a reminder that the Ptolemaic regime built on earlier trends. But it seems to me that the most important part that archaeological research can contribute to the history of Ptolemaic and Roman Egypt comes in the realm of understanding change over time, i.e. in quantification.³⁴ For economic history, more specifically, measuring the standard of living and the performance of the economy over time are the main concerns, and neither has been addressed adequately for Ptolemaic Egypt.

Quantifying the Ptolemaic (or Roman) economy, and establishing the connections between demographic/climatic trends and institutions, which I believe to be crucial, can only be established by archaeological work, whether it is done retrospectively (examining past work) or prospectively (in designing new research agendas). Three items come immediately to mind that I mention only in passing. First is that of house size.³⁵ A comparison between Ptolemaic and Roman house size might yield a fair proxy measure of economic performance, and we might be able to confirm the thesis that there was real (per capita) economic growth only in early Roman Egypt. Since I am not an archaeologist, I will leave it to further discussion to see whether we have enough good archaeological data on Ptolemaic houses to differentiate Ptolemaic from Roman houses in order to make this comparison. It seems to me worth trying, and Bacchias and Tebtunis are the obvious places to start. Another seriously underexploited data set comes in the form of the human mummy, that emblem of ancient Egypt. Despite the hype, the valley of the golden mummies in the Bahariya oasis is potentially among the most important archaeological finds in recent years, not because of gold mummy masks, but because of the potential it creates for studying a population across the Hellenistic/Roman divide. Indeed the Ptolemaic and Roman period mummies as a corpus, as it were, strikes me as potentially the most important area of research in the Graeco-Roman economy, and one

³⁴ R.S. Bagnall, *op.cit.* (above, n. 9) 73-79.

³⁵ See I. Morris "Archaeology, Standards of Living, and Greek Economic History," in Manning and Morris, *op.cit.* (above, n. 1) 91-126.

that, at least initially, would require little excavation. Art historical analysis combined with the field of sociobiology, and the study of nutrition, diet, mortality and morbidity, i.e. the coordinated study of the physical remains already recovered from many sites, could be expected to produce results of the utmost importance in understanding economic performance and living standards.

Above all, what I am arguing for here is quantification and large-scale comparisons between the Ptolemaic and the Roman period—usually an uncrossed divide. It is instructive (and indeed humbling), however, to see that this is precisely the direction that Claire Préaux's work was heading.³⁶ Plus ça change. The last item that I simply raise as an issue that requires further elucidation is the extent of technological innovation and improvement and its relationship to economic performance. Rostovtzeff believed that this was a major factor in the Ptolemaic economy, but there seems to me little in the way of extensive evidence to justify this. Unless proven otherwise, water-lifting technology, principally via the saqiya that is certainly known in the Ptolemaic period, was not decisive until the Roman.³⁷

Conclusions

The issues I have raised in this short paper, the role of the state, property rights, contracts, transaction costs, agency and decoupling, path dependence, regional analysis, standards of living, are all crucial in developing a dynamic model of the Ptolemaic economy. But in thinking about the state as an economic actor, we must also think about institutions and the incentive structures and how these enabled or constrained individual behavior. As I have sug-

³⁶ C. Préaux, "L'attache à la Terre: continuités de l'Égypte ptolémaïque à l'Égypte romaine," in G. Grimm et al. (eds.), *Das Römisch-Byzantinische Ägypten. Akten des internationalen Symposions 26.-30. September 1978 in Trier* (Mainz 1983) 1-5.

³⁷ A. Wilson, "Machines, Power and the Ancient Economy," *JRS* 92 (2002) 1-32, expresses a different view on new technology in the Ptolemaic period. The archaeological evidence, however, suggests, at the moment at least, that the new machines were not used widely until the third century AD. Cf. D.W. Rathbone's remarks on Roman Egypt in the *Cambridge Economic History of the Greco-Roman World* (forthcoming).

gested, archaeological research can help us understand the diachronic development of settlement sites and the performance of the economy. Another issue, hardly raised up to now in any detailed way, is the institutional contrast between the Ptolemaic and Roman periods and how this affected economic performance. My own conviction is that this is a major frontier of Graeco-Roman research, and one that can only be crossed by close collaboration.

There is another important element in this kind of research, and that is linking what we do to social theory. Papyrology, both Greek and demotic, and we should of course include Coptic and Arabic texts as James Keenan's paper at this conference elegantly pleads, together with archaeological research that supplements, clarifies and fills in some of the large gaps left by the haphazards of documentary survival, is not only relevant but crucial to the historical social sciences for two major reasons. The rich documentation of the Egyptian state forms during the millennium from the Ptolemies to the Arab Conquest offers much detail to social science theory, since much of this theory has been built up from historical case studies of modern nation-states, and very much from the point of view of modernity. I hope that it is not too much to suggest that Greco-Roman Egypt can contribute to social theory and can add a valuable perspective on the meaning of modernity. And secondly, this period of Egyptian history offers economic historians one of the very best chances to study exactly why and how institutions matter. The general assumption of the Ptolemaic period, based largely on literary accounts, is that there was steady economic decline in the last two centuries BC. An examination of Ptolemaic institutions, however, suggests continual development, and the tax receipts also suggest relative success of the state in the Thebaid over the long term. Only archaeological investigation can help us with a quantitative measure of living standards.

The demotic Egyptian land tenure contracts from the Ptolemaic period are an important historical source for the study of the history of real property, and the Greek papyri offer us the only view of a functioning ancient bureaucracy with the exception of China. Both corpora must be understood within the larger framework of the historical development of the Ptolemaic state and its economy. The contrast between Ptolemaic and Roman Egypt is an important

one for reasons that I have already suggested—we can assess the impact that Greek and Roman institutions had on the Egyptian economy. In my view the bureaucratization process that was set in motion by the Ptolemies altered the economic environment substantially, but property rights and enforcement of these rights were on a different institutional basis under Roman rule, and this must have had a measurable impact on economic performance.

The careful specification of the historical institutions in the economic development of Graeco-Roman Egypt offers the ancient historian the opportunity to ask better questions of the papyri, and to explain change over time, but we need archaeologists, and better archaeology, if we are going to quantify performance over time. We have more hope of getting good answers from Graeco-Roman Egypt than of any other single pre-modern economy in the world. In order to get good answers, we need to ask better questions, we need better coordination between scholarly disciplines, and we need more synthetic work. The main subtext of this work involves not only the coordination of Papyrology with archaeological investigation, but also, as Bagnall concludes, the solution to a host of pragmatic problems in Egypt itself not the least of which is the adequate publication of results, and closer work with our Egyptian colleagues.³⁸ While there should be a sense of urgency in what we do, we also need patience, and we need to change how we train the next generation of scholars. But that is a subject for another day.

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³⁸ R.S. Bagnall, *op.cit.* (above, n. 5) 240.

Response

In a review of my *Egypt after the Pharaohs* in 1988, Roger Bagnall questioned the justification for my claim to have brought together the papyrological and the archaeological evidence in attempting a synthesising overview of the history of Egypt in the Hellenistic, Roman and Byzantine periods.¹ I am glad, at least, to have been credited with recognising that it would be a good and desirable thing to do, even if I failed to do it even to the extent that was then possible (although I did attempt to amplify it on a small scale by adding an appendix to the second edition).² Bagnall, whose own recent contributions to meeting the need should be noted,³ identified some areas in which progress ought to be achievable but there were and there still remain difficulties. The papers offered at the AIA colloquium in January 2005 and published here, very impressive in both quality and range, support the view that we are perhaps still inclined to undervalue our data in comparison with other historical periods. They compare very well with many pre-modern periods. Recent work on early medieval history exploits the huge increase in archaeological evidence that has accrued in the last 50 years but the medievalists still lack the wealth of documentation which we have.⁴ It might be thought that in our field, the standards of excavation and the recording and processing of information have in the past left something to be desired (the University of Michigan excavations at Karanis being, on the whole, a notable

¹ R.S. Bagnall, "Archaeology and Papyrology," *JRA* 1 (1988) 197-202.

² *Egypt after the Pharaohs* (London and Berkeley 1996²).

³ He now compiles a quinquennial review of archaeological activity in Graeco-Roman Egypt (see "Archaeological Work on Hellenistic and Roman Egypt, 1995-2000," *AJA* 105 [2001] 227-43) and he has established an important excavation at Amheida in the Dakleh Oasis:

http://www.mcah.columbia.edu/mcah2/html/mcah_projects_list_amheida.html.

⁴ C. Wickham, *Framing the Middle Ages* (Oxford 2005) 1, 10 and *passim*.

exception),⁵ but modern archaeological research generally comes closer to meeting the highest current standards. The context of the recovery of documents from such widely scattered sites as Mons Claudianus, Vindolanda, Petra and Bu-Njem is well published, if not always well understood.⁶ The present collection of papers gives us an opportunity to review the state of play and to see how far we have come in almost 20 years.

As the contribution by Gagos, Gates and Wilburn shows, we are now very alive to the issues raised by archaeological context and "meaning". There are two points which spring to mind. The first is that the process of reading "meaning" into the context of an archaeological attribute as "the totality of the relevant environment"⁷ should in principle be applied consistently but in practice there may be a very significant difference between applying it in an epigraphic environment and applying it in one which includes written documents as part of the assemblage or the context. The fact is that in documented societies we still tend to privilege the written text and, if possible, to construct the meaning by fitting the archaeological evidence to the written. Hence the notion (espoused or rejected with varying degrees of passion) that archaeology is, or can only be, the "handmaid" of history. Archaeologists who work in non-documented contexts do not, of course, have to face the choice of whether to privilege or relegate the written evidence but those who have it find it terribly difficult to convince us that they can (or should) construct a valid or persuasive narrative which ignores it or treats it as secondary. And the written evidence itself can carry varying degrees of compulsion. A document dated by a Ptolemaic monarch or Roman consul is in itself unimpeachable but it is well known that individual objects, which may be documents just as well as coins, can "wander" in archaeological contexts. Ever since I read that the quays of New York's port were constructed with a great deal of rub-

⁵ Bagnall, *op.cit.* (n. 3) 235.

⁶ *O.Claud.* I 9-21; *O.Bu-Njem* 5-11; *P.Petra* I 1-8; E. Birley et al., *The Early Wooden Forts: Reports on the Auxiliaries, the Writing Tablets, Inscriptions, Brands and Graffiti*, Vindolanda Research Reports New Series, vol. II, (Bardon Mill 1993); R.E. Birley, *The Early Wooden Forts. Introduction and Analysis of the Structures*, Vindolanda Research Reports New Series, vol. I (Hexham 1994).

⁷ Quoted from Hodder in Gagos, Gates and Wilburn (this volume) n. 3.

ble brought over as ballast in ships from Bristol, I have been waiting for the discovery of a coin or other object on the West Side which will "prove" that the Romans discovered America. Papyrologists will not need to be told that the desire to establish an early date for a fragment of a gospel has, for many people, much to do with the desire to prove the "historical truth" of accounts of the life of Jesus.⁸ On the other hand, it is evident that the papyrological evidence does not tell us everything knowable about Graeco-Roman Egypt and the debate about which parts of that society, if any, writing does not reach or represent is by no means concluded.⁹

Second, the papyrus texts themselves are or originally were archaeological objects with a context, as the discussion of the Tiberianus archive in this volume shows. In that case the context can be reconstructed, as it can in more recent excavations, but Karanis is exceptional.¹⁰ Much more commonly the papyri were either ripped out of their context clandestinely for the antiquities market or excavated with less attention to recording the archaeological context than would be the case today.¹¹ Even so, it can be shown that some reconstruction is possible in some cases,¹² and the technologies offered by imaging and rapid multiple exchange of information have immense potential to improve this. These processes can not only reconstitute archives and other groups of texts but may allow identification of ancient place-names of sites and so on. For the papyrologists who literally **read** the texts, the **meaning** can be extracted in one sense, obvious to our community. For those who view them as objects in a museum, which they frequently are, "reading the

⁸ C.P. Thiede, *The Jesus Papyrus* (London 1996).

⁹ Cf. A.E. Hanson, "Ancient Illiteracy," in J.H. Humphrey (ed.), *Literacy in the Roman World*, JRA Suppl. 1 (Ann Arbor 1991) 159-98.

¹⁰ See also P. van Minnen, "House-to-House Enquiries: an Interdisciplinary Approach to Roman Karanis," *ZPE* 100 (1994) 227-51.

¹¹ A. Martin, "The Oxyrhynchus Papyri and the Antiquities Market (In the light of the 'Deutsches Papyruskartell')," in A.K. Bowman, R.A. Coles, D. Obbink and P.J. Parsons (eds.), *Oxyrhynchus: a City and its Texts* (London, forthcoming 2006).

¹² K. Vandorpe, "Museum Archaeology or How to Reconstruct Pathyris Archives," in *Acta Demotica. Acts of the Fifth International Conference for Demotists, Pisa 4-8 September 1993*. (Pisa 1994) 289-300.

meaning" may be a different process, in which the viewer is invited to reconstruct the character of a society on the basis of a taxonomic ordering of like objects juxtaposed (which may illustrate "development") or unlike objects juxtaposed (which may illustrate "complexity" or "variety"). This is very much a modern European approach to understanding and analysing "other" cultures.¹³ There is, of course, no single, simple term for such descriptive stratagems.

The papers presented at the colloquium invite us to consider the complementarity of papyrological and archaeological evidence in the local, the regional and the national context.

In the local context, it has long been recognised that Karanis is exceptional by virtue of having a detailed archaeological record in the possession of the Kelsey Museum and a corpus of over 2500 published papyri. The immensely detailed excavation record of the location of artefacts (including papyri) in the houses is the basis for linking texts to individual residences and persons, as can be done to some extent elsewhere (at Vindolanda, for example, but not at Petra or Mons Claudianus).¹⁴ This is important because, amongst other things, it is a completely different kind of record from that of excavated rubbish dumps, where (when the records are available) one can sometimes identify a broad pattern or archive, groups or clusters of texts.¹⁵ At Karanis too, the archaeology challenges the papyrological record, showing that the site was occupied far beyond the date of the latest published papyri.¹⁶ The identification of the character and use of buildings often appears straightforward in the

¹³ See M. Beard and J. Henderson, "Please Don't Touch the Ceiling: Museums and the Culture of Appropriation," *New Research in Museum Studies* 4 (1993); P. Connor, "Cast-Collecting in the Nineteenth Century: Scholarship, Aesthetics, Connoisseurship," in G.W. Clarke (ed.), *Rediscovering Hellenism* (Cambridge 1989) 187-235.

¹⁴ See n. 6 above.

¹⁵ For an example at Oxyrhynchus, the "family library" of Sarapion-Apollonianus, strategos of the Arsinoite in the early third century, see A.K. Bowman, "Aurelius Horion and the Calpurnii: Elite Families in Third-Century Oxyrhynchus," in T. Gagos and R.S. Bagnall (eds.), *Essays and Texts in Honor of J. David Thomas*, *American Studies in Papyrology* 42 (Oakville, CT 2001) 16.

¹⁶ N. Pollard, "The Chronology and Economic Condition of Late Roman Karanis. An Archaeological Reassessment," *Journal of the American Research Centre in Egypt* 35 (1998) 147-62.

archaeological context but mapping the textual details on to the physical evidence often proves curiously frustrating. Thus at Karanis, the evidence for the granaries and the texts which relate to storage of grain and tax payments still seem curiously discrete.¹⁷ We can perhaps identify a kitchen, and related texts at Vindolanda and there may yet be some further illumination to be derived from the papyrological record of repairs to public buildings at Hermopolis in relation to the remains of civic structures of the Roman period: even if not in precise detail, the broader characteristics identified by Donald Bailey do suggest the complementarity of text and material object.¹⁸ Conversely, at Oxyrhynchus, and to a lesser extent Antinoopolis, where we have comparable textual detail, we have little or no archaeology (hence Krüger's schematic reconstruction of the topography of Oxyrhynchus is largely an act of imagination).¹⁹ But the papyrological evidence for details of physical features has its own value even when it is not reinforced by actual remains: the Temple of Jupiter Capitolinus at Arsinoe with its colossal statue of Caracalla, bronze equestrian statues at Hermopolis made by an Alexandrian sculptor, the full-length portrait of a gymnasiarch at Oxyrhynchus the rebuilding of the gilded roof of the gymnasium at Antinoopolis, the fountains of Arsinoe; and we might wonder how many 7-story houses there were in Oxyrhynchus.²⁰

¹⁷ E. Husselman, "The Granaries of Karanis," *TAPA* 83 (1952) 56-73.

¹⁸ R.E. Birley, *op.cit.* (above, n. 6) 70-71; D.M. Bailey, "A Building of the Antonine Period," in A.J. Spencer, D.M. Bailey, and W.V. Davies (eds.), *Ashmunein* (1983), British Museum Occasional Papers 53 (1984) 42-44; D.M. Bailey, "Classical Architecture in Roman Egypt," in M. Henig (ed.), *Architecture and Architectural Sculpture in the Roman Empire*, Oxford University Committee for Archaeology Monograph 29 (Oxford 1990) 126-7; P. van Minnen, "Hermopolis in the Crisis of the Roman Empire," in W. Jongman and M. Kleijwegt (eds.), *After the Past: Essays in Ancient History in Honour of H.W. Pleket*, (Leiden 2002) 285-304.

¹⁹ J. Krüger, *Oxyrhynchus in der Kaiserzeit. Studien zur Topographie und Literaturrezeption* (Frankfurt-am-Main 1990) 373.

²⁰ Temple: *BGU* II 362 (AD 215); statues: *PSI* III 204 (AD 140); portrait: *P.Oxy.* III 473 (AD 138-60); gymnasium: *P.Köln* I 52 (AD 263) with J.R. Rea, *CR* n.s.30 (1980), 261; fountains: *P.Lond.* III 1177 (AD 113) with W. Habermann, *Zur Wasserversorgung einer Metropole im kaiserzeitlichen Ägypten*, *Vestigia* 53 (München 2000); 7-story house: *P.Oxy.* XXXIV 2719 (III AD).

As for assemblages of smaller objects, we are often faced with puzzles and contradictions and always need to be aware of what remains speculative. To take two examples from Vindolanda, it is an oddity that we have no evidence of ink-wells from a context in which there is abundant evidence of writing with ink (and there are only two at Karanis);²¹ and a great surprise that a list of nails for various types of footwear upsets the archaeologists' classification of nailed and unnailed types.²² But it is hard to resist the notion that there ought to be something to be gained by putting the documentary evidence and the small finds from Karanis (coins, glass, pottery) into the same matrix.²³ Here, there is still some basic work to be done before we agonise too much over the "meaning" of archaeological material. On the other hand, uncertain though it may be, the attempt to collocate the mummy-portraits and the evidence for the metropolitan "gymnasial" class of the Roman period does at least suggest a way of viewing these representations and can sometimes be more or less speculatively related to textual evidence.²⁴ In these cases we might have wished for a little more archaeological contextual detail (which would encourage us to desist from misleadingly referring to them as "Fayyum portraits"), as other evidence for local cultural characteristics, such as the Terenouthis stelae or the Soter assemblage from Deir-el-Bahri²⁵ forcibly remind us that the reading of Greek papyri alone fails to bring home many

²¹ S. Willis, "The Context of Writing and Written Records in Ink: the Archaeology of Samian Ink-wells in Roman Britain," *Archaeological Journal* 162 (forthcoming 2006); B. Johnson, *Pottery from Karanis*, Kelsey Museum Studies 7 (Ann Arbor 1981) 11.

²² *Tab. Vindol.* III 603-5, introd.

²³ R. Haatvelt, E. Peterson, E. Husselman, *Coins from Karanis. The University of Michigan Excavations 1924-35* (Ann Arbor 1964); D.B. Harden, *Roman Glass from Karanis* (Ann Arbor 1936); B. Johnson *op. cit.* (above, n. 21); L.A. Shier, *Terracotta Lamps from Karanis* (Ann Arbor 1978). H. Geremek, *Karanis. Communauté rurale de l'Égypte romaine au IIe -IIIe siècle de notre ère* (Warsaw 1969) is written almost entirely from the evidence of the papyri.

²⁴ S. Walker and M. Bierbrier, *Ancient Faces* (London 1997) 14-20.

²⁵ F.A. Hooper, *Funerary Stelae from Kom Abou Billou* (Ann Arbor 1961), and for further bibliography, see G. Casanova, "Le epigrafi di Terenouthis e la paste," *YCS* 28 (1985) 145 n. 4; C. Riggs, M. Depauw, "'Soternalia' from Deir el-Bahri Including Two Coffin Lids with Demotic Inscriptions," *R d'E* 53 (2002) 75-102.

important aspects of the cultural landscape. There is still much to be discovered in existing archaeological records which are either unpublished or underexploited.

On the regional level, three of the papers invite us to concentrate on the Fayyum, where the archaeological picture of the development of villages shows broad comparability, although the papyrological record at Socnopaïou Nesos reveals idiosyncrasies which the archaeology cannot.²⁶ The settlement patterns indicate a coherent hellenisation in the Ptolemaic period ("deliberate" is perhaps an overstatement), with parallels emerging elsewhere in Upper Egypt where we lack any good archaeological evidence, the huge and still unexplored site of Ptolemais being a particularly regrettable lacuna.²⁷ It hardly needs stressing that the evidence of Nabulsi raises the question of continuity of occupation and settlement patterns, which may be directly affected by socio-economic and political initiatives from the highest level of government, as they were in the Ptolemaic period. Surface survey in the Fayyum has revealed more village sites on the desert edge, and often larger in area than one might have expected.²⁸ Two ways forward suggest themselves. We have very large numbers of villages identified by name in the papyri, over 100 each in the Oxyrhynchite, Hermopolite and Herakleopolite Nomes and many more in the Fayyum.²⁹ Often they cannot be precisely located but in default of that the Tube Map analogy is useful and incidence of settlement and the spatial relationships between settlements can be revealing. Here the work on the Leuven

²⁶ Bagnall, *op.cit.* (above, n. 3); P. Davoli, *L'archeologia urbana nel Fayyum di età ellenistica e romana* (Naples 1998).

²⁷ For the activities of Boethos the *ktistes* see B. Kramer, "Der κτίστης Boethos und die Einrichtung einer neuen Stadt Teil I," *APF* 43 (1997) 315-39; H. Heinen, "Der κτίστης Boethos und die Einrichtung einer neuen Stadt Teil II," *APF* 43 (1997) 340-63. Ptolemais, as large as Memphis: Strabo 17.1.42.

²⁸ D.W. Rathbone, "Towards a Historical Topography of the Fayum," in D.M. Bailey (ed.), *Archaeological Research in Roman Egypt*, *JRA Suppl.* 19 (Ann Arbor 1996) 50-56.

²⁹ P. Pruneti, *I centri abitati dell'Ossirinchi: repertorio toponomastico* (*Pap.Flor.* 9, 1981); M.R. Falivene, *The Herakleopolite Nome: A Catalogue of the Toponyms*, *Am.Stud.Pap.* 37 (Atlanta 1998); M. Drew-Bear, *Le Nome Hermopolite: toponyms et sites*, *Am.Stud.Pap.* 21 (Missoula, MT 1979); Leuven Fayyum project: <http://fayum.arts.kuleuven.ac.be/introduction.html>.

Database is very promising and we need to test the validity of (e.g.) the virtual map of the Themistes meris.³⁰ Second, the written and the archaeological evidence can be combined and exploited to produce a picture of cultural patterns in a defined region, as has been initiated for the Batavian lands (where the archaeology is good, with the *caveat* that the written evidence comes from the context of Batavians stationed in northern Britain).³¹ For Egypt in general and the Fayyum in particular, the documentary and archaeological evidence for religious cults would seem to offer a promising starting point.

As for the picture in Egypt as a whole, Manning's paper is very much to the point in addressing the bigger questions in principle and in detail. The propositions that we need to look more broadly for a conceptual framework and for comparable evidence from elsewhere in the ancient Mediterranean hardly need defending. Nor does it need emphasising that the theoretical structure should not constrain interpretation and should be adjusted for the best fit to the conditions in antiquity. One may detect a slight imbalance between the coherence of Manning's treatment of the papyrological evidence and that of the archaeological, almost certainly because there is so much less of the latter for the Ptolemaic period: a pity given that we know something from the papyri about the agricultural "engineering" works in the Fayyum and the "urbanization" initiatives.³² In addition to the evidence for religion which probably needs a regional nuance (see above), the economy of Egypt does seem to offer prospects for progress.

³⁰ See K. Müller, "Places and Spaces in the Themistou Meris (Fayum/Graeco-Roman Egypt). Locating Settlements by Multidimensional Scaling of Papyri," *Ancient Society* 33 (2003) 103-25; *ead.*, "Mastering Matrices and Clusters. Locating Graeco-Roman Settlements in the Meris of Herakleides (Fayum/Egypt) by Monte-Carlo-Simulation," *APF* 49 (2003) 218-52.

³¹ N. Roymans, *Tribal Societies in Northern Gaul. An Anthropological Perspective*. (Amsterdam 1990); T. Derks and N. Roymans, "Seal-Boxes and the Spread of Literacy in the Rhine Delta," in A.E. Cooley (ed.), *Becoming Roman, Writing Latin? Literacy and Epigraphy in the Roman West*, *JRA Suppl.* 48 (Ann Arbor 2002) 87-134.

³² *P. Petrie* III 42-3.

Three main points occur to me. On the identification of the main economic driver(s): is it the state and its institutions or is it the "ecology"? These are not to be treated as alternatives. The state responds to the ecological conditions (in antiquity sometimes implicitly rather than explicitly) and implements its response through its institutions. Thus, in the Ptolemaic period, the development of the Fayyum and the deliberate introduction of a bureaucratic structure, of the Greek language and of a cash economy.³³ In the later Roman period, there is the significant withdrawal of the state from land-ownership and direct supervision of agricultural production. We need to be aware of the potential tension between legal forms and socio-economic practice. This is particularly crucial for our understanding of issues relating to property and inheritance and therefore affects our view of the physical configuration of domestic buildings or agricultural land. The ways in which properties were divided into sometimes minute portions for inheritance, sale or mortgage purposes does not and in many cases could not possibly reflect the patterns of occupation of houses or exploitation of land.³⁴ Third, the major demographic issues: size and distribution of population, growth and shrinkage, density of habitation and so on. Despite having some of the best evidence available for classical antiquity, we are still very far from a consensus even on the major outlines, let alone the detail—a recent summary precludes the need for detailed discussion here.³⁵ It seems unlikely that we will be able to resolve the issues easily and to everyone's satisfaction and we have to recognise that there is a massive difference between an

³³ D.J. Thompson, "Literacy in Early Ptolemaic Egypt," *Proc. XIX International Congress of Papyrologists* (Cairo 1992) 77-90; *ead.* "Literacy and the Administration in Early Ptolemaic Egypt," in J.H. Johnson (ed.), *Life in a Multi-Cultural Society. Egypt from Cambyses to Constantine and Beyond*, Studies in Oriental Civilization 51 (Chicago 1992) 323-6; S. von Reden "The Politics of Monetization in Third-Century BC Egypt," in A. Meadows and K. Shipton (eds.), *Money and Its Uses in the Ancient Greek World* (Oxford 2001) 65-76; J. Rowlandson, "Money Use Among the Peasantry of Ptolemaic and Roman Egypt," in Meadows and Shipton, *op.cit.* 145-55.

³⁴ D.W. Hobson, "House and Household in Roman Egypt," *YCS* 28 (1985) 211-29.

³⁵ L. Tacoma, *Fragile Hierarchies. The Urban Elites of Third-Century Roman Egypt* (Leiden 2006).

Egypt envisaged as having a population of 4.5 to 5 million people and one with 8 million people in the early Roman period and yet there are proponents of each of these projections. For the moment, we may have to be content to make what progress we can on the local or regional level, with numbers, size and distribution of settlements and their growth and decline.

As for economic performance, what questions can we ask with some hope of a sensible answer and how far can we generalise? Attempts to calculate GDP for the Roman empire do not look nearly sound or precise enough to carry conviction and to be useful. But for Egypt itself we might be able to make a better stab at productivity and taxation levels, at the value or cost of certain categories of activity and perhaps even at a plausible more or less comprehensive economic snapshot for a place such as Karanis or Oxyrhynchus. This will inevitably be based very heavily in the papyrological evidence (if only because there is so much more of it), but it would take account of the archaeological evidence particularly for the ranges and types of goods available, their value (judged against some sort of index) and their implications for the nature of trade and markets. This in turn might generate some quantitative assessment of a "standard of living" which could be measured against some other parts of the empire and against comparative data from other periods and societies.

Attempts to marry archaeological and written evidence for the ancient world have almost always turned out to be less straightforward than might be hoped and to throw up at least as many bad fits as good ones. This at least has the virtue of preventing us from being complacent and always making us ask ourselves why this is the case. The general answer, as always, is not that the evidence does not make sense but that we are for some reason(s) failing to reconstruct the sense which the evidence made in its own original context.

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Response

Both archaeologists and papyrologists have much to offer to historians studying Graeco-Roman Egypt. Both fields can be, and frequently are, quite descriptive. Both fields can be, and sometimes are, model or hypothesis-driven. But we must recognize that what the two fields can offer the many fields on which the rich materials from Graeco-Roman Egypt impinge are very different: precise dates, prices, laws, etc., vs. general trends. What we need to recognize is how the two specializations can work together, complement each other, and work toward a common goal.

First and foremost, we must remember several things.

1) Papyri and other written materials **are** artifacts and need to be treated as such.

2) An archaeologist looks for a series of contexts: features in a room, material on a floor, items in a structure, buildings in a city, settlements in a region, human modifications of a landscape. All artifacts within each context are studied in that context; at the same time, each artifact is studied in the separate comparative world of artifact categories. Both approaches are needed to derive social, economic, and cultural information to help address our knowledge of the history and culture of the group that produced or used the artifacts. Both are needed to aid the archaeologist drawing up his research design. Just as the archaeologist turns to specialists to analyze pollen and seeds, textiles, and so on, so he turns to the papyrologist (or numismatist or epigrapher) as a specialist to help understand what was going on at a site, why artifacts were written, how they ended up where they were.

3) Papyrologists, like other specialists, can extract a certain amount of information from intense study of the artifact, e.g., papyrus, as artifact and by comparing it with similar artifacts found elsewhere (elsewhere on the same site or on different sites). But to maximize the contribution to the study of the historical situation, to

maximize knowledge of this particular artifact, we need to understand the context of its discovery.

As an example from my own field, Egyptology, we can consider the extensive effort which has been expended reconstructing family archives of Demotic (and Greek) texts and then studying the papyri not as single documents floating in time and space but as part of a man-made group of artifacts whose content and variety have extensive implications for reconstruction of not only the history of one (extended) family but also the history of Graeco-Roman Egypt and its institutions. But how much more would we know if we knew where the archives were found, and with what non-papyrological material they were associated. And how much more about some currently uninteresting/unacknowledged location we would know if we knew that this archive originated there. One could begin asking questions about patterns of use, patterns of disposal, and so on.

Twenty-five years ago Don Whitcomb¹ identified three levels of interaction of texts and archaeology: text as artifact (internal to a site), text groups (groupings of contemporary comparable texts including some texts which are external to the site or with a broad or descriptive character), and the extended use of texts with a temporal or geographical distance allowing a generalizing perspective which is at a remove from the individual site, as the equivalent of ethnographic analogy. This extended use of texts does not apply the textual data directly to the archaeological evidence; rather, such evidence is used to create and test the explanatory models constructed from the archaeological and papyrological evidence.

"[In] the study of archaeological remains in an historical period, i.e., remains upon which documentary evidence may be brought to bear, it is necessary to begin with an analysis of the relationship of artifactual and documentary lines of evidence. The correlation of these separate lines of evidence may be expressed in terms of three degrees of relationship. The primary relationship between artifactual and documentary records is internal, in the sense that these classes of objects are both discovered in a specific archaeological context. There is thus an

¹ Don Whitcomb, "Appendix A: Historical Archaeology," in "Trade and Tradition in Medieval Southern Iran" (Ph.D. diss., University of Chicago 1979).

equivalence as objects to be recorded and analyzed as fragments of a contextual depositional situation. The philological and classificatory operations, whether conducted by different specialists or the same individual, contribute equally to the understanding of the history of the archaeological site. Obviously more specialized literary or art historical studies (to give only two examples) are abstractions forced upon objects, divorcing them from their primary archaeological meaning." At the second level "there are, for most historical periods, documents of sufficiently broad or general descriptive nature that (although they may be contextually primary to a particular site or region) they have an external character. The parallel to such documentary evidence is the artifactual assemblage which, beyond simple classificatory operations, is an integrated body of material evidence which reflects the complexities of technological, economic or social organization of that past society." The tertiary degree of relationship "may be characterized as 'extended', most commonly through a temporal difference between the artifactual and the documentary materials. Other types of 'distance' may also be visualized; the crucial characteristic is one of perspective—a perspective which is somehow at a remove and therefore generalizing to varying degrees. For documents pertaining to a site or region, this would usually imply a commentary or description later than the occupation under study.

"The extended nature of this tertiary relationship suggests that the archaeological situation is more on the order of a generalized model approached or built up from two polar extremes. The documentary evidence, abstracted, patterned descriptions in their own right, amplify the model through analogies; that is, they offer interpretations and explanations which may be incorporated into the entire model. In this role, documentary resources operate in the same way as ethnographic analogies which are so constantly in evidence in all archaeological studies. The analogical data is at a remove from both the externally and internally related evidence and may thus be related not to that evidence but to a model constructed from that evidence.

"On the other extreme, the artifactual evidence is organized into similar abstracted, patterned descriptions for inclusion in

the model. This archaeological operation, which may be variously labeled 'processual,' or 'systemic,' is accomplished by methodologies involving the testing of inferences within the artifactual data through increasingly sophisticated hypotheses and analytic techniques. These tested inferences, when successful, may be called 'laws,' 'processes,' or simply patterns; but they properly refer back not to the archaeological situation but to the model of that situation. Thus in the tertiary relationship in historical archaeology a general explanatory model is developed. In the end the methodologies of the documentary and artifactual approaches may seem to be curiously parallel, a 'conjunctive approach' which, when seen clearly, lends an excitement to historical archaeology.

"The segregation of these three degrees of relationship between artifactual and documentary evidence will contribute to the clarification of the possible utilization of these lines of evidence and the separate stages through which the study of this evidence may pass. Misconceptions of historical archaeology stem mainly from the inadvertent mixture of these degrees (or stages) for archaeological operations and inappropriate comparisons between the documentary and artifactual resources which chance to be available."²

In summary, then, texts are, first, artifacts, part of the material discovered at a site, and benefit from being studied in conjunction with the rest of the material from the site; this can be called the internal relationship. Some texts have a broad or descriptive character making them parallel to artifact assemblages as integrated bodies of material evidence reflecting the complexities of the technological, economic, and social organization of the society; this can be called the external relationship. The third level of relationship between texts and archaeology can be called the extended relationship: temporal or other differences between a text and an archaeological site allow a perspective, at a remove, frequently generalizing, which is not applied directly to the archaeological evidence but to the model constructed from the archaeological evidence, that is,

² Whitcomb, *op.cit.* (above, n.1) 200-4.

archaeological and papyrological evidence are used together to create and test explanatory models.

Stephan and Verhooght worked to reconstruct the primary relationship of papyrological artifacts with other material objects and structures with(in) which they were originally deposited, raising important questions about archaeological context, with implications for the use and deposition of the papyri, and raising a series of interesting questions which would not have surfaced without the attempt to return them to their context. When one turns to what the texts tell about the life of a soldier's family, we move from the "internal" to the "external" level, from primary to secondary, and the texts become a more general (re)source.

Keenan looked at the third, or "extended" level, the later perspective. In this case, as Keenan notes, there is also an inverted model, al-Nabulsi working from the center of the Fayyum outward, modern papyrologists and archaeologists working from the fringes in. Al-Nabulsi sets the Ayyubid Fayyum "in a landscape" both natural and man-made. One can't use al-Nabulsi to suggest a direct model for the Graeco-Roman Fayyum, but his data can be used indirectly, and the fluidity he mentions (villages dying, flourishing, etc.) can be part of it.

Davoli also uses "distant" information (i.e., a third-level relationship), this time derived not from a medieval map and historian but from modern GIS/satellite imagery. She is (re)turning to a site which has produced many documents which originally had a primary relationship with the site as artifacts and which have provided general second-level information about life in the Graeco-Roman Fayyum. That is, she is trying to do for much of her sites what Stephan and Verhooght have done for house B167 at Karanis. She expresses concern with town-planning, and her efforts have been concentrated on public buildings. For instance, at Dime (Soknopaïou Nesos) the major Italian work is centered on the *temenos*, including three temples (attested in the papyri). At Bacchias, too, the work has concentrated on the area of the temples and (restored) *temenos*. Although it may well be true that most of the papyri come from the temple area, I see a potential problem: an apparent interest only in public buildings and places where papyri might have been found is only one step removed from a papyrus

hunt, a far cry from modern archaeological surveys and excavations where historical processual or post-processual questions drive the research. Such concentration to provide context for the old materials is laudable; to use it to conceptualize and organize new excavations would be quite another thing.

Here fits Manning's call for more concern with institutions, theoretical models, the use of all available evidence to try to answer larger, dynamic questions. If we appreciate the very different kinds of questions which papyrologists and archaeologists can directly address (specific dates, prices, laws, etc., vs. general trends) and use all three levels of analysis (internal, text as artifact; external, text as part of an integrated body of material reflecting complexities in the organization of past society; text as extended resource helping structure and test models/hypotheses about dynamic relations in society), we will begin to be able to address some broad questions about Graeco-Roman history, including the economic questions which intrigue Manning. Both "sides" will ask better, better informed, more productive questions.

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BOOK REVIEWS

CADELL, HÉLÈNE and GEORGES, LE RIDER, *Prix du blé et numéraire dans l'Égypte lagide de 305 à 173*. Papyrologica Bruxellensia 30. Bruxelles: Fondation Égyptologique Reine Élisabeth; 1997. 100 pp.

In this book the authors, a papyrologist and a numismatist, join forces to consider afresh the question of the rise of prices in Egypt in the first half of the Ptolemaic period. The book falls into three parts. The first part discusses the actual coinage in use in the period under discussion, the second part lists and discusses all prices of wheat that were on record in 1997, and the third part discusses earlier theories and advances the authors' own viewpoints. The authors' main conclusion after carefully reviewing and analyzing the known prices of wheat between 305 and 173 BCE, is that the rise in prices was real, and not, for example, the result of accounting tactics, or a shortage of silver in Ptolemaic Egypt.

The rise of prices in the Ptolemaic period has been discussed extensively in the course of the twentieth century, and part of the value of the present book is a clear presentation and critique of the ideas and theories that have been brought to the fore (pp. 65-73). Another useful feature of the book is the survey of Ptolemaic coinage that was actually in circulation under Ptolemy I-VI. (12-21).

Much has already been said about this book,¹ and its importance for the progressing discussion about the rise of prices in the Ptolemaic period cannot be stressed enough. Equally, the importance of cooperation between papyrologists and numismatists is very clear. Part of the problem of appraising prices in papyri, especially for papyrologists, is to forget that the prices were paid in actual money.

It is rather unfortunate, as also remarked by Bagnall in his important review (see n. 1), that the authors restrict themselves to the prices of grain only. First of all, it is quite clear that the evidence

¹ See, especially, the review by R.S. Bagnall in *SNR* 78 (1999) 197-203. Other reviews: François de Callataÿ, *RBN* 144 (1998) 174-76; André Laronde, *REG* 114 (2001) 289.

for these prices is rather scanty. If penalty prices, which are not as informative about real grain prices as one would want (p. 25), would have been excluded, at present about two dozen texts would have been included, spread out very unevenly over the period under discussion. More importantly, it would be a worthwhile scholarly endeavor to discuss the context of the grain prices by including all other evidence concerning prices of other goods from the same period. Of course, simple one-on-one comparison will not do, as also cautioned by the authors (23), but one should try to tease out as much as possible from all the available data. That this is indeed worthwhile and very rewarding is clear from the authors' discussion of *UPZ* I 149 (52-56).

What is clear from the present book is that the fluctuation of prices (of wheat, but also of other goods) definitely needs to be discussed from bottom up by carefully contextualizing each attestation. Prices depend on a whole lot more than the chronological moment at which they occur, and this has to be made explicit. Prices of grain, for example, depend on the success of the Nile flood, the part of the year in which they are agreed upon, the relation between seller and buyer, and so on.² In discussing their text 10 (*P.Lond.* VII 1937) on p. 34 the authors note that prices of "old grain", i.e. grain of the previous harvest, can be expected to be lowered considerably in the period just before the harvest, when "new grain" will hit the markets. In their discussion of text 12 (*P.Mich.Zen.* 28), however, they note that in years when there was a bad Nile flood, "old grain" prices were bound to go up at that precise moment, due to the (anticipated) scarcity of grain. It would be unfortunate if both such prices, one seemingly low, the other seemingly high, end up in the same table without further comment. The example set by the authors of the present book in discussing and carefully analyzing individual texts before rising to general theory needs to be followed. Only in this manner can the debate continue.

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² See now also *P.Tebt.* V, Appendix II.

FEISSEL, DENIS and JEAN GASCOU (eds.), *La pétition à Byzance*. Centre de Recherche d'Histoire et Civilisation de Byzance. Monographies 14. Paris: Association des amis du centre d'histoire et civilisation de Byzance; 2004. 196 pages. ISBN 2-9519198-2-4. ISSN 0751-0594.

The articles in this volume are derived from papers delivered at a "table ronde" at the XX^e Congrès international des Études byzantines in Paris on 24 August 2001. Following a summary editorial preface are nine articles, four in English, five in French, arranged (in general) chronologically; five are concerned with the empire (Roman, late Roman or Byzantine) at large, four with Egypt in particular. The volume closes (141–96) with a complete, annotated list of 118 petitions-on-papyrus of the fifth-seventh centuries compiled by Jean-Luc Fournet and Jean Gascou. This is a significant resource for research, with frequent but subtle indications of Fournet's worthy project to re-edit all the petitions of Dioscorus of Aphrodito. The articles preceding the list may be summarized as follows:

Tor Hauken, "Structure and Themes in Petitions to Roman Emperors" (11–22). Although the Roman government did not tolerate violent protest, it did allow for written protests in the form of petitions, *libelli*. A particular type of petition, the complaint or *querela* submitted by communities, is represented by six inscriptions and one papyrus dating between 180 and 250. The longest, and only complete, example is the famous inscription from Skaptopara in Thrace, dating to 238, first published in 1890 (it plays a significant cameo role toward the end of Rostovtzeff's *Social and Economic History of the Roman Empire*, 478–79). It was first posted at the Baths of Trajan in Rome, then "cut up and set up as an inscription in the very village of the petitioners" (12–13). H. concerns himself with the basic, four-part structure of this and the other petitions: *inscriptio*, *exordium*, *narratio*, and request (*preces*). He concludes (18–22) with text and translation of the Skaptoparene inscription.

Ralph W. Mathisen, "*Adnotatio* and *Petitio*: The Emperor's Favor and Special Exceptions in the Early Byzantine Empire" (23–32). Based on the legal sources, the practice of the emperors' issuing personal rescripts peaked in the 290s. The subsequent precipitate drop-off might, according to M., be taken to suggest far less personal access to the emperor in later years. A clue to the contrary, however, resides in the "adnotatio," an "underappreciated document" (23). In form *adnotationes* seem to have been brief memos issued in the emperor's name in response to petitions (*preces*), often concerned with the conferral of special privileges or exemptions and without the intention of creating law. M. surveys the assorted uses of the *adnotatio* in the later empire, occasionally alluding to the forms it might take and fully sketching the opportunities it provided for corruption and abuse. Most important (in conclusion), the *adnotatio* establishes that access to the emperor was no less after the 290s (the heyday of the rescript) than before. Rather, "in the early Byzantine Empire, the *adnotatio* assimilated to itself some of the aspects of the pre-Constantinian personal rescript, and became the primary means whereby citizens could personally benefit from the emperor's favor" (32).

Denis Feissel, "Pétitions aux empereurs et formes du rescrit dans les sources documentaires du IV^e au VI^e siècle" (33–52). In a limited sense, the text of this important chapter is a commentary introducing its two "annexes": I. "Liste des pétitions aux empereurs (IV^e–VI^e s.)" (45–49), with 44 entries, and II. "Rescrits du VI^e s. référant à des pétitions" (50–52), with 35 entries. The petition is the "germ" out of which a full dossier must have emerged; but most often the petition survives without its corresponding rescript and vice versa. The deficiency can be partly remedied because petitions often specify the type of rescript expected, even alluding to its "tenor," while rescripts tend to allude to their initiating petitions. In both cases, the substance of the missing halves can be at least partly reconstructed or imagined. Petitions, according to F., tend to be uniform in their constructions while rescripts tend to vary in type. *CJ* 1.23.7 pr. (477; Zeno) makes a basic binary distinction between the direct and the indirect rescripts. The former, the *adnotatio*, was issued directly to the petitioner, taking the form (often) of a brief memo fortified with the imperial signature; the latter, the

pragmatic sanction, was issued, or at least addressed, not to the petitioner himself but to an intermediary (e.g., a *iudex*, often a provincial governor). F. discusses several documents that seem to illustrate the *CJ* distinction. In the early fifth century, however, the pragmatic sanction began to displace other types of rescripts and it is never accompanied by its petition. After 451, no petition-rescript combination survives. "With the pragmatic sanction, the rescript thus acquires a complete diplomatic independence with respect to the petition that has initiated it" (40, my translation). Still, when a pragmatic sanction is well-preserved (most coming from the *Novels* of Justinian, some from inscriptions, or from documents of the Dioscorus archive), it will include key words that allude to the process by petition and can (e.g., *Nov.* 155) reproduce the structure and substance of its initiating petition right down to its *narratio* and *precatio*—and even its general layout, or plan, right down to corresponding divisions by "chapters" (e.g., *Nov.* 136, *Eds.* 7 and 9, and the 27-chapter pragmatic sanction *pro petitione Vigilii*). In this way, pragmatic sanctions, incorporating so much of the petitions that inspired them, eliminated the need for reproducing the texts of those petitions.

Roger S. Bagnall, "Women's Petitions in Late Antique Egypt" (53–60). B. points to the great drop in the proportion of petitions submitted by women after A.D. 400. Since petitions in their relation to the documentation at large remain numerically stable, this drop cannot be credited to chance. Women's earlier prominence as petitioners in papyrus-documents is substantiated by the many imperial rescripts issued to them in the Tetrarchic period; their virtual disappearance as letter-writers after the fourth century seems significant, perhaps an indication of "changes in women's ways of participating in the culture of communication" (56). Earlier, women from various social strata submitted petitions on a variety of topics, with or without male guidance; later, they tend to be well-to-do widows concerned with matrimonial property. Their role is similarly restricted in surviving reports of arbitration proceedings. The statistics raise important questions about women in late antique Egypt—for now left unanswered—but they do at least suggest a general reduction in women's public prominence after 400 and, contrary to existing belief (as exemplified in Beaucamp's and Arjava's

important studies), significant change in women's position over time.

Jean-Luc Fournet, "Entre document et littérature: la pétition dans l'antiquité tardive" (61–74). F. considers the "literarization" of petitions in late antiquity, with their preambles (or *prooimia*) modeled on the literary *enkômion* and their conclusions modeled on the *eucharistêrion*. It is in the former, later gathered into anthologies, with their stereotypical allusions to the recipient's generosity (φιλανθρωπία) and sense of justice (δικαιοσύνη), that the influence of rhetoric is most apparent. These and other themes or *topoi*, remarkably stable over time, were to be found in handbooks like those of Menander Rhetor (see especially Menander's *πρεσβευτικὸς λόγος* reprinted with translation and commentary, 64–67); the handbooks in turn apparently provided "matrices" for late antique petitions, in terms of structure, themes, formulas, and diction. In the example from Menander, the ambassador's public oral discourse is transformed into the petitioner's private written plea. Also influential upon petitions was literature itself, but especially poetry (discussed in special relation to *SB XIV 11856 = P.Berl.Brashear* 19 [67–69]), to such a degree that a new genre, the petition in verse, came to be created (discussed in special relation to *P.Aphrod.Lit.* IV 1 [70–71]). Even technical details of format (writing along the fibers in lines of relatively great length; diacritical marking) suggest that petitions were moving in the direction of literary texts and being deliberately distinguished from the general run of documents. In short, in the late antique petition, the line between document and literature was being blurred. The evidence, it is true, mainly derives from the petitions of the Dioscorus archive, but F. makes it clear by means of other examples that this phenomenon was not particular to Dioscorus, but general over the empire.

Constantin Zuckerman, "Les deux Dioscore d'Aphrodité ou les limites de la pétition" (75–92). Z.'s concern is mainly with the four rescripts, sometimes in two or three copies (*P.Cair.Masp.* I 67024 [recto and verso]–67025, 67026–67027, 676028, 67029), obtained by the villagers of Aphrodito in connection with journeys to Constantinople in the mid-sixth century; these together with related petitions and letters create "un dossier exceptionnel" for the practical functioning of the rescript system under Justinian. In Z.'s recon-

struction, the villagers in their famous problems with tax collection turn to Constantinople only following the death of their ancient patron, Count Ammonius, in the latter half of the 540s and following still earlier contacts, 540/1, with the imperial capital on private legal matters. Significantly, based on recently available prosopographical evidence and a textual emendation, Z. argues that the beneficiary of the rescripts as preserved in *P.Cair.Masp.* 67026–67027 (copies of the same document with slight differences, the former but not the latter in the hand of the famous Dioscorus) and in 67028 was not the archive's principal Dioscorus, but a secondary Dioscorus (son of Megas), a relative by marriage. (See, independently, along the same lines but with a divergent conclusion on 67028, Peter van Minnen, "Dioscorus and the Law," in Alisdair A. MacDonald, Michael W. Twomey, and Gerit J. Reinink, eds., *Learned Antiquity: Scholarship and Society in the Near-East, the Greco-Roman World, and the Early Medieval West* [Leuven-Paris-Dudley, MA, 2003] 115–33, with Z.'s additional note, 91–92.) If this is right, it eliminates any lingering concerns, beginning with Maspero's and based upon biographical incompatibilities, that the rescripts were fictive exercises rather than documents authentic in their substance: they concern, after all, real cases (80). We are still left to assume that hopeful petitioners, in the interests of expedition, supplied imperial bureaus with texts of the rescripts they expected to obtain. The official, authoritative copies of the rescripts obtained by the villagers (see the references in *SB* IV 7438 and *P.Cair.Masp.* I 67032), now lost, would have rested with their provincial governor, the duke of the Thebaid, to whom [as pragmatic sanctions] they were addressed. Even more broadly significant, the rescripts and related documents from Aphrodito establish, in Z.'s presentation, the accessibility of Justinian to all kinds of petitioners and litigants who were teeming into and settling in the imperial capital (see *Nov.* 80), an interference criticized by Procopius as destabilizing the judicial system as a whole. Based on the documents, however, Z. argues for Justinian's respect for due process and judicial latitude on the local level. Contrary to Procopius' insinuations, the emperor merely addressed the law and named the judges, leaving to them the assessment of the merits of the cases. The next steps, formal delivery of the apposite rescript and presentation of the defendant in court, seem

to have been the responsibilities of the *exsecutor negotii*, whose services the Aphroditans secure contractually in *P.Cair.Masp.* I 67032 (extensively summarized and commented upon, 86–90), with its detailed instructions to the judge (the duke). In all, the Aphrodito documents support the notion that the reign of Justinian was the apogee both of the rescript system and of "hands-on" imperial government. Devolution followed. As an example, Z. contrasts *Nov.* 8 of Justinian (535), which insists upon provincials reporting malfeasance of governors, and *Nov.* 149 (569) of Justin II, which short-circuits such complaints. Where exactly to locate the beginnings of the devolutionary trend may be debated; John Lydus would seem to blame Justinian's own administrative reforms of the mid- to late 530s (cf. Christopher Kelly, *Ruling the Later Roman Empire* [Cambridge, MA, 2004] *passim*).

Jean Gascou, "Les pétitions privées" (93–103), based on the list of petitions (141–96), points to a decline in petitions *stricto sensu* from the end of the sixth century, in absolute terms, for all Egyptian provenances; they were replaced by a hybrid form that might be called the "epistolary petition," or by the letter form pure and simple. This may indicate a move toward new procedures, as evidenced (for example) by the increasing number of extra-judicial arbitration agreements and by complaints that came to be addressed to religious authorities. From the list of petitions, G. isolates a dozen which he labels as "private," addressed as they are, not to public officials, but to great landlords apparently acting in private capacity. His interest in them is principally as an evidentiary coda in support of his famous "model," or "thesis," as propounded in "Les grands domaines, la cité et l'État en Égypte byzantine," *T&M* 9 (1985) 1–90. Two petitions to the Apiones from their *coloni* are especially significant (*P.Oxy.* I 130, XXVII 2479) for the hereditary (not legal or contractual) status of the *coloni*; but petitions from corporations of craftsmen from outside Oxyrhynchus serve an even greater purpose. They help respond to critics who have held that the "model of fiscal shares" (Jairus Banaji's term) by which the landlords themselves formed a kind of college, or network of semi-public "houses" (*oikoi*), defraying costs of infrastructure and assuming public responsibilities of various kinds (public safety, but especially taxes) for those without shares, was limited to the

Oxyrhynchite. (Recent discussion: Todd M. Hickey, *A Public 'House' but Closed: 'Fiscal Participation' and Economic Decision-Making on the Oxyrhynchite Estate of the Flavii Apiones* [University of Chicago diss., 2001], at 1–6 and *passim*.)

Marie Nystazopolou-Pélékidou, "Les *déiseis* et les *lyseis*. Une forme de pétition à Byzance du X^e siècle au début du XIV^e (105–24). In general, the papers in this collection operate independently. This one is the exception, especially in its frequent references to Denis Feissel's paper. In general, according to N.-P., the terms in her title refer respectively to petitions to the emperor and to their replies. The two items form diplomatic wholes that should be studied together (see above); they descend from, or reflect, the Roman distinction between *libellus* and *rescriptum*. N.-P.'s discussion is based on her own list of relevant documents (120–24), 50 in all, dating from 959–963 to 1320. Notable is the hiatus of documentation between the seventh and tenth centuries. Even in the list provided, early and late examples are sparse; the real concentration, or uninterrupted series, falls between the mid-eleventh and the very early thirteenth centuries (to 1204). The latest examples, for which one must accept that some changes in terminology did not entail changes in substance, show the system lasted longer than scholars have thought, but still leaves the problem of silence after 1320. Again, we see petitions classified as public or private, of general import and therefore law-making, or law-conforming and limited to particular cases, indirect (issued to intermediaries) or direct (issued to the petitioners themselves). The nature of the survivals is noteworthy: they are copies, never the originals; most were preserved by and reflect the legal interests of monasteries. It was practice to write the petition on the recto and the relevant reply on the verso. N.-P. accepts that the functionary in charge of receiving petitions and issuing replies was "probably" the *epi tôn deêseôn*, providing a convenient segue to the next paper by:

Rosemary Morris, "What Did the *epi tôn deêseôn* Actually Do?" (125–40). The official in question, sometimes referred to as the "Master of Petitions," makes various appearances in literature and documents of the tenth to the twelfth centuries. He was a high civil official (sometimes holding other offices) with frequent and direct physical access to the emperor; a person of trust, often from one of

the empire's great families, sometimes even related by blood to the emperor. "We must also, of course, assume that he had some kind of legal training [there is some evidence for this], which was brought to bear on the petitions which reached him in his capacity as an imperial civil servant" (135). M. surveys the disparate and sometimes unsatisfactory evidence, drawing as much as she can from prosopographical connections and adding thumbnail studies of cases in which the Master of Petitions was actively involved. Along the way, M. has some very interesting things to say about the difficulties of presenting petitions to the emperor (in contrast to the literary *topos* touting imperial accessibility).

The volume, with its wide variety of concerns and broad chronological scope, testifies, despite evidentiary gaps, to the perseverance of the petition-system in the Roman, late Roman and Byzantine empires. Petitions were clearly means by which ordinary people and private institutions could tell tales that might be heard (or read) by and responded to by someone in authority, often nominally the emperor himself. How successful petitioners were is hard to gauge. We can only hope that Roman and Byzantine petitioners fared better than petitioners supposedly do in China today, where petitioning is active (a 60% rise last year [2004]) but reportedly risky, where an estimated ten million petitions are ongoing and the success rate is pegged at only two per thousand ("Write Us a Letter: The Ancient Practice Gives Poor People a Voice, but Not Justice," *The Economist* [April 23rd–29th 2005] 43). Here it's not the absolute number (which the pre-modern world cannot possibly match) that matters, but the overall rate of success—whatever "success" may mean in practical terms.

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REDFORD, B. DONALD, *From Slave to Pharaoh. The Black Experience of Ancient Egypt*. Baltimore: The Johns Hopkins University Press; 2004. 218 pages + ill. + maps. ISBN 0-8018-7814-4. \$44.95.

In this well-written and engaging book, Donald Redford examines two millennia of power relations between Egypt and its southern neighbors. The core of the book is the section on the Twenty-fifth dynasty, the so-called "Black Pharaohs," which is based to a large extent on the author's fieldwork in Thebes.

In the first ten chapters (pp. 1-85) the author rapidly and very summarily presents and discusses much of the textual and archaeological material from the end of the fourth until the early first millennium BCE, in which the southern neighbors of Egypt played a role. This portion of the book largely gives the Egyptian point of view, as seen through the available sources. An interesting chapter here is the one about the Egyptian administration of Kush (Chapter 6).

In the remaining five chapters (pp. 86-144), Redford analyzes the rise and fall of the twenty-fifth dynasty. Here again, there are textual and archaeological sources, but their treatment is much more thorough and balanced than in the earlier part of the book. In particular, the author uses still unpublished data from his own archaeological fieldwork in Thebes, which are a welcome contribution to this interesting period in Egyptian history.

The book is presented, especially in the descriptions on the cover, largely in terms of "race," and this is rather unfortunate. First of all, the book is much more. It is a careful historical narrative of Egypt under the Twenty-fifth dynasty, its politics, administration, and dealings with the northern part of the country and the Assyrians in the east. In fact, outside the cover, the only reference to "race," as is apparent from the index, is on page 1, referring to the use of this term in now outdated theories. In the remainder of the book Redford is much more subtle in his discussion of power relations between Egypt and its southern neighbors, framing it more in terms of ethnicity and identity. Secondly, after reading this

book, we do not know who the ancient Egyptians, or their neighbors, *were*; we only know how they chose to view each other in relation to one another.

The main identity that comes to the fore in this study is Egyptian royal identity, which could be called an "identity of power." It is shown and explored in Egyptian royal epigraphy and imagery, indeed the main sources used in this book. This identity involved, among others, presentation of the adversaries (whether in the south or the north) in negative terms, as everything that Egypt was not (see pp. 6-7). This Egyptian "identity of power" was conceived as successful, so that it is not surprising to see that Kushite rulers, like their Macedonian and Roman counterparts later, aspired to it, without necessarily becoming "Egyptian" in the process.

As mentioned earlier, the main contribution of the book is the section on the Twenty-fifth dynasty. The overall result is a well-argued synthesis for this period, its politics, administration, and (domestic) building activity, which makes one eager to learn more about the results of the author's excavations.

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ZUCKERMAN, CONSTANTIN, *Du village à l'Empire: autour du Registre fiscal d'Aphroditô (525/526)*. Centre de Recherche d'Histoire et Civilisation de Byzance. Monographies 16. Paris: Association des amis du centre d'histoire et civilisation de Byzance; 2004. 287 pages + 18 plates. ISBN 2-9519198-4-0. ISSN 0751-0594.

The Register of the title is mainly derived from the leaves of a documentary codex in Florence published by Vitelli and Norsa in 1915 (*P.Flor.* III 297).¹ To these are added three leaves from Strasbourg that bring the Florentine register to virtual completion. The resulting document presents 18 columns with three separate accounts and two summary tables. The first and third accounts are of tax payments made by village property owners recorded, respectively, in terms of gold solidi (I–IX) and copper carats (XI–XVI); the second records cash payments by artisans' corporations (X). There are nearly 570 entries in all. One table (XVII) recapitulates the intermediate totals given at the ends of the earlier columns; the other (XVIII) summarizes expenditures. The Register occupies roughly half the original codex. Of the codex's other pages, some (now lost) were torn away for other uses; other pages, notably after each of the three accounts, were left blank by intention: the scribe at the tax year's beginning wished to reserve enough space to finish off each account separately and without overlap by year's end. Some of these pages were later used for inditing receipts dating to 557/8 and 559/60 (for which, see J.-L. Fournet, *APF* 46 [2000] 233–47). From this, Zuckerman (hereafter Z.) suggests (25–26) that the codex was at some time borrowed by Apollôs, head of a leading clan of Aphroditô, during a time of official service to the village. Never returned, the codex was later discovered by his son Dioscorus among his father's papers. Dioscorus then made use of some of its blank sheets, some of these being torn away, others left in place.

The Register is the work of three different scribes. The second is less accomplished than the first, who is identified as the *boêthos*

¹ I am indebted to Todd M. Hickey both for discussion and for several key references below. The translations throughout the review are mine.

Abraham son of Apollôs; the third, probably the *hypodektês* Mousaios, is less skilled than the second, whose identity is beyond recovery. The text, as mentioned, mainly records cash payments made at Aphroditô by owners of land classified as *komêtika*, that is, liable to the treasury of the village. Z. presents a full new edition, but with an interesting—or, depending on your point of view, a curious—inversion in format. What seems to have begun as a conventional papyrus edition reverses expectation. The edition, with its translation and very brief notes, is converted virtually into an appendix (pp. 248–84). History takes over in the form of an extensive Introduction, in effect a monograph (pp. 21–246)—but in fact more than a monograph, since the goal is to try to show that the evidence of "an isolated Egyptian village" (*un village égyptien reculé*—12) has significant ramifications for the Byzantine empire at large. Even as a monograph the book stands out as a mixture of genres: "Ce livre mélange les genres," as the author says in his "Avant-Propos." Major concerns are monetary issues, including gold vs. copper ratios, inflation and devaluation, and the still grander aspects of "fiscalité," a French term for which there seems to be no satisfactory English equivalent; "fiscalism," I suppose, comes close, but it's an ugly word. In any case, "fiscalité" surely includes the system of tax collection, its organization, procedures, and personnel. In sum (and to repeat, because this is crucial), Z. proposes that the solution to imperial historical problems are discoverable at the level of an Egyptian village: "This Egyptian village is revealed to be a faithful representation of imperial society, a microcosm where the problems among the most debated of the economic and social history of the Late Empire have left their imprint and perhaps the key to their solution" (12). This is every papyrological historian's dream.

Chapter 1 ("Une source à reconstruire: le Registre et son contexte," 21–56), as its title indicates, sets the Register within the larger documentary framework, mostly papyrological but also legal. Critical to Z.'s project is the dating of the codex, which like so many fiscal records from Aphroditô has a year date by indiction only: the 4th. Among other indications, the presence of the *defensor* Paulos (l. 656) and the deaths of two erstwhile-known shepherds (ll. 260, 518) point to a year dating of 525/6. It is therefore the last in a cluster of

land surveys, crucial for the official tracing of the village's agricultural taxes. Z. establishes the following scheme (32–40):

The Survey (*metrêsis*) of Dioscorides (undated; see *P.Vatic. Aphrod.* 25C, 23–24)

The Survey (*metrêsis*) of Mammas: shortly before 512/3 (see *P.Cair.Masp.* I 67042, 6th indiction; but cf. p. 236: "vers 516"—a typo?)

The Supplementary Survey (Codex; *summetrêsis*) of John the *scholasticus*: ca. 523, if not early 524 ("vers 524," p. 236; cf. *P.Cair. Masp* III 67329, May–June 524: John's Survey was then "recent"; it covered the entire Antaiopolite nome, and was a revision of Dioscorides' survey).

The Cadaster of Aphroditô (a fragmentary tax list for *ktêmata* classified as *astika*, that is, as owing taxes to the city of Antaiopolis; J. Gascou and L. MacCoull, "Le cadastre d'Aphroditô," *T&M* 10 [1987] 103–58): "vers 523"/before summer 524 (apart from marginal emendations; date based on relationships with *P.Cair.Masp.* III 67329 and II 67150)

The Aphroditô Register, 4th indiction (525/6) (see above), complements the Cadaster and provides numerous cross-references (*recouplements*), not only entailing individuals but also institutions, especially the Panopolite monasteries of Apa Zenobios and Zmin.

Especially enlightening is the presentation of the prosopographical links between the Cadaster and the Register in terms of land ownership by city-dwellers and villagers, village agrarian entrepreneurship, undivided and divided inheritances, land tenancies and exchanges. Implicit in all this is a sense of a massive loss of documentation. Many of the Register's entries suggest, for example, lost contracts of lease, receipts for rent, and orders for payment; almost all imply lost receipts for taxes. Divided inheritances also imply lost documentation. And bear in mind, most of all, that this Register is merely one register for one year in the life of one village, a type of document that was produced by the thousands in the empire each year. This one has the distinction of being the lone substantial surviving example of its genre. It not only shows what village landowners paid what amounts into the village treasury

(*dêmosios logos*), but also how these moneys were apportioned out under various budgetary headings (cf. 22).

Z. pursues the chronological angle further (40–51) by aligning a series of accounts, tax receipts, and orders for payment within a single indictional cycle (A.D. 537–552), assembling them into "Le dossier budgétaire d'Aphroditô, 537–551," consisting of some thirty documents, most from *P.Cair.Masp.* I, whose central figure is the *hypodektês* (tax-collector) Iôannês. Not every year from the cycle can be recovered, but the exercise works. The series of assumptions used to organize the dossier leads to coherent, if not absolutely assured results ("Il est toujours utile de rappeler qu'un argument tiré de la cohésion du dossier apporte une présomption et nullement la preuve"—47). The method is unavoidable: to evaluate the propographical clues within each text; then to try to establish relative dates with reference to other documents in a series; then, when the relative order seems well-founded, to assign absolute dates for all the documents in the ensemble. (These steps are not as discrete as I have made them out to be.) Part of the method is to assume the closest possible association of the indictional years in any given series. For a simple example (purely illustrative), if two obviously associated documents refer to a 1st and to a 15th indiction, rather than assume a thirteen-year gap between 1st and 15th indictions, you place the 15th-indiction document first, the 1st-indiction document second, as falling in successive years: the tighter the chronology the better. This is a method I tried myself twenty years ago (*BASP* 22 [1985] 137–69; see esp. 152 and 166), but that small effort pales when set against Z.'s complex and convincing tapestry. Z. ends his first chapter by setting the Aphroditô documentation within the larger administrative structures of the reign of Justinian (52–57), hypothesizing on the basis of assorted papyrus references that Edict XIII, dating to late 538, was preceded and followed by other reformatory measures (now lost), dating respectively to 536/7—an imperial administrative reform of the Thebaid, a province only lightly treated in Edict XIII—and 546/8—an edict concerned with military unit reassignments, and corresponding adjustments to the *annôna*, changes introduced into the Thebaid by the Praetorian Prefect Ploutinos.

The payments in the Register are recorded in both of the two prevailing currencies: gold solidi and copper reckoned in carats (Chapter 2, "L'Or et le cuivre," 57–114); silver had for some time been reserved for ceremonial medallions (cf. A. H. M. Jones, *Later Roman Empire* I 438–48, at 440). Z. traces the history of imperial coinage from Diocletian and Constantine on, with attention to the relative values of gold and copper and the shift from calculating copper payments by units to reckoning them by weight. Then came Anastasius's two-stage currency reform (A.D. 498, A.D. 512), as a consequence of which copper coins could again be accepted as units, subject to "revalorisations" as the mass of gold in circulation increased (66). In his discussion, Z. does not so much dismiss as ignore the parallel discussion in Chapter 3 of Jairus Banaji's *Agrarian Change in Late Antiquity* (Cambridge 2001), rarely cited and not in Z.'s list of principal "études," 16–18; but there is clear agreement on the part of both scholars (more manifest in Banaji) that a monetary economy based on gold was flourishing, and expanding, in fifth-sixth-century Egypt.

Z. along the way (66–68 and *passim*) addresses the conundrum of the Egyptian "minus-carat" system. This is especially important for the Register in that entries for payments in gold solidi are all entered as being at least "minus 2 carats." The discussion comes down to this, I think. On the one hand, the Register's solidi are invariably described as being "of full weight" (ζυγῶν, therefore heavier than solidi on "the goldsmith's standard"), and Z. agrees that the wear on these gold coins when in circulation would have been negligible (contrast Banaji, *loc.cit.*: weight loss from wear was considerable and itself a sign of the velocity of circulation; in detail, on Banaji's "metrological" solution to the problem: "Discounts, Weight Standards, and the Exchange-Rate between Gold and Copper: Insights into the Monetary Process of the Sixth Century," *Atti dell' Accademia romanistica constantiniana: 12 Convegno internazionale in onore di Manlio Sargenti* [Naples 1998] 183–202, esp. 185–93). On the other hand, some specimens on inspection proved to be damaged (*abimés*—but not from wear?) and others when weighed en masse proved to be underweight. The two-carat deduction for each solidus proved therefore an advance, safe-side surcharge on payments in gold coins in case they turned out to be under-

weight and a way to prevent time lost to possibly interminable debates about the value of individual coins. Extra value collected in this way would cover administrative costs or be deposited as budgetary reserve (cf. 187) in the village treasury. (Deductions to solidi beyond two carats represent change returned to the taxpayer.) There was no parallel surcharge for payments of smaller amounts (as a rule, 16 carats or less) in copper. Thus, payments in gold were surcharged while payments in copper were not.

Prima facie, the surcharge on the payer-in-gold seems puzzling. If anything, one would expect the disadvantage to run the other way (cf. the array of possibilities succinctly outlined in Klaas A. Worp and Todd M. Hickey, *BASP* 34 [1997] 79–109, at 84–91)—or a "revolt" on the part of richer, more heavily encumbered taxpayers (cf. Banaji's remark, "Discounts," 187). That solidi in the Register may have been units of account is something Z. does not consider at this point (cf. economist George Grantham's review of Banaji, *EH.NET*, May 2004). It is, I think, pertinent that 331 of the Register's 340 payments recorded in gold are for one solidus minus X carats. See also col. X, where payments in the one-solidus range are made regularly to artisans in the plural (most often carpenters, τέκτονες)—somewhere somehow change had to be made. Finally, as mentioned, Z., like Banaji, argues for an increasing circulation of gold, and explains the putting into circulation of copper coins as dependent upon exchanges between bankers and the government. The increase in gold coinage led to its inflation and also to its devaluation in proportion to copper, especially where copper was in short supply. One can only wonder at this.

Chapter 2 closes with two appendices: A (93–96), on the date of the Tariff of Abydos, and B (97–114), on Justinian's Edict XI (text and commentary).

The long Chapter 3 ("La fiscalité," 115–219) covers all facets of Byzantine taxation especially as it bore upon Aphroditô's local populace, personnel and procedures during the time when the village was fiscally autonomous, or "autopract"—an autonomy it had to struggle to retain, but eventually lost, according to Z., in the mid-550s. Here I sketch some highlights, and these in simplified form. To begin with, the principal regular goals of imperial fiscal policy were to provision the imperial capital; to support local mili-

tary garrisons; and to pay for the bureaucracy and its expenses, both by way of *annôna* and by way of formalized lagniappe through customary annual dues called *synêtheiai*. Taxation was both in kind (especially "*sitos*" for *annôna* both civil and military) and in cash ("*chrysos*" for *kanonika*), see *P.Cair.Masp.* III 67329, an important text. With respect to the military *annôna*, there was a shift over time from payments in kind (wheat then bread; wine; meat) first to partial, then to total payment in cash. In other words, military "fiscalité annonaire" disappeared (cf. 176–78) and with it came a blurring in practice of the distinction between the Praetorian Prefecture (as receiver of taxes in kind) and the Sacred Largesses (as receiver of taxes in gold). The *annona civica*, however, for provisioning Alexandria and Constantinople remained.

On the local level everywhere the principal fiscal basis was land. Oversight of local tax collection, as evidenced at Aphroditô, was the responsibility of the village headmanship, *prôtokômêteia*, an office analogous to a municipal liturgy, unpaid, shared among several village "clans" and invariably collegial, normally with two or three men serving at a time for terms not limited to a year. Taxes collected were stored in the village treasury (*dêmosios logos*). From within the village, physical coercion was primarily applied by the police officer known as the *riparius*, appointed by the provincial governor on nomination by the *prôtokômêtai*. Keeping the relevant tax lists accurate and up-to-date, with the assistance of the *prôtokômêtai* (who also wrote many of the necessary payment orders), was the charge of the *boêthos* (sc. *logistêriou*), who was therefore, according to Z., the principal scribe of the Register under study here (see above; Z. is the first really to put the *boêthos* on the administrative map: 128–33). Unlike the *prôtokômêtai*, the *boêthos* was remunerated for his services. He had to attend to annual adjustments to registers to account for land transfers, or changes in tenancies, or (say) for the divisions of holdings formerly held in common by right of inheritance. The rhythm of his work, and of the fiscal year in general, followed "the logic of the agricultural calendar" (130). Taxpayers paid their regular land taxes, or *kanonika*, in installments (*katabolai*), two a year for smaller landowners, three or four for larger, with three standard for the Thebaid (as reflected in the Register). Payments recorded in gold were staggered, small

balances being eventually paid off in copper. These payments were "received" by the (unpaid) village *hypodektês* and, when Aphroditô was "autopract," conveyed by him directly to the provincial treasury in Antinoopolis (138). It is later (180) explained that the *hypodektês* received the cash taxes that were actually collected by the *boêthos*, who conveyed them to the provincial treasury under the supervision of the *prôtokômêtai* and made small payments to functionaries and for other purposes. Both the *hypodektês* and the *boêthos* issued receipts to individual taxpayers.

At the time of the Register, Aphroditô supported both the Pharanitai of Bau and the *numerus* of Antaiopolis (150–59). Later, by the mid-530s, the Pharanitai drop from the Aphroditô record while the *numerus* of Antaiopolis remains. This, too, disappears from the village scene toward 547, a lingering remnant of a military reorganization that Z. dates to Narses' campaign around Philai in 536. Shortly after 536, at Bau, the Pharanitai were replaced by the *Skythae Iustiniani*. At this point (160–70), a detailed discussion of military rations and effective diet over time intervenes. This is followed by an assembly of evidence for the changes of military dispositions in the Thebaid in the reign of Justinian (170–78), with some repetition of earlier discussion in slightly different terms. Z. sees a decline in the number of military units in Egypt through the fifth century (substantially reduced from the time of the *Notitia Dignitatum*), with new and surviving sixth-century units concentrated in Alexandria and the Thebaid and a troop total of only 5,000–6,000. Units on the frontiers tended to disappear. It was the break in the close geographical association between agricultural communities and military units that increasingly rendered the payment of military *annôna* in kind cumbersome and, ultimately, obsolete (178 and n. 173, *contra* Walter Kaegi); it was replaced by the system of *coemptio*, "the requisition of foodstuffs sold back to the taxpayer at market price under the form of fiscal credit for the year in progress" (178). Thus, in essence, the requisitions of (military) *annôna* come to be expressed in kind, but collected in cash, while the *kanonika* were both requisitioned and collected in cash (stated in terms of gold) (179–80). The *kanonika* covered in simplified form a variety of charges administered by the Sacred Largesses. Both sets of taxes were collected locally by the *hypodektês* (180–82), with

the *kanonika* normally collected, as in the Register, in three installments whose dates were staggered but not fixed (182–85). Accounts were carefully balanced (185–87) to keep receipts and expenditures in virtual equilibrium.

As Jean Gascoü (who would know better?) points out in his Preface, registers like Z.'s have a special evidentiary value, a claim to truth that documents like petitions (say) with their prejudicial rhetoric lack. We may expect from such banal and (to be truthful) boring documents an objectivity that others lack. And we can move from the anecdotal to the statistical. Z. himself claims (13) to stress evidence over models, and in this he is inspired by A. H. M. Jones and his own more direct intellectual antecedents, Rémondon and Gascoü. But much in Chapter 3 does entail extensive quantitative modeling beyond the limits of the Register itself. For example, toward the end of Chapter 3, Z. addresses the mechanics of the collection of *annôna* on the local level (189–93) and the history of the *annôna civica* (194–200) since Constantine (and its various problems). Also considered, and clearly distinguished, is "the *annôna* of houses" (*panes aedium*) (200–04) in Constantinople. Z. estimates that 70,000–80,000 individuals may have been supported by the former, 20,000–40,000 by the latter—a maximum of 120,000 by both. This is set against a resident urban and suburban population of around 750,000 (higher than the estimates of Jones and Durliat) based on dietary calculations upon the number of people that could have been fed by the eight million artabas accorded to Constantinople from Egypt by a famous provision in Edict XIII (205–06). The plague, which a few years after the Edict swept through north coastal Egypt in the summer of 541, hit Constantinople in the autumn of the same year (Theophanes), or the spring of 542 lasting till mid-summer (Procopius). The wheat from Egypt delivered (in 542), and about to be delivered (in 543), was more than enough for the capital and in a clever and effective *ad hoc* move (*pace* Procopius) was sold off by Peter Barsymês the Praetorian Prefect to provision other cities in need. A 20% drop in Aphroditô's quota for 544 suggests, for Z., a general drop in the Egyptian quota, partly to accommodate a mediocre harvest, partly because the demographic catastrophe in Constantinople ("une chute démographique brutale") lessened the quantity of wheat needed to feed

the remaining inhabitants. Subsequent miscalculations, however, would come to have disastrous consequences in the next two years and end in Peter's dismissal from office. Z., in surveying the ancient figures for the plague's mortality and the full range of modern estimates in terms of numbers and percentages, settles on a mortality of 240,000 in a population of 730,000-750,000, in other words, nearly a third. The return of Aphroditô's quota to pre-plague norms suggests to Z. that in six years Constantinople had recovered demographically to its pre-plague numbers, albeit not so much from reproduction of the native population as from an opportunistic, and ultimately detrimental, immigration from nearby cities.

In Chapter 3's Epilogue (213-19) reside some of the monograph's principal general conclusions. It begins with a consideration of *P.Cair.Masp.* I 67002 of 567, the famous and lengthy petition of the villagers to Duke Athanasius, for what it has to present about village taxes. Among other points, Z. suggests this text establishes that during Justinian's reign, at about 550—a calculated guess based on the unknown terms of office of the eight pagarchs preceding the villainous pagarch Mênas—the village had lost its autonomous tax status. In addition, the petition reports three separate exactions made by Mênas upon the villagers for payments in solidi. Unlike Banaji (*Agrarian Change* 27, cf. 59 and Table 7 on 230), who indiscriminately lumps all three figures into the sum of 1,017 solidi, Z. wisely separates the three figures that contribute to that total, 117 + 200 + 700, as distinct entities. Banaji, on his part, concludes that taxes in solidi nearly tripled at Aphroditô during Justinian's reign; Z., who treats the 200 solidi as a surcharge, concludes (216) that the basic tax on land had increased by nearly a third. Both scholars, citing in addition *P.Hamb* I 56 as studied by Rémondon (*CdÉ* 40 [1965] 401-30), conclude that taxes at Aphroditô had spectacularly increased during Justinian's reign.

My only problem with all this is that the confusing interior chronological markers of *P.Cair.Masp.* 67002, as I see them, make it hard to be sure that the figure of 1,017 solidi represents village dues in cash (whether *kanonika* or *kanonika* plus surcharge) for one year only. But let us agree, anyway, that taxes did increase dramatically. Nevertheless, Banaji still presents an empire that flourished well into the seventh century (cf. Peter Sarris, "Rehabilitating

the Great Estate: Aristocratic Property and Economic Growth in the Late Antique East," in William Bowden et al. [eds.], *Recent Research in the Late Antique Countryside* [Leiden, 2004] 55–71), while Z. portrays an impoverished and desperate government, successfully but hopelessly raising revenues, on an increasingly speeding treadmill, so to speak, trying to recover from the aftershocks of the plague, an event that Banaji completely ignores. Although the plague makes only one possible appearance in the Aphroditô papyri (*P.Cair.Masp.* III 67283 I.9), its effects, or imprint, can be seen, according to Z., in Aphroditô's mounting money taxes and in the sale after receipt in Constantinople of excess collections in kind from the *embolê* (*annona civica*). There was a surplus because of the capital's demographic collapse and this was sold off for cash (see above).

Finally, Chapter 4 ("Le corps des contribuables," 221–40) does, as suggested by its title, cover the various taxpayers listed in the Register. References to land ownership by Panopolite monasteries (Apa Zenobios, Zmin) are of interest; but even more noteworthy is that 40% of the non-institutional references are to "heirs" (*klêronomoi*) or to undivided "estates" (*klêronomiai*). Still more: it is in the earlier pages of this short concluding chapter (to the monograph part of this book) that Z. fashions his larger conception of the village of Aphroditô. Most importantly, calculations based on the Register and the Cadaster, together with a link between *P.Cair.Masp.* I 67060 (showing the estate of the illustrious *ex-eparchos* Ioulianos as paying *kômêtikon*) and a solidus-figure in *P.Ross.Georg.* III 62 (slightly over 976 solidi paid on the account of the *ex-eparchos*), lead to the startling conclusion that 3/5 of the village's land was owned by the illustrious Ioulianos. He, in Z.'s imaginary reconstruction, displaced the village's earlier patron, a lesser figure by comparison, Count Ammonios, in the early 550s, in what seems to have been an unpleasant struggle for power. This is a major conclusion for which one would like, but will probably never get, independent or additional verification. For everything to fit, the village had to have had an arable area of almost 15,000 arouras (arable and rush-land, vine-land, orchards). While, on the one hand, this figure looks high, Z., on the other, reduces Leslie MacCoull's very loose estimate of the village population at 15,000 (*Dioscorus of*

Aphrodito: His Work and His World 7; based on names indexed in papyrus editions multiplied by 5) to about 7,000 ("généreusement," 223). This still leaves us with a substantial village by any standards—or a town. But most of the productive male villagers, because of the great estate of Ioulianos, now turn out to be tenant farmers and wage laborers, not, as some documents suggest (esp. *P.Lond.* V 1674.95–96), "smallholders" (λεπτοκτήτορες), an image Z. does not address, but probably should. In any case, the Aphroditan evidence by Z.'s discussion would seem to join the Oxyrhynchite in supporting, not contradicting, the traditional "large estate model" of Byzantine Egypt (e.g., Peter Sarris' article cited above). At the same time, Z. sees the institutional city (in accord with Richard Alston, *The City in Roman and Byzantine Egypt* [London and New York 2002; not cited] as eroding economically and being displaced administratively as the village was emerging to become "the basic fiscal unit" in direct contact with the responsible authorities, this itself being a stage that would end in the complete incorporation of villages into the network of large estates at the end of the Byzantine period (240).

The monograph has an Index of sources (240–46), a detailed table of contents at the back, but no subject index. The text edition (249–67) provides an accurate transcription of the combined Florentine and Strasbourg leaves with a brief explanatory introduction (248). Alternate line numbering for the edition of *P.Flor.* 297 is provided in brackets to facilitate editorial comparisons. There are brief notes (268–71) but no separate critical apparatus. Translation is provided for columns XVII and XVIII, but not for I–XVI. Although full translation would seem to be otiose for so formulaic a document, this decision does go against the recent trend of opening up papyrology's contributions to a wider audience, as in Gagos and van Minnen's *Settling a Dispute*, which has been both praised and blamed for going overboard in the opposite direction. Z.'s text, of course, has the necessary and helpful indices.

In terms of papyrology (in the narrow sense), Z.'s book will bring extensive corrections to the attention of the *BL* in the form of numerous readings and re-datings of *P.Cair.Masp.* In larger terms, Z.'s book is an impressive achievement: one can only gasp at its ambition and willingness to tackle significant problems. It presents

a massive and diverse array of evidence: papyrological, epigraphical, numismatic, literary and legal, hagiographical and artifactual (cf. the bronze measure discussed at 165). I still feel, upon reading and careful re-reading, a certain "disconnect" between attention to empire and to village in what sometimes seems a leapfrogging arrangement of topics. This is complicated by occasions when the same topic (e.g., local tax collection, the history of Egyptian military units) is treated in two different places. Dates and figures sometimes seem to shift or be hard to pin down as terminology shifts. In addition, however commendable in intent, the author's choice of presentation tends to obscure what the new text edition really brings on its own to the historical table. And I remain perplexed why a book that goes over much the same ground on some important issues does not engage Banaji's *Agrarian Change* head on. In his Préface Jean Gascou characterizes Z.'s mélange as often charming, and it surely is, in places, just as it sometimes sparkles with authorial wit. At the same time, if I had to pick a one-word description for this book, it would not be "charming" but "challenging" or even "difficult." I say that to some extent in frustration (see especially the confusing chart and discussion, 188–89), but also in admiration. Z.'s book raises literally countless questions and should generate extensive scholarly discussion. It's a work that cannot be ignored either by Byzantine papyrologists or by historians of Byzantium.

JAMES G. KEENAN

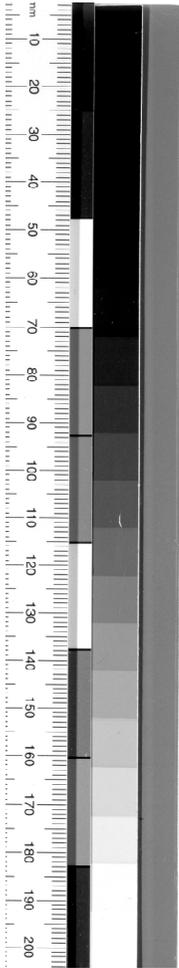
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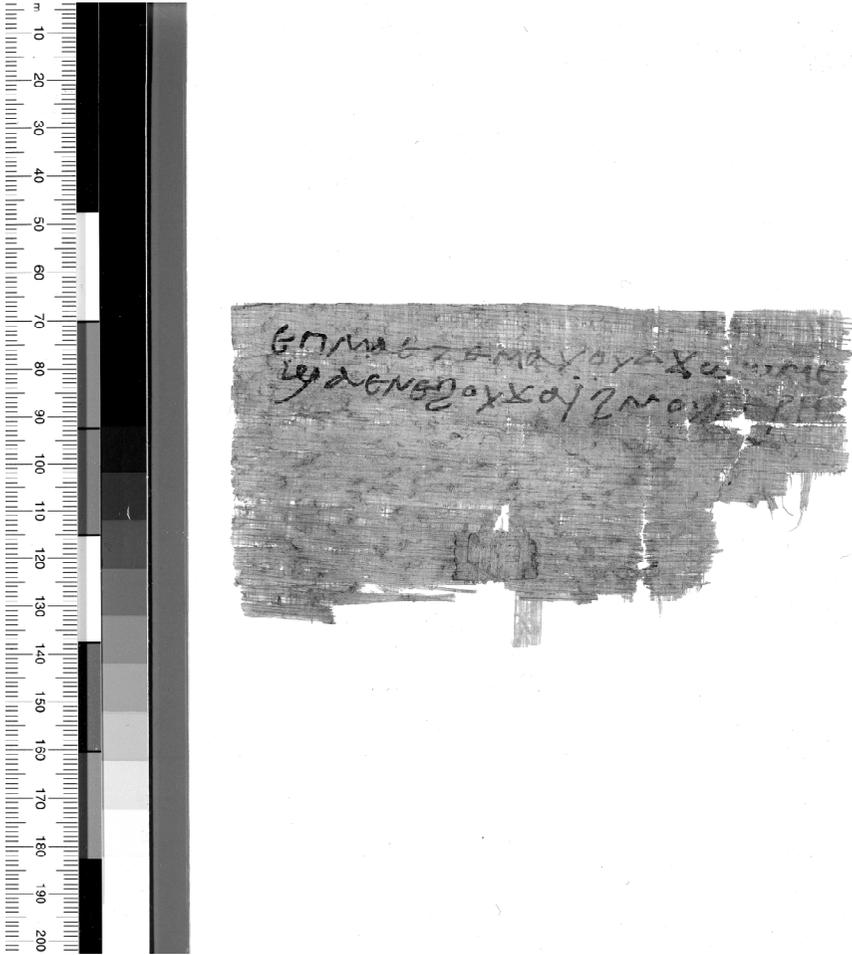
PLATES



Fragment of papyrus with Greek text, likely a reply or document fragment. The text is written in a cursive hand and includes several lines of characters, some of which are partially obscured or faded. The fragment is roughly rectangular and appears to be a piece of a larger document.

P. Mich. inv. 6213, Recto

(Photograph digitally reproduced with the permission of the Papyrology Collection, The University of Michigan Library.)



P. Mich. inv. 6213, Verso

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Library.)

Plate 6

(to Stephan & Verhoogt, "...Tiberianus...")



Plate 6: Insula containing houses C167, C168, C5034, and C5036

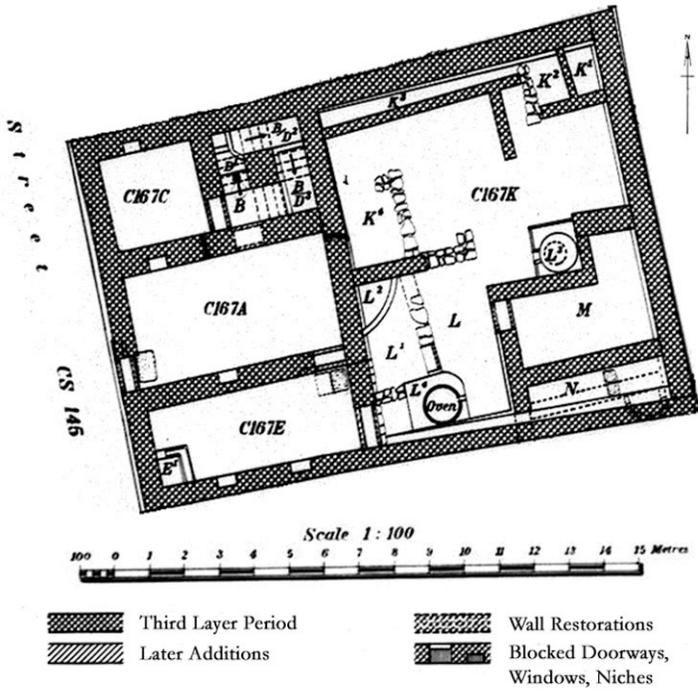


Plate 7: Floorplan of C167

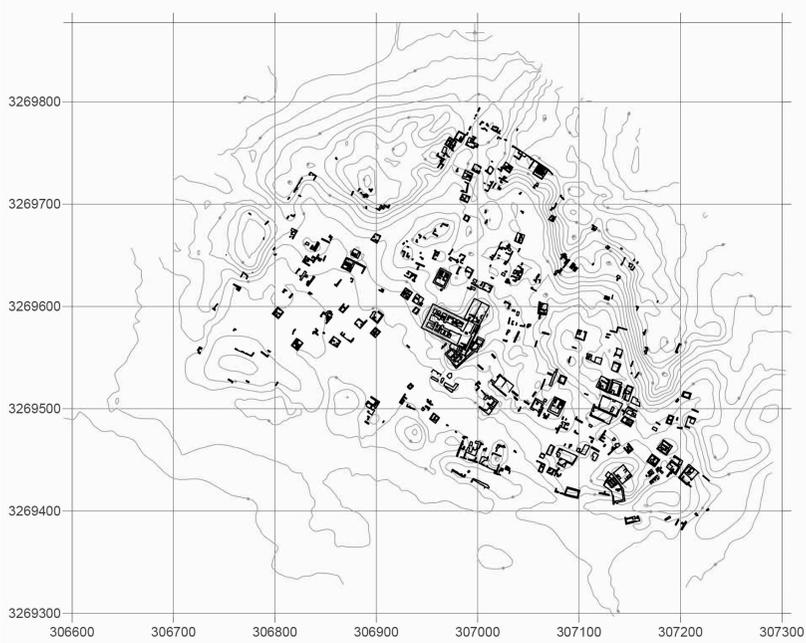


Plate 8: Bacchias, plan 2002.

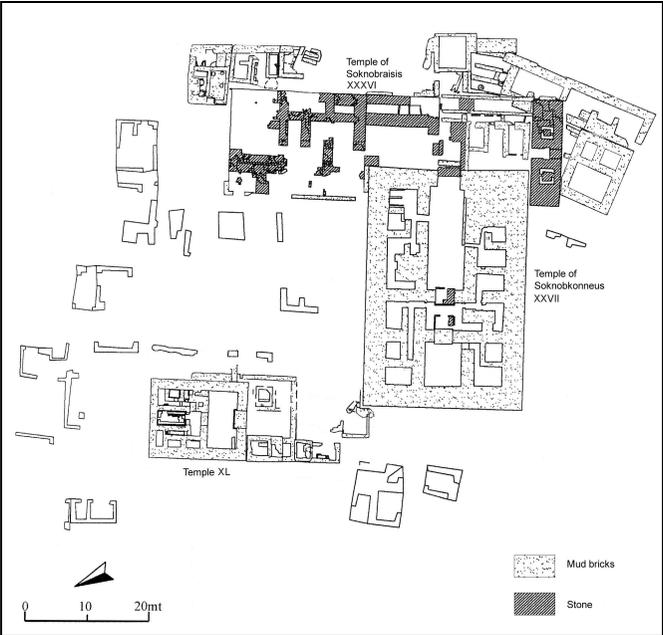


Plate 9: Temple Area of Bacchias.

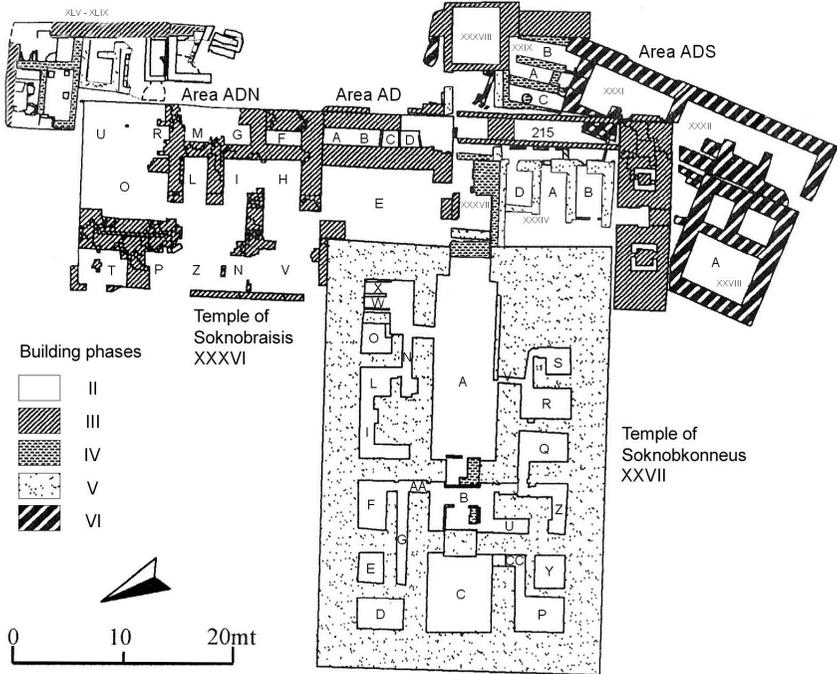


Plate 10: Temples of Soknobkonneus and Soknobraisis: building phases.

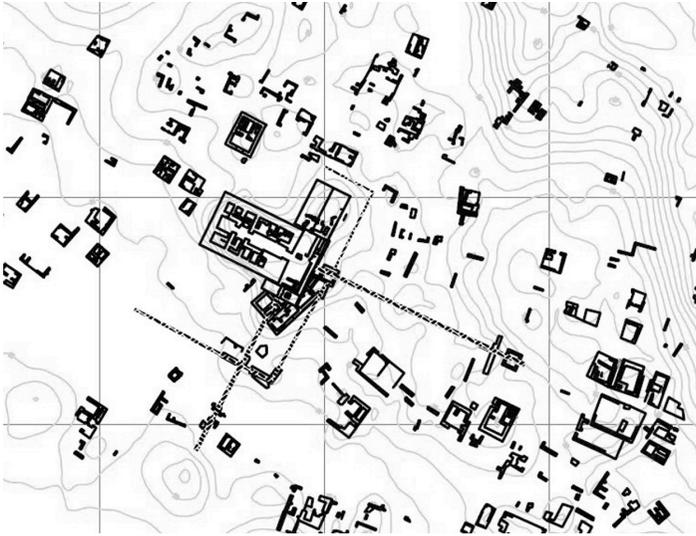


Plate 11.1: Proposed reconstruction of the *temenos* and *dromoi* at Bacchias.



Plate 11.2: View of the temple area from the east.



Plate 12.1: Foundations of the temple of Soknobrais and the gateway to the Soknobkonneus temple.



Plate 12.2: View of the Hellenistic temple XL from the top of the north corner of the Soknobkonneus temple.

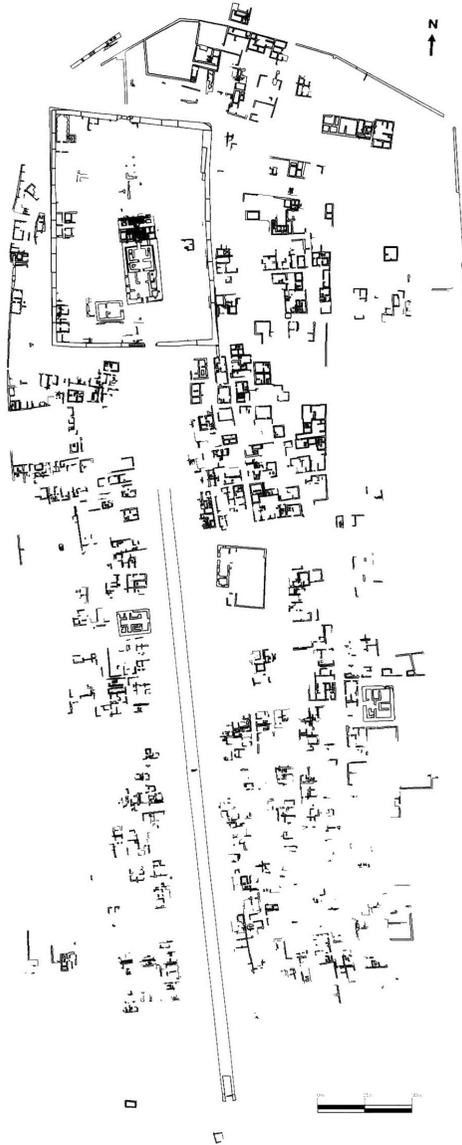


Plate 13: Soknopaiou Nesos, plan 2005.

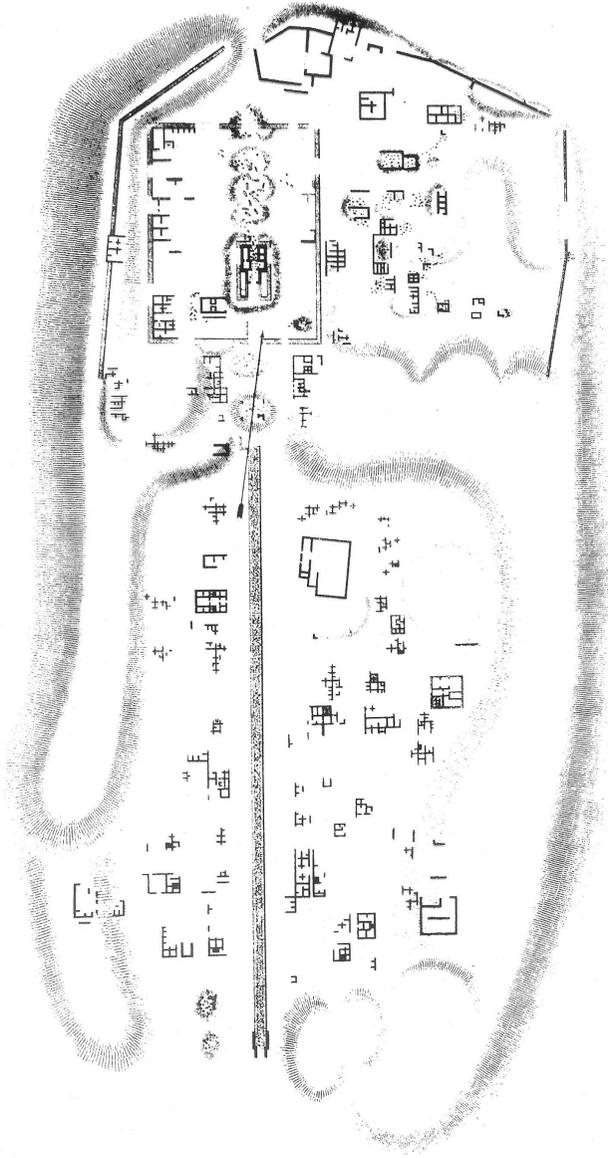


Plate 14: Soknopaiou Nesos: Lepsius' plan 1843.

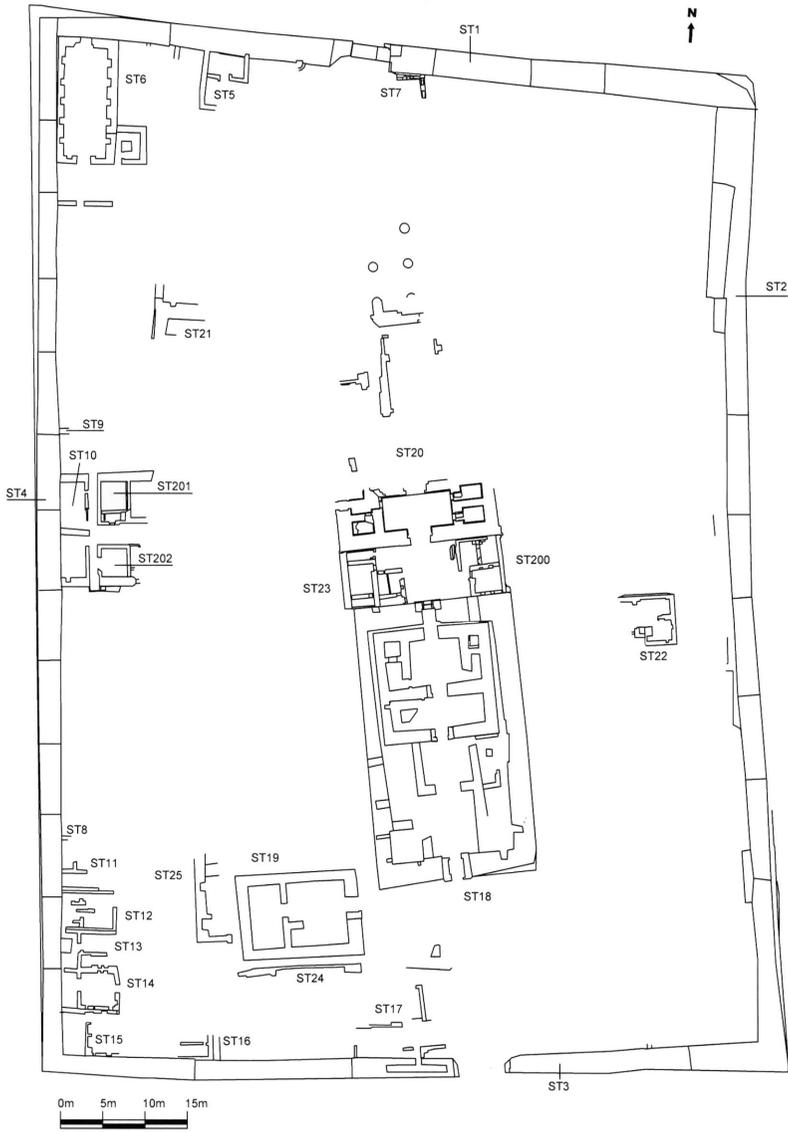


Plate 15: Soknopaiou Nesos: plan of the temenos 2005.

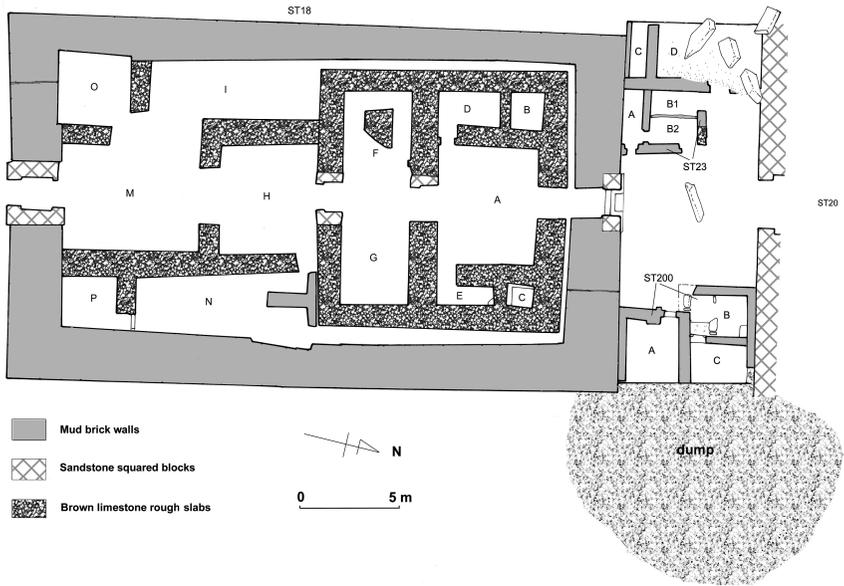


Plate 16: Soknopaiou Nesos, plan of ST 18 and the excavated sector (2004).



Plate 17.1: View of Soknopaiou Nesos and the *dromos* from south.



Plate 17.2: Soknopaiou Nesos: drums of columns on the *dromos*.

Plate 18

(to Davoli, "...Town Planning...")



Plate 18.1: Soknopaïou Nesos; building ST 18 and its north gateway, from north.



Plate 18.2: Soknopaïou Nesos: the paved courtyard and the façade of ST 20.