THE JOURNAL OF JURISTIC PAPYROLOGY
Supplement XIV

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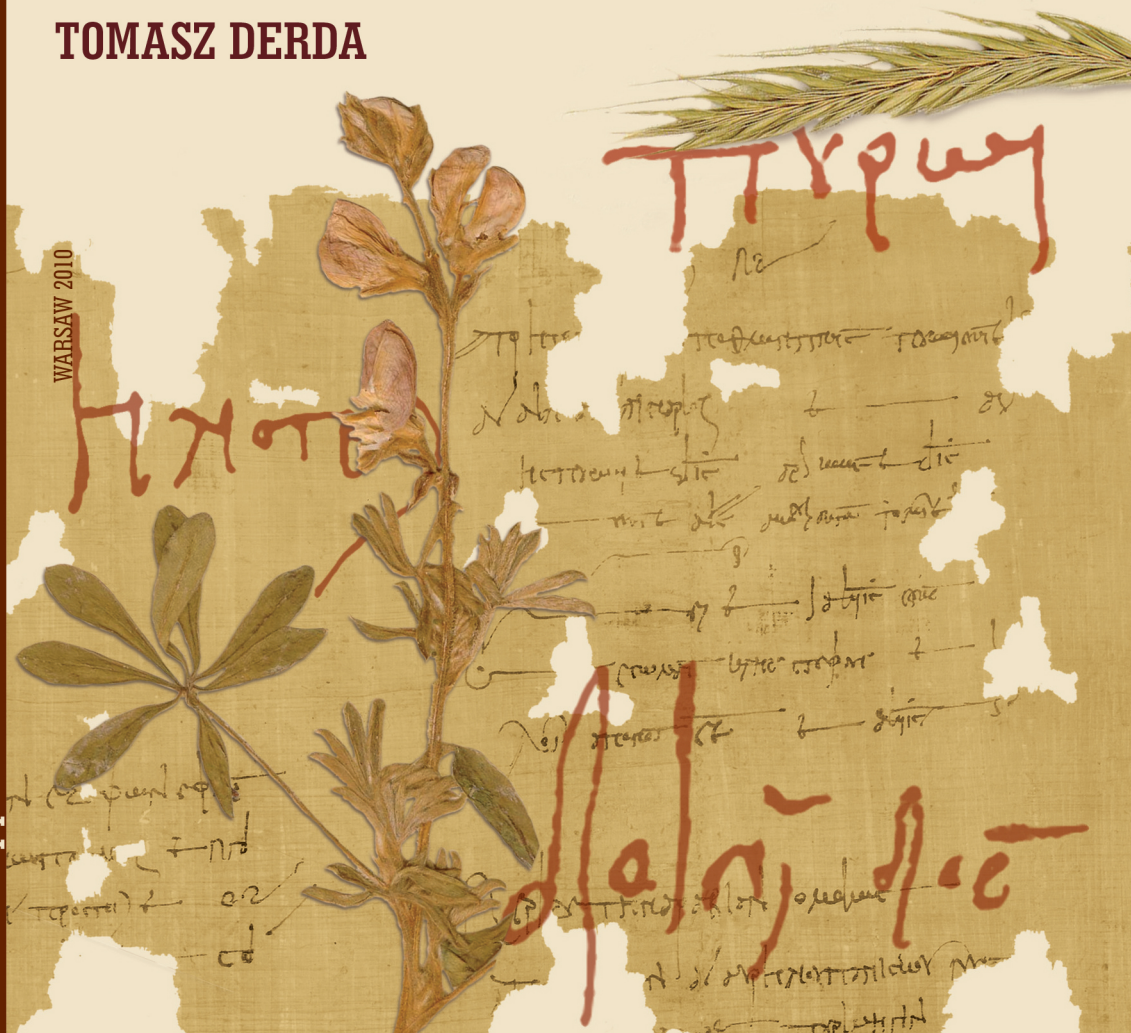
A Land List from the Panopolite Nome in Upper Egypt

(after AD 216/7)

TOMASZ DERDA



WARSAW 2010

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WARSAW UNIVERSITY
FACULTY OF LAW AND ADMINISTRATION
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WARSAW UNIVERSITY
INSTITUTE OF ARCHAEOLOGY
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EDITED WITH TRANSLATIONS AND NOTES BY
TOMASZ DERDA

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PREFACE

It was twenty five years ago that the authorities of the Bibliotheca Bodmeriana offered the present document to Zbigniew Borkowski for publication. Unfortunately, his long illness in the 1980s and premature death in 1991 did not allow him to prepare the edition. Among his papers I have found only the photos of the papyrus, a partial transcription and a couple of notes.

Papyrus called Bodmer I (for details concerning the numbering of papyrus fragments, see below) was given a general description by Victor Martin, the editor of P. Bodmer I *verso* (*Iliad*, books V and VI). He published a photograph of three columns of the *recto* of the text.

The photographs found in Borkowski's dossier and that published by Martin were printed from the same negatives made in the 1950s and unfortunately now lost. During my work in the Bibliotheca Bodmeriana in June 1998 I was unable to find either the negatives or the prints of the *recto*. The only surviving part of that documentation are Borkowski's prints. These are important for the present edition as I have noticed that the document as shown on the old photos in several places contained some tiny scraps which have become displaced or have disappeared from the present text now glazed.

Although unpublished, *P. Bodmer I recto* has been mentioned several times in papyrological literature (see below, p. 3 n. 1).

*

The present edition could not have come into being without the help of several people and institutions. Thanks are due to the two famous Swiss institutions, where I worked for a month (June 1998); Bibliotheca Bodmeriana gave me the possibility of fruitful work in its beautiful building while Fondation Hardt in Vandœuvre at Geneva granted peace and calm for work in its fine library. I also spent the greater part of my three months Mellon Fellowship at the American School of Classical Studies (15 April – 15 July 1999) working on the present edition.

In October 1998, November 1999 and January 2000 I had the opportunity to present the results of my work on the edition of *P. Bodmer I recto* to the papyrological seminar of Warsaw University; I should like to thank its members, the late Anna Świderek, Ewa Wipszycka, the late Jan Krzysztof Winnicki, Adam Łukaszewicz, Adam Łajtar, Jakub Urbanik and the late Tomasz Markiewicz, for their numerous valuable suggestions and comments. The first reader of my English manuscript was Roger Bagnall whom I owe some valuable suggestions; our e-mail discussion has been most stimulating and has, I believe, considerably improved the present edition. For some minor questions I also consulted Peter van Minnen during his short visit to Warsaw in May 2000. The next reader of my manuscript was Dorothy Thompson who spent much of her free time correcting my English; she also offered some interesting comments and suggestions. Some last minute corrections and improvments were suggested in 2009 by Constantinos Balamoshev. Tomasz Płóciennik read the proofs and corrected production-errors of text.

*

My work on the present edition was supported by the State Committee for Scientific Research of the Republic of Poland (grant no. 1 H01G 024 13).

*

For some reasons this edition could not be published until now. It took final shape in autumn of 2009. In 2007 Karolien Geens defended her PhD at the Katholieke Universiteit Leuven: *Panopolis, a Nome Capital in Egypt in the Roman and Byzantine Period (ca. AD 200–600)*. I owe to her some ideas – even if I do not share all of them – concerning the very purpose of *P. Bodmer I recto*. I also discussed some points of the present edition with Willy Clarysse, Geens' promotor.

December 2010 *Tomasz Derda*

NOTE FOR THE READER

Papyri, ostraca, papyrological lexica and journals are quoted by the standard abbreviations listed in J. F. Oates, R. S. Bagnall, W. H. Willis, K. A. Worp, *Checklist of Editions of Greek Papyri and Ostraka*, 5th ed. (= *Bulletin of the American Society of Papyrologists, Supplement* 9), 2001 – this is the last printed version; *Checklist* regularly actualised is available on Internet: http://odyssey.lib.duke.edu/papyrus/texts/clist.html. Books and articles are cited in full on their first occurrence; other books, especially those often quoted are abbreviated as follows:

Bonneau, *Le fisc* = Danielle Bonneau, *Le fisc et le Nil. Incidences des irrégularités de la crue du Nil sur la fiscalité foncière dans l'Égypte grecque et romaine*, Paris 1971 (*Publications de l'Institut de Droit Romain de l'Université de Paris*, nouvelle série, t. II)

Bonneau, *Le régime administratif* = Danielle Bonneau, *Le régime administratif de l'eau du Nil dans l'Égypte grecque, romaine et byzantine*, Leiden 1993 (*Probleme der Ägyptologie*, Bd. VIII)

Forbes, *Ancient Technology* = R. J. Forbes, *Studies in Ancient Technology*, 2nd ed., vol. IV, Leiden 1964; vol. V, Leiden 1966

Husson, *OIKIA* = Geneviève Husson, *OIKIA. Le vocabulaire de la maison privée en Égypte d'après les papyrus grecs*, Paris 1983

Lucas/Harris, *Materials and Industries* = A. Lucas, *Ancient Egyptian Materials and Industries*, fourth edition, revised and enlarged by J. R. Harris, London 1962

Rathbone, *Economic Rationalism* = Dominic Rathbone, *Economic Rationalism and Rural Society in Third-Century AD Egypt. The Heroninos Archive and the Appianus Estate*, Cambridge 1991 (*Cambridge Classical Studies*)

Rowlandson, *Landowners and Tenants* = Jane Rowlandson, *Landowners and Tenants in Roman Egypt. The Social Relations of Agriculture in the Oxyrhynchite Nome*, Oxford 1996 (*Oxford Classical Monographs*)

Schnebel, *Die Landwirtschaft* = Michael Schnebel, *Die Landwirtschaft im hellenistischen Ägypten*, Erster Band: *Der Betrieb der Landwirtschaft*, München 1925 (*Münchener Beiträge zur Papyrusforschung und antiken Rechtsgeschichte*, Heft VII)

Wallace, *Taxation* = S. LeRoy Wallace, *Taxation in Egypt from Augustus to Diocletian*, Princeton 1938 (*Princeton University Studies in Papyrology*, vol. II).

Other abbreviations:

DDBDP = *Duke Data Bank of Documentary Papyri*, available on CDs published by Packard Humanities Institute (CD ROM no. 7, 1996) and its web version.

DGE = Francisco R. Adrados et al., *Diccionario Griego-Español*, fasc. I–VI (to '*ἔξανος*'), Madrid 1997–2009.

LSJ = H. G. Liddell, R. Scott, *A Greek-English Lexicon*. A New Edition Revised and Augmented throughout by H. Stuart Jones, 8th ed., Oxford 1940; with *LSJ Revised Supplement* 1996.

NOTE ON THE METHOD OF EDITION

The method of publication follows that adopted in most papyrological editions. As there, the dots indicating letters unread and the estimated number of letters lost are printed slightly below the line within square brackets. The texts are printed in modern form, with accents and punctuation; the lectional signs that occur in papyri are noted in the *apparatus criticus*, where faults of orthography, etc., are also corrected. *Iota* adscript is printed where written; otherwise *iota* subscript is used. Square brackets [$\alpha\beta\gamma$] indicate a lacuna, round brackets ($\alpha\beta\gamma$) the resolution of a symbol or abbreviation, angular brackets <$\alpha\beta\gamma$> a mistaken omission in the original, braces {$\alpha\beta\gamma$} a superfluous letter or letters, double square brackets [[$\alpha\beta\gamma$]] a deletion, and the signs `$\alpha\beta\gamma$´ an insertion above the line. Dots within brackets represent the estimated number of letters lost or deleted, dots outside brackets mutilated or otherwise illegible letters. Dots under letters indicate that the reading is doubtful.

In translations, round brackets (*abc*) indicate variant interpretation(s) and square brackets [*abc*] additions necessary in my opinion to make the text comprehensible.

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CHARACTERISTICS OF P. BODMER I RECTO

Almost sixty years ago the Bibliotheca Bodmeriana started its editorial collection, which currently includes a couple of dozen volumes publishing literary papyri. These texts are most important for research on the pagan and Christian literature of Antiquity. The character of this collection shows well the interests of its founder, Martin Bodmer, a collector and promoter of literary research.

In the manuscript collection of the Bibliotheca Bodmeriana, the papyri numbered 1 and 2 (on their numbering, see my comments below) are of exceptional importance. One of the reasons for this is that their publication marked the starting point of making the Bodmer's collection available to the scientific world. In 1954 Victor Martin published the volume: *Papyrus Bodmer I: Iliade, chants 5 et 6*; this text of the *Iliad* was written on the *verso* of two different papyri, numbered by the editor respectively 1 and 2. As one can see, the Arabic numerals (1 and 2) have different significance from Roman (I); these denominations were used by Martin, and so I shall use them in the present publication, as any other more precise numbering is lacking (e.g. inventory numbers). Therefore, P. Bodmer 1 (= Book V of *Iliad*) contains on the *recto* columns 63–89 (i.e., *ξγ–πθ* in Greek), P. Bodmer 2 (= Book VI) – columns 48–49 (*μη–μθ*) and 52–61 (*νβ–ξα*).

DESCRIPTION OF THE ROLL

The document published in the present volume was written on the *recto* of a papyrus,[1] or rather on a large papyrus scroll, which was sub-

[1] Although unpublished, P. Bodmer I *recto* has been mentioned several times in papyrological literature; see, e.g., R. Bogaert, 'Liste géographique des banques et des ban-

sequently used to make copies of Books V and VI of the *Iliad*. Thus, it is the scribe copying the *Iliad* text, who actually decided which parts of the original documentary scroll should be preserved. If we put together all the surviving fragments of the document in the correct order (as is facilitated by the original numerotation preserved for the columns of the land list), it turns out that the *Iliad* text was copied upside down in respect to the original document. Before the *Iliad* text was written, the roll had been cut up and the first part (from the point of view the *recto*) was used for Book VI, the second for Book V. Both books were copied by the same hand, however in a different way, as far as the text layout is concerned.

The writer copied the poem text in columns the dimensions of which followed his precise needs at a particular moment; he obviously did not respect the column division of *recto*. The average width of a column with its intercolumniation (i.e., measured from the line at the start of a given column to the line beginning the next column) is about 15 cm (between 13 and 17 cm), of which text covers *c.* 10 cm, and the intercolumniation *c.* 5 cm – this data is common to both books. Although, however, the vertical layout is identical, the horizontal disposition of the text is different. In P. Bodmer 1 (= Book V) the scribe wrote only 29–31 lines per column; in P. Bodmer 2 (= Book VI) the number of lines significantly increases up to 38–40 per column. Neither P. Bodmer 1 nor P. Bodmer 2 was trimmed down. As a result we have margins of different width: in P. Bodmer 1 the top margin is 4–5 cm wide and the bottom one – 7–7.5 cm; in P. Bodmer 2 the bottom margin is never wider than 6 cm; the dimension of the top margin cannot be determined since no single column is totally preserved.[2]

Victor Martin begins his description of the roll with the statement: 'À leur arrivée à la Bibliothèque les papyrus qui font l'objet de la présente publication se présentaient sous la forme d'un rouleau accompagné de

quiers de l'Égypte romaine, 30[a]–284', *ZPE* 109 (1995), pp. 133–173, at p. 160, with note 128: 'Ce papyrus, qui date de 208/9, est un registre administratif concernant des terres cultivables (ἐδάφη l. 1)'.

[2] We may incidentally notice that the rather elegant hand, large margins, big spaces between columns and the high quality of the papyrus all clearly indicate that the scroll (or rather two scrolls, each bearing one book of the *Iliad*) was of rather fine quality, although made – by our standards – of waste paper.

très nombreux fragments détachés de toutes dimensions' (p. 7). After presenting a general description of the Homeric text, Martin reaches the conclusion: '(...) les deux chants de l'Iliade représentés ici constituent, du point de vue bibliologique, des unités distinctes'. Also the photo published in P. Bodmer I shows just one scroll. It seems that in the 1950s only one scroll came into possession of the Bibliotheca Bodmeriana (this was P. Bodmer 1 according to the numerotation accepted from Martin's edition). This scroll was accompanied by numerous small fragments, partly derived from P. Bodmer 2. It will be demonstrated that the *recto* of a very long papyrus scroll was written after AD 216/7; some decades later this scroll was divided into smaller scrolls adjusted to the length of the *Iliad* books (according to the so-called *Kleinrollensystem*[3]). The last preserved column of the *recto* has the original number 89 ($\pi\theta$), the first preserved, 48 ($\mu\eta$); as this space was sufficient for two books of the *Iliad*, we may assume that columns 1–47 could have covered another two books. There are no indications what part of the document followed column 89 ($\pi\theta$). In any case, however, one may assume that P. Bodmer 1 and 2, and perhaps some other scrolls created from the long original text formed part of the same library and thus they came together into antiquarian market.

*

Before calculating the length of the roll of which part survived corresponding to *recto* columns 48 to 89, we have to examine closely two parts of it.

(1°) The place to which the two small fragments (below, pp. 58 and 134) belong may be only ascertained on the grounds of the *Iliad* text on the *verso*. Here we find parts of lines 23–30 of the Book VI (P. Bodmer 2, col. 1 [p. 63 in Martin's edition]) and of lines 61–67 (col. 2 [p. 63]) on fragments one and two, respectively. Both fragments must have come from the lower part of the Homer text columns, thus from the upper part of the document text. Although no numerals have been preserved on them, one can assume, judging from the reconstructed lay-out of the Homer text,

[3] See MARTIN, *P. Bodmer I verso*, p. 11.

that both fragments come from columns 48 and 49 (μη and μθ); such a conclusion is correct only if there was no blank space left between neighbouring columns, such as the space between columns 77 and 78 (οζ and οη), between columns 61 and 62 (ξα and ξβ), or 62 and 63 (ξβ and ξγ), the existence of which will be argued below.

(2°) That part of the *recto* text which ran from col. 61 (ξα) to col. 63 (ξγ), which is the place of division between P. Bodmer 1 and 2. A little more than half of the width of col. 61 (ξα) was preserved; the even edge is the place of a cut; P. Bodmer 2 ended here; on the *verso* of col. 61 [ξα] and part of col. 60 [ξ], there is col. XIV of the *Iliad* [p. 78 in Martin's edition] containing the last verses of Book VI and its explicit *Z ΙΛΙΑ[ΔΟΣ]*. On the back of col. 63 (ξγ) of the document there are fragments of verses 99–119 of Book V. And since, as already mentioned, P. Bodmer 1 contains 29–31 lines to a column, this must have been the fourth column of the text of this book (designation also given to it by Martin). We may now roughly calculate the distance which divided the first preserved fragment of P. Bodmer 1 from the original edge: 3 x 10 cm (columns width) + 4 x 5 cm (intercolumnar width) + *c.* 8 cm (since only the last letters remain from the fourth column of the Homer text) = *c.* 58 cm in total. At the same place we have on the *recto* part of col. 61 (ξα), the entire col. 62 (ξβ) and part of col. 63 (ξγ), which – given the average width of the document column (*c.* 15 cm) and its intercolumniation (*c.* 4 cm) – amount to no more than 40 cm (10 cm [missing part of col. 61] + 4 cm [intercolumniation between cols. 61 (ξα) and 62 (ξβ)] + 15 cm [col. 62 (ξβ)] + 4 cm [intercolumniation between cols. 62 (ξβ) and 63 (ξγ)] + 6 cm [missing part of col. 63 (ξγ)]). It seems to me that there is only one possible solution for this discrepancy: between columns 61 (ξα) and 62 (ξβ) or columns 62 (ξβ) and 63 (ξγ) the scribe left a space of more or less one column, as indeed he did to mark the beginning of a new section before columns 78 (οη) and 89 (πθ).

*

After having solved these two particular questions, we may proceed to calculate the original length of that part of the documentary roll, of which

fragments are preserved, that is the distance between fragment of col. 48 (*μη*) and the middle of col. 89 (*πθ*), where the preserved text ends. P. Bodmer 2 was originally 210 cm long (including the now totally lost columns 50 [*ν*] and 51 [*να*]), P. Bodmer 1 is 406 cm long in the preserved part – originally with its lost beginning it must have measured about 464 cm. Together both parts of the scroll covering cols. 48–89 originally measured about 570 cm in length; if we add the part containing cols. 1–47 (*α–μζ*) we reach the impressive length of over 11 m. The height of the roll measured in its best preserved part (cols. 78–82 [*οη–πβ*]) does not exceed 31 cm.

*

The state of preservation of the document is by no means good, even in its best preserved fragments. Columns 78–82 (*οη–πβ*) have survived relatively well, but even in this section none of the columns can be read continuously and without lacunae. As a rule, the top part of a column is better preserved than its bottom; only in cols. 78 (*οη*) and 79 (*οθ*), perhaps also in cols. 80 (*π*) and 81 (*πα*), can we see part of the bottom margin.

FORM OF EDITION

I have decided to keep the original column numbering, even in notes where particular passages are referred to with Greek characters for the numbers. References to columns with either Arabic or Roman characters (lxxviii 6, or 78, 6, instead of *πη* 6) could have led to misunderstanding that the column is the 78th counting from the beginning of the surviving part of the roll. Against common practice but following the suggestion of Herbert C. Youtie, I have not used continuous numbering of lines. Youtie used continuous numbering for Karanis tax rolls which became a source of trouble when new fragments of the same documents turned up. In his review of his own edition (*sic*!), Youtie then wrote: 'For the benefit of others who venture on the publication of fragmentary texts, I suggest that adherence to the older method of numbering each column indepen-

dently will alone avoid the impractical features of the method used in this book (i.e., in *P. Mich*. IV – TD). Continuous numbering must be reserved for continuous text'.[4]

In the present edition, in each column I have reserved line 1 for the column's number, even if this is not preserved (in which case it is printed in square brackets).

As for rendering Egyptian names in accentuated Greek, I have tried to follow Willy Clarysse's method.[5]

PALAEOGRAPHICAL OBSERVATIONS

Except for some additional notes, the whole document was written in a single hand. The hand is upright and cursive, typical for fiscal documents of the first half of the third century AD.[6] The well-trained hand of the scribe, fluent and sometimes rapid, is in some places even elegant. The editor of the *Iliad*-text, Victor Martin (p. 21), was of the opinion that 'l'écriture (of the document – TD) est d'un type bien connue, étant un dérivé provincial de la calligraphie en usage dans la chancellerie préfectorale dès la fin du II^{e} siècle' and specified as parallels *PSI* XII 1247 and *SB* IV 7335.[7] The first document, or at least its *recto* reproduced on Tav. I, is, however, written in a completely different way; the latter parallel should not be taken into account either, because the hand of the Vienna papyrus is significantly different from that of P. Bodmer I *recto*. Moreover, the document has no date and cannot be considered of value for palaeographical dating.

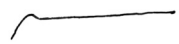
The layout of the document is clear and observed throughout. Each entry is preceded by a space; each total is signaled by *γίνονται*-sign, characteristically prolonged, as that of *πα* 6:

[4] *Scriptiunculae*, p. 852 = *Class. Weekly* 30 (1936), 7, p. 200.

[5] W. Clarysse, 'Greek accents on Egyptian names', *ZPE* 119 (1997), pp. 177–184.

[6] However, it is not necessary to figure out the date of the document on the basis of palaeography, see below, section 'Date of the document'.

[7] P. Vindob. G 24473, ed. H. Gerstinger, 'Ein neuer Beitrag zur Geschichte der griechischen amtlichen Kanzleischrift (Pap. Gr. Vindob. 24473)', *Wiener Studien* 47 (1929), pp. 168–172.



A new section is signaled by a space of the width of one column (before cols. 78 [οη] and 89 [πθ] and before either col. 62 [ξβ] or 63 [ξγ][8]).

Apart from the usual γίνονται-sign, the scribe used another symbol of similar (or even identical) meaning. This is a vertical stroke, at its bottom turning to the left. The sign appears whenever the scribe counted up the land contained in entries taken from the preceding section(s). The sign is followed by the designation of the land categories to which the totalled arourae belonged; these are ὑπόλογος, 'land in deduction', sc. 'from taxed land', and φυτεία, i.e. planting paying tax in cash and not in kind (ξθ 7, ος 2, perhaps also οθ 24; in οθ 9 υπολ( ) is followed by something different from *phyteia* but the reading is unclear).[9] If the land category was given earlier, the sign is followed (ο 8 and π 5) by αἱ π(ροκείμεναι).

*

As in other documents written by professional scribes of the Roman period, the shape of abbreviation marks is not meaningless and can be of some help for understanding the abbreviated word. If the last noted letter is a *pi*, it is shaped as a curve descending round the last letter. *Mu* is marked as a slightly curved stroke above the last letter or as a sign similar to a tilde following the last letter (οθ 3, π 4, π 9; θέρμ(ου) in πγ 4). *Nu* may be written as a letter similar to that of *mu* (οθ 5). *Lambda* is usually raised (κόλ(λημα) throughout the document), sometimes with a second stroke which gets very prolonged and goes far down (ἀπηλ(ιώτου) in πβ 11). *Kappa* is reduced to its bottom part, raised and prolonged towards a following letter (κνήκ(ου) in πς 8).

As a rule, fractions are marked with a stroke running horizontally above them. A series of fractions has one long stroke. Instead of the horizontal stroke, a fraction standing alone can be marked by two small parallel

[8] For the last intersection space, see above, p. 6.

[9] For the conclusions drawn from this, see below, pp. 34–35.

slashes, either following both characters of the fraction (ιϛ$^{//}$) or following each character separately (ι/ϛ/). As in very many other fiscal documents of the Roman period, the fraction $^{1}/_{32}$ is noted $\overline{\lambda o}$ (and not $\overline{\lambda\beta}$); $^{1}/_{64}$ is $\overline{\xi o}$ (and not $\overline{\xi\delta}$); the scribe never wrote $^{1}/_{16}$ in this manner. The fraction $^{1}/_{2}$ is written in two different ways, depending on its position: while followed by another fraction(s) it is *L*-shaping (e.g., ξη 3, 5) and *S*-shaping when it stands as the last sign.

The relative pronoun after a preposition (ἐν (ᾗ) or ἐν (αἷς) in νβ 3; νγ 3, 11; νδ 16, 17, 23; ξθ 12; οθ 6, 11, 15; πβ 10) is always reduced to a vertical stroke, similar to that used for an abbreviation:  .[10]

As in many documents from Roman and Byzantine Egypt, throughout the document *alpha* with either a horizontal stroke above it or a short stroke following it is regularly used for πρότερον.[11]

LINGUISTICAL OBSERVATIONS

The wording of P. Bodmer I *recto* is typical for private as well as for official documents of the Roman period. Some new terms occur there, mostly of technical meaning; among these the most important is the adverb συνοπτικῶς (if my suggested interpretation is correct). New words as well as new personal names and toponyms are always marked by an asterisk in the Index.

The spelling of our document is correct with only a few iotacisms (γίτονες for γείτονες is used regularly).

The entries on particular crops are generally made either in the dative or genitive. In the dative, we find κριθῆι, πυρῶι, φακῶι written through-

[10] The relative pronoun as a vertical stroke was the rule in fiscal documents produced by the Roman administration; for close analogies see *P. Petaus* 22, 9 (AD 185) and *P. Berl. Leihg.* 13, 1 ,14 (Theadelphia, 2nd cent. AD), both, unfortunately, published without photographs. This rule is, I believe, well known to the editors although it has never, as far as I know, been analysed in detail. There are only remarks, mostly hidden in comm. *ad locos*, see, e.g., *P. Oxy.* VI 918, ii 4 comm.

[11] See J. SHELTON, 'The sign ᾱ and other remarks on Theban ostraca', *ZPE* 20 (1976), pp. 127–133.

out the document, with the persistent use of *iota* adscript, with just two exceptions (*ο* 6 and *π* 3), which was a rare phenomenon in documents of so late a date.[12] But parallels are significant: the same practice is to be seen in a land list of tenants and cultivation, *P. Leid. Inst.* 48. In that text, dated paleographically to late second/early third century AD, the crop names are in the dative whenever crop sowing is involved. The dative refers to the land, or simply the arourae (sown) with wheat/barley, with the noun *σπόρος* consequently ommitted. *Iota* adscript in our document is also used in a different context, for the article in *πδ* 4.

In the case of those products which do not involve something sown, e.g., *βρῶσις*, we print them in genitive. The genitive rather denotes the type of land, as it does in the case of those crops whose name differs from the term used in papyri for the land on which they are grown (e.g. *λάχανα* – *λαχανεία*). This editorial practice may be supported by documents where the technical terms for different kinds of cultivation are used in an unabbreviated form, a clear example being *P. Leid. Inst.* 48 (see the editor's commentary on line 9).

DATE OF THE DOCUMENT

In the preserved part of P. Bodmer I *recto*, there is no emperor's name, but at least four times a regnal year appears: *ια* (*ἔτος*) – *ξζ* 4, *ιζ* (*ἔτος*) – *οη* 3, *κβ* (*ἔτος*) – *π* 14, and *κε* (*ἔτος*) – *πδ* 4.[13]

The people mentioned in the document are not Aurelii, with two remarkable exceptions: Aurelius Artemidoros of Panopolis in *πδ* 4–5, see comm., and Aurelius Paniskos in *πζ* 11. Both are Aurelii without any *praenomen*, which suggests that they had been granted Roman citizenship by the *Constitutio Antoniniana*.[14] Both Aurelii are mentioned at the end of

[12] See W. Clarysse, 'Notes on the use of the iota adscript in the third century BC', *CE* 51 (1976), pp. 150–166, at pp. 150–151.

[13] Perhaps in a title following an entire section (*οζ* 7) we have year 10, see comm. *ad loc.*

[14] Note that in the introductory description of land in *πδ* 2–5 the second man was not styled as Aurelius.

the preserved part of the roll; the land administered by Aurelius Artemidoros of Panopolis is 'first registered in year 25'. The coincidence of rather high regnal years with the appearance of some Aurelii (and not Marci Aurelii which is how they granted citizenship by Marcus Aurelius were styled) leads us to the conclusion that the reign in question can only be that of Caracalla, who counted his regnal years together with his father, Septimius Severus. Therefore, the dates mentioned in our document are AD 202/3 (= year 11), 208/9 (= year 17), 213/4 (= year 22), and 216/7 (year 25), the last being the *terminus post quem* our document came into existence.[15] Perhaps our document contains an allusion to the planned visit of Caracalla to Upper Egypt in AD 215/6.[16]

It should be noted, however, that in registers written after the *Constitutio Antoniniana* the name Aurelius is not always used,[17] so its absence from most entries of our roll is not good evidence for dating purposes. But here the reverse is true: the very last entries seem to belong to the very year when the effects of the *Constitutio Antoniniana* started to be seen in Egypt. Our roll was written right on the cusp of change.

THE PURPOSE OF P. BODMER I RECTO

The preserved fragments of P. Bodmer I *recto* do not allow us to establish precisely the character of the document or to answer the question as to whether this character was identical in all sections. An overview of the contents of columns 48–77 (μη–οζ) and the translation of preserved fragments of columns 78–88 (οη–πη) clearly indicate that the document was

[15] AD 208/9, i.e., the 17th year of Septimius Severus, is the date accepted by the scholars who have referred to P. Bodmer I *recto* (MARTIN, *P. Bodmer I verso*, p. 20; BOGAERT, 'Liste géographique des banques' [cit. *supra*, n. 1], p. 160). Victor Martin in his edition took this assumption as a basis for determining the date when the ms. of Book V of the *Iliad* came into existence (he dated it to the period AD 250–350).

[16] See below, pp. 16–17, n. 22.

[17] See R. S. BAGNALL, *Reading Papyri, Writing Ancient History*, London – New York 1995 (*Approaching the Ancient World*), p. 37 and n. 7 on p. 122.

not a land register *sensu stricto*, although it contains some elements typical of documents of this kind. Especially the topographical descriptions of particular plots (see below) is such an element. However, the preserved part of the document provides no evidence that the plots were described successively, one after another as in regular land surveys of Roman times. (e.g., *P. Oxy.* VI 918 [2nd cent. AD]). This is important since the roll has for a long time been considered as part of a land survey.

The best preserved part of the roll (columns 78–88 [*οη*–*πη*]), however, does offer some evidence for determining the type of the register we are dealing with. We learn in some cases of how a given plot came to its present owner:

οη 5–6: land bought from Kales son of Pachomos;

οη 10–11: land formerly belonging to Pebos son of Psesenpachoumis came to the present owner as a part of an *apallage* (see comm. *ad loc.*) – this is a very important remark implying that the owner is a divorced woman;

πδ 2: the land came to the present owner by the terms of an exchange of contracts (*antikatallage*) with a certain M[...] son of Protas from Panopolis; the parcels were 'first registered' in year 21 as those administered (and not, as we believe, taken on lease) 'jointly and indivisibly' by a certain Aurelius Artemidoros.

In col. 82 (*πβ*) the plots around the village of Sentanenol are listed; they were once the property of Claudius Apollinarios but how they came into the possesion of the present owner is unclear. We also do not know the method of transmission of those plots registered as katoikic parcels in Psonis.

None of these entries tell us who the present owner was. If this were a public register, it would not be satisfactory to register land as 'formerly of X' but without any current owner. It would make sense then to suppose that the plots belonged to a private owner, and that the notation indicates the source of his/her ownership. *Apallage* in *οη* 10 suggests that the owner was a divorced woman.[18]

[18] In 2006 I sent a draft of the present edition to Karolien Geens (Katholike Universiteit Leuven) who at that time was preparing her PhD, *Panopolis, a Nome Capital in Egypt in the Roman and Byzantine Period (c. AD 200–600)*, eventually defended in 2007. As far as

Throughout the document, we find numerous *kollema* references. We believe that these cannot be references to documents in the βιβλιοθήκη ἐγκτήσεων or a similar register, partly because the same ones appear so often, partly because there is never a *tomos* number given, and partly because the numbers all fall within a very narrow zone (32 [λβ] to 41 [μα]) and almost entirely come in numerical order. To us these characteristics bring the inescapable conclusion that these are internal references to earlier columns in this same roll.

In other words, we suggest that this is a self-contained, self-referential account. When that is combined with the other points we noted earlier (former owner mentioned, but not the current one) and those we shall note (extremely high level of detail about rents and plantings), it points once again to this being a private register. We may even suppose that in the lost columns there was a kind of summary account of the landholdings, arranged perhaps by type of rent or at least type of cultivation; what we have then is the geographical organization, showing how each piece of land was used.

Of the preserved part of the roll, the most important for the reconstruction of its general concept seems to be the beginning of column 78 (οη). Before the clerk started to describe the particular plots, he had said: '(List) of other plots first registered in year 17 (= AD 208/9) and in following years, bought legally by contracts (if our reconstruction of the lacuna in οη 3 is correct – see comm.), registered through a bank'. Then, he noted a name in the genitive, Peleilis, ἐπιτηρητής of the *grapheion* of Psonis. If our reconstruction is correct, Peleilis must have been a tenant who had

I know the dissertation has been accepted for *Studia Hellenistica* (Leuven) and will be published soon. Geens analyzed the roll thoroughly (pp. 61–64 of her manuscript) and drew conclusions different from mine. For the Reader's convenience I summarize them here.

Geens agreed that no owner of the plots described in the roll is ever mentioned. According to her, 'the document is probably a register of (all?) state land in the Panopolite nome, some of it already owned by the state before, some probably recently confiscated. The state now draws income from this land through the rents paid by numerous tenants' (quotation comes from pp. 63–64).

There are, however, some serious obstacles in accepting this view; see the internal evidence discussed in this section, above.

on lease several plots (all of the land listed in col. 78 [$o\eta$]) belonging to our supposed female owner.[19] In $o\theta$ 3 the land rented by a certain Besis is listed. The position of Aurelius Artemidoros from Panopolis ($\pi\delta$ 4–5) is unclear to us: was he a tenant of the plots listed or – as the unusual wording (with the name in the accusative preceded by a preposition, possibly $\dot{\upsilon}\pi\acute{o}$) seems to suggest – a manager hired by the owner to administer part of the estate.[20]

Description of a plot can include not only the name of its previous owner, but also its location in a particular *kome* or *kleros* (allotment); the plot's description is followed by a reference to a previous column of the document, often (but not always) with the land category given in this place. The description of consecutive plots ends in π 16; π 17 contains a total of a part of the land belonging to Peleilis. Most certainly this is not a total of all of the land of Peleilis – such total, if present in the document at all, would have to be in the lower part of col. 81 ($\pi\alpha$).

However, the totals in $\pi\alpha$ 2–7 are most instructive. The scribe first added up the area of vineyard cultivated by lessees and independently (lines 4 and 5, with total in line 6) and then added to this the area of land washed by the river (line 2) and that classified as *chersos* and occupied by a tower (line 5). The total in line 7 is labelled as *hypologos* and *phyteia*, apparently the first covering the land washed away by the river, *chersos* and occupied by the tower, the latter referring to the vineyards. The reason why *hypologos* and *phyteia* were added together could be that the land belonging to neither category was a source of income in kind for the estate's owner. In line 8 we find the area of $\sigma\pi\acute{o}\rho\iota\mu o\varsigma$ $\gamma\hat{\eta}$ which added to the total of line 7 forms the total in π 16. This number is given here as

[19] For the reconstruction of the general concept of the roll extremely stimulating was my discussion with Roger S. Bagnall via e-mail in October 2000. One has to remember that the reconstruction presented here and elsewhere of the document is only a hypothesis, the verification of which is made impossible by the loss of the final parts of particular columns, even in the best preserved section (see above, pp. 3–7, 'Description of the roll') not to mention the loss of the beginning and the end of the roll.

[20] The position of Aurelius Artemidoros would be essentially similar to that of the managers of several *phrontides* of the Heroninos estate, see Rathbone, *Economic Rationalism*, pp. 44–87 (chapter 'Owners and managers'), esp. pp. 71–82 ('The managers of the units').

a total of components from earlier columns, which are detailed within big brackets. The scribe seems to have made the specification in the following way: he first added up the areas of plots, in which the estate's owner had interest for some reason. Then he specified this total according to particular categories of land, without attribution to the individual plots described above.[21] The following lines of the col. 81 (*πα*) are also worth our attention: the scribe here first mentioned the plot, on which heliotrope was cultivated (*πα* 12), then a field of barley for 'imperial donkeys' (*πα* 13–14), and then, in line 15 he probably totalled this small section. Let us note, that here we are dealing with untypical crops: heliotrope, which was used for dye production, and barley, a normal crop but grown for abnormal purposes.[22] We can assume that such an assign-

[21] I am conscious, of course, that such an attempt to reconstruct our scribe's procedure is only based on the identity of the sum in *πα* 7 and 8 with the numeral mentioned in *π* 18. The veracity of such a conclusion is supplemented by the numeral itself (17 $^{1}/_{16}$ $^{1}/_{64}$) as well as by the fact that not much of the text is missing in the col *π*.

[22] *κυριακοὶ ὄνοι*: *BGU* III 699 (Arsinoite, 2nd cent. AD), 2, 11, 14 – workers employed *σὺν κυριακοῖς ὄνοις* (l. 2), *μεθ' ὄνων κυριακῶν* (l. 11); *PSI* IX 1083 (Oxyrhynchos, 3rd cent. AD), *recto*, 1; *κυριακοὶ κάμηλοι*: *BGU* III 712 (Arsinoite, 2nd cent. AD), see also *P. Gen.* I 35, 4 (prov. unknown, AD 161) and *P. Lond.* II 328 (p. 74), 9–11 (Arsinoite, AD 163): *καμήλ(ους) παρέσχον εἰς κυριακὰς χρείας τῶν ἀπὸ Βερνείκης γεινο(μένων) πορειῶν*, 'camels for imperial service on the caravans that travel from Berenike (which must be the great port on the Red Sea)'. Neither imperial donkeys nor camels were discussed by Aurelia LEONE in her *Gli animali da trasporto nell'Egitto greco, romano e bizantino* (= *Papyrologica Castroctaviana. Studia et textus* 12), Rome – Barcelona 1988.

The donkeys mentioned in col. *πα* were 'imperial' probably because they belonged to an imperial estate. There is, however, another possibility which should be at least mentioned here. We know that this part of the document refers to the period after year 22 of Caracalla, i.e., after AD 213/4. This coincidence raises the question whether the fodder for these donkeys was not perhaps collected for a planned visit of Caracalla to Upper Egypt. Adam ŁUKASZEWICZ (*Aegyptiaca Antoniniana. Działalność Karakalli w Egipcie*, Warsaw 1993), who made a detailed reconstruction of Caracalla's visit to Egypt (December 215 – April 216), was of the opinion that because of dramatic events in Alexandria the emperor did not go to the Thebaid. There is, however, enough evidence to assume that such a visit was planned; in the Fayum the government had collected the animals (donkeys and camels) necessary for the travel of the emperor's household but eventually it turned them back to their owners (*P. Strasb.* IV 245, with discussion by ŁUKASZEWICZ, pp. 152–158). During Caracalla's reign there was a lot of building activity in Egyptian temples not only in the Fayum but also in Upper Egypt; from the Thebaid we know of two statues of the Emperor

ment of the aforementioned plots caused their special treatment by the official of the estate.

In line 2 of col. 82 (*πβ*) a new section begins, covering land privately-owned by a certain Claudius Apollinarios. Among parcels owned by him, there is a ten-arourae plot of *ge monartabos* (*πβ* 4–7), one three-arourae plot (*πβ* 8–10) and some others. Col. 83 (*πγ*) begins with a small (1 $^{1}/_{8}$ ar.) plot of katoikic land registered in Psonis (*πγ* 2–5); this plot is followed by another of bare land in the northern part of which brick-making and a furnace were located. What exactly was covered by the total in *πγ* 12 (29 $^{3}/_{4}$ $^{1}/_{8}$ $^{1}/_{16}$ $^{1}/_{64}$ ar.), with subtotals in lines 13–15, remains obscure. Col. 84 (*πδ*) begins with a new title: 'And from an exchange contract of M[ ] son of Protas from Panopolis', then another exchange contract is mentioned. Columns 85 (*πε*), 86 (*πς*), and 87 (*πζ*) contain plots which are often described topographically; col. 88 (*πη*) includes plots of Salvia Timagenis.

Irrespective of the character of the document we may note, that in the descriptions of plots the clerk was particularly interested in trees (above all date-palms, also olive-trees, acacias, and tamariscs), for which the owner (or tenant) had to pay tax in cash. The tax for these was probably added to the vineyard tax, also paid in cash; the total of liabilities in cash, not preserved in this section, is still visible at the end of two previous sections: 798 dr. 3 ob. in *ξη* 6 and 11, and 777 dr. 3 ob. in *οζ* 3.

In several places large spaces were left within columns (col. 84 [*πδ*], 85 [*πε*], and 86 [*πς*]). Probably the blank space was to be filled later by specifications of totals of particular land categories or by data from other *kollemata*. But why were these not filled? Did the clerk simply forget to make the intended specifications or did they prove to be smaller than anticipated?

and some inscriptions. According to Łukaszewicz, a reconstruction of one of the famous colossi of Memnon in Western Thebes could also be connected with the planned visit. Our papyrus would, however, be the first document from the Thebaid to witness the preparations undertaken there for the visit.

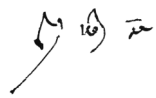
For animal requisition in Roman Egypt, see in general C. Adams, *Land Transport in Roman Egypt. A Study of Economics and Administration in a Roman Province* (*Oxford Classical Monographs*), Oxford 2007, pp. 135–154, esp. pp. 145–154 (the provision of transport for official visits).

*

It is worth noting that the clerk first gives a total which is then itemised for particular crops and land plots, see, e.g., *πζ* 3–5. This procedure is stressed by adding the *(γίνονται) αἱ π(ροκείμεναι)* formula immediately following the different items (*πζ* 6). The total is sometimes given twice, and the repeated total is followed by the *(γίνονται) αἱ π(ροκείμεναι)* formula reduced to a very symbolic form (*πζ* 8–9). A total of a particular land category is followed by subtotals taken from preceding columns and always given in brackets. The column's number is marked by a horizontal stroke above it. Unfortunately, in the present state of preservation of our document, the cross-reference between the subtotals in brackets and the entries corresponding to them in particular columns are to be found only sporadically; all of these are pointed out in the relevant notes.

The phrase ἐπὶ κολ(λήματος)

In P. Bodmer I *recto* we find numerous plot-entries followed by a reference to one of the previous columns of the document. Unlike the case of subtotals in brackets where the column number stands alone at the end of the plot entries, here it is preceded by the phrase written almost identically in all cases (the example is taken from *οη* 9):



There is no doubt that the noun is to be read as *κόλ(λημα)*, but what is in front of it? We expect a preposition, although in fiscal documents of Roman period the technical reference to a column is normally made by the noun *κόλλημα* alone, usually restored by editors in genitive.[23] For the

[23] For *kollema* as a papyrus sheet in a roll, see N. Lewis, *L'industrie du papyrus dans l'Égypte gréco-romaine*, Paris 1934, pp. 68–74; to some extent opposed by H. Ch. Youtie in his review in *American Journal of Philology* 57 (1936), pp. 217–221 (= *Scriptiunculae*, Amsterdam 1973, pp. 717–722). Despite Youtie's criticism, Lewis repeated the opinion in *Papyrus in Classical Antiquity*, Oxford 1974, p. 79. The meaning 'column of writing' was accepted by *LSJ Suppl*.

preposition preceding the noun κόλ(λημα) we have found an excellent parallel: in an official letter announcing the visit of the prefect, Larcius Memor, issued in Alexandria *c.* AD 192 (*BGU* XIII 2211), there is a note written between lines 1 and 3, in a hand different from that of the rest of the document: ἐ̣γ (= ἐκ) τό(μου) α ἐ̣(πὶ) κολ(λήματος) [ ] 'from the 1st roll in the [ ]-th column' (see the editor's note). On the photograph[24] we see that ἐ̣(πί) is written in the same way as the preposition in our document. As a matter of fact, it is the only occurence of the phrase ἐ̣(πὶ) κολ(λήματος) in papyri (*Duke Data Bank*). In two other documents, there appears the expression ἐκ κολ(λήματος): *P. Mich* V 314 and 349. Both come from the Tebtunis *grapheion* and are dated to the first century AD and AD 30 respectively; the notices were written by the same scribe who, according to the editor, 'may have intended to fill in the number of the *kollema* in the τόμος συγκολλήσιμος in which the official copy could be found when it was needed'.[25]

The meaning of συνοπ( ) *and land leasing*

In a typical land register of Roman times a plot description is often followed by information about the level of rent, which is usually introduced by the preposition *ἀνά* followed by the quantity of artabae. In P. Bodmer I *recto* we find no such examples; instead, some entries are followed by an additional line containing cultivation and number of artabae. Almost every line of this kind begins with an abbreviated word συνοπ( ); in the list below we have included the information on the land category, if available. We list below every place in which the number of artabae appears:

νβ 6–7 [ ]πυ̣[ρῶι (ἀ̣ρτ.)] ς λαχ(άνων) (ἀ̣ρτ.) δ S' θ̣ε̣. . ρ . [|
[βρω]σ( ) (ἀ̣ρτ.) ιγ' – land category unknown; συνοπ( ) possible at the beginning of the line;

[24] Note that the photographs on Plate I are printed in the wrong order; the one at the bottom, numbered 2213, is that of the document in question.

[25] In 'Introduction' to the volume, p. 8.

νζ 15 *συνοπ*( ) *πυρῶι κ* . . (*ἀρτ.*) *η λαχ*(*άνων*) (*ἀρτ.*) [*δ* S’] – land category unknown;

νζ 20 *συνοπ*( ) *πυ*[*ρῶι* – land category unknown;

νη 6 *συνοπ*( ) *πυρῶ*[*ι* – land category unknown;

νη 11 *συνοπ*( ) *πυρῶι* (*ἀρτ.*) *ṣ ὀσ̣π̣*[*ρέων* (*ἀρτ.*) *ζ λα*]*χ*(*άνων*) (*ἀρτ.*) *δ* S’ *βρώσ*(*εως*) [(*ἀρτ.*) *ιγ*] – land category unknown;

ξ 4 [*ὀ*]*σπρέων* (*ἀρτ.*) *ζ βρώσ*(*εως*) (*ἀρτ.*) [*ιγ*] – uninundated land (***abrochos***); *συνοπ*( ) possible at the beginning of the line;

ξ 9 [*ὀ*]*σ̣π̣ρ*[*έων* (*ἀρτ.*)] *ζ βρώσ*(*εως*) (*ἀρτ.*) *ιγ* – uninundated land (***abrochos***); *συνοπ*( ) possible at the beginning of the line;

ξ 13 [*ὀσ*]*πρέω*(*ν*) (*ἀρτ.*) *ζ* . . . . . [– land category unknown; *συνοπ*( ) possible at the beginning of the line;

ξα 5 [ ] *ἐπη*( ) (*ἀρτ.*) *ϵ ὀσ*(*πρέων*) (*ἀρτ.*) *ζ* – land category unknown; *συνοπ*( ) possible at the beginning of the line;

ξγ 10 [ ] *πυρῶ*[*ι* (*ἀρτ.*) – land category unknown; *συνοπ*( ) possible at the beginning of the line;

ξθ 8–9 [ ] (*ἀρτ.*) *η ἐπη*( ) (*ἀρτ.*) *ṣ* S *κρι*(*θῆṣ*) (*ἀρτ.*) *ι λαχ*(*άνων*) (*ἀρτ.*) *δ* S’ || [ ] *ἁ̣δ̣ροῦ* (*ἀ̣ρ̣τ̣.*) . . *βρωσ*( ) (*ἀ̣ρ̣τ̣.*) [*ι*]*χ* – land category unknown; *συνοπ*( ) possible at the beginning of the line;

οη 8 *συνοπ*( ) *πυρῶι* (*ἀρτ.*) *ṣ λ̣αχ*(*άνοιṣ*) (*ἀρτ.*) *δ* S’ *β̣*[*ρωσ*( )] (*ἀρτ.*) *ιγ* – land category unknown;

οη 11 *συνοπ*( ) *πυρῶι* (*ἀρτ.*) *ṣ ὀσπ*(*ρέων*) (*ἀρτ.*) *ζ βρώσ*(*ει*) (*ἀρτ.*) *ι̣γ* – land category unknown;

πβ 6 *συνοπ*( ) *πυρῶι* . . . (*ἀρτ.*) *ζ ϵπη*( ) (*ἀρτ.*) *ṣ λ̣αχ*(*άνοιṣ*) (*ἀρτ.*) *δ* S’ – land category unknown;

πβ 9 [*συν*]*οπ*( ) *ὀσπρέωι* (*ἀρτ.*) *ζ λ̣αχ*(*άνοιṣ*) (*ἀρτ.*) *δ* S’ *βρώσ*(*ει*) (*ἀρτ.*) *ιγ* – land category unknown;

πγ 4 *συνοπ*( ) *πυρῶι* (*ἀ̣ρ̣τ̣.*) *ṣ β̣*[± 4–5] *θέρμ*(*ου*) (*ἀρτ.*) *δ* – land category unknown.

*

The entries quoted above provoke some interesting observations:

(1°) all of them contain number for artabae, which does not occur elsewhere in the document;

(2°) all of them either begin or may have originally begun (i.e., the line beginning is in a lacuna) with the abbreviated word *συνοπ( )*;

(3°) it is striking that for a given cultivation the number of artabae is constant, e.g. *πυρῶι* with no additional remark is always followed by *(ἀρτ.) ς*; *λαχ(άνοις)* by *(ἀρτ.) δ S'* etc.

(4°) in all cases where the land category is given (or has survived), this is uninundated land (***abrochos***);

(5°) in the case of *πυρός*, the crop is always given in the dative (with *iota* adscript); in case of *ὄσπρεον* we have both dative singular (*πβ* 9) and genitive plural (*ξ* 4 and 13); the remaining crop names are always abbreviated and their grammatical case cannot be determined.

Observations (1°) and (3°) combined leave no doubt that the number of artabae is in fact a charge in kind levied on the land. Although there is no direct proof, the charge seems to represent the rent rather than, e.g., a tax in kind. The crops and the rent charged on them are as follows:

wheat, with no additional determination (throughout the document) – 6 artabae per aroura;
wheat *κ . .* (*νζ* 15) – 8 art./ar.;
wheat with another designation (*πβ* 6) – 7 art./ar.;
vegetable/vegetable seed? (frequent throughout the document) – 4 $^{1}/_{2}$ art./ar.;
pulse (frequent throughout the document) – 7 art./ar.;
barley (*ξθ* 8) – 10 art./ar.;
fodder (frequent throughout the document) – 13 art./ar.;[26]
lupine (*πγ* 4) – 4 art./ar.

The next problem that needs to be solved is the following: why does each entry contain four (sometimes even more) rents specified? In our opinion this could be connected with our observation (2°); each of those

[26] If my suggested reading is correct, see below, the section 'Fodder', pp. 36–37.

entries discussed here may have referred to land on lease. The word *συνοπ( )*, then, would be of crucial significance, without parallel, as far as we know, in the papyri. From words beginning with *συνοπ( )* and their meanings provided by lexica, we have decided to choose the adverb *συνοπτικῶς*, 'in a condensed *or* compressed style', i.e., as we have rendered it in our translation, 'briefly'.[27] The phrase as a whole could then have the following meaning 'briefly (speaking)' at rent of so and so; 'briefly' would mean that this is a brief summary of a land lease contract. In some way, the term introduces the rent charged on the land, given in a 'standardised' form, which would be known to the fiscal authorities. The *συνοπ(τικῶς)*-clause would then be a functional equivalent of the construction *ἀνά* + name of the crop + number of art./ar. usually following a plot description in land registers of Roman times (e.g., *P. Oxy*. VI 918).[28] Both refer to the registration of a lease by the fiscal authorities.

It is striking, however, that in P. Bodmer I *recto* the land leases (if our interpretation presented in the preceding paragraph is correct) contained the amount of rent at a standardised level. The document says: 'land at rent of 6 art. wheat, 10 art. barley, 13 art. fodder'; we suggest inserting, instead of commas, the conjunction 'or', although other possible interpretations could also be suggested here.[29]

The land in question is always *abrochos* (see [4°], above) probably because this is the land category mentioned in our document most often.[30]

[27] See *Δ. Δημητράκου, Μέγα Λέξικον τῆς Ἑλληνικῆς Γλώσσης*, t. XIII, Athens 1964, p. 6974, *s.v. συνοπτικός -ή -όν*: '(1) *ὁ βλέπων ἅπαντα ὁμοῦ, ὁ ἐπιθεωρητικός* ... (2) *ὁ περιλαμβάνων ἐν συνόψει τὰ διάφορα μέρη συνόλου τινός, ὁ καθολικός καὶ σύντομος, ὁ βραχύς*'; Lampe, *Greek Patristic Lexicon*, *s.v. συνοπτικός*, '(1) *of language or style* condensed, compressed ...'; *s.v. συνοπτικῶς*, 'in a condensed *or* compressed style'; *LSJ*, *s.v. συνοπτικός*, 'seeing the whole together, taking a comprehensive view'.

[28] The meaning of *συνοπ( )* may become clear one day if new documents containing it come to light, as has been the case of understanding other terms used in a technical sense, thus denoting meanings quite far from their etymological and general one(-s); see, for example, the term *ἐπιγραφή* (and *ὅλῃ τῇ ἐπιγραφῇ*) in a fiscal context (see the interesting remarks of Sophie Kambitsis in *P. Thmouis*, pp. 19–20).

[29] As, for instance, that the amounts of rent are given for subsequent years.

[30] See below, pp. 25–35, section 'Land categories'.

*

For a historian of Roman Egypt it is always important to know what the *ratio* of the lease rent, especially those in kind as we have in our document, is to an average yield. Estimates range from eight- to over twenty-fold; thus, if one artaba per aroura was a standard sowing, the yield would be between 8 and 25 art./ar.[31] The best and most reliable evidence comes from the Appianus estate at Theadelpheia in the Fayum; Dominic Rathbone has reached the average yield as being approximately 11.5 art./ar. at a single harvest a year.[32] 6 art./ar. of wheat (and all other rent amounts specified in our document) paid as a rent represents thus a little more than half the average yield but by no means appears to be exceptional.[33]

THE OFFICIALS' NOTES

Throughout the document there are some interesting notes of technical meaning, apparently important for ancient readers of the document. Let us begin their analysis by two short notes which apparently concern palm trees. The note of col. *νδ* 24: *δι' οἰνικ(ῶν) [πα]ραγρ(αφῶν) θεωρ(οῦνται) . . [* , is repeated almost unchanged in *πϵ* 8: *οἱ δι' οἰνικ(ῶν) παραγρ(αφῶν) θεωρ(οῦνται) [* . Both notes follow the specification of palm trees; the only difference is the presence of the article in the latter case. The printed text is of course only a suggested interpretation: the trees (*οἱ* sc. *φοίνικϵς* in *πϵ* 8) grown through or between (*διά* in its locative sense) the vine *paragraphai* are still to be examined (*θεωροῦνται*).[34] The term

[31] R. S. Bagnall & K. A. Worp, 'Grain land in the Oxyrhynchite nome', *ZPE* 37 (1980), p. 263, gives 8 art./ar.; A. Ch. Johnson, *An Economic Survey of Ancient Rome*, II, *Roman Egypt to the Reign of Diocletian*, pp. 148–149: 20–25 art./ar.

[32] Rathbone, *Economic Rationalism*, pp. 243–244; his results are accepted by Rowlandson, *Landlords and Tenants*, pp. 247–249.

[33] For the amount of rent in lease contracts, see Rowlandson, *Landlords and Tenants*, *passim* and especially pp. 236–252.

[34] For such a use of *θεωρέω*, see *P. Pher.* 122: *αἱ γιτνίαι ἐξ(ῆς) θεωρ(οῦνται)*, 'Die Anrainer

παραγραφή is attested in respect of vine cultivation: among the tasks to be undertaken by a tenant in a vineyard (*P. Oxy.* XIV 1631 [AD 280]) γ[ύ]ρ[ω]σις κ[αὶ π]αρα[γρα]φή is enumerated; the term occurs in another list of ἀμπελουργικὰ ἔργα in a vineyard of AD 188, *P. Oxy.* XIV 1692 descr., line 14, where its reading is certain. *Γύρωσις*, the equivalent to Latin ***ablaqueatio***, is digging of a circle round the vines; the meaning of παραγραφή is not so clear but it must refer to some kind of trenching, probably in connection with γύρωσις.[35] The trees in question grow then between vines or rather between trenches that surround them.[36]

A note of *oθ* 13: ἡ κοπεῖσ(α) ἔτι ἀποθεω̣(ρεῖται) concerns a tamarisk growing above a cistern (ἐπάνω ὑδρεύματος). We suggest the verb ἀποθεωρέω, not attested in papyri, be understood as a variation of θεωρέω;[37] this note is then a remainder to examine whether the tree in question had been cut down as was probably reported to the officials. The difference between this note and the two discussed earlier is that this one was written by the 'main' hand of the document. It is, however, worth pointing out that all of these three notes suggest the facts in the case of fruit trees be reexamined.

*

The document was checked by a person different from the 'main hand' scribe, who added some notes on margins; see, e.g., a note written by another hand in *νε* 15–16: [ ] μετατέθει[κεν] τὴν ἄμπελον; its purpose was to attract the attention of the tax official responsible for determining the level of tax.

werden unten im Augenschein genommen', 'the boundaries of the field will be examined closely later'.

[35] *Γύρωσις* is thoroughly discussed by SCHNEBEL, *Die Landwirtschaft*, pp. 267–269, who, however, failed to give any definition of παραγραφή. For its meaning, clearly originating from the primitive sense of γράφω, 'scraping' but also 'digging', see the comm. to lines 10–11 of *P. Oxy.* XIV 1631 (B. P. GRENFELL & A. S. HUNT) and ROWLANDSON, *Landlords and Tenants*, pp. 325–326, and *LSJ*, *s.v.* παραγραφή (V.).

[36] It is possible that παραγρ( ) in *νε* 11 is used in the same sense.

[37] See *LSJ*, *s.v.* ἀποθεωρέω, 'observe ... examine, consider'.

LAND CATEGORIES

We find in P. Bodmer I *recto*, as similarly in hundreds documents produced by the Roman administration, numerous technical terms referring to land. The terms used derive from different spheres of life which sometimes overlap with one another. We shall subsequently describe different terms appearing in our document: (1°) terms characterising land according to its hydrological features (inundation); (2°) terms characterising the fiscal and (3°) legal situation of a plot; and (4°) terms deriving from the previous categories but referring rather to the product of the land than to the land itself.[38]

(1°) *Terms characterising land according to its hydrological features (inundation)*

From the hydrological point of view the land in the Nile valley may be generally divided into five main categories: χέρσος ('dry land') – ἄβροχος ('uninundated land') – γῆ βεβρεγμένη ('inundated land [sc. regularly]) – ἔμβροχος ('overinundated land') – λίμνη ('pool of standing water left by the sea or river',[39] hence generally 'land under water').[40]

Abrochos

Land ἄβροχος, 'uninundated land', appears most frequently in our document. Generally speaking, *abrochos* is a kind of land which is neither inundated land (γῆ βεβρεγμένη) nor, if the flood was too high, overinundated land (ἔμβροχος) nor dry land (χέρσος). The poorer an inundation was the more there was of *abrochos* land; after optimal flood this category

[38] For a general introduction to land categories (including discussion of technical terms), see Rowlandson, *Landowners and Tenants*, pp. 27–69 (chapter: 'The land category system and its development').

[39] *LSJ*, *s.v.*

[40] Danielle Bonneau reached this concise classification of land categories after having discussed dozens of technical terms, see *Le fisc*, pp. 66–81 with conclusion on pp. 81–82.

might not appear at all.[41] As the tax rate depended on ascribing land to one of the categories,[42] a periodical official inspection, called *episkepsis*, was needed. Thirty years ago Danielle Bonneau argued that *episkepsis* was not an annual procedure (as was believed before) but applied only to those areas where it was deemed necessary; the local authorities could undertake this action on their own initiative or in response to a request from the landholder.[43] From the mid-second century AD the landholder had to declare the *abrocheia* of his land, acting in response to an invitation from the fiscal administration. Although some details of the *episkepsis* procedure still remain unclear, the view expressed by Bonneau has been commonly accepted.[44]

Although in our document there is no explicit evidence for the *episkepsis* procedure, it could have been connected with it in some way, for instance the *kollemata* referred to, where the *abrochos* land is mentioned, might have contained declarations of *abrocheia* and the author of our document, a fiscal official, could have prepared their summary in order to tax the land according to the results of the inspection.

Abrochos was a kind of land where artificial irrigation was possible and commonly applied. Designation of the crops cultivated on *abrochos* land as ἐπηντλημένος is surely not coincidental; both these terms logically refer to the same kind of land, seen however from different viewpoints.[45]

Surprisingly enough, our documents say sometimes that the *abrochos* was the land on which tax (or rent) was levied at higher level than on the land regularly inundated.[46] The documents do not explain what was the

[41] Ἄβροχος was a technical term discussed intensively since the very beginnings of papyrology (the first stage of this discussion is summarized by Friedrich Preisigke in his *Fachwörterbuch*, *s.v.*, with ample bibliography quoted and by Schnebel, *Die Landwirtschaft*, pp. 24–29) until early 1970s when *Le fisc* by Danielle Bonneau appeared. The latter's conclusion (pp. 78–81 with bibliography on the term quoted in n. 393) seems to be commonly accepted and forms basis of our interpretation.

[42] See below, pp. 30–35.

[43] Bonneau, *Le fisc*, pp. 90–92.

[44] See, e.g., Rowlandson, *Landlords and Tenants*, pp. 76–77.

[45] See Schnebel, *Die Landwirtschaft*, p. 28.

[46] Wallace, *Taxation*, p. 9 and 358, n. 36.

reason; we may guess[47] that this involved *abrochos* land that was perennially irrigated and lay outside the basins. This land might even produce two crops a year. P. Bodmer I *recto* does not explain this further but it is worth pointing out that there are additional denominations of the land that denote an absence of cultivation (see the following paragraph). On the other hand, rather high level of rent in kind paid on the *abrochos* land (see above) suggests that this kind of land must have been quite productive.

Abrochos land might not be cultivated, probably because artificial irrigation was not applied; in our document such a situation was recorded in *νδ* 10: *ἄβροχος ἦλος* (the first occurrence of the term, see comm. *ad loc.*). It is not surprising that on *abrochos* land (additionally described as *ἀνεσκαμμένη*, 'not dug for cultivation') (*ο* 8–9: *ἀβρόχ(ου) καὶ ἀνεσκ(αμμένου) εἰς [οἰνικὸν] κ̣[ε]ραμεῖ(ον) – (ἄρουρ.) α d' η̄ ις̄ λ̄ο . .*; *ο* 12: *[ἀβρόχ(ου) καὶ ἀν]εσκαμ(μένου) εἰς οἰνικὸν κεραμεῖ(ον) (ἄρουρ.) L λ̄ο[ ]*). On *abrochos* land bricks were manufactured, too (*ξθ* 12: *ἀβρόχ(ου) ἐν (ἦ) πλινθουλκ(ία)*).

Chersos

In our document the *χέρσος*, 'dry land', appears in one section: *οθ* 9, 15, and *πα* 3.[48] In *οθ* 9 the term is connected with *καὶ ἄλλ(ης)* sc. *γῆς* and then followed by a vertical stroke and the term ***hypologos*** (on its meaning, see below); from *οθ* 15 we learn of a tower on land described as *χέρσος καὶ ἄλλη*; the plot's area is slightly more than a quarter of an aroura.

There are two possible explanations why land might be *chersos*: either it had not, for some time, received enough water from the annual inundation or it had been left unsown for some reason. Its productive capacity could be restored but only by constant irrigation for a longer time which was expensive and labour-consuming.[49]

[47] After A. C. Johnson quoted by Wallace, *Taxation*, p. 358.

[48] In *οθ* 15 *χέρσος* is in a lacuna but its reconstruction is unquestionable because of *πα* 3.

[49] For the definition of *chersos*, see W. L. Westermann, 'The dry land in Ptolemaic and Roman Egypt', *Classical Philology* 17 (1922), pp. 21–36, and Schnebel, *Die Landwirtschaft*, pp. 9–24.

Chersabrochos

In our document, in one case the *abrochos* land is described together as χερσάβροχος (πα 9). The land had to be a category separate from both of those from which it took its name, *abrochos*, 'uninundated land' (see above), and *chersos*, 'dry land' (see above). The term is, anyway, rare; apart from P. Bodmer I *recto* it appears in two documents only: *P. Ryl.* II 207a, 29 (a land survey from the Hermopolite, 2nd cent. AD) and *P. Oxy. Hels.* 9, 20 (Oxyrhynchos, AD 26).[50] *Chersabrochos* was by no means unproductive land; probably on land of this category *chersampeloi* were located.[51]

Ge aneskammene / eskammene

Ἀνεσκαμ(μένη) sc. γῆ (in our document: ο 7, 12, 13[52]) is a kind of land category not attested until now. It seems to be a further designation for *abrochos* land (see above) and must have referred to land which had been dug ready for cultivation.[53] The word is well attested in Greek literary texts. Because of its occurrence in Psalm 79:17 it was discussed by ancient commentators (Origenes and Eusebius).

[50] The most instructive discussion of the term is to be found in *P. Oxy. Hels.* 9, 20 comm. (with bibliography); see also SCHNEBEL, *Die Landwirtschaft*, p. 28. The term, surprisingly enough, was not discussed by BONNEAU.

[51] It could be noted by the way that the issue of the agricultural use of *chersos* and *chersampelos* land seems to need a separate study. I have observed another question which I cannot solve: why there are only vines (and no other kind of cultivation) that appear in connection to *chersos* land – according to *DDBDP* there are 40 occurences of *chersampeloi.* As Roger S. BAGNALL pointed out in his e-mail (9 Nov. 2000): 'It might be added that dryness is good thing in a vineyard, if not carried to excess. Wine is ruined by the grapes having too much water. Grapes are best off with either a modest level of rainfall or very carefully controlled irrigation. So dry land would have had much to recommend it. How a *chersampelos* differs from *abrochos*, however, I find difficult to understand'.

[52] In two places (lines 12 and 13) the reading is beyond any doubt; the reading ανεσκεμ( ) as a form of σκέπτω is impossible.

[53] See *LSJ*, *s.v.* ἀνασκάπτω, 'dig up'; see also σκάπτω, (1) 'dig, delve, for cultivation'; (2) 'dig about, cultivate by digging'; as for the passive *LSJ* gives only τὰ ἐσκαμμένα = τὸ σκάμμα, 'place dug up, on which athletes landed in the long jump'.

In a document of a sixth-century date (*SB* III 6268[54]), the phrase *γῆ ἐσκαμμένη* appears. This is, apparently, a technical term with the same meaning as our *ge aneskammene*. This term occurs for a second time in our document (written *ἐσκαμ( )* in *οα* 3); its connection with *abrochos* land is quite possible.

Ge ammochostos

Ἄμμοχώστος sc. *γῆ* (in our document: *νε* 18) refers to a parcel sanded up, perhaps indicating that it was located near the desert.

The term *ἀμμοχώστος* is rare and occurs in the documents of the third and fourth centuries AD; viz. exclusively: *W. Chr.* 227, 1 (Arsinoite, AD 203/4); *P. Bad.* IV 90, ii 27 (Arsinoite, 3rd cent. AD); *P. Oxy.* XXXXIV 3170, xii 265 (3rd cent. AD); and *P. Col.* VII 172, 17 (Karanis, *c.* AD 341/2). Its earlier equivalent, commonly used in documents of the Ptolemaic and early Roman periods, was *ὕφαμμος* (the latest occurences for which are: *P. Amh.* II 85, 15 [Hermopolite, AD 78]; *P. Flor.* III 368, 12 [Hermopolite, AD 96] and *P. Ross. Georg.* II 42, col. ii, 17 [Memphite, 2nd cent. AD]). The date of *SPP* V (= *CPHerm.*) 45, (*ὕφαμμος* in l. 1) is uncertain and we know of no reason why Preisigke dated this document to the third century AD (*WB*, *s.v. ὕφαμμος*). The evidence then clearly shows that at the turn of the second and third century AD the term *ἀμμοχώστος* replaced *ὕφαμμος* in the vocabulary of the bureaucracy.

Edaphe nesiotika

Νησιωτικὰ ἐδάφη in *πς* 2: a great part of this type of land was either carried away by the river or eroded (for details, see below). This is a land category; its name originates from the special meaning the noun *νῆσος* had in Egypt. An 'island' was a shallow emerging sometimes due to the accumulation of Nile silt; in Egyptian terminology land of this kind was called 'new' (*maout*, *tmoui*). The 'islands' would be cultivated; they were,

[54] *Ed. princ.* MONDINI in *Studi della Scuola Papirologica* 1 (1915), 9 (no. 3); the papyrus is not listed in *BL* I–XII.

however, unstable, and likely to disappear again with the next flood (as was the case of *νῆσοι ποταμοφόρητοι*).[55]

Ge potamophoretos

Γῆ ποταμοφό(ρητος), 'land carried away by the river', is a land category which occurs infrequently in Greek documents of all periods.[56] Such land was classified after an *episkepsis* had been made. In our document this term appears in *π* 8 and 9 (in the margin), *πα* 2, and *πς* 4 where it is combined with *ge katexysmene* (see below).

Ge katexysmene

Once, in *πς* 4 the land *potamophoretos* is put together with *κατεξ(υσμένη)* sc. *γῆ*, 'eroded land'.[57] It is worth noting that out of 83 $^{1}/_{4}$ arourae of land in 'island' plots (see above) lying close to the Nile, as much as 77 arourae was characterized as *potamophoretos* and eroded.

Chous

Χοῦς, genitive in our document *χοός* (*οα* 5), 'soil excavated or heaped up' (*LSJ*, *s.v.* *χοῦς* [B]), refers to the land. '*Chous* est bien, en matière d'irrigation, l'épaisseur de terre qui forme la digue (*P. Tebt.* I 13, 14; *SB* VIII 9699,[58] 51);

[55] Bonneau, *Le fisc*, p. 70.

[56] For *ποταμοφόρητος* as a land category, see Bonneau, *Le fisc*, p. 69, with a list of documents in n. 303; to her list add now: *P. Oxy.* LV 3804, viii 171 and 178 (ad 566); 3805, v 57 (ad 566 or later).

[57] For *κατεξυσμένη* as a land category, see Bonneau, *Le fisc*, p. 69, with a list of documents in n. 302; to her list add now: *P. Tebt.* IV 1117, 95, 115, and 121 (120/19 bc); and 1118, 69 (117/6 bc); *BGU* XIV 2449, iii 57, 61 and 66 (1st cent. bc).

[58] *SB* VIII 9699 = *P. Lond.* I 131 *recto* (p. 166) reedited by A. Świderek, *La propriété foncière privée dans l'Égypte de Vespasien et sa technique agricole d'après P. Lond. 131 Recto*, Warsaw 1960 (= *Bibliotheca Antiqua* 1).

c'est aussi la masse de terre déplacée et tassée chacque année pour l'entretien de l'installation d'une roue à eau'.[59]

(2°) *Terms characterising the fiscal situation of a plot*

Ge monartabos

Γῆ μονάρταβος (*πζ* 3 and *πβ* 5) is a type of land taxed at one artaba per aroura. Originally *monartabos* was a general designation of land of this kind, and developed later into a land category *sensu stricto*.[60]

In *πβ* 5 *monartabos* is a fiscal determination of *ge eonemene*.

Monodrachmos and *pentadrachmos*

In our document both these terms refer to date orchards (*φοινικών*). They have to be understood as designating the amount of tax on the orchards, not too high, we may add. For *pentadrachmios,* see *P. Ryl.* II 427 (late 2nd or early 3rd cent. AD), a document dealing with garden land in the Mendesian nome which also records *monodrachmos* land; for *monodrachmos* we have more parallels.[61]

Phyteia

In our opinion P. Bodmer I *recto* suggests that the term *φυτεία* with its general meaning 'planting' belonged to the fiscal vocabulary of the Roman administration. Its purpose was to point out that the land so described was taxed in money and not in kind.

[59] BONNEAU, *Le régime administratif*, p. 124 and n. 31. See also *P. Col.* X 255 (AD 131), where *chous* seems to have meant *sebekh* used in vineyards as a fertilizer (see the editor's remarks on p. 30).

[60] See ROWLANDSON, *Landowners and Tenants*, pp. 35–36.

[61] Both taxes were discussed by WALLACE, *Taxation*, pp. 65–66 (*pentadrachmos*) and 68–69 (*monodrachmos*).

(3°) *Terms characterising the legal state of a plot*

Ge eonemene

In Roman times *γῆ ἐωνεμένη* (in our document in *νζ* 12 and *πβ* 5) was the land sold off by the authorities to private individuals. It was mostly uncultivable land, unburdened with taxes, i.e., ***hypologos*** ('land in deduction', see below). Such land was sold at a low and fixed price (our evidence shows that prices varied from 12 drachmae up to 20 drachmae per aroura depending on the nome). The land then was free from taxation for three years; after this ***ateleia*** period, the land, at least in most cases recorded in our sources (including the case of the ten arourae plot in *πβ* 5 of P. Bodmer I ***recto***), became ***monartabos***, i.e., paying tax of one artaba per aroura. All these regulations were intended to induce purchasers to use their own capital to restore cultivation on unproductive plots of land.[62]

Katoikic land registered in a *γραφὴ καταλοχισμῶν*

If our conjectural reading of *πγ* 2 is correct, then P. Bodmer I ***recto*** contains evidence for katoikic land registered in a *γραφὴ καταλοχισμῶν* of Psonis in the Panopolite.[63]

Καταλοχισμός was the distribution of parcels of land (*κλῆροι*)[64] to the *κάτοικοι*. The administration of *καταλοχισμοί* was supervised by an official residing in Alexandria (*ὁ ἀσχολούμενος τοὺς καταλοχισμούς* or *ὁ πρὸς καταλοχισμοῖς τῆς Αἰγύπτου*) who had his agents in different nomes. They took

[62] For *γῆ ἐωνεμένη*, see Rowlandson, *Landlords and Tenants*, pp. 48–53. The author made a distinction between land sold at a fixed price and that sold at auction to the highest bidder. The latter comprised confiscated land which was not unproductive for the most part and which was of minimal significance in the general composition of the land categories (see Rowlandson's conclusion on p. 53). In our document we find *ge eonemene* which is *monartabos*; this could be taken as additional proof that the land was originally unproductive.

[63] For discussion and possible other readings, see comm. *ad loc.*

[64] Preisigke, *Wörterbuch*: 'Zuteilung von Militär-Leheland an einen *λόχος* (Kompanie): so entstand Katökenland'; and not 'register of grants of land to military settlers', as in *LSJ*, *s.v.*

care over a separate property register (*γραφὴ καταλοχισμῶν*) kept for katoikic land.[65]

Another argument for *πγ* 2 representing the start of a new section which registered the changes in possession of *kleroi* of katoikic land is to be found in *πδ* 7–9: only a part of a *kleros* is mentioned there.

Hypologos

In lines 12–14 of a unique glossary of administrative terms concerning land survey and taxation, *P. Oxy.* XXXVIII 2847 (first half of 3rd cent. AD), there is a definition of *ὑπόλογος*: 'The revision of all unproductive imperial land takes place every three years, and the land is called *hypologos* ('land in deduction'), since it is deducted from the amount of land in each area, so that the productive part is left'. It is interesting that in our document *hypologos* is in some cases put together with *phyteia*; a logical explanation of this might be that neither *hypologos* nor *phyteia* was subject to tax in kind, the first paying nothing the latter being taxed in cash.

Idiosporeia

The term *ἰδιοσπορεία* (*π* 3) implies that the cultivation is undertaken by the first lessee as opposed to sub-letting. Preisigke, *WB*, *s.v.*: 'Bestellung

[65] For *katalochismoi* and their administration, see *P. Oxy.* I 45, introduction; ROWLANDSON, *Landlords and Tenants*, pp. 43–48 and 180; M. RASHKE, 'An official letter to an *agoranomus*: *P. Oxy.* I 170', *BASP* 13 (1976), pp. 17–29, esp. 18–20; all these authors deal with a special case from the Oxyrhynchite in the last three decades of the first century AD, known from a group of notices submitted to *agoranomoi* at Oxyrhynchos, a part of which (group [1] according to Rashke's typology) concerns either the cession of a piece of katoikic land or the payment of the tax on a mortgage on katoikic land. The *agoranomoi* documents from Oxyrhynchos have a vast bibliography including H. J. WOLFF, *Das Recht der griechischen Papyri Ägyptens*, II, pp. 200–201 (with earlier literature discussed); an introduction to a new document belonging to this group, *P. Oxy.* L 3556 with additional bibliography; RASHKE, 'An official letter' (cit. *supra*); L. C. YOUTIE, 'Notes on texts pertaining to catoecic registry', *ZPE* 40 (1980), pp. 78–80; A. MARTIN, 'P. Oxy. II 331 (83), contrat de vente d'une mètrikè oikia', *CE* 56 (1981), pp. 299–303; and H. J. WOLFF, 'Bemerkung zur Katagraphefrage', *CE* 57 (1982), pp. 136–137.

des Ackers, welche durch eine bestimmte Person selber (nicht durch jemand anders) bewirkt wird' with a quotation of a long passage of *P. Ryl.* II 142 (AD 37) as the most important source for understanding the technical meaning of the term in question.

Idiosporeia seems to be a strictly technical term occuring in papyri in the period first–third cent. AD: *P. Ryl.* II 142, 18 (Euhemeria, AD 37); *P. Hib.* II 282, *recto*, 20 (Hibeh, 1st–2nd cent. AD); *P. Sarap.* 80, 10 (Hermopolite, 2nd cent. AD); *PSI* VII 808, *verso*, 2, 9 (Oxyrhynchos, 3rd cent. AD).

Anapauma

The reading of the abbreviated αναπᾱ in οβ 4, and ανα᾽ in οη 7 is based on αναπαυ˜ in οθ 3, where the intended letter was clearly a *mu*, and not a *sigma*. Ἀνάπαυμα = ἀνάπαυσις is fallow land.

However, among the fallow crops that Schnebel included in his very instructive list there is no example of palm dates.[66]

(4°) *Other terms*

At the end of this section two technical terms which represent a land category designation of some kind will be discussed.

Ge epentlemene

The participle ἐπη(ντλημένος) frequently appears in our document, both as a land designation with number of arourae following and as the characterisation of a crop in lines where the rent of land on lease is given.

επη̄ = ἐπη(ντλημένη) γῆ (νβ 6; νδ 7; ξα 5; ξθ 8; ο 6; οβ 7, 8; οθ 18, 19, 23; π 4, 12; πβ 6; πγ 10; πζ 2 [?]): land where only artificial irrigation is pos-

[66] Schnebel, *Die Landwirtschaft*, pp. 220–228.

sible.[67] The term is a perfect participle. This technical term was in use from the second century onwards, serving as an equivalent for the earlier ἐπαντλητός (sc. γῆ).[68] The term ἐπηντλημένη was usually abbreviated as επη( ) or επ( ). Because of the chronological disposition of both terms we suggest resolving the abbreviation επ( ) as ἐπ(ηντλημένη), and not as ἐπ(αντλητός), in documents dated later than the second century AD, e.g., in *P. Flor.* I 64. On the same basis, because of the appearance of ἰδίαν χέρσον ἐπαντ⟨λ⟩ήτω[ν], we suggest a dating of *O. Petrie* 306 to no later than the first century AD.

Phorimos

In our document, the adjective φόριμος is used both as a designation for trees (date palms in νδ 23, πε 6 and 8; tamarisk in οθ 12; and fruit trees in general in οθ 11) and as a term related to land (date orchard in νε 10, νς 24 [?], ο 3, 14 and 17; vineyard in νη 10 and 14, πα 4 and 5; unknown land in νγ 3). The term is a technical one and was important for the amount of tax that could be levied.[69]

TYPE OF CULTIVATION/CROPS[70]

Several kinds of crops are mentioned throughout the document. This data provides us with an interesting picture of what was cultivated in the fields of the Panopolite nome, not far from the metropolis itself.

[67] See PREISIGKE, *WB*, *s.v.* ἐπαντλέω, 'künstlich bewässern (den Acker, mit Wasserhebewerk)', and BONNEAU, *Le régime administratif*, pp. 212–216.

[68] For the meaning of ἐπαντλητὸς γῆ, see *Fachwörterbuch*, *s.v.*, 'künstlich zu bewasserndes Ackerland (wohin man schöpfen muß, d.h. von der Nilschwelle nicht erreichtes Land)'.

[69] Concerning *phorimos* as a land category, see *P. Ryl.* II, pp. 243–247; it was in fact equal to γῆ τελοῦσα, see *P. Ryl.* II, p. 244 and n. 1.

[70] In this section we shall discuss in a more detailed way only those crops which contribute significantly to our understanding of the document as a whole.

Wheat

It is worth noting that in our document wheat (*πυρός*) appears mostly in lines beginning with the *συνοπ(τικῶς)*-clause which determines the rent amount (see above). Wheat with no additional determination (frequent throughout the document) is taxed at 6 artabae per aroura, wheat *κ . .* (*νζ* 15) – at 8 art./ar. and wheat with another designation (*πβ* 6) – at 7 art./ar. (neither designation is clear).[71]

Wheat in plot descriptions:

land sown with *πυρῶι ἐπη(ντλημένωι)*: *οβ* 7, *οθ* 18, *πζ* 2 and 4;
πυρός mentioned with a following designation in a lacuna: *νς* 17 and perhaps *πα* 19.

Wheat, *Triticum aestivum*, had become the most common bread corn in Egypt since the beginning of Graeco-Roman age. It was the prime component of the inhabitants' diet and a medium for tax and rent payment throughout Egypt.[72]

Fodder

It is interesting that in our document fodder (*βρῶσις*)[73] appears separately only in those places where the rent amount is given: in these cases it is always taxed at 13 art./ar.[74] Whenever a land plot is described, this

[71] For the list of rents to be paid in wheat, see above, p. 22.

[72] Concerning the cultivation of wheat, see in general Schnebel, *Die Landwirtschaft*, pp. 94–182; some interesting remarks are to be found in Rowlandson, *Landlords and Tenants*, pp. 19–20.

[73] *LSJ* gives *s.v. βρῶσις* the meaning '(I.2) pasture', with a reference to *P. Lips.* I 118, 15, but the meaning 'fodder' seems to be much more likely.

[74] For the list, see above, pp. 19–21. Although I keep my reading, I shall quote the opinion of Roger S. Bagnall expressed in his e-mail of 12 Nov. 2000: 'There is a larger problem here. I looked at all the instances of *βρῶσις* and think that there is no case where this figure of 13 art. appears. If I've counted right, *βρῶσις* appears with an area of land 15 times

term occurs only following the name of a crop (wheat, barley, lentils). It seems, therefore, that it was the crop destination that mattered for the official (for instance, that this particular barley was to be used for fodder and not for consumption); the amount of rent paid in kind was also important, surprisingly enough the official was not interested in the kind of crop of which the rent was to be paid; it was the 13 artabae to an aroura which was important and not the crop to which this applied.

Fodder in plot description:

land sown with *κριθῆι*[75] *ἐπη(ντλημένωι) βρώσ(ει)*: *ο* 6, *οβ* 8, *οθ* 19 (barley with additional designation: *αρ( )*), *π* 3–4 and *πα* 13 (in both cases it is barley designated for fodder for the imperial donkeys), and *π* 12;
land sown with *φακῶι ἐπη(ντλημένωι) βρώσ(ει)*: *οθ* 23 and *νδ* 9;
ἀρά(κου) βρώσ(ει): *πζ* 4 and *πη* 8 (***arakos*** for fodder of cattle);
unknown crop cultivated for fodder: *νδ* 7, *ξδ* 5, *ξε* 5 (crop *ἐπη(ντλημένος)*) and 14, *ξς* 4, 15 and 17, *οθ* 4 (crop *ἐπη(ντλημένος)*), *πβ* 15, *πζ* 16.

It is interesting that, in the list of totals in *νς* 21, the noun *βρῶσις* appears without any further designation.

Barley for fodder

Barley for fodder, grown on artificially irrigated land, *κριθῆς ἐπη(ντλημένος) βρώσ(ει)*, is listed above. There is only one place in our document where barley is mentioned without the additional information that it was to be used for fodder: *οθ* 8.

(so and so much land in fodder); in 4 cases the context is too fragmentary to tell. That leaves 7 cases in which you read or restore art. 13. But of these, 5 are extremely fragmentary, and one could read or restore there only on the basis of a better-preserved instance. These are *νη* 11, *ξ* 4, *ξθ* 9, *οη* 11, and *πγ* 4, none of which seems to me clear. That leaves **only** *πβ* 9 and *πγ* 18 as supposed instances. I cannot read 13 there. What I see, rather, is a little symbol that you are reading as artabas, followed by a sinusoidal S-curve, and then what looks to me like a ***pi***. I would incline to think it was a(rguriou) (drachmas) 80. But this seems very high to me as a rent figure for'.

[75] For the reason why the crop's name is in the dative case, see above, pp. 10–11.

In ancient Egypt barley (*Hordeum vulgare*) was commonly used either for beer-making (there is no evidence for this use in our document) or as fodder for donkeys, camels, and horses (in cavalry units). It is worth noting that only the latter is mentioned in our document.

Lentils (for fodder)

Land sown with *φακῶι ἐπη(ντλημένωι) βρώσ(ει)*: *οθ* 23 and *νδ* 9; *φα̣[κοῦ] σπάρτ(ου)* in *πη* 5, 'lentils grown from seed'.

Lentils were commonly cultivated;[76] Jane Rowlandson records their use for feeding pigeons which in turn provided fertilizer for vineyards and were a source of meat.[77]

Vegetable/Sesame

The word *λάχανον* has two meanings in the papyri; it is either a general term used for signifying all kinds of vegetable or a specific term meaning a particular crop.[78] For the latter some years ago I suggested the identification with lettuce which was cultivated in Egypt as early as the Old Kingdom.[79]

In our document vegetable appears only as the amount of rent; it is always 4 $^{1}/_{2}$ art./ar. Where this appears with artabae, I would suggest the likelihood that *λαχ(ανοσπέρμου)* is the correct resolution, as this is the commodity reckoned in artabae. Roger S. Bagnall has recently demonstrated that *lachanospermon* is sesame.[80]

[76] See Schnebel, *Die Landwirtschaft*, pp. 191–193. Lentils were in Antiquity and still are very important in Egyptian agriculture. John Rea, who underestimates their significance in modern Egypt, in his note to *P. Oxy.* LI 3638, 13, pointed at Aulus Gelius, *Noctes Atticae* XVII 8, 2 where Egyptian lentils (either imported from Egypt or cultivated in Greece) are the main ingredient of a meal.

[77] Rowlandson, *Landlords and Tenants*, p. 24.

[78] See Schnebel, *Die Landwirtschaft*, p. 210.

[79] *P. Naqlun* I, pp. 143–144; see also R. S. Bagnall, *Egypt in Late Antiquity*, Princeton 1993, pp. 29–31.

[80] See R. S. Bagnall, 'Vegetable seed oil is sesame oil', *CE* 75 (2000), pp. 133–135.

Pulse

Ὄσπρεα is a general term used for pulse of any kind.[81] In P. Bodmer I *recto* it appears only in lines containing the *συνοπτικῶς*-clause. The rent to be paid in pulse is 7 art./ar.

Bean

Bean, *κυαμώ(ν)*, cultivated on a small plot of $^1/_8\,^1/_{32}$ of an aroura (*ο ε*) is horsebean.[82]

Lupine

Θέρμος, in *πγ* 4 recorded as the amount of rent (only 4 artabae from an aroura) is lupine; this crop was commonly cultivated in Roman Egypt.[83]

Arakos

Ἄρακος (2 $^1/_4$ ar. on a plot belonging to Salvia Timagenis in *πε* 6) is a leguminous crop, identified as *Lathyrus annuus*, wild chickling.[84]

Date palms (*φοίνικες*) and date orchards (*φοινικῶνες*)

In P. Bodmer I *recto* the date palms are mentioned in two different ways: (1°) with their number following, and (2°) with the relevant area given in arourae. It seems quite clear that in case (1°) we have odd trees scattered round the plots and in case (2°) we deal with orchards with

[81] Schnebel, *Die Landwirtschaft*, p. 185.

[82] See Schnebel, *Die Landwirtschaft*, pp. 193–194.

[83] See Schnebel, *Die Landwirtschaft*, pp. 194–195.

[84] See *LSJ*, *s.v.*, Rathbone, *Economic Rationalism*, p. 215; Rowlandson, *Landlords and Tenants*, pp. 20–21. Another identification, 'bird vetch', has been proposed by A. Dalby, *Siren Feasts*, London 1996, p. 239, n. 209.

numerous trees. The trees grown separately are scrupulously counted in two categories: trees that are *φόριμοι*, i.e., mature enough to produce fruits (and to be taxed or rented), and *πῶλοι*, 'young' (a new word in the technical vocabulary of Roman administration), i.e., too young yet to yield dates. The date palms are the most important component of ***phyteia***, and thus the main source of tax paid in money (see the totals in drachmae in columns *ξθ* and *οζ*).

The date palms occur frequently throughout our document. The Greek name, *φοῖνιξ*, is always abbreviated: either to *φοι*( ) or to *φοινικ*( ); in case (2°) the noun intended by the scribe was most probably *φοινικών* as in *ο* 3 and 14, and *οβ* 3, abbreviated to *φοινικω*( ). The term *φοινικών* never stands alone; in most cases we have *φοινικῶν φόριμος*. The adjective may have had a technical meaning. Thanks to numerous documents of the first–second century AD we know that the money-tax on ***phoinikon***, *γεωμετρία φοινίκων* or *φοινικῶνος* (the term is usually abbreviated and its transcription is purely conventional), was paid at the rate of 20 or 40 drachmae per aroura,[85] and ***phorimos*** may have suggested the higher rate.

*

P. Bodmer I *recto* does not provide us with a conclusive answer to the question of how important date cultivation in Roman Egypt was.[86] The date palms are mentioned quite often, but they are usually few trees; if a date orchard appears, it sometimes has quite a sizable acreage (3 $^{1}/_{16}$ arourae in *οα* 6). One is apt therefore, to modify the view expressed, e.g., by Jane Rowlandson, that 'date cultivation seems to have been relatively small scale, and intended for local use, both of the fruits and of fibrous branches and trunks which had numerous uses'.[87]

[85] Wallace, *Taxation*, pp. 50–51, with notes on pp. 374–376.

[86] Concerning date palms and date orchards, see in general N. Hohlwein, 'Palmiers et palmeraies dans l'Égypte romaine', *Études de Papyrologie* 5 (1939), pp. 1–74; Schnebel, *Die Landwirtschaft*, pp. 294–296.

[87] Rowlandson, *Landlords and Tenants*, p. 25; see also Rathbone, *Economic Rationalism*, p. 381.

Olives

Olive grove, $^1/_8$ $^1/_{16}$ of an aroura (*ξθ* 6), and olive trees scattered round the plots (*οθ* 11, *πϵ* 6 and 7).

According to Strabo (XVIII 1, 35) olives were hardly grown in Egypt except in the vicinity of Alexandria and in the Fayum:

> This nome (i.e., Arsinoite) is the most noteworthy of all in respect to its appearance, its fertility, and its material development, for it alone is planted with olive trees that are large and full-grown and bear fine fruit, and it would also produce good olive oil if the olives were carefully gathered (i.e., the quality of olive oil depends much on the care of the proprietors of the trees – TD). But since they neglect this matter, although they make much oil, it has a bad smell (the rest of Egypt has no olive trees, except the gardens near Alexandria, which are sufficient for supplying olives, but furnish no oil).[88]

The evidence gained from P. Bodmer I *recto* seems to confirm what Strabo says; the olive trees cover so small area that one can scarcely believe that their cultivation was intended for anything other than fruit consumption.[89]

Thyme

According to *LSJ*, *θύμον* is 'Cretan thyme, *Thymbra capitata*', i.e., a thyme well known in Eastern Mediterranean. The thyme juice mixed up with wine was used as a spice as well as a medicinal drink.[90]

Although quite well attested in papyri of the first and second centuries AD, the noun *θυμών* ('field where thyme is grown') has an entry neither in

[88] *The Geography of Strabo*, trans. H. L. Jones, vol. VIII, London – New York 1932 (*Loeb Classical Library*), p. 97.

[89] See D. Brent Sandy, *The Production and Use of Vegetable Oils in Ptolemaic Egypt*, Atlanta 1989 (*BASP Supplements* 6), pp. 72–82, esp. p. 75; R. S. Bagnall in. *P. Kellis* IV (*The Kellis Agricultural Account Book*), pp. 43–44; Rathbone, *Economic Rationalism*, pp. 44–46; Rowlandson, *Landlords and Tenants*, p. 24. In the Panopolite nome, olive oil was most probably imported from the oases.

[90] See *P. Soter*., p. 29, with references to Pliny, *HN* XIX 186, XIV 111, XIX 91, and XXI 154. M.-H. Marganne, *Inventaire analytique des papyrus grecs de médecine*, Geneva 1981, knows of only one papyrus containing a receipt with thyme as an ingredient (pp. 301–305, no. 164): *PSI* X 1180 (Tebtunis, 2nd cent. AD).

Preisigke's *Wörterbuch* nor in *LSJ*, including its *Supplement* of 1996. In a 'Liste von Wein- und Gartenlandbesitzern mit Angabe der Größe des Grundstückes und der darauf liegenden Abgaben' from Theadelphia, dated most probably to AD 166, published as *BGU* IX 1896, the term *θυμών* appears four times not abbreviated (lines 148, 187, 306 and 345) in addition to some other places where it is abbreviated to *θυ( )*. In this document, *θυμών* together with *ἀκανθών* and *ἐλαιὼν καὶ φοινικών* are grouped under the generic term *παράδεισος*. In *P. Soter.* 14, 4 (AD 83), a lease of a *θυμών* is attested (*ἐν μισθώ[σ]ι θυμῶνος*); unfortunately we do not learn the area or the rent.

P. Bodmer I *recto* (*os* 12) is the first document mentioning *θυμών*, that does not come from the Fayum.

Heliotrope

Heliotrope cultivated by an independent farmer: $^{1}/_{16}$ $^{1}/_{32}$ $^{1}/_{64}$ of an aroura (*oθ* 7).

We learn about the use of heliotrope, *ἡλιοτρόπιον*, from *P. Holm.*, a long papyrus containing 'Recepte für Silber, Steine und Purpur', palaeographically dated to the third–fourth cent. AD, i.e., contemporaneous with or not much younger than P. Bodmer I *recto*.[91] In this text *ἡλιοτρόπιον* – or rather *βοτάνη ἡλιοτρόπιον* as it is always called to distinguish from the stone of the same name[92] – appears three times:

Allgemeine Vorbeizung

> Bei der Beizung eines jeden Steines dient die Pflanze Heliotropium mit ihren Blütenwickeln zur Auflockerung, Zusammenballung und Beizung. Denn ohne diese Pflanze, die die Steine einsaugen, lassen sich nicht auflockern weder Kristall noch der sogenannte Topas, der aus Ägypten herabgeführt wird. Verwende also den Saft der Pflanze zu den Vorbeizungen und so wirst du mit der Färbung Glück haben (*P. Holm.*, col. *η*, 1–9).

[91] Concerning the date of *P. Holm.*, see the editor's remarks on pp. 52–54.

[92] The editor of *P. Holm.*, Otto LAGERCRANTZ, on p. 180.

Beizung von allerlei Steinen

> Zur allgemeinen Auflockerung und Beizung eines jeden Steines dient die Pflanze Heliotropium, die Büschel hervorbringt. Zieh den Saft aus ihr, lockere die Steine darin auf und du wirst beim Farben eines jeden Steines Glück haben (*P. Holm.*, col. *ια*, 32–35).

Färbung verschiedener Farben

> Phönikische Farbe herzustellen. Nimm und verbinde Heliotropium mit Alkanna. Lege sie in ein irdenes Gefäss und sprenge sie 3 Tage lang mit weissem Essig. Koche sie am vierten Tag ordentlich unter Zusetzen von Wasser, bis dies obenauf schwimmt. Wenn du aber Cederfarbe färben willst, so nimm die Alkanna weg und koche leicht. Wenn du aber Kirschrot wünschest, so setze Krimnos (i.e., Gerstengraupe[93]), mit ein wenig Seife gesäuert, zu, thu die Wolle hinein und koche sie zusammen mit den Stoffen, bis sie dir gut zu sein scheint (*P. Holm.*, col. *κα*, 23–34).

Although Otto Lagercrantz did explicitly state that he was not able to say whether in these recipes *ἡλιοτρόπιον τὸ μέγα* (*Heliotropium Europaeum*, L.) or *ἡλιοτρόπιον τὸ μικρόν* (*Croton tinctorius*, L.) is concerned and eventually printed both in his 'Deutsches Stoffverzeichnis' (pp. 238–239), the word is quoted in *LSJ* (*s.v. ἡλιοτρόπιον* [2]) only with the latter identification.

P. Bodmer I *recto* is the first attestation of heliotrope cultivation in Egypt.[94] This plant was used as a substitute of purple, which was very expensive and available only in limited amount.

The cultivation of heliotrope close to Panopolis could be connected to textile industry, which has been present in the town since Antiquity until today.[95] In this context the last of the above quoted recipes seems to be especially interesting. It is worth noting that almost all of the documents

[93] *Κρίμνος* = Gerstengraupe: *P. Holm.*, p. 183; *LSJ* translates it: 'coarse barley meal'.

[94] Concerning dyes in Antiquity, see in general Forbes, *Ancient Technology*, IV, pp. 99–150; the only source quoted in connection to heliotrope (p. 121) is the Stockholm papyrus. Neither Schnebel, *Die Landwirtschaft*, nor Lucas/Harris, *Materials and Industries*, mention heliotrope and its use in Egyptian technology.

[95] See T. C. Skeat's remarks in the introduction to *P. Panop. Beatty*, pp. xxxi ff.

mentioning *ἡλιοτρόπιον* come from Thebaid: *SB* XVIII 13286 (Roman period), *O. Bodl.* II 2285 (2nd cent. AD), *O. Theb.* 144 (1st cent. AD) and one document from the Hermopolite, *SB* VIII 9699 (AD 78–79).

Tamarisk

Μυρίκη (*οθ* 6: one tree, *οθ* 12: *μυρίκη φόριμος*) is *Tamarix articulata* or *Tamarix nilotica*, both kinds common in Egypt.[96] Since prehistoric times its wood has been used for different purposes, e.g., for rafts.[97]

Acacia

Ἀκανθὼν α̣[– . $^{3}/_{4}$ arour. 'to the East of an empty plot (*ψιλός*) of Hermias son of Kolanthos' – *πβ* 12, the same in *πγ* 17.

From prehistoric times, acacia pods (*Acacia arabica* Willd. and *Acacia nilotica* Desf.) were used as a tanning material in preparing leather.[98]

Safflower

Κνῆκος στερεός, 'sound safflower' – unknown acreage of *idiosporeia* land – *πς* 7.

Κνῆκος σκωληκόβρωτος, 'safflower eaten by worm' – unknown acreage of *idiosporeia* land – *πς* 8.

It is generally accepted that *κνῆκος* is to be identified with safflower, *Carthamus tinctorinus L.* (*Fam. Compositae*).[99] As the papyri clearly show, it

[96] In his table of yellow dyes, Forbes, *Ancient Technology*, IV, p. 125, gives without any explanation *myrike* (in transliteration) together with *knekos* as Greek terms for safflower; see C. D. Mell 'The history and economic uses of safflower', *Textile Colorist* 1932, pp. 97–99 (*non vidi*, quoted by Forbes).

[97] Lucas/Harris, *Materials and Industries*, pp. 447–448.

[98] Concerning acacia growing in Egypt, see *BGU* XII 2182, introd. On leather preparation in antiquity, see Forbes, *Ancient Technology*, V, pp. 1–79, with ample bibliography in footnotes.

[99] For another identification, namely with artichoke, see E. P. Wright in B. P. Grenfell, *Revenue Laws*, pp. 124–125, but his opinion is not at all convincing.

was quite widely cultivated in Egypt, especially in Roman times, although the plant itself was not well-known in the Graeco-Roman world. Pliny says:

> The Egyptians have besides many plants of no repute, but they hold in the highest esteem one called *cnecos*; it is unknown in Italy and the Egyptians value it, not as a food, but for its oil, which they extract from the seed (*HN* XXI 53, 90).[100]

Although most important from an economic point of view,[101] oil-production was not the only reason for safflower cultivation. Its flower heads, composed of numerous small flowers, were used to make a dye.[102] Its use in state-monopolised industries as a dyestuff was the reason why its cultivation was often forbidden in land leases of Roman period.[103] The flowers contain two colouring substances of which the safflower yellow is very weak, soluble and not valuable as a dye; the other, carthamic acid is red and insoluble and of higher value.[104] Apart from this usage safflower was a component of eye drug.[105]

Two interesting recipes are to be found in *P. Holm.*:

Goldfarbe durch Kaltfärben herzustellen

> Nimm Saflorblüte und Ochsenauge, stoße sie zusammen und lege sie in Wasser. Thu die Wolle hinein und sprenge mit Wasser. Hebe die Wolle herauf, lüfte und verwende sie (*P. Holm.*, col. *κβ*, 2–5).

[100] Translated by W. H. S. Jones: Pliny, *Natural History*, vol. VI (Libri XX–XXIII) (*Loeb Classical Library*), London/Cambridge Mass. 1951, p. 227.

[101] For safflower in oil production, see Schnebel, *Die Landwirtschaft*, p. 202; and Sandy, *Vegetable Oils* (cit. *supra*, n. 89), pp. 83–87 with Appendix G, pp. 116–118. These authors, however, do not mention the other function of safflower.

[102] Concerning the use of safflowers in dye making, see Forbes, *Ancient Technology*, IV, pp. 122–125; L. Keimer, *Die Gartenpflanzen im alten Ägypten*, Berlin 1924, pp. 7–8; E. E. Plofl, *Ein Buch von alten Farben*, p. 63 and 115–116.

[103] D. Hagedorn, 'Zu Anbauverbot von *ἰσάτις. ὀχομένιον* und *κνῆκος*', *ZPE* 17 (1975), pp. 85–90.

[104] Forbes, *Ancient Technology*, IV, p. 122.

[105] Lucas/Harris, *Materials and Industries*, p. 418.

Färbung von Farben

> Unter Schnellkraut versteht man eine Pflanzewurzel. Es färbt Goldfarbe durch Kaltfärben. Es ist aber teuer das Schellkraut. Du sollst also die Wurzeldes Granatbaumes verwenden und sie wird dasselbe bewirken. Und wenn Wolfsmilch getrocknet und gesiedet wird, stellt sie Gelb her. Wenn ihr aber ein wenig Grünspan beigemischt wird, stellt sie Grün her. Und Saflorblüte ebenfalls (*P. Holm.*, col. κδ 41 – κϵ 4).

GEOGRAPHY

Of about twenty toponyms appearing in *P. Bodmer I recto* only a few are known from other sources listed, if published by 1993, in Calderini/Daris' *Dizionario* (see map on p. 49).

The metropolis itself, *Πανὸς πόλις*[106] appears twice in *P. Bodmer I recto* (πδ 3 and 5), in both cases not in the topographical sense but as a place of origin for two men involved in some way in an exchange contract (*anti-katallage*).

As for *Ἀραβία*[107] we learn from *P. Beatty Panop.* 1, 328 [AD 298] that at this date *τοπαρχία μητροπόλεως καὶ Ἀραβίας* existed there, which led some editors to the conclusion that *Ἀραβία* was a name of a district (districts of such name are known in other Egyptian nomes, e.g., in the Hermopolite[108]) and not of a village.[109] However, the context in which Arabia

[106] In addition to the evidence presented by the Italian editors of the *Dizionario* (IV, pp. 42–44, *Suppl.* I, p. 218; *Suppl.* II, p. 149), see A. Egberts, B. P. Muhs and J. van der Vliet (eds.), *Perspectives on Panopolis: An Egyptian Town from Alexander the Great to the Arab Conquest. Acts from an International Symposium Held in Leiden on 16, 17 and 18 December 1998* (= *Papyrologica Lugduno-Batava* XXXI), Leiden 2002. See also *P. Ammon* I edited in 1997, with a short introduction on the city itself (pp. 3–6) and *CPR* XVIIB, Einleitung, pp. 3–4. A monograph of the city is to be published by Karolien Geens based on her PhD *Panopolis, a Nome Capital in Egypt in the Roman and Byzantine Period (c. AD 200–600)*, defended in Leuven in 2007.

[107] *Ἀραβία* in the Panopolite: Calderini/Daris, *Diz. Suppl.* I, p. 52.

[108] Marie Drew-Bear, *Le nome hermopolite. Toponymes et sites*, Atlanta 1979 (= *American Studies in Papyrology* XXI), p. 68; see also J. K. Winnicki, *Late Egypt and Her Neighbours. Foreign Population in Egypt in the First Millenium BC*, Warsaw 2009 (= *JJP Supplement* XII), p. 329.

appears (*περὶ δὲ τὴν Ἀραβίαν* in *πζ* 10) in our document shows clearly that, as in the case of other localities, it is a village and not a district (in that case we would expect *ἐν τῇ Ἀραβίᾳ vel sim.*). It is probably the same as *κώμη Ἀράβων* (*P. Turner* 36, 6 [AD 235 or 267], simply *Ἀράβων* (*P. Berl. Bork.* X 3)[110] or three centuries later *Ἀραβῶνος*.[111] To conclude, *P. Bodmer I recto* seems to provide a missing piece of evidence to connect the name of the Panopolitan toparchy with the village 'of Arabs'.[112]

Ψῶνις (*οη* 5), well attested in documents of the period first–eighth centuries AD,[113] is to be identified with the modern village of Basuna,[114] some 20 km N-W from Panopolis.[115] As suggested by *P. Oxy.* XLIX 3469,

[109] This was stated by the editors of *P. Ammon* I 3, v 28, n. with a reference to *P. Beatty Panop*. 1, 328 n. SPR.

[110] See CALDERINI/DARIS, *Diz. Suppl.* I, p. 53 (no. 2).

[111] *P. Cairo Masp.* I 67095, 7 and 19 (Aphrodito, AD 548): *κώμη Ἀραβῶνος τοῦ Πανο*[*πολίτου*] *νομο*[*ῦ*]*;* see CALDERINI/DARIS, *Dizionario* I.2, pp. 186–187, and WINNICKI, *Late Egypt* (cit. *supra*, n. 108), p. 330.

[112] See the question asked by Zbigniew BORKOWSKI in his commentary to *P. Berol. Bork.* X 3: 'la question du lien éventuel entre ces toponymes et le nom de la toparchie entourant Panopolis (...) n'est pas encore étudiée.' In our opinion the village could be perhaps identified with modern village el-Araba bi Sohag, located *c.* 12 km E from Sohag and *c.* 17 km from Akhmim. The further evidence which allows for this identification is that el-Araba bi Sohag is not far from Psonis/Basuna (see below).

[113] See the list in CALDERINI/DARIS, *Dizionario*, V, p. 177 (nothing is added in *Suppl.* I–II). By the way, Psonis is a good example of the method applied by the Italian editors of the *Dizionario*: they list the documents exclusively by their *editiones principes*, even if a given toponym has not been printed there but has been verified later. If there were any references to the later literature in the *Dizionario* (as for instance to *Berichtigungsliste's* volumes), it would constitute much more useful tool. Psonis in *P. Lond.* III 870 (p. 235) was read by Z. BORKOWSKI, 'Some "ghost-names" to disappear from Egyptian onomastic', *JJP* 18 (1974), pp. 223–226, at pp. 223–224; see *BL* VII, p. 87.

[114] See, e.g., H. GAUTHIER, 'Notes géographiques sur le nome Panopolite." *BIFAO* 4 (1905), pp. 39–101, at p. 72; IDEM, 'Nouvelles notes géographiques sur le nome Panopoltie', *BIFAO* 10 (1912), pp. 89–130, at pp. 111–112; H. KEES in *RE* XXIII, col. 1421; S. TIMM, *Das christlich-koptische Ägypten in arabischer Zeit. Eine Sammlung christlicher Stätten in Ägypten in arabischer Zeit, unter Ausschluss von Alexandria, Kairo, des Apa-Mena-Klosters (Der Abu Mina), der Sketis (Wadi n-Natrun) und der Sinai-Region*, Teil 1 (A–C), Wiesbaden 1984, pp. 367–369 .

[115] It is only 9 km N from el-Araba bi Sohag (perhaps ancient village 'of Arabs', see above, note 111)

2–4 (1st cent. AD), Psonis belonged to the toparchy of Phenebythis;[116] unfortunately, the localisation of this place remains unknown.[117] Although mentioned in a number of texts, Psonis was unknown except by name, and the present document seems to be first to provide a little more information. Psonis must have been a significant village, certainly a *kome* and not a *chorion* or *epoikion*, since it had a *grapheion* headed by an *epiteretes* Pelilis (*οη* 3–4). Psonis does, however, appear in a document of *c.* AD 709 (*P. Lond.* IV 1461, 2) as an *epoikion*.[118]

Although *Ἰβιών* (*πβ* 18)[119] in the Panopolite nome is not listed in Calderini/Daris *Dizionario*, *P. Bodmer I recto* is not the first document to mention this particular village. *P. Lond.* IV 1461, a document of *c.* AD 709 contains a list of fugitives from Aphrodito who had fled to other pagarchies (lines 56: *ἐν τ(ῷ) χωρί(ῳ) Ἰβιῶνος* preceded by another locality; this is followed by *[ϵἰ(ς) τ(ὴν) π]ạγαρχ(ίαν) Πανός* in line 57, expressing the general direction the fugitives took).[120] A village of Ibion located in the Panopolite, apparently the same as in our document, appears in a document from Kellis.[121]

Μῆγις (*πζ* 12) is known from one mummy label: *CEML* 234, 3 = *CEMG* 1964 (2nd/3rd cent. AD).[122]

[116] See *P. Oxy.* XLIX 3469, 2 n. and 4 n.

[117] See *P. Beatty Panop.,* p. xxxvii and Borkowski, 'Some "ghost-names" to disappear' (cit. supra, n. 113), pp. 223–224.

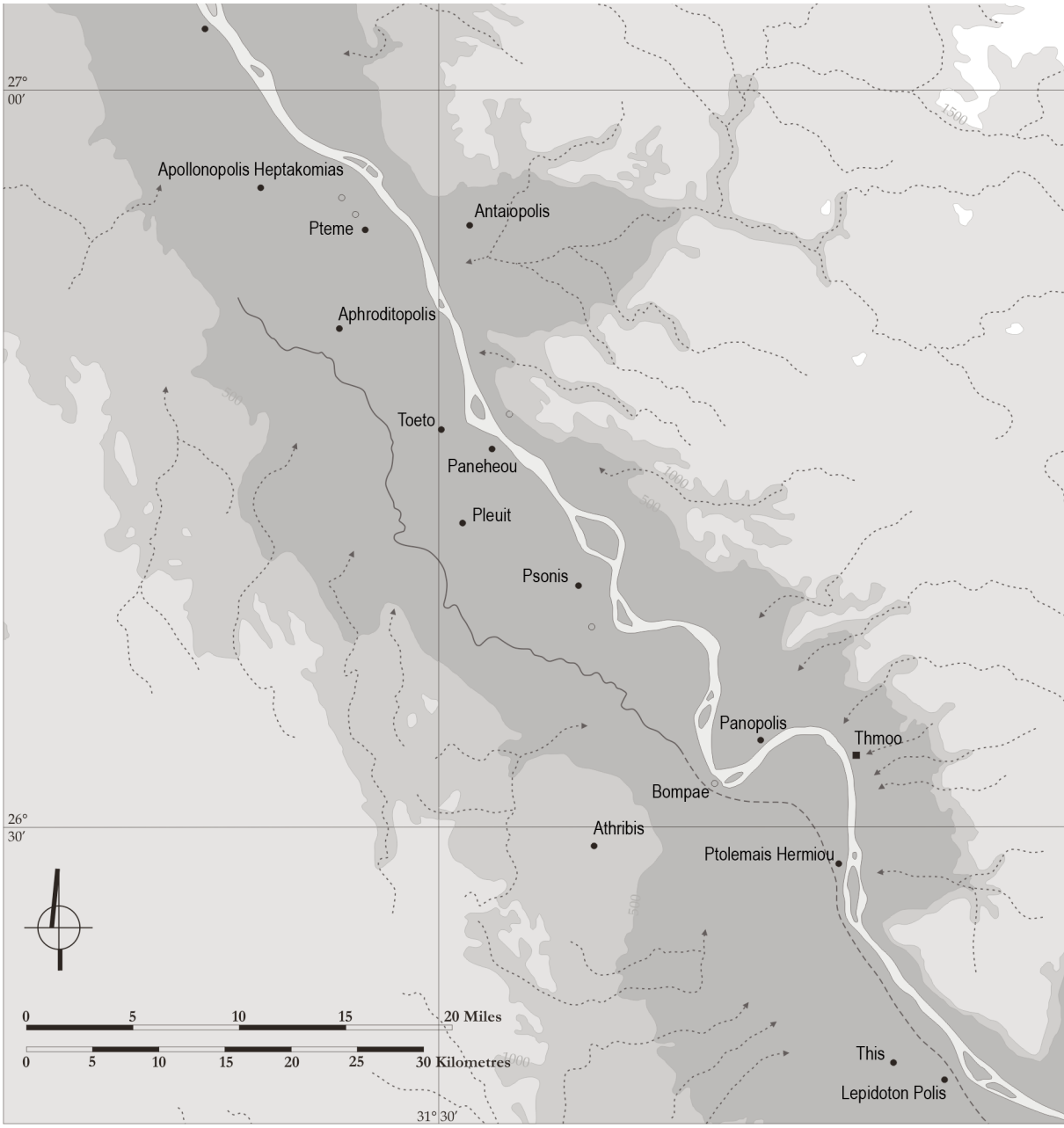
[118] In the *editio princeps*: *ϵν⁷ ϵποικ/ Ψωναι Αν . [* ; this fragment is not listed in *BL* I–XI but a is referred to by Calderini/Daris, *Dizionario*, sv. *Ψῶνις*.

[119] Concerning the toponyms with *Ἰβιών*, see interesting remarks by Drew-Bear, *Le nome hermopolite* (cit. *supra*, n. 108), pp. 122–123; and A. Calderini, 'Ibiôn nei nomi di luogo dell'Egitto greco-romano', [in:] *Mélanges Maspero*, II, pp. 345–355. See also Katelijn Vandorpe, 'Les villages des Ibis dans la toponymie tardive', *Enchoria* 18 (1991) pp. 115–122.

[120] See the editor's interpretation in the introduction to the edition. In the Calderini/Daris *Dizionario* the document is not mentioned.

[121] The document is to be published Klaas A. Worp who mentioned it in his lecture delivered to an international conference 'Perspectives on Panopolis' held in Leiden in December 1998. It was a coincidence worth noting that we both presented to the conference texts containing the same village, previously not known.

[122] See Calderini/Daris, *Dizionario Supplement* I, p. 197.



Panopolis and its surroundings

ἐποίκιον Παχούμιος (*πη* 9) is known from a dozen or so mummy labels[123] and from one papyrus document of AD 217/8, *CPR* XVIIB 10 (line 15).

None of the *kleroi* mentioned in our document was known before.[124] As usual in respect to *kleroi*, it is difficult to say which of these toponyms were named after the first Graeco-Macedonian settlers in Egypt and which were of later origin. Their function as topographical indications is, however, without doubt.

*

What was the type of the given localities? In the beginning of the third cent. AD the designation of the locality is still important; the examples of their interchanging – and calling a particular village in one document *kome* and in another *epoikion* – is typical for centuries to come. *Kome* is still – to quote Marie Drew-Bear — 'un centre administratif qui jouit d'institutions officielles et possède une personnalité juridique reconnue.'[125]

Some of the names in *P. Bodmer I recto* are accompanied by a designation, and thus we have one (or two[126]) *χωρίον* (*χ. Ξανθοῦ* in *π* 10), one *νῆσος* (*ν. Θμονṭ( )* in *πζ* 2), one *ἐποίκιον* (*ἐ. Παχούμιος* in *πη* 9) and six *κλῆροι*[127] (*κ. Βήσιος ἱερέως* in *ο* 10, and perhaps also 16; *κ. Πανούπεως* in

[123] *SB* I 804 [2nd/3rd cent. AD]; *SB* XII 10837, 4, 8 [2nd/3rd cent. AD]: *CEML* 192, 8; 193, 4; 194, 4; 195, 5; 196, 3; 197, 3 [2nd/3rd cent. AD I]; *CEML* 190B, 2 [3rd cent. AD]; *CEML* 191, 3 [4th cent. AD]; see Calderini/Daris, *Dizionario* IV, p. 78; *Supplement* I, p. 221 and *Supplement* II, pp. 156–157, where the position of the village is gives as 'icerta'.

[124] *Κλῆροι Στεφάνου* listed in Calderini/Daris, *Dizionario*, cannot be taken into account since they are in the Hermopolite (see Drew-Bear, *Le nome hermopolite* [cit. *supra*, n. 108], p. 261) and Herakleopolite (not listed in M. R. Falivene, *The Herakleopolite Nome. A Catalogue of the Toponyms with Introduction and Commentary*, Atlanta 1998 [= *American Studies in Papyrology* XXXVII]).

[125] Drew-Bear, *Le nome hermopolite* (cit. *supra*, n. 108), p. 41; for a general characteristic – still the best to be found in literature – of particular types of localities in Roman Egypt, see *ibidem*, pp. 41–44.

[126] If we take *χωρίον αὐτουργούντων* in *οθ* 6 and 10 as a toponym, see below.

[127] On *kleros* names and their role as toponyms, see F. Zucker, 'Beobachtungen zu den permenenten Klerosnamen', [in:] *Studien zur Papyrologie und antiken Wirtschaftsgeschichte Fr. Oertel zum achtzigsten Geburtstag gewidmet*, Bonn 1964, pp. 101–106

π 7; *κ. Πατύμιο̣*[*ς* in *ξθ* 2, and perhaps also 14; *κ. Στεφάνου* in *πζ* 8; *κ. Ψενβερ*[ ] in *ξα* 2; and *κ. Ψενπολλοῦτος* in *πη* 8).

If Psonis is a *κώμη* (as argued above), we may suppose that the remaining toponyms with no designation attached (*Ἀραβία* in *πζ* 10 and *πη* 10; *Θμονοσεῖρις* in *νη* 3 and *ξ* 7, 12; *Ἰβιών* in *πβ* 18; *Μῆγις* in *πζ* 12; *Πχνοῦνις* in *οη* 7 and *πδ* 7 and *Σεντανενωλ*( ) in *οη* 13 and *πβ* 2) are *κώμαι* too. We have some further evidence that *Ἀραβία* is a ***kome***; *κώμη Ἀράβων* quoted above and of course the toparchy name itself, if we assume that was named after the village. Let us conclude this section with a list of 'new' toponyms, forming *addenda* to Calderini/Daris' *Dizionario*: ***komai*** *Θμονοσεῖρις* (*νη* 3 and *ξ* 7, 12), *Ἰβιών* (*πβ* 18); *Πχνοῦνις* (*οη* 7 and *πδ* 7) and *Σεντανενωλ*( ) (*οη* 13 and *πβ* 2); *χωρίον Ξανθοῦ* (*π* 10); *νῆσος Θμονṭ*( )[128] (*πζ* 2)

*

As shown above, only a few of several toponyms mentioned in P. Bodmer I *recto* are attested in other documents, mostly mummy labels. We know, therefore, almost nothing about their localisation. The internal evidence of P. Bodmer I *recto* is not very instructive, either. The villages are mentioned only by name, with no indication as to the administrative district (toparchy) they belonged to. The only criterion left, therefore, in our attempt to ascertain the relationships between the different localities mentioned in the document is their vicinity to one another in the document itself. However, given the not quite clear character of the document, the outcome of such reasoning is far from conclusive. Such speculation has also to be limited to those toponyms only that indicate the location of the plots listed; toponyms that simply describe the owner's/tenant's origin are not relevant. Topographical indications in our document are represented by *περί* followed by the toponym in the accusative.

The first of these toponyms comes in *νη* 3: *Θμονοσεῖρις*. The rest of the column contains the description of land plots there; of the following col.

[128] See *SB* XVIII 13525, 7 (Thebes, 2nd cent. AD): *σύνοδος Θμονπ*( ) but this is rather a god's name.

νθ not too much survived but there is nothing to suggest a shift. In *ξ* 7 we read *ἐν β̄ σφρ(αγῖδι) περὶ Θμονοσεῖριν*, which suggests that in col. *νη–νθ* ***sphragis*** 1 was recorded.

PROSOPOGRAPHICAL OBSERVATIONS

Apart from Aurelii, we have two Roman citizens mentioned in our document. One of them, Claudius Apollinarios (*πβ* 3), is not an unknown figure. He is to be found in *P. Achmim* 9, 52, a long list of payments dated to the end of the second century.[129]

In col. *πη*, a certain Salvia Timagenis appears as a possessor (owner?, tenant?) of plots in numerous ***sphragides*** (*ἐν πλειστα[ῖς σ]φραγῖ{δ}(σιν)*). It is worth noting at this point that all Salvii attested in the papyri come from documents dated to the second half of the second century and the beginning of the third (Marcus Salvius Iustus, *ἀνταρχιερεύς* in *P. Oxy.* XLII 3026 of AD 165/6 and former owner of confiscated land in *P. Oxy.* LXII 4337 [2nd cent. AD, *c.* 178?] and in *P. Oxy.* XLIV 3170, 254 [document dated paleographically to the 3rd cent. AD], Salvius Iulianus, *ἀρχιερεὺς καὶ ἐπὶ τῶν ἱερῶν* in *BGU* I 82 [AD 185], Salvius Symmachus in *SB* VI 9145 [unknown year of Commodus] and, the most interesting person if compared to our Salvia Timagenis, Salvius Timagenes, ***hiereus*** and ***archidikastes*** of *P. Tebt.* II 435 [only descr.] dated – according to the editor – to 'second or early third century'). As is clear from this list, all male Salvii are high

[129] For chronological reasons Claudius Apollinarios of P. Bodmer I *recto* cannot be identified with the strategus of the Latopolite in AD 164 mentioned in a temple inscription *CIG* III 4831b (= *SB* V 8640); see G. Bastianini, J. Whitehorne, *Strategi and Royal Scribes of Roman Egypt. Chronological list and index*, Firenze 1987 (= *Papyrologica Florentina* XV), p. 76.

There are other Claudii known from Panopolite documents of the second and third centuries AD. In a document from Panopolis itself, dated to AD 197, *P. Bouriant* 41b, a certain Claudius Polybianos appears, an owner, or rather former owner of some plots listed there. In *CPR* XVIIB 1, 8–9, a certain Claudia Philetaira (the reading of her cognomen is not quite sure) acts as the owner of some arourae in an unknown village of the Panopolite.

[130] See G. M. Parássoglou, 'A prefectural edict regulating temple activities', *ZPE* 13 (1974), pp. 21–37

priests of Roman Egypt and seem to be members of one family.[130] If so, Salvia Timagenis mentioned in the P. Bodmer I *recto* would be the first known female member of this family.

Pachoumis, son of Sansnos, from the *epoikion* Pachoumios appears in *CPR* XVIIB 10, 14–15 as a witness to a contract(?) dated to AD 217/8. It is probable that we are dealing with the same person in our document in ξς 19 and οη 19 although the identification cannot be quite certain because both names are common in the Panopolite.

The name Besios is the most popular in our document, as it is, e.g., in *P. Berl. Bork.* dated almost a century later. But in the Cologne collection of 4th-century papyri of Panopolitan provenance (*P. Panop.*) it does not appear at all.

CONCLUSION

P. Bodmer I is mostly known because of its *verso*, i.e. books V and VI of the *Iliad*. Undoubtedly it was the content of the verso that made Martin Bodmer purchase this papyrus. Such an assumption is also indirectly proven by the fact that the *verso* was published a half of century ago; the *recto*, on the contrary, became the subject of editorial works (even considering the long story of the edition) much later.

Nevertheless the *recto* of the scroll provides us with a document worth publishing for numerous reasons. Even though this document comes from the period when the functioning of the Roman administration in Egypt is best known, this still does not mean that there are no blanks to fill in our knowledge. Our doubts and uncertainties as to the functioning of the Roman tax regime are well shown by the ambivalent conclusions made as to the character of our document and its place in the fiscal system of Roman Egypt. P. Bodmer I *recto* provides us with new data concerning the system of tenancy, the most important of which seems to be the (until now) unknown way of recording lease conditions in a land list.

Unfortunately, none of the columns crucial to our understanding of the document have preserved. As we have mentioned several times in our analysis, our general conclusions are strongly conjectural. Although some

elements are missing, this puzzle produces a coherent picture. No element of this puzzle points at the government as a source of our roll: the *kollemata*-references are not accompanied by the number of a *tomos*; particular plots are listed without the name of their present owner. Both of these arguments are *ex silentio* but the concept of the roll becomes clearer if we assume that it comes from the office of a great estate. Its owner was presumably a woman who acquired a part of her property under the terms of a divorce contract. This document lists the plots, mostly on lease. The owner's income from this land consisted of rents paid by numerous tenants. The tenants seem to have had a limited right as to the choice of the crop that they cultivated. Our suggested interpretation of the lines beginning with συνοπ(τικῶς) implies, however, a system of tenancy within which a tenant had to make a choice from among only a few possible crops. Whenever the tenant chose the wheat, he paid 6 artabae per aroura, and so on. We have no lease agreement which could be connected with this kind of tenancy. This is indeed surprising and such a system is not paralleled by the Oxyrhynchite material studied by Jane Rowlandson.

*

The edition of P. Bodmer I *recto* fits well the general trend in studies of Graeco-Roman Egypt. Unlike Oxyrrhynchus or villages of the Fayum, Panopolis, today Akhmim, an exceptional city in Upper Egypt, was still relatively little known four decades ago. Apart from literary sources,[131] at that time we had at our disposal the edition of only a few documents coming from this city. This has changed in last forty years, thanks to the continuously growing number of papyri.[132]

[131] See *Realencyklopädie*, *s. v.* 'Panopolis', t. XVIII.3, col. 649.

[132] Today we may consult: *P. Beatty Panopolis* (*Papyri from Panopolis in the Chester Beatty Library Dublin*, ed. T. C. Skeat, Dublin 1964), *P. Panop.* ('Urkunden aus Panopolis', edited by L. C. Youtie, D. Hagedorn und H. C. Youtie, *ZPE* 7 [1971], pp. 1–40; 8 [1971], pp. 207–234, 10 [1973], pp. 101–170; *P. Berol. Bork.* (Z. Borkowski, *Une description topographique des immeubles à Panopolis*, Warszawa 1975); *CPR* XVIIIB (*Papyri aus Panopolis*, edited by P. J. Sijpesteijn, Wien 1991) and the most recent volumes by K. Maresch and W. H. Willis: (*P. Ammon* I) and by Isabella Andorlini and K. Maresch (*P. Ammon* II).

The enumeration of crops executed by the tax officials seems to be most interesting for the studies of the region's history. The substantial role of crops designated for fodder will be discussed further below, but now we shall concentrate on the presence of safflower and heliotrope. Undoubtedly safflower (*knekos*) was primarily used for dye production; such was also the case for heliotrope (until now not found in documents referring to land cultivation): this was used as a substitute of purple. The appearance of these crops in fields in the direct neighbourhood of Panopolis confirms what we know about this town from other sources: in Antiquity it was one of the most important centres of the weaving industry in Upper Egypt (or even in the whole of Egypt).[133]

*

Most scholars generally agree that the practice of improved two-field crop rotation, with cereals alternating directly with a leguminous or grass crop was absolutely dominant in Roman Egypt. There is very little positive evidence for the improved three-field system, with cereals grown in two years out of three. This is even more surprising if we remember that the three-field system was totally tolerable from the viewpoint of the technique of field-crop production in the Nile valley where the ground was annually fertilized by silt. The only reason why a two-field crop rotation, with relatively large fodder production, was so dominant is to be seen in the large number of animals and scarcity of permanent pasture in this region. Although this assumption has no direct support in our sources, either literary or documentary, it provides a logical explanation for the evidence that we have.[134] Even with a two-field crop rotation the

[133] By the way let us notice that Achmin has been such a centre until to-day; also until to-day dye industry is located in the city.

[134] The most important evidence comes from land leases, thoroughly discussed in Henning's dissertation (*Untersuchungen zur Bodenpacht im ptolemäisch-römischen Ägypten*, diss. München 1967, esp. pp. 50–72) and – as far as the Oxyrhynchite material is concerned – by Rowlandson, *Landlords and Tenants* (on the balance between crops, see esp. pp. 236–243).

shortage of fodder was a common phenomenon, at least in Upper Egypt. A common subject of private letters on agricultural matters is the problem of where to obtain the fodder and at what price.[135]

In P. Bodmer I *recto*, there is no direct evidence for the cereals to fodder ratio in the Panopolite in the first two decades of the third century AD. Nevertheless, regular and frequent occurrences of crops cultivated for fodder and of fodder itself – with all the provisos as to the state of conservation of our document and the fragmentary picture it presents taken into consideration – suggests its important role. A reference to fallow fruits (*oβ* 4) should be noted at the end of these remarks.

[135] On what concerns shortage of fodder, see especially ROWLANDSON, *Landlords and Tenants*, pp. 20–24.

TEXT

The following fractions, abbreviations, and symbols are used throughout the document and will not be recorded in the apparatus following each column:

ℊ = 3/4, S, ∫ = 1/2, L = 1/2, d = 1/4, $\bar{\eta}$ = 1/8, $\overline{\iota s}$ = 1/16, $\overline{\lambda o}$ = 1/32, $\overline{\xi o}$ = 1/64, $\overline{\rho\kappa\eta}$ = 1/128

℥ = ἄρουρα/ἄρουραι, $\bar{\circ}$ = ἀρτάβη/ἀρτάβαι, ℈ = δραχμή/δραχμαί

 = γίνονται, $\overset{\pi}{\text{αἱ}}$ = αἱ π(ροκείμεναι), ομοϯ = ὁμοί(ως)

κολ$^{\lambda}$ = κόλ(λημα) ***vel casus***, $\overset{\pi}{\text{ὑ}}$ = ἐπί, συν$\overset{\pi}{\text{ο}}$ = συνοπ(τικῶς), λοι$\overset{\pi}{\text{ι}}$ = λοιπ(ός) ***vel casus***, αλ$^{\lambda}$ = ἄλλ(ος) ***vel casus***, φο$\bar{\rho}$ = φόρ(ιμος) ***vel casus***

$\overset{\pi}{\text{οc}}$ = ὅσπ(ρεα) ***vel casus***, βρω$^{\varsigma}$ = βρῶσ(ις) ***vel casus***, λα$\bar{\chi}$ = λάχ(ανα) ***vel casus***, θε$\overset{\mu}{\rho}$ = θέρμ(ος) ***vel casus***, φοϯ = φοῖ(νιξ) ***vel casus***

χε$\overset{\varsigma}{\rho}$ = χέρσ(ος) ***vel casus***, $\epsilon\overset{\eta}{\pi}$ = ἐπη(ντλημένη) ***sc. γῆ vel casus***, αβρο$^{\chi}$ = ἄβροχ(ος), χερcαβρο$^{\chi}$ = χερσάβροχ(ος), σπο$\bar{\rho}$ = σπόρ(ιμος) ***vel casus***

[μη]

. . . . . .

]. ρπαχ[
]θ κ. [
]. [.]. . ου[

. . . . . .

[μθ]

. . . . . .

] λοιπ(αὶ) [
] *vac.* [
]υ (ἄρουρ.) . [
]πο( ) ἡλι[οτροπ( )?

. . . . . .

5. πο̄

Columns ν and να are lacking

All the photographs facing the transcription were taken in the 1970s
and have been digitally processed by the author

[νβ]

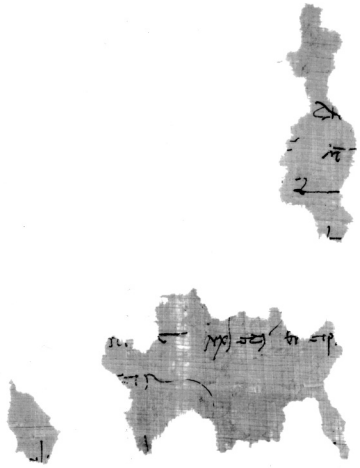
]δη[
]. ἐν (ῆ) [
] (ἄρουρ.) [
].[

3–4 lines are missing

συνοπ(τ.)·] πυ[ρῶι (ἀρτ.)] ς λαχ(άνων) (ἀρτ.) δ ∫′ θυ[ ] (ἀρτ.) ..[
βρώ]σ(εως) (ἀρτ.) ιγ’ *vac.* [
]νι..[

. . . . . .

3. εν¯



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[*νγ*]

] *Παπχήθ̣*[*ιος*
]– *φορ*(*ιμ*) *ἐ*[*ν*] (*ἥ̣μ̣*) [

]*δ̣ι̣α̣*[

]*β̣ρώ*[*σ*(*ει*)
]. [
] (*γίν.*) [

]..( ) *μετὰ παραδρομίδ̣*[*ος* ± 13]*ος διὰ*
]. *ος Β̣ήσιος κα̣*[.....]..[....] (*ἄρουρ.*) *ϛ ι̅ς̅ ξ̅ο̅*
] *vac.* [ ]*π̣*( ) .[
] *ὧ̣ν* [ ] *vac.* [
]..( ) [ ]. [.] *Παχούμ*(*ιος*)
(*ἄρουρ.*) *x*] *ι̅*[*ς̅*] *λο ξ̅ο̅* [

. . . . . .

3. $\epsilon[\nu]^{-}$ ‖ 11. $\epsilon\nu^{-}$ | $\pi\alpha\chi\text{ο}\overset{\mu}{\upsilon}$

0 5 cm

[νδ]

Βορ(ρᾶ) ἐχο(μένη) [ ] (ἄρουρ.) d $\bar{\eta}$ $\bar{\iota s}$ $\overline{\lambda o}$ $\overline{\xi o}$ $\overline{\rho\kappa\eta}$
vac. [ ] *vac.*

space of one line

4]α[ ] (ἄρουρ.) β̣ $\not{\delta}\bar{\eta}$
]—

]. καιχ( ) [
] βρώσ(ει) (ἄρουρ.) $\not{\delta}\,\overline{\lambda o}$

8]ος Β̣ήσιος καὶ Ψενενούπ(ιος)
φακ]ῶι ἐπη(ντ.) βρώσ(ει) [(ἄρουρ.) .]. $\overline{\lambda o}$

]. [..] ἀβρόχ(ου) ἡ λοιπ(ὴ) (ἄρουρ.) α L'. [

[Γ]ί(τονες) νό(του) [*ca.* 15–20]. σιος [
12]α̣σπ̣[
] (ἀρ̣ο̣υρ.) $\not{\delta}\,\bar{\eta}\,\bar{\iota s}$ [
]— d .. (γίν.). [

].....[. Π]αχνο̣ύ̣π(ιος) (ἄρουρ.) [
16] *vac.* ἐν (ἦ) φοί(νικες) [
].. ὀνό(ματος) Ψενθεμει( ) ἐν (ἦ) φ[οι( )
].. .. [ ]' γί(ν.) [
] διὰ Παχούμιος [
20]... (ἄρουρ.) $\bar{\eta}$ $\bar{\iota s}$

]. [ ] *vac.* [

] (ἄρουρ.) α $\bar{\iota s}$ $\overline{\lambda o}$
].... ἐν (ἦ) φοί(νικες) φορ(ιμοί) γ
24] δι' οἰνικ(ῶν) [πα]ρ̣αγρ(αφῶν) θεωρ(οῦνται) ..[
] [ ]—

. . . . . .

2. βορ̄ | εχ̄ο̄ ‖ 6. και$^{\chi}$ ‖ 8. ψενου$^{\supset}$ ‖ 11. [Γ]ŧ νō, γείτονες ‖ 15. π]αχνου$^{\supset}$ ‖ 17. ονō | ψενθεμει$^{\supset}$ ‖ 17. εν̄ | φοŧ ‖ 24. διοινι$^{\kappa}$ παραγρ§ θεωρ̄

0 5 cm

ν]ε̣ [

]ιος
] *vac.*
]ου
] (ἄρουρ.) α η’
]’

]μιος Ψ[ενταπε]λάλι(ος)
] ἐ(πὶ) κολ(λήματος) ν̄[.]..

.[....]ατ αι[ ]—
[φοι](νικῶνος) φορ(ίμου) [ ] (ἄρουρ.) d ι̅ς̅ [
] — γθ[...] παραγρ(αφή?)
]. [
] μζ’ [

line entirely lost

(m. 2) πρώτ(ως) μετατέθει[κεν
τὴν ἄμπελον [

(m. 1) Καὶ ἐκτὸς πλαϲ̣[τῆς
ὧν ἀμμοχώ̣[στου
λοιπ(αὶ) .[

(γίν.) [

Γί(τονες) νό(του) ψιλοῦ μ̣ε̣γάλ[ου
]// .. β d ι̅ς̅ ξ̅ο̅
] // / ν̅δ̅ d η̅ ι̅ς̅ λ̅ο̅ [ξ̅ο̅ ρ̅κ̅η̅]
] λ̅ο̅// ι̅ς̅// [
] (ἄρουρ.) ..[
. . . . . .

7. ψ[ενταπε]λαλ‘ ‖ 11. γ$^{\theta}$ | παραγρS ‖ 15. πρωτ‖ 21. [Γ]ŧ ν̄ϭ, γείτονες | ν̄ϭ

0 10 cm

[νς]

ἐπι]κρατουμένου [
]—— [
]υ καὶ τοπ( ) χ̣[
] (γίνονται) [
] ὧ̣[ν
]ος [
λο̣[ ]. [
χέ[ρσου?
ἀμ[πέλου?
nothing left
nothing left
ἀβρ[ό]χ[ου]. [
[(. [ ]
[ ]
Καὶ [ ] *vac.*
πυρ̣[οῦ] δ̣
nothing left
]. [
nothing left
βρωσ( )
(νγ̄ [
(γίνονται) [
φοι[(νικῶνος) φορ(ίμου)

. . . . . .

4. τοʾ


0
10 cm

[νζ]

Βορ(ρᾶ) [ ] *ἀ̣ριθμο*
. [ ] *ν*
. [ ].
]/
]. *κ*
] (*ἄρουρ.*) δ d
]. *οσι*

ἐ̣(πὶ) κ̣[*ο*]*λ̣*(*λήματος*) [ ] *vac.*

Ἄλλης κοίτη[*ς*] *οὐσίας*
κλήρο(*υ*) *ἱματιοπ̣*[ ]..[ ]
ἃς ἐωνη(*μέναι*) *ε̣*[(*ἄρουρ.*)] *κβ* ..

ἐ̣(*πὶ*) [*κολ*(*λήματος*)] *vac.*

Νότ(*ου*) *ἐχόμ*(*εναι*) *μετὰ ἀνῐ̣χώμα*[*τος* *x* (*ἄρουρ.*] *vac.*

συνοπ(*τικῶς*)· *πυρῶι κ*.. (*ἀρτ.*) *η* *λαχ*(*άνων*) (*ἀρτ.*) [δ ſ́]

ἐ̣(*πὶ*) *κ̣ολ̣*(*λήματος*) $\overline{\lambda\epsilon}$ [

[ ] (*εἰκοσ*)(*αρούρου*) . [

. *α̣λ*.. δ [ ]..[

[*ἄρουρ.*] *ς* L $\bar{\eta}$ $\overline{\iota s}$ [

συνοπ(*τικῶς*)· *πυ*[*ρῶι*

. . . . . .

2. *βορ̄* ‖ 11. *κληρ*^{o} | *ἱματιοπ*[*ώλου?* ‖ 12. *εωνη̄* ‖ 14. *νοτ*ɔ | *εχο̄* ‖ 17. *κ*ɬ

0 10 cm

[νη]

θεο]ῦ μεγίστου διὰ λο[γ( )
] περὶ Θμονοσεῖ(ριν) .
] Ἡρακλᾶ (ἄρουρ.) [ ]
λοιπ(αὶ) (ἄρουρ.) κα .[ ] ὑδρεύμ(ατος) α̅ (ἄρουρ.) β̣ ɣ̣ ι̅ς̅ [
συνοπ(τ.)· πυρῶ[ι βρ]ώσ(εως) (ἀρτ.) [ιγ

space of two lines

Νό(του) κλή[ρο(υ)] Π̣ετεπ̣[χή]μιος καὶ (τετρ)(αρούρου) Παν-
τβεύιος [ ]. [ ] (μον)(αρτάβου) (ἄρουρ.) ν
ἄλ(λαι) (ἄρουρ.) β̣ ɣ̣ | (ἄρουρ.)[ ]. [Ἀ]πολλω( ) ἀρχ(όμ.)..[.]γρ()(ἄρουρ.) α..
ὧν ἀμπέλ(ου) φορ(ίμης) (ἄρουρ.) δ [ ]. [ ] *vac.*
συνοπ(τ.)· πυρῶι (ἀρτ.) ς̣ ὀ̣σ̣π̣[ρέων (ἀρτ.) ζ λα]χ(άνων) (ἀρτ.) δ ʃ′
βρώσ(εως) [(ἀρτ.) ιγ

Ὧν ἐ̣[..]ος ἀντ[ ] *vac.*(?)
ὧν ὀνόματο(ς) Τ̣[
ὧν ἀμπέλ(ου) φ[ορ(ίμης)
ε̣ἰ̣ βρ̣ω̣̣ῶ̣ς̣(ις) (ἀρτ.) ι̣[γ?

Καὶ ὀνόμ[ατο(ς)
[ὧ̣]ν̣ ἀμπέλ(ου) [
Κ̣αὶ ὀ[νόματο(ς)
ὧ̣ν̣ [
. . . . . .

3. θμονοσει᾽ ‖ 5. υδρευ̣μ ‖ 7. νο̅ | δ ‖ 8. α̅ς̅ = (μον)(αρτάβου) ‖ 9. α̣ | α]πολλω̅ ‖ 10. αμπε᾽ ‖ 13. ονοματ^{ο} ‖ 14. αμπε̣

0 10 cm

νθ

ἀ]ντιχώμ(ατος) αἱ π(ροκείμεναι) (ἄρουρ.) [
] ις̄ λ̄ο̄ ψιλο̣[ὐ τόπου?

4 ἐ(πὶ) κολ(λ.) ..] ἀβρόχ(ου) *vac.*

. [
] —— (ἄρουρ.)
]. . [ ] —
] d η̄ ις̄ [ι]ς̄ (δραχμαὶ) λϵ
8]. . . . Ἡρα( ) [ ] *vac.*
] λ̄ο̄ . . . [

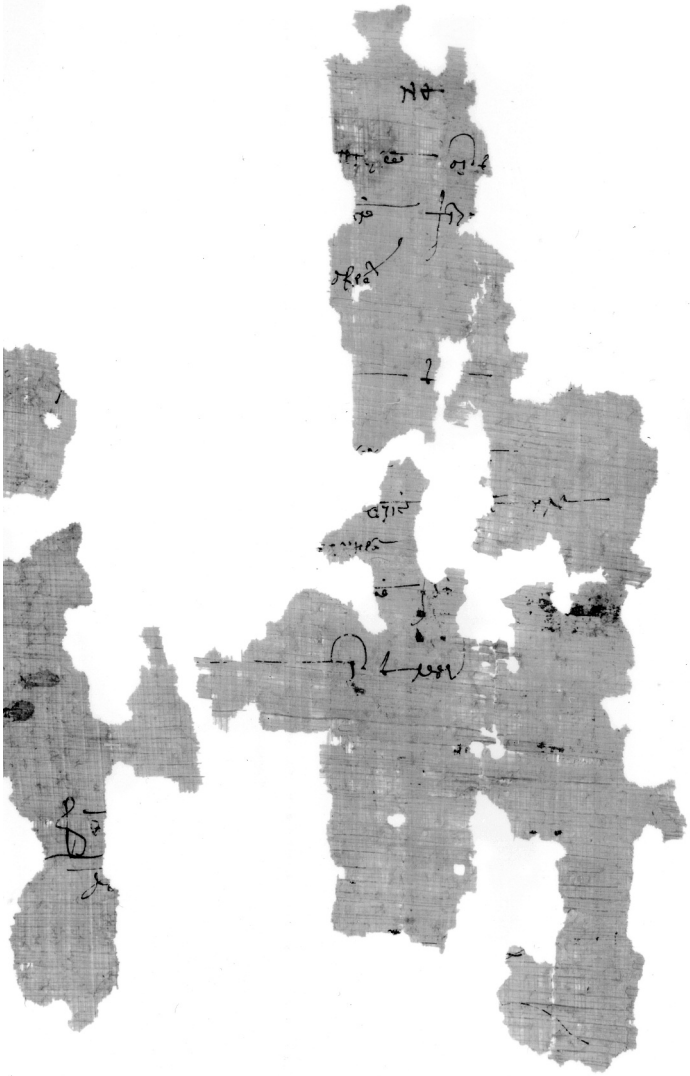
(γιν.)] αἱ πρ(οκείμεναι) (ἄρουρ.) μα ϑ/

space of three lines

Βο[ρ(ρᾶ)] *vac.*
12 ᾱ [ ] *vac.*

. . . . . .

2. αντιχώ$^{\mu}$ ‖ 8. ηρᾶ ‖ 12. ᾱ = (πρότερον)?



0 10 cm

ξ

ἐ(πὶ)] κολ(λ.) λϵ̄ ἀβρόχου

]———— ἀποκαλ(υφθείσης) [γῆς] ὃ
συνοπ(τικῶς)· ὀ]σπρέων (ἀρτ.) ζ βρώσ(εως) (ἀρτ.) [ιγ].
ἐ](πὶ) κολ(λ.) λϵ̄ ἀβρόχου

]ρμουθου Κοΐντου ἀπὸ
]. ἐν β̄ σφρ(αγῖ)δ(ι) περὶ Θμονοσεῖριν
] (γίν.) (ἄρουρ.) ϵ ∫′
συνοπ(τικῶς)· ὀ]σπρ[έων (ἀρτ.)] ζ βρώσ(εως) (ἀρτ.) ιγ
] (ἄρουρ.) β β̄ τοπ(αρχία?) (ἄρουρ.) γ ∫′ (γίν.) αἱ π(ροκ.)

ἐ(πὶ) κολ(λ.) ..] ἀβρόχου

]περὶ Θμονοσεῖρι[ν
συνοπ(τικῶς)· ὀσ]πρέω(ν) (ἀρτ.) ζ ..... [

space of two lines

]. Θαυβάσθιος
(ἀρουρ.)]—— ι
(ἀρουρ.)]—— ιθ η̄
(ἀρουρ.)]—— ιη
. . . . . .

3. αποκᾶ ‖ 7. cφρ̊ ‖ 10. το᾽ ‖ 13. ος]πρεω̄ ‖ 14. θαυβασθι°

0 10 cm

] κλήρου Ψενβερ[
surface torn off]. (μον)(άρταβος) .[
4] ā [
] ἐπη(ντ.) (ἀρτ.) ϵ ὀσπ(ρέων) (ἀρτ.) ζ
κλ?]ήρων ὑφ' ἓν [

] διὰ Βήσιος Ἀρϵ[μήφιος
8]. ἀμπ(έλου) καὶ Βήσ[ιος
Πϵτϵαρ]βϵσχεί(νιος) τ[
]. τὸ (ἥμισυ) (ἄρουρ.) δ [
]. .. (τρίτον) (ἄρουρ.) β ι[s
12 *vac.* [ ]. ∫′ —/ [
.... αυ.s (ἄρουρ.) β ∫′ [
[.].... (ἀ̣ρ̣ο̣υ̣ρ̣.) θ [

[.]...στϵως [
16]. πρϵ[
]. ου[
. . . . . .

3. α̅ = (μον)(άρταβος) ‖ 9. πετεαρ]βεςχει᾽ ‖ 10. β' = (ἥμιcυ) ‖ 11. γ̅̅̅ = (τρίτον)

Column ξβ completely missing

0 5 cm

[ξγ]

. . . . . .

]. [

] ἐ(πὶ) κολ(λ.) λ̄β̄ . [

. . . . . .

]τo( ) ψ. [—

] ἐ(πὶ) κολ(λ.) λ̣̄[

] φ [

] . [

] ἀβρόχ(ου) [

] Ἡρᾳ[

] πυρῶ̣[ι

] ἐπὶ [κολ(λ.)

]. κᾳ[

. . . . . .

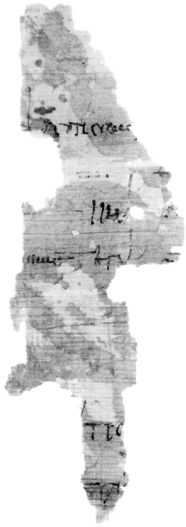
0 5 cm

[ξδ]

] διὰ Σανσνῶτ̣[ος
]‥ (ἀ̣ρ̣ο̣υ̣ρ̣.) [
] (ἄρουρ.) ιβ ∂[
] βρώσ(εως) (ἄρουρ.) γ ∂ ‥[
] (γίνονται) [

].π̣ο[
].[
].[

. . . . . .



0 5 cm

[ξϵ]

]ος Παπχήθιο̣[ς
] ἀπὸ νήσο(υ) (ἄρουρ.) [
] Ψάϊτος νεωτ(έρου) Βήσιος [
ἐπη](ντ.) βρώσ(ει) (ἄρουρ.) . [ρκ]η

]ος Πκώριος [
] (ἄρουρ.) a d [
] (γίνοντα) αἱ π(ροκείμεναι) [
]— κ̣ειδ( ) [
]. . [
] α [
]. . [

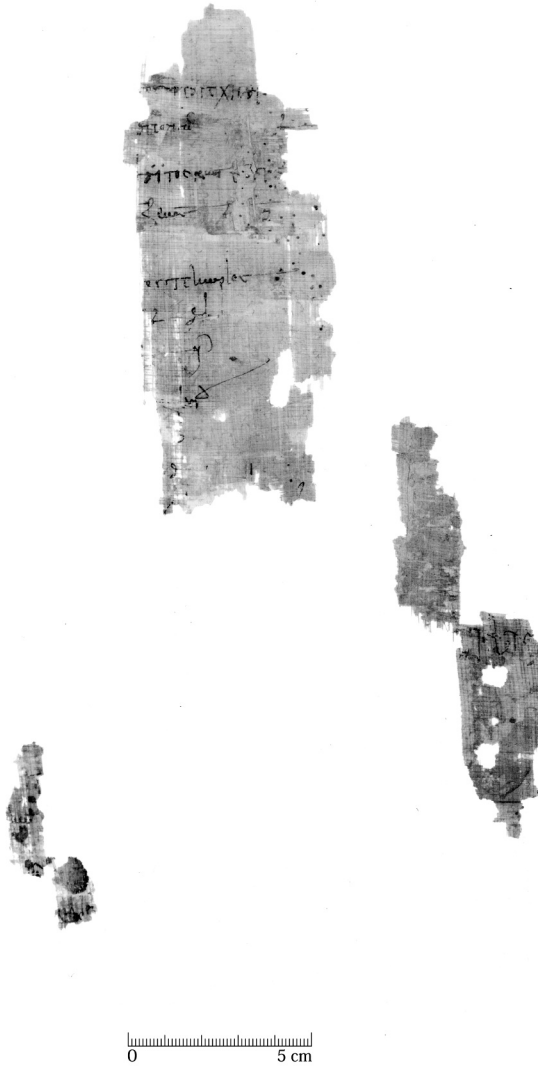
. . . . . .

]. [
] β̣ρ̣ω̣ρ̣( ) [
ἐ(πὶ)] κολ(λ.) [

]...[

. . . . . .

3. νηϲ° ‖ 4. ψαϊτος νεωτ̄ ‖ 9. κει^δ


0
5 cm

[ξ]s

]s καὶ σα[
φ]ορ( ) (ἄρουρ.) ϑ η̄ λο̄ ξο̄ [λ]οιπ(ὴ) (ἄρουρ.) α d [

4 β]ρωσ( ) (ἄρουρ.) L η’
] (γίν.) αἱ π(ροκ.)
]. ἀρχό(μεναι) βορ(ρᾶ) ὀνόματ(ος) Πνάσιος
]. ων κατὰ τόπ(ον) (ἄρουρ.) α ϑ η̄ λο̄ ξ̣[ο̄

8]α Παβεῦτος
] (ἄρουρ.) ϑ η̄ [.]ο ρκη
]ρ̣ Κολλούθου
] L η̄ ιs̄

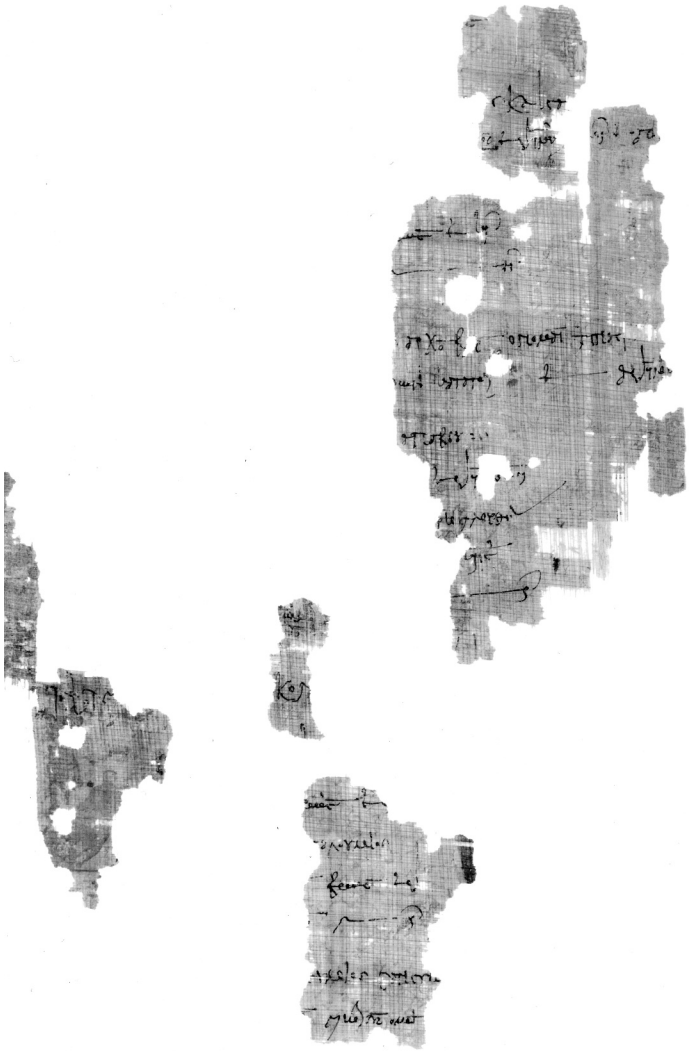
12]..[ ] (γιν.) —— αἱ πρ(οκείμεναι) [

Νότ(ου) ἐχό[μ(εναι) .....] Κολ[λούθου
. [ ].[
β]ρώσ(εως) (ἄρουρ.) .[
16] Παχούμιος [
] βρωσ( ) (ἄρουρ.) ϑ [
] (γιν.) —— αἱ π(ροκείμεναι) [

Παχ]ο̣ύμιος Σανσνῶ̣[τος
20]. ἐ(πὶ) κολ(λ.) λ̄ζ̄ ὁμοί(ως) [

. . . . . .

6. αρχο̄ βορ̄ ονοματ̄ ‖ 7. τω̣ ‖ 13. νοτ̄ εχο̄ ‖ 20. ομοι


0
10 cm

ξζ

]ς κ̣α̣ὶ *Β*ήσ[ιος
] η̄ λ̄ο̄ [

space of three lines

πρὸ]ς τὸ ια (ἔτος) (ἄρουρ.) κβ ∠ η̄ ρ̄κ̄η̄
] (ἀ̣ρ̣ο̣υ̣ρ̣.) α̣ d η̄ ῑς̄ .. ..)
(ἄρουρ.)] ∠ .[ ]
]. ἐπιγρ(αφόμεναι) (ἄρουρ.) d ῑς̄ λ̄ο̄ ξ̄ο̄ ρ̄κ̄η̄
] (ἄρουρ.) κγ d’

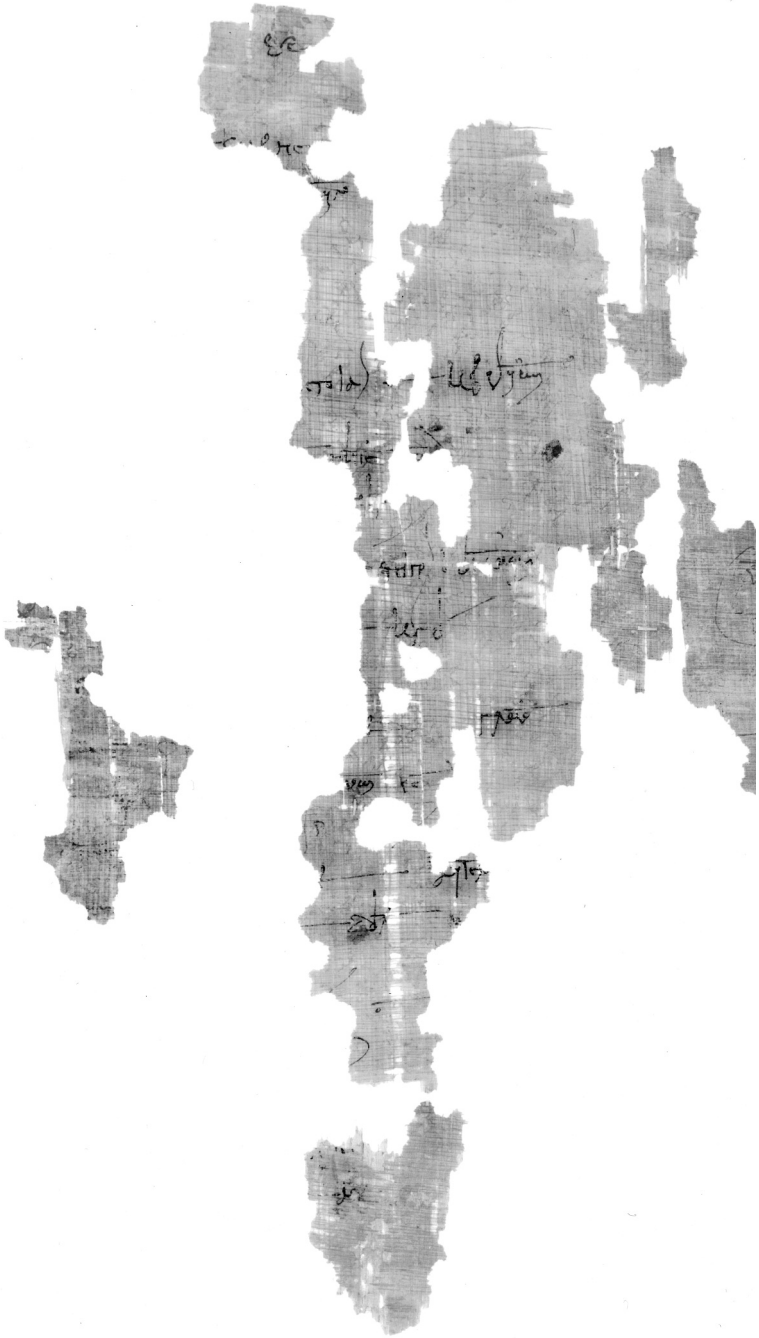
φ[ ] (ἄρουρ.) γ λ̄ο̄ ξ̄ο̄
] ξ̄ο̄ ρ̄κ̄η̄ ι̣ς̣)
] .ς̣’
] (ἄρουρ.) α η̄ ῑς̄ λ̄ο̄ [ξ̄ο̄]
] (ἄρουρ.) δ d λ̄ο̄

]. (ἀρτ.) *vac.* [
].

]..
]— αυ.. [

. . . . . .

4. ϛ = (ἔτος) ‖ 7. επιγρϛ



0 10 cm

[ξη]

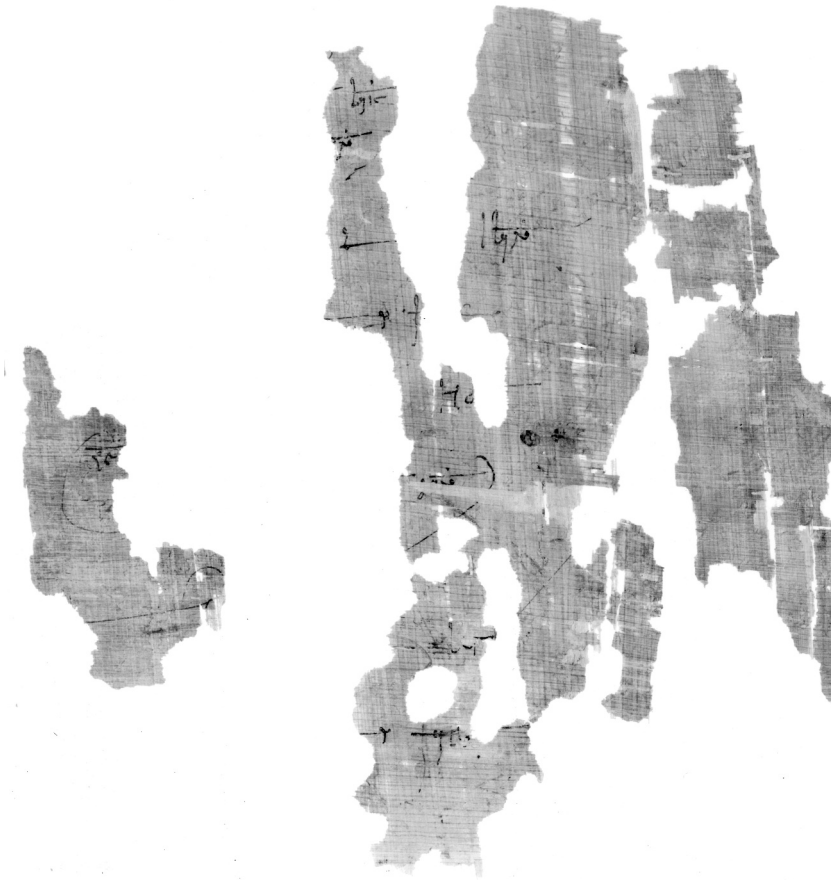
].[
]. L’ η̄ ις̄ [ ] *vac.*
4]. λ̄ο̄ [ ] *vac.*
] (ἄρουρ.) [ ] ι L’ η̄ λ̄ο̄

ἀργ(υρίου)]—— (δραχμαί) ψ[ϙη] ∫′
] η ḍ [ ]
8 (ξ̄ϵ̄ [ ] (ἄρουρ.) α η̄ λ̄ο̄)
(ξ̄ϛ̣̄ [ ] *vac.*)

[(γίν.)]—— α̣ἰ̣ π̣(ροκ.) [(ἄρουρ.)] κγ [

ἀργ(υρίου)]—— (δραχμαί) ψϙη ∫′

. . . . . .



0 10 cm

ξθ

κλ]*ήρου Πατύμιο*ῦ[*ς*
]. (ἄρουρ.) [

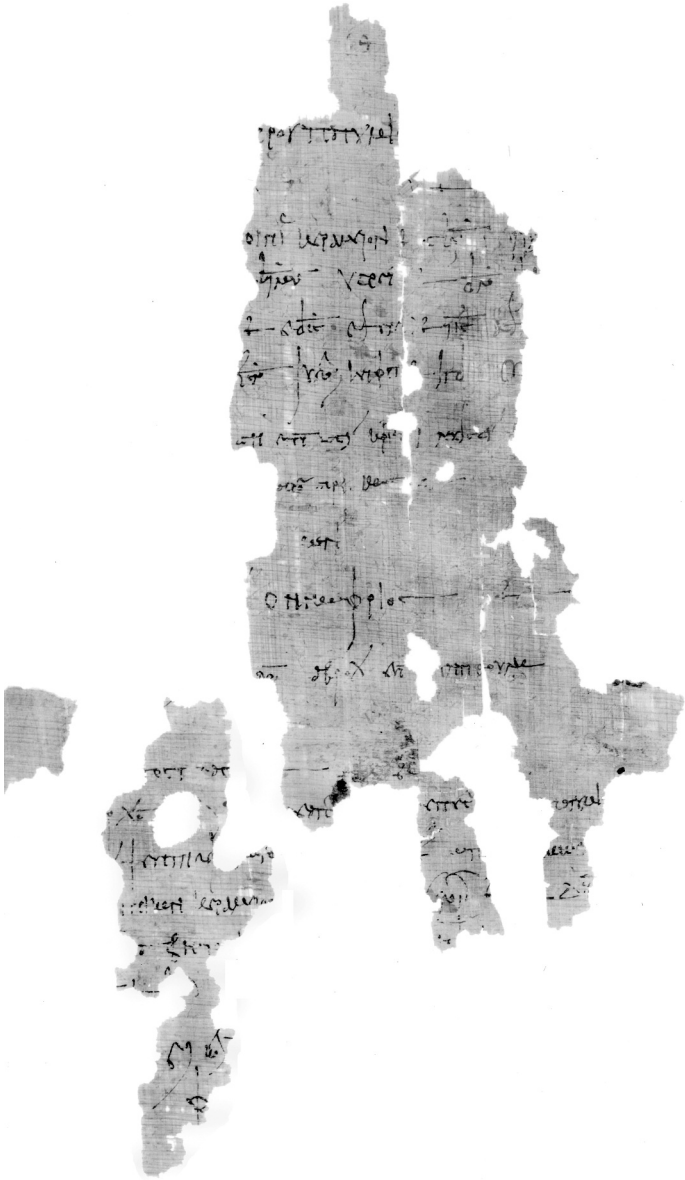
] *οἰνικ*(*ὸν*) *κεραμεῖον* (ἄρουρ.) *ς* L’ η̄ ῑς̄ ξ̄ο̄ π̣.[
(ἄρουρ.)] L’ η̄ λ̄ο̄ ξ̄ο̄ ὕδρευμ(*α*) (ἄρουρ.) d λ̄ο̄ ..[
] (ἄρουρ.) *ϵ* d ῑς̄ (*πεντα*)(*δράχμου*) ἐλ̣α̣ι̣(*ῶνος*)
(ἄρουρ.) *η* ῑς̄ (*μονο*)(*δράχμου*)
(ἄρουρ.)] ῑς̄ λ̄ο̄ (*γιν.*) *ὑπολ*(*όγου*) *καὶ φυτ*(*είας*) (ἄρουρ.) *ιγ* d *συ*[

] (ἀρτ.) *η* ἐ*πη*(*ντ.*) (ἀρτ.) *ς*∫′ *κρι*(*θῆς*) (ἀρτ.) *ι λαχ*(*άνων*) (ἀρτ.) *δ*∫′
] ἁ̓δροῦ (ἀ̣ρ̣τ̣.) .. *βρώσ*(*εως*) (ἀ̣ρ̣τ̣.) [*ι*]*γ*
] *ὧν*·
] *Ὀννώφριος* (ἀρουρ.) [

ἐ(*πὶ*) *κολ*(*λ.*)] λ̄ζ̄ ἀ*βρόχ*(*ου*) ἐ*ν* (*ᾗ*) *πλινθουλκ*(*ία*)

[*Καὶ* ..]*τὸς πλασ*[*τῆ*]*ς* *vac.* (ἀ̣ρουρ.) .[ ]
[ἀ]*ρχό*(*μεναι*) [..]( ) .[ ].*ϵ* ἀ*π*..( ) [ ] ἐ*πεσκ*(*εμμένη*)
[ ] *Πατύμι*[*ος*]
[*α*]*’ Ψεντνεφ*[*ϵ*]*ρῶτο*[*ς*] *γ*̣ // *ωπ*[ ] *μ*̣ω̣ρ̣[
[*ο*]*ἰνικὸν κεραμεῖο*ν̣ [ ] (*λοι*( ) (ἀ̣ρ̣ο̣υ̣ρ̣.) δ η̄ [
]*ου Βήσιο*̣[*ς*] .[ ].[
]. (ἄρουρ.) ..[
] ἐ(*πὶ*) *κολ*(*λ.*) [
] *ϕ* [
].[
. . . . . .

4. *οινι*$^{\kappa}$ ‖ 5. *υδρε*υ^{μ} ‖ 6. *ϵ*ϒ = (*πεντά*)(*δραχμος*) | *α*ϒ = (*μονό*)(*δραχμος*) ‖
7. | = *γίνονται* 12. *ϵν*̄ | *πλινθουλ*$^{\kappa}$ ‖ 14. *αρχο*̄ | *επϵc*$^{\kappa}$



0 10 cm

ο]

]ος καὶ ἄλλ(ης) διὰ τοῦ α[
]ο( ) ὧν φοινικῶ(νος) φορ(ίμου) (ἄρουρ.) ϐ λ̄ο̄ .[

4 ἐ(πὶ) κολ(λ.) λ̄η̄ διὰ Βήσιος Παχούμιος [

] θύμωι (ἄρουρ.) η̄ λ̄ο̄
] κριθῇ ἐπη(ντ.) βρώσ(ει) (ἄρουρ.) L η’
] (γίν.?) (ἄρουρ.) ϐ λ̄ο̄ ἀβρόχ(ου) καὶ ἀνεσκ(αμμένου) εἰς
8 [οἰνικὸν] κ[ε]ραμεῖο(ν) (ἄρουρ.) α ḍ η̄ ις̄ λ̄ο̄ | α̣ι̣ π̣(ροκ.)
[ἀνεσ]κ(αμμένου) (ἄρουρ.) α ḍ ἀβρόχ(ου) (ἄρουρ.) η̄ ις̄ λ̄[ο

κλή]ρου Βήσιος ἱερέως διὰ α[
Ψε]νσενπαχούμιος (ἄρουρ.) ϐ η̄ ις̄ λ̄ο̄
12 [ἀβρόχ(ου) καὶ ἀν]εσκαμ(μένου) εἰς οἰνικὸν κεραμεῖ(ον) (ἄρουρ.) L λ̄ο̄ [

ἐ(πὶ) [κο]λ(λ.) λ̄η̄ ἀνεσκαμ(μένων) καὶ ἄλλ(ων) *vac.*

] φοινικῶν(ος) φορ(ίμου)] διὰ Παχούμιος Ψε[....]ιτος (ἄρουρ.) η̄ ις̄ λ̄ο̄ [
[..]. ἐχό(μεναι) [ ]..[ ]—[ ] Παχούμιο[ς Κο]λάνθου [
16 [ ]ος ἱερέω(ς) καὶ Β[ ].( )
[φ]οινικῶ(νος) [ ]( ) ..[
. . . . . .

2. αλλ/ ‖ 3. [ ]ō ‖ 5. κναμωⁿ ‖ 7. ανεcᴷ ‖ 8. κεραμειᵒ ‖ 9. [ανεc]ᴷ ‖ 10. ϊερεωc ‖ 12. ανεσκαμ) | κεραμειᵒ ‖ 15. [εχ]ō ‖ 16. ιερεω)

0 10 cm

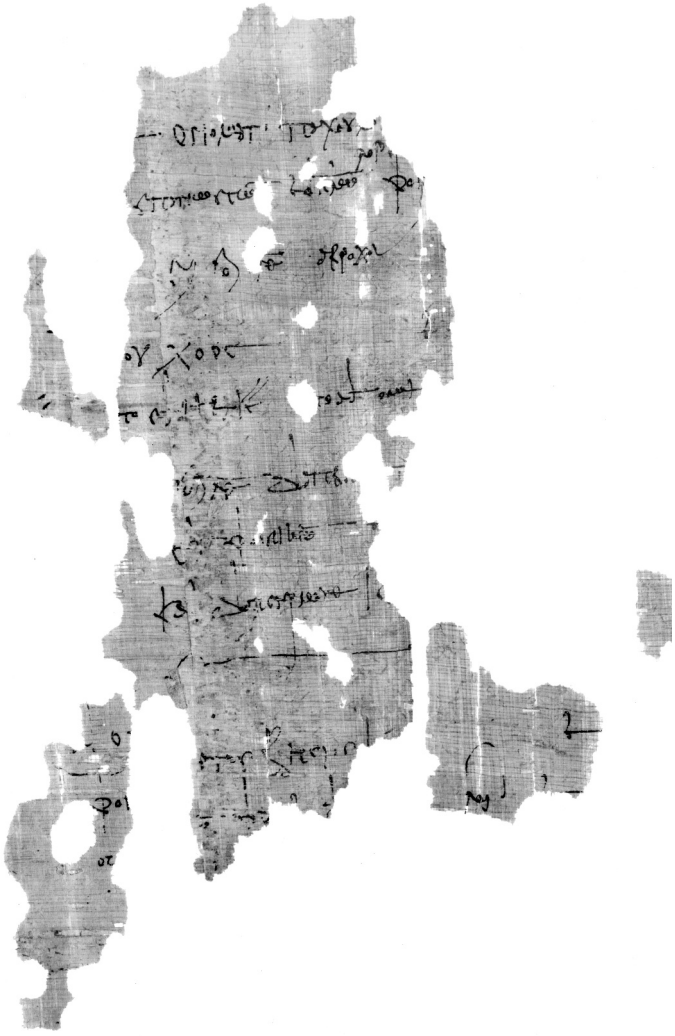
[οα]

]— ὀνόματι Παχούμ[ιος
] λοιπ( ) .[
4] ἐπάνω ἐσ̣κ̣αμ̣(μένης) (ἄρουρ.) δ η̄ ις̄ λ̄ο̄ ξ̄ο̄ φοι[(νικῶνος)
ἐ(πὶ) κολ(λ.) λ̄θ̄ ἀβρόχου

.[...]ου χοός (ἄρουρ.) [
[ἀ]πὸ (πεντα)(δράχμου) φ̣ο̣ι̣(νικῶνος) (ἄρουρ.) γ ις″
[ἀ]πὸ (μονο)(δράχμου) ὁμοί(ως) [
8 ἐ(πὶ)] κολ(λ.) λ̄θ̄ διὰ Πβή[κιο]ς Π[
[ἀ]πὸ (πεντα)(δράχμου) φ̣οινικῶ(νος) (ἄρουρ.) [
vac. καὶ διὰ Πατερμούθιο[ς
(γίν.) αἱ π(ροκ.)———— [
12 Κ̣α̣ὶ ὀ̣ν̣[όμ]ατος Βήσιος [ ] *vac.* (ἄρουρ.) [
φοι[νικ]ῶ̣(νος) φ̣ο̣ρ̣(ίμου) (ἄρουρ.) δ .[ ] λοιπ(αὶ) (ἄρουρ.)
ο.[ ].[

. . . . . .

4. εσκ̄α̣ ‖ 7. ε = (πεντά)(δραχμος) | α = (μονό)(δραχμος) ‖ 9. ε = (πεντά)(δραχμος)



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[*οβ*]

Ψενσενπ̣[*αχούμι*]*ος Πα̣*[ ]. *ος π*.[
ἧ̣ς φοινικῶ(*νος*) [ ]. *φοῖ*(*νιξ*) $\bar{α}$ L .[
ἧ̣ς ἀπὸ (*πεντα*)(*δράχμου*) *φ*[*οι*(*νικῶνος*)] *ἀνάπα*(*υμα*) [

ἐ(*πὶ*) [*κολ*(*λ.*)] $\overline{λθ}$ *διὰ Τ̣*[

. [*φ*]*οινι*[*κ*]*ῶνος* [
πυ[*ρ*]*ῶι ἐπη*(*ντ.*) (*ἄρουρ.*) [
κριθῆι ἐπη(*ντ.*) *βρώσ̣*(*ει*) [
(*γίνονται*) .[ ].. (*ἄρουρ.*) $\overline{ις}$ $\overline{λ}$[*ο*

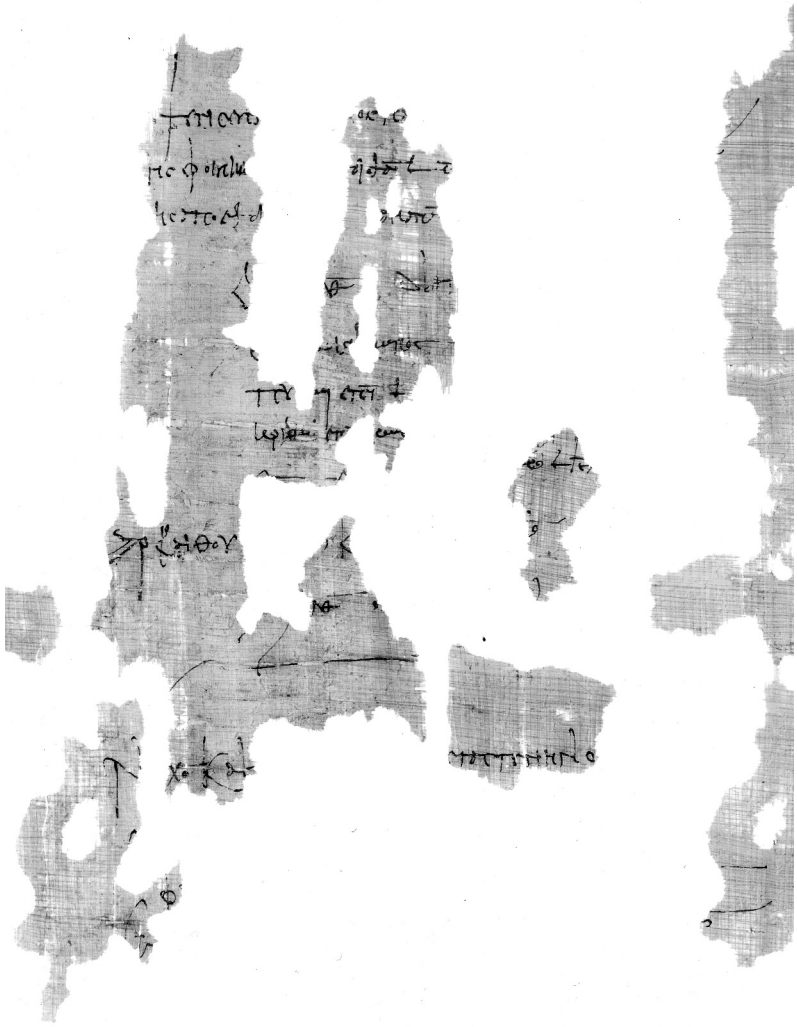
Ἀρβαίθου [ ]. *κ*[.]*ο*

ἐ(*πὶ*) [*κολ*(*λ.*)] $\overline{λθ}$.[
(*γίνονται*) [

Ν[*ότ*(*ου*) *ἐ*]*χό*(*μεναι*) *και* .[*μ*]*ετὰ στενὴν ὁ*[*δὸν*
ἐ[
φ[
ὧν [

. . . . . .

4. $\overline{\text{ε}}$ = (*πεντά*)(*δραχμος*) | *αναπα*$\overline{υ}$ ‖ 13. *εχ*$\overline{ο}$



0 10 cm

[*ογ*]

.[
] τ̣ο̣ [
] .[
] (*γίνονται*) [

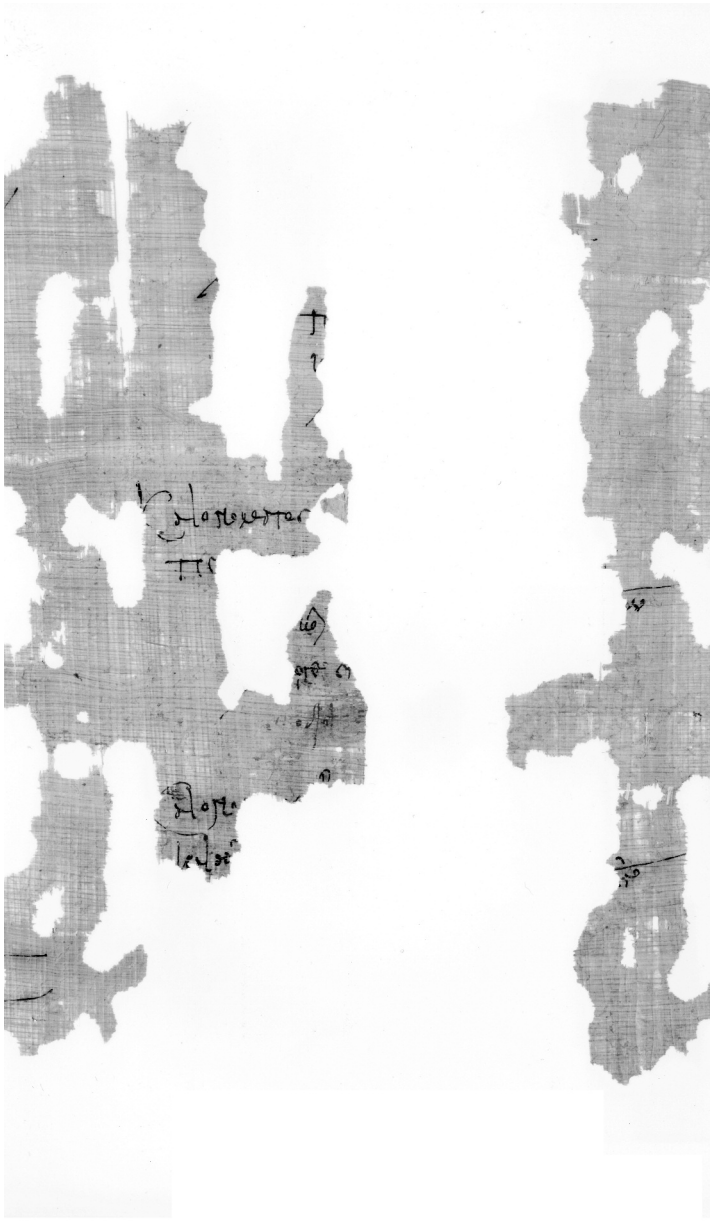
Καὶ ὀνόματος [
πϵ[ ] $\overline{\lambda}$ο̣ $\overline{\xi}$ο

ϵ̓(*πὶ*)] *κολ*(*λ.*) [ ] *vac.*
κ]*ριθ*(*ῆι*) *ϵ̓π*[*η*(*ντ.*)] *vac.*
vac. *ο φοι*(*νικῶνος*) .[ ] *vac.*

Καὶ ὀνό[*ματ*]*ο̣ς̣ B*[ ] *vac.*
καὶ ἀδ[*ϵ́*]*σ*(*ποτος*)] $\overline{\lambda}$ο̣

. . . . . .

12. *αδϵ*^{c}



0 10 cm

[οδ]

K[αι̣] (ἄρουρ.) d

ἐ(πι̣) [κολ(λ.)] η) διο̣.[.].

space of three lines

4 Ψάι̣τ̣[ο]ς Φι̣[ ] η̄ ις̄ ξ̄ο

.[

τ̣[ ] .[ ] .. ..

ἐ(πι̣) [κολ(λ.)] *vac.*

8 Πεβῶτος Παχ[ ] ———

ἐ(πι̣) κολ(λ.)] λ̄θ̄ [ ] *vac.*

] .. (ἀρτ.) [

. . . . . .

0 10 cm

[οϵ]

Π]ατύμιος [(ἄρουρ.)] .[

] ξ̄ο̄ [ ] ῑϛ̄ λ̄ο̄ ξ̄ο̄
] ρκη̄ η̄ λ̄ο̄ L η’
] α η̄ ῑϛ̄ ο γ̄ d η̄ ῑϛ̄ λ̄ο̄ ξ̄ο̄
] .. .. [ ] η̄ ῑϛ̄ ξ̄ο̄
]. d [ ] ῑϛ̄
] (γίνονται) [ ] (ἄρουρ.) .[ ] *vac.*
]...[ ]. [ ]

Ἀνα[γραφο]μ̣έ̣ν̣η̣ϛ̣ [ ] *vac.* [(ἄρουρ.)] ϛ L η̄ ῑϛ̄ ξ̄ο̄

[ ]..[ ] ῑϛ̄ ξ̄ο̄ ο̄ [ ] d η’
] .. ξ̄ο̄ [ ] *vac.*

]ν αφ̣.[

] ὧν [

. . . . . .

0 10 cm

] ι̅ς̅ λ̅ο̅ | ὐ̣[πολ(όγου)] κ̣αὶ φυτεί(ας) [

] *vac.* [ ]——

4] ὧ̣ν

] (ἄρουρ.) α d ι̣[̅ς̅ ρ̅κ̅η̅

⎛ [ ] λ̅ο̅ [ ]—— ο̣β̣̅ ι̅ς̅ λ̅ο̅ ⎞
⎜ [ ] .. [ ] *vac.* ⎟
8 ⎝ [ ] (γίν.) α d ι̅ς̅ ρ̅κ̅η̅ ⎠

Καὶ [ ] ὧ̣ν·

π̣υρ̣[οῦ..]π̣η( ) ατ( ) (ἄρουρ.) ϵ ι̅ς̅ (ἀρτ.) [ἔ]γγο(νος) .[

].[ ] ο̅γ̅ [ ] γ δ[ ] ις̀)

12 θυμῶ̣[νος .]..... ρξ [ ] (ἄρουρ.) L η̅ ι̅ς̅

. [.]α̅ η̅ λ̅ο̅ [[..]] [ ]/// .[

]——— (= γίν.) [

]—— ο̅γ̅ [

16]. (ἄρουρ.) [

]. d .[

. . . . . .

10.]π^{η} $\alpha\tau$ | $\epsilon\gamma\gamma\bar{o}$

0 10 cm

οζ

] (γίν.) αἱ π(ροκ.) [(ἀρουρ.)]—— κ. ρκη”
]. [ ] ἀργ(υρίου) (δραχμαὶ) ψοζ γ‘

space of two lines

4]. *vac.* σ

] α οδ̄ α)
]. σ( ))

(ι (ἔτους) ϵ( ))

space of three or four lines

8]... //

the rest of the column probably void

7. ϟ = (ἔτους) ϵ/

Between columns οζ *and* οη *a space of one column width*

0 10 cm

Ἄλλων ἐδαφῶν πρώτως [ἀναγρα]φέντων
τ[ῶι] ιζ (ἔτει) καὶ τοῖς ἑξῆς ἔτεσι ἀ̣[γοραστικ?]ῶι δικαί̣[ωι]
[διὰ τ]ραπέζης, Πελείλιος ἐπιτηρη[τοῦ] γραφε[ίου]
Ψ̣[ώ]νεως ἔστι δέ·

(Πρότερον) Καλῆτος Παχομῶτος ὠνηθεῖσ(αι) παρὰ αὐτ[ο]ῦ
[Κα]λῆτος ἐν ὁρίοις Πχ[νού]νεως ἀνάπ(αυμα) [(ἄρουρ.)] ϵ
συνοπ(τ.)· πυρῶι (ἀρτ.) ς λαχ(άνοις) (ἀρτ.) δ ∫′ β̣[ρώσ(εως)] (ἀρτ.) ιγ
ἐ(πὶ) κολ(λήματος)] μ̄ ἀβρόχου [ ].

K[αὶ] (πρότερον) Πεβῶτος Ψϵ[ν]σενπαχούμιος ἀπαλλ(αγῆς) (ἄρουρ.) α
συνοπ(τ.)· πυρῶι (ἀρτ.) ς ὀσπ(ρέων) (ἀρτ.) ζ βρώσ(εως) (ἀρτ.) ι̣χ
[ἐ(πὶ)] κολ(λήματος) μ̄ ἀβρόχου

K[αὶ] κ̣λ̣[ή]ρ̣[ου] Στεφάνου περὶ Σενταενεωλ( )
[Παχούμ]ιος Σανσν̣[ώτο]ς] καὶ Ὀρσενούφιος [
[± 6–8]ος [ ] (ἄρουρ.) α [∂ η̄
[σ]ωματισθέν̣[τα] ϵ̣ρο( ) κλήρωι σὺν
] ἐπὶ κλήρο(υ) Στεφάνου ξ̄η̄ μερίδ(ος)

[διά]στημα

Πα]χούμιος Σανσνῶτο[ς
] (ἄρουρ.) ιγ [
] λοιπ(αὶ) (ἄρουρ.) ζ ∂ [

. . . . . .

3. ϩ = (ἔτει) ‖ 6. α̅ = (πρότερον) | ωνηθειϲ̅ ‖ 7. ανα› ‖ 9. α′ = (πρότερον) | απαλ^λ^ ‖ 13. ϲενταενεω̣̂ ‖ 16. ερο̅ ‖ 17. κληρ^ο^

0 10 cm

ὧν ἐντὸς πλαστῆς (ἄρουρ.) ϑ λο ξο ρκη οὗ ὀνό(ματος) Σανσνῶτο(ς)
Βήσιος ἀνάπαυμ(α) (ἄρουρ.) ις λο ξο

ἐ(πὶ) κολ(λ.) μ̄ δ̣ιὰ τοῦ ἀ(υτοῦ) [ἐ]π̣η(ντ.) βρώσ(εως)

Καὶ ἐντὸς πλαστῆς χωρίου αὐτουργούν(των) (ἄρουρ.) ι η̄ ις ξο ρκη
ἐν (αἷς) μυρ(ίκη) α
ἐ(πὶ) κολ(λ.) μ̄ ἡλιοτρο(πίῳ) ἀ̣ὐ̣τουργ(ουμένῳ) π̣επυκ(νωμέναι)
κριθ(ῆι) (ἄρουρ.) η
χέρσ(ου) καὶ ἄλλ(ης) (ἄρουρ.) ις ξ[ο] | [ὑ]πολ(όγου) η ωκ( ) σ( )

Καὶ ἐντὸς πλαστῆς τοῦ αὐτοῦ χωρίου αὐτουργ(ούντων)
ἀκροδ(ρύων) φορ(ίμων) ἐν (ᾗ) ἐλαῖ(αι) ς (ἄρουρ.) λο ξο

Κα]ὶ ἐπάνω ὑδρεύματος μυρ(ίκη) φόρ(ιμος) [α
ἡ κοπεῖσ(α) ἔτι ἀποθεω̣(ρεῖται)

Καὶ] ἐκτὸς πλαστῆς (ἄρουρ.) [
χέρσ(ου)] κ̣α̣ὶ ἄλ(ης) ἐν (ᾗ) μάγδωλ(ος) (ἄρουρ.) d ις ξο [
ὀ]νό(ματος) Βήσιος [

ἐ(πὶ) κο]λ(λ.) μ̄ [δ]ι̣ὰ Σανσνῶτος Βή̣[σιος
πυρῶι ἐπη(ντ.) (ἀ̣ρ̣ο̣υ̣ρ̣.) d η̄ λο ξο
κριθ(ῆι) αρ̣( ) ἐπη(ντ.) βρώσ(εως) .. [
γ(ίνονται) αἱ π(ροκ.) [

]οβίου διὰ Βήσιος Ἀρε[μ]ήφι[ος

ἐ(πὶ) κολ(λ.)] μ̄ διὰ τοῦ α(ὐτοῦ) Βήσι[ος·]
] φακῶι ἐπη(ντ.) βρώσ(εως) (ἄρουρ.) [
λ]ο̣ι̣π(αὶ) (ἄρουρ.) η̄ λο | [ὑ]π̣ολ(όγου) [

. . . . . .

2. ονο̄ σανσνωτ^{ο} ‖ 3. αναπαυ^{μ} ‖ 4. επη̄ | ᾱ = ἀυτοῦ ‖ 5. αυτουργου^{ν} ‖ 6. εν$^{¯}$ μυρ̣ ‖ 7. αυτουργ̄ πεπυ^{κ} ‖ 9. ηωκ^{γ} ‖ 10. αυτουργ̄ ‖ 11. ακρο^{δ} | εν$^{¯}$ ελαι$^{)}$ ‖ 12. μυρ̣ ‖ 13. κοπειᾱ | αποθε$^{ω¯}$ ‖ 15. εν$^{¯}$ μαγδω̄^{λ} ‖ 16. [ο]νο̄ ‖ 19. αρ̣ ‖ 22. ᾱ = ἀυτοῦ ‖ 24. [υ]πο̄^{λ}

0 10 cm

λοιπ(αὶ) (ἄρουρ.) δ d η̄ ις̄ λ̄ο ξ̄ο ρ̄κη̄

ἐ(πὶ) κολ(λ.) μ̄ ἰδιοσπορίας κριθῆ ἐπη(ντ.)
βρώσ(ει) [ὅ]νων κυριακ(ῶν) τῆς οἰκονομ(ίας) (ἄρουρ.) ℊ η̄
ἀβρόχ(ου) ἔνθ(α) καὶ ἄλλ(ης) (ἄρουρ.) γ d η̄ ις̄ λ̄ο ξ̄ο ρ̄κη̄ | αἱ π(ροκ.)

γ(ίνονται) ———————— αἱ π(ροκ.) (ἄρουρ.) s ℊ ρ̄κη̄

Κλήρου Παν̣[ο]ύπ̣εως (πρότερον) τῶν αὐτῶν λοιπ(ῶν)
ἐπὶ γῆς .θ ποταμοφορ(ήτου) (ἄρουρ.) d λ̄ο

ποταμ(οφόρητος) ἐ(πὶ) ⟦κολ(λ.)⟧ ὁμοί(ως)·

Ψιλ(οῦ) ἀπὸ βορ(ρᾶ) χωρίου Ξανθοῦ ἀπὸ (ἄρουρ.) α̣[ἐ]ν β τοπ(αρχίᾳ)
(ἄρουρ.) δ η̄ λ̄ο ξ̄ο

ἐ(πὶ) κολ(λ.) μ̄ δι[ὰ ± 4–5]ιος καὶ Σαπρίωνο(ς)

κριθῆι ἐπη(ντ.) β[ρώσ(ει) (ἄρουρ.) ℊ] ις̄ τὸ (τρίτον) (ἄρουρ.) d ξ̄ο ρ̄κη̄
τοπ( ) [± 10–12 (γιν.)] αἱ π(ροκ.)

..... κβ (ἔτει) ἀπο .[± 10–12]. απ̣[.].( ) τὸ (τρίτον) (ἄρουρ.) ∫′

ἐ(πὶ) κολ(λ.) [ ] *vac.*

κριθ[ῆι] *vac.*

Γί(τονες) νό(του) καὶ τούτων [ ] ιζ̄ ις̄ ξ̄ο

(ο̄η̄ α α [α] ℊ η̄ [ιγ η̄ ις̄ ξ̄ο] *vac.*
.[ ] *vac.*

ων[ ] *vac.*

. . . . . .

3. ἰδιοσπορείας ‖ 4. κυρια^{κ} | οικονο$^{μ\acute{\iota}}$ ‖ 5. ενθ- ‖ 7. ᾱ = (πρότερον) ‖ 8. ποταμοφορ$^{\bar{\eta}}$ ‖ 9. ποτα$^{\bar{\iota}}$ | ομοτ ‖ 10. ψι$^{\lambda}$ | βορ$^{\bar{\alpha}}$ | το$^{\supset}$ ‖ 11. καπριωνο ‖ 12. γ$^{\prime\prime}$ (= τρίτον) ‖ 13. το$^{\supset}$ ‖ 14. ϛ = (ἔτει) | γ$^{\prime\prime}$ = (τρίτον) ‖ 18. Γτ νο$^{\bar{\upsilon}}$, γείτονες

0 10 cm

ποταμοφορ(ήτου) $\bar{\pi}$ (ἄρουρ.) d $\overline{\text{λο}}$
χέρσου καὶ μαγδώλ(ου) $\overline{\text{οθ}}$ (ἄρουρ.) d $\bar{\text{ις}}$ $\overline{\text{ξο}}$
4 ἀμπέλου φορ(ίμης) διὰ μισθωτῶν (ἄρουρ.) α L $\overline{\text{λο}}$ $\overline{\text{ξο}}$
ἀμπέλου φορ(ίμης) αὐτουργουμ(ένου) (ἄρουρ.) δ d $\bar{\eta}$ $\bar{\text{ις}}$
γ(ίνονται)———— ἀμπέλ(ου) (ἄρουρ.) ϵ ℊ $\bar{\eta}$ $\bar{\text{ις}}$ $\overline{\text{λο}}$ $\overline{\text{ξο}}$

γ(ίνονται)———— ὑπολόγ(ου) καὶ φυτεί(ας) (ἄρουρ.) ς L $\bar{\text{ις}}$ $\overline{\text{λο}}$

8 λοιπ(οῦ) σπορ(ίμου) (ἄρουρ.) ι d $\bar{\eta}$ $\bar{\text{ις}}$ $\overline{\text{λο}}$ $\overline{\text{ξο}}$
ἀβρόχ(ου) καὶ χερσαβρόχ(ου) (ἄρουρ.) ς d $\bar{\text{ις}}$ $\overline{\text{λο}}$ $\overline{\text{ξο}}$ $\overline{\rho\kappa\eta}$
($\overline{\text{οη}}$ α α $\overline{\text{οθ}}$ γ[ ] $\bar{\eta}$ $\overline{\text{λο}}$ $\bar{\pi}$
γ d $\bar{\eta}$ $\bar{\text{ις}}$ $\overline{\text{λο}}$ $\overline{\text{ξο}}$ [$\overline{\rho\kappa\eta}$] $\bar{\eta}$ $\overline{\text{ξο}}$ $\overline{\rho\kappa\eta}$ [(γίν.)]—— αἱ π(ροκ.))

12 ἡλιοτροπ(ίου) ἀ̣ὐ̣[τουργ(ουμένου) πεπυκ(νωμένου)] $\overline{\text{οθ}}$ (ἄρουρ.) $\bar{\eta}$
ἰδι[οσπορείας κριθῇ ἐπη(ντ.) βρώσ(ει)] ὄνων κυριακ(ῶν)
τῆ[ς οἰκονο(μίας)] (ἄρουρ.) ℊ $\bar{\eta}$
γ(ίνονται) [(ἄρουρ.) *xy*] *vac.*

16 *K*[αὶ] *vac.*
β.[
.[

πυρ̣[οῦ 10–15] (ἀρτ.) β d $\overline{\mu\eta}$

20 γ(ίνονται) [ ] *vac.*
.. [ ].ι (πεντα)(δράχμου)

. . . . . .

2. ποταμοφο$\bar{\rho}$ ‖ 3. μαγδ$\bar{\omega}$ ‖ 5. αυτουργο$\bar{\upsilon}^{\mu}$ ‖ 7. υπολο$\bar{\gamma}$ | φυτει$'$ ‖ 12. ηλιοτρο$^{\supset}$ ‖ 13. κυρια$^{\kappa}$ ‖ 21. ϵ$\bar{\text{ι}}$

0 10 cm

πβ

Καὶ τῶν περὶ Σεντανενωλ( ) ἀναγραφ[έντων
ἰδιοκτήτων Κλαυδίου Ἀπολλιναρίου [

ῑ (ἄρουρ.) *Ψενεσουήριος ἀπὸ βο̣ρ(ρᾶ) διώρυγ(ος) σ[κάμ(μα) διὰ]*
λόγ(ου) δημοσίων (μον)(αρτάβου) ἐωνη(μέναι) (ἄρουρ.) ι γρ(αφὴ) δι[ωρύγ(ων)?]

συνοπ(τ.)· πυρῶι ... (ἀρτ.) ζ ἐπη(ντ.) (ἀρτ.) ς λ̣αχ(άνοις) (ἀρτ.) δ ∫′

ἐ̣(πὶ) κολ(λ.)] λ̄θ̄ ἀβρόχου

γ̄ (ἄρουρ.) *ἀπὸ νότου διώρυγ(ος) σκάμ(μα)* (ἄρουρ.) [γ]
[συν]οπ(τ.) ὀσπρέωι (ἀρτ.) ζ λ̣αχ(άνοις) (ἀρτ.) δ ∫′ βρώσ(ει) (ἀρτ.) ιγ

ἐ̣(πὶ) κολ(λ.)] λ̄θ̄ ἀβρόχ(ου) ἐν (ἥ̣)

[K]αὶ ἀπηλ(ιώτου) ψιλοῦ Ἑρμίου Κολάνθου [

ἐ̣(πὶ)] κολ(λ.)] λ̄θ̄ ἀκανθῶνο(ς) α̣[

]κρ̣. [
] λόγ( ) δημοσ̣(ίων) [
βρώ]σ(ει) (ἄρουρ.) ∫′ .[

ἐ̣(πὶ) κολ(λ.) λ̄θ̄] ἀβρόχ(ου) κ[

] μετὰ πόρον ἀποδ[.]..[
]. περὶ Ἰβίωνα διὰ λόγ(ου) δ̣[ημοσ(ίων)
] ∂ η̄ λ̄ο ἐ̣(πὶ) κολ(λ.) μ̄ [

. . . . . .

2. cετανενω̂ ‖ 4. βορ̄ | διωρυγ́ ‖ 5. λογ̄ | α͞ = (μον)(αρτάβου) | εωνη̄ | γρ̶ ‖ 8. διωρυγ̄ | cκαμ ‖ 10. εν¯ ‖ 11. απη^λ ‖ 12. ακανθων^ο ‖ 14. λογ̄ δημοc̄ ‖ 18. ϊβιωνα | λογ̄

0 10 cm

[πγ]

Καὶ ἀπὸ δικαίου καταλ[οχισμῶν] Ψώνεως
(πρότερον) Σανσνῶτος .[± 7-8] *(ἄρουρ.) α η̄*
συνοπ(τ.)· πυρῶι (ἀρτ.) s β[ρώσ(εως) (ἀρτ.) ιγ)] θέρμ(ου) (ἀρτ.) δ
ἐ(πὶ) κολ(λ.)] [ ].

Βορ(ρᾶ) μετὰ πόρον .[... *Θμον]νοσείρεως ψιλ( )*
Ἑρμοπολειτῶν ἀπο.[ ]*s τὸ βορ(ινὸν) μέρος ἐν (ᾧ)*
πλινθ(ουλκία) καὶ τόπ(ος) καμε̣ί̣(νου) [ ] (ἄρουρ.) d η̄ λο ξ̄ο
ἐ(πὶ) κολ(λ.)] μ̄ δ[ιὰ ....].*ηκιος*
κριθῆι ἐπη(ντ.) [ ]..
ἀβρόχ(ου) .*α [ ]- τοπ( )*

Γί(τονες) νό(του) .[ ] *(ἄρουρ.) κθ ϑ η̄ ις̄ ξ̄ο*
πα̅ [ ].
.. [ ]
.[ ]

ἀβρόχ(ου) [ ] η λο//
ἀκανθῶνο(s) [ ] .ϑ
βρώσ(εως) (ἀρτ.) ιγ [ ] s
(γίνονται) [αἱ π(ροκ.)] vac.

. . . . . .

3. ᾱ = (πρότερον) ‖ 6. βορ̄ | ψι^λ ‖ 7. Ἑρμοπολιτῶν | βορ̄ | εν¯ ‖ 8. πλιω^θ | το^ϡ | καμίνου ‖ 11. το^ϡ ‖ 12. Γ↓ νο̄, γείτονες ‖ 17. ακανθων^ο

0 10 cm

[πδ]

Κ̣[α]ὶ ἀπὸ ἀντικαταλλαγῆς *Μ̣*[ ] *Π̣ρωτᾶ*
ἀπὸ *Πανοσπόλ*(εως) αἱ πρώτ(ως) ἀ[ναγρα]φ̣εῖσ(αι)
τῶι κε (ἔτει) κοινῶν καὶ ἀδιαιρέτ̣[ων ὑπ]ὸ̣ *Αὐ*ρήλιον
*Ἀ*ρτεμίδωρον ἀπὸ *Πανοσπόλ*[εως]

ἔστι δέ·

[*Ἐ*]ν ὁρίοις *Πχνούνεως* ἀπὸ (ἄρουρ.) [κα τὸ] γ' (ἀρουρ.) ζ
αἱ οὖσαι κλήρου καθ' ὑδάτων κ[± 3–4]ων ὧν
τὸ κατὰ γεωργικὴν διαίρε[σιν ± 2–3]θ( ) θεωρ(οῦνται)

ἐ(πὶ) κολ(λήματος) μα̅ ἀβρόχ[ου] *vac.*

space of four or five lines

[*Καὶ ἀ*]πὸ ἀντικαταλλαγῆ[ς ± 10–12]....
]̣.ν μεγισ[

. . . . . .

3. πανοσπο^λ̣ | πρωτ ‖ 4. ϛ = (ἔτει) ‖ 9. θεωρ̅

0 10 cm

Κα[ὶ ἐντὸς? πϵ]ριμέτρων τοῦ ἐποικίου
Ε.[ ] *Πετετρίφιος ἀνθ(ϵώνος) ἐν οἰκίᾳ*
4 *vac.* [ ]. *φοί(νικϵς)* $\bar{\beta}$ *πῶλ(ος)* $\bar{\alpha}$ *ἐπὶ ⟨κολ(λήματος)⟩* $\overline{\mu\alpha}$

Κ[αὶ]. *(πρότϵρον) Ψϵνϵμγ(ϵ́ως) ϵθ( ) ὁμοί(ως) ἐν* [*vac.?*
vac. [ ].. *φοῖ(νιξ) φόρ(ιμος)* $\bar{\alpha}$ *ἐλ(αῖαι)*.[
Κ[αὶ] *Σαβ̣ϵύριος φοῖ(νιξ)* $\bar{\alpha}$ *πῶλ(ος)* $\bar{\alpha}$ *ἐλ(αῖαι)* [..

8 *χ[(ίν.)] φοίνικ(ϵς) φόρ(ιμοι)* δ (m. 2) *οἱ δι' οἰνικ(ῶν) παραγρ(αφῶν) θϵωρ(οῦνται)* [

space of four or five lines

].η.αι ἀπὸ κυριακ[
]ων[
].. [
12]. [
]κϵως διϵ.[
]α( ) .[

. . . . . .

3. $\alpha\nu^{\theta}$ ‖ 4. $\pi\hat{\omega}^{\lambda}$ ‖ 5. α′ = (πρότερον) | $\psi\epsilon\nu\alpha\mu\bar{\gamma}$ | ϵ^{θ} | ομοτ ‖ 7. $\pi\hat{\omega}^{\lambda}$ ‖ 8. οινι$^{\kappa}$ παραγρ̣ θεω$\bar{\rho}$

0 10 cm

space of seven or eight lines

Καὶ ἀπὸ νησιωτικῶν ἐδαφῶν ἐφ' αἱρ(έσει)
ταπεινῆς γῆς ἐπάνω πο̣τ̣ά̣μ̣(ου) (ἀρουρ.) πγ d
4 *ὧν ποταμοφορ(ήτου) καὶ κατεξ(υσμένης) πρὸς τόπ(ον) (ἄρουρ.) οζ*
λοιπ(αὶ) ἐπὶ γῆς — *(ἀ̣ρ̣ο̣υ̣ρ̣.) ς* d'
ἐ(πὶ) κολ(λ.) μα ἰδιοσ̣[πορείας]
κνήκου στερ[εοῦ
8 *κνήκ(ου) σκωλ(ηκοβρώτου) εν[*
] ἀ̣βροχ( ) [

. . . . . .

]. α̣ι̣ρ̣. [
] αὐτὴν [

. . . . . .

2. αιρ̄ ‖ 3. ποταμ̣ ‖ 4. ποταμοφορ̄ | κατεξ′ | το͞ ‖ 8. κνη^{κ} σκω̲

0 10 cm

πζ

Ἀτρῆτος [3–4] ἀπὸ Θμονπνήσ(εως) πυρῶι ἐπη(ντ.) ... [
(πρότερον) Αἰλί[ου] Ἀπ̣[ο]λλιναρίου (ἄρουρ.) α ℊ

ἧς πυρῶι (ἄρουρ.) ℊ ῑς̄ ἀρά(κου) βρώσ(ει) (ἄρουρ.) d ῑς̄
[(γιν.] ἐπη(ντ.) (ἄρουρ.) α ις″ ἀβρόχ(ου) (καὶ) ποταμ(οφορήτου)
τὸ λοιπ(ὸν) (ἄρουρ.) [d η̄ ῑς̄]
(γίνονται) αἱ π(ροκ.)

(γίνονται) (πεντ)(αρουρ.) (ἄρουρ.) ια L η̄ ῑς̄ ...( )
ὧν ἐσωματ(ίσθησαν) κλήρῳ Στεφάνο(υ) (ἄρουρ.) ι
λοιπ(αὶ) ἀπὸ νότ(ου) (πεντ)(αρουρ.) (ἄρουρ.) α L η̄ ῑς̄ γί(ν.) αἱ προκ.

Περὶ δὲ τὴν Ἀραβίαν ὁμοίως
ἀπ̣[ὸ ἐδαφῶ]ν (πρότερον) Αὐρηλίου Πανίσκου γενο̣μ̣(ένου) [
[ ] ... περὶ Μῆγιν [
]. ηβεως εν″ .[
]——— [
] (ἄρουρ.) [
] βρωσ( ) (ἄρουρ.) [

]υσερῃ[

. . . . . .

2. θμονπνηc̄ ‖ 3. α′ = (πρότερον) ‖ 4. αρ̀ ‖ 5. ὴ = (καὶ) | ποταμ̄ ‖ 7. ϵ̀ ‖ 8. ϵcωματ- κληρω cτεφαν° ‖ 9. νοτ- | ϵ̀ ‖ 11. α′ = (πρότερον)

0 10 cm

[πη]

Νό(του) πεδί[ο]ῠ [...]̣τειβε[...] ὁμοίως
ἀπὸ ἐδαφῶν Σαλουίας Τιμαγενίδος ἐν
πλειστα[ῖς σ]φραγί{δ}(σιν) (ἄρουρ.) ις ⸗ [
ὧν φᾰ̣[κοῦ] σπάρτ(ου) (ἄρουρ.) ιδ [
ἀράκ̣[ου] (ἄρουρ.) β ḍ
ἀσπόρ(ου) [ἐ]ν κοιλώ(ματι) (ἄρουρ.) ∫′ *(γίνονται) αἱ π(ροκ.)*

Κλήρο(υ) Ψενπολλοῦτος ἀρ(άκου) βρώσ(ει) θρεμμάτων
ἐποικίου Παχούμιος (ἄρουρ.) α d

(γίνονται) [πε]ρ̣ὶ τὴν Ἀραβίαν (ἄρουρ.) ξ L η̄ [
ὧν .[ ] (ἄρουρ.) ς’
ἀράκ̣[ου] (ἄρουρ.) μς [
φα[κοῦ (ἄρουρ.)] . [

. . . . . .

2. νοη̄ ‖ 3. εδαφων: ε *corr. ex* δ ‖ 4. cφραγιδ ‖ 5. cπαρτ ‖ 6. αρακ ‖ 7. ακποῤ | κοιλω̄ ‖ 8. αρι̣

0 10 cm

[πθ]

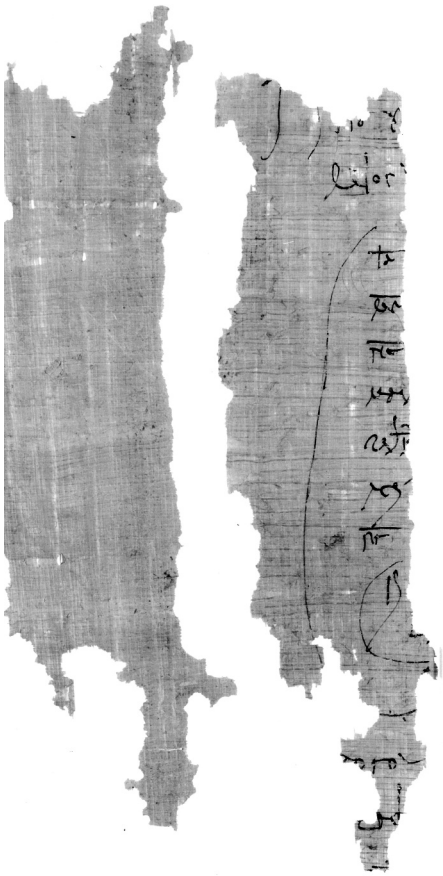
Γί(τονες) νό(του) [ἐποικίου Παχού-]
μιος .[

4 *ι̅α̅ [*
μ̅ε̅ [
ν̅ς̅ [
μαυ[(*ἄρουρ.*)]
8 *ζ ϑ̸ [* (*ἄρουρ.*)]
λ̅ς̅ ∫′ [
π̅γ̅

12 *ι ∫′ [*
δ[

] λόγου [
ἐ]δαφ[
] . [

2. *Γ*ŧ *ν̅ο̅, γείτονες*



0 10 cm

COMMENTARY

col. μη

This piece, with *Iliad* VI 23–30 on the *verso*, contains a fragment of an upper part of the column, perhaps even of lines 2–4, if we keep line 1 for the column's number.

2.]. ρπαχ[, possibly]αρπαχ[, may point at a name like Ἁρπαχράτης (*hapax* in *O. Bodl.* I 352 (Thebes, 1st cent. BC).

col. μθ

This piece, with *Iliad* VI 61–67 on the *verso*, contains a fragment of an upper part of the column, e.g., of lines 4–7.

Columns *ν* and *να* are lacking

col. νβ

Both pieces have been placed in respect to each other as indicated by the text on the *verso*: the top fragment has *Iliad* VI 190, while the bottom has VI 179–183.

1–2. The margin at the top of the fragment is wider than the usual interlinear space which suggests that what is preserved was originally line 2 of the column (we have reserved line 1 for the column's number).

6. πυ̣[ρῶι is almost sure because of the number of artabae (6), for a discussion of rent levels in our document, see Introduction, pp. 19–23. At the end of the line, θυ̣. . ρ. [is also possible.

col. *νγ*

2. *Παπχήθ*[*ιος*, see [ ]*ος Παπχήθιο*[*ς* in *ξε* 2. The name is new; for a parallel, see *ἐν τοποθεσίᾳ Πχῆτος* in *P. Flor.* III 279 (Aphrodito, AD 514); see similar formations with the stem -*χηθ*-: *Σοκμῆνις Ψεβχηθ*[ ] in *P. Hels.* I 27 (Herakleopolites, *c.* 160 BC) and the female *Ταασχήθ*(*ιος*) in *P. Achm.* 9 (Panopolites, 2nd cent. AD); also *Πετεχὴτ Ψεντεισωτεῦτος* in *CPR* XIII 4 (Arsinoites, 3rd cent. AD).

3. Supplemented following *οθ* 11.

8. A new section probably begins with the participle *ἐχομ*(*ένη*) [sc. *οἰκία*]. The house(?) is *μετὰ παραδρομίδ*[*ος* (*μετὰ παραδρομίδ*[*ων* is of course possible, too). Although there is nothing to be seen on the papyrus as it is today, we print *παραδρομίδ*[*ος* with a dotted *delta* because of the photograph taken in the 1960s, where a part of the letter was clearly visible.

In literary and epigraphical sources *παραδρομίς* is a rare word, the exact meaning of which is by no means clear to us. *LSJ* translates it as 'place for taking the air'. According to Vitruvius, *De architectura* V 11.4, *παραδρομίδες* are *hypaethrae ambulationes* in a *palaestra*; they may have served as running tracks rather than porticos (see J. Delorme, *Gymnasion. Étude sur les monuments consacrés à l'éducation en Grèce* (*des origines à l'Empire romain*), Paris 1960, pp. 287–289). In papyri, the word is not particularly rare (twenty occurences to date) and is attested in documents from the 3rd cent. BC (Zenon's archive) through the sixth cent. AD. The evidence – thoroughly discussed by G. Husson, *OIKIA,* pp. 218–220 – shows that in Egypt the *paradromis* was always part of a private house. They might be both interior and exterior; there is no explicit indication, if they were roofed or not. Husson translates the term in question by the word 'galerie'.

As for the meaning of this term, our document contributes nothing to Husson's study.

12. The first fraction is either ϑ̣ (3/4) or d (1/4).

col. *νδ*

6. *καιχ*( ): a similar abbreviation in *ξε* 9, see comm.

8. We print *Ψενενούπ*(*ιος*) instead of the more common *Ψενενούφ*(*ιος*) because of the curve-shaped mark of abbreviation which can easily be taken as a raised *pi*.

9. *Φακῶι* (and not *πυρῶι*) because of the following *βρώσ(ει)*.

14. *δ* $\overline{\lambda o}$ $\overline{\xi o}$ (4 $^{1}/_{32}$ $^{1}/_{64}$) is possible.

15. *ὀν̣[ό(ματος) Π]αχνο̣ύ̣π(ιος)* is possible. Pachnoupis is a variant of common Pachnoubis, see *P. Coll. Youtie* I 22 (AD 87, Oxyrhynchos).

17. *ἐν (γ̣̂) φοί(νικες) x* possible.

17. *Ψενθεμει( )* is a new proper name. See *Ψενθεμεὺς Πετοσίριος* in *P. Brem.* 37 (AD 117–120, Hermopolis)

24. The same in *πε* 9; for the meaning, see Introduction, pp. 23–24.

25. *φ]οί(νικες) γ πω̣[λοι x]*?

col. *νε*

7. *Ψεντα̣πελα̂λις* is attested on a mummy label (*SB* I 3866) where it is repeated four times.

13. A new item begins (some additional interlinear space is visible).

15–16. Somebody (name unfortunately lost) changed the vineyard into something else. For the perfect active *τέθεικα* (not *τέθηκα*) in papyri, see Gignac, *Grammar*, II, p. 398.

In this note we have *ἡ ἄμπελος* for 'vineyard' (Schnebel, *Die Landwirtschaft*, p. 242 does not mention this, but numerous examples in *Wörterbuch* seem to confirm this sense) and thus this form should be reconstructed throughout.

17. We would expect some space preceding the start of the new item, but the additional comment (lines 15–16) has covered it.

23. $\overline{\nu\delta}$ refers to the number of the preceding column. The sequence of fractions fits *νδ* 2.

col. *νς*

2. The verb *ἐπικρατέομαι*, although ***hapax*** in our document, is well attested in similar contexts (*Wörterbuch*, 'sich einer Sache bemächtigen, das Besitzrecht ausüben, besitzen').

13. The number of arourae (22) followed by a fraction?

14–15. Totals enclosed in large rounded brackets (see Introduction, p. 18).

col. *νζ*

This column is now preserved in two separate glass frames (see Introduction, pp. 11–12).

2. *αριθμο* without any clear mark of abbreviation.

6. *Kappa* may be a numeral preceded by the aroura-sign.

8.]*μ̣οσι* possible.

10–12. It is hardly possible that the term *ousia* in a third-century land register had any meaning other than 'estate' (see G. M. Parássoglou, *Imperial Estates in Roman Egypt*, Amsterdam 1978, pp. 9–11). In this case, we must try to find a solution for this entry given that *kleroi* tended to retain their names, even long after an estate had been formed. The evidence for this is clear when we find a parcel of an imperial property called simply *κλῆρος* or *ὁ τοῦ δεῖνα κλῆρος* (Parássoglou, *Imperial Estates*, p. 9 with numerous examples quoted in note 26).

The other possible interpretation is that the parcel in question belongs to somebody who inherited it from a *ἱματιοπ*[, most probably a clothes dealer (*ἱματιοπώλης*). Ousiac land, because of its tax-exempt status, was particularly desirable to farmers. They often both bought and rented parcels of *ousia* which resulted in *ousiake ge* coming to constitute a new category of public land. In our case the parcel had been bought, which is stressed by *ἐωνη(μέναι)* sc. *ἄρουραι* in line 12.

On *ge ousiake*, see Rowlandson, *Landowners and Tenants*, pp. 55–61.

Koitai are sections into which land which is the property of an individual was divided; in the Oxyrhynchite, unlike in the Bodmer document, these were identified by number, see P. J. Sijpesteijn, K. A. Worp, 'Numbered *koitai* in the Oxyrhynchite nome', *Aegyptus* 58 (1978), pp. 157–159 and Rowlandson, *Landowners and Tenants*, pp. 125–126. There is, however, no previous evidence for dividing *ousia* into *koitai* — G. M. Parássoglou, *Imperial Estates in Roman Egypt* does not mention *koitai* at all.

Ousia in the Panopolite to date: *P. Fouad* 80, 45 (4th cent. AD); *P. Beatty Panop.* 1 xiv 366 (AD 298) and *P. Lond.* V 1654, 1 (4th cent. AD).

To conclude, we may say that P. Bodmer I *rec*to contains the earliest attestation of an *ousia* in the Panopolite and this consists of more than one section.

14. The reading *ἀν̣τ̣ιχώμα*[*τος* is based on solid grounds and the traces visible below the lacuna fit what we expect here perfectly.

Ἀντίχωμα, 'embankment' is a very rare word, attested — as far as I know —

only in an inscription from Oropos dated to the 3rd or 4th cent. BC; *ed. princeps*: *B. Λεονάρδος*, *Ἀμφιαρείου ἐπιγραφαί*, *Ἀρχαιολογική Ἐφημερίς* 1923, pp. 36–52 (on pp. 36–42 inscription no. 123, where the word appears twice), cf. *LSJ Revised Supplement* 1996, *s.v.*, *DGE*, *s.v.* What the difference was between *ἀντίχωμα* and *χῶμα*, a dyke constructed along the river (or canals), is not clear. On dykes, see in general Bonneau, *Le régime administratif*, pp. 34–51.

15. Probably the same kind of wheat as in *πβ* 6, different from the typical one, rented at 6 art./ar.

col. *νη*

The size of the lacuna in col *νη* cannot be established exactly. The left-hand fragment has on its *verso* col. xi of the Homeric text and the right-hand col. xii.

2. This section may have referred to sacred land in the possession of a temple, e.g., *Πανὸς θεο*]*ῦ μεγίστου* (in the Panopolite, the god Min/Pan is a natural guess, see *Lex. Theon.* 775–776 for examples of calling him *μέγιστος*).

5. *Hydreuma* no. 1 of surface 2 $^{3}/_{4}$ $^{1}/_{16}$ arourai (or slightly more).

Ὕδρευμα was not a water-wheel (*saqieh*, *μηχανή* in Greek terminology), as it is sometimes mistranslated, but a cistern designed to retain the water accumulated in the natural way, without human intervention. There were two kinds of *hydreumata*: *πηγαῖον ὕδρευμα*, 'a spring cistern' accumulating spring water and *ἀναβατικὸν ὕδρευμα*, i.e., a cistern accumulating water of the Nile flood (*ἀνάβασις*), intended for temporary use in the period from August to December. *Hydreumata* may have been of quite considerable capacity, as this one mentioned in our document. On *hydreumata*, see especially Bonneau, *Le régime administratif*, pp. 61–62.

Hydreumata may have been numbered as in a wooden documentary codex from Hibis listing 86 *hydreumata* in the Great Oasis (*SB* XIV 11938; *ed. princ.* P. J. Parsons, 'The wells of Hibis', *JEA* 57 [1971], pp. 165–180).

7. *Πετεπχῆμις* is a new name; see feminine in *SB* I 2473 (mummy label from the Panopolite): *Πογχῆς Παχούμιος μητρὸς Σενπετεπχήμιος*.

9. *ἀ̣ρχ .. γρ*( ) is possible, with a high-rising letter in the middle, but I cannot offer any solution.

11. Supplemented after *ξ* 4.

12. Both *ἐντός* and *ἐκτός* are possible; the noun was probably *ἀντ[ιχώματος* or *ἀντ[ιχωμάτων*.

15. *ε̣ἰ̣ β̣ρ̣ω̣̇σ(ις)* (*ἀρτ.*) *ι̣[γ* is a possible reading. It would be, then, a parallel to the *συνοπ(τικῶς)*-clause: 'if fodder – 13 art.'. For the meaning of *συνοπ(τικῶς)*-clause, see Introduction, pp. 19–22.

17. [*ὧ̣*]*ν̣ ἀμπέλ(ου)* [is a difficult reading. Of the ***nu*** only the last vertical element survives, a horizontal stroke visible above was originally part of the initial ***kappa*** of line 16.

18. *καί* is written with characteristically prolonged ***kappa*** vertical stroke of which a small part is visible below the ***alpha*** and ***iota***. We may, therefore, assume that the left hand fragment was wrongly placed and should be removed from the rest of the column.

col. *νθ*

2. [*καὶ ἐντός* (or *ἐκτός*) *ἀ*]*ντιχώμ(ατος)*; see line 12 in the preceding column.

11–12. It is surprising to find free space in the place where we would expect the ends of lines as in numerous parallel sections throughout the document.

col. *ξ*

2–5. A reference to col. *λε*, ***abrochos***; according to general scheme of the document the line should refer to an entry described earlier but it seems possible that this is connected with lines 3–4 and repeated in line 5. If so, this would be the only example of the repetition of such a line but it fits the general pattern used in calculations: the scribe first gives a total, then details constituent figures to make up that total which is repeated at the entry's end. In line 3 *ἀποκαλ(υφθείσης)* [*γῆς* possible; see *ὁπόταν ἡ τοιαύτη γῆ ἀποκαλυφθῇ* in *P. Gen.* I^2 16, 12–13 (AD 207, Soknopaiou Nesos); also *ἀποκαλυφθείση γῆ* in *SB* I 4284, 9 and 16 (AD 207, Soknopaiou Nesos) and *O. Mich.* II 891 (AD 290, Arsinoites).

15–17. The strokes partly preserved on the papyrus were originally part of the aroura-sign.

col. *ξα*

2. There is no name beginning with *Ψενβερ-* both in onomastica and in the *Duke Data Bank*.

3. *κλή]ρο(υ)* possible.

5. *ἐπη( ) (ἀρτ.)* 5 ***hapax*** in our document.

6. *κλ]ήρων ὑφ' ἕν* [e.g. *ἀναγραφέντων?*] For the meaning of *ὑφ' ἕν*, 'Stück für Stück, einzeln' see Preisigke, ***Wörterbuch*** I, *s.v. εἷς* (p. 426).

9. There are three names containing the element *-βεσχ-*: *Ἁρβεσχίνιος* (*P. Tebt.* III.1 788, 4 [2nd cent. BC]; III.2 830, ii 10 and 19; 1005, ii, 6 and 1055, 2 – all documents from Tebtynis dated to the 2nd cent. BC]; *P. Hombert* 29 [= *SB* XIV 11988], 4 [Thebaid, 2nd cent. AD] and *O. Bahria* 20, 3 [Small Oasis; 2nd–3rd cent. AD]); *Σεναρβεσχῖνις* (*P. Aberd.* 98, 4 [Thebaid?; 3rd cent. AD]) and *Πετεαρβεσχ(ε)ῖνις*: of which Petearbescheinis typical Panopolitan and most common, especially in Roman times (*CPR* XVIIB 13, 8 [Panopolis, AD 217/8]; *P. Bour.* 41a [= *P. Achmim.* 7], col. i, 18 and 25 (Panopolis; AD 197 — probably two different persons, in line 25 the name partly in a lacuna [*Πετε*]*αρβεσχεῖνις*); *P. Coll. Youtie* II 73, 21 [Panopolis, AD 289]; *P. Berl. Bork.* 1, i 23 [Panopolis, AD 298–330]; *P. Ammon* 4, 2 and 59; 5, 1; 6, 2; 7, 2 [in all these documents dated to AD 348, there appears Petearbeschinis, father of Aurelios Ammon, *scholasticus*]; and mummy labels *SB* I 1199, 2 (Bosochis?; ?); 5470, *CEML* 741, 1; 1090, 2.

11. *γ″* as *τρίτον*. The reading of the expected *τὸ* before *γ″* is difficult although not totally impossible.

col. *ξβ*

Of column *ξβ* nothing left.

Before either col. *ξβ* or *ξγ* there must have been a space of one column width indicating the beginning of a new section (see general introduction, pp. 5–6).

col. *ξγ*

4. *Πεβῶ]το(ς) Ψε̣[νσενπαχούμιος*, as in *οη* 10?

col. ξϵ

2. For *Παπχῆθις*, see above, *νγ* 2 comm.

4. *Νῆσος* as a toponym? or rather as newly deposited land? In Upper Egypt, as *P. Haun.* 407 suggests, land is divided into *ἤπειρος* and *νῆσος*-land.

6. *Πκωρις*, the reading of which seems unquestionable, is an ***addendum onomasticis***. It is a version of *Πακορις* in an ostrakon from the area of Latopolis Magna (2nd cent. AD), published by P. J. Sijpesteijn, *ΤΑΛΑΝΤΑ* 5 (1973) 78 (= *SB* XIV 12038); other versions are noted in Pape/Benseler's *Wörterbuch der griechischen Eigennamen*, Braunschweig 1911: *Πακῦρρις*, *Πακοῖρις* and *Πάκωρις*.

9. The abbreviation *κε̣ι.*( ) looks very similar to *νδ* 6 where, however, we tend to transcribe it *καιχ*( ).

col. ξς

6. *ἄρχω* in sense '(Med.) örtlich den Anfang machen' (Preisigke, *Wörterbuch*, *s.v.* [7]); see, e.g., *P. Amh.* I 68 (1st cent. AD), 26 and 30: *ἄρουραι ἀρχόμεναι νότου*, 'die Aruren beginnen im Süden da und da'.

Πνᾶσις is not common, see *P. Hib.* I 72 (241 BC); *P. Mich.* II 121 (after AD 42, Tebtynis); *P. Giss.* I 61 (AD 119, Apollonopolis Heptakomias), *P. Giss.* I 84 (beginning of the 2nd cent. AD, Apollonopolis Heptakomias); *P. Hamb.* I 33 (*c.* AD 124, Ptolemais Euergetis); *P. Gron.* 6 (5th cent. AD).

7. *τ̣ῶν κατὰ τόπον* impossible.

The expression *κατὰ τόπον* is surprisingly not very common in documentary papyri of Roman period, see, however, *τοῖς κατὰ τόπον γεωργοῖς*, 'local cultivators' in a lease of land (*P. Oxy.* XIV 1630, 5) contemporaneous to P. Bodmer I *recto* (AD 223) and *οἱ κατὰ τόπον σιτολόγοι* in *P. Oxy.* IV 833 (descr., AD 1). For *κατὰ τόπον* in the quite different context, i.e., in Christian letters of introduction of the 4th cent. AD, see *P. Oxy.* LVI 3857, 2 comm.

8. Since there is no proper name containing *-απαβευ-*, we assume that *–α* is a genitive ending of the name of a tenant whose father bears the name Pabeus, not very common but well attested in a Panopolitan context.

9. Both fractions, $\overline{\lambda o}$ ($^1/_{32}$) and $\overline{\xi o}$ ($^1/_{64}$) possible.

19. For Pachoumis son of Sansnos, see Introduction, pp. 52–53.

col. *ξζ*

4. After space of 3–4 lines probably a new section started, concerning year 11 (AD 202/3).

5–6. Lines in brackets.

7. *Wörterbuch* I, *s.v. ἐπιγραφή*, '(6.) steuertechnischer Zuschlag (Auflage), teils Geldsteuerzuschlag, teils Beackerungszuschlag. (...) Die Wendung *ὅλῃ τῇ ἐπιγραφῇ* = haftbar für die gesamte Auflage.' See *Wörterbuch* III, Abschn. 11, *s.v.* The letter of which the traces are visible before *επιγρ( )* might have been an *eta*; thus, the reading *ὅλῃ τ]ῇ ἐπιγραφ(ῇ)* is possible. For the *ὅλῃ τῇ ἐπιγραφῇ* phrase, see *P. Oxy.* XII 1445, 8 comm. On *ἐπιγραφή*, see also *P. Thmouis*, pp. 19–20.

8. This represents the total of lines 4 and 7.

10–11. These lines are in brackets.

13. Total of lines 9 and 12.

14. No traces of a number following the artaba sign.

col. *ξη*

6 and 11. The long stroke preceding the drachma sign forms part of the abbreviation for *ἀργ(υρίου)* written in the same way as in *οζ* 3 .

8–9. These lines are in brackets.

10. *(ἄρουρ.)]* *κγ* [d possible (see *ξζ* 8).

col. *ξθ*

2. The reading *Πατυμιφ*[cannot be excluded.

The personal name *Πατῦμις* is attested in Ptolemaic documents (three documents from the Zenon archive, the same person? see *P. Tebt.* III.2 855, 4 [2nd cent. BC]) and in one mummy-label (*CEML* 905).

4. At the line's end *πλ*[is possible; *πλ*[*ινθουλκία vel sim.*?

7. A vertical stroke stands here (also in *ο* 8, *οs* 2, *οθ* 9 and 24, *π* 5) as a kind of the total sign: all items in lines 4–7 produce a total of 13 $^{1}/_{4}$ arourae which means that nothing is missing of the constituent numbers.

9. We should probably take *ἁδρός* as 'full-grown, ripe (of fruit or corn)' (*LSJ*, *s.v.*), although this meaning is not so far attested in papyri. *SB* X 10532, 27 (reedition of *P. Princ* III 147) has *ἁδρός* as the epithet of a measure which is not found elsewhere, but see *ἁδρόχωρον* as a wine measure in *WO* 1600 (cf. *Grundzüge*, p. LXXI n. 3) and *O. Bodl.* II 2326.

The number following the sign of artaba is perhaps *α η* (1 1/8) with the fraction written in an untypical way. This rather cannot be read (*ἀρτ.*) *ρξ*, since the number seems to be too high.

12. *πλινθουλκ(ία)*, 'brickmaking', see *P. Petr.* II, p. 50 (cf. III, p. 139); *O. Bodl.* II 1653 (Thebaid, AD 142) and 1656 (Thebaid, AD 146); *P. Pher.*, p. 87, comm. to l. 261–262.

13–21. The small fragment containing the beginnings of these lines has on its *verso* only some characters of the Homeric text, the very last ones of column IX.

13. Both *ἐκ]τὸς* and *ἐν]τὸς πλασ[τῆ]ς* is possible.

14. *ἀπ[η]λ(ιώτου)* is possible.

ἐπεσκ(εμμένη) [κλήρου] Πατύμι[ος]? Wörterbuch IV, *s.v. ἐπισκέπτομαι* (4): 'Grundstücke amtlich besichtigen'.

15. *Ψεντνεφερῶς/Ψεννεφερῶς* is a new proper name; see, however, female *Σεννεφερῶς* well attested in Roman period.

At the end of the line Mr. Balamoshev suggested *ὠπ[τημένα vel sim.* 'baked or burned' as connected to the *οἰνικὸν κεραμεῖον* of the following line. And then perhaps *Μώρ[ου*. The name *Μῶρος* is attested in the Panopolites in the same period, see *CPR* XVIIB 16 dated to AD 217/8.

17. *[κλήρ]ου Βήσιο[ς]* possible. The name followed perhaps by a *iota* implying *ἱερέως*.

col. *o*

5–7. The items in lines 5 and 6 produce the total of line 7.

6. *κριθῇ* without iota adsript what is unusual in our document.

7–9. *Abrochos* and *aneskammenos* of lines 7–8, 1 1/4 1/8 1/16 1/32 ar. is the total of the two items in line 9: 1 1/4 ar. (with the description in lacuna, but *[ἀνεσκαμ]μ(ένων)* is a natural guess) and of *abrochos* 1/8 1/16 1/32.

8. *α̣ἰ π̣(ροκ.)* read after *π* 5. For the meaning of the vertical stroke, see above, *ξθ* 7 comm.

11. Psensenpachoumis is a Panopolitan name known from several mummy labels: *CEMG* 680, 723, 1187, 1382 (*CEML* 253, 296, 771 and 984 respectively). See also *P. Achm.* 7, 1 (AD 196) and *P. Flor.* III 327, 8 (AD 117/8, Apollonopolites Heptakomias).

13. Perhaps *Ψϵ[νσεναρεσά]ϊτος*, a name attested in the Panopolitan context, see *CPR* XVIIB 12, 10 with a comm.

15. Between *Παχούμιϙ[ς* and *Κο]λάνθϙυ* there is enough space for *Ἑρμίου* (see below, *πβ* 11) preceded, e.g., by *α΄*, i.e. *πρότερον*. On the other hand, the name Kolanthos is common and there may be quite well another man of this name in our document.

16. *Βήσι]ος*?

17. [*ϕ]οινικῶ(νος)* [*ϕορ*](*ίμου*) (*ἄρουρ.*) . . [? The traces fits with what we would expect as an abbreviation mark after *ϕορ*, as this is usually written, e.g., above in line 3.

col. *οα*

2 and 12. This is a good place to ask what, if any, was a difference between land *ὀνόματι* NN and *ὀνόματος* NN.

6. *Κ̣[αὶ τ]οῦ χοός* is a possible reading.

In literary sources and some papyri, the genitive of *χοῦς* is *χοῦ*, but influenced by the declension of *χοῦς*, 'container or a measure of capacity', it produced the genitive *χοός*, dative *χοΐ*; see *LSJ*, *s.v.* and Gignac, *Grammar*, II, pp. 34–35. For the meaning of *χοῦς*, see Introduction, pp. 30–31.

10. *Πατερμούθιο[ς* is written with a space between *theta* and *iota*.

col. *οβ*

4. In our document *ἀνάπα(υμα)* and not *ἀνάπαυσις* is intended as is clear from *οθ* 3. On fallow land, fallow crops and crop rotation, see Introduction, p. 34.

13. [*μ*]*ϵτὰ στενὴν ὁ*[*δὸν*, 'behind a narrow road'; *στενή* is a rare adjective; in papyri, its feminine occurs only with *ῥύμη* (three documents) and *ὁδός*; with the latter only in one document, but a close parallel to P. Bodmer I *recto*: *P. Achmim* 6, col. ii, 16–18:

[βορ(ρᾶ) ἀ]πηλ(ιώτου) τέμενος, λιβ(ὸς) ὁδὸς στενή [ ]
[λιβ(ὸς) ἐχό(μεναι)] μεθ' ὁδὸν στενὴν (πρότερον) Κλαυδίου Πολυ[β(ιανοῦ)
δι(ὰ)]
[ ] Ὥρου (ἄρουραι) ιγ κτλ.

col. ογ

There was probably a space of three or four lines immediately after the column's number.

col. οδ

3. η⟩ at the end of the line stands for $\bar{\eta}$ (the same in οε 11). The fraction is followed by some small letters perhaps written in another hand. They look like a technical remark, e.g., διορ[υ]ξ misspelled, however, which would be unusual in our document (see correct spelling in πβ 4 and 8).

διορ̣[υξ] possible.

col. οε

Lines 3–9 and 11–12 in brackets.

Lines 5, 6 and 11 contain the columns' numbers, 73, . ., and 70 respectively.

3. Most of the names ending in -ατυμις has *ny* before this which is not possible here. A long horizontal stroke connecting *alpha* with the preceding letter could have constituted part of a *pi* which leads us towards Πατῦμις, a name well attested in the Panopolitan context. If so, col. οε perhaps listed land plots of the *kleros* named after Patymis (see ξθ 2).

col. ος

2. For the meaning of the vertical stroke, see above, ξθ 7 comm.

6–8. Lines in brackets.

6. The entry being here referred to might have been that of *oβ* 9 (the fractions are the same).

10. At the end of the line, following the number of arourae, there is a clear sign of *ἀρτάβαι* but I see no number following it. Instead, the reading [.]*γγο*( ) is clear, with the space for one letter in lacuna, which leads us to the assumption that the wheat land is the property of a descendant of somebody whose name followed.

11. Line again in brackets. The lacuna at the end of the line seems to be too wide simply to have held *η*' which would give 3 $^1/_4$ $^1/_8$ $^1/_{16}$ arourae.

12. As clear from its position, this line must have contained a new entry recording some kind of cultivation. The line ended with a total of $^1/_2$ $^1/_8$ $^1/_{16}$ of an aroura; the crop is *θυμω*[. We suggest supplementing: *θυμῶ*[*νος* , 'of a field where *θύμον* is grown'. For this crop, see Introduction, pp. 41–42.

Θυμών, reconstructed this way, is a rare word, appearing in *P. Soter.* 14, 4 (Theadelphia, AD 83/4) and in two tax registers from Theadelphia, *BGU* IX 1896 (after AD 166) and 1899 (after AD 172). It does, however, stand well within the word formation scheme of Roman papyri; see E. Mayser *Grammatik der griechischen Papyri aus der Ptolemäerzeit*, I.3, pp. 86 ff., E. Schwyzer, *Griechische Grammatik*, München 1953, p. 488 and especially L. R. Palmer, *A Grammar of the Post-Ptolemaic Papyri*, London 1946, pp. 120–121: section 'place-names in –(*ϵ*)*ών*'.

13. The column referred to is probably *oα*.

col. *oζ*

2. The fraction $^1/_{128}$ noted with two following strokes (and not under a horizontal one) suggests that this was the only fraction used here. If so, we may read either *κα̣ ρκη*" or *κδ̣ ρκη*".

5–6. Lines in brackets.

7. I am unable to offer a plausible solution for this line. Year 10? *Episkepsis* of year 10 (AD 201/2) referred to?

Between columns oζ and oη a space of one column's width

col. *οη*

2, *ἄλλων ἐδαφῶν πρώτως* [*ἀναγρα*]*φέντων* supplemented from *πβ* 2.

The verb *ἀναγράφειν* in reference to the activity of a ***grapheion*** means 'to register' and includes the whole process of incorporating the contracts into a ***tomos synkollesimos***. The meaning of *ἀναγράφειν* is closely related to that of *καταγράφειν*, which for many years has been a matter of controversy. See M. Raschke, *BASP* 13 (1976), pp. 19–21, the summary of a century long discussion in n. 7.

2–3. R. Bogaert in his list of banks of Roman Egypt ('Liste géographique des banques et des banquiers de l'Égypte romaine, 30a–284', *ZPE* 109 [1995], p. 160) quotes of P. Bodmer I *recto* as the only attestation of 'un banque publique' in the Panopolite. For the list of banks in the Panopolite, see M. L. Moioli, *CE* 68 (1973), p. 278.

ἀ[*γοραστικ?*]*ῶι δικαί*[*ωι*]: cf. *P. Oxy.* XII 1475 (AD 267), 14: *τὰ ὑπογεγραμμένα ὑπάρχοντά μοι ἀγοραστι*[*κ*]*ῷ δικαίῳ πρότερον σοῦ τῆς ὠνουμένης περὶ κώμην Παεῖμιν κτλ.* ('which is mine by right of purchase'); *PSI* X 1112, 12 (Oxyrhynchos, AD 231), *PSI* V 450, ii, 86 (Oxyrhynchos, 2nd–3rd cent. AD), *P. Oxy.* XII 1539, 6 (AD 179–180), *P. Oxy.* XIV 1636, 6 (AD 249). It is striking that all documents come from Oxyrhynchus and cover the period of a hundred years (AD 179–267). In documents of a later date, the phrase *ἀπὸ ἀγοραστικοῦ δικαίου* replaced it (*P. Prag.* I 53, 2 [prov. unknown, AD 430], *P. Cairo Masp.* II 67151 [Antinoopolis, AD 545], *P. Münch.* I 7, 31 [Antinoopolis, AD 583])

Cf. *πγ* 2? *ἀπὸ δικαίου καταγ*[*οραστικοῦ?*

At the beginning of line 4 there is enough space for *διά* even if not abbreviated.

Cf. *P. Oxy.* I 104, 21 and 30: *κατὰ ἀσφαλείαν διὰ τραπέζης*, 'gemäß Vertrag, abgeschlossen durch die Bank' (*Wörterbuch* III, Abschn. 8, *s.v. τράπεζα*).

epiteretes grapheiou: the office appears in two documents only: *P. Fay.* 23, 25 (line quoted in the introd.): *ἐπιτ*(*ηρητὴς*) *γρ*(*αφείου?*) *μητροπ*(*όλεως*) and *BGU* VII 1607, 1–3: *Φιλαδελφίας. Λουκίου Πουφίου* (= *Πουπίου*) *Σατορνείλου ἐπιτηρητοῦ γραφείου μητρ*[*ο*]*π*(*όλεως*) with commentary as follows: 'Wohl erster Beleg nach P. Fay. 23 I 23 (sic!) (...) S. Oertel, Liturgie S. 239, der den *ἐ. γ.* zu den Steuerepitereten zählt. Hier ist der *ἐ. γ.* offenbar Steuerzahler; der Genitiv steht im Sinn von *ὀνόματος* c. gen.'.

5. Of the first letter, the bottom part of a long verical stroke is preserved

which makes the reading *Ψ̣[ώ]νεως* quite plausible and excludes the reading *Π̣[χνου]νεως* (as in line 7). The *grapheion* of the village Psonis has not previously been attested, see introd.

7. *αναπ( )* cf. *οθ* 3 *αναπαυμ( )*; *ἀνάπ(αυμα)* [(*ἄρουρ.*)] *ε̣* is quite a possible reading; a long horizontal stroke visible between the two lacunae could be a part of aroura sign.

Πχ[νου]νεως reconstructed after *πδ* 6.

8. After the numeral *δ* a sign for $^{2}/_{3}$?

9. In between the number of the *kollema* and the land category there are traces of ink; they in no way form a letter. Probably the scribe here wrote a long stroke over the column's number, exactly the same as in *πβ* 7.

ἄβροχος, 'von der natürlichen Nilschwelle nicht erreicht (Ackerland)' (Preisigke, *Fachwörterbuch*); see Introduction, pp. 25–27.

10. *Ψενσενπαχοῦμις* is not a common name; it is found on five mummy labels (*CEML* 253, 296, 771, 897 and 984) and in two papyri (*P. Bour.* 41a [= *P. Achmim* 7], col. I, line 2 and *P. Flor.* III 327, line 8), of which only the last mentioned has a non-Panopolitan provenience (Apollonopolis Mikra, *metropolis* of Heptakomia, not far to the north of Panopolis).

Apallage was that part of the joint property which came to the woman after a divorce (the husband's part was called *ἀποπομπή*); see Taubenschlag, *The Law*, pp. 121–122.

13. *K[αὶ] κ̣λ̣[ή]ρ̣[ου] Στεφάνου* is more probable than, e.g., *κ[αὶ τῶν] κ̣λ̣[η]ρ̣[ον(όμων] Στεφάνου*.

Σεντανεχωλ( ), see *πβ* 2.

15. *[Παχούμ]ιος Σανσν[ῶτος*? But the first legible letter is hard to read as an *iota* following a *mu*.

The numbers are supplied from *π* 18.

16. *[σ]ωματισθέ̣ν̣[τα*, sc. *ἐδάφη vel sim.*; it is impossible to read *[σ]ωματισθεῖ[σαι* sc. *ἄρουραι*. For *σωματισθέντα ἐδάφη*, 'plots registered for taxation', cf. *BGU* XV 2488, 3 with comm. (where the present passive rather than the aorist occurs).

The verb *περιχωματίζω*, 'construire les digues de sections d'un bassin d'irrigation' (Bonneau, *Le régime administratif*, p. 47) in this case *[περιχ]ωματισθέν[τα]* referring to plots surrounded with dykes (see *LSJ*, *Wörterbuch*) would be another possibility for reading this line but it is less likely.

17. In the 3rd century *merides* relate to sections of private estates rather than to administrative units. The number 68 leaves no doubt that this is the case in our text. *Wörterbuch*, *s.v.* [i]: 'örtlicher Abschnitt eines Grundstückes'.

19. Compounds of *Παχούμιος* are possible readings too (e.g., *Ψενσενπαχούμιος*, as in line 10).

20. (*ἄρουρ.*) *ιγ η̄ ις̄ λο?*

col. *οθ*

5. *αὐτουργέω*, 'selber bewirtschaften, selbst benutzen (nicht verpachten oder vermieten) [...]. Vgl. Berger, *Zeitschrift vergleich. Rechtswiss.*, 1913, 392' (Preisigke, *Wörterbuch*); *αὐτουργός*, 'Eigenbauer (der seinen Acker nicht verpachtet' (*ibidem*).

The shape of the abbreviation indicator seems like a *mu* which would imply middle/passive *χωρίον αὐτουργούμ(ενων)*, but the use of the verb *αὐτουργεῖν* suggests *χωρίον αὐτουργούν(των)*.

We cannot be sure whether *χωρίον αὐτουργούν(των)* is a toponym and should be printed capitalised or is the usual word for a hamlet referring to the fact that this was inhabited by small-scale proprietors cultivating their own land. For *autourgia* as direct cultivation, see Rowlandson, *Landowners and Tenants,* pp. 203–204.

6. Line is written in the same hand but with smaller characters. It seems as added later in course of checking the data.

7. The scribe first wrote an *eta*, intending probably to note *ἡλιοτρο(πίου)*, but after having realized that the word he had already written, he changed the *eta* into a *pi* of *πεπυκ( )*. *ἡλιοτρο(πίῳ) ⸢αὐ⸣τουργ(ουμένῳ) ⸢πε⸣πυκ(νωμένης)* (sc. *γῆς*) is one of the possible readings of this series of abbreviated words. *ἡλιοτρο(πίου) ⸢αὐ⸣τουργ(ουμένου) ⸢πε⸣πυκ(νωμένου)* and *ἡλιοτρο(πίου) ⸢αὐ⸣τουργ(ίας) ⸢πε⸣πυκ(νωμένης)* seem also possible. Generally, 'land covered densely by heliotrope' is meant here.

9. For the meaning of the vertical stroke, see above, *ξθ* 7 comm. At the end of the line the article *ἡ* followed by an abbreviated adjective? Or a number, *Ηωκ* followed by a sign?

11. *ακροδ* without any clear mark of abbreviation.

ἀκρόδρυον '1. Fruchtbaum, 2. Steuer -*δρύων* s. Abschn. 11' (Preisigke, *Wörterbuch*). *LSJ*, *s.v. ἀκρόδρυα, τὰ*, 'fruits grown on upper branches of trees, esp. hard

shelled fruits, opp. *ὀπώρα*; (2) trees which produce such fruits; *φυτὰ ἀκροδρύων* – D. 53.15: fruit-trees in general (includ. vine and olive)'.

ποταμ( ) belongs rather to col. *π*, as in our transcription

15. *Χέρσος* in the lacuna supplied after *πα* 3.

17. *[διὰ το]ῦ̣ α Σανσνωτος κτλ.* is a possible reading, with the *α* lacking a horizontal stroke.

20. The total is 8 arourae followed by fractions of which only the bottoms are preserved.

21. *Ἁρεμῆφις* is a proper name well attested in the Panopolitan context, found in both papyrus documents and mummy labels.

24. For the meaning of the vertical stroke, see above, *ξθ* 7 comm.

col. *π*

2–5. The number in line 2 is the total of lines 4 and 5.

3. *ἰδιοσπορεία*: 'Bestellung des Ackers, welche durch eine bestimmte Person selber (nicht durch jemand anders) bewirkt wird'; see *P. Ryl.* II 142.18 comm.

κριθῇ, if the dative was intended, without a *iota* adscript.

4. *ὄνοι κυριακοί* are the donkeys belonging to the state; see e.g. *BGU* II 699 (2nd cent. AD); A. Leone (*Gli animali da transporto nell'Egitto greco, romano e bizantino*, Rome – Barcelona 1988) says nothing about state donkeys. For a possible interpretation of this item (donkeys for Caracalla's planned visit to Upper Egypt?), see above, Introduction, pp. 16–17 note 22.

5. The number is followed by a vertical stroke; on its meaning, see above, *ξθ* 7 comm.

8. We cannot offer any solution for *. θ* preceding *ποταμοφορ(ήτου)*; is it the year (19th of Commodus? but *iota* seems difficult in this place) when the land was carried away by the river? Or perhaps the column number, and *ξθ* would be the best guess. There is, however, no sign of *ge potamophoretos* in what remains of col. *ξθ*.

9. Before line 9, between columns *οθ* and *π*, the word *ποταμ( )* is written.

10. *χωρίον Ξανθοῦ* in is not attested in the *DDBDP*.

12. A third of $^{3}/_{4}$ $^{1}/_{16}$ would be actually $^{1}/_{4}$ $^{1}/_{48}$, but $^{1}/_{4}$ $^{1}/_{64}$ $^{1}/_{128}$ is the best possible rounding while using the fraction series $^{1}/_{2}$ $^{1}/_{4}$ $^{1}/_{8}$ ...

18. The numbers refer to col. *οη*, lines 7, 9, 15 and 20 respectively.

col. *πα*

2. See *π* 8.
3. See *οθ* 15.
10–11. Lines in brackets.
12. Supplemented after *οθ* 7.
18. Line in brackets.

col. *πβ*

3. For Claudius Apollinarios and other Claudii in the Panopolite, see Introduction, p. 52.

4 and 8. *διώρυγος σκάμμα* as a geographical reference is a trench of a canal, dug but not filled with water. According to Bonneau, *Le régime administratif*, pp. 27–28, the term *σκάμμα* does not appear in later documents (the only example quoted in note 217 comes from 253 BC), replaced by *ἀμάρα*. Our document proves that the term was used as late as the beginning of the 3rd century AD.

5. *γρ(αφὴ) δι[ωρύγ(ων)?]*, an official list of canals?

16. *μετὰ πόρον*, *πόρος* must be taken in its topographical sense, which is not common in papyri, 'behind a passage'.

col. *πγ*

This column covers two separate pieces. Both have the Homeric text on the *verso* (col. xxiv, p. 55 in Martin's edition), which allows us to determine the actual size of the lacuna.

2. The letter before the lacuna was most probably either *lambda* or *gamma* rather than *tau* or *pi* (there are no remains of a horizontal stroke above the vertical element running parallel to the edge of the lacuna).

If we take *dikaios* as an adjective, it would make sense that the land parcels

located in Psonis (this must be a toponym and not a proper name) mentioned here passed on the basis of a valid (*dikaios*) legal document of some kind from a certain Sanpsnos to somebody else. But most (if not all) of the names of legal documents, however, are feminine (e.g. *katalysis* which would fit the traces well) and this would lead us to a grammatical contradiction.

Another possibility is to take δίκαιον as a noun, well attested in papyri. The reading ἀπὸ δικαίου καταχ[οραστικοῦ] Ψώνεως (on the analogy of οη 3: ἀ[γοραστικ]ῶι δικαί[ωι]) is not convincing; neither is that certain nor is καταγοραστικόν attested in the papyri, although the verb καταγοράζω appears in one document of the 3rd cent. AD, *P. Strasb.* V 305, 8–9, where it is partly conjectural: κα[ταγο]ράσαι. In Preisigke's *Wörterbuch*, both in volumes I and IV, there is no example of a word καταλ- or καταγ-. We suggest reading ἀπὸ δικαίου καταλ[οχισμῶν] Ψώνεως, which would imply that what is listed below concerns the katoikic land formerly belonging to a certain Sanpsnos. The parcels of katoikic land were subdivided into μέρη and the presence of a μέρος in line 7 might support our suggested reading of line 2. For the eventual results of this conjecture, see Introduction, pp. 32–33.

3. The letter before the lacuna is *pi* or *tau*.

6–7. There is no place in lines 6–7 for names of the Hermopolitans. The only solution we are able to suggest for this puzzling passage is that the *ethnikon* Hermopolitans is a part of a toponym, thus named most probably after a military unit; see: ἐποίκίον Ἑρμοπολι[τῶν] in *P. Diog.* 13, 9 (Alexandria, AD 141/2) and συν]|[ταγμ]α(τάρχης) τῶν Ἑρμοπολιτῶν in *P. Petrie Wills* 18, 17 (Arsinoite, 236/5 BC), reading after line 18 which perhaps imply the plots τῶν Ἑρμοπολιτῶν. For the Hermopolitai in *P. Petrie Wills* 17, see comm.

8. Land where brick making and furnace is located. This implies that the land was taken for furnices for brick making.

13–15. Lines 13–15 are in brackets; of line 15 nothing is left except part of the right-hand bracket.

col. πδ

This column covers two separate pieces. The left-hand fragment has col. xxv on the *verso* (p. 56 in Martin's edition) while the right-hand one contains the

beginnings of the lines of the following column of the Homeric text. The lacuna then falls in the intercolumnar space. In keeping with the more or less regular size of the intercolumniation (*c.* 5 cm), it cannot, however, be too large. The suggested reading of lines 3–5 (especially of line 5) seems to follow the lines the Homeric text has been written with.

2. Of initial *kappa* only a part of the bottom, characterically prolonged has survived (to be seen below the *iota*).

There is no doubt that at the end of the line a personal name is expected. If so, a man called M[— was a son of Protas. The father's name, *Πρωτᾶς*, is very common in the 2nd and 3rd centuries AD; of several dozens of men bearing this name the oldest is perhaps *Πρωτᾶς Α*[—] of *P. IFAO* III 21, 16 (Arsinoite, palaeographically dated to the 1st cent. AD) and *Πρωτᾶς ὁ καὶ Πακῆβκι*[*ς* in *P. Tebt. Wall* 12, 35 (= *New Texts in the Economy of Tebtunis*, ed. E. W. Wall, diss. Duke University, Durham, N.C. 1983. Microfilm order no. 83-20613), reprinted as *SB* XVIII 13793, dated to AD 101; the latest is Aurelios Protas of *P. Wuerz.* 15 (provenance unknown, AD 341). Does this name belong to these 'pagan' names disappearing in course of the 4th century? In Panopolis, a certain Protas, *gymnasiarches*, appears as the owner of a house listed in *P. Berl. Bork.* col. xii, 29–30 (AD 298–330). (The name is not listed in the index). See P. J. Sijpesteijn, *Nouvelle liste des gymnasiarques des métropoles de l'Égypte romaine*, Zutphen 1986 (= *Studia Amstelodamensia* XXVIII), p. 42 (no. 524).

It is worth noting that M[—] son of Protas was not styled as an Aurelius, while in the same entry we have a certain Aurelius Artemidoros.

3. *αἱ* sc. *ἄρουραι*.

4. *Omikron* after the lacuna would be a possible reading (neither *alpha* nor *tau* seems plausible), which leads us to the praeposition *ὑπό* as the reason why the following name of Aurelius Artemidorus is in the accusative. *ὑπ*]*ὸ Αὐρήλιον Ἀρτεμίδωρον ἀπὸ Πανοσπόλ*[*εως*] means that the land *αἱ* ⟨*οὖσαι? ἄρταβαι?*⟩ under the control of this man (see *LSJ*, *s.v. ὑπό* [C.II, of subjection, control, dependance], *Wörterbuch*, *s.v.* with special reference to an administrative unit *ὁ ὑπὸ σὲ πάγος*, from the 4th cent. onwards).

5. Year 25 = AD 216/7, the latest date mentioned in the document.

Πανοσπόλ[*εως*]: the final *sigma* is written with a long stroke well visible after the lacuna.

8. *καθ' ὕδατος* (sc. *γῆ*) is a technical term: 'Ackerschwemmungsland, von

welchem das Wasser nach den Sinken der Flut nicht zurückgetreten ist' (*Wörterbuch*, *s.v.* ὕδωρ).

12. μεγισ[as a part of a village's name? θε]ὸν μέγισ[τον also possible.

col. πε

2. περίμετρον κώμης (or ἐποικίου), 'ringsumlafende Grenze der Dorfgemartzung, Dorfbanngrenze' (*Wörterbuch*, *s.v.*) is usually preceded by the preposition ἐν, which cannot of course be the case in our document.

3. ἐν οἰκίᾳ means that the trees listed in line 4 were most probably grown in the courtyard of a house belonging to E[ ] son of Petetriphis.

3. ἀνθεών, 'flower-bed or garden' (*LSJ*, s.v.) is not attested in papyri.

5–6. ἐν [οἰκ]ίᾳ, as in line 3, is a possibility for reading but palaeographically difficult.

For the meaning of the note added by a different hand, see Introduction, p. 19.

5. Ψενεμγευς: *P. Ryl.* II 122, 9 (Hermopolite, AD 127), *P. Sarap.* 76, 11 (Hermopolite, 2nd cent. AD), *P. Tebt.* I 80, 2, 20 (Tebtunis, 2nd cent. BC).

7. The most plausible reading would be]σαβευριος or]σακευριος but these produce nothing when searched in the *Duke Data Bank*. Σαβεῦρις as a proper name?

8. The total in line 8 covers the trees listed in lines 4–7. Four date palms described as *phorimoi* are those of line 4 (two trees), 6 and 7 (one tree in each line). The trees πῶλοι, 'young' ones (one in line 4 and one in line 7), are not counted as being not subject to taxation. In papyri, the term has not yet been attested (Preisigke translates πωλέα [= πολεία] as 'Fohlenzucht' and then quotes the passage of *BGU* II 563, col. i, 10: ἀπὸ νεοφύτων γ ἔτους πωλέας ἄρουραι *x*, with the following translation: 'von dem im Jahre 3 neu bepflanzten Palmlande entfällt auf den und den ein Anteil von *x* Aruren als Land für Fohlenzucht.'); our document suggests it belonged to the vocabulary of fiscal administration.

The total of date palms is followed by a note written in a different hand. The raised letter is a *kappa*, written in the same way as in κνήκ(ου) in πς 8.

The note's reading presents a serious palaeographical difficulty concerning the identity of the letter *phi*. Palaeographically, a much more plausible reading would be a *delta* ligatured with a *iota*, but this leads us to no convincing interpretation (οἱ δι' οἰνικ( )?).

col. *πς*

2. *νησιωτικός* not in ***Wörterbuch***.

8. *κνή(κου) σκωλ(ηκοβρώτου)* see *BGU* XIV 2441, col. xi, 248.

col. *πζ*

5. The total in line 3, 1 $^{3}/_{4}$ ar. covers the components in lines 4 and 5, which produces the fractions supplied in the lacuna at the end of line 5.

8. At the end of the line both *ι* and *ϑ* are possible.

17. *Σερῆνος*?

col. *πη*

4–7. Land without cultivation (***asporos***) was included in the total of line 4.

4. *πλεῖστος* in the meaning of *πολύς*.

5. The adjective *σπάρτος* is not attested in the papyri; *LSJ, s.v.*: 'sown, grown from seed, cultivated'.

7. See, e.g., a land-survey from the Oxyrhynchites, 2nd cent. AD), *P. Oxy.* VI 918, col. v 16 : *χέρσο(υ) ἐν κοιλ(ώματι) καθ' ὕδ(ατος) (ἄρουραι) β*. For the meaning of *κοιλάς* and *κοίλωμα*, see Bonneau, *Le régime administratif*, pp. 17–20.

CONTENTS OF COLS. ΜΗ–ΟΖ, TRANSLATION OF COLS. ΟΗ–ΠΗ, AND CONTENTS OF COL. ΠΘ

col. μη

nothing left

col. μθ

perhaps heliotrope cultivation

col. ν and να – lacking

col. νβ

2–5: a typical entry of unknown surface
(three of four lines missing)

6–7: land leased at rent of 6 art. wheat or 4 $^{1}/_{2}$ art. vegetable or *x* art. of ? or 13 art. fodder

col. νγ

2–3: a plot of NN son of Papchethis (see ξε 2–3); an entry with a cultivation designated as φορ( ), date palms?

5–6: cultivation for fodder

7: a total(?)

8–9: a new entry with a topographical description: a plot with a *paradromis*

col. νδ

2: a plot to the north ($^{1}/_{4}$ $^{1}/_{8}$ $^{1}/_{16}$ $^{1}/_{32}$ $^{1}/_{64}$ $^{1}/_{128}$ ar.)

4–5: a plot (2 $^{3}/_{4}$ $^{1}/_{8}$ ar.)
6–7: a plot cultivated for fodder ($^{3}/_{4}$ $^{1}/_{32}$ ar.)
8–9: a plot belonging to [ ]s son of Besis and to Psenenoupis
10: uninundated land (*abrochos*), remaining 1 $^{1}/_{2}$ + ar.
11–13: a plot neighbouring to the north, belonging to NN ($^{3}/_{4}$ $^{1}/_{8}$ $^{1}/_{16}$ + ar.)
14: a total 4 $^{1}/_{32}$ $^{1}/_{64}$ ar. (the reading of the fractions is uncertain)
15–20: a plot of NN son of Pachnoupis(?) unknown surface with date palms; its second part is cultivated in the name of Psenthemei( ), with date palms too; its third part of $^{1}/_{8}$ $^{1}/_{16}$ ar. is cultivated(?) by Pachoumis
21: ?
22–24: a plot of [ ] $^{1}/_{16}$ $^{1}/_{32}$ ar. with 3 date palms
25: an objection concerning the last plot and perhaps the number of the palms; this should be inspected

col. *νϵ*

2–6: a plot of 1 $^{1}/_{8}$ ar.
7–8: [ ]mis son of Psentapelalis, owner of the plot described before? with the reference to col *ν*[ ]
9–11: a plot of 4 $^{1}/_{16}$ ar. with unknown number of date palms; probably an objection (as in *νδ* 25) concerning the number of the palms; this should be inspected
12: ?
13: a reference to col. *μζ*?
14: line entirely lost
15–16: an added comment (written by different hand) that somebody (whose name is lost) changed the vineyard into something else
17–20: a specification of land outside a mud brick wall probably with a total in the missing part of l. 17 and repeated in l. 20; the land is divided into land which is sanded up and the rest
21–25: neighbouring land to the south of a great unbuillt plot(?) followed by a specification of land previously listed: 2 $^{1}/_{4}$ $^{1}/_{16}$ $^{1}/_{64}$ ar. (l. 22), 4 $^{1}/_{8}$ $^{1}/_{16}$ $^{1}/_{32}$ $^{1}/_{64}$ $^{1}/_{128}$ ar. (l. 23) with a reference to col. *νδ* (= *νδ* 2); the whole section probably ended with a repeated total.

col. *νς*

2–5: land of unknown character reported, followed by a total (l. 5)
6–10: land previously mentioned divided into four categories, of which the two last can be identified as *chersos* and vineyard
11–12: nothing left but the lines must originally have contained subtotals in brackets
13: the fifth category (continuation from lines 6–10): uninundated land (*abrochos*)
14–15: nothing left but the lines originally had to have contained subtotals in brackets
16–17: continuation of specification of land categories
18–20: ?
21: fodder as a category
22: subtotals in brackets
23–24: total of land surface (l. 23) and the number of palm dates (l. 24)

Note that the specification in lines 6–23 looks very similar to that of *πα* 2–15.

col. *νζ*

2–13: another section (l. 10) of an *ousia* (the earliest attestation of an *ousia* in the Panopolite); 'another' suggests that the first section(s) was/were described in lines 2–9 with reference to a column (l. 9); it is, however, possible that the land in question was not part of an estate but a plot of ousiac land bought or rented by a farmer; 22 ar. in l. 12 is a considerable amount of land as far as P. Bodmer I *recto* is concerned
14–16: to the south, behind an *antichoma* (= embankment?); land leased at rent of 8 art. of wheat k . . (the only appeareance of a different kind of wheat resulting in a higher rent) or 4 $^{1}/_{2}$ art. vegetable or [; the plot referred to in col. *λϵ*
17–20: plots of 20 ar. and [ ]6 $^{1}/_{2}$ $^{1}/_{8}$ $^{1}/_{16}$ ar.; land leased at rent of *x* art. wheat or [

col. *νη*

2–6: plots perhaps connected in some way with a temple(?) of the great god (i.e., Min/Pan), located near Thmonoseiris; the land divided into an unknown category (l. 4) and 'the rest' which is – untypically – followed by a *hydreuma* (= cistern) no. 1 of 2 $^{3}/_{4}$ $^{1}/_{16}$ [ar.; land leased at rent of *x* art. wheat or ... or 13 art. fodder

7–11: after space of three lines a plot located to the south of an allotment (*kleros*) named after Petepchemis (new name); four-arourai plot of Pantbeuis and something more; 50 ar. (l. 8) and 'other' 2 $^{3}/_{4}$ ar., of which vineyard *φορ*( ) 4 [ ] ar.; land leased at rent of 6 art. wheat or 7 art. *osprea* or 4 $^{1}/_{2}$ art. vegetable or 13 art. fodder

12–15: land outside or inside *ant*[(*antichoma,* 'embankment' as in *νζ* 14 possible), of which a part is in name of T[and vineyard *φορ*( ); land leased at rent of 13 art. fodder or [

16–17: land held(?) in the name of NN of which a part is a vineyard

18–19: land held(?) in the name of NN

col. *νθ*

2–10: subtotals including 'the above mentioned arourae' of *antichomata* (l. 2); the last total in line 10: 41 $^{3}/_{4}$ ar.

11–12: after space of three lines beginning of a new entry

col. *ξ*

2–5: uninundated land (*abrochos*), from col. *λϵ*, uncovered by the water, hired at rent of 7 art. *osprea* or 13 art. fodder

6–11: land belonging(?) to a certain [ ]rmouthes/-os son of Quintus, located in *sphragis* no. 2 near Thmonoseiris, of 5 $^{1}/_{2}$ ar.; land leased at rent of 7 art. *osprea* or 13 art, fodder (l. 10); land divided into two parts: 2 ar. and 3 $^{1}/_{2}$ ar. in *τοπ*( ) no. 2 (equivalent to *sphragis* no. 2?); a reference to a column (*λϵ*?), uninundated land (*abrochos*)

12–13: land near Thmonoseiris; leased at rent of 7 art. *osprea* or . . .
14–17: land of NN son of Thaubasthis, divided into at least three parts of 10 ar., 19 $^{1}/_{8}$ ar. and 18 ar.

col. *ξα*

2–3: an allotment (*kleros*) named after Psenber[, land *monartabos*(?)
4–6: land leased at rent of [ ] *epe*( ) or 7 art. *osprea*
7–14: land through Besis son of Haremephis, among other owners (or tenants) another Besis and Petarbescheinis (he could be an owner/tenant's father); land divided into some (at least three) parts of 4+ ar. (l. 10), 2 $^{1}/_{16}$ + ar. (l. 11) and 2 $^{1}/_{2}$ ar. (l. 13); the total of 9+ ar. (l. 14) could cover these three items
15–17: ?

col. *ξβ* – lacking

Note a space of one column's width between columns *ξα* and *ξβ* or *ξβ* and *ξγ* (see Introduction, pp. 5–6).

col. *ξγ*

2–3: a plot with a reference to col. *λβ*
4–5: a plot with a reference to col. *λ*[
6–8: ?, uninundated land (*abrochos*)
9–12: a plot with a reference to a column

col. *ξδ*

2–6: land through Sansnos divided into three parts of *x* ar. (l. 3), 13 $^{3}/_{4}$ ar. (l. 4) and 3 $^{3}/_{4}$ ar. of fodder; total in l. 6
7–9: ?

col. *ξϵ*

2–3: a plot of [ ]os son of Papchethis (see *νγ* 2–3)
4–5: a small plot of a fodder crop (a fraction of an aroura) belonging to Psaïs, the younger son of Besis
6–12: Pkoris as father of an owner/tenant; land listed below: 1 $^{1}/_{4}$ ar. (l. 7) and $^{1}/_{8}$ ar. (l. 8)
13–15: fodder; a reference to a previous column

col. *ξs*

2–3: land in two parts: $^{3}/_{4}$ $^{1}/_{8}$ $^{1}/_{32}$ $^{1}/_{64}$ ar. and 'the rest' 1 $^{1}/_{4}$ [ ] ar.
4–5: $^{1}/_{2}$ $^{1}/_{8}$ ar. and a total (it is possible that the total covers all entries beginning with line 2 and that between lines 3 and 4 there was one more line more of which nothing has survived)
6–7: a new plot beginning to the north, in the name of Pnasis, 1 $^{3}/_{4}$ $^{1}/_{8}$ $^{1}/_{32}$ $^{1}/_{64}$ ar.
8–12: only father's names of the owners preserved: Pabeus (l. 8) and Kollouthos (l. 10); plots of $^{3}/_{4}$ $^{1}/_{32}$ (or $^{1}/_{64}$ $^{1}/_{128}$ ar. (l. 9) and [ ] $^{1}/_{2}$ $^{1}/_{8}$ $^{1}/_{16}$ ar. (l. 11); the total in line 12 covering lines 8–11 or 2–11?
13–18: land to the south, perhaps of the same Kollouthos, of *x* ar. of fodder, followed by a fodder plot of $^{3}/_{4}$ ar. of Pachoumis (or Pachoumis' son); total in l. 18
19–20: a plot of Pachoumis son of Sansnos with a reference to col. *λζ*

col. *ξζ*

2–3: ?
4–8: land being which is the subject to of an administrative procedure for year 11 – 22 $^{3}/_{4}$ $^{1}/_{8}$ $^{1}/_{128}$ ar. (l. 4) of which subtotals in brackets in lines 5–6; land for the whole assessment (if our suggestion for reading in comm. to l. 7 is correct) being $^{1}/_{4}$ $^{1}/_{16}$ $^{1}/_{32}$ $^{1}/_{64}$ $^{1}/_{128}$ ar.; 23 $^{1}/_{4}$ ar. as a total of land of year 11 and land for the whole assesment mentioned earlier AD 202/3

9–13: list of land categories with their areas: 3 $^{1}/_{32}$ $^{1}/_{64}$ ar. (l. 9), [ ] $^{1}/_{64}$ $^{1}/_{128}$ ar. (l. 10), [ ] $^{1}/_{16}$ ar. (l. 11), 1 $^{1}/_{8}$ $^{1}/_{16}$ $^{1}/_{32}$ $^{1}/_{64}$ ar. (l. 12) and 4 $^{1}/_{4}$ $^{1}/_{32}$ ar.; their relation to the preceding list in lines 4–8 is not clear, but it is possible they were originally part of the same specification

14–17: ?

col. ξη

2–11: the column contains totals of particular land categories from the preceding columns: [ ] $^{1}/_{2}$ $^{1}/_{8}$ $^{1}/_{16}$ [ ] ar. (l. 3), [ ] $^{1}/_{16}$ ar. (l. 4), 10 $^{1}/_{2}$ $^{1}/_{8}$ $^{1}/_{32}$ ar. (l. 5); 8 $^{1}/_{4}$ [ ] ar. in l. 7 is a total of subtotals in two following lines in large brackets, being taken from col. ξε (1 $^{1}/_{8}$ $^{1}/_{32}$ ar. with no corresponding entry in preserved part of the column) and ξς; line 10 seems to be the last total, 23 [ ] ar. might be the same as in ξζ 8 (23 $^{1}/_{4}$ ar.); if so, the greater part of col. ξζ and the whole col. ξη would have contained one long specification; the sum in si lver drachmae (798 $^{1}/_{2}$), repeated twice (l. 6 and 11), is probably tax or rent in cash levied on the aforementioned land

col. ξθ

2–9: land in the allotment (*kleros*) named after Patymis is of unknown area, land leased at rent of 8 art. of ? or 6 $^{1}/_{2}$ art. of the same crop but *epe*( ) or 10 art. barley or 4 $^{1}/_{2}$ art. vegetable or *x* art. of something described as full-grown or ripe or 13 art. fodder (ll. 8–9); of this land: potter's workshop manufacturing wine containers – 6 $^{1}/_{2}$ $^{1}/_{8}$ $^{1}/_{16}$ $^{1}/_{64}$ ar. (l. 4), land of unknown character – $^{1}/_{2}$ $^{1}/_{8}$ $^{1}/_{32}$ $^{1}/_{64}$ ar., water cistern (*hydreuma*) – $^{1}/_{4}$ $^{1}/_{32}$ ar. (both in l. 5), land of unknown character – 5 $^{1}/_{4}$ $^{1}/_{16}$ ar., land with olives of 5 drachmae tax – $^{1}/_{8}$ $^{1}/_{16}$ ar. (both in l. 6), land of unknown character of 1 drachma tax – $^{1}/_{16}$ $^{1}/_{32}$ ar. (ll. 6–7); all these plots produce a total of 13 $^{1}/_{4}$ ar. described as *hypologos* ('land in deduction', i.e., workshop, cistern and others) and *phyteia* (i.e., olives)

10–12: of land described above, belonging to Onnophris, with reference to col. λζ of uninundated land (*abrochos*), where brick making is located
13–19: a plot outside or inside a wall, in the allotment (*kleros*) named after Patymis; the plot earlier belonged previously to a certain Psentnepheros (*addendum onomasticis*); on the plot now a potter's workshop manufacturing wine containers (the same as in l. 4?)
20–21: a new entry of which almost nothing is left

col. *o*

2–3: land of unknown character, part of which is a fertile orchard with date palms of $^{3}/_{4}\ ^{1}/_{32}$ [ ] ar.
4–9: land reported in col. λη through Besis son of Pachoumis: thyme – $^{1}/_{8}\ ^{1}/_{32}$ ar. (l. 5), barley *epe*( ) for fodder – $^{1}/_{2}\ ^{1}/_{8}$ ar. (l. 6), land of unknown crop – $^{3}/_{4}\ ^{1}/_{32}$ ar., land uninundated (*abrochos*) and not dug for cultivation, for potter's workshop manufacturing wine containers – 1 $^{1}/_{4}\ ^{1}/_{8}\ ^{1}/_{16}\ ^{1}/_{32}$ ar. (ll. 7–8), of which land not dug for cultivation – 1 $^{1}/_{4}$ ar. and uninundated land (*abrochos*) – $^{1}/_{8}\ ^{1}/_{16}\ ^{1}/_{32}$ ar.
10–12: land in the allotment (*kleros*) named after Besis, a priest, cultivated (bought? hired?) by a son of Psensenpachoumis – $^{3}/_{4}\ ^{1}/_{8}\ ^{1}/_{16}\ ^{1}/_{32}$ ar. (l. 11) and again land for potter's workshop manufacturing wine containers – $^{1}/_{2}\ ^{1}/_{32}$ [ ] ar. (l. 12)
13: a reference to col. λη and a general description: 'land not dug for cultivation and other' which might have referered either to lines 10–12 (or even lines 5–12) or to lines 14–17
14: land with date palms through Pachoumis son of Pse[...]is – $^{1}/_{8}\ ^{1}/_{16}\ ^{1}/_{32}$ ar.
15–17: a plot described topographically, with date palms

col. *oα*

2–4: a plot in the name of Pachoumis, above the land dug for cultivation, date palms – $^{1}/_{4}\ ^{1}/_{8}\ ^{1}/_{16}\ ^{1}/_{32}\ ^{1}/_{64}$ ar., referred to in col. λθ, uninundated land (*abrochos*)

5–7: land *chous* – *x* ar. (l. 5); of five-drachmae orchard of date palms (i.e., paying the tax of 5 dr./ar.) – 3 $^{1}/_{16}$ ar.; of one-drachma land – similarly (l. 6); land referred to in col.λθ, through Pbekis
8–10: of five-drachmae orchard of date palms – *x* ar. (l. 8), land through Patermouthis (l. 9) and the total covering the section (from line 4?)
11–13: land in name of Besis – *x* ar. (l. 11), of which a part is an orchard of date palms – *x* ar. and the rest – *x* ar. (l. 12)

col. *oβ*

2–9: land of Psensenpachoumis consisting of: orchard of date palms – *x* ar. (l. 3) and five-drachmae orchard of date palms – *x* ar., the last entry being fallow land (l. 4); land of col. λθ, through T[ ] as a heading of a new subsection (l. 5): orchard of date palms – *x* ar. (l. 6), wheat *epe*( ) – *x* ar. (l. 7), barley *epe*( ) for fodder – *x* ar. (l. 8), the total (*x* ar.) then $^{1}/_{16}$ $^{1}/_{32}$ [ ] of an aroura
10–12: land of Harbaithes, referred to in col. λθ (l. 11), then the total (l. 12)
13–16: a plot to the south, 'behind a narrow road'

col. *oγ*

A space for one entry between the column's number and line 2
2–5: a whole entry with a total in l. 5
6–10: land in name of NN, of [ ] $^{1}/_{32}$ $^{1}/_{64}$ ar., referred to in col. *x* (probably col. λθ as in preceding and following entries), of which barley *epe*( ) of *x* ar. (l. 9) and orchard of date palms of x ar. (l. 10); no traces of a total at the entry's end
11–12: land in the name of B[ ] with part of it *adespotos*

col. *oδ*

2–3: land of NN – $^{1}/_{4}$ ar., referred to in col. λθ(?), a canal(?)
4–7: land of Psaïs son of Phi[ ] of [ ] $^{1}/_{8}$ $^{1}/_{16}$ $^{1}/_{64}$ ar., referred to in col. λθ (l. 7)
8–9: land of Pebos son of Pach[ ] of *x* ar., referred to in col. λθ

col. *oϵ*

2–9: land of NN son of Patymis, *x* ar., being the total of what follows in brackets in lines 3–9: [ ] $^{1}/_{64}$ ar. and [ ] $^{1}/_{16}$ $^{1}/_{32}$ $^{1}/_{64}$ ar. (l. 3), [ ] $^{1}/_{128}$ ar., $^{1}/_{8}$ $^{1}/_{32}$ ar. and $^{1}/_{2}$ $^{1}/_{8}$ ar. (l. 4), 1 $^{1}/_{8}$ $^{1}/_{16}$ ar. and, taken from col. *oγ*, $^{1}/_{4}$ $^{1}/_{8}$ $^{1}/_{16}$ $^{1}/_{32}$ $^{1}/_{64}$ ar. (in preserved part of col. *oγ*, there is nothing of this) (l. 5), [ ] $^{1}/_{8}$ $^{1}/_{16}$ $^{1}/_{64}$ ar. (l. 6), other lands (ll. 7–9)

10–12: land of An[ ] – 6 $^{1}/_{2}$ $^{1}/_{8}$ $^{1}/_{16}$ $^{1}/_{64}$ ar., being the total of what follows in lines 11–12 (legible are only fractions and the number of a column, *o*)

col. *oς*

2–3: land of [ ] $^{1}/_{16}$ $^{1}/_{32}$ ar., called *hypologos* ('land in deduction') and *phyteia*

4–8: of which 1 $^{1}/_{4}$ $^{1}/_{16}$ $^{1}/_{128}$ ar. of unknown character, followed by subtotals in brackets (lines 6–7) of which one survived: $^{1}/_{16}$ $^{1}/_{32}$ ar. referred to in col. *oβ*; the total 2 1 $^{1}/_{4}$ $^{1}/_{16}$ $^{1}/_{128}$ ar. repeated in line 8

9–11: a new land category (its name in a lacuna) of which wheat (?) of 5 $^{1}/_{16}$ ar. (l. 9–10) followed by a list of subtotals in brackets (l. 11)

12–15: land where thyme is grown – $^{1}/_{2}$ $^{1}/_{8}$ $^{1}/_{16}$ ar. (l. 12), followed by a list of subtotals in brackets in line 13 (in col. *oα* – $^{1}/_{8}$ $^{1}/_{32}$ ar.)

16–17: ?

col. *oζ*

2–3: a total of land – not more than 30 ar. (2[.] $^{1}/_{128}$) followed by a total of 777 drachmae and 3 ob. (?)

4–6: a new land category (its name in a lacuna) followed by a list of subtotals in brackets (l. 5) – 1 ar. and from col. *oδ* 1 ar.

7: in brackets, centred, perhaps year 10; since the line is the last one of a long section, it seems to be important but its meaning escapes us (see comm.) AD 201/2

8: after a space of three or four lines, some signs of unknown meaning

Note a space of one column's width between columns *oζ* and *oη*.

From this point we start the translation

col. *οη*

Of other plots first registered
AD 208/9 in year 17 and following years, bought legally by contracts
registered by a bank, (plots belonging) to Peleilis, *epiteretes* of the *grapheion*
4 of Psonis as follows:

Formerly of Kales son of Pachomos, bought from him,
Kales, in boundaries of Pchnounis, fallow land – 5 arourae
8 briefly: wheat 6 art., vegetable 4 $^{1}/_{2}$ art., fodder 13 art.

in *kollema* μ (40) *abrochos*

And formerly of Pebos son of Psensenpachoumis, of *apallage*(?)–1 aroura
briefly: wheat 6 art., pulse 7 art., fodder 13 art.

12 in *kollema* μ (40) *abrochos*

And of the allotment (*kleros*) named after Stephanos near Sentanenolis
(of land belonging to[?]) [Pachoum?]is son of Sansnos and Orsenouphis
son of NN [ ] 1 $^{3}/_{4}$ $^{1}/_{8}$ aroura
16 [plots?] registered for taxation ... the allotment (*kleros*) named after ...
] the allotment (*kleros*) named after Stephanos *meris* 68

between the dykes
of] Pachoumis son of Sansnos
20] arourae 13 [
] remaining arourae 7 $^{1}/_{4}$ [$^{1}/_{8}$ $^{1}/_{16}$ $^{1}/_{64}$?]

. . . . . .

col. *oθ*

Of this inside the wall $^{3}/_{4}$ $^{1}/_{32}$ $^{1}/_{64}$ $^{1}/_{128}$ aroura, of which in the name of Sansnos
son of Besis fallow land $^{1}/_{16}$ $^{1}/_{32}$ $^{1}/_{64}$ aroura

in *kollema* μ (40) through the same (i.e., Sansnos), *epe*( ) fodder

And inside the wall of a village of independent(?) farmers 10 $^{1}/_{8}$ $^{1}/_{16}$ $^{1}/_{64}$ $^{1}/_{128}$ ar.
where tamarisk – 1

in *kollema* μ (40) of heliotrope, land covered densely by heliotrope
(sown with) barley – $^{1}/_{8}$ aroura
of *chersos* and other – $^{1}/_{16}$ $^{1}/_{64}$ aroura

And inside the wall of the same village of independent(?) farmers
of fertile fruit trees among which six olive trees – $^{1}/_{32}$ $^{1}/_{64}$ aroura

And above a cistern, a fruitful tamarisk – 1
the one cut down should still be inspected

And outside the wall:
of *chersos* and other (land) where there is a tower – $^{1}/_{4}$ $^{1}/_{16}$ $^{1}/_{64}$ [ ] aroura

in the name of Besis
in *kollema* μ (40) through Sansnos son of Besis
(sown with) wheat *epe*( ) $^{1}/_{4}$ $^{1}/_{8}$ $^{1}/_{32}$ $^{1}/_{64}$ aroura
(sown with) barley *ar*( ) *epe*( ) for fodder [ ] aroura [
total: the aforesaid amount (sc. of arourae)

[of ...]obios through Besis son of Haremephis

in *kollema*] μ (40) through the same Besis
] (sown with) lentil *epe*( ) [for] fodder $^{1}/_{8}$ [ ] aroura
remainder $^{1}/_{8}$ $^{1}/_{32}$ aroura | *hypologos*
. . . . . .

col. π

remainder – 4 1/4 1/16 1/32 1/64 1/128 arourae
in *kollema* μ (40), of land sown by own labour with barley *epe*( )
for fodder of imperial donkeys, of administration – 3/4 1/8 aroura
of *abrochos* where also other – 3 1/4 1/8 1/16 1/32 1/64 1/128 arourae
total, the aforesaid amount of 6 3/4 1/128 arourae

Of the allotment (*kleros*) named after Panoupis ——
formerly of the aforementioned, reminder
AD 210/1? on the land carried away by the river in year 19 (*or*: registered in col. .9)
– 1/4 1/32 ar.
in [[*kollema*]] likewise:

Of bare land to the north of the *chorion* of Xanthos
of arourae *x* ... 1/4 1/8 1/32 1/64 aroura

in *kollema* μ through [ ]is and Saprion

(sown with) barley *epe*( ) for(?) fodder, [of 3/4 1/16 ar.,
a third being 1/4 1/64 1/128 ar.
...[.....total] the aforesaid

AD 213/4 ..... year 22, ... [.....] ar., a third being 1/2 ar.

in *kollema* [

(sown with) barley [

Boundaries on the south of those [ ] 17 1/16 1/64 ar.
(col. *oη* [78] – 1 1 [1] 3/4 1/8 [13 1/8 1/16 1/64])
] ... [

of which
. . . . . .

col. *πα*

land carried away by the river of col. *π* – $^{1}/_{4}$ $^{1}/_{32}$ ar.
chersos and (land with) tower of col. *οθ* – $^{1}/_{4}$ $^{1}/_{16}$ $^{1}/_{64}$ ar.
fruitful vineland through lessees – 1 $^{1}/_{2}$ $^{1}/_{32}$ $^{1}/_{64}$ ar.
fruitful vineland cultivated by own labour – 4 $^{1}/_{4}$ $^{1}/_{8}$ $^{1}/_{16}$ ar.
total —— vine 5 $^{3}/_{4}$ $^{1}/_{8}$ $^{1}/_{16}$ $^{1}/_{32}$ $^{1}/_{64}$ ar.

total ——— land in deduction (*hypologos*) and planting 6 $^{1}/_{2}$ $^{1}/_{16}$ $^{1}/_{32}$ ar.

remainder sown land 10 $^{1}/_{4}$ $^{1}/_{8}$ $^{1}/_{16}$ $^{1}/_{32}$ $^{1}/_{64}$ ar.
land uninundated (*abrochos*) and inundated (*chersabrochos*) 6 $^{1}/_{4}$ $^{1}/_{16}$ $^{1}/_{32}$ $^{1}/_{64}$ $^{1}/_{128}$ ar.
([col.] *οη* – 1 1 [col.] *οθ* – 3 [ ] $^{1}/_{8}$ $^{1}/_{32}$ [col.] *π*)
(3 $^{1}/_{4}$ $^{1}/_{8}$ $^{1}/_{32}$ $^{1}/_{64}$ $^{1}/_{128}$ $^{1}/_{8}$ $^{1}/_{64}$ $^{1}/_{128}$ total the aforesaid)

land covered densely by heliotrope, in col. *οθ* $^{1}/_{8}$ ar.
land sown by own labour with barley *epe*( ) for fodder for imperial donkeys of the administration $^{3}/_{4}$ $^{1}/_{8}$ ar.

total

[ ]
[ ]
[ ]

wheat [ ] 2 $^{1}/_{4}$ $^{1}/_{48}$ art.

total [ ]
[ ] five-drachma land

. . . . . .

col. $\pi\beta$

Of the plots around Sentanenol( ) registered ...
privately-owned by Claudius Apollinarios [

4 10-ar. (plot) of Psensoueris, north of the trench of the canal [through] public records, *monartabos*, 'bought' land – 10 arourae *gr*( ) *di*( )
briefly: wheat ... 7 art. *epe*( ) 6 art. vegetable 4 $^{1}/_{2}$ art

in *kollema* $\lambda\theta$ (39) uninundated (*abrochos*)

8 Three-aroura (plot) south of the trench of the canal – 3 arourae
briefly: pulse 7 art. vegetable 4 $^{1}/_{2}$ art. fodder .. art.

in *kollema* $\lambda\theta$ (39) uninundated (*abrochos*) where

And east of bare land of Hermias son of Kolanthos

12 in *kollema*] $\lambda\theta$ (39) of acacia [
] ... [
] public records [
] . . $^{1}/_{2}$ ar.

16 in *kollema* . .] uninundated (*abrochos*)

] behind a passage ...
] near Ibion through public records
] $^{1}/_{4}$ $^{1}/_{8}$ $^{1}/_{32}$ in *kollema* μ (40) [

. . . . . .

col. $\pi\gamma$

And of register (*dikaion*) of katoicic parcels of Psonis
formerly belonging to Sansnos [ ] 1 $^{1}/_{8}$ ar.

briefly: wheat 6 art. [ ] lupin 4 art.

in *kollema* μ (40) [ ]

To the north, behind a passage [near?] Thmonnoseuris, bare land
of the Hermopolitans [ ] the northern part where
brick making and furnace place [ ] $^{1}/_{4}$ $^{1}/_{8}$ $^{1}/_{32}$ $^{1}/_{64}$ arour.

in *kollema* μ (40) through [.....]ekis

barley *epe*( ) [ ] ...
uninundated (*abrochos*) . [ ]

Boundaries on the south [ ] 29 $^{3}/_{4}$ $^{1}/_{8}$ $^{1}/_{16}$ $^{1}/_{64}$ arourae
col. 81 [
col. . . [
. . . . . [

uninundated (*abrochos*) [ ] $^{1}/_{8}$ $^{1}/_{32}$ arourae
acacia] . $^{3}/_{4}$ arourae
fodder
total: the aforesaid amount (sc. of arourae)

. . . . . .

col. πδ

And from an exchange contract of M[ ] son of Protas
from Panopolis, the [arourae] first registered
AD 216/7 4 in year 25, of arourae common and undivided, administered by Aurelius
Artemidoros from Panopolis

as follows:

In boundaries of Pchnounis, of 21 ar. 1/3 being 7 ar.,
8 the [arourae] of an allotment of [the arourae?] being *kathydatos* [...]
of which the [part] according to an agricultural division [ ] . .
– should still be inspected

in *kollema* μα (41) of inundated land (*abrochos*)

space of 4–5 lines

And from an exchange contract [
12 [ ] . . . greatest [

. . . . . .

col. πϵ

And [inside?] the boundaries of the *epoikion*
E[ ] son of Petetriphis, garden in the household
4] date palms – 2, young (sc. palm) – 1 in <*kollema*> μα (41)

And [ ] formerly of Psenemgeus *eth*( ), similarly in
[the household?] date palm for( ) – 1, olive tree (?) – *x*
And [of] son of Sakreuris date palm – 1, young (sc. palm) – 1,
oil tree(s) [

8 total: date palms, fruiting – 4
(second hand:) the trees grown between the vine *paragraphai* are
still to be examined

space of 4–5 lines

[ ] . . . of imperial [land? *logos*?

. . . . . .

col. πς

space of 7–8 lines

And of 'island' plots,
of low-lying land above the river – 73 1/4 ar.
of which land washed away by the river and eroded – 77 ar.
remaining on the land – 6 1/4 ar.

in *kollema* μ (40) cultivated by the first lessee (*idiosporeia*)

sound safflower [
safflower eaten by worm where(?) [...
] land uninundated (*abrochos*)

. . . . . .

col. πζ

Of Hatres [...] from Thmont( ), the island-land, (plot sown with) wheat
formerly *monartabos* land, from Apollinarios 1 3/4 ar. *epe*( )
of which wheat – 3/4 1/16 ar. *arakos* (wild chickling) for fodder – 1/4 1/16 ar.
[ ] *epe*( ) – 1 1/16 ar.; dry land washed away by the river – [1/4 1/8 1/16 ar.]
total: the aforesaid

total ..... 11 1/2 1/8 1/16 ar. .....
of which ... in the allotment (*kleros*) named after Stephanos – 10+ ar.
remainder to the north of ..... – 1 1/2 1/8 1/16 ar.; total: the aforesaid

Around Arabia similarly:
..... formerly of Aurelius Paniskos, former
[ ] around Megis [

] ..... [
]———[
] ar. [
] fodder, [ ] ar.

] Serenos(?) [

. . . . . .

col. $\pi\eta$

North of plain [ ] . . . . . [ ] similarly:
Of plots of Salvia Timagenis in
numerous *sphragides* − 16 $^{3}/_{4}$ ar.
of which linen grown from seed − 14 ar.
arakos (wild chickling) − 2 $^{1}/_{4}$ ar.
land without cultivation (*asporos*), in the basin − $^{1}/_{2}$ ar.; total:
the aforesaid
Of the allotment (*kleros*) named after Psenpollous, of *arakos*
for fodder of cattle
of *epoikion* of Pachoumis − 1 $^{1}/_{4}$ ar.

total: around the village of Arabia − 60 1//3 $^{1}/_{8}$ ar. [

of which [ ] − 6 ar.
arakos [ ] − 46 [ ] ar.
lentils [ ] [

. . . . . .

Between columns $\pi\eta$ and $\pi\theta$ there is a space of one column's width.

col. $\pi\theta$

The column must have contained some form of listing of subtotals with column numbers at the beginning of lines 4–6 and 10. Lines 4–12 are in brackets and, within this section, the subsection of lines 11–12 was marked with new brackets.

INDICES

1. REGNAL YEARS

ι (*ἔτος*) – *οζ* 7
ια (*ἔτος*) – *ξζ* 4
ιζ (*ἔτος*) – *οη* 3
κβ (*ἔτος*) – *π* 14
κϵ (*ἔτος*) – *πδ* 4

2. GEOGRAPHICAL

(*ἡ*) *Ἀραβία* – *πζ* 10; *πη* 10
ἐποίκιον E.[– *πϵ* 3
ἐποίκιον Παχούμιος – *πη* 9
Θμονοσειρις – *νη* 3; *ξ* 7, 12
Θμονπνῆσις – *πζ* 2
Ἰβίων – *πβ* 18
κλῆρος Βήσιος ἱερέως – *ο* 10, 16(?)
κλῆρος Πανούπεως – *π* 7
*κλῆρος Πατύμιο*ῦ[*ς* – *ξθ* 2, 14(?)
κλῆρος Στεφάνου – *οη* 8, 17; *πζ* 8
κλῆρος Ψενβερ[– *ξα* 2
κλῆρος Ψενπολλοῦτος – *πη* 8
Μῆγις – *πζ* 12
Νῆσος (if toponym) – *ξϵ* 3
Πανὸς πόλις – *πδ* 3, 5
πεδίον [...] – *πη* 2
Πχνοῦνις – *οη* 7; *πδ* 7
Σεντανενωλ( ) – *οη* 13; *πβ* 2
τοπαρχία β – *π* 10
χωρίον αὐτουργούντων (if toponym) – *οθ* 6, 10
χωρίον Ξανθοῦ – *π* 10
Ψῶνις – *οη* 5; *πγ* 2
]*.ηβις* – *πζ* 13

3. PERSONAL NAMES

Ἀΐλιος Ἀπολλινάριος – πζ 3
Ἀπολλινάριος, see Αἴλιος Ἀ.
Ἀπολλινάριος, see Κλαύδιος Ἀ.
Ἀπολλω( ) – νη 9
Ἀρβαίθης – οβ 10
Ἀρεμῆφις, f. of. Βῆσις – ξα 7; οθ 21
Ἀρτεμίδωρος, see Αὐρήλιος Ἀ.
Ἀτρῆς – πζ 2
Αὐρήλιος Ἀρτεμίδωρος – πδ 4–5
Αὐρήλιος Πανίσκος – πζ 11

Β[– ογ 11
Βῆσις ἱερεύς – ο 10, 16(?)
Βῆσις, f. of Σανσνῶς – οθ 3, 17
Βῆσις, f. of Ψάϊς νεώτερος – ξε 4
Βῆσις, f. of NN – νγ 9
Βῆσις, f. of NN – νδ 8
Βῆσις, s. of Ἀρεμῆφις – ξα 7; οθ 21
Βῆσις, s. of Παχοῦμις – ο 4
Βῆσις – ξα 8; ξζ 2; ξθ 17; οα 11; οθ 16

Ἑρμίας, s. of Κόλανθος – πβ 11

Ἡρακλᾶς – νη 4
Ἡρα( ) – νθ 8
Ἡρα[– ξγ 9

Θαυβάσθις – ξ 14

Καλῆς, s. of Παχομῶς – οη 6, 7
Κλαύδιος Ἀπολλινάριος – πβ 3
Κοΐντος, f. of]ρμουθης – ξ 6
Κόλανθος, f. of Ἑρμίας – ο 15; πβ 11
Κολλοῦθος – ξς 10, 13

Μ̣[, s. of Πρωτᾶς – πδ 2

Ὀννῶφρις – ξθ 11
Ὀρσενοῦφις – οη 14

Παβεῦς, f. of]ας – ξς 8
Πανίσκος, see Αὐρήλιος Π.
Παντβευις – νη 7-8
Πανοῦπις – π 7
*Παπχῆθις, f. of]ος – νγ 2; ξε 2
Πατερμοῦθις ἱερεύς – οα 9
Πατῦμις – ξθ 2, 14; οε 2(?)
Παχ[, f. of Πεβῶς – οδ 8
[Π]αχνοῦπις – νδ 15
Παχομῶς, f. of Καλῆς – οη 6
Παχουμ( ) – νγ 11
Παχοῦμις – νδ 19; ξς 16; οα 2; πη 9; πθ 2
Παχοῦμις, f. of Βῆσις – ο 4
Παχοῦμις, s. of Σανσνῶς – ξς 19; οη 14(?), 19
Παχοῦμις, s. of Ψε[.....]ϊς – ο 14
Παχοῦμις, s. of]σανθ̣[– ο 15
Παχοῦμις – οα 2
Πβῆκις – οα 7
Πεβῶς, s. of Παχ[– οδ 8
Πεβῶς, s. of Ψενσενπαχοῦμις – οη 10
Πελεῖλις, ἐπιτερητὴς γραφείου Ψώνεως – οη 4
Πεταρβεσχεῖνις – ξα 9

4. OFFICIAL AND PRIVATE OFFICES, OCCUPATIONS

5. GENERAL

φακός – *οθ* 23; *πη* 5, 13
φοινικών – *οα* 3, 6, 8, 12; *οβ* 3 (*bis*) 4, 6; *ογ* 10
φοῖνιξ – *νδ* 16, 17, 23; *νε* 10; *νς* 24; *ο* 3, 14, 17; *πε* 4, 6, 7, 8
φόριμος – *νγ* 3; *νδ* 23; *νε* 10; *νς* 24; *νη* 10, 14(?); *ο* 3, 14, 17; *οα* 12; *οθ* 11, 12; *πα* 4, 5; *πε* 6, 8
φυτεία – *ξθ* 7; *ος* 2; *πα* 7
ψιλός – *νε* 21; *π* 10; *πβ* 11; *πγ* 6
ὠνέομαι – *νζ* 12; *οη* 6; *πβ* 5

P. BODMER I RECTO
ON THE PHOTOGRAPHS TAKEN IN THE 1960S