

VII. Brief Notes on Papyrus Texts

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1. *PMichael*. 22¹

This text is an offer to lease three cows which are to be used for ploughing in the course of the year 291/292 A.D. It takes the form of a chirograph addressed to

Αύρη(λίᾱ) Τειηοῦτι τ[ῆ] καὶ Θερμοῦθαρῖονι² χωρὶς κυρίου χρη(ματιζούση)
τέκνων δικαίω³ διὰ τοῦ ἀνδρὸς αὐτῆς Ζωτίκου καὶ Αύρη(λίου).⁴

The editor is rightly troubled by καὶ Αύρη(λίου). He feels that the name is “doubtful” in this position, and remarks that “if correct, and no other reading is satisfactory, [it] is strange.” His revisers make the suggestion, but seemingly without conviction since they put it in the form of a query, that the scribe omitted an article, and they reject the editor’s reading of the doubtful letters: Ζωτίκου <τοῦ> καὶ Ἄ. .η().

There is, however, a standard expression much used after the names of persons which follows the editor’s reading closely enough to be an impressive alternative:

καὶ ὡς χρη(ματίζει), “and however he is styled.”⁵

¹ D. S. Crawford, *Papyri Michaelidae* (Aberdeen 1955). After the editor’s death in 1952, his manuscript was seen through the press by Sir Harold I. Bell and Professor E. G. Turner, who also added some notes of their own. For the date of No. 22 see M. Hombert, *ChronEg* 61 (1956) 179.

² The name is given as Τερμουθάριον in line 24. Similar variations in the endings of Hellenized Egyptian names are common. See *PMich.* 8.490.1, note; cf. B. R. Rees, *ChronEg* 59 (1955) 122 f. (Taësis = Taëtion).

³ I.e., the *ius liberorum*, which enabled a woman to act independently in legal business (A. Berger, *Encyclopedic Dictionary of Roman Law* [*Trans. Am. Philos. Soc.*, new ser., 43, 1953] 530; R. Taubenschlag, *Law of Greco-Roman Egypt*, 2nd ed. [Warsaw, 1955] 177). Teieous nevertheless acts “through her husband” as her business agent.

⁴ I here omit all dots which the editor has placed under letters for palaeographic reasons but which do not seriously challenge the correctness of the reading. I have retained his dots only where I believe the text to be in need of revision.

⁵ For references see F. Preisigke and E. Kiessling, *Wörterbuch d. griech. Papyrusurk.* (Berlin 1925–44) 2.753 f., with Preisigke’s comment: “formelhafte Wendung zur Ver-

That an editor should mistake $\acute{\omega}$ s for *alpha* is not surprising since a certain rapidity and even carelessness in the writing of conventional phrases is customary.⁶ And the resemblance of a possibly damaged *chi* to an *upsilon*, as the letter has been read by the editor, is obvious.

In line 8 of the text the cows are described as *τελεθιπυρας*, and in his note to this line the editor offers three variant readings which are equally unintelligible. His revisers suggest, again with a query, *τελείους πυρ<ρ>άς*, "full-grown, reddish in color." This is a brilliant revision for which they record no parallels. Their correction of the text is in fact confirmed by *PPrinceton* III, 151,⁷ where a cow is described as *τελείαν φυράν* (= *πυρράν*), and *PGen.* 48, where two cows are again described as *τελίας* (= *τελείας*) and one of them is said to be *φυράν* (= *πυρράν*). In view of the spellings used in these texts, it might well prove worthwhile to examine the Michaelides papyrus for *τελείας φυράς*.

Lines 12–14 contain a statement of the rent to be paid for the use of the cows. It consists of two parts: an undetermined quantity of green fodder and nine artabas of wheat. The phrase *χόρτον χλωροῦ* is modified by a series of adjectives, of which the last and the only one fully preserved — *εὐαρέστων* — closes line 13. At the beginning of line 14, where the quantity is expected, the text has *·ρὺν[]*.

Most illuminating in this connection is *PLond.* 3.1165 (p. 191), a second-century account from the Fayyum which includes expenditures for fodder purchased by the aroura, e.g. lines 1–2:

*τειμ(ῆς) (= τιμῆς) [χόρτ]ο(ν) χλωροῦ ὀρθοῦ εἰς χλωροφαγίαν (ἀρουρῶν) β (ἥμισυ).*⁸

The use of the aroura as a measure of fodder is still found in the sixth century. *PLond.* 5.1694 is a lease of land in which it is stipulated that the crop is to be divided equally between lessor and lessee, but before the division is made the lessor will receive one-half aroura of hay. As Bell remarks in a comment on this text, "hay was frequently measured, no doubt before the harvest, by arouras."

meidung einer Aufzählung 'aller' Namensbezeichnungen oder Titel." Cf. O. Gradenwitz, *APF* 2 (1903) 98. The clause occurs also in *PMichael.* 24.2–3 (cf. note *ad loc.*).

⁶ Exceptionally pertinent is *PMich.* 3, Plate 6, line 17 (*ὥς ἐτῶν*). Cf. F. Bilabel in Pauly-Wissowa, *RE*, 2te Reihe, 7.2306.30.

⁷ Corrected by C. W. Keyes, *AJP* 65 (1944) 187.

⁸ Cf. M. Schnebel, *Landwirtschaft im hellenist. Ägypten* (*MBPR* 7, 1925) 349.

It is entirely reasonable therefore to see in the editor's partial reading of *PMichael*. 22, 14 a remnant of ἀρου[ραν or ἀρου[ρας. The numeral which defined the area is now lost and probably not recoverable.^{8a}

2. *PMichael*. 24

Of this papyrus, which preserves a lease of land dated to the brief interregnum of Lucius Domitius Domitianus,⁹ the editor writes: "The right-hand side is well preserved and generally clear. The left-hand side is in very bad condition, worm-eaten, full of lacunae, and sometimes illegible even where the papyrus seems intact. Many of the readings given (with a point beneath) are purely conjectural reconstructions, only not bracketed because there is a trace of ink to be seen."

The lamentable condition of the papyrus has produced a great deal of uncertainty at numerous points throughout the text, and even the terms of the lease are still in need of clarification. The object of the lease is five arouras of land to be sown in grain (lines 9–10), the period of the lease is confined to the year of the agreement (10–11), and the statement of the rent, although not complete,¹⁰ clearly fixes it at one artaba on each aroura (12–15), i.e. five artabas for the year. But the lessee agrees to further payments in a provision (15–17) which is not only mutilated but ungrammatical as well:

τῶν δὲ καταλ[ιπ]ομένων διερεθισώμεθα . . . σου.

I suggest, with due regard for good sense, that this text is to be punctuated and completed as follows:

τῶν δὲ καταλ[ιπ]ομένων διερ{εθ}ισώμεθα ἐξ ἑσου.¹¹

^{8a} See now also J. Herrmann, *ChronEg* 63 (1957) 123 f.

⁹ The editor repeats the now antiquated view that Domitianus was the imperial name of Achilleus. The necessary corrective has been applied in a review of *PMichael*. by M. Hombert, *ChronEg* 61 (1956) 179 f.

¹⁰ Where this text has ἐκ κοινῆς α. . . κ. . . ἐκάστης ἀρούρης ἀράβην μίαν, *BGU* 2.586 has ἐκάστης ἀρούρη(ς) ἐκ κοινῆς ἀδὸ <λ>ου ποιοῦ (= πυροῦ) ἀράβης μῆς ἡμῶν.

¹¹ The fut. pass. διαιεθισόμεθα, as it would be correctly written, has no place here unless the writer felt it as having middle force. The editor keeps the passive form but renders it as a middle. *LSJ* notes an example of the fut. mid. used as pass. (s.v., II, 1 *ad fin.*), but not the reverse. Cf. W. Veitch, *Greek Verbs* (Oxford 1887) s.v. αἰρέω *ad fin.* The fut. pass. in *PMichael*. 24 may reflect a conflict in the writer's mind between two constructions, the one requiring διαιεθισόμεθα, the other διαιεθήσεται (cf. *PLond.* 5.1694.16–18). The phrase ἐξ ἑσου is familiar to readers of papyri. See Preisigke-Kießling, *Wörterbuch*, s.v. ἑσος (8).

Reduced to orthodox spelling, the statement becomes

τὸν δὲ καταλιπόμενον (sc. πυρὸν)¹² διαιρησόμεθα ἐξ ἴσου.

If this is correct, the lessee will pay the rent of five artabas, then the lessor and the lessee will each take half of the remainder of the crop. The phrase ἐξ ἴσου is standard in the Greek of the papyri, and its suitability in the present passage may be tested by applying the idea of half shares to lines 10–11, where the editor's admittedly experimental reading κατὰ τ. [.]. .οι μέρος places some limitation on the infinitive μισθώσασθαι, which precedes it in lines 6–7. If the mutilated phrase is completed as κατὰ τὸ [ἡ]μισοι μέρος, i.e. κατὰ τὸ ἡμισυ μέρος,¹³ which corresponds exactly to ἐξ ἴσου since the lease involves only two parties, the lessor and the lessee, the lease is to be contracted "on half shares" of the harvest. An interesting parallel is *PLond.* 5.1694, in which it is agreed that the lessor shall first receive a half aroura of hay, then lessor and lessee shall divide the harvest equally between them. Both leases are examples of *Teilpacht* (*métayage*).¹⁴

In the absence of a photograph I shall not presume to emend lines 29–30, where the editor has ventured ὡς ἂν φένηται (= φαίνεται) μισθῶ[σαντι], which he translates as "whenever (or as) the lessor shall think fit." This does not conform to the usual phraseology of comparable leases, and it contradicts the intent of the lease as expressed in lines 11–12. The agreement is valid for the current year only, and μετὰ τὸν χρόνον (lines 26–27), which the editor translates with excessive literalness as "after the stated time," does not allow for the tenant's occupancy beyond the term fixed for the lease. The lessee will surrender the land "at the expiration of the lease." In lines 29–30 only ἐὰν φαίνεται μισθῶσαι is expected. The formula is discussed by Waszynski, who renders it as follows: "falls es dir gefällt (unter den obigen Bedingungen) zu verpachten."¹⁵

¹² See footnote 10.

¹³ For examples of ἡμισοι see *PMich.* 6, Index 10, s.v.; for ἡμισοι, *PMich.* 5.305.5; for the entire phrase, *PFamTebt.* 28.15–16; 44.8; 45.4,5; *PFlor.* 3.370.3; *PLond.* 5.1694. 18 (sc. μέρος). See now also J. Herrmann, *ChronEg* 63 (1957) 124 f.

¹⁴ S. Waszynski, *Bodenpacht* (Leipzig and Berlin 1905) 148 ff. Leases of this type are scattered through the lists compiled by H. Comfort, *Studies in Late Byzantine Leases* (Haverford 1939) No. 1 = *Aegyptus* 13 (1933) 594 ff.; A. C. Johnson and L. C. West, *Byzantine Egypt: Economic Studies* (Princeton 1949) 80 f.

¹⁵ *Op. cit.*, 17 f. Cf. Preisigke-Kiessling, *Wörterbuch*, s.v. φαίνομαι ad fin. The clause occurs also in *PMichael.* 22.23. See editor's note to *PMichael.* 24.29–30.

3. *PGrVindob.* 15452¹⁶

This text is a letter written, probably in the fifth century A.D., by a young woman named Nonna to her mother, whose name may be Megale.¹⁷ The purpose of Nonna's letter is to recover from her mother certain articles of household use of which she is much in need, as well as certain articles of clothing. The list of objects included by Nonna in her letter begins as follows, in the edition (lines 5–6):

ὀλίγον ἃ σμήνεμε(ν)· πατελλικ[ι]ον δύο, ἐμβαφίον ὀκτώ.

The editor corrects this to read

ὀλίγα ἃ σημαίνομεν· πατελλικία δύο, ἐμβάφια ὀκτώ.

The scribe would have to be grossly careless to blunder so often, and once so badly, in the course of two lines. A careful study of the photograph published with the edition absolves him of the worst errors contained in these lines. What he in fact wrote is

ὀλίγον ἀσήμιν¹⁸ ἕως πατελλικ[ι]ον¹⁹ δύο, ἐμβαφίον ὀκτώ.

With due regard for the norms of vulgar spelling, this phrase may be transformed into

ὀλίγον ἀσήμιον ἕως πατελλικίων δύο, ἐμβαφίων ὀκτώ.

A somewhat free translation, from line 3 to this point, would be: "The moment you receive my letter, be so kind as to send some silver plate, at least two dishes and eight saucers."

With this reading of lines 5–6, we can also explain Nonna's request in lines 20–22, where she seems, in the present text, to speak of something not previously mentioned:

θέλῃσον δὲ ἐν τάχει ἐξαποστῆλαι τὸ σμήιον.²⁰

¹⁶ H. Metzger, *Schweiz. Beitr. z. allgemein. Gesch.* 12 (1954) 146 ff., with plate.

¹⁷ On *Nonna* as a personal name see C. Bonner, *JEA* 40 (1954) 15 ff. The editor prints *μεγάλη Νόννα*, "die grosse Nonna," but *Μεγάλη* as her mother's name is also possible. For *Μέγας* and *Μεγάλη* as personal names see F. Preisigke, *Namenbuch* (Heidelberg 1922) s.vv.

¹⁸ For *ἀσήμιν* = *ἀσήμιον*, dim. of *ἄσημον*, see E. A. Sophocles, *Greek Lexicon of the Rom. and Byz. Periods*, s.v.; Du Cange, *Glossarium med. et infim. graecitatis*, s.v. Cf. mod. Gr. *ἄσημι*.

¹⁹ *CGL* 3.203.27 (*app. cr.*) has *patellicion* equated with *scutella*. *LSJ* corrects this to *πατελλίδιον*, following the indexes to *CGL*, but the correction is now seen to be unnecessary.

²⁰ I.e. *ἐν τάχει ἐξαποστῆλαι τὸ σμείον*. The noun and its article were not part of the original sentence. Given as line 22 in the editor's text, they were, as he observes in his note, inserted in small writing as a correction between lines 21 and 23.

The editor tentatively renders the last word as “address” but wonders also whether it is a mistake for *σημαινόμενον*, i.e. “what has been mentioned above.” In these words we have the clue. We look to see what has been mentioned above, and in line 5 we find *ἀσήμιν* (= *ἀσήμιον*). Nonna’s intention in line 22 is best indicated by writing *τὸ ᾠήμιον* (= *τὸ ἀσήμιον*). She thus urgently repeats the request already stated with more detail in lines 5–6. It is most important that her mother send the silver plate. Otherwise, as she says (lines 24–26): *οὐκ ἔχομεν εἰς ἡπηρεσίαν* (= *ὑπηρεσίαν*), “we have nothing to use for service at table.”²¹

Nonna’s list of the utensils and clothing which she wishes her mother to send is concluded in line 8.²² Then, in lines 8–10, which are much damaged, she offers another reason for appealing to her mother:

καὶ ἦδας (= οἶδας) γὰρ ὅτι ὅλον [.] ἐαυτῷ παρέδωκά
σ[οι]

Comparison of the lacunae with equivalent portions of the text which are preserved shows that the editor has underestimated their length by one or two letters. We may therefore risk [*τὸ ὑπάρχον*] in the first lacuna. This at least reflects accurately Nonna’s intention. The following *ἐαυτῷ* may be equated with *ἐμαντῷ*.²³ While I am unable to confirm the reading *παρε* on the photograph, I am also unable to derive from it any other reading. As for the second lacuna, now that the sentence is meaningful without it, no supplement is likely to be entirely convincing. Nevertheless, if we use *ἕως σήμερον* as an illustrative restoration because it is characteristic of the epistolary style,²⁴ we obtain the following sentence:

καὶ ἦδας (= οἶδας) γὰρ ὅλον [*τὸ ὑπάρχον*] ἐαυτῷ παρέδωκά σ[οι
ἕως σήμερον],

which we may translate: “For indeed you know that I entrusted to you everything that I possess up to this day,” or more freely, “you have in your possession to this moment everything that I can call my own.”

²¹ For aphaeresis of *alpha* after *omicron* see E. Mayser, *Gramm. griech. Papyri* 1 (Leipzig 1906) 145. For the meaning of *ὑπηρεσία* see *LSJ*, s.v. II. 3; cf. Boak and Youtie, *Aegyptus* 31 (1951) 319, line 12.

²² But continued in the postscript, which begins in line 17.

²³ Mayser, *op. cit.* (in footnote 21) 303 f. (= 1.ii [2nd ed., Berlin and Leipzig 1938] 63 f.); L. Radermacher, *NT. Gram.* (Tübingen 1925) 73 f.

²⁴ For examples see *PMich.* 8, p. 240.

A series of salutations begins at the end of line 12. Where the edition has]λομα, the photograph fully justifies ἀσπά]ζομα[ι]. The form of *zeta* is the same here as in the same word in line 15. The salutations end in line 16 with

ἀπὸ μικρ[οῦ]εν.

The clue to this phrase is provided by letters of comparable date.

POxy. 10.1350 (5th/6th cent.): πάντας τοὺς ἐν τῷ οἴκῳ ἀπὸ μικροῦς (for -ρῶν) ἕως μεγάλων.

PFlor. 3.303 (6th cent.) 9–10: πάντας τοὺς ἐνοικοῦντας ἐν τῷ ἀφθόνῳ σου οἴκῳ ἀπὸ μικροῦ (for -ρῶν) ἕως μεγάλων.

In view of these examples we need have no doubt that the correct reading of the Vienna papyrus is

ἀπὸ μικρ[ῶν ἕως μεγάλ]ων.²⁵

4. *POxy.* 20.2273

In this letter written in the late third century A.D. to a mother and a brother by someone whose name is lost, there is — as so often in private letters — a list of objects which have been sent by messenger. One of these is described in line 8 as

ταρσίκιον ἔχουσα κἀγὼ εἰσχάδια (= ἰσχάδια).

As the editor states, the first word is “new; it may plausibly be connected with *τρασιά* dried figs. The following words are in favor of

²⁵ A number of minor corrections and suggestions deserve to be mentioned.

Line 6: τὸ καὶ τὸ κολόβιον δέ. Failure to use the customary editorial punctuation produces unnecessary confusion. καὶ τό, as noted by the editor, is an interlinear correction; it changes τὸ κολόβιον δέ to καὶ τὸ κολόβιον..

7: ἐτέμῃκα. Confusion of aor. and perf. forms is further illustrated by S. G. Kap-somenakis, *Voruntersuch. z. Gram. Pap.* (MBPR 28, 1938) 127 f. It reflects the long-continued struggle of these tenses for survival, in which the perfect was finally extinguished. For a brief summary with bibliography see C. Préaux, *ChronEg* 60 (1955) 376 ff.

16: (ἔρρωσο). Papyrus has ἔρρ(ωσο).

17–18: σαβατάκιον, σαβατάκιον. Typographical errors for σαβακάτιον, σαβακάτιον.

19: καλλίγιον = καλίγιον, dim. of *caliga*, for “a pair of boots,” illustrates a use of the singular which is discussed in *PMich.* 8.477.27, note; 508.5–6, note.

23: the papyrus has δέ at the end of the line.

24: ἀμμή, translated “Mama,” which has behind it the authority of *LSJ*, *Add. and Corr.*, s.v. The context does, however, suggest that ἀμμή may be the late spelling of ἀν μή (A. N. Jannaris, *Hist. Gr. Gram.* [London 1897] 408 [1736]), but used in the sense of ἐὰν δέ μή, “otherwise.” A possible case of εἰ μή for εἰ δέ μή occurs in *PMich.* 8.476.26, but the passage is obscure and does not suffice for a demonstration. A good example of ἐὰν μή = “if not, otherwise” is found in *BGU* 4.1079.23.

this explanation.” Nevertheless, he does not venture to give it an English equivalent in his translation of the letter, and he renders the other three words as if they constituted an independent clause or perhaps a nominative absolute: “I also have dried figs.”

There is, however, reason to believe that the four words cited above stand in a much closer syntactical relation to one another than the editor’s treatment of them would indicate. Similar lists in other papyri provide interesting material for comparison. A few examples will suffice.

POxy. 14.1658 (4th cent.) 6–8: σφυρίον ἔχων (= ἔχον) κάτω μαχαίρια β, κτλ., “a basket containing at the bottom 2 knives, etc.”

PTebt. 2.414 (2nd cent.) 19–20: τὸ σφυρίδιν μετὰ τῶν ἐνόνητων κάτω, “the basket with its contents at the bottom.”

POxy. 14.1657 (late 3rd cent.) 16–17: στρατιωτάρια β’ ἔχο[ντ]α τὰ προκείμενα ἀγγεῖα, “2 military chests containing the aforesaid vessels.”

The first of these examples exhibits a pattern which fits easily onto the passage with which we are concerned:

<i>POxy.</i>	14.1658	σφυρίον	ἔχων (= ἔχον)	κάτω	μαχαίρια
	20.2273	ταρσίκιον	ἔχουσα	καγῶ	εἰσχάδια

If we assume that καγῶ is a misreading of κάτω²⁶ and that ἔχουσα is a mistake for ἔχον, the resulting text after correction is

ταρσίκιον ἔχον κάτω εἰσχάδια,

“a *tarsicion* containing dried figs at the bottom.”

The name of the container would be new, as the editor has said; but since we can now be sure that it is a container, we may derive it from either of the following nouns:

ταρσός: *frame of wicker-work, crate, flat basket*, for drying cheeses on;

τρασιά, Ion. ταρσινή (cf. τερσιά): *hurdle, crate*, whereon to dry figs.²⁷

The intrusion of a feminine participle where the neuter is expected, suggests that the writer may have had the latter derivation in mind.²⁸

²⁶ Mr. J. W. B. Barns, who was kind enough to examine the papyrus at my request, feels that the one reading is as good as the other.

²⁷ The definitions are borrowed from *LSJ*, s.vv.

²⁸ For the ending -ικιον see also πατελλίκιον > πάτελλα in part 3 of this article. A few further suggestions may be recorded here:

5. *POxy.* 20.2274

This letter was written by Hatres, an estate manager, to his mistress Atarion. He reports a theft of offsets (*μοσχεύματα*) and the fruitless search to which it led. In the words of the edition (lines 6–10):

καικμήκαμεν (= κεκμήκαμεν) ζητούντες τοὺς τόπους οὓς
ἐποπτάζομεν σὺν τοῖς δημοσίοις καὶ οὐδαιμίαν ἔνφασιν
(= οὐδεμίαν ἔμφασιν) εὔραμεν.²⁹

The editor's translation runs close to the Greek: "I have worn myself out searching together with the officials the area under my surveillance, but we found no trace."³⁰

It is *ἐποπτάζομεν* which is given the idiomatic rendering "under my surveillance." As the editor informs us, "this verb is not mentioned in the lexica," and even the uncompounded *ὀπτάζομαι* is cited by *LSJ* only from *LXX Num.* 14.14 in the passive meaning "to be seen." Nevertheless, the verb is properly formed and raises no question on that score. What might give us pause is the context in which it is used. The word does not fit into the conditions of a search conducted under police supervision. Hatres, as he himself states, enlisted the assistance of the police,³¹ and backed by their authority he had no reason to restrict his search to the limited area under his own control. In *PMich.* 5.230, a petition which reports a case of theft and assault, the coöperation of an *epistates* enables the complainant to search a house not his own, and in *PMich.* 6.421

Line 7: a left bracket has been omitted. Barns reads ἀκή[σα γ]άρ.

12, end: read [περ]ὶ [π]ο[λλοῦ] δέ; cf. *POxy.* 20.2275.4. Barns: "quite possible."

13: the *upsilon* after γενέσθω is a printer's error (Barns).

18–19: correct προγομα.ι[ο]ν to προθυμάρην. Barns: "certain." See *Eos* 48 (1956) 379, n. 21. For a clear instance of πορθμάριος see *POxy.* 18.2195.73; cf. *PMerton* 42.4, note.

19: ἵνα γνῶ· κομίσου κτλ., with σου written above cancelled ζη (*app. cr.*). The scribe's correction is false. Reinstate ζη, delete the high point, and translate "so that I may know you are receiving, etc." For the paratactic construction see H. Ljungvik, *Spätgriech. Volkssprache (Skrifter Uppsala 27.3 [1932])* 93 f., 100 ff.; cf. *PMich.* 8.473.8, note; 488.18–19, note; 492.6, note; *PLund* 2.5.17, note; *POxy.* 17.2150.8, note (the parataxis which Hunt reads into line 9, ἵνα ἡ τάχος σοι γένηται, is not genuine. Change ἡ to ᾗ and cf. *LSJ* s.v. τάχος *ad fin.*).

²⁹ See footnote 4.

³⁰ The interchange of 1st pers. pl. and sing. is entirely familiar. See Mayser, *Gram.* 2.i.41 f.; cf. P. Collomp, *Atti IV Congr. Intern. Pap.* (Milan 1936) 199 ff.

³¹ For this function of the *dēmosioi* see Wilcken, *APF* 5 (1913) 441; *PACHmim* 7, introd.

a pursuit aided by an *archephodos* is extended even beyond the limits of the village.³²

Since the first letter of the word is doubtfully read, and *epsilon* is sometimes hard to distinguish from *upsilon*,³³ we might try the effect of substituting *ὑποπτάζομεν*, which is a synonym of *ὑποπτεύομεν*. The sentence would then be understood as follows: "We have worn ourselves out searching the places that we suspect, with the assistance of the local officials, but we found nothing."

This suggestion has the approval of Mr. Barns, who has inspected the papyrus and feels that *upsilon* is the right reading. Since this is so, the recovery of the verb on the papyrus may have some value beyond the contribution it makes to the interpretation of the letter from Oxyrhynchus. Only one example of the verb is recorded by *LSJ*, a present passive participle in Paulus Aegineta,³⁴ a medical writer of the seventh century A.D. Even this solitary occurrence is marked *si vera lectio* because the manuscripts present as variants the participle of *ὑποποιάζω*, which is better known in the form *ὑποτοπέω* and has the same meaning as *ὑποπτάζω*, and the participle of *ὑποστάζω*, which is elsewhere glossed with *substillo*.³⁵ We at least know now from the papyrus that *ὑποπτάζω* is a genuine word in its own right and not simply a corruption of a similar verb like *ὑποτοπιάζω*.

6. *PAnt.* 39; Cairo, *Journal d'entrée* 57024A-E,³⁶
Wilcken, *Chrest.* 186

These documents are receipts issued in the first quarter of the fourth century,³⁷ in two instances by village officials,³⁸ in the third by a private person,³⁹ to various strategoi⁴⁰ in acknowledgment of

³² See introd. *ad loc.*, esp. p. 115, n. 1.

³³ Cf. *PCairoBoak* 8.ii.19, note; *PRyl.* 4.656.22, note.

³⁴ 3.5.7, ed. Heiberg = *CMG* 9.1.143.23.

³⁵ *CGL* 2.467.48; cf. *LSJ*, s.v.

³⁶ A. E. R. Boak, *JRS* 37 (1947) 30 ff.: five copies of the same receipt, A-C written by a single hand, D by a second hand, E by a third hand. Professor Boak has been kind enough to put at my disposal photographs of all the copies of the text.

³⁷ *PAnt.* 39: 323 A.D. Cairo, *Journal d'entrée* 57024 A-E: 314 A.D. Wilcken, *Chrest.* 186 (= *BGU* II, 620, ed. Viereck): "Etwa Anfang des IV Jahr. n. Chr."

³⁸ Cairo, *Journal d'entrée* 57024 A-E: comarchs and tesserarius of Karanis. Wilcken, *Chrest.* 186: comarchs of Karanis.

³⁹ Unless, as Roberts observes, Isidora was acting on behalf of her deceased brother Silvanus, who had been a *bouleutês* of Antinoöpolis (*PAnt.* 39. 3; cf. note *ad loc.*).

⁴⁰ In the Cairo and Berlin receipts the title *strategus* is used; *PAnt.* 39 is addressed to the *διαδεχομένῳ ἐξακρο(ίαν) Ἀρτινόλου*. For the *exactor* as successor to the *strategus* see Wilcken, *Grundzüge*, 77. The terms were used interchangeably for a considerable time, at least until 369/370 A.D. (Wilcken, *ibid.*).

payment received for clothing contributed to the *vestis militaris*.⁴¹ In two of these receipts, the total amount due is followed by an amount which is to be deducted from the total, and this in turn is followed by the amount actually received. The third receipt, as we shall see, diverges from this form in a rather puzzling way. All the editors have experienced some difficulty in reading the statement which expresses the deduction, and since the texts can now be corrected one from another, they are repeated here so that the reader may make his own comparisons.

PAnt. 39, 9–14

δηνάρια [τρις] χείλια τετρακόσια ἑβδομήκοντα [πέντε, γ(ίνεται)] (δην.)
'Γ[υοε· ὑπο]λογοῦνται⁴² ὑ(πέρ) ῥ(οπής)⁴³ ς (δίμοιρον) [ἀνὰ (δην.) ρ,
γ(ίν.) (δην.) διακόσ]ια ἑξοσι πέντε, [.] λ[οιπ]ὰ (δην.) 'Γσν
πλήρη. [ἡ ἀπο]χή κυρία, κτλ.

Cairo, *Journal d'entrée* 57024A–E, 12–14

(τάλ.) κα (δρ.) 'Β, ἐξ ὧν ὑπολογοῦνται ὑπέρ ῥ⁴⁴ ς (ἔτους) τῷ ταμίῳ⁴⁵
(τάλ.) α (δρ.) 'ΒρϚ, τὰ⁴⁶ λοιπ(ὰ) (τάλ.) ιθ (δρ.) 'Εωι. γενέσθω ἡ ἀποχή
κυρία, κτλ.

Wilcken, *Chrest.* 186, 13–16⁴⁷

ἀργυρίου (τάλ.) ια εἰ[. . .] λ[ο. . .] ντε ὑπέρ ἑκα{σ} τοστῶν ε. ημι[. . .]
κα[ῖ] προσετέθη ἐν τοῖς κυριακοῖς λόγ[οις] [. . .] ν[. . .] θ. πο. τοῦ
ἀργυρ[ίου] . . .

⁴¹ For a recent bibliography see *PAnt.* 40, introd. (The correct page-reference for Segrè is 418.)

⁴² τ inserted as a correction above the line.

⁴³ Editor's note *ad loc.*: "No references to *ρόπή* (discount for immediate settlement of a debt or an account) are given in Preisigke, *W.B.* before the sixth century. It does however occur in an unpublished text in the Rylands collection of the year 338." (The latter text is now available in *PRyl.* 4.660, and is discussed in section 7 of the present article.) Roberts here adopts Preisigke's explanation of *ρόπή*, but subsequently (*PRyl.* 4, *Add. and Corr.*, opp. p. xvi) preferred to follow Johnson and West (*Byzantine Egypt*, 315 f.; *Currency in Rom. and Byz. Egypt*, 133) who explain it as a charge of 1/2 carat per solidus for weighing gold (cf. Bell, *POxy.* 19.2243a.60, note). As we shall see, however, the resolution *ῥ(οπής)* in *PAnt.* 39 cannot survive a comparison with Wilcken, *Chrest.* 186.

⁴⁴ The editor's note suggests *πρ(οστίμων)*, i.e. a penalty for failure to discharge the obligations of the preceding year, but as we shall see, these resolutions must be rejected in the light of Wilcken, *Chrest.* 186.

⁴⁵ τῷ ταμίῳ A–C; om. D, E.

⁴⁶ τὰ C–E; om. A, B.

⁴⁷ I have simplified this text by omitting the horizontal bars which Wilcken placed under a number of letters because he regarded them as securely read although they are mutilated (cf. *APF* 10 [1932] 212, n. 1).

Comparison of the three texts permits a number of self-evident corrections. These may be inspected conveniently in the following table; the corrections are underlined.

<i>PAnt.</i> 39	Cairo, 57024	<i>Chrest.</i> 186 ⁴⁸
<u>(ὦν) ὑπο]λογοῦνται</u> ⁴⁹	ἐξ ὦν ὑπολογοῦνται	ἐξ [ὦ]ν [ὑπο]λογοῦντε ⁵⁰
<u>ὑ(πέρ) (ἐκατοστῶν)</u> ⁵¹	<u>ὑπέρ (ἐκατοστῶν)</u> ⁵¹	<u>ὑπέρ ἐκα{σ} τοστῶν</u>
ς (<u>ἡμισυ</u>) ⁵²	ς (<u>ἡμισυ</u>) ⁵³	<u>ἐξ⁵⁴ ἡμι[συ]</u> ⁵⁰
[τῷ ταμίῳ] (δην.)	τῷ ταμίῳ (τάλ.) α	
διακόσ]ια εἴκοσι	(δρ.) 'ΒρϞ,	
πέντε, [γί(νεται)		
(δην.) σκε, γί(νεται)		
<u>τά]</u> ⁵⁵ λ[οιπ]ὰ	τὰ λοιπ(ὰ)	

Not self-evident like the foregoing, but readily verifiable on the photographs and confirmed by comparison with *PAnt.* 39 is the following correction for the Cairo papyrus:

Cairo, 57024	<i>PAnt.</i> 39
(τάλ.) ιθ (δρ.) 'Εωι <u>πλήρ[η]</u> . ⁵⁶	(δην.) 'Γσν πλήρη.
ἡ ἀποχὴ κυρία	[ἡ ἀπο]χὴ κυρία

⁴⁸ While the suggested modifications of Wilcken's text are obviously sound, they of course rest on the analogy of the other texts, since the Berlin papyrus is no longer available for consultation. Read (*δραχμῶν*) in lines 10 and 11 with Viereck (*BGU* 2.620), *τὰ συναγόμενα* [. . .] in line 10; cf. Preisigke-Kiessling, *Wörterbuch*, s.v. *συνάγω*.

⁴⁹ Mr. C. H. Roberts, who was kind enough to discuss with me the problems raised by this text, has written me the following comment: "It is difficult to make an exact calculation of the number of missing letters in a text so liberally sprinkled with numerals and abbreviations, so that I should accept the presence of ὦν — probably in the form of a symbol — in the lacuna in line 11." For the symbol see Bilabel in Pauly-Wissowa, *RE*, 2te Reihe, 2.2305. The meaning is the same whether ὦν or ἐξ ὦν is used.

⁵⁰ Wilcken overestimated the lacuna by 2 letters. Read -*ται*.

⁵¹ *Rho* with a curved stroke running above and to the right of the letter is usual for *ἐκατοστή*. All 5 copies of the Cairo text have this formation. A freehand drawing of the numeral as it stands on *PAnt.* was sent to me by Mr. Roberts: ρ/.

⁵² Mr. Roberts' drawing of the symbol as seen by himself and confirmed by Mr. E. G. Turner has the requisite double curve (see footnote 53) linked to the preceding stigma in such a way that the total impression is deceptively like that given by cursive α.

⁵³ The same symbol — a double curve } — may serve for *ἡμισυ* as well as *ἔτος*. Cf. Bilabel, *op. cit.* (in footnote 49) 2306 f.

⁵⁴ Viereck's transcription (*BGU* 2.620) has a symbol for drachma where Wilcken has *epsilon* plus an illegible letter, and this is doubtless significant because the symbol has a superficial resemblance to *χι*.

⁵⁵ The text needs no supplement to complete its meaning, but the repetition of the numeral is stylistically suitable and the article is drawn from Cairo, 57024.

⁵⁶ *πλήρ[η]* (E, om. A-D) replaces *γενέσθω* (ed. pr.).

In order that these corrections may be seen in context, the pertinent portions of the receipts are now presented in revised form with a few remarks on the calculations which they contain.

PAnt. 39, 9–14 (revised)

δηνάρια [τρις]χείλια (= -χίλια) τετρακόσια ἑβδομήκοντα [πέντε, γ(ίνεται)]
(δην.) Ἰ[υοε, (ὦν) ὑπο]λογοῦνται ὑ(πέρ) (ἐκατοστῶν) 5 (ἥμισυ) [τῷ ταμίῳ
(δην.) διακόσ]ις εἴκοσι πέντε, [γί(νεται) (δην.) σκε, γί(νεται) τὰ] λ[οιπ]ὰ
(δην.) Ἰσν πλήρη. [ἡ ἀπο]χή κυρία, κτλ.

The calculation as reported in this receipt presents no real difficulty:

Preliminary total	3475 den.
Deduct 6 1/2%	225 den.
Final total	3250 den.

The amount of the deduction as given on the papyrus is slightly less than 6 1/2% of the preliminary total, which would be precisely 225 7/8 den. The exclusion of the fractional portion of a denarius suggests that the unit of calculation was 5 den.

Cairo, *Journal d'entrée* 57024A–E, 12–14 (revised)

(τάλ.) κα (δρ.) ἸΒ, ἐξ ὧν ὑπολογοῦνται ὑπέρ (ἐκατοστῶν) 5 (ἥμισυ) τῷ
ταμίῳ (τάλ.) α (δρ.) ἸΒρϚ, τὰ λοιπὰ (τάλ.) ιθ (δρ.) ἸΕωι πλήρ[η].
ἡ ἀποχή κυρία, κτλ.

What is reported in these lines may be summarized as follows:

Preliminary total	21 tal. 2000 dr.
Deduct 6 1/2%	1 tal. 2190 dr.
Final total	19 tal. 5810 dr.

The amount deducted from the preliminary total needs explanation: 1 tal. 2190 dr. is not 6 1/2% of 21 tal. 2000 dr.,⁵⁷ but it would be entirely correct for 21 tal. In calculating the deduction, the clerk or scribe overlooked the 2000 dr. and took 6 1/2% of 21 tal. only.

⁵⁷ All 5 copies of the text agree on the amounts.

Wilcken, *Chrest.* 186, 13–16 (revised)

ἀργυρίου (ταλ.) ια, ἐξ [ὦ]ν [ὑπο]λογοῦντε (= -ται) ὑπὲρ ἑκα{σ}τοστῶν
ἐξ ἡμι[σ]υ κα[ι] προσετέθη ἐν τοῖς κυριακοῖς λόγ[ο]ις⁵⁸ [. . . .]ν[.]θ.πο.
του ἀργυρ[ίου] . . .⁵⁹

There is no way to test the arithmetic of this reconstruction because the final total is not preserved.

Now, in the light of the revised texts and with such understanding as we have gained of the calculations, we may tentatively conclude that government compensation for requisitions of *vestis militaris* in the first quarter of the fourth century was subject to a discount of 6 1/2%, which was retained by the fiscus.⁶⁰ It is perhaps not without significance for the continuity of fiscal practice, that 6 1/2%, more often 6 1/4% (i.e. 1/16), were common surcharges on payments of taxes in silver under the Principate.⁶¹

7. *PRyl.* 4.660; *PCol.* 2. 1 recto 4.x

The preceding note may serve as an introduction to the closely similar problem presented by *PRyl.* 4.660. This papyrus preserves the lower portion of an αἴτησις, or request for payment, submitted in 338 A.D. One badly mutilated line is followed by eleven lines which are complete. Lines 3–5 have a statement very much like those which have been analyzed in section 6 of this paper. I reproduce them here as they are given in the edition.

PRyl. 4.660.3–5

(δην.) (μυρ.) β 'Θρλζ, ἐξ ὧν κουφίζεται⁶² ὑπὲρ ῥ(οπῆς),⁶³ γί(ν.) (δην.)
'ΑΖ, τὰ λοιπ(ά) (δην.) (μυρ.) β 'Ζσλζ

⁵⁸ Since there is not room for the amount of the deduction (4290 dr.) in the preceding portion of the text, these words seem to correspond to τῷ ταμίῳ in line 13 of the Cairo text. (For the meaning cf. Wilcken, *Chrest.* 277.15 f.: εἰ προσετέθη αὐτῶν τὰ τέλη τῷ κυριακῷ λόγῳ.) But the singular number of the verb and the change of tense do not support this view.

⁵⁹ Perhaps the amount of the deduction should be restored here, but see footnote 58. The papyrus breaks off at this point.

⁶⁰ A. C. Johnson's statement (*Byzantine Egypt*, 306) that a "tax of 1% seems to be exacted as a penalty on military requisitions (*BGU* 620)" was of course based on the *ed. pr.*, at best on the reëdition by Wilcken, *Chrest.* 186.

⁶¹ S. L. Wallace, *Taxation in Egypt* (Princeton 1938) 324 ff.; A. C. Johnson, *Roman Egypt* (= T. Frank, *Econ. Survey of Anc. Rome* 2, Baltimore, 1936) 573 f.

⁶² Synonym of ὑπολογοῦνται, which is used in the three receipts discussed in part 6 of this paper. See Preisigke-Kießling, *Wörterbuch*, s.v.

⁶³ See footnote 43.

The calculation is, as always, presented in outline, and it raises no problem.

Preliminary total	29137 den.
Deduct	1900 den.
Final total	27237 den.

The amount of the deduction is only slightly more than 6 1/2% of the preliminary total. This rate would yield exactly 1893.905 den. for the amount to be deducted, and we should not be surprised if this is rounded out to 1900 den.

As the text now stands, the amount of the deduction is introduced by $\gamma\iota(\nu\epsilon\tau\alpha\iota)$, but this verb cannot be said to be indispensable to the meaning. That it has in fact been substituted for a statement of the rate is a possibility raised by the editor's comment: "What I have read as $\gamma\iota(\nu.)$ could be interpreted as $\epsilon\zeta'$, but the dash suggests that what precedes is a letter rather than a mark indicating a numeral or an abbreviation." If, however, we take the mark, i.e. ζ , to be the symbol for $\eta\mu\iota\sigma\upsilon$, the objection is removed. This symbol is sometimes combined with an oblique dash.⁶⁴ And since ϵ and ς are by no means difficult to confuse in a doubtful passage, I suggest that the papyrus has ς ($\eta\mu\iota\sigma\upsilon$).⁶⁵ We shall then, of course, replace $\rho(\sigma\pi\eta\varsigma)$ with ($\acute{\epsilon}\kappa\alpha\tau\omicron\sigma\tau\hat{\omega}\nu$), as we did in the texts discussed in section 6.⁶⁶ The new text which results from these corrections is identical with those in its structural pattern; it is submitted here so that readers may make their own comparisons.

PRyl. 4.660.3–5 (revised)

($\delta\eta\nu.$) ($\mu\nu\rho.$) β 'Θρολζ, ἐξ ὧν *κουφίζεται* ὑπὲρ ($\acute{\epsilon}\kappa\alpha\tau\omicron\sigma\tau\hat{\omega}\nu$) ς ($\eta\mu\iota\sigma\upsilon$)
 ($\delta\eta\nu.$) 'Α Ζ, τὰ λοιπ(ὰ) ($\delta\eta\nu.$) ($\mu\nu\rho.$) β 'Ζσλζ

The text continues in lines 5–7 with the request that the banker be instructed to pay out the amount indicated in line 5. The *αἵτησις* has its *raison d'être* in services rendered, but what these were is not obvious. The loss of so much text at the top of the papyrus has

⁶⁴ See Bilabel, *op. cit.* (in footnote 49) 2307.

⁶⁵ A photostat of the papyrus, which the Librarian of the John Rylands Library was kind enough to send me, shows that ϵ ($\eta\mu\iota\sigma\upsilon$) and ς ($\eta\mu\iota\sigma\upsilon$) are the only possible readings. The first of these is excluded by the arithmetic of the text.

⁶⁶ See footnote 51.

created more than one obscurity.⁶⁷ Nevertheless, the words $\tau\eta\varsigma \acute{\alpha}\gamma\omega\gamma\eta\varsigma$, which stand at the beginning of line 2,⁶⁸ can be used as the starting-point for a reasonable hypothesis. In a demand for payment it is natural that $\acute{\alpha}\gamma\omega\gamma\eta$ should be the cargo carried by a Nile boat engaged in transporting government grain to Alexandria.⁶⁹ Since the document is dated Mesore 30 (line 9), the last day of the Egyptian year if the epagomenal days are excluded, we may suppose without straining probability that Aurelius Hermas, whose subscription occupies lines 10–12, is a ship's master and is here applying for compensation for services performed during the year which is just reaching its end.⁷⁰

Support for this view of the Rylands text may be derived from *PCol.* 2. 1 recto 4.x. A ship's master, who is also pilot of his own craft, acknowledges to the public bankers of the Arsinoite nome that he has received compensation from them at a specified rate per hundred artabas of cargo. Here again a preliminary total is followed by a deduction of 6 1/2 %, and this is followed by the final total. A revised text of the pertinent lines is given below.

PCol. 2. 1 recto 4.x.17–19

$\tau\acute{\alpha}\varsigma \sigma\upsilon\nu\alpha\gamma\omicron\mu(\acute{\epsilon}\nu\alpha\varsigma) \acute{\alpha}\rho\gamma(\upsilon\rho\iota\omicron\upsilon) (\delta\rho\alpha\chi\mu\acute{\alpha}\varsigma) \sigma\zeta\varsigma (\delta\beta\omicron\lambda\omicron\nu) (\eta\mu\omega\beta\acute{\epsilon}\lambda\iota\omicron\nu)$, $\acute{\epsilon}\xi \tilde{\omega}\nu \kappa\omicron\nu[\phi\acute{\iota}]\zeta(\omicron\nu\tau\alpha\iota)$ ⁷¹ $\dot{\upsilon}\pi\acute{\epsilon}\rho (\acute{\epsilon}\kappa\alpha\tau\omicron\sigma\tau\acute{\omega}\nu) \varsigma (\eta\mu\iota\sigma\upsilon) (\delta\rho\alpha\chi\mu\alpha\iota) \iota\zeta (\delta\iota\acute{\omega}\beta\omicron\lambda\omicron\nu)$, $\tau\acute{\alpha}\varsigma \lambda\omicron\iota\pi(\acute{\alpha}\varsigma) (\delta\rho\alpha\chi\mu\acute{\alpha}\varsigma) \sigma[\mu\eta (\pi\epsilon\nu\acute{\tau}\acute{\omega}\beta\omicron\lambda\omicron\nu) (\eta\mu\omega\beta\acute{\epsilon}\lambda\iota\omicron\nu)]$, $(\gamma\acute{\iota}\nu\omicron\nu\tau\alpha\iota) (\delta\rho\alpha\chi\mu\alpha\iota) \sigma\mu\eta (\pi\epsilon\nu\acute{\tau}\acute{\omega}\beta\omicron\lambda\omicron\nu) (\eta\mu\omega\beta\acute{\epsilon}\lambda\iota\omicron\nu)$.

⁶⁷ Editor's remark in introd.: "It is impossible to determine the exact nature of this document in its present state, but it appears to be a demand for payment (or repayment) of moneys from the State."

⁶⁸ These words are followed by $\chi\omega\rho\iota\varsigma \rho(\omicron\pi\eta\varsigma)$, which we now know should be changed to $\chi\omega\rho\iota\varsigma (\acute{\epsilon}\kappa\alpha\tau\omicron\sigma\tau\acute{\omega}\nu)$. The editor states that the abbreviation is the same here as in line 4, and this is confirmed by the photostat. The unintelligible sequence of numerals and symbols, which concludes the line in the edition, looks on the photostat to be $\gamma \text{ 'T}$, i.e. 3%, or 3000 den. A charge of 1 1/2% is frequently associated with the cargo in skippers' receipts (*PPrinceton* 2.26.8–10, note; *PIand.* 138, introd.; *PWarren* 5.19–20, note), and a charge of 3% is also found with grains (*PBerlLeihg.*, pp. 293 f.; Wallace, *Taxation in Egypt*, 41). The precise function of 3% in this request is obscured by the loss of the upper portion of the text. The use of $\chi\omega\rho\iota\varsigma$ as well as of its antonym $\sigma\acute{\upsilon}\nu$ is illustrated in *PMich.* 6.399–417.

⁶⁹ See esp. *PCol.* 2.1 recto 4.x.16, where the rate of compensation is said to be based on each 100 art. of cargo. Cf. *PPrinceton* 2.26.8–10, note.

⁷⁰ For bibliography on transportation of government grain see Westermann and Keyes, *PCol.* 2, p. 103; Youtie, *TAPA* 81 (1950) 101.

⁷¹ $\acute{\epsilon}\xi \kappa\tau\lambda.$: $\delta\iota(\acute{\alpha}\phi\omicron\rho\omicron\nu)$ (?) [] . . . *ed. pr.* The editors have provided a photograph facing the text, but it is not adequate at this point. Professor John Day has generously put at my disposal the results of a very careful study of this passage on the Columbia papyrus. The text used above has his approval.

This calculation conforms to the pattern with which we have become familiar in the texts discussed above.

Preliminary total	266 dr. 1 1/2 ob.
Deduct 6 1/2%	17 dr. 2 ob.
Final total	248 dr. 5 1/2 ob.

According to the ancient method, 17 dr. 2 ob. is right for 6 1/2% of 266 dr. 1 1/2 ob. Precisely correct, in our view, would be 17 dr. 1 ob. 6 7/10 ch., but since it was customary either to raise to 2 ch. anything smaller than this amount or to drop it altogether, our clerk chose to raise the deduction to 17 dr. 1 ob. 8 ch. = 17 dr. 2 ob.⁷²

8. *PFamTebt.* 8⁷³

This text is a notification from Pontion's bank, issued sometime in the reign of Trajan to Didyme, daughter of Lysimachus,⁷⁴ to the effect that 1700 drachmas have been received from her and paid to a certain Ptolemaeus as the final instalment on the price of a number of properties.⁷⁵ The receipt of the money from Didyme is acknowledged with a nominal phrase (lines 7–9):

λήμμα ἀργυρίου δραχ(μὰς) [χιλία]ς ἐπτακο[σί]as,⁷⁶ (γίνονται) (δρ.) Ἀψ,
(γίνεται) λήμ(μα) (δρ.) Ἀψ.

This is followed in the published text by (παρὰ) ε χ(αλοῦς), “minus 5 *chalkoi*.” As the editor states the situation, “if the symbols are rightly understood, the 5 *chalkoi* deducted from the total sum are probably charged by the bank.” The amount of the deduction, however, is far too small — less than 3/4 obol — to be a service charge on a transaction of 1700 dr., and the symbol L, which is interpreted as παρὰ, is unparalleled in this meaning. It is, on the other hand, very well known as an equivalent of ὧν.⁷⁷ I therefore suggest that the phrase be changed to read (ὧν) ἐχ(ρηματίσαμεν).⁷⁸

⁷² Cf. Youtie, *TAPA* 69 (1938) 77 f.

⁷³ B. A. Van Groningen, *A Family-Archive from Tebtunis* (*Papyrologica Lugduno-Batava* 6, Leyden 1950).

⁷⁴ This is Didyme i in Van Groningen's list (p. 5).

⁷⁵ This interpretation depends on substituting the editor's conjecture λο|πὰς for his text ρὰς] ἴσας in line 25. T. C. Skeat, whom I consulted for *PFamTebt.*, since the papyri are kept in the British Museum, reads |μπας or possibly |ρπας.

⁷⁶ Acc. by error for gen.

⁷⁷ Cf. Bilabel, *op. cit.* (in footnote 49) 2303, 2305.

⁷⁸ This verb is a favorite for describing payments made by banks. See Preisigke-Kiessling, *Wörterbuch*, 2.753.5 ff.

Since this in turn is followed by Ptolemaeus' name in the dative, the resulting text is entirely smooth: "1700 dr., of which we have paid to Ptolemaeus, etc."⁷⁹

Lines 11–21 are devoted to a description of the properties whose transfer from Ptolemaeus to Didyme is the occasion for the payment. The legal basis of the payment to Ptolemaeus is then given in the following words (lines 21–22):

ἀκολούθ]ως ἡ πεποίητ(αι) [ὑπ' αὐτοῦ ἀγορ]ᾶσι (= ἀγοράσει).

This the editor translates "according to the purchase made by him," thus taking the verb as passive.⁸⁰ But Ptolemaeus has received the money as the "price" of the properties (line 11), and so he is the seller, not the purchaser. Since it is Didyme who pays the price and is the buyer, we may suggest

ἀκολούθ]ως ἡ πεποίητ(αι) [πρὸς ὑμᾶς⁸¹ πρ]ᾶσι (= πράσει),

i.e. "in accordance with the sale that he has made to you." The verb is then in the middle voice, as it is so often.⁸²

9. *PFamTebt.* 12⁸³

This papyrus has two receipts for payment of taxes on catœcic land and the *epibolê* attached to it. The taxes are all well known⁸⁴ and may be illustrated by an analysis of the first receipt.

(1) line 6	{ <i>artabia</i>	6 1/2 1/12	art. of wheat
(2) 6–7	{ extra charge [1/6 of preceding]	1 1/8	art. of wheat
(3) 7	{ <i>epibolê</i>	2/3	art. of wheat
(4) 7	{ extra charge [1/6 of preceding]	1/8	art. of wheat
<hr/>			
(5) 8	preliminary total	8 1/2	art. of wheat
(6) 8	<i>hekatostai</i> [1 1/2% of preceding]	1/8	art. of wheat
<hr/>			
(7) 8–9	final total	8 1/2 1/8	art. of wheat

⁷⁹ This solution of the problem has Skeat's approval (see footnote 75).

⁸⁰ Editor's remark: "The supplements are not certain."

⁸¹ On the use of the pl. pron. see footnote 30.

⁸² See footnote 79.

⁸³ For another contribution to the interpretation of this text see *TAPA* 83 (1952) 111 f.

⁸⁴ The editor refers to Wallace, *Taxation in Egypt*, 15, 38, 20, 39, 21. Also useful are pp. 13, 40–43. The abbreviations used for the taxes have been resolved as nominatives in the edition, but the ancients used the genitive for this purpose. The only tax-name written out in full in this text is in the genitive (line 17).

The clerk's arithmetic is satisfactory throughout if allowance is made for slight adjustments of the fractions in (2), (4), and (6). These are usual and necessary in the fixed systems of fractions used for designating quantities of wheat.⁸⁵

The second receipt, however, raises a difficulty which has not escaped the editor; but he attributes the fault to the totals, where it does not belong. If we reduce the receipt to a table, its arithmetical weakness may be precisely located.

(1)	line 14	{ <i>artabia</i>	2 1/6	1/24 art. of wheat
(2)	14-15	{extra charge [1/6 of preceding]	1/2	1/24 art. of wheat
(3)	15	<i>hekatostai</i> [1 1/2% of (1), (2), (4), (5)]	1/12	art. of wheat ⁸⁶
(4)	15-16	{ <i>epibolê</i>	1/2	1/8 art. of wheat
(5)	16	{extra charge [1/6 of preceding]	1/12	art. of wheat
<hr/>				
(6)	16	preliminary total	3 1/3	1/24 art. of wheat
(7)	17	transportation charge ⁸⁷	1/24	art. of wheat
<hr/>				
(8)	18	final total	3 1/3	1/12 art. of wheat

The editor finds that the totals are wrong: (6) should be 3 1/2 1/24, (8) 3 1/2 1/12. This would mean that the fraction 1/6 was lost somewhere in the addition of (1)-(5). But if we undertake to audit the receipt, an error of quite another kind turns up as early as (2). The extra charge on *artabia* should come to 1/6 of the amount contributed for that tax. In the present instance, the charge would be exactly 1/3 1/36 1/144, or with a normal adjustment to a minimum unit of 1/24,⁸⁸ 1/3 1/24. If the papyrus had 1/3 1/24 instead of 1/2 1/24 in (2), the preliminary and final totals would be correct.

Mr. Skeat has been kind enough to examine the papyrus and to supply a photostat which both explains the editor's text and permits us to correct it. The fraction in question stands at the beginning of a line, where part of it has been carried away by a broken margin. An original $\frac{1}{3}$ (1/3) has thus been reduced to $\frac{1}{2}$, which is identical in shape if not in size with the symbol for 1/2.⁸⁹ The clerk has

⁸⁵ Youtie and Pearl, *AJP* 62 (1941) 81 f.; *PMich.* 6.372.i.13, note; ii.9, note; 374.i.17, note; G. Rosenberger, *APF* 12 (1937) 72 f.; Youtie, *TAPA* 83 (1952) 116, n. 37.

⁸⁶ The *hekatostai* have been entered prematurely; see (6) in the table of the first receipt. The entry should have followed the *artabia*, the *epibolê*, and their extra charges.

⁸⁷ The edition has *διαφόρου φορέτρων*, but *ων* is impossible. A likely reading is *διαφόρου φορέτρ(ου) ἐπι(σπουδασμοῦ)*. The meaning remains the same.

⁸⁸ See footnote 85.

⁸⁹ Bilabel, *op. cit.* (in footnote 49) 2307; *PBon.*, p. 140.

therefore not erred in his calculation. The amount of the extra charge on *artabia* is $1/3 \frac{1}{24}$ art. of wheat.⁹⁰

10. *PFamTebt.* 26

This papyrus bears two receipts for taxes paid in 129 and 131 A.D. The land in question is the same in both receipts, and the amounts paid are consequently the same. The names of the taxes, so far as they have been read, point to garden land or vineyard.⁹¹ The two series of taxes and amounts paid are given as follows in the edition:

Lines 4–6

(ἐκτης) αἰ() ιγ (ἔτους) Θεοργο(νίδος) χα(λκοῦ) (τάλαντον) προ(σδι-
αγραφομένων) μ ν(αυβίου) σ προ(σδιαγρ.) φλ ἐπαρο(υρίου) (δραχμάς) χκε
(προσδιαγρ.) σε κολ(λύβου) ρλ . (δραχμάς) η προ(σδιαγρ.) (τριώβολον)
ο() μ . . . δ

Lines 10–12

(ἐκτης) αἰ.σ() τεσσαρεσκαδεκάτρου ἔτους Θεογονίδ(ος) χα(λκοῦ)
(τάλαντον) προ(σδιαγρ.) [μ] ν(αυβίου) σ προ(σδιαγρ.) φλ ἐ(παρουρίου)
(δραχμάς) χκε προ(σδιαγρ.) σε [κο]λ(λύβου) ρλ[

These receipts will be more readily comprehensible in tabular form:

	lines 4–6	lines 10–12
(1)	<i>hektê</i> 1 tal. (copper)	1 tal. (copper)
(2)	extra charge 40 dr. (copper)	40 dr. (copper) [$1/200$ of (1)]
(3)	<i>naubion</i> 200 dr. (copper)	200 dr. (copper) [$1/30$ of (1)]
(4)	extra charge 830 dr. (copper)	830 dr. (copper) [415% of (3)]
(5)	<i>eparourion</i> 625 dr. (copper)	625 dr. (copper) [$5/48$ of (1)]
(6)	extra charge 205 dr. (copper)	205 dr. (copper) [<i>ca.</i> $1/3$ of (5)]
(7)	<i>kollybos</i> 130 dr. (copper)	130 dr. (copper) [<i>ca.</i> $1/60$ of (1)–(6)]
(8)	? 8 dr. (silver) ⁹²	lost
(9)	extra charge 3 ob. [$1/16$ of (8)]	lost
(10)	? ?	lost

Since these receipts are concerned with garden land or vineyard, we shall assume that αἰ() and αἰ.σ() should be read as ἀμπ(έλων). The following table presents a normal schedule of payments on a vineyard of one aroura.⁹³

⁹⁰ Mr. Skeat's examination of the papyrus leads him to conclude that $1/3$ is "quite possible."

⁹¹ Wallace, *Taxation in Egypt*, 53 ff.

⁹² The extra charge in (9) is $1/16$ of the principal sum, and this is a common charge on silver payments. See Wallace, *op. cit.*, 324 ff.

⁹³ *PRyl.* 2, p. 245; cf. *PCol.* 5, pp. 265 ff., 307.

<i>hektê</i> (= <i>apomoira</i>)	3000 dr.	} + extra charge at rate of 1/5		
<i>naubion</i>	150 dr.		+ <i>kollybos</i>	+ <i>symbolikon</i>
			at rate of 1/60	(charge for receipt)
<i>eparourion</i>	2000 dr.	+ extra charge at rate of 1/13		

If the receipts are compared with this table of rates, it becomes clear that the normal proportions of the payments are seriously disturbed. The extra charge on *hektê* is 1/200 instead of 1/5; on *eparourion*, slightly more than 1/3 instead of 1/13. The extra charge on *naubion* is over 4 times the amount of the principal sum although it should be only 1/5 of it. Furthermore, in the many examples which we have of this series of taxes, the extra charges on *hektê* and *naubion* are not calculated separately, but levied as a charge of 1/5 on the combined total of these taxes.⁹⁴ And the discrepancies do not stop here. The *naubion*, which ought to be 1/20 of the *hektê*, is represented as 1/30 of that tax; the *eparourion*, which ought to be 2/3 of the *hektê*, is only 5/48 of it.

These observations justify a revision of the papyrus. Through the kindness of Mr. Skeat, a photostat of the papyrus was made available for study, and it has served to control the correction of the text. Mr. Skeat has also examined the papyrus and has approved the new readings.⁹⁵

Lines 4–6 (revised)

(ἐκτης) ἀμπ(έλου) ιγ (ἔτους) Θεογονίδος χα(λκοῦ)⁹⁶ Ἦ Ζμ ν(αυβίου)
σ προ(σδιαγρ.) ωλ ἐπαρο(υρίου) Ὑχκε προ(σδιαγρ.) σε κολ(λύβου) ρλ,
(ὀκταδράχμου) (δρ.) η προ(σδιαγρ.) (τριώβολον) (ἡμιωβέλιον), συμβ-
(ολικοῦ) (δβ.) δ.

Lines 10–12 (revised)

(ἐκτης) ἀμπ(έλου) τεσσαρεσκαίδεκάτου ἔτους Θεογονίδ(ος) χα(λκοῦ) Ἦ Ζμ
ν(αυβίου) σ προ(σδιαγρ.) ωλ ἐπα(ρουρίου) Ὑχκε προ(σδιαγρ.) σε
[κο]λ(λύβου) ρλ, [(ὀκταδράχμου) (δρ.) η προ(σδιαγρ.)] (τριώβολον)
(ἡμιωβέλιον), [συμβ]ολ(ικοῦ) (δβ.) δ.⁹⁷

A tabular analysis will enable us to see that the new text restores the conventional proportions of the taxes.

⁹⁴ For numerous references see *PMich.* 2, pt. 2, 112 ff.

⁹⁵ In line 8 read *iθ* in place of *ια*.

⁹⁶ This word, and no other, is expected but the remnants raise a serious doubt. According to Skeat, the "traces do not suit χα very well." An attempt to read [χ]ε(λκοῦ) (δραχμάς?) has not proved satisfactory.

⁹⁷ Skeat: "the delta is oddly formed."

(1)	{ <i>hektê</i>	3940 dr. (copper)	
(2)	{ <i>naubion</i>	200 dr. (copper)	[1/20 of (1)]
(3)	{ extra charge	830 dr. (copper)	[1/5 of (1) and (2)]
(4)	{ <i>eparourion</i>	2625 dr. (copper)	[2/3 of (1)]
(5)	{ extra charge	205 dr. (copper)	[1/13 of (4)]
(6)	{ <i>kollybos</i>	130 dr. (copper)	[1/60 of (1)–(5)]
(7)	{ <i>oktadrachmos</i>	8 dr. (silver)	
(8)	{ extra charge	3 1/2 ob.	[1/16 of (7)]
(9)	charge for receipt 4 ob.		

All the sums recorded as paid in (1)–(6) are accurately calculated. One need only remember that copper sums are always expressed in multiples of 5 dr. When the result of a calculation in copper is not a multiple of 5, it is usually raised to the next higher multiple, but sometimes an amount less than 5 is dropped.⁹⁸ Thus, 200 dr. (*naubion*) are said to be 1/20 of 3940 dr. (*hektê*) because 197 dr. must be raised to 200 dr. The extra charge on *hektê* and *naubion* comes to 828 dr., and this is raised to 830 dr. The *eparourion* at 2625 dr. is in practice 2/3 of the *hektê* at 3940 dr.; the exact amount is 2626 2/3 dr., which falls to 2625 dr. The extra charge on the *eparourion* is precisely 201 12/13 dr., but this is advanced to 205 dr. The payment for *oktadrachmos* is naturally enough 8 dr. in silver.⁹⁹ When these drachmas are reckoned at 6 obols to the drachma, the extra charge of 1/16, which is frequent with payments in silver,¹⁰⁰ is 3 ob.¹⁰¹ But here the rate is 7 obols to the drachma,¹⁰² and the extra charge is properly 3 1/2 ob. The charge for the receipt raises no problem of calculation. It is generally a small amount, and rather variable.¹⁰³

11. *PFamTebt.* 35

This text contains two receipts for payments made in the 17th year of Antoninus Pius to the account of catoecic *naubion*, one for the current year, the other for the preceding year.

⁹⁸ See *TAPA* 69 (1938) 77. For an exploratory essay on methods of calculating these taxes see *PCol.* 5, pp. 261 ff.

⁹⁹ The full designation of this charge is *oktadrachmos spondê Dionysou*, which is discussed by Wallace, *Taxation in Egypt*, 62 f. There are numerous examples in *BGU* 9.1896; *PCol.* 5.1 verso 1B (cf. p. 6).

¹⁰⁰ See footnote 92.

¹⁰¹ E.g., *PMich.* 4.224.1750.

¹⁰² West and Johnson, *Currency*, 46 ff.

¹⁰³ Cf. *PTebt.* 2.295.12, note; *PMich.* 6.383.36, note; *PRyl.* 192.10, note; Johnson, *Roman Egypt*, 577.

Lines 5–6

ναυβ(ίου) κατοίκ(ων) ἑπτακαίδεκάτου (ἔτους) . . . ¹⁰⁴ χ(αλκοῦ) (δραχμάς)
 φκ προσδιαγραφόμενων χ(αλκοῦ) (δρ.) νε κολ(λύβου) χ(αλκοῦ) (δρ.)
 ιε (ὀβολόν).

Lines 7–8

ναυβ(ίου) κατοίκ(ων) ἑκκαίδεκάτου (ἔτους) . . . ¹⁰⁴ χ(αλκοῦ) (δρ.) φκ
 π(ροσδιαγρ.) χ(αλκοῦ) (δρ.) νε κολ(λύβου) χ(αλκοῦ) (δρ.) ιε (ὀβολόν),
 (γίνεται) χ(αλκοῦ) (δρ. ?) ρ (ὀβολόν).

The content of these statements is conveniently exhibited in the following table:

	Lines 5–6	Lines 7–8
(1) <i>naubion</i>	520 dr. (copper)	520 dr. (copper)
(2) extra charge	55 dr. (copper)	55 dr. (copper)
(3) <i>kollybos</i>	15 dr. 1 ob. (copper)	15 dr. 1 ob. (copper)
(4)		70 dr. 1 ob. (copper) [total of (2) and (3)]

The principal sum (1) and the extra charge (2) levied on it are obviously correct, since they maintain the requisite ratio of 10:1. The *kollybos*, however, is irregular. It should not be more than 10 dr. because the rate of *kollybos* is 1/60 of the preceding sums, i.e. of (1) and (2).¹⁰⁵ Besides, copper sums are never expressed in terms of obols; the smallest unit is 5 dr. And the horizontal bar over ιε is unexpected when no other numeral in the receipts is so marked. It is also hard to see what purpose is served by item (4) in the second receipt, which draws the total of the extra charge and the *kollybos* only, thus omitting the *naubion*.

The clue to a more adequate treatment of these receipts is supplied by the editor in his note to lines 6 f.: "The obol added in 6 and 8 to the tax for [ex]change is elsewhere entered as a special item under the name of *symbolika* (e.g. 39,6,etc.)." If we turn to No. 39.5–6, we find an entry for catoecic *naubion* of which the transcription is clearly correct since the amounts recorded show the traditional proportions. The extra charge is 1/10 of the principal sum; the *kollybos* is 1/60 of the total of the principal sum and the extra charge.¹⁰⁵

¹⁰⁴ As indicated in the editor's note to line 5, these illegible letters are "the abbreviated name of a village."

¹⁰⁵ Wallace, *Taxation in Egypt*, 60. For the rules which govern calculations in copper, see the last paragraph of section 10 of this paper.

ναυβ(ίου) κατ(οίκων) χ(αλκοῦ) (δρ.) ροε προ(σδιαγρ.) χ(αλκοῦ) (δρ.)
κ κολ(λύβου) χ(αλκοῦ) (δρ.) ε συμβ(ολικοῦ) (όβολόν).

If we try to use this statement for understanding the receipts in No. 35, we shall split $\tau\epsilon$ into ι and ϵ and say that ι is the amount of the *kollybos* and ϵ is a misreading of σ i.e. $\sigma(\nu\mu\beta\omicron\lambda\iota\kappa\omicron\upsilon)$.¹⁰⁶ The charge for the receipt would then be 1 ob., as it is in No. 39.¹⁰⁷

These suggestions are confirmed by handdrawings which Mr. Skeat with his customary kindness has prepared for my use. They illuminate (3) and (4) in the table and reestablish the normal proportions of the taxes. With their help I am able to offer new texts of the receipts.

Lines 5–6 (revised)

ναυβ(ίου) κατοίκ(ων) ἑπτακαίδεκάτου (ἔτους) . . . ¹⁰⁸ χ(αλκοῦ) (δρ.) φκ
προ(σδιαγρ.) χ(αλκοῦ) (δρ.) νε κολ(λύβου) χ(αλκοῦ) (δρ.) ι σ(υμβολικοῦ)
(όβολόν).

Lines 7–8 (revised)

ναυβ(ίου) κατοίκ(ων) ἑκ[αι]δεκάτου (ἔτους) . . . ¹⁰⁸ χ(αλκοῦ) (δρ.) φκ
π(ροσδιαγρ.) χ(αλκοῦ) (δρ.) νε κολ(λύβου) χ(αλκοῦ) (δρ.) ι σ(υμβολι-
κοῦ) (όβολόν), (γίνονται) χ(αλκοῦ) <(δρ.) φπε> σ(υμβολικοῦ) (όβολόν).

Reduced to their essentials, these texts convey the following information:

	Lines 5–6	Lines 7–8
(1) <i>naubion</i>	520 dr. (copper)	520 dr. (copper)
(2) extra charge	55 dr. (copper)	55 dr. (copper) [1/10 of (1)]
(3) <i>kollybos</i>	10 dr. (copper)	10 dr. (copper) [1/60 of (1) and (2)]
(4) charge for receipt	1 ob.	1 ob.
(5)	Total	<585 dr.> (copper), 1 ob. for receipt ¹⁰⁹

N.B. I have received much helpful coöperation from a number of my colleagues who have shown great generosity in verifying my suggestions and discussing my difficulties. They are J. W. B. Barns (Oxford), A. E. R. Boak (Michigan), John Day (Columbia), C. H. Roberts (Oxford), T. C. Skeat (Brit. Mus.), E. G. Turner (London). Their contributions are acknowledged in the course of the article at the appropriate places.

¹⁰⁶ These letters are not infrequently confused in their cursive forms (cf. *TAPA* 71 [1940] 642). The single-letter abbreviation of *symbolikon* is attested elsewhere, e.g. *PTebt.* 2.305.6, 8.

¹⁰⁷ See footnote 103.

¹⁰⁸ See footnote 104.

¹⁰⁹ Line 9 records a payment of 5 dr. 1 ob., presumably in silver, for *naubion* of the 16th year. There is no discernible relation between this entry and lines 7–8.