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OLIVES AND MORE IN PFAY 102: COMPLETE EDITION  
OF AN ACCOUNT FROM THE GEMELLOS' ARCHIVE\*

\* A shorter version of this article (without the editions) is being published in the Proceedings of the Sixth Dakhleh Oasis International Conference (Lecce, 21-24 september 2009). I would like to thank Mr. Michael Chen (Dartmouth College/ÄMP, Berlin) for correcting my English. For the digital images referred to in the article, cf. the links reported in the on-line-database of the Heidelberger Gesamtverzeichnis der griechischen Papyrusurkunden Ägyptens (HGVA). If not otherwise specified, the dates mentioned are CE.



## Abstract.

The article presents a full edition of PFay 102, a papyrus belonging to the well known Gemellos' archive. It contains two accounts: one (hitherto unpublished) concerns grain, the other one (only partially published) pertains to the olive harvest carried out in Gemellos' land properties during two months.

The texts shed light on various aspects of the archive, such as the places where Gemellos had properties in the Fayyum, the kind of land he owned, the organization of the harvest and the workers employed on the fields.

As everyone knows, archaeology and papyrology are closely related disciplines, which together contribute to the reconstruction of the ancient world. The collaboration of these two sciences works particularly well when new papyri come to light during excavations. A good example is offered by the so-called Gemellos archive<sup>1</sup>. It consists of about 100 texts dating to the late first or early second century. Most of them were found by B.P. Grenfell and A.S. Hunt at the end of the nineteenth century (1898-1899) in the village of Euhemereia (today Kaşr el Banât), in the northwestern part of Fayum. Most texts are letters written by the veteran Lukios Bellenos Gemellos to his slave Epagathos, who acted as the administrator of Gemellos' property in Euhemereia and its surroundings, while Gemellos lived in Aphroditis Polis. After 110, Gemellos either retired or died, and his son Sabinos inherited his estates. Sabinos continued to correspond with Epa-

<sup>1</sup> Considering that a few texts related to Gemellos were not found in the same location as the others, it is more appropriate to speak of "dossier," cf. the definitions discussed by A. MARTIN, *Archives privées et cachettes documentaires*, in: A. BULLOW-JACOBSEN (ed.), *Proceedings of the 20<sup>th</sup> International Congress of Papyrologists (Copenhagen, 23-29 August, 1992)*, Copenhagen 1994, pp. 569-577 and A. JÖRDBENS, *Papyri und private Archive. Ein Diskussionsbeitrag zur papyrologischen Terminologie*, in: E. CANTARELLA-G. THÜR (Hrsg.), *Symposium 1997. Vorträge zur griechischen und hellenistischen Rechtsgeschichte* (Altafumara, 8.-14. September 1997), Akten der Gesellschaft für griechische und hellenistische Rechtsgeschichte, 13, Köln 2001, pp. 256-266. On this archive see the on-line publication by R. Smolders, Epagathos, on the Leuven Homepage of Papyrus Collections, and recently G. AZZARILLO, *Alla ricerca della "mano" di Epagathos*, «APF» 54 (2008), pp. 179-202.

gathos and also with a man named Geminus, who may have replaced Epagathos after his death or retirement<sup>2</sup>.

About half of the papyri of the archive were either published in full or described by Grenfell and Hunt in the volume *Fayûm Towns and Their Papyri*, London 1900 (– PFay). One papyrus was donated by Mrs. Hunt to the Bodleian Library and published as POxf 10 (98-102)<sup>3</sup>. A few others, whose findspots are uncertain, were tentatively attributed to the documentation of Gemellos because of some hints offered by the texts<sup>4</sup>.

The papyri give us precise information about the men in these texts. For example, they reveal that not only Gemellos<sup>5</sup> and his son Sabinos were able to write, but Epagathos may have also been literate<sup>6</sup>. The hand of the administrator could be recognized for instance in some accounts<sup>7</sup> and perhaps in a private letter. If that is right, this letter could be the only one written by Epagathos to his master, preserved up to now<sup>8</sup>.

This article presents an edition of one of the accounts possibly written by Epagathos, which has not yet been published in full and deserves a complete publication due to its extension and importance: PFay 102. The papyrus is kept in the Egyptian Museum in Cairo and I used a digital image (available on line, cf. *supra*, n. \*) for my research.

Although Grenfell and Hunt published PFay 102, they only published the last column. Furthermore, they left out the transcription of ll. 22-27 and only provided a description of the section. This column concerns an account about a two-month-long olive gathering<sup>9</sup>; the second month mentioned is Mecheir

<sup>2</sup> Cf. AZZARELLO, *Alla ricerca cit.*, p. 180 with nn. 6-7 and p. 182 with n. 24.

<sup>3</sup> Cf. AZZARELLO, *Alla ricerca cit.*, p. 182 n. 20.

<sup>4</sup> PViindob Tandem 14 (I-II cent.); PLaur II 39 (early II cent.) and PLond Lit. 6 + PRyl III 540 + PWashLibr of Congr. Inv. 4082 B + PPierpont Morgan Libr. Inv. M662B(6b) + (27k) + PBUG Inv. 213 = MP<sup>3</sup> 643 (CL. GALLAZZI, *Un nuovo frammento di Pack<sup>3</sup> 643 (Hom., Il. B 251-875)*, «ZPE» 63, 1986, pp. 35-38 with Taf. I; ID., *Un altro frammento di Pack<sup>3</sup> 643 (Ilias B)*, «ZPE» 110, 1996, pp. 118-120 with Taf. I; G. AZZARELLO, *P.B.U.G. inv. 213: Un nuovo frammento del rotolo omerico di Londra, Manchester, Washington e New York (= Mertens-Pack<sup>3</sup> 643) nella collezione di Giessen*, «APF» 53, 2007, pp. 97-143; Luhemercia; verso: around 3<sup>rd</sup> October 87), cf. for the last two papyri AZZARELLO, *Alla ricerca cit.*, pp. 189-193.

<sup>5</sup> His orthography was defined by Grenfell and Hunt as «peculiarly atrocious», cf. PFay, p. 262.

<sup>6</sup> Cf. AZZARELLO, *Alla ricerca cit.*, particularly pp. 179-189 and 194-202.

<sup>7</sup> Cf. AZZARELLO, *Alla ricerca cit.*, p. 184 with n. 28.

<sup>8</sup> PLaur II 39, cf. *supra*, n. 4.

<sup>9</sup> The exact content of the account was for the first time understood by U. von Wilamowitz in his review of PFay in «Göttingische Gelehrte Anzeigen» 163 (1901), p. 38 and explained in detail by M. SCHNEBEL, *Die Landwirtschaft im hellenistischen Ägypten*, MB, 7, München 1925, pp. 309-310.

(cf. *ibid.*, after l. 21). The collecting took place in some localities where Gemellos owned properties: Ἀπιάς (l. 1), Σένθις (l. 12) and Διονυσιάς (l. 20)<sup>10</sup>. The entries, organized chronologically (each day written in *ekthesis*), register in descending order the wages earned by several categories of workers in each place: first of all τινάσοντες ἐργάται, «shaking workmen», who earned 6 obols a day; then νεώτεροι or simply «others» (ἄλλοι, cf. l. 7)<sup>11</sup>, who earned 5 obols; finally παῖδες, «boys», who received different daily rates (4; 3.5; 3; 2.5; 2 obols and even 1 obol), probably according to their size and strength, cf. e.g. ll. 1-3: ἰθ ὁμοίω(ς) εἰς Ἀπιάδα τι[να]σσό(ντων) ἐργ(ατῶν) ιη (ὀβολοὶ) ρη, ἄλ(λων) νεω(τέρων) ἐργ(ατῶν) ιβ (ὀβολοὶ) ξ | καὶ παῖδ(ων) ια [(ὀβολοὶ)] μδ, ἄλ(λων) παῖδ(ων) ζ (ὀβολοὶ) κδ (ἥμισυ), ἄλ(λων) παῖδ(ων) ζ (ὀβολοὶ) κϵ, ἄλ(λων) παῖδ(ων) ιϵ | (ὀβολοὶ) κζ (ἥμισυ), ἄλ(λων) παῖδ(ων) β- (ὀβολοὶ) δ-, ἄλ(λου) παιδ(ός) α- (ὀβολός) α.

The totals of both the amount of obols spent and the number of the baskets collected (σφυρίδες), sometimes also of few selected baskets (ἐγλεκτοὶ ἄλλαι), are given at the end of every daily entry, with the expenses always mentioned before the baskets, cf. for example in l. 6: γί(νονται) ἐπὶ τὸ αὐτὸ (ὀβολοὶ) τπϵ, σφυρίδ(ες) οϵ, ἐγλεκ(τοὶ) ἄλ(λαι) β. It is worth noting that even the larger amounts of obols are not converted into drachmae. As for the baskets, Schnebel (cf. *supra*, n. 9) proposed to associate the adjective ἐγλεκτός with the preceding baskets instead of with ἄλλαι (e.g. in l. 6 σφυρίδ(ες) οϵ ἐγλεκτοὶ, ἄλ(λαι) β); in other words, most baskets would be «selected» and only a few would be «different» (cf. *ibid.*, p. 310). The explanation is not very convincing. Not only is it more probable that the type of basket is mentioned before the number, but it seems also plausible that only a few baskets could be defined as «selected». A «selected» basket could differ from a normal basket because it would for instance contain fruits intended for eating instead of for producing oil, cf. *infra*, intro. to the olives account.

A grand total is given at the end of every section, but here the expenses are expressed in silver drachmae, containing 7 obols (the obols are here written

<sup>10</sup> The places are often mentioned in Gemellos' dossier, cf. on Apias PFay 112, 8-9 (21<sup>st</sup> May 99); 120, 8 and 11 (about 100); also SPP IV, p. 118, 3 ( PFay 264 descr.; 129-138?, cf. *BL* XII 69), but whether this text is related to Gemellos, is uncertain, cf. Smolders [*supra*, n. 1], 1 with n. 7; on Dionysias cf. PFay 110, 16 (11<sup>th</sup> september 94); 111, 12 and 15-16 (13<sup>th</sup> september 95, cf. AZZARIELLO, *Alla ricerca* cit., p. 181 n. 17); 112, 15; 113, 4-5 (before 14<sup>th</sup> september 100); 114, 7 (14<sup>th</sup> september 100); 118, 10-11 (6<sup>th</sup> november 110); 248 descr. (about 100); 251 descr. (100-103, cf. G. BASHIANINI, *Lista dei prefetti d'Egitto*, «ZPE» 17, 1975, p. 279); 257 descr. (about 100); on Senthis cf. PFay 111, 22-23 (cf. *BL* VIII 122) and 112, 19.

<sup>11</sup> They are not always mentioned, cf. e.g. l. 10.

as symbols, which include both number and monetary unit); moreover, in contrast to the daily entries, the baskets are mentioned before the expenses, cf. e.g. l. 11: γί(νονται) ἐπὶ τὸ αὐτὸ ὄλου τοῦ κτήμα(ος) σφυρίδ(ε)ς σια, (δραχμαὶ) ρλζ (πεντώβολον) (ἡμιωβέλιον).

The work done at each place took between 3 (Senthis) and 4 days (Apias and Dionysias).

After the last section, there is the total of the whole account, including the unpublished lines: (l. 29) γί(νονται) ὄλου τοῦ τιναγμοῦ ἐπὶ τὸ αὐτὸ σφυρίδ(ε)ς ωλ, [(δραχμαὶ)] ψλη (ὀβολός) (ἡμιωβέλιον). The last line of the column refers to some girls winnowing the grain and contains the amount of obols written as a number in a symbol, cf. *supra*): (l. 30) καὶ παρθέ(νον) λικνιζουσῶ(ν) σῖτον (δραχμαὶ) ι (ὀβολοὶ) ε.

The editors report that fragments of two more columns belonged to the roll: the preceding column of the olives account, which is also its first one, and two fragments of an earlier column, containing an account of grain. They also report that the first column of the olives account mentions νεόφυτα Σαβίνου and a seventh year, which they suspect refers to a year in the reign of the emperor Trajan, i.e. to the year 103-104 (cf. PFay, p. 248).

The study of the hitherto unpublished parts allows us to precisely reconstruct the texts, to confirm the date of the olives account and to discover important details about its content<sup>12</sup>.

First of all, the fragments in the on-line image are not arranged correctly. The top fragment visible on the left belongs undoubtedly to the grain account, whereas the bottom fragment on the left belongs to the olives account. The color of the bottom fragment is darker than the top fragment, but similar to the olives account; moreover, the lines do not refer to grain, but contain payments to workmen and boys and the totals of obols and baskets, i.e. they have the same structure as the olives account. As the olives account is complete (col. I l contains a beginning formula, cf. *supra* and *infra*, intro. to the account), its detached fragment surely belongs into the lower half of its first column, which therefore consists of two fragments (a. and b.).

Also, the fragment lying in the lower half of the first column of the olives account is not in the right position: its colour looks lighter than that of the upper fragment, and the content shows that this fragment belongs to the grain account, not to the olives one. The presence of the lower margin proves that the

<sup>12</sup> The work on the papyrus belongs to a larger project I am involved in, together with Rodney Ast, George Bevan and Michel Cottier, which aims to the publication and republication of all Gemellos' papyri.

fragments belonged to the end of a column; moreover, some traces of ink on the right margin of the fragment suggest that another column followed, cf. *infra*, intro. to the grain account. So two fragments (a. and b.) bearing at least two columns are preserved.

The reconstruction of the grain account is far from certain. First of all, it is not clear whether both fragments belong to the same column. Secondly, the relationship between the grain account and the olives one is unclear; in fact, the accounts do not connect at any point. There are three possibilities: 1. the grain account immediately preceded the olives account, in which case the traces on the right margin of the fragment mentioned above would belong to the first column of the olives account; 2. the grain account did not immediately precede the olives one, but at least one column is missing between them – after all, no total amount is preserved at the end of the lower fragment; 3. the grain account does not belong to the same papyrus as the olives account: same findspot as much as similarity of the content and identity of the hand could have brought Grenfell and Hunt to a wrong assumption, whereas the accounts could just be two different papyri both written by Epagathos and preserved in the same house.

As it is not clear how the relationship between the two texts should be understood, I have edited the two accounts separately. Some background information about the structure of the following edition shall be given. For the sake of clarity, the already published column of the olives account will be reprinted here, and the line numbers will stay the same as in the first edition. A physical and content-related description as well as a commentary will be given (with a few exceptions) only for the unedited parts. The *apparatus* will not report often recurring features, like the symbol for ὀβολοί in the daily entries (a horizontal stroke in the middle of the line) and in the grand totals (cf. *supra*), the one for δραχμαί (in form of an angular parenthesis: «<») and the one for ἥμισυ (a kind of «L» followed by an oblique stroke, but cf. the grain account, b. col. I 3 and the olives account, col. I a. 11) as well as the abbreviations realized by superscript letters. The last one is a typical feature of Epagathos' handwriting, cf. Azzarello, *Alla ricerca* cit., pp. 187-188. Other than the *ed.pr.*, this edition will report the little horizontal (sometimes slightly oblique, cf. the olives account, col. I a. 5) strokes marking numbers, placed mostly on the right side, but sometimes directly on the ciphers (the strokes seem to have been omitted in the grain account, col. I a. 5; b. 3 and 11 and in the olives account, col. I a. 2, cf. comm.: sometimes they can be supplemented, cf. e.g. the olives account, col. I a. 8); such strokes are missing in case of numbers referring to drachmae or followed by the fraction 1/2 (cf. *supra*). Otherwise, no substantial changes of the first edition's text of the olives account will be made; only indentations will be reproduced in the text, and in col. II 14 an oversight will be corrected, cf. *apparatus*. No dots are put under fragmentary letters, which are considered definitely there

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in the *ed.pr.*, even if they are not (anymore?) completely preserved on the image.

For accounts reporting daily wages for workers, cf. the list by H.-J. Drexhage, *Preise, Mieten/Pachten, Kosten und Löhne im römischen Ägypten*, St. Katharinen 1991, pp. 412-425 (but the wages reported there are not always accurate).

### The Grain Account

The grain account consists of two fragments. The upper fragment, a., whose top half lacks the horizontal fibers for about eight lines, contains the final part of six lines (at most thirteen characters, including the strokes marking numbers placed on the right side, cf. l. 5); the other one, b., preserves the right half of the last fifteen lines (at most twenty-seven characters, cf. l. 6) of the column. Both fragments contain the right margin; b. has also the lower one. In the right margin, the fragment b. contains some traces belonging to the next column: the beginnings of two lines (the first one in *ekthesis*) at the height of ll. 4-5 and the first letters of two lines, on the right side of col. I 14-15, possibly belonging to a marginal note, cf. *infra*, comm.

As for the content, the fragments report amounts (γόμοι<sup>13</sup> and δράγματα<sup>14</sup>, cf. *passim*) of wheat (πυρός, cf. fr. a. 5) and barley (κριθή, cf. b. 6; 7 and 12) and the mention of workers (ἐργάται and ἄνευ μισθοῦ ἐργάται, cf. b. 3; 11; 13 and 4; 14), followed by a number which denotes their quantity (1 in b. 11 and 14; 2 in b. 4 and perhaps 15; 4 in b. 13; perhaps 1/2 in b. 3; 5 or -5 in b. 11 and 12 in b. 3, cf. comm.). In b. 11, the dates seem to be reported next to the workers' amount (cf. comm.) and in b. 13 a total is given; moreover, in b. 15 the wages seem to have been mentioned, cf. comm. At least one entry could have mentioned a place (cf. b. 15 with comm.). Although the fragmentary status does not allow a precise reconstruction of the account, it nevertheless appears that it shares a similar structure with the olives account – both mention the amounts of the products, workers, and maybe dates, wages, and places. Therefore, the abbreviation ἐργ( ) will be expanded into a genitive, as in the olives account, cf. *ibid.*, *infra*, comm. to col. I a. 3. A good parallel to such a grain account can be found in *SB XII 10922* (Tebtynis; 169-170). In this account, the workers are mentioned before the natural products, so it is possible that this sequence was also used in our text, as it seems in b. 3, cf. comm. to a. 1.

The new lines further our knowledge of the archive. First of all, the account reports a new place name, probably hosting wheat or barley fields (cf.

<sup>13</sup> «Cargo, beast's load», cf. LSJ, s.v.

<sup>14</sup> «Handful, esp. many stalks of corn as a reaper can grasp in his left hand», cf. LSJ, s.v.



b. 15). Secondly, if the reading in b. 3 is correct, the symbol for (ἥμισυ) appears to be slightly different than expected when compared to the already known Epagathos' texts, cf. comm.

a.

1 [--- -- γόμ(οι) (?)] , δράγ(ματα) π[- (?)]  
 2 [---- - - - ] γόμ(οι) κη, δράγ(ματα) λε  
 3 [--- -- γόμ(οι) (?)] , δράγ(ματα) ς  
 4 [---- - δ]ράγ(ματα) ιβ̄  
 5 [---- - ]β, (πυροῦ) γόμ(οι) ζ̄ , δράγ(ματα) γ̄  
 6 [--- δρά]γ(ματα) ζ̄

5 (πυροῦ): ⚡

b.

Col. I

1 [ - - - - - ] [- - - ]  
 2 [ - - - - - ] δράγ(ματα) κδ̄  
 3 [ - - - - - ] ἐρ]γ(ατῶν) ιβ̄ , ἐργ(άτου) (ἥμισεως) (?), γόμ(οι) κ,  
 δράγ(ματα) κη  
 4 [---- - ] ἄγγελ μισθ(οῦ) ἐργ(ατῶν) β̄  
 5 [---- - γό]μ(οι) γ̄  
 6 [--- γόμ(οι) (?)] , δράγμ(ατα) ιδ̄ καὶ κριθ(ῆς) γόμ(οι) β̄ ,  
 δράγ(ματα) λγ̄  
 7 [ δρ]άγ(ματα) κη καὶ κριθ(ῆς) δράγ(ματα) κ̄  
 8 [ - - γόμ(οι)] γδ̄ , δράγ(ματα) λη̄  
 9 [ - - - - - ]  
 10 [ - - - - γόμ(οι)] κη, δράγ(ματα) λε̄  
 11 [---- - - - - -] *date* (?) ἐργ(ατῶν) (?) . (?) ]ε, δ̄ ἐργ(άτου) ᾱ , ζ̄ ἐργ(άτου) ᾱ , η̄  
 ἐργ(άτου) ᾱ  
 12 [---- - - - - - κρ]ιθ(ῆς) γόμ(οι) *vacat* ζ̄ , δράγ(ματα) κζ̄  
 13 [--- - ] ἄλλ(λων) ἐργ(ατῶν) δ̄ , γί(νονται) ἐπὶ τὸ αὐτὸ  
 14 [--- - ] .. ογ ἄγγελ μισθ(οῦ) ἐργ(άτου) ᾱ  
 15 [--- - ] β̄ ἀνά .. καὶ Παππίω(v-?)

3 (ἥμισεως) (?): v Pap.

## Col. II

1 [ (?) ] [ - - - - ]  
 2 ε [ - - - - ]  
 - - - -

(after about 9 lines, in the left margin, on the right of col. I 14-15)

1 λ ο ι π ( ὀ ν / - ᾶ ) [ - - - ]  
 2 (( ὀ ν ) ε ἰς [ - ]

## a.

1 γόμ(οι) . (?) ] , δ ρ ᾶ γ ( μ α τ α ) π [ (?) ]: The first trace after the lacuna is followed by a horizontal stroke: therefore, it should be interpreted as a number. What is not clear is whether the number contained one or two ciphers. The supplement of γόμοι is most likely, cf. *passim*. Here and in the following lines it is possible that the employed workers were reported before the mention of natural products, cf. *supra*, intro. to the account. At the end of the line, the horizontal stroke marking the number could have been lost in the lacuna. Furthermore, the black spots visible on the scan are probably just holes.

2 In the lacuna, workers were possibly mentioned, cf. *supra*, comm. to 1.

3 γόμ(οι) . (?) ]: For the reconstruction cf. *supra*, comm. to 1. The first trace after the lacuna consists of a horizontal stroke, slightly curved toward the right and could be therefore a ζ.

4 For possible supplements in the lacuna cf. *supra*, comm. to 1.

5 ]β: If the letter refers to a number, then the horizontal stroke is omitted, cf. *supra*, general intro. The number could refer to workers, cf. *supra*, comm. to 1.

6 For possible supplements cf. *supra*, comm. to 1.

## b.

## Col. I

2 For the possible supplement of workers and γόμοι cfr. *supra*, comm. to a. 1.

3 ἐρ]χ(ατῶν) ιβ, ἐργ(άτου) (ἡμίσεως) (?): After the lacuna, a little horizontal stroke and then a vertical line are visible: the proposed readings are based both on the possible mention of workers in the line (see *infra*) and on the fact that ιβ probably belongs to a number, as the little horizontal mark after it (although faint) suggests. The following ε is difficult to decipher, because the trace looks more like an υ, but its identification is confirmed by the next two letters. For the mention of ἐργάται in the account and for the expansion of the abbreviation into genitive cf. *supra*, intro. to the account. The following trace, which looks

like a «v», should be a cipher; as no number can be read, it is tempting to interpret it as a symbol for ἥμισυ, although in the olives account such a symbol looks more like a «L» and is followed by an oblique stroke, cf. *supra*, general intro. For the amount of half a worker, cf. *SB* XII 10922, 49.

4 ἄγευ μισθ(οῦ) ἐργ(ατῶν) β: For wage-free works related to land lease agreements, cf. e.g. PGen I<sup>2</sup> 34, 5 (Arsinoites [?]; 18<sup>th</sup> September 156).

5 γόμ(οι) γ: The first trace after the lacuna looks like two flat lambdas so that, although partially damaged by a hole, it is likely to be interpreted as a superscript μ, which is an abbreviation for γόμ(οι), cf. e.g. a. 5. If that is correct, no δράγματα seem to have been registered in the line, as these are usually reported before the γόμοι. The preceding lacuna contained perhaps the mention of workers, cf. *supra*, comm. to a. 1.

6 γόμ(οι) .(?)]: On this supplement as well as the possible supplement of workers in the lacuna cf. *supra*, comm. to a. 1. Moreover, the mention of barley at the end of the line could suggest that ποροῦ was to find in the lost part at the beginning.

7 [--- δρ]άγ(ματα) κῆ καὶ κριθ(ῆς) δράγ(ματα) κ: As no γόμοι are mentioned before the second amount of δράγματα, it is not clear whether they were registered before the first one.

8 [- - γόμ(οι)] γδ: The horizontal stroke marking the number could be seen in the faint trace on δ or in the little trace on the right side of this letter, which is damaged by a hole on the surface. For the reconstruction and the possible mention of workers in the lacuna, cf. *supra*, comm. to a. 1.

9 On the edge there is an oblique stroke ascending from the left and, under that, another slightly oblique line descending from the left: κ is a possibility, although not very satisfying, as the lower oblique stroke of this letter is usually more inclined. The presence of a horizontal stroke on the trace assures that it refers to a number.

10 For the supplement and the possible mention of workers in the lacuna, cf. *supra*, comm. to a. 1.

11 [ day (?) ἐργ(ατῶν) (?) .(?)]ε, δ ἐργ(άτου) α, ζ ἐργ(άτου) α, η ἐργ(άτου) α: The first trace, written in a lighter ink, seems to be an ε with the middle stroke drawn upward. Judging from the context, the letter should refer to workers mentioned in the lacuna. If so, the following horizontal stroke marking the cipher is missing or abraded. It is unclear whether another cipher was lost in the lacuna. It is also possible that a date could be supplemented in the lacuna before ἐργ(ατῶν). In fact, other than in the other entries, every worker mentioned in this line is preceded by a number. Considering that these numbers are mentioned in ascending order (4, then 7 and 8), they probably refer to dates. It is not so probable that the entries should be read like ἐργατῶν/-άτου followed by two numbers, implying, for example, that the second number refers to a

wage, like in the olives account, *passim*: in fact, not only there is no indication of a monetary unit, but also the last mentioned worker is followed by only one number, although there would be enough space to write a second one.

12 On the  $\delta$  there seems to be on the scan a sort of horizontal stroke ending with a little vertical descending line, but it probably is just a hole on the surface.

15 [      ].  $\beta^-$  ἀνά ..̄ : Before  $\beta$  there is a horizontal stroke, which could be interpreted as the final  $\gamma$  of ἐργ(ατῶν). After the preposition, there is a  $\Gamma$ -like marking, which looks like  $\gamma$ ί(vονται)/(-εται), cf. 13. But this is very improbable, considering not only that the vertical stroke of the presumed  $\gamma$  would be much shorter than expected, but also that the following horizontal stroke afterward implies the presence of a number, not a verb. Therefore, one possibility is to read the traces  $\Gamma$  as  $\psi$ : but 700 appears to be a too high number in this context, either referring to workers or to wages. A much more probable solution is therefore to interpret the traces as the symbol for obols followed by a number, possibly  $\eta$ , whose right part could be abraded. If right, the passage would refer to 2 workers, each of whom would earn 8 obols (for ἀνά meaning «je zu» cf. Presigke, *WB* I, s.v. 2): cf. the olives account, in which the highest wage (for τινάσσοντες ἐργάται) is 6 obols a day (cf. *passim*). But the solution is not fully satisfying, as the usual symbol for obols looks like a plain horizontal stroke (cf. the olives account, *passim*), whereas our trace has a little vertical apex on the left.

Παππίω(v-?): The name could refer to a place which belonged or had belonged to a Pappion, cf. e.g. *SB* XII 10922, 48: καὶ (scil. ἐν) (ἀρούραις) Πύρρου; 51 and 54: καὶ (scil. ἐν ἀρούραις) Πύρρου.

## Col. II

1 As the horizontal fibers are partially gone, it is possible that some text on the left is lost. The position in *ekthesis* suggests that the trace could belong to a date, cf. the olives account, *passim*.

### Left margin

1-2 λοιπ(ὸν/-ᾶ) [      ] | ((ῶν) εἰς: Before the lacuna in l. 1 there is an oblique stroke, ascending from the left:  $\delta$ [ράγ(ματα)]? For the reading ῶν in l. 2, I am indebted to Dieter Hagedorn.

For the content, referring to rests, cf. e.g. the marginal note to *PMich* IV.1, 223, 1708 (Karanis; August 172); also *PKell* IV 96, 542 (361–364 [?] or 376–379 [?]): λοιπ(ὸν) κερ(άμιον) α (ῶν) εἰς Κέλλιν κλπ. The lines could be an addition to the account, cf. for marginalia in accounts for example, *PMich* IV.1, 223, *passim*. The bracket embraces both lines. Its meaning is not clear: it could be meant to separate the lines from the very account. Similar signs are to be

found in BGU II 476, 2-3 and 7-10 (164-165 [?], cf. *BL* VII 13 about BGU II 475) and in BGU I 8, col. III 3-4, 6-8 and 12-14 (Arsinoites; 24<sup>th</sup> August 248 [?]): in the last text the meaning of ἔτος, proposed by the editor (cf. comm. to l. 4), does not seem to fit and the sign appears to function as a separation mark between text sections. Less probable is that the sign means (ἀφ') ὄν, like e.g. in BGU I 21, 8 (Prektis [Hermopolites]; 13<sup>th</sup> August 340, cf. R.S. Bagnall-K.A. Worp, *Chronological Notes on Byzantine Documents*, «BASP» 18, 1981, p. 39), cf. *BL* I 9: in fact such symbol normally embraces only one line.

### Translation

Col. I a.

«... x loads (?), 80 stalks ... 28 loads (?), 35 stalks ... x loads, 10 stalks ... 12 stalks ... 2, of wheat 6 loads, 3 stalks, ... 7 stalks».

Col. I? b.

«... 24 stalks ... for 12 workers, for 1/2 (?) worker, 20 loads, 28 stalks, ... for 2 wagefree workers ..., 3 loads, ... x loads (?), 14 stalks and of barley 2 loads, 33 stalks, ... 28 stalks and of barley 20 stalks, ... 54 loads, 38 stalks, ..., 28 loads, 35 stalks, ... day for -(?)5 workers (?), on the 4<sup>th</sup> (?) for 1 worker, on the 7<sup>th</sup> (?) for 1 worker, on the 8<sup>th</sup> (?) for 1 worker, ... of barley 7 loads, 27 stalks, ... for other 4 workers, makes altogether ... for 1 wagefree worker ... 2 ... each ... and Pappion ...».

Col. II

...5...

Left margin

«resting ... of which for ...».

### The Olives Account

The olives account consists of two columns: the first one is split in two fragments, which do not join; Grenfell and Hunt have already published the second one, cf. *supra*, general intro.

The two fragments of col. I contain respectively fifteen (fr. a.) and eleven (fr. b.) lines. The fragments do not seem to join directly: between them about seven lines are missing. No certain statement can be made from the digital image about possible visible colleses in the unpublished column. Almost all line beginnings (with possibly the exception of col. I a. 3, cf. *infra*, comm.) as well as the left margin on both fragments are lost. In fr. a., the lost portions of every line is

smaller in the first half of the fragment (at least 6-12 letters, cf. ll. 1-6)<sup>15</sup>, larger in the second half (at least 19-30; possibly even more in ll. 9-10, where some letters are abraded, cf. comm.); in fr. b. major damage involves the first lines (at least 29-31 letters, cf. ll. 5-6; at least 17-21, cf. ll. 7-11). The right margin is visible on both fragments; moreover, fr. a. preserves the upper margin; fr. b., the lower one.

The column begins with the headline of the olives account comprehending an opening formula, possibly the title of the account (a. 1, cf. comm.) and the date (a. 2, cf. *infra* and comm.).

As for the next lines, the first column shows the same structure as in col. II. Four sections, each referring to one place, seem to have been reported, whereas the exact numbers of the entries is not known. For the possible reconstruction, see comm., *passim*. It is based on the features already known from the col. II, like the descending order in which the paid wages are mentioned; the sequence in which expenses and baskets are reported in the subtotals and in the grand totals and the length of the sections, which can be reconstructed with certainty: they have in average nine lines (cf. the three sections in col. II, containing 11, 8 and 9 lines, respectively) and refer to 3-4 days, cf. *infra*, comm. to col. I a. 9 and 16; b. 2 and 11.

The beginnings of the entries are generally not preserved, except perhaps in a. 3. Here a little fragment seems to contain the first letters of the month Tybi, cf. *infra*, comm. This reconstruction applies to what we can deduce from col. II. Considering that the last lines of it concern dates in Mecheir (beginning with l. 24), it is probable that the preceding lines of col. II (1-23), reporting the days 19<sup>th</sup>-30<sup>th</sup>, refer to Tybi (cf. already Schnebel [*supra*, n. 9], 309) and the entries in col. I, to some of the first 18 days of this month. But due to both the lacunas in col. I and the fact that not every day is mentioned (cf. col. II, where the twentieth day is skipped and between the 25<sup>th</sup> [l. 15] and the 29<sup>th</sup> [l. 20] two days are surely not reported), no certain reconstruction of the dates can be undertaken.

The first section of col. I, consisting perhaps of a. 3-9, is dedicated to the place called Prophetes (cf. *infra*), which probably included an olive yard called νεόφυτα Σαβίνου, the «young plants of Sabinos» (l. 6, cf. *infra* and comm. both to ll. 6 and 9). It appears that four days were dedicated to the work on this

<sup>15</sup> The strokes marking numbers (cf. *supra*, general intro.) are considered as characters; furthermore, the calculations are based on the artificial assumption that all numbers lost in the lacunas contain only one cipher, which is surely not true. In fact, at least the dates at some point will have had two ciphers. But being impossible to know in which lines that occurred, such choice seems to be the most adequate.

place; the total could have been preserved (a. 9, cf. *infra*, comm.).

Another section could begin in l. 10 and refer to a place, whose name is lost. The section would end in one of the missing lines between the two fragments. The work seems to have taken at least 4 days. The total is lost.

In the lost part between a. and b. began a new section referring to another place, whose total amount is perhaps to find in (b) 2, cf. *infra*, comm.

The last section of the column could start in b. 3 and concern a place, which perhaps had to do with a certain Καστοράς, cf. comm. The total is preserved (b. 11).

The unedited lines of col. II (21-27), which are complete, report payments to labourers and gathering of baskets concerning the thirtieth day of an unknown month (Tybi?, cf. *supra*) and the first two days of Mecheir. The three entries belong to the section regarding Dionysias, which had begun in l. 20.

In regards to the already edited parts of the papyrus and in view of the better understanding of Gemellos' documentation, the new lines disclose some interesting issues. First of all, the reading Τραιανοῦ in col. I a. 2 confirms Grenfell and Hunt's hypothesis: the olives account refers to the seventh year of Trajan (103-104, cf. *supra*, general intro.). Yet the sixth year was probably also mentioned, cf. comm. Moreover, the fact that the place Prophetes (col. I a. 3) is included in an olives account confirms that there were olive yards there, cf. PFay 111, 24-26 with N. Hohlwein, *Le vétérân Lucius Bellienus Gemellus, gentleman-farmer au Fayoum*, «ÉdP» 8 (1975), p. 76 and n. 4 (but read 3). The place occurs also in PFay 111, 26 and PLaur II 39, 7-8 with *supra*, n. 10. The mention of an olive yard planted by Gemellos' son (l. 6: νεόφυτ(α) Καβίνου, cf. *supra*, general intro.), could lead to a better understanding of PFay 114, 21-22: the "shaking" Gemellos writes to Sabinos about (τὸν | ἐκτιναγμὸν σου) might refer to the gathering of the olives in his own olive yard (see for other hypotheses U. von Wilamowitz [*supra*, n. 2], 39 and *BL* IV 29). Furthermore, the papyrus seems to report a hitherto unknown name of a place, where there were olive yards (col. I b. 3), cf. *supra*.

The presence of καί before the expression ἐγλεκτοὶ ἄλλαι (*scil.* σφυρίδες) in col. I a. 12 and b. 10 as well as perhaps b. 1 (cf. comm.), which does not occur in col. II, clarifies that the adjective «selected» refers to the few baskets defined as ἄλλαι, not to the much more numerous σφυρίδες mentioned before them, cf. *supra*, general intro.

Moreover, col. I a. 13 gives one new evidence for the expression διαλέγοντες πτώμα παίδες (cf. col. II 20) and shows how such a definition, possibly along with τινάσσοντες referring to ἐργάται, does not only occur at the beginning of one section, cf. *infra*, comm. to col. I a. 13-14.

The column reveals a new issue regarding the wages earned by the different categories of workers; in col. II 22, 24 and 26, the (τινάσσοντες) ἐργάται earn 5 obols a day instead of 6, like in the rest of the account; also it appears that

some παῖδες could get the same daily wage as the νεώτεροι ἐργάται, viz. 5 obols (col. I a. 5, cf. comm.), as well as 4.5 obols (col. I b. 5 and 8, cf. comm.) and 1.5 obols (col. II 23, 26-27 and perhaps 25, cf. comm. to 24-25). Moreover, it seems that the denomination of νεώτεροι, if not followed by ἐργάται, was synonymous with παῖδες: in col. I a. 15 νεώτεροι receive a daily wage of 4 obols, which is normally destined to παῖδες, cf. comm.

The totals concerning the days are not introduced by the expression ἐπὶ τὸ αὐτό, as is usually done in col. II (except in II. 16, 21, 23 and 25) — such formula could perhaps be found in col. I only referring to the total amount of a κτήμα (cf. I a. 9 and b. 2 and 11 with comm.). Also, the number of the gathered baskets is not registered in every entry, as it is in col. II, cf. col. I a. 4, 7, 8 and 11; the cases of both a. 9 and b. 4 are unclear (cf. also b. 2).

The total amount of col. I b. 11 contains another occurrence for the amount of obols written as numbers in a grand total, cf. col. II 30 and *supra*, general intro.

The unedited lines seem to show some calculation errors, which does not occur in the already published lines, cf. col. I a. 14 as well as II 25 and perhaps also I a. 9, cf. comm.; such errors would influence also the grand total, cf. comm. to col. II 29.

A look at the totals attested in the account, of which only one seems to be completely lost (cf. *supra*), allows some reflections about the extension of Gemellos' property. The olive yards were located in 7 places. The most extensive of them seem to have been in the place whose account begins in col. I a. 10 and ends in one of the lost lines between a. and b., cf. *supra*: in fact subtracting the extant totals of the sections [581 dr. 3.5 ob. (?) *vel* 582 dr. 6.5 ob. (?) and 646 baskets, cf. the single numbers given *infra*] from the whole total given in col. II 29 (738 dr. 2.5 (?) ob. [cf. *infra*, comm. to col. II 29] and 830 baskets), it would seem that the expenses concerning that place were the highest (156 dr. 6 ob. (?) *vel* 155 dr. 3 ob. (?)): that could imply that there were more trees on the place. Odd enough, the same cannot be said for the production: the result of the subtraction, 184 baskets (– 830–738) includes the baskets gathered not only in this place, but also in Prophetes (cf. a. 9) and in another place whose name is lost (cf. b. 2), as the production referred to all these places seems not to be preserved (but cf. comm. to col. I a. 9). In fact, the greatest number of olives were gathered in Apias (211 baskets; expenses: 130 dr. 5.5 ob., cf. col. II 1 and 11) and in an unknown place maybe connected with a certain Castoras (190 baskets; expenses: 126 dr.; 5 ob., cf. col. I b. 3 and 11). In regards to size, judging from the expences (cf. *supra*), Apias seems to be the second largest place, maybe followed by a place, whose name is lost (expenses: 140? dr.; production: ?, cf. col. I b. 2), the place connected with Castoras (cf. *supra*), Dionysias [expenses: 92 dr. 3.5 (?) ob.; production: 167 baskets, cf.



col. II 20 and 28 with comm.], Senthis (expenses: 52 dr. 2.5 ob.; production: 78 baskets, cf. col. II 12 and 19) and finally perhaps Prophetes, including the Neophyta of Sabinos' [expenses: 39 dr. 1 ob. (?) *vel* 40 dr. 4 ob. (?); production: ?, cf. col. I (a) 3, 6 and 9 with comm.].

In the following edition col. I is reconstructed with the indentations, accordingly to the structure observed in col. II (cf. *supra*, general intro.).

## Col. I

## a.

- 1 [ἀγαθῆι] τύχηι .| ca. 7 |α. [ ? ] .| [ I 2 ] ... ( ) (?) Εὐημε(ρεια-)  
 2 [ca. 6 ζ (?)] (ἔτους) (?) Τραιανοῦ τοῦ [κυρίου ἐκ]πεπτωκ(οτ-) εἰς τὸ ζ (ἔτος)  
 3 Τῷ[βι (?) *day* εἰς] Προφήτην τ[ινασσό(ντων) ἐργ(ατῶν)] ἡ (ὄβολοι) μῆ, ἄλ(λων)  
 νεω(τέρων)  
 4 [ἐργ(ατῶν) γ (?) (ὄβολοι) ιε (?) καὶ] παίδ(ων) ιβ (ὄβολοι) λ, ἄλ(λων)  
 πα[ίδ(ων) β *vel* γ (ὄβολοι)] γ, γί(νονται) (ὄβολοι) λς.  
 5 [*day* ὁμοίω(ς) ἐργ(ατῶν) β] (ὄβολοι) ιβ καὶ παίδ(ων) δ (ὄβολοι) ς, γί(νονται)  
 [(ὄβολοι)] κβ, σφυρίδ(ες) κβ.  
 6 [*day* ὁμοίω(ς) εἰς] νεόφυτ(α) Σαβίνου |τιν|ασσό(ντων) ἐργ(ατῶν) ἡ (ὄβολοι)  
 μῆ καὶ παίδ(ων)  
 7 [x (ὄβολοι) x, ἄλ(λων) παίδ(ων) x (ὄβολοι) x, ἄλ(λων) παίδ(ων) .| (?) γ  
 (ὄβολοι) x, γί(νονται)] (ὄβολοι) πγ (ἥμισυ).  
 8 [*day* ὁμοίω(ς) ἐργ(ατῶν) x (ὄβολοι) x καὶ παίδ(ων) x (ὄβολοι) x (ἥμισυ), ἄλ(λων)  
 πα[ίδ(ων) δ (ὄβολοι) η] γ, γί(νονται) (ὄβολοι) οβ (ἥμισυ).  
 9 [--- --- -] μβ[ ?]  
 10 [*day* ὁμοίω(ς) --- --- ἐργ(ατῶν) ιβ] (ὄβολοι) οβ, ἄλ(λου) νεω(τέρου)  
 ἐργ(άτου) α (ὄβολοι) ε[  
 11 [καὶ παίδ(ων) x (ὄβολοι) x, ἄλ(λων) παίδ(ων) x (ὄβολοι) .(?)].|, ἄλ(λων)  
 παίδ(ων) β (ὄβολοι) δ, γί(νονται) (ὄβολοι) ρς (ἥμισυ).  
 12 [*day* ὁμοίω(ς) ἐργ(ατῶν) x (ὄβολοι) x, γί(νονται) (ὄβολοι) x, σφυρίδ(ες) .| και  
 ἐγλεκ(τοι) ἄλ(λαι) δ.  
 13 [*day* ὁμοίω(ς) τινασσό(ντων) (?) ἐργ(ατῶν) (?) x (ὄβολοι) x καὶ] διαλεγόντ(ων)  
 πτώμα παίδ(ων) ις  
 14 [(ὄβολοι) x, ἄλ(λων) παίδ(ων) x (ὄβολοι) x, ἄλ(λων) παίδ(ων)] γ (ὄβολοι)  
 ζ, γί(νονται) (ὄβολοι) λθ, σφυρίδ(ες) λθ.  
 15 [*day* ὁμοίω(ς) ἐργ(ατῶν) x (ὄβολοι) x, ἄλ(λων) νε|ω(τέρων) ἐργ(ατῶν) ζ (ὄβολοι)  
 λς, ἄλ(λων) νεω(τέρων) β (ὄβολοι) η,  
 16 [--- - (?) γί(νονται) (ὄβολοι) x - (?).]

ca. 6 lines lost

## b.

- 1 [--- --- ---] κ ..... ( ) |---]

- 2 [----        ----        ----        ----]
- 3 [*day* ὁμοίω(ς)        ----        ----]μ
- 4 [----        , γί(νονται) (ὀβολοὶ) x, σφυρίδ(ες) x (?).] *vacat* (?)
- 5 [*day* ὁμοίω(ς) ἐργ(ατῶν) x (ὀβολοὶ) x, ἄλ(λων) νεω(τέρων) (?) ἐργ(ατῶν) x  
(ὀβολοὶ) x καὶ] πα[ί]δ(ων) β<sup>-</sup> (ὀβολοὶ) θ<sup>-</sup>, ἄλ(λων)
- 6 [παίδ(ων) x (ὀβολοὶ) x, ἄλ(λων) παίδ(ων) x (ὀβολοὶ) x, ἄλ(λων) παίδ(ων) ζ<sup>-</sup>  
(ὀβολοὶ)] κσ<sup>-</sup>, ἄλ(λων) παίδ(ων)
- 7 [x (ὀβολοὶ) x, ἄλ(λων) παίδ(ων) x (ὀβολοὶ) x, γί(νονται) (ὀβολοὶ) (?).][<sup>-</sup>],  
σφυ[ρί]δ(ες) π<sup>-</sup>.
- 8 [*day* ὁμοίω(ς) ἐργ(ατῶν) x (ὀβολοὶ) x, ἄλ(λων) νεω(τέρων) ἐργ(ατῶν) η<sup>-</sup>  
(ὀβολοὶ) μ<sup>-</sup> καὶ παίδ(ων) β<sup>-</sup> (ὀβολοὶ) θ[<sup>-</sup>],
- 9 [ἄλ(λων) παίδ(ων) x (ὀβολοὶ) x, ἄλ(λων) παίδ(ων) x (ὀβολοὶ) (?).]<sup>-</sup>,  
ἄλ(λων) παίδ(ων) β<sup>-</sup> (ὀβολοὶ) ζ<sup>-</sup>, ἄλ(λων) παίδ(ων) .[<sup>-</sup>(?)]
- 10 [(ὀβολοὶ) x, ἄλ(λων) παίδ(ων) x (ὀβολοὶ) x, γί(νονται) (ὀβολοὶ)] .<sup>-</sup>,  
σφυρίδ(ες) ξη<sup>-</sup> καὶ ἐγλεκ(τοὶ) ἄλ(λαι) δ<sup>-</sup>.
- 11 [γί(νονται) ἐπὶ τὸ αὐτὸ ὅλου τοῦ κτηήματος σφυρίδ(ες) ρη<sup>-</sup>, (δραχημαὶ) ρκx  
(ὀβολοὶ) ε<sup>-</sup>.

a. 2 Τραΐανου Pap. 11 L Pap. 14 ζ <(ἥμισυ)> (?) ; 70 <(ἥμισυ)> (?) b. 3  
l. Καστοράτι (?)

## Col. II

- 1 ιθ ὁμοίω(ς) εἰς Ἄπιάδα τι[να]σσό(ντων) ἐργ(ατῶν) ηη (ὀβολοὶ) ρη<sup>-</sup>, ἄλ(λων)  
νεω(τέρων) ἐργ(ατῶν) ιβ (ὀβολοὶ) ξ<sup>-</sup>
- 2 καὶ παίδ(ων) ια [(ὀβολοὶ)] μδ<sup>-</sup>, ἄλ(λων) παίδ(ων) ζ<sup>-</sup> (ὀβολοὶ) κδ (ἥμισυ),  
ἄλ(λων) παίδ(ων) ζ<sup>-</sup> (ὀβολοὶ) κα<sup>-</sup>, ἄλ(λων) παίδ(ων) ια<sup>-</sup>
- 3 (ὀβολοὶ) κζ (ἥμισυ), ἄλ(λων) παίδ(ων) β<sup>-</sup> (ὀβολοὶ) δ<sup>-</sup>, ἄλ(λων) παίδ(ως) α<sup>-</sup>  
(ὀβολοὶ) α<sup>-</sup>, γί(νονται) (ὀβολοὶ) στ<sup>-</sup>, σφυρίδ(ες) νε<sup>-</sup>, ἐγλεκ(τοὶ) ἄλ(λαι) ε<sup>-</sup>.
- 4 καὶ ὁμοίω(ς) ἐργ(ατῶν) κα (ὀβολοὶ) ρκx<sup>-</sup>, ἄλ(λων) νεω(τέρων) ἐργ(ατῶν) ιγ<sup>-</sup>  
(ὀβολοὶ) ξε<sup>-</sup> καὶ παίδ(ων) ιε<sup>-</sup> (ὀβολοὶ) ζ<sup>-</sup>,
- 5 ἄλ(λων) παίδ(ων) κγ<sup>-</sup> (ὀβολοὶ) π (ἥμισυ), ἄλ(λων) παίδ(ων) γ (ὀβολοὶ) θ<sup>-</sup>,  
ἄλ(λων) παίδ(ων) θ<sup>-</sup> (ὀβολοὶ) κβ (ἥμισυ), ἄλ(λων) παίδ(ων) θ<sup>-</sup>
- 6 (ὀβολοὶ) ηη, γί(νονται) ἐπὶ τὸ αὐτὸ (ὀβολοὶ) τπσ<sup>-</sup>, σφυρίδ(ες) ος<sup>-</sup>, ἐγλεκ(τοὶ)  
ἄλ(λαι) β<sup>-</sup>.
- 7 κβ ὁμοίω(ς) ἐργ(ατῶν) ηη (ὀβολοὶ) μη<sup>-</sup>, ἄλ(λων) ἐργ(ατῶν) γ (ὀβολοὶ) ν<sup>-</sup> καὶ  
παίδ(ων) ιδ<sup>-</sup> (ὀβολοὶ) νς<sup>-</sup>, ἄλ(λων) παίδ(ων) ζ<sup>-</sup>
- 8 (ὀβολοὶ) κδ (ἥμισυ), ἄλ(λων) παίδ(ων) ιε<sup>-</sup> (ὀβολοὶ) με<sup>-</sup>, ἄλ(λων) παίδ(ων) β<sup>-</sup>  
(ὀβολοὶ) ε<sup>-</sup>, ἄλ(λων) παίδ(ων) ιδ<sup>-</sup> (ὀβολοὶ) κη<sup>-</sup>,
- 9 γί(νονται) ἐπὶ τὸ αὐτὸ (ὀβολοὶ) σνς (ἥμισυ), σφυρίδ(ες) ζς<sup>-</sup>, ἐγλεκ(τοὶ) ἄλ(λαι) γ<sup>-</sup>.

- 10 κγ ὁμοίω(ς) ἔργ(ατῶν) β̄ (ὀβολοὶ) ιβ̄ καὶ παιδ(ός) ᾱ (ὀβολοὶ) δ̄, ἄλ(λων)  
 παιδ(ων) ζ̄ (ὀβολοὶ) κᾱ, γί(νονται) (ὀβολοὶ) λζ̄, σφυρίδ(ες) γ̄.  
 11 γί(νονται) ἐπὶ τὸ αὐτὸ ὄλου τοῦ κτήματ(ος) σφυρίδ(ες) σιᾱ, (δραχμαὶ) ρλ̄  
 (πεντώβολον) (ἡμιωβέλιον).  
 12 κδ ὁμοίω(ς) εἰς τὴν Σένθεω(ς) τινασσό(ντων) ἔργ(ατῶν) ις̄ (ὀβολοὶ) ζς̄, ἄλ(λων)  
 νεω(τέρων) ἔργ(ατῶν) β̄ (ὀβολοὶ) γ̄  
 13 καὶ παιδ(ός) ᾱ (ὀβολοὶ) δ̄, ἄλ(λων) παιδ(ων) ιᾱ (ὀβολοὶ) κζ̄ (ἡμισυ), ἄλ(λων)  
 παιδ(ων) θ̄ (ὀβολοὶ) ιη̄, γί(νονται) ἐπὶ τὸ  
 14 αὐτὸ (ὀβολοὶ) ρνε (ἡμισυ), σφυρίδ(ες) λβ̄, ἐγλεκ(τοὶ) ἄλ(λαι) δ̄.  
 15 κε ὁμοίω(ς) ἔργ(ατῶν) ις̄ (ὀβολοὶ) ζ̄, ἄλ(λου) νεω(τέρου) ἔργ(άτου) ᾱ (ὀβολοὶ)  
 ε̄ καὶ παιδ(ός) ᾱ (ὀβολοὶ) δ̄, ἄλ(λων) παιδ(ων) ιᾱ  
 16 [(ὀβολοὶ) κζ̄ (ἡμισυ), ἄλ(λων) παιδ(ων) ιᾱ (ὀβολοὶ) κβ̄, γί(νονται) (ὀβολοὶ)  
 ρμη (ἡμισυ), σφυρίδ(ες) λιᾱ.  
 17 [κ̄] ὁμοίω(ς) ἔργ(ατῶν) β̄ (ὀβολοὶ) ιβ̄[ ] καὶ παιδ(ός) ᾱ[ ] (ὀβολοὶ) δ̄[ ], ἄλ(λων)  
 παιδ(ων) ιγ̄ (ὀβολοὶ) λβ̄ (ἡμισυ), ἄλ(λων) παιδ(ων) ζ̄  
 18 (ὀβολοὶ) ιδ̄, γί(νονται) ἐπὶ τὸ αὐτὸ (ὀβολοὶ) ξβ̄ (ἡμισυ), σφυρίδ(ες) ιᾱ.  
 19 γί(νονται) ἐπὶ τὸ αὐτὸ ὄλου τοῦ κτήματος σφυρίδ(ες) οη̄, (δραχμαὶ) νβ̄  
 (διώβολον) (ἡμιωβέλιον).  
 20 κθ ὁμοίω(ς) εἰς Λιονουσιάδα διαλεγόντ(ων) πτώμα παιδ(ων) κ̄ (ὀβολοὶ) ξ̄,  
 21 ἄλ(λων) παιδ(ων) ις̄ (ὀβολοὶ) λ̄, γί(νονται) (ὀβολοὶ) γ̄, σφυρίδ(ες) νθ̄.  
 22 χ̄ ὁμοίω(ς) τινασσό(ντων) ἔργ(ατῶν) κβ̄[ ] (ὀβολοὶ) ργ̄ καὶ παιδ(ων) κδ̄ (ὀβολοὶ)  
 οβ̄, ἄλ(λων) παιδ(ων) ιβ̄  
 23 (ὀβολοὶ) κδ̄, ἄλ(λων) παιδ(ων) η̄ (ὀβολοὶ) ιβ̄[ ], γί(νονται) (ὀβολοὶ) σιη̄,  
 σφυρίδ(ες) νη̄.  
 24 Μεχειρ ᾱ ὁμοίω(ς) ἔργ(ατῶν) λγ̄ (ὀβολοὶ) ρξε̄ καὶ παιδ(ων) κε̄ (ὀβολοὶ) οε̄,  
 ἄλ(λων) παιδ(ων)  
 25 ζ̄ (ὀβολοὶ) ιβ̄, ἄλ(λων) παιδ(ων) ε̄ (ὀβολοὶ) ζ̄, γί(νονται) (ὀβολοὶ) σνθ̄,  
 σφυρίδ(ες) λθ̄.  
 26 β̄ ὁμοίω(ς) ἔργ(ατῶν) ζ̄ (ὀβολοὶ) λ̄ καὶ παιδ(ων) ιγ̄ (ὀβολοὶ) λθ̄, ἄλ(λων)  
 παιδ(ων) δ̄ (ὀβολοὶ) η̄, ἄλ(λων) παιδ(ων)  
 27 β̄ (ὀβολοὶ) γ̄, γί(νονται) ἐπὶ τὸ αὐτὸ (ὀβολοὶ) π̄, σφυρίδ(ες) ιᾱ.  
 28 γί(νονται) ἐπὶ τὸ αὐτὸ ὄλου τοῦ κτήματος  
 σφυρίδ(ες) ρζζ̄ [(δραχμαὶ)] η̄β̄ (τριώβολον).  
 29 γί(νονται) ὄλου τοῦ τιναγμοῦ  
 ἐπὶ τὸ αὐτὸ σφυρίδ(ες) ωλ̄, [(δραχμαὶ)] ψλη (ὀβολός) (ἡμιωβέλιον)  
 30 καὶ παρθέ(νων) λικνιζουσῶ(ν) σίτον (δραχμαὶ) ι (ὀβολοὶ) ε̄.

14 σφυρίδες *ed.pr.*: 25 ζ̄-(ἡμισυ)- (?) ; σνθ̄ (ἡμισυ) (?) 28 (τριώβολον) (ἡμιωβέλιον) (?)

## Col. I a.

1 [ἀγαθῆ] τύχη, [ ca. 7 ] ᾱ, [ .? ], [1-2] ..., ( ) (?) Εὐνημε(ρεια-): For the opening «good luck» formula in the accounts cf. e.g. PLond II 254 (p. 225), 1-5 (Arsi-

noite; 8<sup>th</sup> February 134, cf. R. Ziegler, *Bemerkungen zur Datierung dokumentarischer Papyri und Ostraka*, «ZPE» 114, 1996, p. 161) 1-5: ἀγαθῆ τύχη λόγος | ἡμερῶν | ἀνηλώματος σπερμ(άτων) | τη (ἔτους) Ἀδριανοῦ Καίσαρος τοῦ | κυροῦ (l. κυρίου) Ἄθῦρ κῆ | ἀπὸ γενή(ματος) τοῦ διεληλυθό(τος) ιζ (ἔτους). The reconstruction of the line is difficult because of the damages around the middle part of the fragment; therefore, the following supplements should be only considered *exempli gratia*. The trace before the second lacuna – two curved oblique strokes converging on the top – is most likely either α or λ. After the following α, there is a vertical stroke followed by a little lacuna and a curved trace. After the next lacuna, the traces can be described as a kind of λ maybe followed by an α in ligature with a ι (but the last two traces together are also readable as υ) surmounted perhaps by a trace, indicating an abbreviation (or a hole?). Based on the content of the account – a list of paid wages and the number of olives gathered (in baskets) – and on the available space one could try to read ἀ[ναλώμ]ατα *vel* ἀ[ναλώμ(ατα)] ἀπὸ [ἐ]λαϊώ(νων) or λ[ήμματα] ἀπὸ [ἐ]λαϊώ(νων) (cf. e.g. PMil-Vogl IV 249, 1 [Tebtynis; after 24<sup>th</sup> June 142]: ἀναλώμ(ατα) πυροῦ and 212 verso, col. XIII 3 [Tebtynis; 21<sup>st</sup> May 109]: λή(μματα) ἀπὸ Ἱερᾶς) or λ[όγος] λημμ(άτων) [π]υροῦ or λ[όγος τῶν (?) κ]αρ[π]ῶ[ν] ἐ[λ]αικ(ῶν) (the usual sequence having the adjective before the noun, cf. e.g. BGU XIII 2333, 7 [Ptolemais Euergetis; 142-143]) or ἐ[λ]αίιν(ων) (cf. PMich III 182, 16 [Krokodilopolis; 4<sup>th</sup> March 182 BC]: καρπῶν ἐλάων [l. ἐλαίνων]) or ἐ[λ]αιώ(νων) (cf. SB XVI 13012, 10-12 [Arsinoites; 42]: ἐλαίνου[ς καρ]π[ο]ῦς [τοῦ] ἐπικαλουμένου Εὐκράτου[ς] | ἐλαιῶνος), but the missing article would be struggling. At the end of the line, the genitive Εὐήμε(ρείας) probably followed.

2 [ca. 6 ς (?)] (ἔτους) (?) Τραιανοῦ τοῦ [κυρίου ἐκ]πεπτοκ(στ-) εἰς τὸ ζ (ἔτος): This line is also difficult to reconstruct. The name of the emperor confirms the date proposed by Grenfell and Hunt, cf. *supra*, intro. For the presence of a diaeresis on the ι of Τραιανοῦ (cf. *supra*, appar.), cf. e.g. PFay 82, 2 (Theadelphia; 5<sup>th</sup> August 115). Writing a diaeresis on *iota* seems to be a peculiarity of Epagathos, although in the only other text written by him that mentions the name of the emperor (PFay 91, 51 [16<sup>th</sup> Oct. 99]), there is no such sign, cf. on diaereses by Epagathos Azzarello, *Alla ricerca* cit., p. 193 and, on different writing habits by the same scribe, *ibid.*, p. 196 n. 121.

In the lacuna at the beginning of the line, the sixth year was probably referred to, possibly written as a cipher and without the usual horizontal stroke, as at the end of the line, cf. also *supra*, intro. The horizontal stroke visible after the lacuna could have belonged to the symbol for ἔτος, if the other part of the symbol had been lost: the word was probably intended in genitive. Earlier in the text, it is possible that the lacuna contained the mention of καρποί (if they are not concealed in the traces of the first line, cf. *supra*, comm. to l. 1), as

suggested by ἐκ]πεπτοκ(στ-) at the end of the line. As for this participle, the reading is likely, although the first two extant traces are not easy to decipher. The participle usually refers to the «fruits», often harvested in the year after they began to grow, cf. e.g. BGU XI 2127, 8-11 (Memphites; 156): φοινίκων παλαιῶν καρπὸς | τοῦ δ[ι]εληλυθότος ἴθ (ἔτους) καὶ ἐκπεπτο|κότας εἰς τὸ ἐνεστὸς εἰκοστὸν (ἔτος) | Ἀγτωνίου Καίσαρος τοῦ κυρίου and PLond II 151 (p. 215), 3-8 with *Bl.* I 264 (Karaniš; II cent.): φόρον ὧν ἐμισθώσω ἐλιώνων (l. ἐλαι-) περ<ι> Καρανίδα καὶ | Ψεναρψενήσιν καρπῶν | [τοῦ] διελθόντος ς (ἔτους) ἐκπεπτοκότων (l. -ωκότων) εἰς τὸ ἐνεστὸς | ζ (ἔτος). If the reading is right, the expected case would most probably be the genitive.

3 Τῦ[βι (?) day εἰς] Προφήτην τ[ινασσό(ντων) ἐργ(ατῶν)] ἠ (ὀβολοὶ) μη : Before Προφήτην the image shows a little fragment, which contains two traces: a vertical stroke followed by a letter which resembles a υ. If the fragment really belongs to the line, it is tempting to read it as Τῦ[βι] and place the fragment further on the left: such a reading would fit with the information of col. II, cf. *supra*, intro. The number after the second lacuna is mostly damaged – its reconstruction is based both on the still visible vertical stroke, curving toward the right, like the right part of an η, and on the fact that «shaking workers» seem to earn mostly 6 obols a day (48:6 – 8), cf. *supra*, intro. The expansion of all abbreviations referring to «workers» (cf. e.g. here: τ[ινασσό(ντων) ἐργ(ατῶν)]) and boys (cf. e.g. the next line) into genitive is assured by col. II 30: παρθέ(νων) λικνιζουσῶ(ν). For the genitive indicating the reason for an expense (*genitivus relationis*) cf. E. Mayser, *Grammatik der griechischen Papyri aus der Ptolemäerzeit*, II, 2, Berlin-Leipzig 1933, pp. 189-194, in particular pp. 193-194, 3.b. On the harvesting practice of shaking the olives trees, compared with the one of hitting the branches with reeds, cf. both Schnebel [*supra*, n. 9] and the representation of olives gathering on the vase of Antimenes from Vulci (520 BCE), now in the British Museum (Inv. B 226):



For the place called Prophetes cf. *supra*, intro. to the account.

4 [ἐργ(ατῶν) γ (?) (ὀβολοὶ) ιε (?) καὶ] παῖδ(ων) ιβ (ὀβολοὶ) λ . ἄλλ(ων) παῖδ(ων) β vel γ (ὀβολοὶ) γ, γί(νονται) (ὀβολοὶ) ζς: The cipher after the last lacuna is not very clear: its form – a slightly oblique stroke descending from the left to the right, from whose upper edge a horizontal, slightly curve line proceeds to the right, recalls an ε. But such a reading is not likely: deducing from the total (96), the amount earned both by the τινάσσοντες ἐργάται in l. 3 (48) and by the first mentioned παῖδες in l. 4 (30), it appears that the other two categories of persons recorded under this day (νεώτεροι ἐργάται in ll. 3-4 and ἄλλοι παῖδες in l. 4) should have earned 18 obols (= 96-78). If the wage of the ἄλλοι παῖδες were ε, viz. 5 obols, the younger workers would have received 13 (= 18-5) obols; this sum is not compatible with the wages attested in the account, according to which the νεώτεροι ἐργάται would earn 5 obols each. Therefore, the reading ε cannot be right. Based on the wages attested for the boys in the other entries and considering both that the daily wages of the boys are recorded in descending order (cf. *supra*, general intro.) and that the preceding record refers to 2.5 obols a day (= 30:12), the trace in question should be a γ (3 obols). This could apply to two workers at a daily rate of 1.5 obols (cf. *supra*, intro. to the olives account) or to three workers at a daily rate of 1 obol (cf. *supra*, general intro.). Consequently, the νεώτεροι ἐργάται in the lacuna at the beginning of l. 4 would earn 15 (= 18-3) obols and should therefore be 3 (cf. *supra*).

5 παῖδ(ων) δ (ὀβολοὶ) ς, γί(νονται) [(ὀβολοὶ)] κβ: Instead of ι and κ (preserved are only the lower edge of the vertical stroke and the second half of the inferior oblique one respectively) also κ and λ would be possible, so that four «boys» would receive 20 obols and the total amount of the day would be 32 obols, cf. also *infra*, comm. to l. 9. The fact that the daily wage of the boys would amount to 5 obols (which is not attested otherwise), is not a problem, as the column sometimes reports rates not known from the other parts of the account, cf. *supra*, intro.

6-7 [δαγ ὁμοίω(ς) εἰς] νεόφυτ(α) Σαβίνου [τιν]ασσό(ντων) ἐργ(ατῶν) η (ὀβολοὶ) μη καὶ παῖδ(ων) | [x (ὀβολοὶ) x, ἄλλ(ων) παῖδ(ων) (ὀβολοὶ) x, ἄλλ(ων) παῖδ(ων) . [ (? ) (ὀβολοὶ) x, γί(νονται) ] (ὀβολοὶ) πυ (ἥμισυ): The presence of the fraction 1/2 in the final result implies that the symbol L' for (ἥμισυ) was contained either in one or in all three wages for παῖδες mentioned before, and the number of the hired παῖδες was odd: on the wages of παῖδες, ranging from 1 to 4.5 (maybe even 5) cf. *supra*, general intro. and intro. to the account. A cipher referring to the last mentioned παῖδες is preserved, but it is not clear whether or not another one followed it.

6 εἰς] νεόφυτ(α) Σαβίνου: On the τ there seems to be another letter, which consists of two parallel vertical strokes curved in the ends and a horizontal one

between them; as the upper part is damaged one could think not only of η but also of α. But as nothing is expected at this point, it is more probable that the traces do not have any meaning – it is even possible that they correspond to some fractures on the surface of the papyrus, which on the image tend to appear black and could be confused with ink, cf. *passim*. For the place and its occurrence in the archive cf. *supra*, intro. to the account and *infra*, comm. to a. 9.

7 The reconstruction of the lacuna (containing the mention of two categories of «boys» and of the wages of another one – altogether 19 characters, cf. *supra*, n. 15) is based on the fact that in a comparable space sixteen characters are contained in l. 6 (until the τ of νεόφουτ(α)).

8 [*day* ὁμοίω(ς) ἐργ(ατῶν) x (ὀβολοὶ) x καὶ παιδ(ων) x (ὀβολοὶ) x (ἥμισυ), ἄλ(λων) π]α[ι]δ(ων) δ' (ὀβολοὶ) η[ ] γί(νονται) (ὀβολοὶ) οβ (ἥμισυ): The supplements in the first lacuna (at least thirty-one characters including the strokes after every number and fraction, cf. also *supra*, n. 15) are based both on the available space (a comparable space in l. 6 contains at least thirty-three characters [until the γ of ἐργ(ατῶν)]) and on the fact that the total expense of the day included the fraction 1/2: as such fraction shows up only in the daily wages of «boys» and considering that the preserved παῖδες after the lacuna are paid 2 obols each, the lacuna must have also contained another category of «boys» after the mention of ἐργάται, whose daily wage contained the fraction 1/2. To judge from the usual descending sequence, such παῖδες will have been paid either 2.5 or 3.5 or 4.5 obols a day, cf. *supra*, general intro. and intro. to the account. Further in the line, the little lacuna after η suggests that the usual horizontal stroke is lost.

9 The line could contain the total amount resulting from the expenses registered in ll. 3-8, as this information, though expected, is contained neither in the preceding nor in the following lines. The surviving letters could refer to the total of the wages, as usual expressed in silver drachmae (cf. *supra*, general intro.), or to the baskets, depending on whether or not the lost end of the line contained further writing. The line could therefore be reconstructed as follows: [γί(νονται) ἐπὶ τὸ αὐτὸ ὄλου τοῦ κτήματος σφυρίδ(ες) κβ, (δραχμαὶ)] μβ[ ] or [γί(νονται) ἐπὶ τὸ αὐτὸ ὄλου τοῦ κτήματος σφυρίδ(ες)] μβ, [(δραχμαὶ) λθ (ὀβολός) vel μ (τετράβολον)].

Both reconstructions are not without problems. In the first one, the number of characters (thirty-six, cf. also *supra*, n. 15) reconstructed in the lacuna is much higher than in other lines (e.g. twenty-six in l. 6 in a comparable space [until the first ν of [τιν]ασσό(ντων)]). Moreover, the 42 drachmae would correspond to 294 obols (42 x 7), whereas the daily expenses of ll. 3-8 amount to 274 or 284 obols (96 + 22 vel 32 + 83.5 + 72.5, cf. *supra*, comm. to l. 5, which corresponds to 39 dr. 1 ob. or 40 dr. 4 ob.). However, as 294 is not far off from 274 or 284, it is possible that the difference could be caused by a calculation

mistake (e.g. in a. 14 and in col. II 25). In the second reconstruction, the number of the baskets does not correspond to the σφουρίδες registered in the previous lines, which are only 22 (cf. l. 5, unless 20 more baskets are mentioned in one of the preceding lines out of the usual sequence, according to which baskets are registered at the end of the daily reckoning). But in this case as well, the difference could be explained by a scribal mistake.

If the line really contains the total of ll. 3-8, the places Prophetes and Neophyta, to which the lines refer, would belong together. The hypothesis could be confirmed by the fact that in this way the section referring to Prophetes and to the young plants of Sabinos (ll. 3-9, concerning four days) would be approximately as long as the one dedicated to Dionysias, cf. col. II 20-28, which refer to four days.

10-11 [*day* ὁμοίω(ς) ἐργ(ατῶν) ιβ̄ ] (ὀβολοὶ) οβ̄ , ἄλλ(λου) νεω(τέρου) ἐργ(άτου) ᾱ (ὀβολοὶ) ε[<sup>-</sup>] | [καὶ παίδ(ων) x (ὀβολοὶ) x, ἄλλ(λων) παίδ(ων) x (ὀβολοὶ) (?)] [<sup>-</sup>], ἄλλ(λων) παίδ(ων) β̄ (ὀβολοὶ) δ̄ , γί(νονται) (ὀβολοὶ) ρις (ἥμισυ): From what was considered in the comm. to l. 9 and judging from the available space in the lacuna at the beginning of l. 10, it is possible that a new section began here and that the lacuna had εἰς followed by a place name. If so, the workers were probably defined by the participle of τινάσσω, as usually at the beginning of a section, cf. e.g. col. II 1, but see *infra*, comm. to a. 13. The little lacuna at the end of l. 10 suggests that the usual horizontal stroke followed the last number mentioned in the line.

As for the lacuna at the beginning of l. 11, in the light of the surviving wages and based on the available space, it appears that the wages of two categories of «boys» (amounting to 35.5 obols) were registered. As the παῖδες mentioned, after the lacuna were paid 2 obols each (4:2), the «boys» reported in the preceding lacuna must have received higher wages, viz. 2.5 or 3 or 3.5 or 4 or 4.5, cf. *supra*, intro. to the account. As the total amount of the day includes the fraction 1/2, one of the two categories of παῖδες must have been paid 2.5 or 3.5 or 4.5 obols a day and the number of the «boys» must have been odd. It is uncertain whether the obols paid to the last one of the three categories of «boys» corresponded to a number containing one or two ciphers; it is very probable that such number was followed by the usual stroke, which has now been lost. Such a stroke is missing after the total amount at the end of the line, cf. *supra*, general intro. and *appar.*

12 The reconstruction of the words lost in the lacuna is based both on the available space and on the fact that the mention of «selected» baskets implies that normal σφουρίδες occurred before. The passage, particularly the presence of a καί, rejects Schnebel's hypothesis that the adjective ἐγλεκτοί refers to ἄλλαι and not to the preceding σφουρίδες, cf. *supra*, intro. to the account and *infra*, comm. to b. 1 and 9-10. As the number of the plain baskets usually con-



tains two ciphers (cf. *e.g.* col. I a. 5 and col. III 3), at least one cipher could have been lost in the lacuna.

13-14 [*day* ὁμοίω(ς) τινασσό(ντων) (?) ἐργ(ατῶν) (?) x (ὀβολοὶ) x καὶ διαλεγόντ(ων) πτώμα παίδ(ων) ιζ̄ | [(ὀβολοὶ) x, ἄλ(λων) παίδ(ων) x (ὀβολοὶ) x, ἄλ(λων) παίδ(ων)] γ̄ (ὀβολοὶ) ζ̄ (<(ἥμισυ)> (?)), γί(νονται) (ὀβολοὶ) λθ̄ (<(ἥμισυ)> (?)), σφουρίδ(ες) λθ̄: In the lacuna at the beginning of l. 13, the presence of workers is very probable, as no boys are expected before the διαλέγοντες πτώμα παῖδες; otherwise, if a category of «boys» had already been mentioned in the lacuna, the precise definition of their duties would have been put next to them, and not in a second category. The supplement of τινασσό(ντων) is based both on the extension of the lacuna, which would contain in this way twenty-five characters (including the horizontal strokes after the numbers, cf. *supra*, n. 15) like in a. 6 in a comparable space (from the beginning to the ι of τινασσ(όντων)) and on the analogy with the παῖδες mentioned further in the line, who are precisely defined. But the participle of τινάσσω is usually found only in combination with the first mentioned workers of a place (cf. col. I a. 3 and 6; col. II 1, 12 and 22, cf. *infra*). That is not the case here, as the preceding line, containing the mention of the baskets at the very end, cannot be the end of a section, cf. *supra*, general intro. and intro. to the account. On the boys collecting the olives fallen from the trees as the consequence of shaking or hitting the branches cf. the vase reproduced *supra*, comm. to col. I a. 3. The fruits could also have fallen spontaneously, cf. *infra*, comm. to col. II 20.

The presence of καὶ before διαλεγόντ(ων) is expected, as «workers» and «boys» are always connected by this conjunction, cf. *e.g.* col. I a. 6. The apparent little stroke visible on the image after the lacuna cannot therefore be interpreted as the marking sign for numbers, which would refer to the wage of the workers mentioned before (viz. τινασσό(ντων) (?) ἐργ(ατῶν) (?) x (ὀβολοὶ) x], διαλεγόντ(ων) πτώμα παίδ(ων)). Moreover, the sign would be too low for a number marking stroke. Therefore, it is possible that the apparent trace is only a shadow.

In l. 14 the supplements of two further categories of «boys» besides the one mentioned in l. 13 is probable because of the extension of the lacuna. The first surviving trace after that is a horizontal stroke, so that γ̄ is the most plausible reading. But that would imply that the last mentioned seven «boys» were paid a daily wage of 2 1/3 obols (7:3). Such a rate does not fit with the rest of the account, where the only fraction contained in the payments is 1/2. Therefore, it is more plausible that the author of the text forgot to write (ἥμισυ) after the sum and the three boys got in fact 7.5 obols, which corresponds to the already attested daily rate of 2.5 obols each. For a similar omission cf. *infra*, col. II 25 with comm. to II. 24-25. If so, the two categories of παῖδες mentioned before would earn a higher daily rate, viz. 3; 3.5; 4; 4.5 or even perhaps 5 obols, cf.

*supra*, general intro. and intro. to the account. Furthermore, another 1/2 should be added to the total of the day at the end of l. 14.

15 After the lacuna, there is a superscript trace, circular and opens upwards, probably a  $\omega$ : such a reading allows the proposed reconstruction of the line, cf. col. II 4. Further in the line the 2 νεώτεροι each received a wage of 4 obols a day, which is equal to that of the παῖδες, cf. *supra*, general intro. Therefore, it is possible that νεώτεροι (not further defined as ἐργάται) are to be intended as synonymous of παῖδες, cf. also *supra*, intro. to the account.

16 As in the preceding lines the expenses for one day are reported in no more than two lines, it is likely that the entry, which started in l. 15, ended in l. 16. If wages were reported before the total of the day, they would refer to other categories of «boys». After the total of the expenses, there could have been the mention of the baskets gathered, cf. *e.g.* a. 14. In the next line, there could have stood the grand total of the section, so that this would consist of eight lines (10-16 and one following lost) concerning four days. Such hypothesis would fit with the average length of the sections, cf. *supra*, general intro.

col. I b.

1 |     ]κ ..... ( )[- - -]: The traces after κ are not easy to decipher. The next-to-last trace could be a λ. Considering the presence of an abbreviation before the final lacuna and taking into account that the next line could contain the grand total of the whole section (cf. *infra*, comm. to b. 2), one could try to read καὶ ἐγλεκε(τοί), although the reading is not completely satisfying. But if it were right, the line could be partially reconstructed as follows: [- - - - - γί(νονται) (ὀβολοὶ) x, σφουρίδ(ες) x] καὶ ἐγλεκε(τοί) [ἄλ(λαι) x], cf. *e.g.* a. 12.

2 |     ]μ: If the empty space at the end of the line is not caused by abrasion, then the line was short and could therefore have contained a total. Considering that beginning with the next line another place could be the subject of the account (cf. *infra*, comm. to b. 3), such a total could concern the preceding section, which no doubt started in one of the six lost lines between a. and b. This hypothesis could be confirmed by the fact that in this way the section referring to such a place would contain about eight lines, *i.e.* apart from b. 1 and 2, at most five of the six lost lines (the first one must still refer to the preceding section, cf. *supra*, comm. to a. 16). Such an extension can be observed also in other parts of the account, cf. *e.g.* col. II 12-19 referring to Senthis. If so, the number 40 could refer to the drachmae spent for the wages. But considering that the sums in drachmai are usually higher than 40 (cf. *supra*, intro. to the account), it would be probable that a ρ (100) should be supplemented before μ, so that the total expense would amount to 140 dr., cf. also *supra*, intro. to

the account. The sum would be preceded by the mention of the gathered baskets, so that the line could be reconstructed as follows: [γί(νονται) ἐπὶ τὸ αὐτὸ ὄλον τοῦ κτήματος σφυρίδ(ε)ς] x. (δραχμαὶ) ρ(?)μ. However, if the little shadow visible after and above μ is actually ink, to be identified with the usual stroke marking numbers, the hypothesis would be wrong, as no total of the sections shows such sign after the number of drachmai. In that case, «40» would refer to a subtotal, either to daily wages in obols or, if mentioned, to the number of gathered baskets in a particular day.

3 [*day* ὁμοίω(ς) ] ω[ . (?) ] Καστορα η: The traces before ω could correspond to one letter (ν (?)) or even two (ρ (?)). The trace before η consists of a vertical stroke, surmounted by a little horizontal one, and between them, a little oblique line ascending from the left to the right. One could try to read the dative Καστορᾶτη, *l.* Καστορᾶτι, as the preceding word seems to be in this case (with *iota mutum* maybe lost in the lacuna): for this name, sometimes attested with ω instead of ο, cf. *e.g.* OClaud I 126 (ca. 107). The presence of such name implies an evident difference to the expressions attested otherwise in the account. That could suggest that the line refers to a place name, as toponyms appear in various forms. But the fact that the personal name stands at the end of the line, where the actual mention of the place should have already occurred, is difficult to explain. Nevertheless, it would still be possible that the name referred to additional information about the place (*e.g.* a formal owner), although in this case rather a genitive would be expected, cf. *supra*, the grain account, b. col. I 15 with comm.

4 The little presumptive trace after the lacuna could just be a shadow on the image. If the *vacat* is not caused by abrasion, then the line could have contained the total of the day whose registration started in l. 3. Such total amount probably ended with the baskets collected during the day, as it is described in *e.g.* ll. 7 and 10. If ll. 3-4 really represented the first entry of the section, then the baskets gathered would be 38: that is the result obtained by subtracting the 152 σφυρίδες registered in ll. 7 and 10 (*viz.* 80+72) from the 190 baskets mentioned in l. 11 as the total of the whole section. Before the total in l. 4, at least the wages of the «shaking workers» could have been reported.

5 [*day* ὁμοίω(ς) ἐργ(ατῶν) x (ὀβολοὶ) x, ἄλ(λων) νεω(τέρων) (?) ἐργ(ατῶν) x (ὀβολοὶ) x καὶ] πα[ί]δ(ων) β̄ (ὀβολοὶ) 0<sup>-</sup>, ἄλ(λων): According to this line «boys» could earn 4.5 obols a day, which was not yet mentioned in the account, cf. *supra*, intro. to the text and *infra*, comm. to b. 8-9. The supplements in the preceding lacuna are based both on the available space and on the fact that, according to the descending structure of the account, only «workers» could have been mentioned there, as they received more than 4.5 obols a day, but cf. col. I a. 5 with comm. The possible presence of the adjective νεώτεροι for the second category of «workers» is not absolutely clear, cf. *e.g.* col. II 7.

6 [παίδ(ων) x (ὀβολοὶ) x, ἄλ(λων) παίδ(ων) x (ὀβολοὶ) x, ἄλ(λων) παίδ(ων) ζ (ὀβολοὶ)] καὶ, ἄλ(λων) παίδ(ων): The supplements fit to the reconstructable lost space; moreover, the wage of 21 obols attested after the lacuna implies with every probability a daily rate of 3 obols for each of the 7 «boys», as no other attested rate can fit to such result. Therefore, between these «boys» and the last mentioned ones of l. 5, who earned each 4.5 ob., at most 2 categories of «boys» can be supplemented: these got 4 and 3.5 ob. a day, cf. *supra*, general intro. and intro. to the olives account.

7 It is improbable that a further category of «boys» should be supplemented (ἄλ(λων) παίδ(ων) x (ὀβολοὶ) x = 11 characters, including the usual strokes, cf. *supra*, n. 15), as the lacuna so reconstructed has at least 23 characters (until the ζ of σφυ[ρῖ]δ(εζ)), while a comparable space in l. 8 (from the beginning until η) seems to contain 24 characters. The two categories of boys reported in the lacuna must have earned a daily wage less than 3 ob., as such was the wage paid to the boys mentioned at the end of l. 6. Their rate could therefore be figured as 2.5 or 2 or 1.5 or even 1 obol, cf. *supra*, general intro. and intro. to the account.

8-9 [δαγ ὁμοίω(ς) ἐργ(ατῶν) x (ὀβολοὶ) x, ἄλ(λων) νεω(τέρων) ἐ]ργ(ατῶν) η̄ (ὀβολοὶ) μ̄ καὶ παίδ(ων) β̄ (ὀβολοὶ) θ̄Γ̄], | [ἄλ(λων) παίδ(ων) x (ὀβολοὶ) x, ἄλ(λων) παίδ(ων) x (ὀβολοὶ) (?)]-, ἄλ(λων) παίδ(ων) β̄- (ὀβολοὶ) ζ: At the end of l. 8, the amount paid to the 2 «boys» is not very clear: the trace consists of an irregular circle crossed by a little horizontal stroke. A reading θ̄ is therefore probable, especially considering that, according to l. 5, a particular category of boys was paid 4.5 obols a day. Such a hypothesis fits with the reconstruction of l. 9, where the first «boys» mentioned after the lacuna get a daily wage of 3 obols (6:2) and two further categories of «boys», to be supplemented for space reasons before them, should have earned 4 and 3.5 obols. It is uncertain whether the number directly after the lacuna consisted of 1 or 2 ciphers.

9-10 ἄλ(λων) παίδ(ων) .[(?) ] | [(ὀβολοὶ) x, ἄλ(λων) παίδ(ων) x (ὀβολοὶ) x, γί(νονται) (ὀβολοὶ) ] .-, σφυρίδ(εζ) ξη̄ καὶ ἐγλεκ(τοὶ) ἄλ(λαι) δ̄: At the end of l. 9, there is an illegible trace which should refer to the number of the «boys» mentioned before (whether it was followed by another cipher, is not clear). Considering that the preceding «boys» receive a daily wage of 3 obols, the two following ones should earn respectively not more than 2.5 and 2 obols. For the reconstruction of the lacuna (at least 21 characters until the ζ of σφυρίδ(εζ)), cf. *supra*, comm. to l. 7. For the presence of καί before ἐγλεκ(τοί) cf. *supra*, intro. to the account.

11 [γί(νονται) ἐπὶ τὸ αὐτὸ ὄλου τοῦ κτήματος σφυρίδ(εζ) ρῥ̄, (δραχμαὶ) ρκς (ὀβολοὶ) ε̄]: The total refers to a whole section, which could have begun in l. 3, cf. *supra*, comm.: such extension (9 lines, referring to 4 days) would fit with the average length of the sections in the account, cf. *supra*, intro. to the

**text.** At the end of the line after the usual horizontal stroke for «obols», there is a curvilinear trace, probably a flat ε. Therefore, it appears that the writer used the same system here as in the daily entries (cf. *passim*) and not the symbol for πεντάβολον usually employed in the totals of the sections (cf. col. II 11); the same can be observed in col. II 30, cf. *infra*, comm.

## col. II

14 σφυρίδ(εσ) : σφυρίδες *ed. pr.*: The reading of the first edition is surely due to an oversight.

20 κθ ὁμοίω(ς) εἰς Διονυσιάδα διαλεγόντ(ων) πτωμα παίδ(ων) κ<sup>-</sup> (ὀβολοὶ) ξ<sup>-</sup>: Normally, the first entry referring to a place reports the wages paid to τινάσσοντες ἐργάται followed by the ones paid to the παῖδες, who would gather the fallen olives as a consequence of the shaking, cf. *supra*, comm. to col. I a. 3 and 13-14. The fact that here no shaking workers are reported could mean that many olives had already fallen from the trees, so that a whole day was necessary to collect them from the ground before shaking the trees. Such work was no doubt necessary, as the olives fell spontaneously and could deteriorate quickly, cf. Cato, *De agri cultura* 64, 1, t: «Olea, ubi matura erit, quam primum cogi oportet, quam minimum in terra et in tabulato esse oportet: in terra et in tabulato putescit». The reason why such particular work was requested in Dionysias before the actual gathering and not in the other places could be because Dionysias was the last place to be worked in: by then the gathering season was already advanced and the olives were fully ripe.

22 λ ὁμοίω(ς) τινασσό(ντων) ἐργ(ατῶν) κβ[ ] (ὀβολοὶ) ρε καὶ παί[δ(ων)] κδ (ὀβολοὶ) οβ, ἄλ(λων) παίδ(ων) ιβ<sup>-</sup>: Of the ω only the right half is still visible; of the γ remains the lower part of the vertical stroke. On the wage paid to the «workers» (5 obols a day, attested only in ll. 24 and 26), cf. *supra*, intro. to the account.

23 ἄλ(λων) παίδ(ων) η (ὀβολοὶ) ιβ[ ]: On the wage of 1.5 obols paid to the «boys», attested otherwise only in col. II 26-27 and perhaps 25, cf. *infra*, comm. and *supra*, intro. to the account.

24-25 Μεχέρ σ ὁμοίω(ς) ἐργ(ατῶν) λγ (ὀβολοὶ) ρξε καὶ παίδ(ων) κε (ὀβολοὶ) οε, ἄλ(λων) παίδ(ων) | ε (ὀβολοὶ) ιβ, ἄλ(λων) παίδ(ων) ε (ὀβολοὶ) ζ<sup>-</sup> (<ἥμισυ> (?)), γί(νονται) (ὀβολοὶ) σνθ (σνθ <ἥμισυ> (?)), σφυρίδ(εσ) λθ: The wage paid to the «boys» in l. 25 is not easy to read. Subtracting the other wages recorded in the entry from the total given at the end of l. 25, one would expect a wage of 7 obols (= 259-165-75-12). Indeed the still visible trace consists of an half circle open upwards, which could be compatible with the lower part of a ζ, cf. this letter *e.g.* in col. II 2. But that would imply that the 5

«boys» received a daily wage of 1.4 obols. However, such a rate is not confirmed otherwise by the account, where the only fraction contained in the wages is  $1/2$ . Therefore, it is more plausible that the intended wage was 1.5 obols ( $5 \times 1.5 = 7.5$ ), as in col. II 23 and 26-27, and the writer forgot to add the symbol for ἥμισυ after the ζ, as it maybe happens also in col. I a. 14, cf. *supra*, comm. If that is right, another  $1/2$  should be added to the total of the day at the end of l. 25.

26 Of η, probably written in a cursive form (cf. e.g. col. II 7, in μη), only the left half and the upper edge of the right stroke are still visible.

28 [(δραγμαῖ)] ἡβ (τριώβολον) (<ἡμιωβέλιον> (?)): Due to the possibility that the scribe left out the fraction  $1/2$  in one entry of the section (cf. *supra*, l. 25 with comm.), the total of the section could miss another half obol.

29 [(δραγμαῖ)] ψλη (ὀβολός) (ἡμιωβέλιον): Due to the possibility that the scribe left out the fraction  $1/2$  in two entries, the grand total could be actually 738 dr. 2.5 obols (instead of 1.5 obols) cf. *supra*, col. I a. 14 and col. II 25 and 28 with comm.

30 (δραγμαῖ) ι (ὀβολοὶ) ε: The obols are represented here in the same way as in the daily totals, not as in the most grand totals of the sections, cf. *supra*, intro. and col. I b. 11 with comm.

### Translation

#### Col. I a.

- «To good fortune ... Euhemereia ... the fruits (?) of the sixth year of Traianos the lord whose harvest extends to the seventh year.
- 3 Tybi (?) *day* for Prophetes for 8 shaking workers 48 obols, for 3 (?) other younger workers 15 (?) obols and for 12 boys 30 obols, for 2 vel 3 other boys 3 obols, makes 96 obols.
  - 5 *day* in the same way for 2 workers 12 obols and for 4 boys 10 obols, makes 22 obols 22 baskets.
  - 6 *day* in the same way for the young plants of Sabinos for 8 shaking workers 48 obols and for  $x$  boys  $x$  obols, for  $x$  other boys  $x$  obols, for  $x$  other boys  $x$  obols, makes 83.5 obols.
  - 8 *day* in the same way for  $x$  workers  $x$  obols and for  $x$  boys  $x.5$  obols, for 4 other boys 8 obols, makes 72.5 obols.  
.....42 ... (?)
  - 10 *day* in the same way ... for 12 workers 72 obols, for another younger worker 5 obols and for  $x$  boys  $x$  obols, for  $x$  other boys  $x$  obols, for 2 other boys 4 obols, makes 116.5 obols.
  - 12 *day* in the same way for  $x$  workers  $x$  obols, makes  $x$  obols,  $x$  baskets and 4 other selected ones.

- 13 *day* in the same way for  $x$  shaking workers (?)  $x$  obols and for 17 boys collecting the fallen (olives)  $x$  obols, for  $x$  other boys  $x$  obols, for 3 other boys 7<.5> (?) obols, makes 99<.5> (?) obols, 39 baskets.
- 15 *day* in the same way for  $x$  workers  $x$  obols, for 7 other younger workers 35 obols, for 2 other younger ones 8 obols, ... makes  $x$  obols ... (?)».

## Col. I b.

«..... 40

- 3 *day* in the same way ... to Castoras (?) ..., makes  $x$  obols  $x$  baskets (?).
- 5 *day* in the same way for  $x$  workers  $x$  obols, for  $x$  other younger workers (?)  $x$  obols and for 2 boys 9 obols, for  $x$  other boys  $x$  obols, for  $x$  other boys  $x$  obols, for 7 other boys 21 obols, for  $x$  other boys  $x$  obols, for  $x$  other boys  $x$  obols, makes  $x$  obols, 80 baskets.
- 8 *day* in the same way for  $x$  workers  $x$  obols, for 8 other younger workers 40 obols and for 2 boys 9 obols, for  $x$  other boys  $x$  obols, for  $x$  other boys  $x$  obols, for 2 other boys 6 obols, for  $x$  other boys  $x$  obols, for  $x$  other boys  $x$  obols, makes  $x$  obols, 68 baskets and 4 other selected ones.
- 11 Makes altogether for the whole possession 190 baskets, 126 drachmae 5 obols».

## Col. II

- «On the 19<sup>th</sup>, in the same way for Apias for 18 shaking workers 108 obols, for 12 other younger workers 60 obols and for 11 boys 44 obols, for 7 other boys 24.5 obols, for 7 other boys 21 obols, for 11 other boys 27.5 obols, for 2 other boys 4 obols, for 1 other boy 1 obol, makes 290 obols, 55 baskets, 5 other selected ones.
- 4 On the 21<sup>st</sup>, in the same way for 21 workers 126 obols, for 13 other younger workers 65 obols and for 15 boys 60 obols, for 23 other boys 80.5 obols, for 3 other boys 9 obols, for 9 other boys 22.5 obols, for 9 other boys 18 obols, makes altogether 381 obols, 76 baskets, 2 other selected ones.
- 7 On the 22<sup>nd</sup> in the same way for 8 workers 48 obols, for 10 other workers 50 obols and for 14 boys 56 obols, for 7 other boys 24.5 obols, for 15 other boys 45 obols, for 2 other boys 5 obols, for 14 other boys 28 obols, makes altogether 256.5 obols, 67 baskets, 3 other selected ones.
- 10 On the 23<sup>rd</sup> in the same way for 2 workers 12 obols and for 1 boy 4 obols, for 7 other boys 21 obols, makes 37 obols, 3 baskets.
- Makes altogether for the whole possession 211 baskets, 130 drachmae 5.5 obols.

- 12 On the 24<sup>th</sup> in the same way for Sentheos for 16 shaking workers 96 obols, for 2 other younger workers 10 obols and for 1 boy 4 obols, for 11 other boys 27.5 obols, for 9 other boys 18 obols, makes altogether 155.5 obols, 32 baskets, 4 other selected ones.
- 15 On the 25<sup>th</sup> in the same way for 15 workers 90 obols, for another younger worker 5 obols and for 1 boy 4 obols, for 11 other boys 27.5 obols, for 11 other boys 22 obols, makes 148.5 obols, 31 baskets.
- 17 On the 26<sup>th</sup> vel 27<sup>th</sup> vel 28<sup>th</sup> in the same way for 2 workers 12 obols and for 1 boy 4 obols, for 13 other boys 32.5 obols, for 7 other boys 14 obols, makes altogether 62.5 obols, 11 baskets.  
Makes altogether for the whole property 78 baskets, 52 drachmae 2.5 obols.
- 20 On the 29<sup>th</sup> in the same way for Dionysias for 20 boys collecting the fallen (olives) 60 obols, for 15 other boys 30 obols, makes 90 obols, 59 baskets.
- 22 On the 30<sup>th</sup> in the same way for 22 shaking workers 110 obols and for 24 boys 72 obols, for 12 other boys 24 obols, for 8 other boys 12 obols, makes 218 obols, 58 baskets.
- 24 On the 1<sup>st</sup> of Mecheir in the same way for 33 workers 165 obols and for 25 boys 75 obols, for 6 other boys 12 obols, for 5 other boys 7<.5> (?) obols, makes 259<.5> (?) obols, 39 baskets.
- 26 On the 2<sup>nd</sup> in the same way for 6 workers 30 obols and for 13 boys 39 obols, for 4 other boys 8 obols, for 2 other boys 3 obols, makes altogether 80 obols, 11 baskets.  
Makes altogether for the whole possession 167 baskets, 92 drachmae 3.5 (?) obols.  
Makes for the whole shaking altogether 830 baskets, 738 drachmae 1.5 obols and for the girls winnowing grain 10 drachmae 5 obols».

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