Bulletin of the American Society of Papyrologists 50 (2013) 261-264

Chrysos Bourdonon
SB 16.12828 Revisited

Roger S. Bagnall *New York University* and
Klaas A. Worp *Leiden University*

Abstract

The text of a Vienna papyrus reedited by the authors in 1983 is improved on the basis of digital scans; as a result, the numbers in the account now yield a consistent ratio between grams of gold and amounts given in bronze talents, confirming a date in the 350s.

Some thirty years ago, as part of an article on "Five Papyri on Fourth Century Money and Prices," we published from a photograph a full transcription of P.Vindob. G 14015, which had previously been published in part by A. Segrè from a transcript of Carl Wessely and then reprinted as *SB* 3.7034.[1] Our text was reproduced as *SB* 16.12818. In the course of preparing for publication a papyrus from Kellis, Worp revisited this text in an effort to tease out the pattern of the relationship between the amounts of gold listed and the number of talents, a problem left unsolved in the introduction to our edition ("At all events, we consider that the use of this papyrus for the history of gold prices in the fourth century is at present impossible," p. 14).

Thanks to an excellent color digital scan now available on the web site of the Austrian National Library, we have been able both to observe one omission from our published text (a typing error not caught in our proofreading, evidently, as the reading is obvious) and to improve some of the readings in the most difficult parts of the text. We present below a new text and comment on the major differences.

N[ε]μέσιλλα Ἀρχηβί[ο]υ̣ δέδωκεν̣
ὑπὲρ λόγ̣ου χρυσοῦ βο̣υ̣[ρ]δώνων χ̣ρ̣(υσοῦ)

[1] *BASP* 20 (1983) 1-17; P.Vindob. G 14015 is on 12-15; earlier bibliography there. It should be noted (*BASP* 21 [1984] 235) that although the article was signed by both of us, for some reason the running head and table of contents listed only Bagnall as author.

γράμματα τεσεραḳοσοκτόν̣, (γίνεται) γρ(άμματος) μη′.
4 Ὡρίων σεσημίομαι.

---

vacat 2 cm

κ[λ](ηρονόμοι) .[.]. . .αρτ̣. .ερμ.[. .]

		γρ(άμματος) ιβ̄′ μη̄′	(τάλαντα) ρ
6	Νε̣[μ]έ̣σ̣ιλλα Ἀρχη[βίου]	γρ(άμματος) μη̄′ ρϙβ̄′	(τάλαντα) κε
	Ἀρποχρᾶς Ὥρου	γρ(άμματος) μη̄′ ρϙβ̄′	(τάλαντα) κε
8	Ἑρμῖνο[ς] . .ιωνου	γρ(άμματος) ϙ̄[ς̄′] ρ̄[ϙβ̄′ τπδ′]	(τάλαντα) ιζ
	Διοδώρα Κάστωρος	γ[ρ(άμματος)] ς̄′ κδ̄′ ϙ̄ς̄′ ′	(τάλαντα) σι̣
	. . . σι̣ά . .	[γρ(άμματος)]	(τάλαντα) κ ιη
	. . [.] . ι̣α	traces	[(τάλαντα)] ρπ
12	κ̣λ̣(ηρονόμοι) Φίβιος	γρ̣(άμματος) [ ]	. . . ε
	Πα . . . . ης	traces	(τάλαντα) . .
	. . . . . Σιλβα[νοῦ]	[γ]ρ̣(άμματος) [μη̄ ′ρϙβ̄ ′τπδ′]	(τάλαντα) κ̣η
	Μέλ̣ας Διοσκόρου	γρ(άμματος) [ ]	(τάλαντα) οδ
16	Σιλβ̣ανὸς Ἀνουβί[ων]ος	γρ(άμματος) κ̣δ̣′ μ̣η′	(τάλαντα) ξ
	. . . ο̣ς̣ Ἑρμαπόλλωνος	γρ(άμματος) κδ̄′μη̄′	(τάλαντα) ϙ
	Μέ̣λας Χ̣ούιτ̣ος	γρ(άμματος) κδ̄′μη̄′	(τάλαντα) ξ
	Πκῦλις διάκων	γρ(άμματος) ιβ̣′ϙς′	(τάλαντα) ϙ

2 χρυσοῦ om. *BASP* 3 *l.* γράμματος, τεσσαρακοστογδοόν 4 *l.* σεσημείωμαι 8 γρ(άμματος) ϙ̄[ς̄′] ρ̄[ϙβ̄′ τπδ′] : γρ. μ̄[η . .] *BASP* 9 ς̄′ om. *BASP*; σι: σε̣ *BASP* 10 [γρ(άμματος)]: traces *BASP*; (τάλαντα) κ ιη: κ om. *BASP* 11 traces: blank in *BASP* 12 γρ̣(άμματος) [ ]: blank in *BASP*; talents amount blank in *BASP* 13 (τάλαντα) . .: blank in *BASP* 14 [γ]ρ̣(άμματος) [μη̄′ ρϙβ̄′ τπδ′]: blank in *BASP*; (τάλαντα) κ̣η: Ἐ *BASP* 16 ξ: ζ *BASP* 18 ξ: . *BASP* 19 ϙ: . *BASP*

From the best-preserved lines with round numbers (lines 5-7) it is clear that the writer's standard equation was 1/48 gram = 20 talents. This equation also accounts for lines 16-18, which are somewhat less well preserved (as newly read in lines 16 and 18) but we think convincing. Our reading in line 19 now also works (1/12 + 1/96 = 4.5 x 1/48). In lines 8, 9, 10, 11, 14, and 15, matters are not quite so straightforward, and in lines 12-13 we cannot read any of the numbers in their entirety. Because the fractions of a gram are hardly readable in lines 10 and 11, it is lines 8, 9, and 15 that require more detailed note below.

An equivalence of 20 talents = 1/48 gram gives a value for the pound of gold of 276,480 (or 276,500, as we would round it in our number system). As

we noted in *BASP* (p. 12), this equivalence has long been noted, but only now can we say with confidence that all fully readable lines actually agree with it. This equivalence would have been impossible before the currency reform and revaluation of 351, when the figure jumped by an order of magnitude. Because it is an official equation used in calculation of a tax, however, we cannot assume that we are dealing with the exact market value of gold at the time of the papyrus, and it seems best simply to say that the date of the papyrus should be in the 350s.

8 The figure of 17 talents could readily explained (with slight downward rounding) as 1/96 (10 talents), 1/192 (5 talents), and 1/384 (2.5 talents). Enough survives to support the first two elements; there is space for 1/384 to be restored, but we do not see any traces of it. The smallest fraction of a gram we can cite with certainty from parallels is 1/96 (*P.Dubl.* 22.7 and several times in *P.Panop.* 19). But it is likely that the fraction of 1/192 in *P.Stras.* 8.737.9 is also of a gram; the relevant word is lost at the start of that line.

9 The fractions 1/6 1/24 1/96 make 21/96, or (working from the equivalence established above) 10.5 x 1/48, or 10.5 x 20 = 210 talents. The reading of 1/6 is far from clear, as is that of the *iota* (10) in the talents number, but both are plausible and they yield an answer consistent with the other lines.

10 We see at the right side of this line a *kappa*; one might try reading *chi*, but we do not find this persuasive, and it is vastly larger than any other number in the account. It is followed by a vertical that can hardly be anything but *iota*, and then an *eta*. We suppose that the scribe first wrote *kappa* for 20, then *iota-eta* for 18, without clearly crossing out the *kappa*. (We cannot exclude the possibility that he canceled the *kappa* in a fashion that we can no longer detect.) It is unclear what may have stood in the lacuna where the fractions of a gram were stated and whether this will have included correction, so we have abstained from restoring it. We thank Bernhard Palme for checking the alignment of the papyrus at this point and providing an improved scan of the results.

11 Only a tiny trace survives in the portion of the surface where the fractions of a gram should be given, but the reading of 180 talents is clear. The series 1/6 1/48 (or 9/48) would yield that result precisely.

12 The *epsilon* at the end of the line seems clear enough. It would be tempting to restore the numeral as 25, as in lines 6 and 7, but the traces preceding it are not sufficient to support such a reading, and other numbers ending in 5 are perfectly imaginable. If so, one would suppose that 1/192 would be at the end of the fractions of a gram.

14 Not enough survives of the fractions (just a couple of scattered traces) to establish what was written.

15 The numeral 74 seems secure to us. The equivalent fractions of a gram would be 1/24 1/48 1/96 1/384 1/768 (cf. note to line 8). As almost nothing remains on the surface, we cannot verify this as a reading; moreover, the space seems inadequate for it. We are more likely to be dealing with some sort of approximation, but we cannot say what that was. On the individual mentioned here see the note to line 19.

16-17 In both lines we find 1/24 1/48 = 3/48, which should give the numeral 60. In line 16 this is clear, but it is equally clear that in 17 the scribe has written *qoppa* in the same manner as in line 19. (In both cases it might easily be taken for *phi*, but this is not possible.) We can only suppose that this is an error, probably in repeating the fractions, as it disagrees with all other readable equivalences.

19 Pkylis the deacon also has an entry in *P.Herm.Landl.* G 200, and in line 15 occurs a man Melas son of Dioskoros who may be compared with *P.Herm.Landl.* G 164 = F 376; this evidence helps to support the view that the two texts are (more or less) contemporaneous.