

JOHN ELLIS JONES – STEPHEN D. LAMBERT

TWO SECURITY HOROI FROM AN ORE-WASHERY AT AGRILEZA, SOUTHERN  
ATTICA

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TWO SECURITY HOROI FROM AN ORE-WASHERY AT AGRILEZA,  
SOUTHERN ATTICA<sup>1</sup>

The two security *horoi* published here were discovered by Ellis Jones in 1977 while directing cleaning operations for the British School at Athens at an ore-washery, washery C, in the Laureion district of southern Attica. Washery C is an integral part of a large, well-planned rectangular ore-treatment works (“*ergasterion C*”), the easternmost of three clearly defined works compounds (A, B and C), set at short intervals west to east on the flank of Mt. Michaeli on the north side of the upper Agrileza valley.<sup>2</sup>

1. Fragment of Agrileza marble, a slab of roughly triangular shape, broken on all sides, but preserving the left end of a six line inscription on a smooth face. Found on Friday 12 August 1977 in the earth and rubble fill at the bottom of the approx. two metre deep south-west sedimentation basin of washery C. Height: 0.337; width: 0.255; thickness: 0.065. Height of letters: 0.017–0.024. The letters are neatly cut in fairly parallel lines. Non-stoichedon. Laureion museum inventory no. 32. Plate XII,1.

ΟΡ-  
ΠΕΠ-  
ΛΥΣΕ-  
ΤΩΙΕ-  
5 ΩΙΑΠ/-  
ΔΙΦΙΑ-

The stone marked property put up as security for a loan under the redemption mechanism, *prasis epi lysei*. The normal formula for such *horoi* was ὄρος + type of property in genitive (“marker of x”) + πεπραμένον (-ης, -ων) ἐπὶ λύσει (“sold subject to redemption to”), followed by the name(s) of the creditors in the dative and the “price”, i.e. the amount of the loan.<sup>3</sup> The text may be reconstructed as follows:

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<sup>1</sup> We thank the British School at Athens for permission to publish this note in advance of the final publication of the Agrileza excavations; the responsible Ephor, Dr G. Steinhauer, and Mrs M. Oikonomakou of the Laureion Museum for help and relevant permissions; and Miss Ph. Spanou of the Laureion Museum for generously assisting Ellis Jones with the examination of the inscriptions (not seen by Lambert). Ellis Jones also wishes to record his appreciation of helpful comments made earlier, both in discussion and correspondence, by the late Prof. D. M. Lewis (Oxford), Dr. P. Millett (Cambridge) and Mrs K. Shipton (Leicester). The following abbreviations are used:

*Agora 19: The Athenian Agora. Vol. XIX. Inscriptions: Horoi, Poletai Records, Leases of Public Lands.* Ed. G. Lalonde, M. Langdon and M. Walbank (Princeton, 1991);

*APF* = J. K. Davies, *Athenian Propertied Families* (Oxford, 1971);

*AR* = *Archaeological Reports* (published annually by the Hellenic Society and the British School at Athens);

Finley = M. I. Finley, *Studies in Land and Credit* (New Brunswick, 1952, reprinted with a new introduction by P. Millett, 1985);

Lauffer = S. Lauffer, *Die Bergwerkssklaven von Laureion* (revised edition, Wiesbaden, 1979);

*LGPN II* = *A Lexicon of Greek Personal Names, II Attica*. Ed. M. J. Osborne and S. G. Byrne (Oxford, 1994);

Millett 1982 = P. Millett, *Opus 1* (1982), 219–249 (Roman numerals refer to page numbers in reprint as introduction to Finley, revised ed.);

Millett 1991 = P. Millett, *Lending and Borrowing in Ancient Athens* (Cambridge, 1991).

<sup>2</sup> For earlier references to the inscriptions and location maps and plans of Agrileza and compound C, see: *AR* 24 (1977–78), 13–15; 31 (1984–85), 106–23, esp. figs. 1, 2, 10, 11, 17 and p. 122; *Der Anschnitt: Zeitschrift für Kunst und Kultur im Bergbau* (Bochum, Deutsches Bergbau-Museum) 39 (1987) H. 4, 142–52; *ABSA* 89 (1994), 307–58, esp. 313ff. with figs. 1, 2, 3, 4; Millett 1991, 222–23.

<sup>3</sup> See most conveniently the numerous examples collected in Finley.

ὄρ[ος - -]  
 πεπ[ραμέν- ἐπί]  
 λύσε[ι - -]-  
 τωι E[- -]-  
 5 ωι Ἄπα[τουρίω?]  
 Διφιλ[- -]  
*vacat*

## Notes

1–2. If this *horos* and no. 2 did not refer to the ore-washery where they were found (see below), the range of possible restorations for line 1 is too wide for speculation to be worthwhile (cf. n. 7). If they did so refer, ἐργαστηρίου would seem at first sight an attractive restoration. The term is well attested in relation to Attic mining-related workshops, including at Dem. 37.4, 9 etc., where the speaker discusses a mining *ergasterion* and 30 slaves used as security for loans; in the records of mines leased by the *poletai* (see *Agora* 19, index, p. 240); and on other security *horoi* from the mining area (*IG* ii<sup>2</sup> 2747–2749 = Finley, nos. 88–90, cf. Lauffer, 87–97; *SEG* 32.236). It also occurs on at least one ordinary boundary *horos* reportedly from an ore-washery in the Agrileza region.<sup>4</sup> Here it would yield a line two letters longer than line 2 and probably three letters longer than line 5 (and a more severe irregularity in no. 2, q.v.). Such variations are certainly possible on inscriptions of this sort,<sup>5</sup> and might in this case (though perhaps not in no. 2) have arisen from a desire, apparent from the start of lines 1–3 and probably 6, to avoid word-breaks at line-ends. However, it is also notable that, on the four other *horoi* from the mining area noted above and in Dem. 37, slaves (*andrapoda*) were put up as security with the *ergasteria*, while there is certainly not room for “ἀνδραπόδων” in addition to “ἐργαστηρίου” on our two inscriptions. One can not infer an invariable rule from these few cases; if the workshop was not in use at the time of the security transaction, for example, one could imagine that there might have been no associated slaves. However, taking into account also the spacing irregularities, especially severe with no. 2, there must be some uncertainty that ἐργαστηρίου could have been the term used here. Of terms attested on other security *horoi*, the common χωρίου, catch-all for any type of landed property, might be a possibility, though in no. 1 it would yield a line three letters shorter than line 2. Οἰκίας, also common on *horoi*, would be unexpected here, at least if used of the whole property. Works compound C has rooms which could have housed staff, but its primary purpose was not residential. Οἰκοπέδων, “building plot(s)”, rare on security *horoi* (*IG* ii<sup>2</sup> 2676 = Finley no. 143, with p. 60; *Agora* 19 H94; cf. J. Bingen in H. F. Mussche *et al.*, *Thorikos* V [1971], 151–53 nos. 3–5), would yield the same number of letters in lines 1 and 2 of no. 1, but would not suit the spacing of no. 2. Other terms occur on mining related *horoi*, sometimes, as with the *horoi* of *ergasteria* and slaves mentioned above, joining two aspects of a property on one *horos*. *IG* ii<sup>2</sup> 2750 = Finley no. 92 marks a loan on a “smelter and surrounding grounds” (κ[α]μίνου καὶ ἐδάφω),<sup>6</sup> while *SEG* 32.236, from the washery compounds at Soureza, apparently

<sup>4</sup> J. Kirchner and S. Dow, *AM* 62 (1937), 11 no. 10, with Taf. 6.2, noted an inscription in the museum of the Greek Mining Company at Laureion, ὄρος/ τοῦ ἐργαστηρίου. As W. Peek, *AM* 67 (1942) [1951], 34 no. 36, observed, despite the slight difference in the reported text, this is perhaps the same inscription as that referred to in a manuscript note on a copy of Milchhöfer's *Antikenbericht aus Attika* in the German Institute at Athens: “Agrileza. Grenzstein in situ bei einer Metallwäscherei, ὄρος τοῦ ἐργαστηρίου.” Ellis Jones reports that the inscription published by Kirchner and Dow is now (spring 1998) in the modern Laureion Archaeological Museum. The Agrileza valley is full of mining sites, and on the basis of Peek's report it is not possible to identify the specific washery to which his *horos* might have related. The orthography, i.e. Ionic lettering, but retaining H = aspirate and -o for -ou, suggestive of a date around the earlier 4th century, is somewhat more archaic in style than that of the two *horoi* published here.

<sup>5</sup> We note at random *IG* ii<sup>2</sup> 2742, which is securely restored to yield 17 letters in line 1, 14 in line 2.

<sup>6</sup> According to Finley, 252 n. 45, ἐδάφω in this context means privately owned surface land underneath which ore was mined. The term occurs fairly frequently in the *poletai* records, see *Agora* 19 index, p. 240. Note also *Agora* 19 L8, 107, . . . ἔδ[αφ]ος καὶ οἰκίαν . . .

includes reference to ἀπέργαστρα καμίνωι (cf. n. 10), as well as an *ergasterion* and slaves.<sup>7</sup> One possibility here is perhaps that some aspect of the property (e.g. “ἐργαστηρίου”) was covered in no. 1, while another aspect (e.g. “ἔδάφωv”, cf. n. 6) was the subject of no. 2.

3–6. λύσει will have been followed by the names of the creditors in the dative (lines 3–6) and the amount of the loan (end of 6). Normally on security *horoi* creditors were listed by name + demotic, but variations occur, e.g. name only at *IG* ii<sup>2</sup> 2732 = Finley no. 73, cf. nos. 31 and 40; Finley no. 17 gives father's name and demotic; Finley no. 83 also apparently gives a father's name. Here, if Apatourios is correctly restored in line 5 (whether as a name or a father's name), and assuming lines of roughly equal length, there is unlikely to have been space for a demotic after it on that line, unless severely abbreviated (see further on 6). It is similarly unlikely that the lost part of line 4 could have accommodated both a father's name, following a name -τωι, and the start of the name (or demotic?) to which the dative ending in line 5 belongs. Certainty is impossible in the absence of firm evidence as to any variations in line length, but it seems easiest to suppose that there were four creditors listed by name only, and that both the first (3–4) and the second (4–5) names were fairly long (c. 10–11 letters in the dative).

5. Of the last preserved letter a left diagonal survives, i.e. in context, alpha or lambda. There may also be trace of the left point of the horizontal of alpha. No Athenian demotic starts with the letters ΑΠΑ or ΑΠΛ, and the only Attic name attested B.C. that will fit is Ἀπατούριος (see *LGPV* II). Lambert notes that it may well have occurred here<sup>8</sup> (possibly also in no. 2, see below). If so, it would be the first attestation of this not especially common name (13 citizen cases listed in *LGPV* II, from at least 6 demes) in connection with the mines.<sup>9</sup>

6. In light of the difficulty of accommodating demotics in earlier lines, Lewis *per ep. ad* Ellis Jones considered the restoration -δι (i.e. end of name in dative) Φιλ[αιδάις], noting however that this was probably inconsistent with the space (little, if any) available for the start of the name at the end of 5. Given also that names in Diphil- are well attested in connection with the mines, it seems much more likely that we have such a name here. A Diphilos made himself rich from illegal mine working, for which he was convicted on a capital charge by Lykourgos ([Plut.] *Mor.* 843d). In the poletai records, property interests in the mining area are attested for a Diphilos of Pithos in 342/1–339/8 (*Agora* 19 P26, 292, 293, cf. *APF* 14164 and Lambert, *Rationes Centesimarum* [Amsterdam, 1997], 157 no. 27) and a son of Diphilos of Gargettos in 341/0? (*Agora* 19 P27, 18, cf. *APF* 4477). The name also occurs in the well-known Sounian family which belonged to the genos Salaminioi and also had mining interests (see *APF* 4487 with *ZPE* 125 [1999] 110 no. VIII). Finally, an Aischylos son of Diphilides of Prospalta was a creditor on another *horos* of a *prasis epi lysei* from the Laureion area, Finley no. 17. (Cf. also above, n. 9.)

Translation. “Marker of [*type of property*] sold subject to redemption to [*name?, name?*], Apa[*tourios?*], Diphil[*os or -ides?* for *amount of loan*]”.

2. Fragment of Agrileza marble, of roughly pentagonal shape, broken on all sides, preserving part of a five-line inscription on a face darkened by pine resin from long exposure. Found on Saturday 13 August 1977 in a pile of loose rubble lying under pine trees on and outside the stone foundations of the west boundary wall of the same washery (C) as no. 1. Height: 0.217; width: 0.205; thickness: 0.055. Height

<sup>7</sup> For a list of all types of property attested on security *horoi* see Millett 1982, 244 (= xxxii), table B.

<sup>8</sup> Also suggested independently by Lewis *per ep. ad* Ellis Jones.

<sup>9</sup> Note, however, *IG* ii<sup>2</sup> 5965, a 4th cent. funerary monument from Keratea (ancient Kephale) naming Apatourios son of Astyphilos and Astyphilos son of Apatourios, both of the deme Deiradiotai, and the Diphilos (N.B.) son of Astyphilos (a fairly rare name – 6 citizen cases in *LGPV* II) on the victor list from Thorikos, J. Bingen in H. F. Mussche *et al.*, *Thorikos* IX (1990), 146–48 no. 84.

of letters: 0.017–0.027. The lettering is rather less regular than on no. 1. Non-stoichedon. Laureion museum inventory no. 30. Plate XII,2.

ΡΟΣ  
 ΑΜΕΝ  
 ΙΛΥΣΕΙΑ  
 ΙΟΥΕΡΑΝ  
 5 ΣΧΧΧ

Like no. 1, the stone marked property put up as security for a loan under the mechanism, *prasis epilysei*. The text may be reconstructed as follows:

[ὄ]ρο[ς - πε]-  
 [πρ]αμέν[- ἐπ]-  
 ἰ λύσει Α[-]-  
 ἰου ἐραν[ιστα]-  
 5 [ἰ]ς ΧΧΧ  
*vacat*

#### Notes

The above arrangement of the text into lines assumes that the start of lines 2–5 were aligned with the start of line 1, as in no. 1, though this is uncertain (e.g. the start of line 1 might have been inset). Even if there was such alignment, the pi shown at the start of 2 might alternatively have been the last letter of 1.

1–2. The obvious restoration in line 1, ἐργαστηρίου, would yield a length of text between vertically aligned points in 1 and 2 (16–17 letters) significantly longer than between the equivalent points in 2–3 (8–9 letters) and in 4–5 (10 letters). This can not be ruled out, but there must also be a good possibility that another noun with fewer letters was used (see further above on no. 1).

3–5. Only the lower half of the iota at the preserved start of 3 is apparent. Of the first preserved letter of 4 a vertical is apparent, and what might be trace of a horizontal that would make the letter T, but is more likely a casual mark. Loans by groups of creditors known as eranistai are well attested on Attic security *horoi*, including on another recently published *horos* from the mining area, *SEG* 32.236.<sup>10</sup> The normal formula was ἐρανιστάις τοῖς μετὰ (“eranistai, those with . . .”) followed by the name of the head of the group (e.g. *IG* ii<sup>2</sup> 2699–2701 = Finley, nos. 30–32). Here the terser Α[-]ίου ἐραν[ισταῖ]ς is used, i.e. “eranistai of A-”, “A-” presumably being the leader of the eranos.<sup>11</sup> As Lewis notes *per ep.*, one might bring this loan into close connection with no. 1 by restoring Ἀ[πατοῦρ]ίου in 3–4. It would even be possible that the creditors on

<sup>10</sup> = S. Lauffer in C. E. Conophagos, *Le Laurium Antique* (Athens, 1980), 388–89, no. 2 (photo. p. 381), from a group of washery compounds at Soureza, a little way up-valley from Agrileza. The properties involved were an *ergasterion* and slaves and apparently ἀπέργαστρα καμίνωι (sic), and the creditors included eranistai with Epiteles of Kerameis and eranistai with Neoptolemos of Melite. On the character of eranoi of this sort see Millett 1991, 153–59, cf. Finley, 100–106; R. Parker, *Athenian Religion, A History* (Oxford, 1997), 337. Slaves could not, of course, lend money on the security of property, and our eranistai will not have had anything to do with the eranistai at Laureion who were mining slaves and who made the dedications *IG* ii<sup>2</sup> 2937–40 (on these and other dedications of the type see Parker, *loc. cit.*; Lauffer, 177–92).

<sup>11</sup> Other divergences from the normal formula in this regard occur in *IG* ii<sup>2</sup> 2722 (= Finley no. 44) and *Agora* 19 H84 (= Finley no. 71) where the creditors are described as ἐρανιστάις without further qualification and *SEG* 43.55 (presumably = *SEG* 41.127), ἐρανιστάις τοῖς Ξενοπέιθου. Note also the more complex wording of *IG* ii<sup>2</sup> 2721 (= Finley no. 40) and *Agora* 19 H124 (cf. *SEG* 44.83). Cf. also *IG* xii 7, 58 (= Finley no. 8), from Amorgos; and, for the plain genitive, *ZPE* 110 (1996), 77–79, where Lambert suggested that the creditor on *IG* ii<sup>2</sup> 2720 (= Finley no. 43) might be read θιασώταις[ις] / Δημοστο', “the thiasotai of Demotes”. (He notes now that it would make for better Greek in the latter case to assume haplography of ΤΑΙΣΤΟΙΣ, i.e. θιασώταις <το>ίς / Δημοστο', cf. P. Gauthier, *REG* 111 (1997), 514 no. 200; texts such as this, however, were on any account not drafted/cut by a Demosthenes.) A full study of abbreviatory omission, or as in our case, avoidance, of the definite article in Greek inscriptions is a desideratum.

both *horoi* were in effect the same four men, simply referred to in a more short-hand fashion in no. 2, at one with its somewhat rougher lettering style and syntax. 3,000 drachmas, though somewhat higher than average for all Attic *praseis epi lysei*, is well within the normal range for properties of this type.<sup>12</sup>

Translation. “Marker of [*type of property*] sold subject to redemption to the eranistai of A[-] for 3,000 drachmas”.

Date: 4th century B.C. (?). On both *horoi* the alphabet is Ionic, and there are no characteristically early “Attic” orthographic features of a type which survived into the 4th century on some inscriptions (e.g. H = aspirate, -o for -ov), but which became increasingly rare as that century progressed. The lettering on no. 2 is somewhat more roughly cut than on no. 1 and makes perhaps a more archaic impression (e.g. the form of the nu, with right vertical higher and shorter than the left, and the sloping bar to the alpha in line 3), but the variations are well within the variability possible for different cutters working at the same time and it is not possible to determine whether these inscriptions are precisely contemporary or, if not, which is the older. A date in the third century could not be ruled out epigraphically, but probably both *horoi* belong in the period to which most of our other evidence for mining activity in this area relates, c. 375–300. This accords with other indications of the period that these washeries were in use, see AR 31 (1984–85), 106–23, especially 122–23; but is not sufficient to rule out the possibility that the *horoi* might have predated somewhat the construction of works compound C (see below).

Findspot and Original Location: It is possible that these two *horoi*, of local marble,<sup>13</sup> originally related to another site in the Agrileza region, or to the site of washery C before the washery was built on it, and were reused as building material in the construction of the washery. The difficulty of accommodating on these *horoi* the terminology found on others relating to mining workshops, and implicit in Demosthenes 37, has been noted above. Moreover, there are features of the stones which would be consistent with reworking and, possibly, transport from another site: the clean break to the right of no. 1; and the facts that both stones, though only fragments and lacking reverse faces, are of broadly comparable dimensions, and that only their left sides were found and no other fragments. These arguments, however, are not, in our view, decisive, and we believe it is also very possible that the *horoi* referred to loans on the security of the washery compound where they were found (or aspects of it?, see above on no. 1, lines 1–2). Works compound C, except for other *ergasteria*, is remote from other obvious properties to which the *horoi* might originally have related. Moreover, an original location in or against the west wall of the washery, which formed part of the main west boundary wall of the compound, would seem appropriate enough for security markers. No. 2 was found in the rubble alongside this wall; no. 1 less than 10 metres from it in the lower fill of the sunken south-west sedimentation basin.

Whether or not the *horoi* originally related to works compound C, their discovery in such close proximity to each other strongly suggests that they both originally related to the same property, or aspects of it. As well as adding to the already considerable body of evidence for financial transactions

<sup>12</sup> Millett 1982, 222 (= x), calculates the median for all *praseis epi lysei* at 1100 drachmas. SEG 32.236, the *horos* from Soureza (cf. n. 10) includes loans of 1110 dr. by the eranistai with Epiteles of Kerameis on an *ergasterion* and slaves and 6,000 dr. by the eranistai with Neoptolemos of Melite. Cf. also the loan of 6,000 dr. by Pheidon of Aixone on an *ergasterion* and slaves on IG ii<sup>2</sup> 2747 (= Finley no. 88); and the loan of 10,500 dr. on similar property mentioned by Dem. 37.4 (cf. n. 14). One can not, of course, deduce the value of properties mentioned on *horoi* from the size of the loans raised on them, since one does not know to what extent of their value they were mortgaged; cf. P.V. Stanley, *Münsterische Beiträge zur antiken Handelsgeschichte* 9 (1990), 1–13 (= SEG 40.175).

<sup>13</sup> On the (plentiful) local marble see G. Marinou and W. E. Petraschek, *Laurium* (Inst. de Géol. et de recherches souterraines de la Grèce, Athens, 1956; their geological map is the basis for that in Conophagos, *op. cit.* above n. 10). For ground traces of ancient marble quarrying in the vicinity of Agrileza see H. R. Goette, *AM* 106 (1991), 203–22; D. Vanhove, in ed. H. Mussche, *Studies in South Attica II* (= *Miscell. Graeca* fasc. 9, Gent, 1994), 31–76, esp. 40–75.

relating to the Attic mines, therefore, and as unusual cases where the property to which such *horoi* related may be identifiable, these *horoi* will also be of interest as likely evidence for multiple loans (whether contemporary or successive) on the same property being marked by different *horoi*.<sup>14</sup>

University of Wales, Bangor  
British School at Athens

John Ellis Jones  
Stephen D. Lambert

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<sup>14</sup> For vivid documentation of the complexities that could arise with multiple/successive loans raised on mining workshops, cf. Dem. 37 (discussed by Finley, 32–33; cf. in general on multiple creditors, 107–117).



No. 1



No. 2

Security Horoi from Agrileza, Southern Attica; J. Ellis Jones – S. D. Lambert, pp. 131–136