THE ATTIC STELAI

Part III

Vases and Other Containers

(Plates 51–54)

VII. FUNNELS, SIEVES, STRAINERS

1. Funnel (Chone, Choanion)

(II, 201; VII, 57-58)

Funnels are twice mentioned in the Stelai. In II, line 201, thirteen [χ]*ῶναι* are listed, at a total price which has been tentatively read as 2 drachmai. The stone is, however, too badly mutilated, in the area of the numerals, to allow much confidence in this reading. Since these are likely to be pottery objects, the price itself seems improbably high (two *obols*, for the lot, would be high enough), and it seems best here to regard the price as illegible. In the other passage, Stele VII, lines 57-58, which is also partly mutilated, a [χ]*οάνιον μολυβδοῦν . . . ενος* seems to be priced at 2 drachmai 2 obols. The passage, in its present state, is obscure. I am unable to make anything of the ending *-ενος* in the word (or words?) following *μολυβδοῦν*. It is possible that more than one object was included in this entry.

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The word χοάνη, or the contracted form χώνη,[1] is most commonly used to mean 'funnel,' whereas χόανος (χῶνος) and χόανον (χῶνον)[2] usually refer to a crucible or melting-pot for metals; but sometimes these meanings are reversed.[3] Pollux lists χοάναι among objects used in working iron (VII, 106) and bronze (X, 147), but speaks of χώνη as something used in connection with wine (X, 75), hence, a funnel; but it is not possible to establish any basic difference of meaning between these two forms. Both occur in contexts where only 'funnel' can be meant in Attic writers.[4] Likewise, Attic inscriptions show the same fluctuation in passages which apparently refer to funnels.[5] It is, therefore, not strange to find both forms here, in the same group of inscriptions. The word χοάνιον is new. It could be derived from either χόανος or χοάνη (with a diminutive sense?), but in the present context the latter source and the simpler meaning 'funnel' seems preferable, as for χώνη in Stele II, line 201.

Terracotta funnels or funnel-vases are very common in Bronze Age remains.[6] Numerous different types exist, including the familiar conical 'filler vase,' the 'ostrich-egg' shape and its variants, the 'peg-top' vase with relatively wide mouth, bulging body, and distinct spout, and an impressive range of more specialized forms. Among these last are the oddly constructed funnels from Mycenae with inturned rim and a spout which extends upward into the bowl (to help purify the liquid by holding inside the bowl the sediment as it settled?).[7] Much like modern funnels are a specimen found at Palaikastro (L.M.I?) with convex bowl and long, distinct spout,[8] and one from Tell Abu Hawam (L.H. III B) with a distinct, cylindrical spout.[9] Still more remarkably like the classical type of Greek funnel is a large E. H. specimen of coarse house-

[1] Χοάνη (χώνη): Liddell-Scott-Jones, *s.v.*; E. Saglio, *Dictionnaire*, III, p. 516, *s.v. Infundibulum.*

[2] Χόανος (χῶνος): Liddell-Scott-Jones, *s.vv.*

[3] *Ibid.*, *s.vv.* χοάνη, II and χόανος, II.

[4] E. g., χοάνη, Aristophanes, *Thesm.*, 18-19; χώνη, Pherekrates, Frag. 108, lines 30-31 (Kock).

[5] E. g., χοάνη, *I.G.*, I², 313, line 127, and 314, line 144 (same entry repeated); χώνη, clear and nearly complete in Stele II, line 201 (on the correctness of the form in Attic, see H. van Herwerden, *Lexicon suppletorium et dialecticum*², Leiden, 1910, *s.v.* χώνα). On the archaic black oinochoe Louvre F. 339, with the potter's signature Λυσίας μεποίεσεν, followed by the puzzling word ηεμιχόνει (given in the *Lexicon* as ἡμιχώνη, "half-χώνη"), see Beazley, *A.B.V.*, p. 446, middle, no. 1: "The latter part of the inscription may be for ἡμιχουν ει(μι), the writer having reached the end of his space before he could complete the verb"; *id.*, *V.P.*, p. 5, note 1; Nachod, *R.E.*, XIII, 2, cols. 2543-2544, *s.v. Lysias.* The vase is actually of half-chous capacity; cf. Nachod, *loc. cit.*

[6] E. g., Saglio, *loc. cit.*, G. Karo, "Minoische Rhyta," *Jahrb.*, XXVI, 1915, especially pp. 265-270; Evans, *P.M.*, II, p. 225; F. Stubbings, *B.S.A.*, XLII, 1947, pp. 55-58; C. W. Blegen, *Prosymna*, II, Cambridge, 1937, pl. 63, fig. 261, no. 1056; pl. 168, fig. 271, no. 1002; pl. 190, fig. 726; etc.

[7] Wace, *B.S.A.*, XLIX, 1954, p. 239, pl. 37, b.

[8] *B.S.A.*, Supplementary Paper No. 1, 1923, pp. 72-73, fig. 58, b.

[9] A. Furumark, *Mycenaean Pottery*, Stockholm, 1941, p. 618, Form 53; R. W. Hamilton, *Q.D.A.P.*, IV, 1935, p. 39, pl. 16, no. 236.

hold ware, found recently at Rafina in eastern Attica and now in the National Museum at Athens.[9a]

For the historic Greek period, surprisingly few clay funnels are known which date before 300 B.C., but the scarcity of evidence for this interval is no doubt accidental, for examples are plentiful in the Athenian Agora from the Hellenistic period down to the fifth century after Christ. Fragments of two late archaic pieces were found in the Agora,[10] and one comes from a late fifth-century well at Corinth.[11] Both of the two previously published examples are very fragmentary, but the essentials of their shapes have been made out and restored in plaster. The archaic specimen has a fairly shallow bowl with incurving rim, and a broad, short spout, and measures 0.295 m. across the top. The fifth-century funnel at Corinth is of remarkably similar size and shape, but more fragmentary. No handle is preserved in either case, but handles become standard on later examples. Yet another specimen (Pl. 49, f),[12] from an early fifth-century context, has the sturdy look of the sixth-century funnel published by Vanderpool. The Agora excavations have also yielded a large number of funnels, Hellenistic and Roman, which tend to be of a basically similar type, though of course with variations.[13] Perhaps the most important feature of all these funnels is that they were made for use and not for show. Two of the earlier ones are glazed inside and out, but all the others are quite plain, either unpainted or very simply banded, and the fabric is generally coarse. It is hard to believe, therefore, that our fifth-century funnels could have sold for very much, whatever their size.

Clay funnels of Roman times are also known from other sites, e. g., those cited by Saglio,[14] who also mentions specimens made of bronze and of other materials and illustrates an unusually elaborate combination of funnel and strainer.[15] In the inscriptions we find mention of funnels apparently of iron,[16] of bronze,[17] and of some

[9a] Briefly mentioned, Τὸ Ἔργον τῆς Ἀρχ. Ἑτ. κατὰ τὸ 1954, p. 31. For another striking parallel from the same site, see above, p. 232, note 117, on *Gastroptes*.

[10] E. Vanderpool, *Hesperia*, VII, 1938, p. 401, no. 40, fig. 23 (Agora P 11966) with mention of fragments of another, larger example (Agora P 6124), thinner-walled, with rather more defined curves; black, except for reserved band at top of bowl. Early fifth-century context.

[11] M. Z. Pease, *Hesperia*, VI, 1937, p. 304, no. 204, fig. 32.

[12] Agora P 6646 (shape fully preserved: H. 0.235 m.; L. of spout 0.090 m.; max. diam. 0.325 m.; diam. of mouth-opening 0.255 m.; diam. of spout (outside) 0.070 m.; (inside) 0.053 m.; *no handle*; decorated inside and out with bands of thin brown-black glaze.

[13] These will be published in G. R. Edwards, *Athenian Agora, Hellenistic Pottery* and H. S. Robinson, *Athenian Agora*, V, *Pottery of the Roman Period*, F63, F64, pl. 2; M9, M119, pl. 18. For one of the Hellenistic funnels, see H. A. Thompson, *Hesperia*, III, 1934, p. 418, no. E 136.

[14] Saglio, *loc. cit.*, note 8.

[15] *Ibid.*, fig. 4064; other examples are cited. Cf. D. K. Hill, *J.W.A.G.*, V, 1942, p. 47 and note 20, for a fuller list and a discussion of the type (Etruscan).

[16] *I.G.*, 313, line 127 and 314, line 144.

[17] Dittenberger, *Syll.*[3], 945, line 7 (χώνα), from Assos.

unspecified material.[18] Leaden funnels seem not to be mentioned, but a roughly shaped conical specimen in this material has been found in England in a potter's factory of Roman date.[19] The price of the (small?) leaden χοάνιον in Stele II, lines 57-58 (if this is the only item included in the price) is, at 2 drachmai 2 obols, remarkably high for an object of this type.[20] Possibly something else was included in this price.[21]

Representations of Greek funnels in use are rare, but they do appear in three vase-paintings, all of which seem to be concerned with the sale of perfumed oil (*myron*).[22] In each case, the funnel is used to dip the oil from a pelike for transference into a smaller container (lekythos twice, alabastron once). (1) The most familiar example is the scene on a black-figured pelike in the Vatican, famous also for its inscriptions.[23] Here, the seated vendor has dipped his funnel into a pelike and holds his little finger under the spout while making ready with the lekythos. The funnel has a shallow, curving bowl with a handle opposite the side held by the user, and a short, narrow spout. (2) On another black-figured pelike, Tarquinia RC 1063,[24] a similar funnel (but with offset rim) is held, handle toward the user, in his *left* hand, his little finger extended under the spout, while he reaches with his right hand toward a customer; behind, another man comes up with a lekythos. Although the funnel has been mistaken for a cup or a kotyle, there can be little doubt of its identity.[25] (3) On

[18] *I.G.*, II², 1672, lines 176-177.

[19] T. S. May, *Catalogue of Roman Pottery in the Colchester and Essex Museum*, Cambridge, 1930, p. 262, pl. 79,32.

[20] See below, p. 281.

[21] M. Lang suggests reading χοάνιον μολυβδοῦν [σωλῆ]νος, i.e. a leaden funnel to conduct water into a pipe from a channel of larger diameter. A leaden funnel-shaped object, found at Delos, was used as a water-pipe adapter. The bowl is approximately hemispherical, the spout straight and broad. H. 0.195 m.; top diam. 0.260 m.; outer diam. of spout at end, 0.065 m. Cf. *Délos*, VIII, 2, p. 341, fig. 206. Not weighed but it felt as if it might weigh around 15 pounds. Still larger ones than this, in poor condition, were observed in the apotheke of the Delos museum.

This is an attractive proposal, even though the date of the Delian objects is too late to provide the sort of direct evidence that we should like to have. Leaden pipe was apparently not in large-scale use in the fifth century B.C., but there is no reason to deny the possibility that leaden funnels leading to terracotta pipes may have existed. It is still puzzling, however, why the word *choanion* would have been used for such an object.

[22] See above, p. 213. There are problems of interpretation in some details. See Cloché, *Classes*, pp. 82-84; F. J. M. de Waele, "La répresentation de la vente de l'huile à Athènes," *Rev. Arch.*, XXIII, 1926, pp. 282-294; B. Laum, "L'essai et la vente de l'huile sur les vases peints," *Rev. Arch.*, XXVII, 1928, pp. 233-239; H. Bloesch, *Antike Kunst in der Schweiz*, Erlenbach-Zürich, 1943, pp. 67-69, 172 f., pls. 36-37.

[23] C. Albizzati, *Vasi antichi del Vaticano*, Rome, 1925, no. 413, pl. 61; O. Waldhauer, *Arch. Anz.*, 1927, cols. 71-74; Cloché, *Classes*, pls. 32, 2 and 33, 1; D. von Bothmer, *J.H.S.*, LXXI, 1951, p. 43, no. 41.

[24] G. Iacopi, *C.V.A.*, Museo Nazionale Tarquiniense, 2, III H e, pl. 36, p. 11; Cloché, *Classes*, pl. 33, 2 (drawing), p. 82; de Waele, *op. cit.*, pp. 285, 287, figs. 2-3 (drawings).

[25] Iacopi, de Waele, Cloché, *locc. citt.* What was taken to be the foot must be the user's finger;

the third vase, a red-figured pelike in Marburg,[26] of about mid-fifth-century, the form of the funnel is not quite so clear, but much the same kind of operation is in progress (funnel in *left* hand, as in no. 2; *thumb* under spout?). All these funnels are quite small, but we are unable to determine of what material they are made.

2. Sieve (Koskinon)

(V, 81)

The various objects which were used for sifting meal are treated by Pollux in two main passages.[27] From his words and from ancient sources it appears that the usual kind of sieve was called a *κόσκινον*,[28] and that this implement was ordinarily made of basketry (*ἐκ σχοίνων πλέγμα*). For convenience, however, it is treated here rather than in section VI or VIII, even though this arrangement is not strictly logical.

In the Stelai, the word *κόσκ*[*ινον*] appears only once (V, line 81); the price is not given. The context includes, appropriately, other objects used in the preparation of cereals, the *onos aleton* and the *hypera*.[29] This lone entry may be supplemented by Pollux's statement:[30] *Καὶ ὡς ἐν τοῖς Δημιοπράτοις ἀναγέγραπται, κόσκινον κριθοποιόν*, which must refer to a passage in the Stelai that is no longer extant.[31] The word *κριθοποιόν* occurs only here,[32] but it should mean, 'having to do with the preparation of barley.'[33]

Since the koskinon was properly an object of basketry, found in everyday use, it is perhaps not surprising that there seems to be no mention of it in the temple inventories, although we do find other basketry shapes, translated into metal; nor is it likely that many of the extant objects of terracotta or metal with perforations in them can rightly be called koskina. Although the word 'sieve' is sometimes loosely applied to such things, they seem better adapted to other uses than sifting dry

there is but one handle; and the part evidently thought to be the stem of a small cup (scarcely a kotyle!) is the spout of the funnel.

[26] F. Brommer, *Antike Kleinkunst in Schloss Fasanerie* (*Adolphseck*), Marburg, 1955, fig. 15; *id.*, *C.V.A.*, Schloss Fasanerie, 1, pl. 32, 1-2.

[27] Pollux, VI, 74 and X, 114.

[28] *Κόσκινον*: Liddell-Scott-Jones, *s.v.*; E. Saglio, *Dictionnaire*, I, p. 1568, *s.v. Cribrum*; Hug, *R.E.*, XI, 2, 1922, cols. 1483-1484, *s.v. κόσκινον*; Blümner, *Technologie*, I², pp. 49-55.

[29] Stele V, lines 83-84. On these entries, see Pritchett, Part II, pp. 298 f., and above, pp. 238 f.

[30] Pollux, X, 114.

[31] The words in lines 80 and 82 are mutilated beyond recognition, but neither of them could have been *κριθοποιόν*; nor it is likely that so long a word could have stood after *κόσκινον* in line 81.

[32] It is not listed in Liddell-Scott-Jones, nor in any other Lexicon that I have consulted.

[33] Not necessarily the sifting of barley meal, which was properly called *τὰ ἄλφιτα*. Cf. *ἀλφιτοποιεῖν*, Suidas, *s.v. τηλία*. Perhaps a sieve for winnowing barley to remove the chaff before grinding the meal? On this passage, see also Pritchett, Part II, p. 319.

materials.[34] Representations of the koskinon are, however, easy to find. In addition to the illustrations from Roman times which have been collected,[35] there are several good pictures of Greek koskina. For example, on the two early Hellenistic Megarian bowls in the Louvre and in Athens (replicas from one mould) showing in relief a bakery scene, one of the figures is sifting flour through a sieve (tilted forward, so as to show the crisscross lines indicating the mesh) into a large *kardopos* (see above, pp. 239-241).[36] Archaic representations also exist among the numerous terracotta groups of figures occupied with different phases of bread-making, an artistic subject of great antiquity, with antecedents going back at least to the Middle Kingdom in Egypt.[37] The most elaborate of the Greek terracottas are two groups in the National Museum in Athens, in one of which a woman carries a large, bowl-shaped sieve (Pl. 50, a).[38] A smaller group, in the Metropolitan Museum of Art in New York, which consists of only two figures, shows one woman grinding the meal, the other sifting it through a sieve in the form of a flat, perforated disk surrounded by a vertical rim.[39] It seems likely, too, that the koskinon is represented in vase-paintings, in Attic black-figure scenes of wedding processions, in which the female attendants often carry on their heads, among other things associated with weddings, a flat, cylindrical, basket-like object which has been identified, perhaps correctly, as a koskinon.[40]

The price for a koskinon is given in a Delian inscription of the third century B.C.[41] as 1 drachme 2 obols. Prices for koskina are also preserved in the Edict of

[34] Cf. below, pp. 261 ff.

[35] Saglio, Blümner, and Hug, *locc. citt.* See these sources also for the various specialized names for sieves, in addition to *koskinon.*

[36] M. Rostovtzeff, *A.J.A.*, XLI, 1937, pp. 86-96, figs. 1 and 2,b; F. Versakis, Ἐφ. Ἀρχ., 1914, pp. 50-57, fig. 3.

[37] Cf. Singer, Holmyard and Hall, *Hist. of Tech.*, I, p. 275, fig. 175; also p. 422.

[38] Blümner, *Technologie*, I², p. 62, fig. 24. See above, p. 234.

[39] H. McClees, *Daily Life of the Greeks and Romans*, New York, 1933, p. 41, fig. 50.

[40] Cf. Lullies, *C.V.A.*, Munich, i, p. 12, pl. 9, 4 (*A.B.V.*, p. 297, no. 11: Painter of Berlin 1686), with other examples cited. In most of these scenes the object appears in conjunction with other nuptial accessories, most notably the *liknon* or winnowing fan. Cf. especially *C.V.A.*, British Museum, 3, III H e, pl. 31, 5 b (*A.B.V.*, p. 141, no. 1: Group of London B 174) and *C.V.A.*, Louvre, 6, III H e, pl. 65, 1 (*A.B.V.*, p. 304, middle, no. 1: Painter of Louvre F 42). On the association of the *liknon* with weddings, see J. Harrison, *J.H.S.*, XXIII, 1903, pp. 315-316, who quotes Walters' interpretation of the "flat-shaped vessel" shown on the British Museum vase as a sieve, but concludes that "as we do not know the exact shape of the Greek sieve, it is perhaps safer to interpret (the object) as merely a basket (κανοῦν)." Other writers (e.g., Bobart, *Basket-work*, pp. 35-37; Pottier *ad C.V.A., loc. cit.*) have also preferred either κανοῦν or κίστη. But the shape suits very well what we now know of the koskinon, and the situation agrees well with Pollux's statement (III, 37), ὕπερον δὲ ἐξέδουν πρὸ τοῦ θαλάμου, ὥσπερ καὶ κόσκινον, ἡ παῖς ἔφερεν, σημεῖα, ὡς εἰκός, αὐτουργίας, even though the passage may be corrupt. Therefore is seems at least a good possibility that these are *koskina.*

[41] *I.G.*, XI, 2, 159, A, line 40.

Diocletian.[42] The passage is in fragmentary state, but what remains fixes the maximum price for a coarse leather sieve for threshing (*κόσκινον ἁλωνικὸν ἀπὸ βύρσης*) at 250 denarii, for a fine leather sieve for sifting a superior grade of flour (*κόσκινον ἀπὸ δέρματος σιμιδάλια*)[43] at 400 denarii, and for a large basketwork sieve (*κόσκινον πλεκτὸν μέγα*) at 200 denarii. From these prices we can infer that, even in the centuries following the time of the Stelai, prices of ancient basketry remained high in relation to those for containers made of other materials (see below, pp. 285-286).

What emerges from the evidence given above is a reasonably clear picture of the usual form of the koskinon. It is a flat disk of basketwork or other plaited material, surrounded by a relatively low vertical rim, so that the whole has the appearance of a shallow cylinder with open top. The size must have varied according to purpose, but the illustrations suggest a usual diameter of some 30 to 50 cm.

3. (H)ETHMOS (IN POLLUX)

The need for strainers and colanders ('drainers') of various kinds is present, and provided for, in all civilizations. It would be surprising indeed if nothing of this sort had been listed in the Stelai, and, although no such entry is extant, Pollux gives evidence for the occurrence of at least one item of this kind, in a passage of the Stelai now lost to us.

(H)ethmos.[44] Pollux, X, 108: *Σκεῦος δὲ μαγειρικὸν καὶ ἠθμός, Εὐριπίδου ἐν Εὐρυσθεῖ σατυρικῷ* (Fr. 374) *εἰπόντος*

————ἢ κύαθον ἢ χαλκήλατον
ἠθμὸν προσίσχιον τοῖσδε τοῖς ὑπωπίοις

Ἐν μέντοι δὲ τοῖς Δημιοπράτοις ἠθμός τις ἐπικρητηρίδιος πέπραται, ὃς ἴσως περὶ τὸν οἶνον μᾶλλον προσήκει.

Pollux is, initially, concerned with cooking wares, although he is led astray by the sources which he quotes. Terracotta strainers, which seem well adapted for use in the kitchen, have been found occasionally in excavations, but they must have been far more numerous than the scanty remains would suggest. It seems safe to assume that

[42] Col. XV, 56-61.

[43] Not necessarily 'finest meal,' as translated in T. Frank, *Economic Survey* V, p. 367, and in Liddell-Scott-Jones, *s.v.* *σεμιδαλίτης*, if we are to believe Galen (*De alim. fac.*, 1) who puts *ἄρτος σιλιγνίτης* first, after it *σεμιδαλίτης*.

[44] *Ἠθμός*: Liddell-Scott-Jones, *s.v.*; E. Saglio, *Dictionnaire*, I, pp. 1331-1333, *s.v. Colum*; Richter, *Metropolitan Museum of Art: Greek, Etruscan, and Roman Bronzes*, pp. 229-232, and the references there cited; D. K. Hill, "Wine Ladles and Strainers," *J.W.A.G.*, V, 1942, pp. 40-45, a fully documented and well illustrated study of the types. On the aspirate, which is usually lacking in the literary MSS, see Liddell-Scott-Jones, *s.v.*, and Meisterhans, *Grammatik*[3], p. 102, Sec. 38.

any such object could have been called a ἠθμός, whether used for straining or for draining.[45] There is, as one would expect, considerable variety in the form of these objects. The example from the Agora which is shown here (Pl. 49, g)[46] is of unusual interest because of its very adaptable form, useful either for straining liquids into a pot or for draining solids and then drying them over a fire, for which the generous handle would be an added convenience. This object may have had a more specialized name, but ἠθμός seems ideally appropriate to it. Others would seem to have had more limited or specialized forms.[47]

In another passage, too, Pollux[48] mentions the hethmos among utensils for cookery, but the entry quoted from the *Demioprata* must, as Pollux inferred, apply rather to a wine-strainer. The word ἐπικρητηρίδιος,[49] which occurs only here, indicates that this strainer was of a kind which fitted over the mouth of a krater, so that the wine could be strained through it into the krater. In Pollux's quotation from Euripides, which concerns the treatment of a bruise or a black eye with cold metal, the *hethmos* must also be a wine-strainer, but in this case the sort which was used to strain the wine into a kylix, as is shown by the juxtaposition of *kyathos*, the ladle used for dipping the wine out of the krater and pouring it into the cup.[50]

Of the two kinds of wine-strainer distinguished above, the latter is well known not only from representations of it on Attic red-figured vases, where it appears in

[45] The word 'sieve,' which is properly applied to things used for sifting dry substances, is of course inappropriate here, although it is widely so used. We should not call either 'sieves' or 'strainers' a class of familiar, widespread objects of lead or bronze, pierced and of rectangular shape, for these have been clearly identified, on excellent evidence, as cheese-graters; see especially P. Jacobsthal, *Ath. Mitt.*, LVII, 1932, pp. 1-7; *Olynthus*, X, pp. 191-193, nos. 600-608, pls. 48-49, and the references there cited. The globular vases with perforated bottoms like that in *C.V.A.*, Robinson Collection, III, pl. 3, pp. 12-14 (with literature, and a list of examples), are not 'sieves,' but strainers or sprinklers of some sort; it is doubtful, too, whether they could have been called ἠθμοί.

[46] Agora P 16387. Restored H. to lip, 0.087 m.; max. diam. 0.172 m. Part missing, and restored in plaster, but the shape well established (except for the bottom, which probably should be flatter). Coarse cooking ware fabric, reddish clay with grits, the bottom blackened by contact with fire. Squat body with curving bottom, low conical upper part, with widely flaring lip and vertical strap handle rising above lip. Bottom pierced with many small holes, up to sharply angular juncture with upper part of body. Mid-fourth century context.

[47] Cf., e.g., the bowls or disks with holes in the bottom. Mycenaean: O. Broneer, *Hesperia*, VIII, 1939, pp. 400-401, fig. 83, a-e. Archaic: E. Vanderpool, *Hesperia*, VIII, 1939, p. 263, no. 24, fig. 18. Similar, from Olynthos: *Olynthus*, XII, pp. 288, 291; XIII, 1950, p. 420, nos. 1053-1055, pl. 253. Other types: Vanderpool, *Hesperia*, XIV, 1946, pp. 324-325, no. 282, pl. 16, with references there cited; *Olynthus*, XII, p. 317, XIII, p. 413. Cypriote strainers: *C.V.A.*, Louvre, V, II c b, pl. 11, 23/27; H. B. Walters, *Catalogue of the Greek and Etruscan Vases in the British Museum*, I, 2, London, 1893, p. 206, fig. 352, no. c-1000. Etruscan: *C.V.A.*, Copenhagen, V, pl. 222, 7-9.

[48] Pollux, VI, 89.

[49] Cf. Liddell-Scott-Jones, *s.v.*; and see Pritchett, Part II, p. 318.

[50] On the meaning of this passage, see M. Crosby, *A.J.A.*, XLVII, 1943, p. 213. Cf. also Pherekrates in Athenaeus, XI, 480 b (Frag. 145 Kock); Aristotle, *H.A.*, IV, 8.

banquet scenes in association with the krater, the kyathos, and the oinochoe,[51] but also from numerous examples of the object itself, which clearly have the shape demanded by the vase-pictures.[52] An unusually fine example is provided by the matching silver ladle and strainer which were published, with an excellent commentary, a few years ago by Margaret Crosby.[53]

The other kind, the *ἠθμός τις ἐπικρητηρίδιος*, about which Pollux is understandably vague, has been more elusive; it seems not to have been recognized in any extant specimens of strainers. Its existence is, however, corroborated by inscriptions which mention a *κρατῆρα καὶ ὑποκρητήριον καὶ ἠθμόν*;[54] an *ἠθμὸς κρατῆρος Λακωνικοῦ*;[55] and an *ἠθμὸς ἀπὸ κρατῆρος συντετριμμένος*.[56] R. Zahn long ago[57] connected these epigraphical passages with Pollux's *ἠθμὸς ἐπικρητηρίδιος*, and proposed, as an illustration of an oinochoe resting on the (invisible) strainer inside the mouth of a krater, the medallion picture of a black-figured Laconian kylix in London.[58] From this evidence, taken altogether, we may suppose the hethmos epikreteridios to have been a wide, shallow strainer, either without handles or with one or two side handles, and broad enough for its rim to have been supported by the rim of its krater. We need not go far to find candidates for admission into this class. The most impressive examples, as Miss Dorothy Hill has pointed out to me, are the strainer-lids for the big krater from Vix[59] and one of those from Trebenischte.[60] Yet another object which admirably

[51] D. K. Hill (*op. cit.*, p. 52, note 37) gives a list of illustrations of strainers which appear in Attic red-figure. They include works of the Brygos Painter ("a" and "e": *A.R.V.*, p. 253, no. 129, and p. 247, no. 21; Miss Hill's "g" is the same vase as her "e": read "Hartwig, pl. 34"); Makron ("b": *A.R.V.*, p. 306, no. 83); Douris ("c": *A.R.V.*, p. 284, no. 54); the Foundry Painter ("f": *A.R.V.*, p. 264, no. 11); the Painter of the Louvre Symposion ("d": *A.R.V.*, p. 664, no. 2) and the Dinos Painter ("h": *A.R.V.*, p. 790, no. 6). Details of "b" and "a," Hill, *op. cit.*, pp. 44-45, figs. 4, 5. Cf. also the Etruscan wall painting in the Tomba dei Vasi Dipinti at Tarquinia: P. Ducati, *Mon. della Pittura Antica, Tarquinii*, I-II, pl. VI, 1; detail Hill, *op. cit.*, p. 43, fig. 3.

[52] Cf. Saglio, Richter, Hill, *locc. citt.* Especially close to those shown in the vase-paintings, with suspension hook at end of handle, is the archaic inscribed example from the Argive Heraeum, C. Waldstein, *The Argive Heraeum*, II, Boston and New York, 1905, p. 297, no. 2239, pl. 125. For combination sieve-funnels, see above, p. 257.

[53] *A.J.A.*, XLVII, 1943, pp. 209-216.

[54] Dittenberger, *Syll.*[3], no. 2; Roehl, *Inscriptiones Graecae Antiquissimae*, Berlin, 1882, no. 492. The word is aspirated in this inscription (see above, note 44), apparently also in *I.G.*, II[2], 1416, lines 10-11.

[55] *I.G.*, II[2], 1694, lines 5-6.

[56] *I.G.*, XI, 2, 161, C, lines 71-75; 164, B, line 27 and 199, B, line 84. Cf. *B.C.H.*, XIV, 1890, p. 415. The same inscriptions also list an *ἠθμὸς ἐν ξύλῳ δεδεμένος*, that is, a strainer with a wooden rim.

[57] R. Zahn, *Ath. Mitt.*, XXIV, 1899, p. 343, note 1.

[58] British Museum B 3: *Arch. Zeit.*, 1881, pls. 12, 1; 13, 1 and 4; Pfuhl, III, fig. 196; *B.S.A.*, XXIV, 1933-34, pl. 46, a.

[59] Rene Joffroy, "Le Trésor de Vix (Cote d'Or)," *Mon. Piot*, XLVIII, 1, Paris, 1954, pls. 16-18.

[60] Joffroy, *op. cit.*, pl. 19.

fits these requirements was found in the Bernardini Tomb at Praeneste.[61] It is part of a silver set, consisting of a bowl or lebes with a " lid in the form of a strainer " and a ladle. The strainer, which has a small, hook-shaped side handle, a wide, flat rim, and a central depression in two degrees, the lower one perforated, must also be that which we are seeking, a hethmos epikreteridios. Strainers of this kind have such obvious utility that they must have been very common. There is little doubt that a further search, with these identifications in mind, would produce other examples.

VIII. BASKETRY AND WICKERWORK

Basketwork [1] is one of the oldest human industries associated with settled community life. In most cultures, its origin is believed to antedate even the beginnings of pottery, hence to have appeared, at the latest, in a very early stage of the Neolithic. In Mesopotamia and in Egypt, the process of plaiting twigs, reeds, bark and other pliant materials to form mats and containers was known from a very early date, and many actual specimens of Egyptian basketry have survived.[2] In Greece, where the climate does not favor the survival of objects made of vegetal matter, no existing examples of basketry are known, but this loss is partly offset by vase-paintings and other representations which bear witness to the existence there of baskets in a profusion of sizes and shapes. The literature, too, is full of words signifying baskets of various kinds, some of which terms were adopted, with little or no change, into Latin, and have passed into modern languages. These sources show us that basketwork had an important place in the equipment of an ancient Greek household.

Identification by name of specific types of baskets is, however, in most cases very difficult because, as is often the case in Greek terminology, usage and definition both tend to explain the objects functionally but not descriptively. Some of the commoner words, also, seem more generic than specific, and indeed appear to have served frequently as synonyms for one another. The generic English word, " basket," would offer much the same sort of problem if one were faced with the task of describing the object whenever the name appears in literature. Therefore our tentative efforts to visualize as particular kinds of basketry the objects named in the Stelai can be

[61] C. D. Curtis, *M.A.A.R.*, III, 1919, p. 49, no. 30, pl. 26, 1-3. Cf. Hill, *op. cit.*, p. 49 and note 27.

[1] For ancient basketry, see especially Bobart, *Basketwork*, pp. 1-52; Blümner, *Technologie*, I², pp. 293-312; Singer, Holmyard and Hall, *Hist. of Tech.*, I, pp. 413-424. This chapter owes much to the assistance of Miss Diane Aller.

[2] Bobart, *Basketwork*, pp. 11-15. Disappointing to H. Capart (*Chronique d'Égypte*, XI, 1936, pp. 441-2), as it would doubtless be to any Egyptologist. The great number of representations in Egyptian art which show baskets in use offers a fruitful field for drawing comparisons with the Greek, but the opportunity must here be regretfully put aside.

expected to meet with obstacles. Yet, in spite of these difficulties, much can be learned by careful study of the sources and the monuments. This chapter is offered more as a beginning than as an accomplishment, but some progress will be evident, it is hoped, toward the solution of the problems raised by those particular basket terms which appear in the Stelai.

All of the extant passages which concern basketry appear in Stelai I, II, and V. Several of them are treated elsewhere in the commentary. Pritchett discusses *κάννα* ('reed mat') and *ψίαθος* ('rush mat') in his chapter on Furniture;[3] to these might logically have been added *γέρρον* (see below), which is also a mat. The *γαλεάγρα* ('weasel trap,' possibly of wickerwork) and the *πτέον* ('winnowing shovel') are in Pritchett's chapter on Tools.[4] *Κόσκινον* ('sieve') and *σταφυλοβόλος* (just possibly a kind of basket) appear elsewhere in Part III.[5] The following account deals with the rest of the objects listed in the Stelai (chiefly containers) which were or might have been made of basketry.

1. Gerron
(II, 124)

The word occurs only this once, where three *γέρρα* are listed in the same line with a *γαλεάγρα* (weasel trap; cf. above), and in a passage concerned with tools and various farming equipment. Prices for the individual items are not given.

This word, *γέρρον*,[6] is first found in Herodotos,[7] where it means a kind of shield used by the Persians. In late writers the material is described as wickerwork, but leather is also mentioned.[8] It is used by Demosthenes [9] for the screens of wickerwork found in the Athenian market-place. There appears also, however, to have been a more general sense, namely, for any kind of screen or cover, no doubt originally with reference to wickerwork or matting, but also stated to be of leather;[10] or even

[3] Pritchett, Part II, pp. 247, 254.

[4] Pritchett, Part II, pp. 290, 299 f.

[5] Above, pp. 259-261 and 249-250 respectively.

[6] Γέρρον: Liddell-Scott-Jones, *s.v.*; Stephanus, *Thes.*, *s.v.*

[7] Herodotos, VII, 61, 1; IX, 61, 3; 62, 2; 99, 3; 102, 2 and 3. Cf. Xenophon, *Cyrop.*, I, 2, 9, I, 1, 21; II, 2, 19; IV, 2, 22; Plutarch, *Arist.* 17 and *Aemil.* 32.

[8] Defined in Eustathios, 1924 (*ad Od.*, XXII, 184) as *ἀσπίδες* Περσικαὶ *ἐκ λύγων καὶ οἰσύϊνοι*; in *Et. Mag.*, 228, 42, Περσικὰ *μέν ἐστιν ὅπλα, δερμάτινα κυρίως*. Both materials are mentioned in Suidas, *s.v. γέρροιν . . . καὶ ἀσπίδες* Περσικαὶ *ἐκ λύγων . . . τινὰ δὲ δερμάτινα σκεπάσματα καὶ* Περσικὰ *οἷς ἀντ' ἀσπίδων ἐχρῶντο*. Both ways also in Bekker, *Anecd.*, I, *τὰς πλεκτὰς ἀσπίδας καὶ οἵας αἱ Ἀμαζόνες γράφονται ἔχουσαι* (p. 23) and *εἶδος ὅπλου δερματίνου* (p. 227).

[9] Demosthenes, *Pro Ctes.* 284, 24; *In Neaeram*, 1375, 19. Similarly defined in *Et. Gud.*, 123, 57 (Stefani, p. 306); Bekker, *Anecd.*, I, pp. 23, 227; Eustathios, *loc. cit.*; Suidas, *s.v.* The material, again, is stated variously to be wickerwork or leather. See R. E. Wycherley, *J.H.S.*, LXXV, 1955, pp. 117-118; *Athenian Agora*, III, p. 191.

[10] Cf. Hesychius, *s.v.* Γέρρα· *τὰ σκεπάσματα πάντα ἢ τὰ δερμάτινα σκεπάσματα*; Suidas, *s.v. γέρροιν*·

for a rod or cane,[11] the basic unit of material for basketry. Other meanings of the word are not relevant, and need not concern us here.

The *gerra* of Stele II could hardly have been shields in the Herodotean sense; they might have been plaited mats, perhaps used for some purpose in the field;[12] or, more simply, 'matting,' for no specified purpose. The text gives us no means of determining their use, or of guessing at their particular material or their size.

2. Kanaustron

(I, 237)

The *καναῦστρον* is mentioned only here, in a list of furniture and indoor furnishings. There were two (dual number, followed by two strokes),[13] but the price is too badly mutilated to be of much use. The unit price was *at least* 1½ obols, but it may have been considerably more.

The usual and most persistent spelling of the word is *κάναστρον*.[14] The form *καναῦστρον* occurs only here. Pollux (X, 86) cites *κάναστρον* and *κάνυστρον* as if they both occurred in the Stelai. Whether this is a garbled reference to our entry, or whether one or both of the forms which he cites actually were used in the Stelai, one cannot say.[15] The latter might be Pollux's error for *καναῦστρον*,[16] but *κάνυστρον* is found also in a popular poem quoted by Athenaeus,[17] and it may have some validity. *Κάνιστρον*, which occurs in a late papyrus,[18] is found also in one MS of Athenaeus[19] in the poem mentioned above, and it offers the closest parallel to the regular Latin

. . . καὶ γέρρα τὰ σκεπάσματα πάντα Ἀττικοί. *Et. Mag.*, p. 228, 42: ἅπαν σκέπασμα εἴτε δερμάτινον, εἴτε ἐξ ἄλλης τινος ὕλης.

[11] Eupolis, Frag. 405 (Suidas, *loc. cit.*). Cf. *Et. Gud.*, p. 306: Δορικὸν σκέπασμα, ὑσσός, καὶ γέρρον οὐσῖνον. Cf. also Boisacq, *Dictionnaire*⁴, *s.v.*, who cites Hesychius *s.v.* γάρρα· ῥάβδος and *s.v.* γάρσανα· φρύγανα. Κρῆτες.

[12] As sunshades, or shelters of some kind? Cf., again, Hesychius, *s.v.* γέρρα· τὰ ἀπὸ καλάμων ἢ παπύρων ἐργαστήρια.

[13] Cf. Pritchett, Part I, p. 249. The entry should read καναύστρο II.

[14] E. g., Collitz, *G.D.I.*, III, 2, 5087, line 9; *S.E.G.*, I, 414; Nicopho in Pollux, V, 86, and cf. X, 84, 85, 86, etc.

[15] The end of Stele I has several other words which are apparently misquoted by Pollux; lines 217-218, 231, 233-234. On such inaccuracies, cf. Pritchett, Part II, pp. 324-327.

[16] Pollux, X, 86: ἐν δὲ τοῖς Δημιοπράτοις οὐ κάναστρον μόνον ἀλλὰ κάνυστρον εὑρίσκομεν. Would it be straining Pollux's language too far to suppose that he meant, not that both forms were found in the Stelai, but simply that, *instead* of the usual κάναστρον, we find καν(α)ῦστρον?

[17] Bergk, *P.L.G.*, III, p. 671, no. 41, 9 (see his *app. crit.*), in Athenaeus, VIII, 360 c. The word κάνυστρον in Bethe's text of Pollux, X, 164 is an emendation, having no manuscript authority.

[18] *British Museum Papyri*, V, no. 1657, line 9.

[19] Above, note 17; see Bergk's *app. crit.* Cf. also κάνιστρον, Hesychius and Photius, *s.v.*

form *canistrum*.[20] Although the word has different meanings (see below), these variations of spelling seem unrelated to such differences.

The original meaning of *κάνα(ν)στρον*, 'wicker basket,' seems well established by its etymology,[21] but the object itself was often made of other materials. In fact, basketry is rarely indicated by Greek usage of the word,[22] hardly more often for *canister* in Latin.[23] In some cases, where the material is not specified, a shallow dish of pottery or metal is nevertheless clearly intended.[24] The material of which our *kanaustro* were made is, therefore, not surely basketry; yet the fact that the entry is placed next to a *κάννα* suggests that these were probably wicker baskets.

Pollux and other late writers [25] include *kanastra* among the dishes used for serving delicacies at the table, in the company of lekania, tryblia, oxybapha, and the like. Although there is only one mention of a kanastron holding a particular substance (cheese),[26] its uses in general are well indicated by the sources. Whether of basketry or pottery or some finer material, it was a shallow dish or tray [27] used to serve various foodstuffs at the table. The Latin sources give *canistrum* as a container for bread, fruits, flowers, food in general, and sacrificial materials.[28]

It is generally supposed, perhaps correctly, that *καναῦστρον* is synonymous with *κάνεον* (*κανοῦν*).[29] If this is so, the object should be much easier to identify archaeologically. The *κανοῦν*, from Homer (*κάνειον*) onward, was the familiar 'bread-basket' of the Greeks, also much used for carrying offerings and sacrificial implements.[30] Because of its religious uses, metal examples are often listed in temple inven-

[20] *Thes. L. L., s.v.*

[21] Cf. Boisacq, *Dictionnaire*[4], *s.v.* *κάννα* (on which, see Pritchett, Part II, p. 247). The root, which is of Mesopotamian origin, has survived persistently; cf. modern Greek *κάνιστρον*, Italian *canistra*, Spanish *canasta*, English *canister*.

[22] As in Pollux, X, 85: *φελλώδεις τινὲς πινακίσκοι*. Hesychius, *s.v.*, equates it with *κανοῦν*, an object which is also often made of something other than basketry.

[23] As in Isidorus, *Orig.*, XX, 9, 8: *canistrum fissis cannis texitur.*

[24] Cf. Liddell-Scott-Jones, *s.v.*, II: 'earthen vessel,' 'dish.' In *Homeri Epigrammata*, XIV, 3 (in Pollux, X, 84) pottery does seem to be meant; silver, rather, in Nicopho Frag. 24 (in Pollux, VI, 86; cf. VI, 84, *ἀργυροῦς ἢ χεύματα ἀργυρᾶ*). Conversely, at the head of the entry, the *Lexicon* cities, for 'wicker basket,' Collitz, *G.D.I.*, III, 2, 5087, line 9 (line 10, rather), where the *κάναστρα* are mentioned in a list of *σκεῦα κεράμινα*; and *S.E.G.*, I, 414, line 6 ("dub."), where the word may instead be a geographical adjective, *κανασ*τ[*ραῖ*]*ον*. For the meaning, 'pottery dish,' add Hesychius, *s.v. κάναστρον· ὄστρακον, τρύβλιον, κανοῦν.*

[25] Pollux, VI, 86; cf. X, 84 ff. So, likewise, it is called a *τρύβλιον* by Hesychius (*s.v.*), Photius (*s.v.*), and Eustathios (1402, 29; *ad Od.*, I, 145).

[26] Bergk, *P.L.C.*, III, p. 671, no. 41, 9 (in Athenaeus, VIII, 360 c).

[27] E. g., Ovid, *Met.*, VIII, 675, *Fast.*, II, 650.

[28] Cf. *Thes. L. L., s.v.*

[29] Liddell-Scott-Jones, *s.v.* *κάναστρον*; Petersen and Buck, *Reverse Index of Greek Nouns and Adjectives*, p. 314; A. Mau, *R.E.* III, cols. 1482-1483, *s.v. Canistrum*; Boisacq, *Dictionnaire*[4], *s.v.* *κάννα*. Cf. Hesychius, *s.v.*

[30] Liddell-Scott-Jones, *s.v.* *κάνεον*; Mau, *R.E., loc. cit.*; E. Saglio, *Dictionnaire*, I, pp. 890-891, *s.v. Canistrum, Canum* (where, however, *κάναστρον* is not mentioned).

tories,[31] and basketry examples appear in many vase-paintings [32] of the fifth century B.C. In general, the association of this material with the *καναῦστρον*, if legitimate, would serve very well to clarify our impression of the object. From these illustrations, it should be a round, flat-bottomed basket, with straight but often slightly flaring sides, and a usual diameter of about 35-60 cm. There are, of course, other kinds of baskets which may qualify as *κανᾶ*,[33] but those cited here look best suited to everyday use. If our *kanaustro* are baskets of any sort, as the context suggests that they may be,[34] and if *κάναστρον* and *κανοῦν* may be taken as synonymous, this form has a good claim to being illustrative at least of the general type.

We have evidence elsewhere in the Stelai that good basketry was not cheap.[35] To this may be added the fact that an inscription of 329/8 B.C., from Eleusis, records the purchase of a ceremonial *κανοῦν* for 4 drachmai,[36] although it must be said that the material is not specified.

3. Kiste Oisyine

(II, 38)

When Nausikaa's mother packed her lunch for her,[37] including every sort of good food as well as dainties, she put it in a *κίστη*.[38] So, too, in Aristophanes the *κίστη* is mentioned more than once as a container for food (e.g., *ἐπὶ δεῖπνον τἀχὺ βάδιζε τὴν κίστην λαβὼν καὶ τὸν χόα*),[39] and the use of *κίστη* for a food basket is familiar also from other sources.[40] The name was applied, however, to objects serving a variety of

[31] Frequently of gold, silver, and bronze in Attic inscriptions. Cf. also the large silver *κανοῦν* (2,029 drachmai) in a Delian inventory (Dittenberger, *Syll.*², 588, line 185), and the golden (?) *κανήια* in *I.G.*, XII, 2, 13, line 1.

[32] E.g., on white lekythoi, such as Pfuhl, III, figs. 529 (*A.R.V.*, p. 640, no. 98, Achilles Painter), 530 (*A.R.V.*, p. 641, no. 104, Achilles Painter), 532 (*A.R.V.*, p. 467, no. 3, Inscriptions Painter), 534 (*A.R.V.*, p. 807, no. 1, Bosanquet Painter), 540 (*A.R.V.*, p. 782, no. 72, Painter of Munich 2335); and countless others. Often in Apulian r.-f., e.g., *C.V.A.*, Compiègne, I, pl. 22, 9.

[33] E.g., those with vertical projections rising from the base, which are especially common in cult scenes. A good example on the stamnos London E452 (*A.R.V.*, p. 669, no. 6, Eupolis Painter); but many are more elaborate than this.

[34] Cf. above, p. 267.

[35] Cf. below, on *kiste oisyine*, pp. 269, 271.

[36] *I.G.*, II², 1672, line 116.

[37] *Od.*, VI, 76.

[38] *Κίστη*: Liddell-Scott-Jones, *s.v.*; Boisacq, *Dictionnaire*⁴, *s.v.*; E. Fermique, *Dictionnaire*, I, pp. 1202-1205, *s.v. Cista, Cistella*; *Thes. L. L., s.v. cista.*

[39] Aristophanes, *Ach.*, 1086. Cf. also *Ach.*, 1098, 1138 (*κιστίς*, for the same object as before); *Lys.*, 1184. For the custom according to which dinner guests brought their own provisions, the host furnishing the accessories, cf. Scholion on Homer, *Od.*, VI, 76; Richter and Hall, *R.-F. Ath. Vases*, I, p. 66 and note 1. See also E. Saglio, *Dictionnaire*, IV, pp. 1446-1447, *s.v. Spyris.*

[40] E.g., Pollux, VI, 13; X, 91 and 180; Hesychius and Suidas, *s.v.* So also cista in Latin: *Thes. L.L., s.v.* Pollux, *locc. citt.*, speaks of a *κίστη ὀψοφόρος* and a *κίστη δειπνοφόρος*.

needs; to hold clothing,[41] to hold the sacred objects[42] or sacrificial offerings[43] in religious ceremonies, for the drugs peddled by witches,[44] for writing materials,[45] and even as a voting urn.[46] Of these uses, the first two—for food and for clothing—seem most likely to be relevant to the *κίστη οἰσυΐνη* in Stele II, line 38, which was sold for 3 drachmai 3 obols.[47]

Although the term *κίστη* originally meant an object of basketry, it must often be understood as a container made of some other material.[48] Many representations of the so-called *cista mystica*, for instance, plainly show a container not made of basketry,[49] and Hesychius equates the word with *κιβωτός*.[50] But the material for our kiste is stated; it is made of osiers (*οἰσύαι*; cf. *λύγοι*) from the *vitex agnus castus*, a favorite material for wickerwork in both ancient and modern times.[51]

The probable form of this object, as well as its use, may be suggested in the numerous fifth-century representations of Greek basketry, found mainly in Attic vase-painting. Two principal types appear in association with food and banqueting: (1) a more or less hemispherical, or at times bell-shaped, basket, sometimes shown with tasseled string bindings, and usually having a cord for suspension (see type-drawings, Pl. 51, a)[52] and (2) a roughly cylindrical form, with concave profile, often provided with animal-paw feet which look as if they might be of metal, and a rigid, semi-circular handle (see type-drawings, Pl. 51, b).[53] Since both of these types appear often

[41] Pollux, VII, 179; X, 136 and 180; Hesychius, *s.v.*; Suidas, *s.v. κίστη καὶ κιστίς*.

[42] E.g., Dittenberger, *Syll.*[3], 786, line 30. Similarly in Latin, e.g., Catullus, LXIV, 259.

[43] E.g., Aristophanes, *Thesm.*, 284; Theokritos, XXVI, 7. Cf. below, note 63.

[44] E.g., Sophocles, Frag. 479, 5; Aristophanes, Frag. 28, in Pollux, X, 180; Theokritos, II, 161.

[45] E.g., Aristophanes, *Vesp.*, 529; cf. *Pax*, 666. So also in Latin; cf. *Thes. L.L.*, *s.v. Notiziario Archeologico*, IV, p. 20 (Cyrene, Augustan); and in Latin, cf. *Thes. L.L.*, *s.v.*

[46] *Notiziario Archeologico*, IV, p. 20 (Cyrene, Augustan); and in Latin, cf. *Thes. L.L.*, *s.v.*

[47] For the possibility that the price should be read as 4 drachmai 2 obols, see Pritchett, Part I, p. 257.

[48] Cf. E. Fermique, *loc. cit.*, whose main concern is with metal *cistae*, such as the so-called *cistae Praenestinae*. These must, however, go back to antecedents in basketry. Cf., e.g., *C.V.A.*, Villa Giulia, I, IV, Br, 3, 5 (Etruscan red-figure; Beazley, *E.V.P.* p. 100, bottom, no. 1), and Beazley, *E.V.P.*, pl. X, 3, p. 54. Yet another Etruscan example was used as an *ἀλαβαστοθήκη*; cf. above, p. 216 note 129.

[49] Above, note 38.

[50] Hesychius, *s.v.*; cf. Pollux, VII, 159 and X, 136. But see also Liddell-Scott-Jones, *s.v.*

[51] Bobart, *Basketwork*, pp. 43-44; Blümner, *Technologie*, I[2], p. 302.

[52] (*a*) Pfuhl, III, fig. 405 (Panaitios Painter; *A.R.V.*, p. 214, no. 11); (*b*) Pfuhl, III, fig. 422 a (Brygos Painter; *A.R.V.*, p. 248, no. 27); (*c*)-(*d*) Richter and Hall, *R.-F. Ath. Vases*, pl. 44, nos. 44, 50 (Brygos Painter; *A.R.V.*, p. 251, no. 75 and p. 252, no. 113); (*e*)-(*f*) *C.V.A.*, Villa Giulia, I, III Ic, pl. 11, 1 (Polygnotos; *A.R.V.*, p. 678, no. 9); (*g*) *C.V.A.*, Brussels, 3, III Ic, pl. 22, 1 (Epileios Painter; *A.R.V.*, p. 108, 5); (*h*) G. M. A. Richter, *Ancient Furniture*, Oxford, 1926, p. 69, fig. 185 (Douris; *A.R.V.*, p. 291, no. 174). These type-drawings of basket shapes and the others in this chapter were made by Mr. William M. Hill.

[53] (*a*) Pfuhl, III, fig. 468 (Douris; *A.R.V.*, p. 283, no. 47; perhaps there a writing-case); (*b*)

in banqueting scenes, we may, on the evidence of the literary sources,[54] be justified in thinking that either could be called a *kiste*. But there is still another kind of basket, shown frequently in the vase-paintings, which may have a good claim to this designation. This is the ' basket-chest,' a cylindrical basket with slip-on lid (see type-drawings, Pl. 51, c).[55] In the vase-paintings it is usually shown in completely flat profile, so that its round shape is not made clear; but there are examples, both in vase-paintings [56] and in terracotta reliefs,[57] which show enough of the form in perspective to indicate that it is round or at least oval. The designs on the vertical side make it plain that basketry is intended. The slip-on lid, which is being removed or replaced in some illustrations, may be generally inferred to be present even where its relationship to the lower part is not shown.[58] We have observed that the word κίστη is sometimes defined as a container for clothing.[59] The basket with slip-on cover appears in scenes having to do with women's indoor activities, where this use would be apt,[60] and where the use encourages the notion that this kind of basket, too, was called a κίστη.[61] The definitions and use of κίστη are not sufficiently limiting to allow any really precise image to be formed, and we know that still other types of fifth-century basketry were called κίσται,[62] hence that the term was, to a certain degree, generic.

C.V.A., Compiègne, pl. 17, 14 (Wedding Painter; *A.R.V.*, p. 605, no. 1); (*c*) Richter and Hall, *R.-F. Ath. Vases*, pl. 39 (Colmar Painter; *A.R.V.*, p. 229, no. 40); (*d*)-(*e*) E. Pottier, *Vases antiques du Louvre*, III, pls. 147, 148 (Penthesileia Painter; *A.R.V.*, p. 585, no. 49, and Manner of the Penthesileia Painter; *A.R.V.*, p. 589, no. 2).

[54] Cf. above, notes 39, 40.

[55] (*a*) *C.V.A.*, Oxford, 1, III I, pl. 34, 1 (Providence Painter; *A.R.V.*, p. 435, no. 67); (*b*)-(*c*) Richter and Hall, *R.-F. Ath. Vases*, pls. 146-147, nos. 145-146 (Washing Painter; *A.R.V.*, p. 742, no. 1, and p. 743, no. 5); (*d*) Richter, *Ancient Furniture*, fig. 244 (Washing Painter; *A.R.V.*, p. 743, no. 4); (*e*) Pfuhl, III, fig. 561, carried by standing Eros (Eretria Painter; *A.R.V.*, p. 726, no. 27); (*f*) *B.S.A.*, XI, 1904-1905, p. 242, fig. 4 (Attic, fourth century; K. Schefold, *Untersuch.*, p. 4, no. 3); (*g*) *C.V.A.*, Compiègne, pl. 22, 9 (Apulian); cf. *ibid.*, pl. 23, 12; (*h*) *Mon. Piot.* XXIV, 1920, pl. 13 (Campanian polychrome); (*i*) *C.V.A.*, Museo Campano, 1, IV Er, pl. 14, 4 (Campanian).

[56] See type-drawings, Plate 51, c, *c*, *d*, *h*, *i*.

[57] Richter, *Ancient Furniture*, p. 98, figs. 242, 245. In *ibid.*, fig. 63, the " chest containing Erichthonius (?)" appears to be a cylindrical, lidded basket, though shallower than the others; the round shape and the basket-work pattern are clearly shown.

[58] Cf., however, *ibid.*, p. 99, where lidless examples seem to be meant.

[59] See above, note 41.

[60] Especially in nuptial subjects, as in note 55, *a*, *c*, and *e*.

[61] *Loc. cit.*, where Richter says that the baskets in these vase-paintings are " identical in form with the so-called *cista mystica* so dear to the hearts of the Greek religionists."

[62] Such as the open-sided baskets for ceremonial use, frequently seen in Attic r.-f., e.g., Pfuhl, III, fig. 477 (Pan Painter; *A.R.V.*, p. 362, no. 14), out of which presumably developed the elaborate golden " processional baskets " of the later fifth and fourth centuries, e.g., Richter and Hall, *R.-F. Ath. Vases*, pl. 159, no. 160 (faintly visible in right-hand picture; manner of the Meidias Painter; *A.R.V.*, p. 838, no. 46) and plates 164-165, nos. 169-170 (Kertch ware; Schefold, *Untersuch.*, p. 37, no. 327, and p. 61, no. 593; attributed to the Pompe Painter). On the interpretation of these

About all that can be said of our *κίστη οἰσυΐνη* is that it may have been one of the domestic types described above. Its location in the list (between kneading basins and a corncrib) offers no significant help toward a narrower definition of the object. The price of 3 drachmai 3 obols suggests an object of high quality, but we have in the Stelai no other directly stated prices of basketry with which to compare it (cf. above, on *καναῦστρον*, p. 266). A slight preference for identifying our kiste with a banquet-basket of one or another type may be justified by the fact that only late sources associate kistai with clothing, but this factor is scarcely decisive. Again, the price *may* favor the footed food basket, because of its elaborate construction and its possible use of metal attachments, but we are not really in a position to choose one type over the other.

4. Kophinos

(V, 87)

No price is stated in this one mention of a *κόφινο*[ς].

The *κόφινος* [63] is a plaited basket [64] used chiefly for carrying burdens.[65] It is said to be synonymous with *ἄρριχος*,[66] and indeed its uses appear to be much the same. The etymology of the word is uncertain.[67]

There is no direct evidence for the shape of a kophinos. In view of its utilitarian purposes, we might think of a fairly deep object, as is suggested also by the Boeotian practice of exposing defaulting debtors to ridicule by making them sit in the agora with a kophinos over their heads.[68] There is some indication of its size in the statement that the kophinos was a Boeotian measure of both wet and dry substances,

objects as baskets, and for other examples, see Richter and Hall, *op. cit.*, pp. 169-170, with references there cited. Miss Richter does not mention the simpler and earlier type, like the example first cited above, but its form and uses are so strongly similar that it should be the predecessor of the others.

[63] Κόφινος: Liddell-Scott-Jones, *s.v.*; Stephanus, *Thes.*, *s.v.*; Boisacq, *Dictionnaire*[4], *s.v.*; E. Saglio, *Dictionnaire*, I, p. 1497, *s.v. Cophinus*.

[64] Cf. Pollux, VII, 173; Hesychius, *s.v. ἄρριχος*; Suidas, *s.v. κόφινος*; Isidore, *Orig.*, XX, 9; *Et. Mag.*, *s.v.* Ἀρρίχων. It is also mentioned often with other basketwork, e.g., Aristophanes, *Av.*, 1310; Pollux, I, 245; VI, 94 *et al.*

[65] For carrying manure: Aristophanes, Frag. 662 in Pollux, VII, 134; Xenophon, *Mem.*, III, 8, 6; Isidore, *Orig.*, XX, 9. For farm crops: Pollux, I, 245 and X, 129. For stones: Aristophanes, Frag. 349, in Pollux, VII, 162. Mentioned with farm implements: Theophrastos, *Char.*, IV, 11. For cleaning up the scraps after a banquet: Pollux, VI, 94. With *ἄρριχος* and *κάλαθος*, comically, as receptacles for the birds' wings in Aristophanes, *Av.*, 1309-1310, 1325.

[66] Liddell-Scott-Jones, *s.v. ἄρριχος*. Cf. Hesychius, *Et. Mag.*, and Moeris, *Att.*, *s.v.* In Aristophanes, *Av.*, 1309-1310, there is no necessary implication that the two words are synonymous (cf. above, note 65). The statement that *ἄρριχος* was preferred in Attic usage seems not to be borne out by the literary passages, for *κόφινος* is at least as common as *ἄρριχος*.

[67] Cf. Boisacq, *Dictionnaire*[4], *s.v.*

[68] Liddell-Scott-Jones, *s.v. κοφινόομαι*; Stephanus, *Thes.*, *s.v. κοφινόω*.

equivalent to three (Attic) choes, or about two gallons.[69] Surely not all kophinoi were of a standard size, but other evidence of relative largeness is seen in a fourth-century Eleusinian inscription recording the purchase of kophinoi at a usual price of one drachme each.[70] In another incription,[71] a distribution of largesse assigns to each person a kophinos of wheat and a hemi(na?)[72] of wine. This much wheat, even as a generous gift, compares favorably with the Spartan soldier's daily ration (one choinix, or about a quart),[73] if the Boeotian measure is applied to this case. All of this evidence counts heavily against Jardé's suggestion[74] that the price named in Strattis[75] for barley meal, 4 drachmai the *kophinos*, may indicate a medimnus-sized kophinos. The allusion is puzzling, but Jardé's alternative proposal is better, that the text has some meaning which we cannot grasp (the author is a comic writer; the quotation is brief, and we cannot guess at the full context).

The identification of the kophinos with a particular type of basket found in ancient representations, as proposed by Saglio,[76] may be over-optimistic. This identification appears to rest mainly on analogies with similarly-named modern basketry (e.g., French *cofin, coufin,* Italian *cofino*), but this survival of the *word* offers no guarantee that what it designates has remained constant.[77] The type which Saglio calls a κόφινος occurs on a pelike in Cambridge, decorated by the Pig Painter,[78] and another, in Vienna, by the Pan Painter.[79] The shapes in these two cases are not quite the same, but in both a deep coil-basket seems to be meant. The baskets shown on a red-figured kylix in Copenhagen,[80] which Tillyard[81] cites as analogous, are not exactly of this sort, being woven rather than coiled, but the shapes are quite similar.[82] It is possible that baskets of this general kind were called kophinoi, but the real problem

[69] Strattis in Pollux, IX, 169; Hesychius, *s.v.* Cf. F. Hultsch, *Griechische und römische Metrologie*², Berlin, 1882, p. 542; Viedenbandtt, *R.E.*, XI, 2, col. 1362.

[70] *I.G.*, II², 1672, lines 65 and 167. Cf. also the third-century prices at Delos: once at 1 drachme 4½ obols (*I.G.*, XI, 2, 144, A, line 38), and once at 4½ obols (*ibid.*, 287, A, line 58).

[71] *I.G.*, VII, 2712, line 65.

[72] A *hemina* was equivalent to one kotyle, or about ½ pint, hardly enough to wet a man's mouth. In place of this word, might not ἡμίχοον (about 3 pints) be a better guess? Cf. above, p. 256, note 5.

[73] Herodotos, VII, 187. Cf. Thucydides, IV, 16 and VII, 87; also Pritchett, Part II, p. 198.

[74] A. Jardé, *Les céréales dans l'antiquité grecque*, Paris, 1925, p. 181. But cf. below, p. 275, note 101, for ἄρριχοι of 1⅓ medimnos capacity.

[75] Strattis in Pollux, IV, 169.

[76] E. Saglio, *Dictionnaire, loc. cit.*

[77] Cf. English "coffin," and Bobart's remarks, *op. cit.*, p. 12.

[78] *C.V.A.*, Cambridge, 1, pp. 32, 35; *A.R.V.*, p. 371, no. 21.

[79] Cloché, *Classes*, pl. 38, 2; *A.R.V.*, p. 365, no. 45.

[80] Cloché, *Classes*, pl. 36, 1 (*A.R.V.*, p. 223, no. 9; "Manner of Onesimos").

[81] E. M. W. Tillyard, *The Hope Vases*, Cambridge, 1923, pp. 56-57, on the Cambridge pelike.

[82] Quite *dissimilar* the baskets shown in the vintaging scene on an amphora in Leningrad Pfuhl, III, fig. 287). Cf. above, p. 244, no. 3, and p. 245: σταφυλοβολεῖα?

of definition is perhaps to determine what was *not* called a kophinos. On this latter question our position is, as usual, far from secure.

5. Sargane

(II, 135)

This listing of λίτρου σαργάνα[ι – – –] (price not stated) places chief emphasis upon the λίτρον (= νίτρον, sodium carbonate, on which see Pritchett, Part II, pp. 311 f.). The sarganai are here significant mainly for their contents. On the other hand, the term must refer to a particular kind of container and not simply to a measure. The same passage has references to ἡμισάκια and φορμοί of produce (on the use of these terms for measures, see Pritchett, Part II, pp. 193-195; on φόρμοί, see further below, pp. 274-275); but there is no evidence that σαργάνη was ever used for a fixed unit of measure.

The word σαργάνη [83] is defined as a rope or cord of plaited material, and as a basket.[84] The latter is far more common. The use most often mentioned is to contain salt fish,[85] and that may have been its primary purpose. It also was used for raisins and figs,[86] for beans,[87] and perhaps for chaff.[88] The size could of course have varied widely. In the New Testament account of St. Paul's escape from Damascus by being let down from the wall in a *sargane*,[89] there may be some hint as to size. The passage has, in fact, been cited to explain the comic exclamation from Timokles, "Send for sarganai!" on the approach of well-known glutton.[90] Nevertheless, the word is plural in Timokles; and as for St. Paul's descent, a man standing erect and holding the taut rope could have managed with a basket of quite modest size. The shape, too, is

[83] Σαργάνη: Liddell-Scott-Jones, *s.vv.* σαργάνη, ταργάνη.

[84] Hesychius, *s.vv.* σαργάναι, ταργάνει; *Et. Mag.*, 753, *s.v.* τεταραγωμένη (the statement there, that ταργάνη is Attic, may refer merely to the common Attic habit of shifting *sigma* to *tau*, since this and the entry in Hesychius are the only places where ταργάνη is found). Cf. also Aeschylus, *Suppl.*, 788, where the MSS. variously read σαργάναις or ἀρτάναις ('ropes').

[85] Kratinos, Frag. 40, in Athenaeus, III, 119 b; Lucian, *Lexiphanes*, 6; Pollux, VII, 27, where σαργάναι, without ταρίχους, seems in one instance to mean baskets of salt fish. A Berlin papyrus (*Aegyptische Urkunden*, Berlin, 1895), no. 1095, line 21, has σαργανίδιον (or σαργανίτιον) in the same sense. Cf. P. M. Meyer *ad loc.* "Σαργανίτιον Korr. aus σαρκανίτην, 1. σαργανίδιον (σάργος Meerfisch, σαργάνη = σαργανίς Fischkorb)." But for the etymology, see Boisacq, *Dictionnaire*[4], *s.v.*, where the source of the word is quite differently explained.

[86] Aeneas Tacticus, XXIX, 6.

[87] Timokles, Frag. 21, 7, in Athenaeus, IX, 407 d.

[88] *Leipzig Papyri*, (L. Mitteis, *Griechische Urkunden*, I, Leipzig, 1906, 21, line 18; where σαργάνιον "bedeutet entweder den Korb oder das Bündel" (Mitteis).

[89] *II. Corinthians*, XI, 33.

[90] Cf. above, note 87.

elusive. A comparison with *γύργαθος*,[91] another ill-defined type of basket, is suggested by the line in the Edict of Diocletian which sets a maximum price, according to the weight, on *σάρκινος ἤτοι γύργαθος*,[92] but nothing very concrete can be learned from this passage.

From all this material, which offers hardly any clues for archaeological comparisons, not enough information emerges to allow a very close definition or illustration of *sargane* which would set it apart from several other basket-words in our lists.

6. Phormos

(I, 125, 126-139; II, 91, 92, 93, 134, 140, 141; V, 17, 18)

The *φορμοί*[93] of the Stelai never stand as separate objects in their own right, but are named only as containers for various kinds of produce: wheat, barley, lentils, vetch, figs, almonds, coriander. They are, therefore, understood as official units of dry measure. On grounds of prices and other evidence, Pritchett has equated the capacity of a standard *φορμός* with a medimnos.[94] It is possible, in fact, that the sense intended in the Stelai is purely that of measure, without reference to a specific kind of vessel.

On the other hand, the word usually refers to actual basketry,[95] and it would be easy (as in the case of amphoras) to accept both senses at once: the physical object counted also as a unit of measure. The lexicographers regularly define *φορμός* as a basket,[96] used especially for produce and for work on the farm.[97] There is reference also to one material of which it was made (*φλέως*, 'reed')[98] and its size

[91] *Γύργαθος*: Liddell-Scott-Jones, *s.v.*

[92] Col. XXXII, 18, translated "wickerwork or basket"; *σάρκινος* taken, apparently, as roughly equivalent to *σαργάνη*. Cf. Liddell-Scott-Jones, *s.v. σάρκινος*, III. The mention of weight (*κατὰ τὸν σταθμόν*) may mean here, since the pound is named in the lines immediately preceding, that a price of ten denarii per pound is the maximum set for this kind of basketwork.

[93] *Φορμός*: Liddell-Scott-Jones, *s.v.*

[94] On the *phormos* as a measure, see Pritchett, Part II, pp. 194 f. and the references there cited. Cf. also Pollux, X, 169, who quotes from the *Demioprata* the (not extant) word *ἡμιφόρμιον*, apparently used as a measure.

[95] E.g., Hesiod, *Op.*, 482; Herodotos, VIII, 71; Aeneas Tacticus, XXXII, 2; Polybios, I, 19, 13; possibly also Aristophanes, *Thesm.* 813, although here the measure may be all that is meant. *I.G.*, I², 334, cited in the *Lexicon*, *s.v.*, 1, is a part of our Stele I (cf. Pritchett, Part I, p. 241). The word is also used for a mat, and for a coarse garment.

[96] Pollux, VII, 174. Cf. Hesychius and Suidas, *s.v.*; *Et. Mag.*, *s.vv. φορμηδόν*, *φορμίσκος*.

[97] Cf. Pollux, I, 245 and X, 130. Besides the produce listed in the Stelai, the named contents include dried figs (Suidas, *Et. Mag.*, *locc. citt.*), sand (Herodotos, Aeneas Tacticus, *locc. citt.*), chaff (Polybios, *loc. cit.*) and charcoal (Pollux, VII, 110).

[98] Herodotos, III, 98, 4. Suidas, *s.v.*, has *πλεκτὸν ἀγγεῖον ἐκ φλοιοῦ*, i.e., 'bark,' but this may be a corruption of *φλέως*.

('fairly large'?),[99] but very little more can be gleaned from the sources. The fact that, as a measure, it was probably a "back-load," or about 80 lbs. of weight, also implies a large-sized basket.[100] If the *φορμοί* of the Stelai are, besides being measures, actual containers, they might be broadly defined as 'large farm baskets.'

The appearance of the phormos is of course hard to establish,[101] but one type of basketry is represented in Attic vase-painting which might be considered as a candidate (Pl. 51, d).[102] This is the large harvest basket, like those shown on the column-krater in New York by the Orchard Painter (Pl. 51, d, *a*), in a scene of fruit-picking;[103] or, similar to these, but with handles, the basket which a boy is filling with dirt, on a red-figured kylix in Brussels (Pl. 51, d, *b*). Both of these have a strong resemblance to the large baskets shown in vintaging scenes (Pl. 51, d, *c-f*), a fact which makes one wonder whether *φορμός* and *σταφυλοβολεῖον* (above, pp. 249-250) may not, on occasion, have been synonymous. It is regrettable that we must end with this new complication, but salutory, perhaps, as a last reminder that the problem of assigning their appropriate Greek names to pictured basket-types is far from simple.

IX. PRICES OF CONTAINERS

1. Pottery

The largest pottery containers of the Stelai, the phidaknai, have prices ranging from 11 down to 4 drachmai, each. The size of these vases is not stated. A different lot of phidaknai (not priced separately) seems to have had an average capacity of 12 standard amphoras, or about 120 gallons, each. It is not yet clear what is the relationship of this size to that of the phidaknai for which prices are given. Next

[99] *Et. Mag., s.v.* φορμηδόν. Φορμός ἐστι πλέγμα τινὸς μεγάλου εἴδους.

[100] Cf. Pritchett, *loc. cit.*

[101] It is not at all clear, for instance, exactly how a *phormos* differed from a *kophinos*, or an *arrhichos* (above, pp. 271-272), unless it be simply a matter of size. Metrologically, if a *kophinos* equalled 3 Attic choes, and the *phormos* was equal to a medimnos, the latter would be about four times as large. But there is no hope of drawing such conclusions with any confidence, for the sizes of the actual baskets, when not used as measures, must have varied widely. Also, arrhichoi, elsewhere made synonymous with *kophinoi*, are cited in *I.G.*, XII, 7, 62 [not 162, as in the *Lexicon, s.v.*], lines 20-23 and 42, with a specified capacity of 1⅓ medimnoi!

[102] (*a*) Richter and Hall, *R.-F. Ath. Vases*, pl. 91, no. 87 (Orchard Painter; *A.R.V.*, p. 346, no. 1); (*b*) Brussels R 347; *C.V.A.*, 1, III Ic, pl. 4, 1; (*c*) Paris, Bibliothèque Nationale 320, *C.V.A.*, 2, pls. 49-50 (*A.B.V.*, p. 389, middle; unattributed); (*d*) Ἐφ. Ἀρχ., 1924, p. 109, fig. 1; (*e*) Paris, Louvre AM 1008, *C.V.A.*, 4, III He, pl. 29, 3; (*f*) Ferrara, r.-f. Kylix, Aurigemma, *Il Regio Museo di Spina*², pl. 30 (*A.R.V.*, p. 219, middle, no. 1: "hard to decide" whether by Panaitios Painter or Onesimos).

[103] Miss Richter remarks on the heaviness of the loaded basket.

below the phidaknai come the kardopos at 2 drachmai, a mortar (presumably of clay) at 1 drachme 5 obols, and a tripter (provisionally assigned to this price) at 1 drachme 4⅓ obols. These are the only pottery objects which can safely be priced at more than one drachme each. An undetermined number of kr(ateres?) has a *maximum* price of 4 drachmai; of st(amnoi?), 1 drachme 2 obols; of hydria(i), 14 drachmai. In these three cases, however, the text is too badly mutilated to offer much help toward finding a unit price.

Between one drachme and one obol each are the sipyai at 5 to 3½ obols (the latter figure based on a fairly sure restoration), the Panathenaic amphoras (empty and presumably painted) at 3.7 to 2.4 obols, the Eretrian amphoras at not less than 3 obols, and the eschara at a maximum price of 2 obols. Below one obol each, and cheapest of all, are the empty amphoras at ⅐ obol.

All of these vases were sold in used condition, at auction. We do not know whether delivery was included in the price, but most probably it was not.[1] Also the cost to the buyer was increased by the amount of the sales tax indicated to the left of the auction price.[2] For comparison with other prices, the question of decoration must be kept in mind. For the biggest vessels, the phidaknai, mortars, kardopoi and tripteres, one naturally assumes plain ware; the same, surely, for the Eretrian and the empty amphoras. The sipyai were no doubt plain, and so too were the pottery kadoi and the eschara. Of the kraters, stamnoi and hydriai, nothing can be determined. The only likely case of decorated ware is that of the Panathenaic amphoras, painted in the traditional black-figure technique.

These prices, in spite of all uncertainties, are important additions to those known or conjectured from other sources, mostly vase-graffiti. An earlier study of mine[3] gives a table of prices for pottery, drawn from the sources then available. The new list which is given here (Table I) incorporates the information gained from the Stelai, with a few additions. Admittedly, this knowledge is not very extensive, much of it is imprecise as to the exact nature of the object, and some of it is conjectural, but a picture is gradually emerging, which will probably be improved in time. For convenience of comparison, all prices are converted into obols and decimal fractions of obols. In the prices quoted from the Stelai, those which are only partly determined (e.g., where only a maximum or a minimum limit is known) are placed within square brackets.

[1] Prices for manufactured objects are often stated as prices at the factory, with transportation extra, e.g., for Corinthian tiles delivered to Eleusis, *I.G.*, II², 1672, line 72; and cf. Pritchett, Part II, p. 283, and notes 6-8.

[2] Cf. Pritchett, Part I, pp. 226-230.

[3] "An Amphora with a Price-Inscription in the Hearst Collection at San Simeon," *Univ. Calif. Publ. Class. Arch.*, I, 8, 1941, pp. 179-198; table of prices, p. 192. Concerning the two papers by J. H. Jongkees, "An Attic Hydria with a Graffito," *Mnemosyne*, III, 10, 1942, pp. 151-156, and "On Price Inscriptions on Greek Vases," *ibid.*, IV, 4, 1951, pp. 258-266 (reprinted in *Studia van Hoorn*, Leiden, 1951, pp. 66-74), see the Excursus below, pp. 287 ff.

TABLE I

RECORDED PRICES OF GREEK POTTERY

Shape	*Decoration*	*Source*	*Unit Price (obols)* (Max.)-(Min.)
A. Mid-Sixth Century			
Amphora (disputed)	Small, b.-f.	Hearst SSW 9938	2.00
B. End of Sixth Century			
Leky(thos?)	? B.-f. ?	Graffiti	1.30– 1.00
Ly(dion?)	? Kind of cup?	Graffito (genuine?)	0.78
Chytri(dion?)	"Small cup"? (or "Misc."?)	Graffito	0.30
C. About 470 B.C.			
"Larger" Lydion	? Kind of cup	Graffito	0.50
Lepastis	? Small cup; shallow	Graffito	0.35
"Myrtote"	"Myrtled" (cup?)	Graffito	0.35
D. Mid-Fifth Century			
Hydria	R.-f.: large, fine	Graffiti	18.00– 12.00
E. Late Fifth Century			
Phidakne	"Small" pithos	Stele VII, 52-56	66.00– 24.00
(Kados	"For field" (large?)	Aristophanes (*Pax*, 1202)	18.00)
Kardopos	Kneading basin	Stele II, 9-10	12.00
Mortar (pottery?)	Basin only?	Stele III, 10 (restored)	[11.00]
Tripter	Large basin	Stele II, 3 (?)	10.33
Sipye	Flour-bin (lidded?)	Stele II, 6, 17	5.00– [3.50]
Krater	R.-f. (H. 30-32 cm.)	Graffiti	4.50– 4.00
Amphora, Panathenaic	Empty, painted	Stele II, 41-50	3.70– 2.40
Amphora, Eretrian	Empty, plain?	Stele II, 19	[3.00]
Eschara	Brazier	Stele III, 9 (restored)	[2.00]
(Lekythos	"Very fine"	Aristophanes (*Ran.*, 1236)	1.00)
"Bathy"	? "Deep" (cup?)	Graffiti	0.35
Pellinion	Cup: small	Graffiti	0.37– 0.25
Oxis	Saucedish: small	Graffiti	0.17– 0.15
Amphora, "empty"	Plain; in poor condition?	Stele II, 240	0.14
Oxybaphon	Saucedish: tiny	Graffiti	0.06– 0.05
F. Fourth Century			
Pithos	Smallest *ca.* 25 amphoras	Graffiti (Olynthos)	322.00–187.00
Lekane	Wide bowl (pottery?)	*I.G.*, II², 1672 line 184 (Eleusis)	1.50
G. Third and Second Centuries			
Stamnos	Plain? 3rd c.	*I.G.*, XI, 2 161, A, line 8; 287, A, lines 43, 76 (Delos)	[3.50]– 3.00
Oinochoe	2nd c.	*Insc. Délos*, 461, B^b, line 51	[3.00]
Poterion	2nd c.	*Ibid.*, line 52	[9.00]

These prices offer many promising bases for comparisons, although as yet it cannot be said that any very clear " system " of prices is discernible, from which one might attempt to estimate the sale price of an actual vase other than certain of those bearing the graffiti. It is tempting to speculate, especially for the last quarter of the fifth century B.C. when the evidence is most plentiful, as to the probable pattern of a scheme of prices for actually extant vases, but there are many pitfalls. For the present, it may be wiser only to point to some of the most interesting relationships.

Although prices earlier than the time of the Stelai have a bearing on the significance of the new material, there is little opportunity for direct comparison. In the sixth century B.C., if my interpretation of the evidence is correct, a small black-figured amphora could be purchased for 2 obols; lekythoi at around 1 obol each, or slightly higher; and various smaller vases from ¾ obol down to less than ⅓ obol each. Around 470 B.C., small vases, the names of which suggest cups, and some of which may have been black-glazed, seem to be priced at ½ down to about ⅓ obol each. About mid-century, large red-figured hydriai (no doubt much bigger and finer than anything yet mentioned) sold at 2 and 3 drachmai each; that is, such vases cost at least as much as the clay mortars and kneading troughs of the Stelai. Little more can be said of pottery prices before the last quarter of the fifth century. Some few other prices, though less clearly applicable to specific vase-shapes, seem to bear out the general impression given by those mentioned above.[4]

Of the prices recorded in the Stelai, those for Panathenaic amphoras are of special interest. It is noteworthy, in particular, that the range of their prices never reaches that for red-figured bell-kraters of the same period, as recorded in graffiti. There are, however, several things which may help to explain this situation. The kraters on which the graffiti occur are, it is true, much smaller than a Panathenaic amphora, but they were provided with up-to-date red-figure decoration, whereas the paintings on the amphoras were in a traditional, and by that time not very attractive, technique.[5] It is true, again, that the prices for the kraters are wholesale prices, and such vases, sold at retail in Athens, may have brought an even higher price. On the other hand, the Panathenaic amphoras, sold at second hand, at auction, and in group lots, can scarcely be thought to have brought a full return on the amount of labor and materials needed to produce such a vase (*new* Panathenaic amphoras, of course, would not have been for sale). The extent of the difference in prices realized for the Panathenaics indicates, too, that their condition may have left much to be desired. The case of the (plain) Eretrian amphoras, which brought as much as the average of the Panathenaics, suggests that hidden factors of condition should be kept in mind in appraising any of the prices in the Stelai.

[4] Cf. Amyx, *op. cit.*, p. 198, note 125, with the warning there given.
[5] Cf. above, p. 186.

Prices for sipyai (covered containers for meal) are also instructive in this respect. These vases, presumably plain, have a price-range which extends above that of the bell-kraters in the graffiti. We do not know the size of these vessels, but it seems unlikely that they were larger than a full-sized amphora. It is, perhaps, justifiable to think that routine decoration did not add very much to the value of a vase, that in fact the potting would account for most of its cost. This would help to explain why the prices for larger terracotta objects rise so rapidly, even for common-ware vases of no particular esthetic quality. The clay kardopoi, mortars and tripters have much higher prices than any of those just mentioned, approaching that for large red-figured hydriai of mid-fifth-century (see above). At the top of the scale, the phidaknai, though still far cheaper than the cheapest Olynthian pithos, are in a price-class of their own, which far surpasses any known prices for decorated vases. Utility, then, must have been the main factor in determining ancient prices for pottery, and we should be mistaken if we thought that the usual painted decoration of vases was prized very highly.

The eschara (brazier), if the maximum price of two obols is a unit price, seems also by these standards to have brought a very respectable return, but this cannot be taken as an established figure.

In this context, the availability of a lekythos *pany kalon* for one obol, on the testimony of Aristophanes (*Ran.*, 1236), need not be viewed with skepticism. On the other hand, a *kados*, even a big one for use in the fields (*id.*, *Pax*, 1202), would have had to be quite large indeed to be worth 3 drachmai, or half again as much as a (used) clay mortar. If the statement is to be taken seriously, a vase must be supposed which approaches the size of a small phidakne (see below).

The most startling price in the Stelai is that for empty amphoras, at ⅐ obol each. This is very close to the unit price for oxides, the next-to-cheapest vases in the graffiti, with their price of 3/20 to ⅙ obol, each. That a plain, empty amphora could have been bought, even at auction, for the cost of one of these little vases, strongly suggests that something must have been wrong with these amphoras. Their condition is not stated to be defective, and we do not know their size, but there must have been something in the situation to justify their cheapness. Perhaps they were cracked and dirty; or small, cracked and dirty? We are still far from knowing what a new, full-sized plain amphora would have cost at retail in this period, but one would rather think of a figure in the neighborhood of the Eretrian amphoras, the empty (used) Panathenaic amphoras, and the sipyai, that is, around two to four obols each. An average figure of three obols does not seem altogether impossible, as a guess.[6]

For the phidaknai, there are no fifth-century figures for comparison, but the graffiti on pithoi of the first half of the fourth century, found at Olynthos, offer

[6] At Delos, in 279 B.C., a *stamnos* (presumably plain) cost 3 obols; *I.G.*, XI, 2, 161, A, line 89. It may have been smaller than a full-sized Attic amphora, but prices in general had risen.

interesting information. These pithoi seem to have ranged upward in price from 31 drachmai 1 obol to 53 drachmai 4 obols; the cheapest had an estimated capacity of about 25 amphoras. Since the pithoi of the Stelai were not individually priced, they cannot be brought into this comparison. For phidaknai, on the other hand, we have clearly stated unit prices ranging between 4 drachmai and 11 drachmai. The size of these vases must have been far below 25 amphoras, but we have no way of directly estimating their size. It was suggested above (p. 171) that their condition might have some bearing on the range of their prices, and other complicating factors were noted. One has the impression (for what it is worth) that their capacity in amphoras may, within this part of the scale, have run approximately equal to their prices in drachmai, perhaps somewhat less for the higher-priced phidaknai, but these figures cannot be presented as specific estimates.

2. Metal Vases

For bronze vases, our only clear indication of a price is that for the chalkion thermanterion (above, pp. 218-219), at 25 drachmai 2 obols. The probable size of this object cannot be determined with any accuracy. The case of the kadoi is even more troublesome, for we do not even know for certain that any of those in the Stelai were made of bronze (cf. above, pp. 189-190). For those listed in Stele II, line 191 and Stele III, line 13, with maximum unit prices of 5 drachmai 1 obol and 8 drachmai 3 obols, the possibility that bronze is meant depends on our reading these (fragmentary) entries in the singular number. There is evidence that bronze *work* (apart from the material) was expensive in a third-century Delian inscription which records a payment of 16 drachmai for the manufacture of a bronze kados from scrap metal already in hand; another states that a kados was repaired at a cost of 2 drachmai, and a *kanoun* and a kados together for 1 drachme 2 obols.[7] Numerous other inscriptions give accounts of minor repairs to bronze vessels, at prices which suggest that the bronze-smith was a highly paid craftsman. As for actual prices, a fragmentary Athenian inscription, also third-century, values a kados at between 16 and 19 drachmai, a psykter at between 7 and 11 drachmai, a dinos at between 8 and 13 drachmai, and oinochoai at 10 drachmai 3 obols and at 11 drachmai each.[8] These were all, presumably, bronze vases. This information indicates that prices of 5 to 8 drachmai each for kadoi in the late fifth century would be low for bronze, but perhaps not impossibly low. The size of kadoi varied widely, and these may have been small vases, perhaps also in poor condition. But, if these entries are to be restored in the plural, we should be compelled to assume that pottery vases are meant.

[7] *I.G.*, XI, 2, 287, A line 64; 203, A, line 44; 219, A, line 39.
[8] *I.G.*, II², 1695, lines 4 ff.

The entry in Stele VII, lines 57-58, which concerns a leaden funnel, is incompletely preserved and difficult to interpret (see above, pp. 255, 258). It is hard to accept the stated price of 2 drachmai 2 obols as being applicable to the funnel alone, for lead was by far the cheapest of all metals, produced in abundance from the mines at Laurion in Attica. At Athens in 408/7 B.C. lead was purchased at 5 drachmai per (trade?) talent,[9] and at Delos in the third century its price (imported) ranged between 5 and 7½ drachmai.[10] In the fourth century, however, the price at Epidauros was only 1 drachme 4 obols per talent,[11] and at Eleusis (329/8 B.C.) 2 drachmai 4 obols, including the rental of a funnel.[12] Aristotle [13] gives an account of one Pythokles' advice to his fellow-Athenians to buy up lead at 2 drachmai per talent for a profiteering resale at 6 drachmai. From this evidence, Ardaillon [14] has concluded that the price of 408/7 B.C. reflects the critical conditions at the mines in the years following 413, and that the normal price of lead at Athens, chief supplier to the Greek world, was around 2 drachmai per talent.

At this last figure (i. e., at a silver-to-lead value ratio of at least 3,000 to 1) enough lead to be worth 2 drachmai 2 obols would have weighed 7,000 drachmai, or more than 66 pounds! Even if we cut this figure in half to allow for costs of manufacture and for other contingencies, the idea of a leaden choanion weighing more than 30 pounds is difficult to entertain. Most probably, then, something else was named in this entry which would account for a part of the total price applying to it (see above, p. 258).

3. Stone

Prices for stone objects are preserved in several passages of the Stelai. A mortar is listed for 8 drachmai 5 obols. A lenos, or wine-treading basin, was sold for a conjectured price of 8 drachmai (above, pp. 242-243). One kardopos brought 6 drachmai 2 obols, another (quite possibly) 7 drachmai 5 obols. A broken pedestal of a kardopos was sold for 1 drachme 3 obols, a sound pedestal (of a broken kardopos) for 6 drachmai 3 obols. From these last-named prices, it is clear that kardopoi were made in two parts, like louteria, and it seems likely that the prices of kardopoi apply to basins without pedestals. Both parts together would then have cost 13 to 14 drachmai. The

[9] *I.G.*, I², 374, lines 286-290.
[10] J. A. O. Larsen, in T. Frank, *Economic Survey* IV, p. 398.
[11] *I.G.*, IV², 103, lines 109-110.
[12] *I.G.*, II², 1672, lines 176-177.
[13] Aristotle, *Econ.*, p. 1353a, 15.
[14] E. Ardaillon, *Les mines du Laurion dans l'antiquité*, Paris, 1897, pp. 117-118, where most of the foregoing references are cited and discussed. I owe my knowledge of this passage to Miss Margaret Crosby.

holmos and the lenos might also have been made in two parts, but the former is most often a one-piece object, and, for the latter, the upper slab would be the essential working part.[15] It is not certain whether the entries listed here refer to the whole object, or only to the upper part, or how much difference this would make to the total price. On the analogy of the kardopoi, we might be justified in thinking that the lenos and mortar were sold without their bases, if separate bases existed for them.

The Stelai also give prices for similar objects made of pottery, which have been discussed above (pp. 276 ff.). Comparative prices for stone and clay objects are instructive. A pottery kardopos is priced at 2 drachmai, and a (pottery?) mortar at 1 drachme 5 obols. Were these the whole objects, or only the basins? If stands had to be bought separately, the price for the complete object might have been much higher, perhaps between 3 and 4 drachmai, approaching that of the cheapest phidaknai. For kardopoi, if a complete ensemble in stone cost up to 14 drachmai, in pottery only 2, the cost ratio between stone and pottery for similar objects (disregarding the unknown factors of size and condition) would be as much as 7 to 1; but if only the pottery basin is meant, the ratio would be reduced to 3 or 4 to 1. Similarly in the case of mortars, if the stone mortar costing 8 drachmai 5 obols was complete, including a stand (whether separate or in one piece with the basin), and the (clay?) mortar costing 1 drachme 5 obols was also complete, the price ratio would be about 4½ to 1. One is tempted to think, for the latter specimen, that the *bathron* listed immediately after it, and priced at 1 drachme 1 obol, may have been its base,[16] in which case both parts together would have cost exactly 3 drachmai, or about one-third the price of the stone mortar (in whatever form it was actually sold). We should keep in mind also, in this comparison, that large stone mortars are heavy, but the workmanship is relatively rough, in no way to be compared with that of a louterion, or, perhaps, of a kardopos. The stone lenos (for which the price of 9 drachmai is only an estimate) may have been sold without a base. One might expect, for a heavy, flat object of this form, the provision of a base, as needed, would best be left to the individual owner.

We may note, for comparison with the mortar and the lenos, the prices given in the Stelai for upper millstones: once surely at 7 drachmai 1 obol, once (restored) at 9 drachmai 2 obols, in a third case either 6 drachmai 2 obols or 10 drachmai 3 obols, or something close to these figures.[17] That is, only the upper part of this object brought prices comparable to those for the mortar and (estimated) for the lenos, and

[15] See above, pp. 237 f., 245 f. For *ὑφόλμιον*, cf. Aristophanes, Frag. 61.

[16] Stele III, line 11. Perhaps rather an article of furniture (cf. Pritchett, Part II, p. 215), but the thought of associating it with the preceeding line is tempting. Such a base could well have been called a *bathron*; cf. *I.G.*, IV, 39, lines 11-12, *bathron hypokraterion* (there made of wood). The cost, 1 drachme 1 obol, would then have to be added to that for a *holmos* to get the full price. But bathron elsewhere in the Stelai seems not to have this meaning, and the juxtaposition here may be fortuitous.

[17] Cf. Pritchett, Part II, p. 299.

somewhat higher than that for (the upper part of) one of the stone kardopoi. The upper millstones were, however, surely much smaller than any of these other objects. The disproportionately high prices which they brought must be owing to the fact that they were imported articles of trade, of relatively complicated construction, made of volcanic stone, and perhaps more or less monopolistic products.[18]

To summarize, we have for stone objects the following prices (partly determined figures in square brackets):

		Drachmai	*Obols*
Kardopos	Upper part only	6	2
"	" " "	[7	2]
"	Base only: sound	6	3
"	" " : broken	1	3
Mortar	Whole?	8	5
Lenos	Press-bed only? (estimated)	[8	0]
Upper Millstone		7	1
" "		[9	2]
	(Conjectured)	[6	2]
		or	
		[10	3]

From these prices, it appears that a piece of worked stone big enough to make the main part of a kneading basin, or a mortar (whole?) or a lenos cost between 6 and 9 drachmai, labor included, but the base (if any) had to be provided separately and at extra cost. The kind of stone is not stated, but it could well have been local marble, perhaps Pentelic, which was plentiful at this time and was freely used for the manufacture of such objects. Sizes, too, are undetermined, but even the rough idea of prices which is suggested by reference to extant objects of similar purpose has great value, since nothing at all has hitherto been available.

Truly comparable prices for stone are hard to find. Where payments are recorded in inscriptions, they usually refer to costs of labor and transportation rather than direct purchase, and size is also an important (and usually unknown) factor.[19] One example will be given, for what is is worth. At Delos, in 279 B.C., a stele which would accommodate 30,000 letters was bought for 25 drachmai; local transportation, instal-

[18] Cf. *Olynthus*, VIII, pp. 329-330. In the many examples found at Delos, a more or less standard size is maintained. A good example is Delos No. B 4588, with dimensions approximately 0.45 x 0.35 x 0.14 m. Of like size, No. B 5627 (*Délos*, XVIII, pp. 126-128, pl. 50, no. 379).

[19] At Eleusis (329/8 B.C.), rough-cut paving stones were bought at a total cost of 3 drachmai 1 obol to 3 drachmai 3 obols, each, including cutting, transportation, and laying; but we do not know the size of the stones, or who owned the quarry (*I.G.*, II², 1672, lines 18, 22, etc.).

lation, and inscribing were extra.[20] This may have been a stone much like that on which the transaction is recorded: white marble, with dimensions 1.61 x 0.77 x 0.103 m., a slab of desk-top size, containing roughly enough stone to make one of the objects in question. The stone was imported to Delos, and this had its effect on the price. A direct comparison with the fifth-century Athenian prices for objects of Pentelic marble of course offers many hazards, but if we assume even this amount of stone for our lenos, we might conclude that the Delian marble was three times as costly, in its time and place.[21]

4. Wood

A wooden mortar (Stele II, lines 22-23; price fragmentary) was priced at not less than 3 drachmai 3 obols, with other possible readings up to 12 drachmai 3 obols, but hardly beyond. Since a stone mortar cost only 8 drachmai 5 obols, a price above that figure would seem unlikely for one made of wood. A suggested price, for purposes of discussion, might be put at 7 drachmai 3 obols. For comparison, we may note that a phatne (grain-bin) made of wood brought 10 drachmai 1 obol.[22] It is not hard to believe that this structure was somewhat more elaborate and larger than the wooden mortar (hewn out of one big block?).

In Stele II, line 224, three pestles, for which the material is not stated but was possibly wood, are priced at 1 drachme 3 obols or at 3 obols each. This is one-fifteenth of the price conjectured for the wooden mortar. The pestle would have been made as a sort of double-headed paddle, perhaps a yard or so in length, out of one piece of wood (cf. above, pp. 238-239). Since the labor cannot have been a very important factor, we must conclude that good lumber was relatively expensive. The prices for furniture point in the same direction, for (small) tables sold for 4 drachmai each. Wooden lampstands, probably containing not much more lumber than a broomstick, cost one obol each; but the price of grape-stakes per hundred is less than 3½ obols.[23]

Outside of the Stelai, comparative prices for wooden objects, apart from furniture (on which see Pritchett, Part II, pp. 211 f.), are not easy to find. For association with the skaphai (perhaps of wood) which Pollux attributes to the Stelai,[24]

[20] *I.G.*, XI, 2, 161, A, line 118. Others cost 30 and 35 drachmai each (e.g., *Insc. Délos*, 316, line 122).

[21] That is, if we assume that the price of the lenos was 8 drachmai. The press-beds at Delos are even bigger blocks, considerably bulkier than this Stele, so that their marble might have cost, there, as much as 40 or 50 drachmai. If the stone lenos of our inscription had such bulk, this discrepancy might become so great as to demand a higher price than the 8 drachmai proposed for it (cf. above, pp. 242-243).

[22] Stele II, lines 39-40. Cf. Pritchett, Part II, pp. 243 f.

[23] Cf. Pritchett, Part II, pp. 305 f.; and above, p. 243.

[24] See above, p. 231.

we have Athenian prices of the third century B.C.: large (wooden?) skaphai at 4 drachmai each, smaller ones at 1 drachme each.[25] In the Edict of Diocletian, maximum prices for skaphai are fixed, as follows: 150 denarii for a large one of 5-modius capacity, 50 denarii for one holding 1 modius, 75 denarii for the same, iron-bound, and 30 denarii for a half-modius bowl, turned. For all but the first, wood is specified as the material.[26] In the Delian temple accounts, a *skaphes* (*sic*) is priced at 4 obols, and, elsewhere, a *skaphis* (*sic*) for the palaistra was purchased for 3 obols.[27] It is not clear just what these last-named objects were, but they may have been bowls or basins, though not necessarily of wood.

Prices for dressed wood, ready to be used as lumber, must have been consistently high in ancient Greece. At Eleusis in the fourth century B.C. wooden beams (*ξύλα τετράγωνα*)[28] of cedar cost approximately 365 drachmai per 1000 board feet; of elm, about 135 drachmai per 1000 board feet for the smaller pieces, close to 400 for the largest ones.[29] In Delos in the third century B.C. a price of 50 drachmai was paid for a single oak beam 16 cubits long, one ' foot ' wide and 3 ' palms ' thick, or at a rate of about 250 drachmai per 1000 board feet.[30] These figures make it reasonably certain that manufactured wooden objects would have cost several times as much as pottery objects of comparable size. In other words, to return to the Stelai, a wooden mortar costing 7 drachmai 3 obols (or possibly even more) does not seem out of scale beside a pottery mortar costing around 2 drachmai.

5. Basketry

The Stelai have one very significant contribution to make to our knowledge of ancient prices for basketry, namely the price of 3 drachmai 3 obols for a *kiste oisyine*.[31] The only other price which has survived at all legibly is that for two *kanaustro*; the price is at least 3 obols, but probably more.[32] A total price of 6 drachmai 3 obols, which is epigraphically possible, would give a unit price closest to that of the kiste, but other restorations are equally possible, and we have no fair basis for comparison. These prices may be compared with that of a ceremonial *kanoun* at Eleusis (329/8 B.C., material not stated), which cost 4 drachmai.[33]

[25] *I.G.*, II², 1695, lines 16-19.
[26] Col. XV, 48 ff.
[27] *I.G.*, XI, 2, 146, line 80; *Insc. Délos*, 290, line 76.
[28] Cf. Pritchett, Part II, p. 297. Add to his discussion the references given here.
[29] *I.G.*, II², 1672, lines 146-156, with the price per beam of stated dimensions (in ' feet,' ' palms ' and ' fingers ').
[30] *Inscr. Délos*, 290, lines 222 ff. At this rate, a plank 4 feet by 1 foot by 1 inch (for example) would have cost 1 drachme.
[31] Cf. above, p. 269. [32] Cf. above, p. 266. [33] *I.G.*, II², 1672, line 116.

For the *kophinos*, which is not separately priced in the Stelai, we may note that at Eleusis (fourth century B.C.) kophinoi were bought in lots for a usual price of 1 drachme each, once for 5 obols; at Delos (third century B.C.) the price was 4 to 4½ obols.[34] The *koskinon*, or sieve, was also a form of basketry. It has no individual price in the Stelai, but once at Delos (third century B.C.) one was purchased for 1 drachme 2 obols.[35] In the Edict of Diocletian, maximum prices for koskina are set at 200 denarii for one of unspecified material, 250 denarii for one made of coarse leather, and 400 denarii for one of fine leather.[36] For our *sarganai*, mentioned primarily for their contents, and therefore not separately priced, we have a possible parallel in the σάρκινος ἤτοι γύργαθος of the Edict of Diocletian,[37] there apparently a coarse matting which was priced by weight, perhaps (maximum) at 10 denarii per pound.[38] For the *psiathoi* (rush mats) which appear in the Stelai (prices lost),[39] comparanda are available from Delos (third century B.C.) where psiathoi for use in the religious rites were bought, once for 1 drachme 4 obols each,[40] on another occasion at 1 drachme 3 obols.[41]

The variables of date and place, as well as our lack of precise descriptive knowledge concerning those objects for which we have prices—whether known, estimated, or conjectured—prevent any direct association of prices with clearly definable products of basketry. On the other hand, the sum of what we do know is at least suggestive of a price range for basketry in general, which can be applied with some plausibility to the existing archaeological data (mostly found in painted or sculptured illustrations of ancient basketry). There can be no doubt that the prices for basketry containers were much higher than those for clay vessels of comparable size. The kiste oisyine, for instance, though probably not a very large basket, sold for about five times as much as a contemporary red-figured krater perhaps roughly its equal in capacity, six times as much as the costliest of the auctioned Panathenaic amphoras, nearly as much as the cheapest phidakne. This fact is in striking contrast to the modern situation in America, where baskets of many kinds (chiefly imported) seem remarkably cheap. The reasons for this contrast are no doubt exceedingly complex; but, on the Greek side, we have more than a hint, either that the baskets which brought these high prices were very finely made, or that the materials for good basketry were scarce, laborious to prepare for use, and relatively costly.

[34] Eleusis, *I.G.*, II², 1672, lines 65 and 167; Delos, *I.G.*, XI, 2, 287, A, lines 58 and 84 (cf. *Insc. Délos*, 461, A, b, line 20; an unknown number, plural, for 5 drachmai).

[35] *I.G.*, XI, 2, 159, A, line 40.

[36] *Col.* XV, 56-61.

[37] *Col.* XXXII, 18.

[38] Cf. above, p. 274 and note 92.

[39] Cf. Pritchett, Part II, p. 254. Add to his account the references given here.

[40] *I.G.*, XI, 2, 287, A, line 57; cf. *ibid.*, 199, A, line 22, where the largest possible unit price is just under 2 drachmai.

[41] *Insc. Délos*, 290, line 50.

EXCURSUS

The Interpretation of Price-Inscriptions on Greek Vases

In the foregoing discussion of prices (Section IX), it seemed best not to burden the text and the footnotes with arguments leading only to negative conclusions and therefore not likely to advance the state of knowledge concerning ancient prices for Greek pottery. In the present Excursus, an attempt will be made to justify the position there taken on the readings of price-inscriptions.

Up to now, our most important sources have been the graffiti. Work on this material since Hackl [1] includes two original reports of new readings by Beazley,[2] some valuable notes by Marjorie Milne,[3] my study,[4] and, more recently, two papers by J. H. Jongkees.[5] Even though many of the graffiti remain cryptic or hard to interpret explicitly, the information which can be found in them has proved to be quite valuable, if it is used with discrimination.[6]

[1] "Merkantile Inschriften auf attischen Vasen," *Münchener archäologische Studien dem Andenken Adolf Furtwänglers gewidmet*, Munich, 1909, pp. 1-106, pls. I-III.

[2] Beazley, "Some Inscriptions on Vases," *A.J.A.*, XXXI, 1927, pp. 349-350, no. 10, pp. 351-352, no. 14; "Some Inscriptions on Vases, IV," *A.J.A.*, XLV, 1941, pp. 597-598, especially nos. 9, 12.

[3] Richter and Hall, *R.-F. Ath. Vases*, pp. 221-224 (facsimiles, p. 223).

[4] "An Amphora with a Price-Inscription in the Hearst Collection at San Simeon," *Univ. of Calif. Publ. Class. Arch.*, I, 8, 1941, pp. 179-198, pls. 25-27.

[5] "An Attic Hydria with a Graffito," *Mnemosyne*, Series III, vol. 10, 1942, pp. 151-156, pl. I, and "On Price-Inscriptions on Greek Vases." *Ibid.*, Series IV, vol. 4, 1951, pp. 258-266, pl. XVIII; reprinted in *Studia Archaeologica Gerardo van Hoorn oblata*, Leiden, 1951, pp. 66-74, pl. XVI. Page references, as here cited, refer to *Mnemosyne*. There is also a new paper by M. Lang, "Numerical Notation on Greek Vases," *Hesperia*, XXV, 1956, pp. 1-24, pls. 1-6, which deals with the vase-graffiti found in the Athenian Agora. Although of great interest in other respects, this study does not bear very closely on our present subject. Of the Agora graffiti which can be read as prices, most have to do with the contents, or with something else, other than the vases. There is no clear case of notation which gives the price of the vase. Tentative readings of this sort are offered for three graffiti (p. 15, no. 64; p. 16, nos. 68 and 69). Miss Lang refers in passing (pp. 15-16) to Jongkees' work and mine, but makes no comment on the discrepancies between them. On the prices of oxybapha, quoted (p. 16) from Hackl, see below, p. 291.

[6] Some highly respectable authorities have privately expressed doubt as to whether any of the graffiti on vases can be correctly interpreted as prices for vases, but there is, so far as I know, no published exposition for this disbelief. To those who have discussed the matter with me, I am sincerely thankful. I believe that, although their arguments tend to be based on somewhat abstract grounds of general probability, much of their criticism is valid and necessarily to be taken into account in any responsible consideration of the *particular* sense of each graffito: not merely whether it records prices, and if so what these prices are, but also what stage of distribution they represent; who paid or was to pay them, where, and to whom; and, of course, for specifically what kind of vases. The evidence often does not yield answers to these latter questions, and I have tried to emphasize the need for caution in approaching all of them. But, until I can see an acceptable positive

Tables of prices are listed in my paper [7] and in Jongkees' second work,[8] the latter with some notable differences from mine. If there had been substantial agreement between these lists, it would have been possible simply to incorporate their joint results with the new information found in the Stelai and to proceed directly to a new synthesis of the material. But this possibility was precluded by wide discrepancies of interpretation—and, I must say, of method—between his work and mine, so that the validity of my results can be defended only by critical analysis of his. The principal business of this Excursus is to provide such an analysis.

Jongkees (1951, pp. 261 f.) criticizes my conclusions on four main counts. (1) He complains that " my " prices are " often impossibly low." Although he discusses only the case of the tiny oxybapha, his list of prices disagrees with mine in several important figures, and he proposes many readings which I find unacceptable. (2) He is further disturbed by his belief that my interpretations of the prices do not adequately reflect the general rise in wages and prices from the sixth to the end of the fifth century B.C.; yet he commits himself to the much more difficult position (pp. 261, 265 f.) that prices of vases *dropped* sharply after about 470 B.C. (3) He says, " The crux of the matter is, however, that Amyx takes the prices to be in obols, whereas I prefer to read drachms." How one reads the figures is indeed the crucial question, as will be seen, but it is hardly as simple as he wishes to make it. (4) He disputes (as others have done) the proposed interpretation of the Hearst " two-obols " inscription as a statement of the amphora's price, concluding (p. 265) that " with this (argument) disappears the last support for Amyx' view that prices were low throughout the sixth and fifth centuries." To these strictures, he adds (p. 261) that eight inscriptions used by him were overlooked by me.

The main question is, of course, how one reads the numerals in the graffiti. It is, however, incorrect to say that I supposed that " all prices were in obols," and wrong to believe that a choice is necessarily open. At the point in my text (p. 190) where the statement is made that " obols are really intended," the reference applied exclusively to a group of inscriptions using only Ionic (alphabetic) numerals, wherein such a choice must be made. In the case of Attic (acrophonic) numerals, my procedure was different. Where I found ' drachmai,' I read ' drachmai '; where I found

alternative interpretation, I must cling to my belief that a graffito which reads, " Six kraters: price. four drachmai," can only mean that someone, at some time, in some kind of transaction, paid or was expected to pay someone else four drachmai for six krater-shaped vases; and that this case leads inevitably to a whole network of price-graffiti which must somehow be interpreted in similar terms. It would be an important service if one of the non-believers would marshal and publish all of the worthwhile negative arguments, so that they might be publicly analyzed and weighed, point by point.

[7] *Op. cit.*, p. 192.

[8] *Op. cit.*, 1951, pp. 259-260. Since some of the matter in Jongkees' first paper is repeated in the second, references here given will apply mainly to the later work. Herein, the first will be " Jongkees, 1942," the second " Jongkees, 1951."

'obols,' I read 'obols'; in cases of doubt, I attempted to determine, in the given situation, what was the better reading; and I tried in all cases to distinguish clearly between numerical tallies and statements of price. I tried, finally, to confine my statements of interpretation to inscriptions which are reasonably intelligible, and which refer to some plausibly identifiable kind of vase, the size and shape of which might be visualized without too much straining. In cases of greater doubt, I relegated the material to the footnotes; in cases of extreme doubt or complete bafflement, I left it out altogether. Whether this approach led me into serious error or caused me to omit vital pieces of evidence can best be judged by comparing systematically Jongkees' table with mine.

Let us begin with the clearest examples, those which appear in the graffiti on five late-fifth-century Attic red-figured bell-kraters, four of which are published and illustrated by Hackl (Nos. 595-598, his pl. III), the fifth transcribed by Beazley.[9] The first four are illustrated here, Plate 52, a-d, from Hackl's facsimile drawings. The fifth, Plate 52, e, is copied from a new latex impression.[10] These are the most readily legible price-graffiti that we have, for they give, in regular order: (a) the name of the vase, fully written out; (b) the number of pieces, in acrophonic numerals; (c) the price for the lot, again in acrophonic numerals, and plainly differentiating drachmai (ΗΗ) from obols (Ι). In two of these (Hackl Nos. 595-596; here Plate 52, a-b),[11] the word τιμή appears before the price, clearly explaining the intent of the others, which in most instances have interpuncts separating number and price. These graffiti have the further merit that they are closely contemporaneous and tend to repeat the same vase-names from one to the next, so that we may test each against the others for consistency: if errors exist, whether in the original or in the modern transcriptions, they should be identifiable as inconsistencies. The graffiti mention kraters, bathea,[12] pellinia, oxides, and oxybapha. In my earlier paper, the sense of

[9] *A.J.A.*, XXXI, 1927, pp. 351 f., no. 14.

[10] Philadelphia M 5682. The latex impression was very kindly furnished by Dr. Jack L. Benson. For permission to publish a copy of it, I am indebted to Professor R. S. Young.

[11] Hackl, *op. cit.* The numbers, as cited here and elsewhere in this Excursus, are his catalogue numbers of graffiti.

[12] Jongkees reads *baphea* (1942, p. 154, note 18: "not *bathea*, as Hackl thinks"), with E. Pottier, *Vases antiques du Louvre*, III, p. 280, on Hackl No. 596, but this is a poor choice, on both epigraphical and philological grounds. In Hackl No. 595 (here Pl. 52, b), the middle letter has an imperfectly made circle in the center, resembling the marks of punctuation in the same graffito and therefore equivalent to a dot. The letter must be a *theta*. (For *thetas* with circular centers in formal inscriptions, cf. Meritt, *Hesperia*, V, 1936, p. 355 no. 1 and p. 359 no. 2, and comment on p. 358; A. E. Raubitschek, *Dedications from the Athenian Akropolis*, pp. 116 f., no. 12, and pp. 398 f., no. 369. There the practice was short-lived, but in graffiti one need not be surprised to find it reappearing at a later date). In Hackl no. 596 (here Pl. 53, a), the center looks rather like a short vertical stroke, but there is no reason to doubt that a *theta* was meant. The informality of graffiti is well known; a parallel to the present situation exists in the refreshing variety of *thetas* to be found in the ostraka of Themistokles (see especially Broneer, *Hesperia*, VII, 1938, pp. 228 ff.,

these graffiti was extracted, and the results tabulated (p. 189; cf. pp. 196-197, notes 106-110) and summarized (p. 191). Unit prices for kraters, in four cases, come to 4 obols, in the fifth case to 4½ obols; for bathea, in two cases, 7/20 obol; for pellinia, in two cases, ¼ obol and ⅜ obol; for oxides, in three cases, 3/20 obol (twice) and ⅙ obol, and the name appears without a price in two others; and, for oxybapha, in two cases, 1/20 obol and 3/40 obol.

These are some of the prices in my list which Jongkees finds "impossibly low." In his own list, Jongkees agrees in pricing kraters at 4 obols each (but with no mention of the price of 4½ obols on the Philadelphia krater), and bathea at 7/20 obol (rounded off to ⅓ obol); but then he continues, with single prices only, putting pellinia at 1½ obols each, oxides at 1 obol each, and oxybapha at ⅓ each. Compare Hackl, p. 98: "Die Kratere sind offenbar die grössten und wertvollsten Stücke unserer Preisliste; denn 1 Stück kostet 4 Obolen. Dann kommen die Pellinia à 1½ Obolen, ferner die Oxides à 1 Obol, dann die Bathea und Oxybapha à zirka ⅓ Obol." This sounds plausible enough, and seems safe enough, if one does not wish to study the whole paragraph, or to look at the inscriptions. But wait; there is another sentence: "Am billigsten sind die Oxides der letzten zwei Inschriften." Earlier in the same paragraph, this statement is clarified by another: "Bei 597 kosten 40 Oxides nur 1 Drachme und bei 598 20 Stück 3 Obolen." There is no indication of this price in Jongkees' entry for oxides. If we delve a little deeper into Hackl's text, we see further that Hackl allowed himself to become confused; for he arrives in the first place at his price of approximately 1 obol each for oxides by reading back into the lines for bathea in Nos. 595 and 596 (thus getting 8 for 1 drachme 1 obol, and 10 for 1 drachme 1 obol),—surely without warrant; the oxides of these graffiti are unpriced,—and then justifies this price by quoting indirectly (for no other graffito in this lot gives the figure 20 with oxides) from No. 598 a price of 20 oxides for 3 *drachmai* (rightly contradicted in the next sentence, and in his last sentence, both

on the ostraka from the North Slope of the Acropolis). Cross-barred, dotted, and phi-like *thetas* all occur, sometimes combined in the same inscription. Cf. especially Broneer's Group "E," *op. cit.*, pp. 235-236, fig. 65, and Group "M," pp. 240-241, fig. 70 (nos. A. O. 111, 85, 108, 59, 36). The converse also occurs in the cross-barred *phi* of the ostrakon *ibid.*, p. 239, fig. 68, no. A. O. 31.

The presence of oxybapha in Hackl Nos. 597 and 598 probably influenced Jongkees in favor of *baphea*, but this form is hard to justify. *Bathea*, on the other hand, makes good sense as a neuter adjective, with which we may supply some such word as *poteria* (cf. the *mikra leia* and *rhabdota* of Hackl, p. 56, no. 607; and see above, p. 208, on *poterion*). For *baphea*, there is no exact parallel. We have *βαφεῖον* (cf. Liddell-Scott-Jones, *s.v.*), which could yield an Attic plural *βαφέα* (cf. K. Meisterhans, *Grammatik*[3], pp. 40-42), but the meaning is unsuitable. Hesychius gives *βάφιον* as a Tarentine word equivalent to *ὀξύβαφον*, but *βάφεα* could not come from this. Jongkees (1951, table, p. 259) gives *βάφος* as the singular form, but the existence of this word is unattested, and the Attic plural of it should be *βάφη* (if written by a metic, it might come out *βάφεα*). Therefore, although such a word is, morphologically, possible, this fact alone is not sufficient reason for expecting to find it here. (I owe some of the foregoing observations to Miss Milne).

quoted above). In the graffiti themselves (Pl. 52, a-e), one can see that this is not a question of whether one prefers to read drachmai or obols, but, instead, whether one wishes to assume an error either in the original or in the transcription; and for that assumption we must find inconsistency. In Hackl, No. 597 (Pl. 52, c), there is no choice; oxides are clearly priced at 40 for one drachme. This is exactly proportionate to the figure 20 for 3 obols (not drachmai) in Hackl, No. 598 (Pl. 52, d) and almost exactly so to the figure 6 for 1 obol (not drachme) in the Philadelphia graffito (Pl. 52, e), Beazley's reading of which was once accepted by Jongkees,[13] but which seems to have found no place in his later study (cf. on kraters, above; and on pellinia, below). In these latter cases, a reading of drachmai would be inconsistent with the evidence of Hackl No. 597, and must be wrong.

In the matter of pellinia, Hackl did not have access to the text of the Philadelphia graffito, and may therefore be forgiven for having misread the price on No. 598 as 12 for 3 drachmai, since the word occurs only here in the four graffiti studied by him. But, in the Philadelphia graffito, pellinia are clearly priced at 16 for 1 drachme (there is no choice), or at ⅜ obol each. To accept a price of 1½ obols each, for the pellinia of Hackl No. 598, we must not only accept a discrepancy of 4 to 1 in this price, against a (reversed) ratio of only 2 to 3 if it is read to yield a unit price of ¼ obol; we must also suppose an error in the text. Here, again, the greater difficulty arises if we attempt to " correct " the text. Pellinia, then, at ⅜ obol each, and ¼ obol each.

Finally, the oxybapha. I had hesitated over the prices in Hackl No. 597 (50 for 3 obols)and Hackl 598 (20 for 1 obol), partly because there is one error in No. 597, in that the price for 6 kraters is given as 4 *obols*. But there is no reason to suppose any error in No. 598, and the stated prices for oxybapha—1/20 and 3/20 obols each—may be taken as correct. It is worth noting that the tendency in these graffiti (except in the Philadelphia example) is to list the vases in descending order of unit value, and that in both Nos. 597 and 598 the oxybapha come last; further, that the rate for bathea in Hackl Nos. 595 and 596, 20 for 7 obols, fits an evenly graduated scale which steps downward progressively on Hackl No. 598: 20 pellinia for 5 obols (calculated); 20 oxides for 3 obols; 20 oxybapha for 1 obol.

It is unfortunate that Jongkees, preferring to read drachmai for obols in these inscriptions, chose also to perpetuate, in such truncated form, the one part of Hackl's interpretation which had gone awry; chose too, in the bargain, to ignore the actual texts of the graffiti, including that of the Philadelphia graffito, which bears significantly on the other readings. If it be argued that there is error in the graffiti themselves, or in Hackl's transcriptions (though Jongkees does not say that there is), one can only reply that, taken altogether, the results of reading obols as obols are so consistent, with the sole exception of the entry for kraters on Hackl No. 597, as to

[13] Jongkees, 1942, p. 154, note 19. Cf. Beazley, *A.J.A.*, XXXI, 1927, pp. 351 f., no. 14.

allay all fears on this score. In fact, as has been shown above, gross inconsistencies arise when we assume such error. Furthermore, there are independent transcriptions of Hackl Nos. 596 and 597 which confirm essentially the readings given by Hackl.[14] All of these graffiti should be critically re-examined; but, from the published evidence, the readings given in the table on p. 189 of my earlier paper, and repeated above, should stand. Since these are stated prices, it is pointless to argue that they are "too low," or to seek non-existent choices between obols and drachmai.

Another graffito with acrophonic notation appears on a pelike in Syracuse[15] of about 470 B.C.; but, as will be shown, its possible sense as a price-inscription is so dubious that it must be withdrawn from this context. I had once followed Hackl[16] in taking this inscription to mean that *lekythides* were priced at 20 for 10 obols, or at ½ obol each (see Pl. 52, f; not a facsimile). Jongkees (1951, p. 260) also cites lekythides at ½ obol, but adds, in parentheses, "or 2" (sc. obols), an alternative reading which is explained in his earlier paper (1942, p. 154, note 20) by the proposal that, in the graffito, the M at extreme left, which Hackl took to be a sign separate from the price, should be read ΠΓ, yielding a price of 6 drachmai 4 obols for 20 pieces, or 2 obols each. The graffito should be re-examined,[17] and the rewriting of M into ΠΓ does violence to the published evidence, but the reading has now become not very relevant to the question of price. Meanwhile, a new graffito has come to light which makes even Hackl's (and my) interpretation untenable. On another vase by the same painter, a hydria recently on the market in Basle,[18] there is a graffito (Pl. 52, g) which is,

[14] *C.V.A.*, Louvre, 4, III Ie, text, p. 3 and Pottier, *Vases antiques du Louvre*, III, p. 280 (Hackl, No. 596); *C.V.A.*, Louvre 4, III Id, text, p. 24; Pottier, *op. cit.*, III, p. 279 (Hackl, No. 597). In the latter graffito, Pottier reads, after "oxybapha 50," "*4* obols—ou 5(?)." The *C.V.A.* transcription also differs from Hackl's, e. g., in that the *sigma* of *oxides* is shown with four strokes.

[15] Inv. 21834, by the Syracuse Painter: *A.R.V.*, p. 353, no. 16.

[16] Hackl, *op. cit.*, p. 105; cf. Amyx, *op. cit.*, pp. 190, 192.

[17] Republished (but again not in facsimile) by P. Arias in *C.V.A.*, Siracusa, 1, III I, text, p. 4, again reading M.

[18] *Auction Sale XVI, June 30, 1956: Classical Antiquities*, Monnaies et Médailles, S.A., Basle, 1956, no. 129, p. 36 (not illustrated); with transcription of graffito, not in facsimile. Dated "about 460 B.C." The attribution to the Syracuse Painter is Beazley's (cf. *ibid.*, p. 4).—The statement made in the text, that the sense of *lekythis* is "general" and applicable to "big pots," rests on a common misapprehension. The vase-names appearing in graffiti often do *not* apply to the vases on which they are written. Also fallacious, the inference, from *lekythizein*, that a *lekythos* (or *lekythis*) could be a big vase. The fault stems from the Liddell-Scott-Jones definition, *Lexicon*, s.v., "declaim in a hollow voice, as though speaking into a *lekythos*." Without going any more deeply into the matter, it must be said here that the meaning of *lekythizein*, even in antiquity, was ambiguous, referring now to the manner, now to the matter, of overblown speech; in the latter case, which may well be the original meaning, it has of course to do with the polychromy of white lekythoi, i.e., to "purple passages." In the former case, even if we grant for it a good classical origin, the comparison is made not to speaking, but to *blowing* into a lekythos (*ἐπεὶ καὶ αὐτὴ πεφύσηται*, *Schol. in Aristophanem, Ran.*, 589), which made the "hollow" noise; try it on a Coca-Cola bottle. This effect could hardly be obtained from a pelike or a hydria.

except for the final numeral, essentially a replica of that on the Syracuse pelike. But, in this new inscription, the final numeral, if correctly transcribed, is 111 (one hundred and eleven), a figure which would make nonsense of the proposed prices for these lekythides: once 20 for 10 obols, but here 111 for the same amount. I can think of no solution to this puzzle. Perhaps the second sign is not a drachma sign at all, but a hastily written *ypsilon*.[19] At least it is plain that neither of these graffiti can now be read so as to give an intelligible unit price for lekythides, and they must be held back for further study before any complete sense can be suggested.

Even without the completely damning evidence of the Basle hydria's graffito, Jongkees' price of 2 obols each for *lekythides* will not stand the test of consistency. On this question, we may compare the price with two others not very far off in date. Two graffiti (on which Jongkees' and my interpretations, following Beazley's, agree) appear to price large red-figured hydriai at 2 drachmai and 3 drachmai each.[20] If these graffiti refer, as seems likely, to the vases on which they are inscribed, it would be incongruous to have lekythides (*small* lekythoi, as Hackl, p. 105, rightly insists) so valuable that a mere half-dozen of them would be worth as much as the London "two-drachmai" hydria (H. 0.41 m.), or nine of them equal to the Leningrad "three-drachmai" hydria (H. 0.47 m.).[21] This question, again, does not involve a choice between drachmai and obols in one's reading of the graffito, but an emendation of the text, even though the text itself has meanwhile proved to be unintelligible.

Apart from the price read on the Hearst "two-obols" amphora, which will be treated below, the rest of the epigraphical entries in my list were derived from graffiti which use Ionic notation (cf. my pp. 190-191). These prices refer, partly in abbreviated form, to leky(thoi?), Ly(dia?), chytri(dia?), "larger Lydria," lepastides, myrtotai (Pl. 53, a-g). In this class of inscriptions, numbers are given in Ionic (alphabetic) signs, followed by similar numbers for the price, but with nothing to show whether drachmai or obols are meant. These are the inscriptions about which I asked (*op. cit.*, p. 190), "Are the prices given in drachmai or obols?" These are the only graffiti in which there is really any choice between drachmai and obols. Following is a comparative table of Jongkees' and my interpretations of these graffiti, he reading drachmai, I obols, for the prices:

[19] Cf., e.g., Hackl, *op. cit.*, pls. 2-3, nos. 550, 551, 600.

[20] Jongkees, 1951, pp. 259, 262; Amyx, *op. cit.*, pp. 189, 192, and p. 197 note 114. The two hydriai are listed on *A.R.V.*, p. 701, nos. 95, 96 (Group of Polygnotos).

[21] The Syracuse pelike might be as late as 470 B.C., but the hydriai were made a good twenty years later (see below, p. 305). I do not understand Jongkees' statement (1951, p. 262) that the hydriai meant in these graffiti (*hydriai poikilai*) were "perhaps polychrome vases." The hydriai which bear the graffiti are decorated in ordinary red-figure technique, and ordinary painted vases, both black-figure and red-figure, are elsewhere called *poikilai*; cf. my p. 197, note 114; Jongkees, 1951, p. 262, note 2; and cf. Hackl No. 606, and *Bulletino Napolitano*, II, 1844, p. 23, pl. I, 6. What sort of fifth-century hydriai, other than ordinary red-figure, can he have in mind?

Amyx (1941)			*Jongkees (1951)*
leky(thos?)	1 to 1⅓ obols (Pl. 53, a-b, cf. c)	lekythos	1 drachme to 1 drachme 2 obols
Ly(dion?)	*ca.* ¾ obol (Pl. 53, d)	Lydion	5 obols
chytri(dion?)	7/23 obol (Pl. 53, e)	———,	" obscure " [This reading may justly be questioned].
" Larger Lydion "	½ obol (Pl. 53, f)	Lydion (" large ")	3 obols
Lepastis	7/20 obol (Pl. 53, f)		2 obols
Myrtote	7/20 obol (Pl. 53, g)		2 obols

Since there is no internal evidence in the numerals to help us, we must base our judgment on other factors. Date is of course relevant, and I tried to take due account of it (*op. cit.*, pp. 190-191); but still more important are the questions of relative size and of the amount and quality of decoration. These must all be small vases, to judge from the sizes of the lots in which they were sold (running up to 38 pieces). The entire range of prices if taken in obols is from about ⅓ to 1⅓ obols. We may compare these prices with those for small vases near the end of the century (1/20 obol to about ⅓ obol each; above, p. 290), and we may note that the next-to-lowest unit price, 1/20 obol each for lepastides and myrtotai, corresponds exactly with that for the *largest* of the lesser vases (*i.e.*, all but the kraters) in those later graffiti, namely, the bathea. On the other hand, if we read the prices in drachmai, we shall have to suppose that a half-dozen to nine lepastides or myrtotai would match in price the large red-figured hydriai, which were priced at 2 and 3 drachmai each some time *after* the supposed collapse in vase prices by which Jongkees [22] would explain such wide discrepancies. All comparisons that are open to us demand for the sake of consistency (not to prove that prices were " low " or " high ") that these prices be read in obols.

But we have not yet done with these " Ionic " graffiti. Under *kylikes*, Jongkees' list gives two prices, 4 drachmai 1 obol, and 1 drachme. The latter, placed in parentheses, is added from my mention of Kephisophon's kylix (*op. cit.*, p. 189, where the price is stigmatized, for the circumstances, as improbably *high*). The former is derived from the graffito on the red-figured amphora, Munich 2309, decorated by Euthymides.[23] The transcription given here, Plate 53, h, is from Furtwängler and Reichhold.[24] Jongkees reads " 12 kylikes for 50 drachmai," or at 4 drachmai 1 obol

[22] Jongkees, 1951, pp. 265-266, and cf. 1942, pp. 155-156. See further below.

[23] *A.R.V.*, p. 25, no. 3; facsimile of graffito, O. Jahn, *Beschreibung der Vasensammlung König Ludwig's*, Munich, 1854, pl. 10, no. 410, and F.-R., I, p. 181.

[24] *Loc. cit.*

each. But, as Furtwängler [25] had already explained, the mark which Jongkees reads as N, the Ionic numeral "50," is really a monogram of *lambda-eta*, familiar from many other graffiti, probably standing for "lekythos" or "lekythoi," [26] and not to be read as a price. The mark before the number 12 is, as Furtwängler says, a divider, about which more later. Thus we have a tally here, "twelve kyl(ikes?)," but not a price. This is, presumably, one of the eight price-inscriptions used by Jongkees which were "overlooked" by me,[27] the rest are to follow in due course.

It is time now to look at the graffito which inspired Jongkees' researches into the subject of price-inscriptions, that on a red-figured hydria in Utrecht, by the Tyszkiewicz Painter.[28] A facsimile of the graffito is reproduced here, Plate 54, a, from Jongkees' earlier paper.[29] Jongkees would read it "ὠν(έομαι ὑδρίας) 9 πρὸ (δραχμῶν) 57," that is, "I buy 9 hydria for 57 drachmai," or at 6 drachmai 2 obols each.[30] If this sense, or any sense which could yield a price, could be accepted for the graffito, we should have a very important addition to the corpus of legible price-graffiti. But objections come flocking to the mind. (1) Is any price mentioned at all, since there is no drachme sign anywhere in the graffito? (2) Does any part of the graffito refer to hydriai, since no trace of this word appears? (3) Is it legitimate to stretch *ον-* into *ὠνέομαι*, particularly since the writer of a vase-graffito would more probably be the *seller*,[31] and since this use of the word is unexampled elsewhere, unless we agree with Jongkees on the next two items to follow? (4) Is this use of *πρό* for "at a price of" at all likely, especially since it would be unique here if so accepted? The reading has already been criticized on some of these grounds,[32] but the full weight

[25] *F.-R.*, I, pp. 178-179.

[26] Amyx, *op. cit.*, pp. 197 f., note 117, and the references there cited; H. R. W. Smith, *C.V.A.*, San Francisco, 1, text, pp. 26 f. Cf. Pl. 53, b.

[27] Jongkees, 1951, p. 261.

[28] *A.R.V.*, p. 188, no. 53.

[29] Jongkees, 1942, p. 152.

[30] Jongkees, 1942, p. 154; 1951, list, p. 259. He had considered, and rejected, an alternative reading of 51 drachmai 1 obol.

[31] Hackl, pp. 94-95, concludes that many, but not necessarily all, of the commercial graffiti and dipinti were written by buyers who visited the shops to place their orders. This seems very improbable to me. It is theoretically possible in isolated instances, but I find it hard to believe that the buyers made a regular practice of going to Athens to make a selection of vases for each separate order. It seems far more likely that, in the great majority of instances, the buyer (or jobber) never saw these vases in Athens, hence that the trade inscriptions were put on by the sellers. Often the graffiti look as if they were written *before the vase was fired* (as Furtwängler observed for Hackl no. 592, our Plate 53, f; cf. his *Beschreibung der Vasensammlung im Antiquarium*, Berlin, 1885; II, p. 510, on no. 2188; but he supposes that Hackl no. 547, our Plate 53, h, was written after firing; F.-R., I, p. 181). A new study of this whole question would have great value, since the older theories (such as Hackl's) rested on much less information than we have now.

[32] Cf. M. J. Milne in G. M. A. Richter, *Attic Red-Figured Vases, a Survey*, New Haven, 1946, p. 168, note 44. Jongkees' statement (1951, p. 258) that Miss Milne's proposal (to read ON and ΠΡΟ as abbreviations of vase-names, both sets of numerals as tallies) is not acceptable "because

of this evidence counts overwhelmingly against the acceptability of this inscription as a price-graffito at all. This, again, is not a question of " high " versus " low " prices, nor of preferences as between drachmai and obols, but one of plausibility on the quite different grounds mentioned above. Yet Jongkees' search for evidence to support this reading has drawn him into still deeper waters and has led to the formation of what might be called his *oneomai* group of graffiti, this one and two others which must now be examined. Jongkees' table of prices gives for lekythoi, besides that of one obol, drawn from Aristophanes, and those of one drachme and 1 drachme 2 obols (discussed above, p. 294), figures of three drachmai, 3 drachmai 5 obols, and 8 drachmai. For the amount 3 drachmai, he has a footnote, " not 4 dr., as was written in *Mnem.* 1942, p. 155." The only mention of 4 drachmai on that page, however, is to a *hydria*, which is identified, *ibid.*, note 27, as that (or those) in a graffito containing the figure 3 drachmai, and we must assume that Jongkees meant to put this entry under *hydria*, two lines above in his list.[33] Obviously, it does not belong with the lekythoi. Of the remaining two figures for lekythoi, the price of 8 drachmai each comes from his reading of the graffito on a calyx-krater in Copenhagen, by the Troilos Painter,[34] a facsimile of which is reproduced here, Plate 54, b. Jongkees interprets it thus: Around one side, counter-clockwise, ὠν(έομαι) λη(κύθους) 5 (τιμὴ) 40 (δραχμαί);

of the *ordo verborum* " simply begs the question; for, if her suggestion is taken, the numerals do come after the vase-names. And, for numbers before vase-names, cf. Hackl, pl. III, nos. 577 and 582. On the alleged use of πρό for " at a price of," see Jongkees, 1951, pp. 258 f. The question is not simply whether πρό can ever mean the same as ἀντί. In their full range of meanings, their uses obviously do overlap, as was recognized in antiquity (Bekker, *Anecd.*, I, p. 112; copied by Suidas and Photius, *s.v.*). It is, specifically, whether πρό was used to mean " priced at " a certain sum of money. The matter does not deserve a full discussion here, but it must be said that not one of the passages cited by Jongkees (or his sources) clearly exemplifies such a use of the word. (1) In *Lex Gortyn.*, I, 43 (XI, 16, also cited by Herwerden, seems to be a false reference), πρὸ τούτω means " in his stead." (2) W. Vollgraff's conjecture, *B.C.H.*, L, 1934, p. 150, concerning another Cretan inscription (cf. M. Guarducci, *Inscriptiones Creticae*, I, Rome, 1935, no. XXV, 3, which Jongkees should have consulted), if correct, would again give a meaning of substitution, " in place of "; but even this reading is proved incorrect by two other examples of the same type (Guarducci, *op. cit.*, nos. XXXI, 7 and XXXI, 8). (3) Sophocles, *Elec.*, 495: πρὸ τῶνδε is best rendered " therefore," " because of this "; text perhaps corrupt, as Jongkees might have noted. (4) Pindar, *Ol.*, X, 22 sq. (again corrupt?) ἔργων πρὸ πάντων: " more to be prized than," i.e. " worth more than " all labors. Cf. Sandys, Loeb C. L., *ad loc.* (5) Xenophon, *Men.*, II, 5, 3, not cited by Jongkees, has a similar sense: πρὸ πάντων χρημάτων is clearly not " in exchange for," but " in preference to " any amount of money; and the text has been questioned (cf. E. C. Marchant, O.C.T., ed. 2, *app. cr. ad loc.*). Whatever may still be in doubt about these passages, they can scarcely be thought to support Jongkees' interpretation of the Utrecht graffito.

[33] Cf. Jongkees, 1951, p. 262 (*hydria*), where it is mentioned also as one of the graffiti " not known " to me (see my [1941] p. 197, note 114). The price of 3 drachmai for a hydria seems plausible enough, but we do not know that a unit price is meant by this graffito. I do not see, either, why this fragment—perhaps from the foot of a krater, as Orsi says—should necessarily be dated " before ab. 470," since it is described among sporadic finds, without context.

[34] *A.R.V.*, p. 191, no. 10; facsimile of graffito, *C.V.A.*, Copenhagen, 3, text, p. 105.

around the other way, clockwise and retrograde, σκυδλ- 2, τι(μὴ) 12 (δρ.) 3 (ὀβ.). Taking the le(kythoi) first, we can see again, as in the Utrecht graffito, formidable problems, the main one being that the sign before the numeral 40 can hardly be a 5, lying on its side, but must be simply a divider, like that on the amphora in Munich with the "kylikes" graffito,[35] and like that on a vase in New York, to be considered presently. Hence no reason exists for supposing that the number 40 is a price, and not simply a tally. *Oneomai*, too; and it is not even clear in this case that we have ON left-to-right rather than NO retrograde. The other half of the graffito is equally difficult: Jongkees tells us that it gives a unit price of 6 drachmai 2 obols for a *skydl-*, but what on earth is a *skydl-*, in Greek or any other language? I had (*pace* Jongkees, 1951, p. 269) studied this graffito hopefully, but I had, with regret, come to the same conclusion about it as Blinkenberg and Johansen: "longue inscription indéchiffrable."[36]

The third "*oneomai*-inscription" is written on the hydria Louvre G 178, decorated in the manner of the Berlin Painter.[37] The graffito is reproduced here, Plate 54, c.[38] Jongkees asks us to read it thus: ὠν(έομαι) λη(κύθους) 7—δώσ(ω) (δραχμὰς) 27, *i.e.*, lekythoi at 7 for 27 drachmai, or at just under 4 drachmai each. I had made, and still make, no sense of this graffito. Again, *oneomai*, and again, no sign of a drachme anywhere; and here, instead of *pro* for *time*, we must read δώσ(ω), spelled with an *omega*, in spite of the *omicron* which begins ὠν(έομαι). Hardest of all to accept, however, is the linking together of such widely scattered elements in the graffito as the ON (or NO ?) in the center, the λ out on the edge (if that is what he means),[39] and the δως[40] far around on the opposite side of the edge. It is not credible that these parts were meant to be read together so as to make consecutive sense.

The three graffiti in which Jongkees reads ὠν(έομαι) are in various styles of

[35] Above, pp. 294-295. There, the sign opens leftward, here rightward, but the meaning must be the same. Cf. also Naples 3360, Heydemann, pl. XV.

[36] *C.V.A.*, *loc. cit.*, I had once tried putting NO≤ together, retrograde, and apart from the other signs; and attempted, continuing leftward, to read κύ(λικες) Δ λ(ήκυθοι) II, τι(μὴ) Δ II Ξ, *i.e.*, 10 kylikes and 2 lekythoi, price (for the lot) 12 drachmai 3 obols, but had given all this up as wishful straining for sense. It may be mentioned, incidentally, that Jongkees' transcription is faulty (1951, p. 262): he reads 12 dr. 4 ob. (see facsimile).

[37] *A.R.V.*, p. 145, omicron.

[38] From the facsimile in *C.V.A.*, Louvre, 6, III Ic, text, p. 41, which seems, as far as one can make out, to agree with the photographic reproduction, *ibid.*, pl. 54, 7. Jongkees' complaint (1942, p. 153, note 11) that the transcription in *C.V.A.*, text, p. 41 is incorrect in that it does not mention the letters ΛE would have been answered if he had looked at the top of the next column: "et de l'autre coté ΛE."

[39] Cf. Jongkees, 1942, p. 153 and note 111, the sense of which is not clear to me. If he means that the peculiar sign to the *right* of ON (*sic*) should be read λη(κύθους), the case is not improved.

[40] The *sigma* of δως may be spurious (see below); and is not the mark before the figure 27, once again, a divider? One might by this time almost be ready to suspect that this sign, which separates letters from numerals in the cases thus far noticed, may be a warning that the number to follow is *not* a price.

writing, hence it is unlikely that they have any significant connection with one another, or that ON (or NO) can mean the same thing in each case. There is, on the other hand (as was pointed out to me by Miss Milne), a graffito (Pl. 54, d) on a lost vase once in the Canino Collection together with the Louvre hydria,[41] which *is* so closely related to the Louvre graffito that, unless it is very inaccurately transcribed, it condemns absolutely the readings of both ὠν(έομαι) and δώσ(ω) (compare Pl. 54, c with Pl. 54, d). The three large letters, *xi*, *delta*, and *omega*, form a group quite distinct from the rest of the signs. They cannot logically be connected with any numbers in the graffito, yet, on the other hand, they are matched by the same group of letters on the Louvre graffito. Again, there is ON (or NO), and no figures to be read with it. We need not carry the comparison further to see that the meaning of these signs in the Louvre graffito cannot be what Jongkees proposes, since the same group in the lost graffito cannot possibly have had such a sense.[42]

For the *skydl*—, mentioned above, there is company in the *nyko*—, priced by Jongkees at 4 drachmai 3 obols each. This item appears in a graffito on the krater New York, Metropolitan Museum 06.1021.149, by the Orchard Painter.[43] The facsimile is repeated here, Plate 54, e.[44] Jongkees reads, "5 *nyko*—, 23 drachmai." The mark [45] before the number 23 is read by him as the number 5 lying on its side, presumably to distinguish it from the supposed price which follows. But surely this mark is a divider, as in the Copenhagen and Munich graffiti already discussed,[46] and there is no warrant whatever for reading the number 23 as a price. ΝΛΚΟ - also is strange for Greek; possibly the beginning of a (non-Greek) consignee's name? Or parts of two words, run together? We must conclude, in any event, that ΝΛΚΟ - is not

[41] *Museum Etrusque de Lucien Prince de Canino—Fouilles de 1828 à 1829 = Vases peints avec inscriptions*; Viterbe-Tosoni, 1829, p. 112, pl. XXIX, no. 1198. The Louvre vase and its graffito, *ibid.*, no. 1194. The description of the painting on No. 1198 also suggests proximity to the Berlin Painter.

[42] The question of the copyist's accuracy in transcribing this lost graffito, if invoked, would not encourage the belief that any significant numerals were omitted. Between the same copyist's transcription of the Louvre graffito and the photograph-plus-facsimile in *C.V.A.*, (above, note 38), only minor differences are present. He leaves out the scratch below the tail of the *omega*, perhaps rightly judging it to be accidental, and the *lambda-epsilon* on the edge; nothing more. If the lost vase could be found, the question would be finally settled, but there is little doubt what the answer would be.

There is another graffito with ON, recently published in *C.V.A.*, Schloss Faisanerie, I, p. 31, on a column-krater by the Pig Painter (*A.R.V.*, p. 371, no. 12). Apparently it reads ON ΚVΛΙ ΚΙ ΚΟ. The word κυλι(ξ) or κύλι(κες) may be recognized (cf. Brommer, *loc. cit.*; and above, p. 207, note 50), but I can make no sense out of the rest, certainly nothing suggestive of a price.

[43] *A.R.V.*, p. 346, no. 2.

[44] From Richter and Hall, *R.-F. Ath. Vases*, I, p. 223, fig. 34, no. 89; cf. Milne, *ibid.*, p. 222.

[45] Cf. Milne, *loc. cit.*, who cites, among others, the mark in the Copenhagen graffito as a parallel case.

[46] Cf. above, pp. 294-295, 296-297.

a vase-shape, that the next mark is not a " 5," and that the final numeral is not a price but a tally.

Passing over the next four entries in Jongkees' list, which were treated above (pp. 289-292) with kraters, we come to *ichthyai*, priced at 2 obols each (Hackl, Nos. 601-601a, pp. 54-55, pl. III). The graffiti are shown here, Plate 54, f-g, after Hackl. The inscriptions occur on two black lekanides, one in Munich, the other once in the Pourtales Collection, Paris. From Hackl No. 601a (Pl. 54, f) Jonkgees reads Ἰχθύαι 11, (τιμὴ) δρ(αχμαὶ) 4, pricing ichthyai at 2$\frac{2}{11}$ obols each. I had given this up as too difficult; the style of notation, Δ**R** IIII instead of ΗΗΗ, would be peculiar, and I could form no clear idea of what an *ichthye* (or *ichthya*) might be.[47] It is possible to think of vases for which such a name and price might be suitable, but the other difficulties should deter us from trying too hard. Similarly, for Hackl No. 601 (Pl. 54, g), Jongkees reads Ἰχθύαι 14, τι(μὴ) (δραχμαὶ) 4, which would give a unit price of 1$\frac{5}{7}$ obols. But the graffito contains nothing even suggestive of " drachme," and the reading τι(μή) in the second batch of numerals seems dubious. It would be wise, then, to omit the evidence of these graffiti for the price of *ichthyai* as too problematic to be useful.

The three following items, listed by Jongkees, are discussed in my earlier paper (p. 198, note 125), and need not detain us here: " Skyphos, $\frac{2}{3}$ obol " (*C.V.A.*, Braunschweig, pl. 27; facsimile, text, p. 34, fig. 14); " Pelike, ½ obol " (Hackl, No. 608; pelike, Berlin F 2361); and " Black cup, 1$\frac{2}{3}$ obols " (Hackl, No. 609; black-glazed cup, Berlin F 2734). Even if these prices should be right, we do not know that they refer to the vases on which they are found, or even to uniform lots of vases of one shape. I had, therefore, assayed their evidential value at footnote level.

There are two prices taken from graffiti which appear as newly added items in Jongkees' table: " spathe, 1 drachme " and " krater, 3$\frac{2}{3}$ obols," both drawn from Beazley's article, " Some Inscriptions on Vases, IV," *A.J.A.*, XLV, 1941, p. 598, No. 12, and p. 597, No. 9. The former is on the neck-amphora Boston 03.821, by the Kadmos Painter,[48] the latter on the red-figured column-krater Berlin Inv. 2928. For *spathai*, the inscription seems clear enough, and it must mean, as Beazley says, that spathai are here priced at 2 for 2 drachmai, or at 1 drachme each. But what is a spathe? If it is a vase-shape, as Beazley thinks " it really ought to be," one does not know what kind of vase. Perhaps, rather, a dip-stick for perfume (cf. above, pp. 215-216 and note 121), of some unspecified but relatively valuable material? Thus far, at least, the inscription adds little strength to a list of prices for vases.

The other new entry, on kraters, also raises problems. Jongkees takes the two

[47] On the meaning of ἰχθύα (or ἰχθύη), cf. Liddell-Scott-Jones, *s.v.* ἰχθύα, II. A 'fish-pot,' as there defined, from Hackl, No. 601? Or a fish-*plate*, of some sort? Or a lekanis, like those on which the graffiti appear?

[48] *A.R.V.*, p. 805, no. 19.

lines of writing to mean that 10 *krateres korinthioi* were priced at 6 drachmai, or at about 3⅔ obols each. Beazley, on the other hand, says, "but I do not understand why the vase-name is repeated," and holds the sense to be uncertain. Column-kraters are usually big vases (the one which bears this graffito is 0.40 m. high), and a unit of less than 4 obols would be surprisingly *low*, in comparison with the closely contemporary [49] Polygnotan hydriai at 2 and 3 drachmai each. Beazley was doubtless right to reserve judgment on the meaning.

There remains the painted inscription on the Hearst "two-obols" amphora,[50] which Jongkees will not accept as a price. This vase has been much discussed, both as to the meaning of the pictures and as to the purpose of the inscription, and there would be no gain in reviewing here all the theories and arguments which it has provoked (cf. my paper, pp. 182-190). After prolonged study of both pictures and text, I could find no acceptable sense which would relate them to each other,[51] and concluded that the inscription must refer to the vase itself, stating that its price was two obols. Jongkees objects to this interpretation because of the fact that δύ' ὀβελώ must then be in the accusative case (answered to my satisfaction, in my paper, p. 187), and because ὀβελός then has to mean ὀβολός, "obol" (which still seems appropriate for a sixth-century inscription).[52] Believing that the pictures and the inscription must be connected, he proposes the reading, Δύ' ὀβελώ. Καὶ μὴ θίγῃς (two sentences). These, he says, are the words of the hoplite, who "has in mind to prevent" the naked tripod-carrier from making off with the tripod. Not Herakles stealing Apollo's tripod, for that possibility has been eliminated (see my p. 182), but "a re-enactment of Herakles' theft of the tripod." The naked man is impersonating Herakles, and the hoplite (a policeman?), in pursuit of the tripod-thief, says, "Two spits! And don't take it"; for "perhaps the thief, when detached, had to pay a traditional fine of two spits, that is: in money of ancient times." But the hoplite's panel should be the main side

[49] Cf. Beazley, *op. cit.*, p. 597: "The date is about 450-440 B.C., and the style recalls the Chicago Painter."

[50] Now New York, Metropolitan Museum of Art, No. 56. 171.13.

[51] F. P. Johnson, *C.P.*, XXXVIII, 1943, pp. 76 f., suggests that the hoplite may be speaking as a mercenary soldier, offering his services for two obols (a day); or, that the inscription may be erotic (cf. Plautus' *Scorta diobolaria, Poen*, 1, 2, 58). But either of these interpretations would leave the tripod-bearer stranded, and the two pictures should be related to each other (cf. my p. 182; but see also below, p. 301.

[52] Jongkees bases his objection on the findings of M. N. Tod, *Num. Chron.*, Ser. 6, VII, 1947, pp. 3 ff., that the occurrence of ὀβελός = ὀβολός, "obol," is rare. This argument is not valid, since ὀβελός for "obol" does exist, and is in fact the only form that is known in Attic inscriptions of the archaic period. Cf. Tod, *op. cit.*, p. 3, who cites for ὀβελός *I.G.*, I², 3, line 22 (dated 485/484 B.C.), and adds that the new form ὀβολός, in *I.G.*, I², 6 (corrected from the earlier reading ὀβελός) *first appears* in this latter inscription (ca. 460 B.C.). The form ὀβελός for "obol" is attested also in a still earlier Attic inscription, belonging to the late sixth century B.C.; cf. E. Vanderpool, *Hesperia*, XI, 1942, p. 332, line 13 (not mentioned by Tod). Far from "presenting difficulty," then, the form ὀβελός for "obol" appears to be the proper one in the archaic period.

of the vase,[53] and there is no shred of positive evidence to support any of the steps which link this theory together. In particular, the two inscriptions at Delphi which Jongkees interprets as evidence for an Athenian ritual of " tripod-theft " and " tripod-recovery " refer to quite a different sort of tripodophoria, as various scholars had already observed.[54] Hence this whole interpretation is contradicted by the very documents which are cited in support of it.[55] Jongkees' attempt to read into the vase-inscription a sense that is relevant to his story only emphasizes the improbability of this whole line of argument.

Meanwhile, nothing has come to my attention which convincingly demonstrates that the inscription *cannot* state the price of the vase, least of all any indication that such a figure would be out of scale with prices of Greek vases or other comparable objects as known from other sources. An adverse opinion on this interpretation has, it is true, come from Sir John Beazley:[56] " A. Warrior. B. Victorious athlete carrying tripod. On the inscription . . . I am inclined to take this (with Naber and Kretschmer) as for Δύ' ὀβελὼ καὶ μὴ θίγη(ι)ς; and to explain it as a catch phrase of the moment, with a παρὰ προσδοκίαν: instead of 'Two obols, and take what you want,' 'Two obols—and hands off.' " But whatever the merits of this particular case, it cannot be said fairly that my interpretations of price-graffiti depend upon it; those readings have their own justification and their own internal consistency, as has been

[53] Jongkees' allusion to the hoplite's being on the alert (1951, p. 264), because of his " large eye," etc., uses evidence which might better be interpreted to mean simply that this side is the front (*i.e.*, Side " A "), for the decoration, simple though it is, seems on the whole richer than that of the other panel. The hoplite's eye is larger than that of the tripod-bearer because the whole head is larger; but it is also more elaborately drawn. It is therefore a reversal of roles to make him trail behind the tripod-bearer.

[54] The two inscriptions which are held to refer to such a practice are published by Couve in *B.C.H.*, XVIII, 1894, p. 87, no. 9, p. 92, no. 10 (also *Fouilles de Delphes*, III, 2, nos. 32-33, and Dittenberger, *Syll.*[3], nos. 728, I, 697, L). But Couve makes no mention of a tripod-theft, nor does Dittenberger. Nor does Deubner (*Attische Feste*, Berlin, 1932, p. 203, cited by Jongkees), who speaks simply of a ceremony in which, on the occasion of the Athenian Pythias, a tripod was brought from Delphi to Athens, perhaps in commemoration of the founding of the Pythion at Athens. The ritualistic re-enactment of Herakles' theft of the tripod is also unlikely on more general grounds, namely that Greek cult and ritual only rarely was affected by myth (see especially M. P. Nilsson, *Cults, Myths, Oracles, and Politics in Ancient Greece*, Lund, 1951, pp. 10-11). In any case, this late revival of the Pythias, after a lapse of two centuries, introduced new ceremonies that did not rest on the old tradition but were created in the archaizing spirit of the Hellenistic age (cf. A. Boethius, *Die Pythais*, Diss., Uppsala, 1918, p. 140; and M. P. Nilsson, *Geschichte der griechischen Religion*, II, Munich, 1950, p. 80, concerning this very tripodophoria); hence it has little value as evidence for earlier practices. Jongkees' translation of ἔλαβεν in the first inscription as " took by force " is therefore completely arbitrary (against it, see Boethius, *op. cit.*, p. 78, note 1), as is his notion that the tripod in the second inscription was being *restored* to Delphi.

[55] As a final piece of documentation, Jongkees invokes the support of *R.E.*, V, col. 1681, for the tradition that Herakles had " perhaps " brought the tripod to Athens; but Athens is not mentioned there, nor is Herakles brought into association with any Athenian cult in which a tripod is involved.

[56] *A.B.V.*, p. 136, under no. 50.

shown. The loss of this inscription as the statement of a vase-price would therefore not affect in the slightest degree the validity of my interpretations of the graffiti.[57] The fourth of Jongkees' objections (above, p. 288) must therefore be dismissed as trivial if not altogether irrelevant, with the further observation that his attempt to provide a satisfactory alternative meaning for the inscription leads to no acceptable results.

In answer to Jongkees' three other complaints, the foregoing analysis of his interpretations of vase-graffiti might have been left to speak for itself. The questions at issue may, however, be more definitely resolved if we consider them while we have before us a tabular digest of that analysis. Following is a transcript of Jongkees' table of prices, with my comments alongside which summarize the findings reported above. Since the matter of dates figures prominently in Jongkees' arguments, I list first all of the items which he would date "before about 470 B.C.," then the rest separately.

Shape	*Price, each*	*Comment*	*Reference*
I. "Before about 470 B.C."			Page
Hydria	6 dr. 2 ob.	False reading (not a price?).	295–296
	3 dr.	Correct, but both should be dated well	293
	2 dr.	*after* 470 B.C.	293
Kylix	4 dr. 1 ob.	False reading (not a price).	294–295
	(1 dr.)	Correct, but not valid as a price, and not given in my table.	294
Lekythos	8 dr.	False reading (probably not a price).	296
	3 dr. 5 ob.	False reading.	296–297
	3 dr.	Wrongly placed; belongs under *hydria*; not clearly a *unit* price; and date not established.	296
	1 dr. 2 ob.	Ionic notation; I read 1⅓ obols.	294

[57] Cf. Jongkees, 1951, p. 265: "With this (*i.e.*, his rebuttal concerning the Hearst amphora's inscription) disappears the last support for Amyx' view that vase prices were low throughout the 6th and 5th centuries."

Shape	*Price, each*	*Comment*	*Reference*
	1 dr.	Ionic notation; I read 1 obol.	294
Skydl-	6 dr. 2 ob.	False reading; name impossible as Greek.	297
Nyko-	4 dr. 3 ob.	False reading (not a price); and name unintelligible.	298
Lydion	5 ob.	Ionic notation; I read *ca.* ¾ obol. Graffito also suspect? [58]	294
II. "after about 470 B.C."			Page
Krater	4 ob.	Correct, but incomplete: add "and 4½ ob."	289–290
	3⅔ ob.	Doubtful reading.	299–300
Lekythos	1 ob.	Correct (from Aristophanes). My table has it in parentheses.	296
Pellinion	1½ ob.	False reading; and incomplete.	290–291
Oxis	1 ob.	False reading; and incomplete.	290–291
"Baphos"	⅓ ob.	Correct (7/20 ob.). I read "bathy," with Hackl.	290
Oxybaphon	⅓ ob.	False reading; and incomplete.	290–291
Ichthye	2 ob.	Dubious readings; size and shape of vase also unknown.	299
Skyphos	⅔ ob.	Price may be correct; applicability doubtful.	299
Pelike	½ ob.	Price may be correct; applicability doubtful.	299
Lekythis	½ ob. (or 2 ob.)	Withdrawn.	292–293

[58] Cf. Langlotz, *Würzburg*, p. 175, on no. 321.

Shape	*Price, each*	*Comment*	*Reference*
Black cup	1⅔ ob.	Price may be correct; applicability doubtful.	299
Lydion ("large")	3 ob.	Ionic notation; I read ½ obol.	294
Lepastis	2 ob.	Ionic notation; I read ⅞ obol.	294
Myrtote	2 ob.	Ionic notation; I read ⅞ obol.	294
Spathe	1 dr.	Price correct; name of shape (if a vase) unintelligible.	299

This table brings into sharp relief the question of "obols versus drachmai," as Jongkees would have it in his third point. Of the twenty-eight items, only six have to do with Ionic notation, in which such a choice is open. If the rest are to be argued at all, they must be argued on totally different grounds. Twelve of them rest on false or dubious readings, which necessitate either a change in the accepted text or the reading as prices of numerals which are surely or probably not prices but tallies. Two refer to names which surely cannot be accepted as vase-shapes, and two others to names which are not clearly so identifiable. The rest, in so far as they differ from my entries, may give correct prices, but their applicability as unit prices to the specified vase-shapes is open to doubt, or there is some other question as to their aptness in the intended context. Therefore, when Jongkees states (1951, p. 262) that he "prefers to read drachms," it can only mean, in most of these cases, that he prefers to read obols as drachms, or tallies as drachms.

In matter of chronology, which forms the substance of Jongkees' second complaint, he begins with a curious dilemma and then proceeds to offer an even stranger solution. First he objects that "remarkably enough, the prices, expressed in obols according to Amyx, did not change very much in these one-and-a-half century."[59] This statement is contradicted by my earlier comments (*op. cit.*, p. 189), which also emphasize that our lack of precise information limits us to very rough comparisons. But then Jongkees advances his theory that the prices of Attic vases must have collapsed suddenly around 470 B.C., in opposition to the general rise in wages and costs over the fifth century,—a theory which presumably would justify the peculiar pattern of his table of prices: before about 470, nearly every piece is priced above (sometimes far above) one drachme; after that date, there is hardly any piece costing as much as a drachme (see table, above). But, if we set theory aside and look at the

[59] Jongkees, 1951, p. 261.

actual texts of the graffiti, and at the vases on which they are written, we see that there is serious trouble.

Of all the prices which Jongkees would place before about 470 B.C., the only ones which need even be debated on grounds of plausibility are the three which are obtained by reading drachmai in the graffiti with Ionic numerals, and these, even if so read, are among the lowest prices of the lot. It has been argued above (pp. 293 ff.) that obols should be read. Among the others, not one is acceptable in the sense in which he would have us understand it. Six of them are derived from false readings of the graffiti. Another (lekythoi at 3 drachmai) is misplaced (put it with hydriai, *i.e.*, big vases), its date is not clear, and the sense as a unit price is not established. Finally, we come to the large hydriai at two and three drachmai each. These are correctly priced, according to currently accepted belief, but they are flagrantly misplaced; the Group of Polygnotos belongs to the following generation. Hence they, the last remaining higher-priced items in Jongkees' list which are dated " before about 470," must be transferred to the other part of his table, where they become most deadly enemies of the very hypothesis in support of which they were cited.[60]

No " high " prices remain from those dated before 470, so there is little room left for argument concerning Jongkees' explanation as to why there was, according to his belief, a sudden and permanent *drop* in the prices of Athenian pottery after that date (1951, p. 265): " The cause will have been the blow which struck Attic vase export, when Etruria came into conflict with the Greeks and was conquered by them." On the other hand, there is a historical fact which seems to need stating. The wholesale export of Attic vases to the West, Etruria as well as other places, continued in undiminished strength long after 470 B.C. We need only to glance into the Index of Proveniences in Beazley's *A.R.V.*, for instance, to see that this is true. The entries under almost any important Etruscan site [61] bear witness to the unceasing flow of Attic vases to Etruria throughout the fifth century. The matter scarcely needs to be pursued beyond this point, even though there are other aspects of Jongkees argument to which one might well protest.[62]

[60] Since Jongkees seems to regard the single dividing date, about 470 B.C., as a decisive landmark, it may be well to add another observation. Having noticed his dating of the hydriai, we may also ask by what criteria he would place vases of late archaic style, such as those which provide the graffiti concerning *lydia meizo* and *lepastides* (Berlin 2188: Hephaisteion Painter; *A.R.V.*, p. 192, No. 1, and p. 954), and *myrtotai* (Northwick Park stamnos: Dokimasia Painter; *A.R.V.*, p. 272, No. 27), " after about 470." On the finer distinction of dating by which Jongkees puts the Syracuse pelike (*lekythides*) later than the Orchard Painter's krater in New York (*Nyko-*), his chronology is daring; on those other matters, it is nothing short of revolutionary.

[61] E.g., Bologna (p. 970), Cervetri (p. 971), Orvieto (p. 975), chosen almost at random.

[62] His assumption that the importation of Attic vases into Etruria fell off sharply " after about 470 B.C." seems to be connected with the defeat (he must mean " conquered " in this sense, 1951, p. 265) of the Etruscans in 480 B.C. (Jongkees does not explain why he would shift the effective date downward ten years). The idea of a collapse in the market appears to go back to a time when

I have left until last Jongkees' first objection, that "my" prices are "often impossibly low," because to me it seems logically subordinate to the other questions. How are we to know whether any price is "high" or "low," unless we have some other actual prices with which to compare it? Here a principle of operation needs to be made clear. This is that, when one is collecting evidence for prices, one should not look for "high" or "low" prices, but merely for prices. Where the sense is plain, they must be read as given; the prices may then, if possible, be *interpreted* in the light of any known circumstances, but they may not be changed without very strong reasons. Where the sense is uncertain, we should look for consistency, which is not quite the same thing as looking for "highness" or "lowness." Where no acceptable sense can be extracted, the graffito should be set aside. Furthermore, as regards the question of consistency in prices, a whole host of complications enters in if we wish to take due account of all relevant factors: the date, the type of vase (size, amount and quality of decoration, etc.), the conditions of the sale, current prices for comparable objects and the probable cost of production are only a few such considerations. The difficulty is that we know all too little about most of these matters, and can only guess at their bearing on any given situation.

"Cost of living," which affects cost of production, is of course a highly relevant factor, which must be evaluated to the best of our ability, but it is a logical inversion of method to start from this, the more hypothetical end, and allow it to dictate the results at the other end, where direct evidence for prices already exists. The dangers of using the "cost-plus" method of estimating "probable" prices are obvious enough, and they need not be dwelt on here. However, the one case may be considered which Jongkees argues in specific terms. He doubts the unit price of ⅒ obol for oxybapha, because this price, "at a time when 1 drachm was the normal daily wage, would mean that, if one man did everything, he had to produce more than 120 oxybapha a day."[63] But this will not do. One cannot relate cost of living to the maximum day's wage for a free (and often highly skilled) workman. We must ask, what was the probable average daily cost of maintaining a slave (remembering that women and children worked too) at this time? This is not any accurately determinable sum, but the evidence that we have would place it closer to one obol than to one drachme.[64] Even if it is put at 2 obols (a generous figure), Jongkees' "daily minimum

the distribution of Attic red-figure was less fully known (cf. Hackl, *op. cit.*, pp. 93-94, and A. Furtwängler, *Die antiken Gemmen*, III, Leipzig and Berlin, 1900, pp. 172-173). Whatever its source, it must now be given up, since it is based on false premises. For comments in similar vein, objecting to a notion of M. Pallottino's which seems curiously similar to Jongkees', see A. Rumpf, *A.J.A.*, LX, 1956, p. 74.

[63] Jongkees, 1951, p. 261.

[64] Cf., for example, H. Immerwahr, *T.A.P.A.*, LXXIX, 1948, p. 188, and the references there cited. Immerwahr concludes that the daily cost of food, though not definitely known for the fifth century, was apparently not more than one obol per day.

production quota" would immediately be reduced to (more than) 40 oxybapha per day, for the cheapest and presumably the smallest vase-shape for which a stated price is known. To compare this with a given production figure: we do know, for instance, that in one Roman brick factory each (slave) workman was expected to produce a minimum daily quota of 220 full-sized Roman bricks.[65] Is it conceivable, then, that a Greek (slave) potter could not have made more than 40 (or 80, or 120) oxybapha per day? Let us also put the question in terms of a comparison with actual prices. We know, again, that in the late fourth century B.C. at Eleusis the average price of bricks was around 38 drachmai per 1,000, or about 8 for one obol (in one case, the length is stated: 1½ feet), at a time when prices in general were appreciably higher than they had been a century earlier.[66] Was one fourth-century brick worth as much as 2½ fifth-century oxybapha? We might guess that this is plausible, but we need not guess, for the evidence tells us directly that it is true. We cannot argue, therefore, that the concrete evidence for prices which is placed before our eyes is invalid on the ground that the prices "are often impossibly low," and hope thus to find any defensible excuse for emending the texts which give us these prices.

It may be said, in summary, that the fruits of Jongkees' researches, so far as they differ from the results stated in my earlier paper, yield nothing which has seemed worthy of inclusion in the new treatment of pottery prices appearing above in Section IX. This Excursus explains, I hope in sufficient detail, my reasons for excluding his material.

D. A. Amyx

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INDEX TO THE ATTIC STELAI, PARTS II-III[1]

Index of Greek Words

[65] See Pritchett, Part II, pp. 282 f.; Dessau, *I.L.S.*, 8675; T. Frank, *Economic Survey*, I, p. 165.
[66] Pritchett, *loc. cit.*

[1] This Index includes the material studied in "The Attic Stelai" Part II, which was published by W. Kendrick Pritchett in *Hesperia*, XXV, 1956, pp. 178-328 (with appendix by Dr. Anne Pippin), and Part III, by D. A. Amyx, in the present volume of *Hesperia*. References to the latter publication have for reasons of economy been placed first, with only the page numbering given. An Index to Part I appeared in *Hesperia*, XXII, 1953, pp. 292-299.

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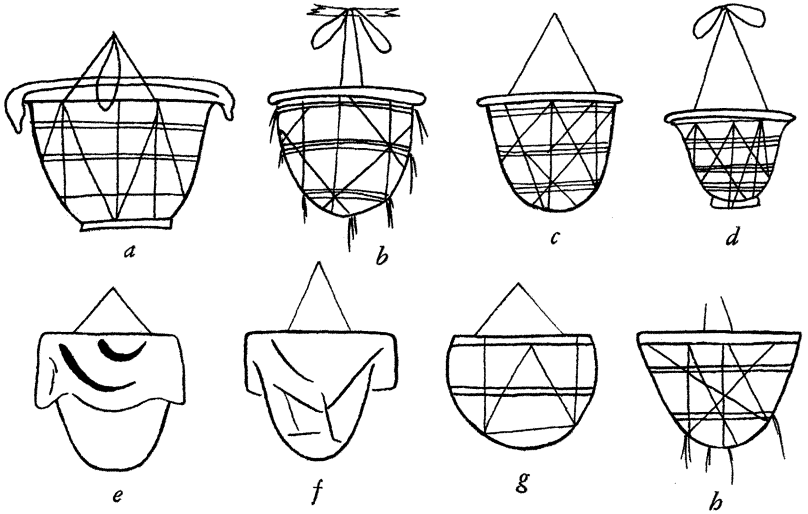
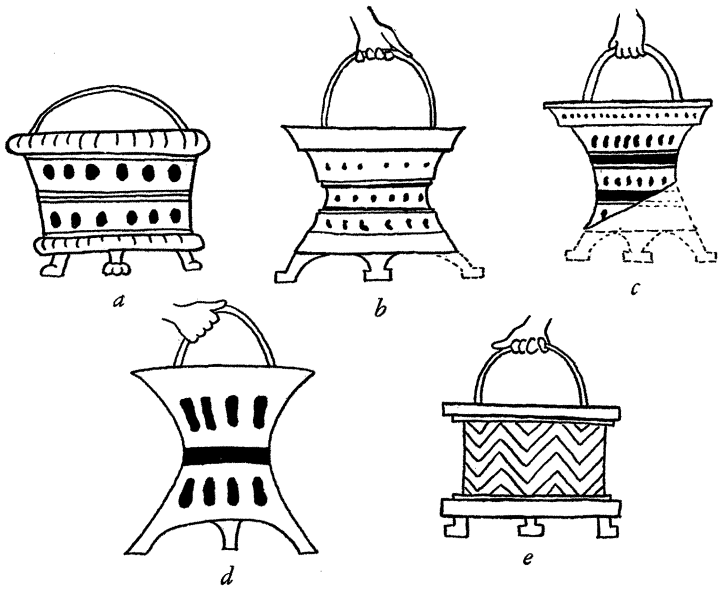
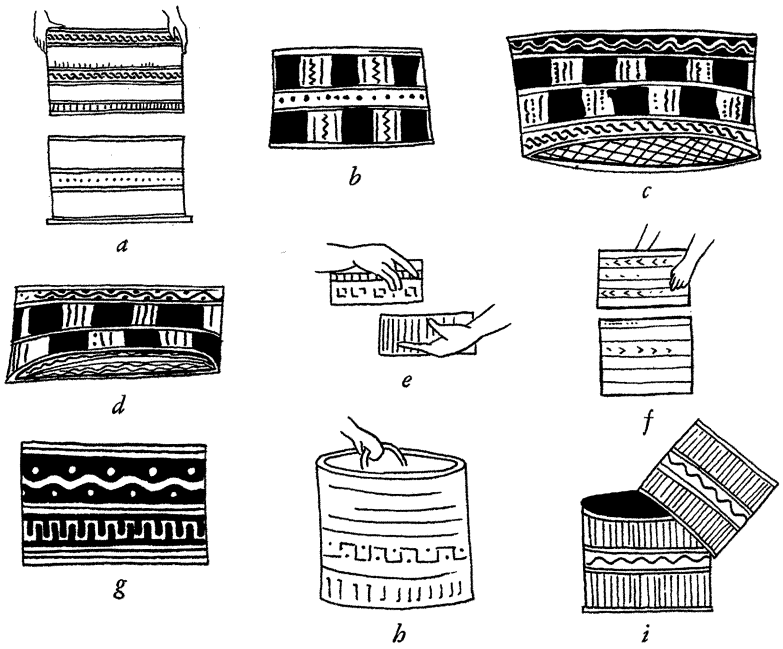


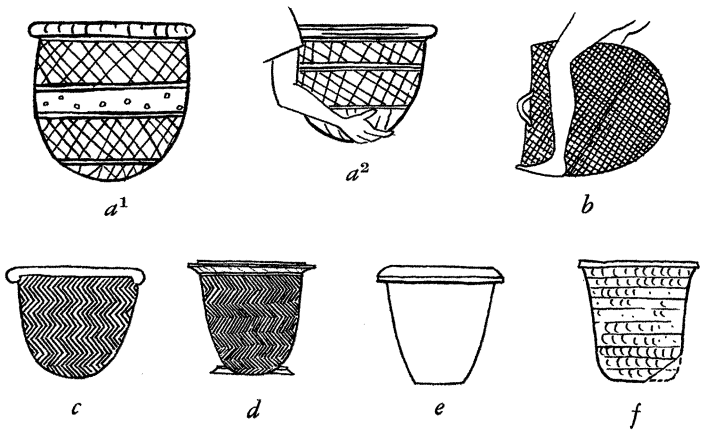
a. Type-Drawings of Basketry: The Hemispherical Basket.



b. Type-Drawings of Basketry: The Footed Basket.

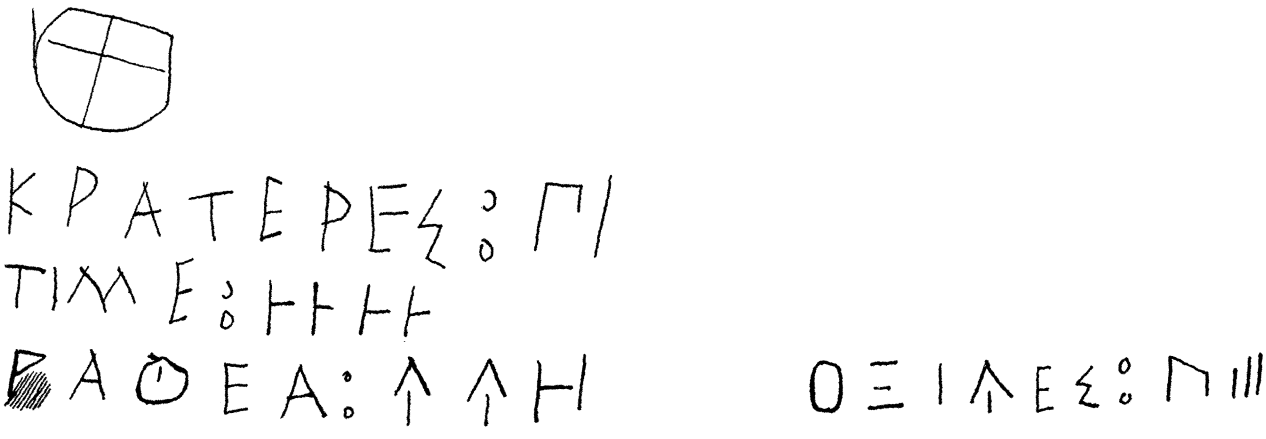


c. Type-Drawings of Basketry: The Basket with Slip-On Lid.

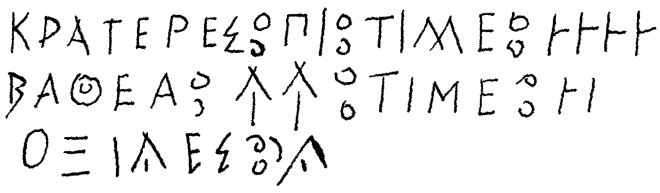


d. Type-Drawings of Basketry: The Burden Basket.

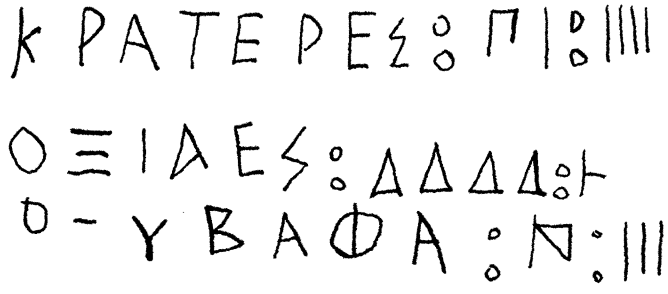
PLATE 52



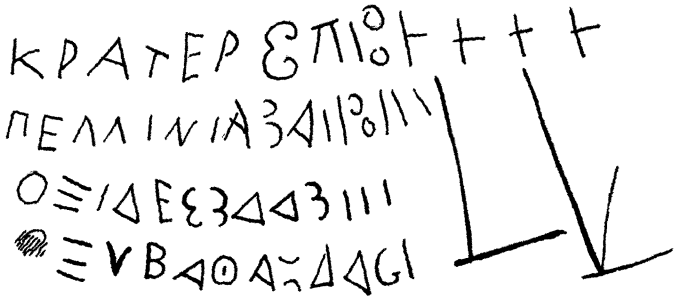
a. Louvre G 503.



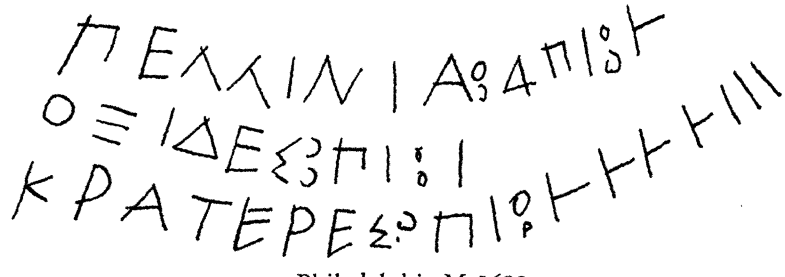
b. Vienna Hofmuseum 558.



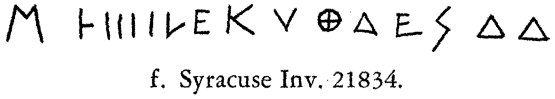
c. Louvre G 496.



d. British Museum E 504.



e. Philadelphia M 5682.

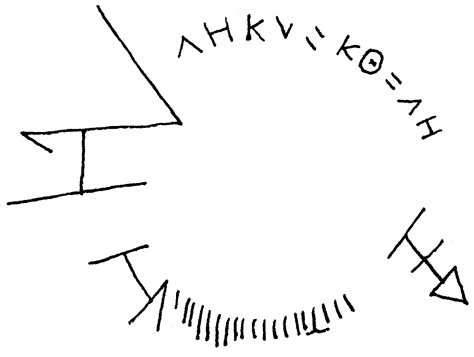


f. Syracuse Inv. 21834.

g. Basle Market, Hydria.

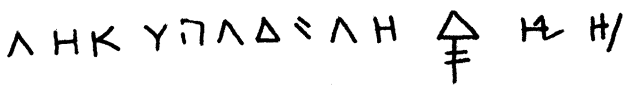
Graffiti on Vases.

D. A. Amyx — The Attic Stelai, Part III

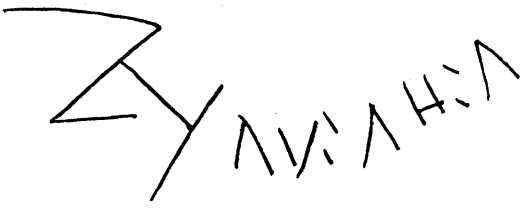


a. Munich J 731.

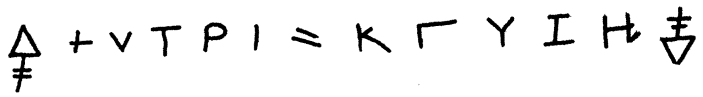
b. Munich J 693.



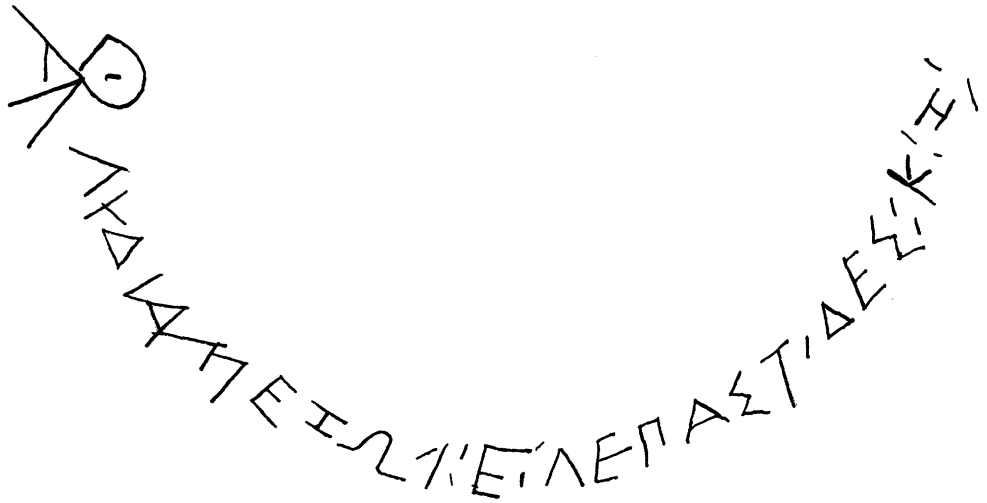
c. British Museum B 310.



d. Würzburg L 321.

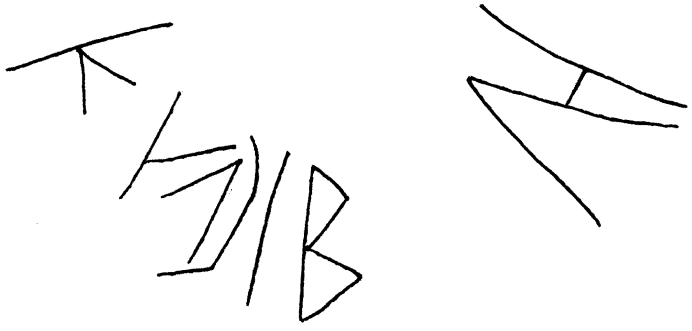


e. British Museum B 320.



f. Berlin F 2188.

g. Northwick Park, Stamnos.

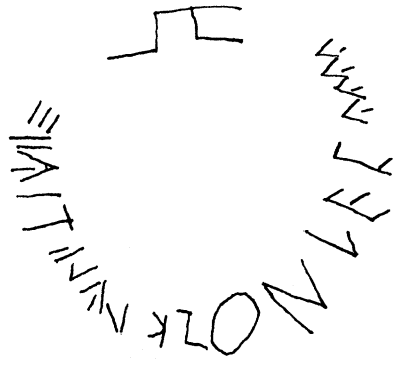


h. Munich Inv. 2309.

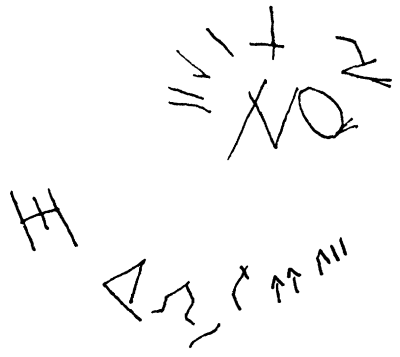
Graffiti on Vases.

D. A. Amyx — The Attic Stelai, Part III

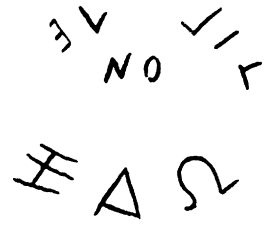
a. Utrecht, Hydria.



b. Copenhagen Inv. Chr. VIII 805.

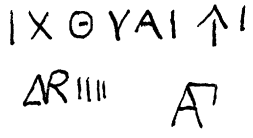


c. Louvre G 178.



d. Lost amphora (?)
(once Canino Collection).

e. New York, Metropolitan Museum 06.1021.149.



f. Munich, Lekanis.

g. Lost lekanis (once Pourtalès Collection).