

THE ATTIC STELAI*

PART III

VASES AND OTHER CONTAINERS

(PLATES 47-50)

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* Editor's Note: Part III completes the publication of *The Attic Stelai* of which W. K. Pritchett has published the text (Part I) and the earlier part of the commentary (Part II) in *Hesperia*, XXII, 1953, pp. 225-299 and XXV, 1956, pp. 178-328 (with Appendix on *The Demioprata* of Pollux X by A. Pippin). Since Part III runs to too great length for one number of *Hesperia*, the latter portion will appear in the next number, along with an Index to both Part II and Part III.



INTRODUCTION

This part of the Commentary¹ deals with pottery vases, mortars, kneading-basins, tubs, sieves, funnels and the like. On the other hand, certain other objects, although made of clay or for some other reason related to pottery containers, have already been discussed in Part II. These last include *pinakes*, boxes and box-like containers (*kibotos*, *kibotion*) and similar things, which have been treated as articles of furniture. Likewise excluded, except where the object seems physically to have some interest in itself, are those cases in which a "container" appears to be named purely as a unit of measure, or is significant only as a vehicle for the produce which

¹ For the meaning of the title "Attic Stelai" and for the scope of the whole study see W. K. Pritchett, Part II, pp. 178-179. For the opportunity to share in the study of the Attic Stelai, I am indebted to my colleague, Professor Pritchett. The final stages of the research were completed in Athens, under a liberal travel-aid grant from the Penrose Fund of the American Philosophical Society. Other financial support was received from the Committee on Research of the University of California (Berkeley). To the members of the staff of the Agora excavations, particularly to Professor Homer A. Thompson and Miss Lucy Talcott, I am obligated for help, comfort and advice of every sort. The photographs of the objects in the Agora Museum and in the National Museum at Athens are the work of Miss Alison Frantz. Miss A. Kokoni's patient and skillful typing of the manuscript has been a great blessing. Dr. Dietrich von Bothmer and Dr. Marjorie Milne have, in various ways, given important help, and Dr. Bryan Sparkes has contributed useful observations on several matters. Numerous other persons to whom I owe thanks for assistance or counsel are mentioned in the footnotes to the text. Responsibility for all conclusions is, of course, my own.

For references cited frequently the following abbreviations are used:

- A.B.V.* = Sir John Beazley, *Attic Black-Figure Vase-Painters*, Oxford, 1956.
A.R.V. = J. D. Beazley, *Attic Red-Figure Vase-Painters*, Oxford, 1942.
Beazley, E.V.P. = J. D. Beazley, *Etruscan Vase Painting*, Oxford, 1947.
Beazley, V.P. = J. D. Beazley, *Greek Vases in Poland*, Oxford, 1928.
Bekker, Anecd. = J. Bekker, *Anecdota Graeca*, Berlin, 1814
Blümner, Technologie, I² = H. Blümner, *Technologie und Terminologie der Gewerbe und Künste*, I, 2nd ed., Leipzig and Berlin, 1912.
Bobart, Basketwork = H. H. Bobart, *Basketwork through the Ages*, Oxford, 1936.
Boisacq, Dictionnaire⁴ = E. Boisacq, *Dictionnaire étymologique de la langue grecque*, 4th ed., Heidelberg, 1950.
Bossert and Zschietzschmann = H. T. Bossert and W. Zschietzschmann, *Hellas and Rome*, New York, 1936.
Caskey and Beazley = L. D. Caskey and J. D. Beazley, *Attic Vase-Paintings in the Boston Museum of Fine Arts*, II, London and Boston, 1954.
Cloché, Classes = P. Cloché, *Les classes, les métiers, le trafic*, Paris, 1931.
Délos, XVIII = W. Déonna, *Exploration archéologique de Délos, XVIII, Le mobilier Délien*, Paris, 1938.
Development = J. D. Beazley, *The Development of Attic Black-Figure*, Berkeley, 1951.
Dictionnaire = Daremberg et Saglio, *Dictionnaire des antiquités grecques et romaines*.
Evans, P.M. = Sir Arthur Evans, *The Palace of Minos at Knossos*, I-IV, London, 1921-1935.
F.-R. = A. Furtwängler and K. Reichhold, *Griechische Vasenmalerei*, Munich, 1904-1932.
Haspels, A.B.L. = C. H. E. Haspels, *Attic Black-Figured Lekythoi*, Paris, 1936.

it contains (on Measures, see Pritchett, Part II, pp. 192-196). After a first rough division of the material, the authors placed quite a few items more according to their convenience than in keeping with rigid logic, but the joint Index to the Commentary (to appear in the following number of this journal) should make it easy for the reader to find any desired passage.

Two main centers of interest developed in the course of studying this group of entries: (1) the attempt to identify and describe the items listed, and (2) the interpretation of their prices. Since, however, the Stelai offer only a limited amount of description, and since even this is often preserved only in a mutilated state,² it was necessary to bring the evidence of the prices to bear upon certain questions of identification and description. With these exceptions, the order of treatment will be first an attempt to define and describe the objects, giving only brief notations of price immediately following these passages, then, in the final chapter, a discussion of these prices, taken all together and in relation to other recorded prices of comparable objects. In this way it should be possible to develop, from the evidence of the Stelai, whatever new knowledge can be gained concerning the character of the things listed in them, including the information as to prices, so that, in the end, these conclusions may be made available for their bearing on the study of Greek economics of the fifth century B.C.

Before entering into the discussion of the separate objects, it is well to state that not all of the proposed identifications are clear, or certain, or complete. In the course of the past few decades, much progress has been made in the association of Greek vase-shapes with their proper ancient names, but much still remains dark. In spite of

Langlotz, *Würzburg* = E. Langlotz, *Martin von Wagner-Museum der Universität Würzburg: Griechische Vasen*, Munich, 1932.

Lenormant and de Witte = F. Lenormant and J. de Witte, *Élite des monuments céramographiques*, IV, Paris, 1861.

Meisterhans, *Grammatik*³ = K. Meisterhans, *Grammatik der attischen Inschriften*, 3rd ed., Berlin, 1900.

Olynthus = D. M. Robinson *et al.*, *Excavations at Olynthus*, Baltimore, VIII, 1938; X, 1941; XII, 1946; XIII, 1950.

Paralipomena = J. D. Beazley, *Paralipomena to A.R.V.*, in manuscript.

Pfuhl = E. Pfuhl, *Malerei und Zeichnung der Griechen*, Munich, 1923.

Richter and Hall, *R.-F. Ath. Vases* = G. M. A. Richter and L. F. Hall, *Red-figured Athenian Vases in the Metropolitan Museum of Art*, New Haven, 1936.

Richter and Milne = G. M. A. Richter and M. Milne, *Shapes and Names of Athenian Vases*, New York, 1935.

Schefold, *Untersuch.* = K. Schefold, *Untersuchungen zu den Kertscher Vasen*, Berlin and Leipzig, 1934.

Singer, Holmyard and Hall, *Hist. of Tech.* = C. Singer, P. J. Holmyard and A. R. Hall, *History of Technology*, I, Oxford, 1954.

² For this study, the text of the Attic Stelai was accepted almost exactly as it is presented by Pritchett in Part I, with scarcely any proposals of different or fuller readings. After prolonged and earnest scrutiny of every line studied here, often verified by direct examination of the stone, I can only salute the diligence, self-restraint and acumen which his edition displays.

a vastly expanded body of archaeological material, the new angeiology suffers from much the same handicaps as those which brought despair to nineteenth-century scholarship—the paucity of objects or pictures of objects bearing actual labels from which the names of these things might be learned, and, on the other side, the lack of sufficient information in the definitions or uses of the ancient words to allow a precise and concrete identification of the particular kinds of objects to which these terms referred. Words are not things, and the gap between the two is great, especially in the case of man-made things.

One of the greatest sources of trouble is the very nature of the definitions which are given by, or which we can extract from, the ancient sources. We are likely, in our zeal for accuracy, to demand a much more exact image of the designated object than was really intended by the word. Especially in the use of vase-names, the ancient Greeks often meant something far more general and inclusive than we should like to believe. Vaguely defined, overlapping, even contradictory uses of individual words are the rule rather than the exception. As if these were not enough worries, there is also the fact that our definitions, whether given or wrung from the context, may be functional, metrological, or morphological, often without our being able to determine which is meant. Functional definitions, which are the commonest sort available to us, may give little or no descriptive information. Metrological statements are also unsatisfying, for both standards and terminology varied according to time and place; the measure is often cited purely as a unit of capacity, with no intended reference to any physical object, and, even when the exact measure is known, the same name may be applied to actual containers covering a wide range of sizes. Descriptive details, which give the best evidence for association with an actual object, are disappointingly scanty, and these have their own hazards of interpretation.

Another kind of problem lies in the evaluation of our sources, both absolutely and for the immediate purpose in hand. Many of our definitions come from late authors, who wrote at a time when both the names and the objects which they designated, back in the fifth century B.C., had long since passed out of use; or, if still in use, had come to be applied to different objects in the one case, called by different names in the other. Often, the definition is transparently deduced from the context of a classical literary passage; and, in many such cases, we can do our own job of deduction with better results. It is no wonder, then, that an undigested compilation of all the data would lead to no intelligible definitions, but only to chaos.

Nevertheless, a study of this kind must start with what is given, that is, the words. Any improvement in our knowledge of their meaning must come first from an ever more careful and discriminating study of the texts in which they are found, and only after that from our examination of the actual objects, or representations, to which there may be hope of attaching the names in question. The method pursued in the present work, except when the named object has already been reasonably well identified, has been to proceed from the study of the literary and epigraphical sources to the

archaeological part of the research. Naturally, the degree of success varies from one item to the next, but it is hoped that some real gains have been made.

There are also by-products. In the pursuit of information about each separate item, it was often found that the dictionary entry in the Liddell-Scott-Jones *Lexicon* was faulty, either in the definition of the word, or in the classification of the uses of it, or in the history of its form and meaning, or in some other respect. As cases of this kind multiplied, it became evident that a service of some value would be performed if these flaws were systematically noted down, even at the risk of appearing unduly captious. Further profit, quite unexpected, derives from the light which this study of the entries in the Stelai was able to shed on some few literary passages, most of them in Aristophanes, wherein the visual significance of the words had apparently escaped the modern commentators. These observations are presented as tokens of what advantages might accrue if the terms for concrete, physical artifacts in the Greek authors were generally subjected to this combined philological-archaeological attack by more accomplished Hellenists.

The obstacles to a successful association of Greek vase-names with the corresponding physical objects have been notably lessened by one great advance in archaeology during recent years. This is the systematic exercise of a policy under which the finds of common or undecorated pottery were treated with their proper respect. The result of this policy in the excavations of the Athenian Agora is the recovery, from countless fragments, of thousands of household-ware vases, covering all the centuries of classical civilization, and representing in astonishing variety the kinds of vases which were really put into daily use. This article was, in brief, incalculably improved by the months of contact with the material in the Agora collection, which has no parallel of its kind, and of association with those scholars whose knowledge of its content is unequalled.

A final word of warning as to prices may be needed. Although I have tried to be reasonably cautious in quoting prices and in considering their implications, it should be emphasized that, as bases for comparison, most of the prices of manufactured objects which are found in the Stelai have a very limited evidential value in the present state of our knowledge. Without laboring the obvious reasons for this situation, it may be suggestive to cite a hypothetical modern parallel. Suppose that we had a price given beside the word "watch," and a clear knowledge of the usual size, shape, general appearance and purpose of such a timepiece, but knew nothing of its quality and condition, or of other prices for watches. How would we know, for instance, that the price of a new watch, in good running condition, might vary, according to quality alone, between one dollar and several thousand dollars? Other factors, such as market conditions, the trade in used watches, etc., need hardly be brought in to make the point clearer, but further rumination on this case and similar ones is recommended as a preparatory calisthenic exercise for anyone who wishes to argue about ancient prices for artifacts.

I. LARGER STORAGE VESSELS

1. PITHOS

(VI, 57, 141-144; X, 2)

Among Greek storage vases, *pithoi*¹ were the largest,² and they were no doubt moved as infrequently as possible. Often they were sunk into the ground and practically immovable. The normal procedure of sale would have been to lump them together with the house and land when an estate was sold. This seems to have been true in all three of the cases in which *pithoi* are recorded in the Stelai, for no separate price was given for them in any of these instances. In Stele X, line 2, the land, trees, house and eight *pithoi* were sold all together for 1,800 drachmai.³ In Stele VI, line 57, where the text is fragmentary, the land, house and *pithoi* sold for an unknown sum. In Stele VI, lines 141 ff., there is evidently an even more inclusive lumping of goods with real property, but the preserved details are even scantier, and no price at all appears in this part of the inscription.

The *pithoi* of the Stelai were certainly made of clay. Examples of *pithoi* in other materials are occasionally mentioned, but these are exceptional. Those found in excavations are almost universally pottery vessels, and unless there is evidence to the contrary, it is safe to assume that whenever *pithoi* occur they are made of clay.⁴ In Stele VI, lines 57 and 141 ff., a distinction is made between sound (*ὑγιείς*) and cracked (*σαθροί*) *pithoi*.⁵ Because of their large size and their relatively high cost (see below), *pithoi* would have been preserved even more carefully and mended more conscientiously than other vases, and kept in use as long as possible. In general,

¹ On *pithoi* in general, see E. Pottier, *Dictionnaire*, II, pp. 332 f., *s.v. Dolium*; A. Mau, *R.E.*, V, 1905, cols. 1284-86, *s.v. Dolium*; *Olynthus*, VIII, pp. 312-316, and the references there cited.

² At Olynthos (*Olynthus*, VIII, *loc. cit.*), as in other excavated sites, the size of the *pithoi* varies widely; but one of a group of larger *pithoi* (p. 313) had an estimated capacity of more than 270 gallons, or at least 25 amphoras. This may be taken as an average, or usual, size for *pithoi*, but larger ones are not uncommon.

³ This lot of *pithoi* was situated ἐν τῇ οἰκίᾳ, that is, actually inside the house, where they were most probably used for currently needed provisions, and not for storing produce to be sold as a crop. In the House of Good Fortune at Olynthos, a storage room (*πιθῶν*) contained remains of at least five large *pithoi* (*Olynthus*, VIII, pp. 61, 207 f., 313-316); see also Liddell-Scott-Jones, *s.vv. πιθῶν, πιθῶν*. Where larger numbers of *pithoi* are mentioned, it would seem likely that they were used for storage of crops.

⁴ In Stele VI, line 141, the text is so restored, perhaps unnecessarily if this is an attribute which would have been taken for granted.

⁵ A similar formula is found in *I.G.*, XII, 5, 872: *πίθους ὑγιείς . . . σακνοῦς*. *Olynthus*, VIII, p. 316 describes a large, fragmentary *pithos*, found at Olynthos, which had been mended with at least 42 cleats. Other examples of vases which were broken and mended in antiquity are very common.

broken objects were kept and mended for further use, not simply thrown away. The frugality of the buyers who attended these sales is shown by the reference to other damaged goods, such as, *inter alia*, doors (Stele V, line 3), a small cot (V, line 9), a broken pedestal for a kneading basin (II, lines 32-34).

Covers (*ἐπιθέματα*)⁶ are expressly mentioned as accompanying the pithoi in Stele VI, line 57, while in VI, lines 141 ff. there seems to have been a separate listing of pithos-lids. *Epithemata* appear also in Stele VI, line 136, where they may again be covers of pithoi.⁷

Since the pithoi are not priced separately, since their size is also unknown,⁸ and since even their number is lost in two cases, we learn nothing from these entries about prices of pithoi. For information of this kind we must look elsewhere. A considerable number of pithoi which have been found in excavations bear graffiti on their rims, giving numbers which in most cases must be understood as indications of size. Those found in the excavations at Pergamon,⁹ for instance, have numbers in Ionic notation which seem, by reference to actual measurements of the vessels, to express units of capacity (perhaps Ptolemaic *artabai*). Two other pithoi, found in northern Greece,¹⁰ bear simple numbers which appear also to mean units of measure. But a group found in the House of Good Fortune at Olynthos¹¹ uses clearly differentiated signs for drachmai and obols,¹² and therefore must refer to prices of some kind. Robinson and Graham very convincingly advance the theory that these prices refer to the cost of the pithoi themselves. If this interpretation is correct, the smallest inscribed pithos of the group, with an estimated capacity of 25 amphoras, cost 31 drachmai 1 obol, the other prices ranging upward to 37 drachmai 1 obol, 43 drachmai 1 obol, "45 to 50 drachmai," 53 drachmai 4 obols; and, in an example found later at Olynthos,¹³ 53 drachmai 2 obols. These prices do not, in fact, seem unreasonably high for such large vases, which were proverbially difficult to make, with great risk of spoilage, and, unless produced on the spot, costly to deliver. For pithoi of smaller size, it must be

⁶ *Olynthus*, VIII, p. 312; and Pollux, X, 188.

⁷ The text is too badly mutilated to afford much confidence in a restoration, but it may just possibly contain something about [πίθοι] . . . ἐπιθέματα[τα ἔχοντες].

⁸ In Stele VI, line 57, the missing part of the line may have given the capacity of the *pithoi*, as is suggested by the restoration [πίθοι] ἐν[έα ἀμφορέων]. One of the smaller pithoi (if that is what they were called) at Olynthos had an estimated capacity of 8½ amphoras (*Olynthus*, VIII, p. 313). See further below, pp. 170-171 on *phidaknai*.

⁹ M. Fränkel, *Altertümer von Pergamon*, VIII, *Inschriften*, Berlin, 1895, pp. 500-501; A. von Szalay and E. Boehringer, *ibid.*, X, 1937, pls. 29,2 and 33, nos. 30-34, pp. 37-39.

¹⁰ M. N. Tod, *B.S.A.*, XXVIII, 1926-27, p. 148.

¹¹ *Olynthus*, VIII, pp. 313-316.

¹² This distinction in the nature of the signs is ignored by J. H. Jongkees, *Mnemosyne*, Ser. III, X, 1941-42, p. 155 note 28, who argues against interpreting any of the graffiti on pithoi as prices; and, conversely, by Robinson and Mylonas, *A.J.A.*, XLIII, 1939, p. 51 and note 2, who maintain that the Pergamene graffiti are price-inscriptions.

¹³ Robinson and Mylonas, *op. cit.*, p. 51.

presumed that the price dropped off even faster than the proportionate reduction in capacity.¹⁴

The Olynthian prices apply to the fourth century B.C., when prices were on the whole somewhat higher than Athenian prices of the fifth century. Our pithoi, had they been sold individually, might therefore have brought less in proportion to their size, even under normal conditions of sale (*i. e.*, new and in a regular market). It is, of course, impossible to estimate what sort of differential we might expect.

2. PHIDAKNE AND PHIDAKNIS

(II, 251-252; V, 26, 34; VII, 52-56, 87, 88, 90, 92)

The *phidakne*,¹⁵ like the *pithos*, was a large storage vessel, but between the two there is no clear distinction as to shape or even as to size. Etymologically, the word *φιδάκνη*, or *πιθάκνη*, is said to be a diminutive of *πίθος*,¹⁶ and it may well be that *phidakne* ordinarily meant a small-sized pithos. This is not to say, however, that every pithos was necessarily larger than every phidakne, for there may have been a considerably overlapping range of size within which either term could be used indifferently. The use of "diminutives" is flagrantly unreliable as an index to size, since the original sense is often lost through colloquial misuse.

Fortunately, our text gives exactly, though ambiguously, the size of one lot of *phidaknai*. In Stele II, lines 251-252, the entry reads (price lost): *φιδάκναι ἀχών<ι>δες ΔΔ ἀμφορέων ΗΗΔΔΔΔ*, which could be taken to mean, "twenty phidaknai, not pitch-lined, having a (total) capacity of 240 amphoras"; or, reading differently, "240 phidaknai, each having a capacity of 20 amphoras."¹⁷ The former reading seems preferable to me, because the number 240, though not impossibly large as a tally, is still somewhat formidable; because a statement of the total capacity at the end of the entry gives a slightly more natural order;¹⁸ and because, perhaps, a size of 20 amphoras might bring these vases fully into the range of *pithoi*. Even with the reading proposed here, these would still be vessels of considerable size, with an average capacity of 12 amphoras (well over 100 gallons) each.¹⁹

¹⁴ For example, if a pithos of 25-amphora capacity cost 31 drachmai 1 obol, a jar of 3-amphora capacity would not have cost "5 to 10 drachmai," as suggested in *Olynthus*, VIII, p. 316, but even less than a proportionately calculated 3 drachmai 4½ obols.

¹⁵ *Φιδάκνη*, *φιδάκνις* (Attic for *πιθάκνη*, *πιθακνίς*): Liddell-Scott-Jones, *s.v.* *πιθάκνη*; and see especially Pollux, X, 74 and 131.

¹⁶ Suidas, *s.v.* *πιθάκνη*; Hesychius, *s.vv.* *πιθάκναι*, *φιδάκνη*.

¹⁷ The latter sense is accepted by Pritchett, Part I, p. 277.

¹⁸ Compare *I.G.*, XII, 5, 572: *παρέλαβεν πίθους ὑγιεῖς ἐννέα· μέτρον τούτων ἑκατὸν ὀγδοήκοντα· σάκνους πέντε· μέτρον τούτων ἑκατόν.*

¹⁹ Their size would also be one-third greater than that given to the *pithoi* in Stele VI, line 57 by the text, as restored (cf. above, p. 169, note 8).

That the *phidakne* was a sizable vase is shown also by the use of the word in Aristophanes. Early in the Peloponnesian War, when the population of Athens was swollen by refugees,²⁰ it is said that people had to live in *phidaknai* (*Eq.*, 792). In another passage (*Plut.*, 546) a fragmentary *phidakne*, broken lengthwise, has to do service as a kneading trough (*μάκτρα*).²¹ Especially from the former passage, we must assume that a *phidakne* was a kind of vase with a potential capacity of at least several amphoras. Other occurrences of the word in literature point in the same direction.²²

On the other hand, there is further evidence in the Stelai that pithaknai were not ordinarily as large as pithoi. In the first place, the phidaknai were sold as separate objects,²³ not lumped together with the real property, as was the case with pithoi.²⁴ Hence these phidaknai were at most not too large to be moved with relative ease. Another clue to their size is offered by the prices, which are preserved in five entries (Stele VII, lines 52-56). The amounts realized are: 4 drachmai, 4 drachmai 3 obols, 4 drachmai 4 obols, 9 drachmai, and 11 drachmai. The average price for these five phidaknai is 6 drachmai 4 obols. Since these were plain pottery vessels, empty and in second-hand condition, the prices do suggest fairly large vases. But, if the price of 31 drachmai 1 obol for the Olynthian pithos holding 25 amphoras is taken as the basis for a very rough guess, the proportionately calculated sizes for our phidaknai would range between 3.2 and 8.8 amphoras. This is of course a purely illustrative figure, not to be taken at face value, for there are too many disturbing factors which impair its validity.²⁵ At least, however, they do serve to give a general idea of the size of vase which might have been called a *phidakne*: a storage jar of intermediate size between an amphora and a pithos, with capacities running up at least to 12 amphoras and probably more. The larger ones were no doubt entitled also to the grander name, pithos (cf. above).

In addition to the bare listings of *phidaknai*, the Stelai contain three amplified statements which add something to our knowledge of this kind of vase. One entry

²⁰ Cf. Thucydides, II, 52; Plutarch, *Per.*, 34.

²¹ On the kneading trough, see below, pp. 239-241.

²² E. g., Athenaeus, XI, 483 d.

²³ Clearly so in Stele VII, lines 52-56; but cf. also Stele II, line 251; V, lines 26 and 34; VII, lines 87-92, where the same appears to be true.

²⁴ See above, p. 168.

²⁵ The size of the Athenian phidaknai may have been considerably greater than these figures suggest, for three reasons: 1) the Olynthian pithos probably cost more, in its time, than a similar *new* pithos would have cost in Athens at the time of the Stelai; 2) the condition of the phidaknai and the terms of their sale must have brought the prices down in relation to their size; and 3) the cost of larger-sized vessels would rise out of proportion to the increase in capacity, because bigger vases need thicker walls, using disproportionately more material, and involving greater risk of breakage (cf. also p. 169). Unfortunately we have no means of estimating at all accurately the effect of these factors.

refers to a *φιδάκνη δεδεμένη* (VII, line 91; price lost). The adjective may simply give a hint that the vase was damaged and repaired with lead. However, a rope tied around any large jar would not only increase its strength, but would also provide convenient hand-grips for moving it manually, or a means of lashing it to a vehicle. Loopholes and lugs, obviously meant to accommodate ropes, are often provided on pithoi from the Bronze Age onwards, and ropes were commonly tied around large pottery vessels.²⁶

There is also the lot of twenty (?) *phidaknai achon(i)des*, mentioned above for their size. That *phidaknai*, like pithoi, were used to contain various substances is evident from the literature,²⁷ but one of their commonest uses was for the storage of wine. To serve this purpose, they would most often have been pitch-lined (the usual term is *πίττινος*: cf. *κάδω πιττίνω*, Stele II, line 142, and below, p. 189). The peculiarity of the present lot seems to be that they were not so treated. The word *ἄχωνις* does not occur elsewhere, but the meaning proposed by Pritchett, 'not coated with pitch,' seems best suited to the context and etymologically most probable. From this exceptional case, it might also be inferred that other *phidaknai*, at least when they were to be used as wine casks, were usually lined with pitch.²⁸

The entry *φιδάκνη· στόμα* (Stele V, line 34; price lost), in the form given, suggests that a *phidakne* and a *stoma* were sold together for a single sum. But what is a *stoma*? It would be convenient, and clear, if the *stoma* could be understood here as a stopper or plug which fitted into the mouth of the *phidakne*,²⁹ but there seems to be no precedent for this use of the word, and we have seen that the lids of pithoi are called *epithemata*. Actually, when used in connection with vases, *stoma* seems rather to mean the mouth-opening of the vessel, never a lid or stopper of any kind.³⁰ If the *phidakne* and *stoma* were two separate objects, we should have to assume that there was one whole *phidakne* and a fragment of another, namely the topmost part. That such a fragment could be put to good use is shown by the frequency with which the upper part of a pithos served as a well-head.³¹ Quite possibly, too, such a fragment

²⁶ Bronze Age examples are especially clear, e. g. Evans, *P.M.* IV, p. 342, fig. 285, pp. 634 ff., figs. 622-629, p. 646, fig. 633. The relief decoration of these vases is often suggestive of rope bindings (cf. especially *ibid.*, p. 638, fig. 626).

²⁷ Cf. Liddell-Scott-Jones, *s.v.* *πιθάκνη*.

²⁸ Cf. *Olynthus*, VIII, p. 316. On pitch-lining, see also Pliny, *H.N.*, XIV, 134, *et al.*

²⁹ That the mouth of a *phidakne* might have been smaller than that of a pithos is suggested (for what it is worth) by Hesychius, *s.v.* *Φιδάκνη· π(ε)θαρίον μικρὸν στενόν*. Amphoras were of course regularly closed with stoppers (see V. Grace, *Hesperia*, Suppl. VIII, 1949, p. 175), but a larger opening would normally require a lid.

³⁰ Cf., Aristophanes, Frag. 581; Polybios, XXI, 28 (XXII, 11, 13); *Anthologia Palatina*, VI, 251.

³¹ Represented in vase-paintings: *A.J.A.*, XLIX, 1945, p. 514 and notes 23-24. For examples of well-heads found in the Agora excavations, see M. Lang, *Hesperia*, XVIII, 1949, pp. 114-127, pls. 6-8; and cf. Xenophon, *Anab.*, IV, 5, 25. The fact that the drum-shaped well-heads were

might have been “thrown in” with a whole specimen at little or no extra cost. It seems much better, however, to read *φιδάκη<ς> στόμα*, assuming an omission of the first *sigma*,³² so that the whole entry would mean, “upper part of a phidakne.”

The form *φιδανίς* occurs (incomplete) in only one passage (Stele V, lines 21-22; prices lost), which reads as follows:

... κριθὼν φιδανί[δες --]
 ἑτέρα ΔΙ ἑμίσεια.

The text is badly mutilated. It is not even certain that there was a separate price for these items, and there are other difficulties. The entry concerns a certain lot of barley, and the emphasis lies on the contents rather than the containers, but a precise interpretation is hard to find. In the first place, the distinction between *φιδάκη* and *φιδανίς* (or *φιδάκιον* ?)³³ is not clear. We should expect some difference, since *φιδάκη* appears elsewhere in the same Stele (V, lines 26 and 34), but this fact should not be pressed. Possibly a real diminutive sense is intended, *i. e.*, *small* phidaknai.

Are these phidakni(des) actual vessels, to be sold with their contents, or merely units of measure?³⁴ There is no direct proof, here or elsewhere, that either *phidakne* or *phidaknis* was a standard measure of capacity. Indeed, there is for phidakne evidence to the contrary, in the wide range of prices for which these containers were sold, which could scarcely be attributed, *in toto*, to differences of condition. Therefore, even though the barley is of chief interest here, the phidakni(des) seem to be actual vessels, and not merely units of volume.

There is trouble also in the position of the numeral ΔΙ, in relation to the form *ἑμίσεια*, which can only be nominative, singular, feminine. As it stands, the text is ungrammatical, and we must conclude that the stonemason made an error. One solution would be to find this error in the position of numeral: transposing it with *ἑτέρα*, we should have *κριθῶν φιδανί[δες] ΔΙ, ἑτέρα ἑμίσεια*, “eleven phidaknides of barley, and another half-full.” Or, we might preserve the present order by assuming that the error lies in *ἑμίσεια*, that the scribe meant to write *ἑμίσεια* (neut. pl., nom.), which looks and sounds much the same (the *iota* carelessly inserted, under the influence of *φιδανίς* ?). Using this correction, and allowing space for a missing number after *φιδανί[δες --]*, we would then read *κριθῶν φιδανί[δες --], ἕτερα ΔΙ ἑμίσει(ι)α*,

properly called *Ἴσθμα φρεάτων* (Lang, *op. cit.*, pp. 117-118) should be no hindrance to our understanding of *φιδάκη<ς> στόμα* as a pithos-type well-head. (For examples, see Lang, pp. 114, 124-125, nos. 1-6, pl. 6).

³² So accepted by Pritchett, Part II, p. 316. For similar omissions, which are common in Attic inscriptions, see Meisterhans, *Grammatik*³, pp. 90-91, Sec. 13.

³³ Cf. Hesychius, *s.v.* *πιθάκναι καὶ πιθάκνια· οἱ μικροὶ πίθοι καὶ σιπῆαι*. But the form *φιδανίς* is cited from the *Demiooprata* by Pollux (X, 74) and therefore seems preferable here. Either would have essentially the same meaning.

³⁴ On *phidaknis* as a possible unit of measure, see Pritchett, Part II, pp. 193 f.

“. . . phidaknides of barley, and eleven more half-full” (or “half-sized containers”?).³⁵ The latter seems, on the whole, the more satisfactory reading, but the sense is still far from clear.

II. AMPHORAS

Several of the references to amphoras use the term purely as a measure of quantity, or at most have to do with containers whose individual importance is completely subordinated to the goods which they contained, e. g., in Stele I, lines 113-116 and Stele VI, lines 60-61, 64-65. These cases are treated in another context.¹ There are, however, some instances, all in Stele II, in which the amphoras must be considered as objects in their own right. These passages are the concern here.²

1. EMPTY AMPHORAS

(II, 240)

The entry lists 21 ἀμφορῆς κενοί, ‘empty amphoras,’ at a total price of 3 obols, or at ½ obol each. These must have been common storage jars, to judge from their extremely low price. Their cheapness is in fact so startling as to require some comment. Yet the text is clear and complete as to both the number and the price. To assume a stonemason’s error, such as putting 3 obols where drachmai were meant, would be a desperate measure, surely to be avoided. Several compensating factors have already been mentioned above, in the discussion of pithoi and phidaknai. To these must be added the facts that the ordinary amphora was the commonest plain vase in use and that there must have been a plethora of them constantly on hand.³ No doubt they were usually bought full of something, such as oil or wine, and usually would have been sold new only in large lots, as to farmers or exporters. One might compare today’s cardboard cartons which have no resale value, or yesterdays’ crates, fruit boxes, and gunny-sacks which (in used condition) could be had for next to nothing. Yet, even with all these allowances, the price does not seem likely for good, large vases. These may, therefore, have been much smaller than the usual “full-sized”

³⁵ Half-measures are, however, usually stated in a different manner, e. g., ἡμισάκιον (Stele II, lines 137-139), ἡμαμόριον, ἡμικοτύλιον, etc., for which the parallel form would here be ἡμιφιδάκιον.

¹ See Pritchett, Part II, pp. 187-188, 195-196, 199-203.

² The content of this section has profited much from the acute and stimulating criticisms offered by Mr. Joseph V. Noble.

³ One brought one’s own empties to fetch wine (Aristophanes, Frag. 299: τρέχ’ ἐς τὸν οἶνον ἀμφορέα κενὸν λάβων); cf. *A.J.A.*, XLIX, 1945, p. 516. Piled up, their sheer mass was a symbol for individual nonentity (Aristophanes, *Nub.*, 1203).

amphora,⁴ perhaps in unusually poor condition. The value of these factors cannot be at all accurately weighed, but it is likely that the price was affected by more than one of them.⁵

The appearance of plain, unglazed amphoras of the fifth century B.C., even of those locally made in Athens, must have varied considerably. A common sort, which appears often in vase-paintings,⁶ is familiar enough. The main tendencies of the shape are toward a rather elongated eggy body, tapering to a point at the bottom which is sometimes knobbed, a flattened shoulder, and a distinct neck which is somewhat pinched-in, and vertical handles at the sides of the neck.⁷

In those localities which exported wine, the point of origin was sometimes identified by a stamped design, usually impressed before firing on the handle of the vase.⁸ In many cases, the shape of the jar was also distinctive, independently advertising the source of the contents. This leads us to the subject treated in the next section, the Eretrian and Chian amphoras.

2. ERETRIAN AND CHIAN AMPHORAS

(II, 18-19, 20)

In addition to the empty amphoras (line 240) and the Panathenaic amphoras (lines 21, 41-60), Stele II also contains entries listing ἀμφορῆς Ἐρετρικοί (lines 18-19) and Χίου (line 20). Prices are lost for the Chian amphoras, and fragmentary for the Eretrian. In the latter case, however, what remains shows that four pieces sold for at least two drachmai, or at not less than 3 obols each.⁹ This price is far above that of the empty amphoras, falling in the middle range of those for Panathenaic amphoras.¹⁰ The question of these relationships will be discussed in a later chapter, but they should be kept in mind here for their possible bearing on the identification of these vases. The price seems relatively high for empty, undecorated wine jars, but other factors make any different interpretation difficult.

One might think of decorated vases. There is, however, no indication, literary or archaeological, that either Chios or Eretria had any significant fabric of painted

⁴ No standard of capacity is implied here.

⁵ For comparisons with other prices, see Section IX in next number of this journal.

⁶ E. g. *A.R.V.*, p. 212, no. 1 (Panaitios Painter); p. 133, no. 28 (Berlin Painter); and often, especially in archaic red-figure. Not necessarily "made in Athens," but there is no suggestion that they were not.

⁷ On plain wine jars, see especially V. Grace, *Hesperia*, Suppl. VIII, 1949, pp. 175-189, with the references there given.

⁸ V. Grace, *loc. cit.*

⁹ In the price, the last sign, a drachme, is clearly identifiable. From its position, we should expect one more figure to the left of it.

¹⁰ See below, p. 178.

pottery at the time of the Stelai. For Eretria we do have the unsupported guess that a local school of vase-painting may have existed there,¹¹ but the evidence is very weak indeed, and it has to do with lekythoi, not amphoras. In short, there is only a very slight chance that these Eretrian and Chian amphoras were painted vases. If they were decorated, we have no known style to which we can relate them.

On the other hand, Chian *wine* was a famous product, relatively high-priced, and it was sold in amphoras of a distinctive shape (or series of shapes), represented on the coins of Chios. Actual vases of this local type have been identified as Chian from the presence on their shoulders of a stamp derived from the principal coin-type of Chios.¹² A lot of six Chian amphoras was found in a fifth-century well in the Athenian Agora,¹³ all of approximately uniform size (about 22 liters), suggesting a possible standard of seven choes to an amphora. If the figures scratched on these jars have been correctly read and interpreted, the price of the wine in them would have come, regularly, to one stater, or two drachmai, per chous.¹⁴ This is just three times the traditional retail price for Attic *τρικότυλος οἶνος*,¹⁵ at 4 obols per chous, a price which agrees well with the premium quality of Chian wine.

As for our *ἀμφορῆς Χίοι*, it is an attractive hypothesis that they were Chian wine jars of this standard type, a good contemporary example (last quarter of the fifth century) of which is shown on Plate 47, a.¹⁶ By analogy with the Chian amphoras, we might suppose also that the *ἀμφορῆς Ἐρετρικοί* were plain wine jars of Eretrian type, even though no such class has yet been identified. We do not know that Eretrian wine was placed for export in amphoras of a characteristic local shape, or even that it was systematically exported at this time, but the numerous ancient references to other local wines, which do have their own peculiar kind of container, make this possibility seem likely enough. Furthermore, although we have no amphora stamps bearing any device which has been attributed to Eretria, it should be noted that the practice of adding such stamps to the jars was only beginning in the fifth century. Distinctive local *shapes* were, however, already in use, and we need not doubt seriously that Eretrian wine had its own characteristic form of container. Nor is the possibility to be ruled out that an Eretrian stamp may one day be identified, since the Chian

¹¹ Cf. J. Boardman, *B.S.A.*, XLVII, 1952, p. 47, citing E. A. Gardner, *J.H.S.*, XIV, 1894, pp. 184-185. Boardman gives no reference for his mention of "later serious attempts . . . to prove that some of the leading white-ground vase-painters of the fifth century worked in Eretria."

¹² V. Grace, *Hesperia*, III, 1934, p. 202, fig. 1, no. 1, pl. 1, no. 1; Suppl. VIII, 1949, especially p. 182; and XXII, 1953, pp. 104-105, with references there cited.

¹³ L. Talcott, *Hesperia*, IV, 1935, pp. 495-496, 514-516; M. Lang, *ibid.*, XXV, 1956, pp. 12-14, nos. 58, 62-63.

¹⁴ Cf. Lang, *loc. cit.*

¹⁵ Cf. Pritchett, Part II, p. 201. To his references, add H. Immerwahr, *T.A.P.A.*, LXXIX, 1948, pp. 184-190.

¹⁶ Agora P 18816. Not stamped, but identified and dated from the shape and fabric by Miss Grace.

stamp and a few others were already current in the fifth century.¹⁷ The association of such a stamp with Eretria, perhaps through comparison with a coin-type,¹⁸ might be hoped to furnish clues leading to the identification, by fabric and shape, of Eretrian wine jars.

If the Eretrian and Chian amphoras of Stele II were plain wine jars, distinguished from locally made, undecorated Attic amphoras only by their form, then the question of prices assumes special prominence. I had thought once that amphoras full of Eretrian and Chian wine, respectively, might be meant, assuming that some larger figure should be restored in the price at line 19. Naming the container, metaphorically, when its contents are meant is a common literary figure, especially apt in expressions referring to wine,¹⁹ and the assumption that it was present in these entries would have put the price safely beyond any further concern. A credible price could be restored, for a total of 51 drachmai would make each amphora cost something under 14 drachmai. This would seem fair enough for a choice wine.²⁰

In reality, however, this approach will not bear closer examination. The style of the language is not literary, and it is unsuited to this interpretation. Such an expression would be particularly awkward for the present passage. Under a blanket heading, *amphoras* (line 18), there are placed the three words *Eretrikoi*, *Chioi* and *Panathenaikoi* (lines 19-21). That is, the whole passage refers to various kinds of amphora, not to amphoras full of Eretrian or Chian wine, nor yet of Panathenaic oil. In all three cases, empty vases must be meant.

We know too little about the concrete situation to interpret confidently the relationships among prices for these kinds of vases, but I suspect that the condition of the object was the most important factor in determining what it would bring at auction; observe the wide range of prices for the Panathenaic amphoras, from 2.4 to 3.7 obols each,²¹ all presumably identical with respect to size and cost of manufacture. There is, inherently, no reason why a sound vase, though used, might not have been valued almost as highly as a comparable new one.²² In the necessary choice between decorated and undecorated vases, I am therefore inclined to prefer the inference that these (surely empty) Chian and Eretrian amphoras were plain wine jars. At least we

¹⁷ See especially V. Grace, *Hesperia*, Suppl. VIII, 1949, p. 182, and cf. *Hesperia*, XVIII, 1949, p. 337.

¹⁸ Some promising, though inconclusive, resemblances are noted by Miss Kathleen Rogers (now Mrs. I. Cohen) in her unpublished M.A. Thesis, *Some Correlations between Greek Coins and Amphora Stamps*, University of California, Berkeley, 1956.

¹⁹ Cf. V. Grace, *Hesperia*, Suppl. VIII, 1949, p. 181 and note 24.

²⁰ The size of the amphoras would still be unknown, but, if they were comparable to the Chian, the price would be just about the same as for Chian wine.

²¹ See further below, pp. 178-179.

²² For the suggestion that the type of vase, though plain, might have had special interest to the owner, cf. M. Lang, *Hesperia*, XXV, 1956, p. 23, on the Chian amphoras from the Agora.

can identify a Chian amphora of this sort, and can safely presume a parallel case for the Eretrian, whereas the very existence of contemporary painted vases of Eretrian or Chian manufacture remains problematic.

3. PANATHENAIC AMPHORAS

(II, 21, 41-60)

For reasons to be given below, I believe that the listings of Panathenaic amphoras in Stele II refer to regular, painted Panathenaic amphoras of the familiar sort, and *empty*. The inscription therefore offers extremely important new evidence for the study of Panathenaic amphoras.²³ In the first place, if the conclusion stated above is correct,²⁴ prices are here given for vases the size, shape and ornamentation of which can be exactly defined in terms of extant specimens of the class. Secondly, it is important and perhaps historically significant that one man possessed so many of them; at least 102 are recorded in the stele, with a lacuna following the last entry.²⁵

The main bulk of these Panathenaic amphoras was sold off in lots of ten, for what reason it is not clear, unless it was simply for convenience in keeping count of them during the auction. In those entries for which prices are preserved, the unit price ranges from 2.4 to 3.7 obols.²⁶ For the interpretation of these prices, we must bear in mind the character of the objects (if painted and inscribed, never for sale as new merchandise), their condition (the range of prices, down to about $\frac{2}{3}$ of the highest figure, suggests that some pieces were in a much worse state than others), and the nature of the sale. In the same kind of sale, plain empty amphoras, size and condition unknown, sold for only $\frac{1}{7}$ obol each,²⁷ but this amount is so strikingly low that some peculiar situation must have been present to account for it. Closer and more relevant is the minimum (but possibly exact) price of 3 obols each for Eretrian amphoras, even if these are taken to be plain, empty wine jars of Eretrian type,²⁸

²³ For recent literature on Panathenaic amphoras, see especially *A.B.V.*, pp. 403-417; *Development*, pp. 88-100, 116-118; *A.J.A.*, XLVII, 1943, pp. 441-465; Karl Peters, *Studien zu den panathenäischen Preisamphoren* (Diss., Köln, 1942), Würzburg, 1941 and Berlin, 1942. The article by L. Ziehen in *R.E.*, XVIII, 3, 1949, cols. 457-493, *s.v. Panathenaia*, has much of value but suffers from its failure to make use of recent archaeological studies (e. g., Beazley, Peters).

²⁴ It is only fair to say that, in the numerous discussions which these entries have provoked, several distinguished scholars have remained unconvinced that these were painted amphoras. The formulation of the present section owes much to their criticism and advice. Others, who accept its major thesis, have also offered very helpful suggestions.

²⁵ See below, p. 184.

²⁶ Wrongly recorded, through an unfortunate slip, as 2.6 to 3.7 obols, in the abstract of a paper on this subject which was read at the fifty-sixth meeting of the Archaeological Institute of America, *A.J.A.*, LIX, 1955, p. 169.

²⁷ Stele II, line 240; cf. above, pp. 174-175.

²⁸ Stele II, line 19; cf. above, pp. 175 ff.

whatever that may have been. It has, indeed, been suggested that such a price for a plain vase, falling in the middle range of those for the Panathenaics, is inconsistent with the belief that the latter were decorated. The argument of price, however, is so complicated by questions of condition and other variable factors that it must here be applied with great caution. The questions of relationships among prices recorded on the stelai and of these with other known prices will be considered further in a later section.²⁹ For the present, it is enough to say that the prices of the Panathenaic amphoras, so far as they tell us anything, tend rather to favor the assumption that the vases were decorated.

The meaning of the expression ἀμφορῆς Παναθηναϊκοί is what must be determined. Obviously it cannot mean amphoras, plain or decorated, full of Panathenaic oil, for their price is far too low for this.³⁰ The vases must, therefore, have been empty. That they were decorated rather than plain vases follows, I think, from the very nature of the Panathenaic prize awards. Since this question is crucial to the identification of our amphoras, it will be worth our while to review the evidence for the distribution of prize oil in painted amphoras.

There is still much that we do not know about the distribution of prizes at the Panathenaic festivals, but the accumulation of archaeological knowledge over the past few decades has given the solution to certain vital questions. On the principal one at issue here, the status of the painted amphoras, a bad start was given by the dissertation of Brauchitsch,³¹ who drew from the evidence available to him three disastrously wrong conclusions: (1) that painted Panathenaic amphoras were not awarded at all from about 495 to 378 B.C.; (2) that, when awarded, they were given only at the lesser (annual) Panathenaia, and that prizes of some other kind were awarded at the greater (penteteric) Panathenaia; and (3) that only *one* painted amphora was given for each event, and this only to the first-prize winner, all the rest of the oil having been otherwise distributed. All these ideas were very soon and very ably attacked by Norman Gardiner,³² and all have gradually lost countenance. Yet, by some oddly persistent force of human error in archaeology, one or another of them, presented in varying situations, has lived on to plague the scholarship on Panathenaic amphoras over the past forty-five years,³³ even after the valiant effort of Peters to lay

²⁹ See next number of this journal.

³⁰ On prices of oil, see Pritchett, Part II, p. 184. No price is known for exactly this period, but those recorded for the fourth century B.C. range from 12 to 36 drachmai a metretes (approximately equal to a standard Attic amphora), and the lowest price known to us from any period of Greek history is 11 drachmai a metretes. Hence it does not seem possible that amphoras priced at less than 6% of this amount could have been filled with oil, whatever its condition.

³¹ G. von Brauchitsch, *Die panathenäischen Preisamphoren*, Leipzig and Berlin, 1910.

³² E. N. Gardiner, *J.H.S.*, XXII, 1912, pp. 179-193, especially pp. 183-184 (fundamental reading for anyone who cares to examine the question seriously).

³³ E. g. L. R. Farnell on Pindar, *Nem.*, X, 35, London, 1930-32; C.W.L. Scheurleer, *Grieksche*

them all to rest.³⁴ It would be needlessly wearying to go over all the arguments here, but something needs to be said on each point, in order to insure an up-to-date basis for further discussion.

(1) The first theory is pure myth, thoroughly cancelled by the study of the vases themselves. There is no real gap in the production of Panathenaic amphoras in the fifth century B.C., hence none in their use as prizes for the Panathenaic Games.³⁵

(2) The second theory, which would allow for the awarding of Panathenaic oil only at the lesser Panathenaics, seems to die a harder death, but it is equally untenable. There is in fact no scrap of direct evidence for the giving of any athletic prizes whatever at the lesser Panathenaia, and only two obviously blundering scholia³⁶ to suggest that any prizes other than oil were ever offered for the principal athletic events at the greater Panathenaia.³⁷ The most persistent argument for the theory is drawn, by inference, from the fourth-century amphoras with the names of magistrates inscribed on them. Since there is no extant vase which certainly bears the name of an archon who held office during a Greater Panathenaic year (the third year of the Olympiad), whereas each of the other three years *is* represented, it has been argued that the vases were given annually in these other three years, *i. e.*, at the lesser Panathenaia, prizes of some other kind having been awarded at the greater Panathenaia.³⁸ But, as Mommsen long ago observed³⁹ and as most recent writers agree,⁴⁰ the name of the officer (not always the archon) on the fourth-century vases applies only to the year in which the oil was collected, and not necessarily to the year in which it was

Ceramiek, Rotterdam, 1936, pp. 59-60; G. Lippold, *Ph. W.*, 1944, pp. 175-180 (review of Peters, *op. cit.*).

³⁴ Peters, *op. cit.*, pp. 1-13.

³⁵ See especially *A.B.V.*, pp. 407-417, and *Development*, pp. 88-100; Peters, *op. cit.*, pp. 1-4. (Even in 1912, Gardiner, *loc. cit.*, had sensed that this notion was false, but had difficulty with his proof because of the then undeveloped state of stylistic knowledge concerning vase-decoration). To the same limbo has gone the once firmly held belief that Panathenaic amphoras were not produced after the fourth century B.C. In the most recent study of this subject, which catalogues fragments of 49 specimens from the Athenian Agora, G. R. Edwards reports that "we now know of the existence of possibly fifty or sixty amphorae which are to be dated in Hellenistic or later times" ("Panathenaics of Hellenistic and Roman Times," *Hesperia*, XXVI, 1957, p. 321).

³⁶ On these sources and their value, see Gardiner, *op. cit.*, pp. 183-184, and Ziehen, *op. cit.*, 475.

³⁷ The special prizes (such as money, cattle, etc.) for certain specific contests, chiefly non-athletic, are not here in question.

³⁸ Recently advocated by Lippold, *Ph. W.*, 1944, pp. 175-180, who maintains that the two inscriptions flanking Athena—the reference to the contests and the name of the official—must, since they are in parallel positions on the same vase, refer to events of the same year.

³⁹ Th. Mommsen, *Feste der Stadt Athen im Alterthum*, Leipzig, 1898, p. 82; cf. Peters, *op. cit.*, pp. 7-8.

⁴⁰ *Development*, pp. 96-97, and p. 118, note 62; Peters, *loc. cit.*; Ziehen, *op. cit.*, 475; and now Edwards, *Hesperia*, XXVI, 1957, pp. 332-335.

awarded as a prize.⁴¹ The absence of archon-names for the greater Panathenaic year, if it is not a purely accidental gap in our material, can be justified by quite a different explanation, that the olives were still ripening on the trees at the time of the festival (August).⁴² Be that as it may, the conclusion is well established that the Panathenaic amphoras full of oil were distributed as prizes at the Greater Panathenaia, and only then.

(3) Brauchitsch's third theory, though completely untenable in its extreme form, raised questions which could not be answered at once. Even the main problem, whether or not only one painted Panathenaic amphora was given in each of the events for which oil was awarded, was soon complicated. The question at once became not "one, or all?" but "one, *some*, or all?" The arguments on both sides have been concerned principally with the ratio of extant Panathenaic amphoras to the probable total number of amphoras of prize oil awarded over the whole range of time that is spanned by these vases. Gardiner thoroughly refuted the "one-amphora" theory in its strictest sense,⁴³ but still admitted the possibility that a victor might have received only a part of his oil in painted Panathenaic amphoras. Some recent statements have been similarly inclined toward caution: "more than one, but not necessarily all" is implied in their tone.⁴⁴ But the belief that the entire quantity of prize oil was distributed in painted Panathenaic amphoras is expressly stated by Peters;⁴⁵ is strongly hinted by others;⁴⁶ and from the evidence at hand, it seems by far the most acceptable conclusion.⁴⁷ The fact that the oil was systematically collected in the manner described

⁴¹ We need not worry about the condition of three-year-old oil. See Gardiner, *op. cit.*, p. 192, note 43. From current inquiry in Athens, it seems that oil is commonly stored for at least two years, because the olive trees in alternate years produce a heavy and a lighter yield; and the carrying over of oil to even a third year seemed not at all improbable to those who were questioned.

⁴² Cf. Gardiner, *op. cit.*, p. 192. Is it not possible also that the state's share of the oil crop which was due in the year of a greater Panathenaic was sold off directly to help defray (*post factum*) the expenses of the festival, including some of the prizes in events for which oil was not awarded?

⁴³ Gardiner, *op. cit.*, pp. 183-184. It is to be noted that in this paper Gardiner sharply reverses his earlier opinions; cf. his *Greek Athletic Sports and Festivals*, London, 1910, pp. 241-242. Meanwhile, evidence has accumulated to the point of reducing Brauchitsch's theory to absurdity. Cf. D. M. Robinson, *C.V.A.*, Robinson Collection, I, text, pp. 46-47, concerning pictures of the same event on two evidently contemporary amphoras, found together and presumably won by one person in one contest (*A.B.V.*, p. 410, below middle, nos. 2 and 3; Robinson Group); or, again the two from the archonship of Polyzelos, 367/66, both showing the same contest (*A.B.V.*, p. 413, bottom, nos. 1 and 2); or those of the consecutive years of Hegesios (324/323) and Kephisodotos (323/322), both surely given in the contests of 322 B.C. (*A.B.V.*, p. 415, nos. 11 and 12) and both showing the same contest.

⁴⁴ E. g., D. M. Robinson, *loc. cit.*

⁴⁵ Peters, *op. cit.*, pp. 11-13; so also by Richter and Milne, p. 3.

⁴⁶ Cf. E. N. Gardiner, *Athletics of the Ancient World*, Oxford, 1930, p. 39; *Development*, pp. 88, 94.

⁴⁷ It is of course not known, nor is it necessary to assume, that the practices of distribution

by Aristotle,⁴⁸ which agrees perfectly with the orderly pattern of storing it in *painted* amphoras as attested by the fourth-century series, argues against any whimsical or capricious distribution according to the current mood of the officials. Furthermore, the right of the winner to sell his oil tax-free⁴⁹ would lose most of its point if this Attic oil, won in the games at Athens, were not regularly distributed in easily identifiable, official prize amphoras. The fact that so many painted Panathenaic amphoras have been found in remote, non-Hellenic places, whence no eligible contestant would have been likely to have come, is proof enough that the oil was sold for export in these amphoras, not shipped off in ordinary jars.

The main stumbling block to full acceptance of this conclusion has been the small ratio of extant vases to the total which would have had to be produced. On the evidence of *I.G.*, II², 2311 (first half of fourth century B.C.), the schedule would call for a distribution of at least 700 amphoras every four years; and a considerably larger number, possibly as many as 1,300, can be presumed.⁵⁰ If this figure is carried over any lengthy period, assuming no interruption or reduction of the awards, the cumulative sum does grow rather staggering. For example, in the course of a single century, in order to distribute 1,300 amphoras at each greater Panathenaic celebration, the state would have had to call for the production of some 32,500 amphoras by the potters of Athens. In the face of the relatively tiny number that has survived, more than one observer has been moved to ask, incredulously, what has become of all those amphoras?⁵¹ Yet the argument *ex silentio* has exactly the same weakness as the old theory of a fifth-century gap in production, which had to be dropped as soon as specimens were found (or dates found for known specimens) which filled the gap. Similarly, the notion that only one painted amphora was given for each event had to be (or should have been) abandoned as soon as it was found that more than one amphora with the same subject on the reverse was produced in one year. And the belief that the prizes were officially terminated, *by decree*, before the end of the fourth century

remained constant throughout the entire history of the Panathenaic games. There were no doubt periods during which these awards were suspended or curtailed, because of war or other difficulties, and there was no doubt evolutionary change to fit historical developments. On the other hand, both the highly religious nature of the festival and the extremely conservative character of the Panathenaic amphoras imply a strong tradition which would have been broken only under stress, and then only temporarily.

⁴⁸ Aristotle, *Ath. Pol.*, 60.

⁴⁹ Cf. Peters, *op. cit.*, pp. 11-12.

⁵⁰ The figures actually extant yield a total of 727 amphoras; if 40 is restored in line 51, this total becomes 767. The minimum of 1,300 amphoras, cited by Gardiner, *J.H.S.*, XXXII, 1912, p. 190, is based on the assumption that the missing entries in columns I-II would account for the difference. Apart from the Panathenaic amphoras themselves, this is our only extant source of direct information concerning the distribution of Panathenaic prizes. And, strictly speaking, the evidence of this inscription applies only to one year.

⁵¹ E. g., Scheurleer, *op. cit.*, pp. 59-60.

has gone the same way, with the spectacular rise—within one generation—of the number of known post-fourth-century examples from zero to fifty or sixty.⁵² These cases should give warning enough against taking accidents of preservation as negative evidence in such a situation as this where the conditions are so heavily weighted against recovery. On the testimony of two other inscriptions, most of the prize amphoras were won by non-Athenians,⁵³ who came from far and wide. Furthermore, even the Athenian winners of more oil than they could conveniently use would immediately have sold off the excess, most of it probably for export.⁵⁴ The wide scattering of proveniences for Panathenaic amphoras makes it seem remarkable that even as many have survived as are extant today, and yet their ranks are steadily growing.⁵⁵

I believe, then, that the vases listed in Stele II were regular, painted Panathenaic amphoras of the familiar kind. A hoard of more than 100 Panathenaic amphoras in the possession of one person is, on any assumption, remarkable enough. Whether painted or not, they must originally have contained prize oil won at the Panathenaic games.⁵⁶ In view of the conditions described above, it seems most likely that they were won at a single Panathenaic festival by the individual whose property was here up for sale, and quite possibly in a single contest, since it is easier to assume a single victory than a number of them, whether won simultaneously or seriatim.

We may pursue this line of thought still further. If these vases were awarded for a single event, there is only one contest in which we know that so many amphoras could have been won at a single stroke: the *ἀγῶν ζεύγει ἀδηφάγῳ* or chariot race with full-

⁵² Cf. above, p. 180, note 35.

⁵³ In *I.G.*, II², 2313-2314 (early second century B.C.), from a total of nearly 50 extant names, only 10 are clearly identifiable as Athenians, and some of their victories were won in contests open only to Athenians.

⁵⁴ Cf. above, p. 182.

⁵⁵ E. g., with the recent addition of two specimens belonging to the last quarter of the sixth century, from the Isthmian sanctuary of Poseidon, IP 1172, 1173; cf. O. Broneer, *Hesperia*, XXVII, 1958, pp. 30-31, no. 35, pls. 14, a and 15, a. As Gardiner has emphasized, *J.H.S.*, XXXII, 1912, pp. 183 f., the maximum concentration of extant examples during any particular period yields a more significant "ratio of survival," so far as such a ratio is at all calculable, than does the grand total distributed over the entire range of years. For the period 525-500 B.C., the number of known survivors is already relatively high. The more theoretical objection, that the Kerameikos "could not have produced" so great a number of vases, ignores the factor of time as well as the great skill of ancient Athenian potters. If, for instance, the contract were let to only one factory at a time, that factory could easily have filled the highest conceivable quota by producing, on an average, one amphora a day.

⁵⁶ For a suggestion by V. Grace that plain amphoras of "Panathenaic" form were possibly used to hold "refills for Panathenaic amphoras," see *Hesperia*, XXII, 1953, p. 101, no. 147. Even if such a possibility is granted, the name "Panathenaic amphora" would not be appropriate. In our inscription, I find it hard to believe that so precise and so formal a title, which *does* fit a conspicuously distinguishable kind of vase, would also have been applied to a plain amphora which merely resembled, to a certain degree, the painted Panathenaic amphora.

grown horses, for which the first prize, on one occasion in the fourth century B.C., was 140 amphoras of oil.⁵⁷ In the Stele, the main block of entries for Panathenaic amphoras (lines 41-60) accounts for 100 vases, listed in lots of 10 each, and using two lines for each entry. It would not be necessary, for the conjecture that these amphoras may have been won in the chariot race, to suppose that the whole mass of amphoras was still intact and was listed on the Stele; but it is worth observing that this passage is followed by a lacuna of at least nine lines, into which there could have been accommodated the listing of four more batches of ten vases each.

But this last hypothesis leads to a very significant association. If, as seems likely, this part of Stele II concerns the property of Alkibiades,⁵⁸ what better candidate could we find for a first-prize winner in the main *hippikos agon*, perhaps at the Panathenaic festival of 418 B.C.,⁵⁹ than the multiple victor in the chariot races at Olympia in 416—Alkibiades, with his stable of famous race horses?⁶⁰

⁵⁷ *I.G.*, II², 2311; Dittenberger, *Syll.*³, 1055.

⁵⁸ Likely, but not provable. Stelai I and II, though better preserved than the rest, are so fragmentary that much of the property listed in them cannot readily be assigned to specific persons. One passage in Stele I, as has long been noticed, is explicitly assigned to Alkibiades by Pollux (X, 36): ἐν δὲ τοῖς Δημιπρατοῖς πέπραται Ἀλκιβιάδου χαμεύνη παράκολλος καὶ κλίνη ἀμφικνέφαλλος (cf. Stele I, line 231, χαμεύνα παράκολλος, and line 233 κλίνη Μιλησιουργῆς ἀμφικέφα[λος]). His name also appears in the text of Stele I (lines 12-13). The property of other persons is also listed in Stele I, so that it is impossible at present to determine exactly where the listing of Alkibiades' property is resumed. Nevertheless, the text of Stele I ends in an unbroken list of items including those presumably to be identified with those cited by Pollux. In Stele II, there are also the names of several offenders, so that we cannot apply to its beginning the evidence of lines 216-217, [προσκ]εφάλαια σκύτι[να], which Meritt (*Hesperia*, V, 1936, p. 384) connects with Pollux, X, 40: ἐν τοῖς Ἀλκιβιάδου πέπραται προσκεφάλαιον σκύτινον καὶ λινοῦν καὶ ἔρεοῦν. But Stele II is intact at its beginning, in the upper left-hand corner (see Pritchett, Part I, p. 249), and its text is obviously a continuation of some preceding stele, since the list of objects begins without preamble of any sort, continuing without interruption at least through line 60 since there is hardly any possibility of a new name in the missing lines 29-31. Thus, if we knew that Stele II was a continuation from Stele I, and not from some other Stele, we should have the desired proof. Unfortunately, there is no certainty that the two Stelai are consecutive, and in fact Pritchett has urged caution on the ground that the two Stelai, though otherwise much alike, differ in that Stele I has a slight taper, whereas Stele II does not. This is not damning evidence, even against the continuity of Stele II from Stele I, but it emphasizes the hypothetical nature of our attribution to Alkibiades of Stele II, lines 1-60.

⁵⁹ On the possibility of interruptions in the Games during the Peloponnesian War, but with the likelihood that the Games were held in 418, cf. D. M. Robinson, *C.V.A.*, *Robinson Collection*, I, text, p. 47. The fact that the reports of Alkibiades' triumphs make no mention of a Panathenaic victory need not disturb us, for there are hardly more than two or three direct references to Panathenaic winners in all of Greek literature.

⁶⁰ Thucydides, VI, 16; Isokrates, XVI, 14 and 17; Plutarch, *Alcib.*, 11 ff. Plutarch also states that Alkibiades was a victor in the Isthmian games, and gives an additional sidelight on the subject's vanity. He was just the sort of person who would have preserved, for display, so great a mass of empty Panathenaic amphoras. Only a man of substance with a habit of lavish hospitality and a large household of slaves to support could have afforded to keep, or have been able to use, this much oil. A man of more modest circumstances would have had to sell most of it, to say

Returning, for the moment, to the question of how so large an assemblage of these vases could have come into being, there is no finally provable answer. But the theory advanced here, that they were won at a single Panathenaic festival, probably by a single contestant and quite possibly in a single event, seems more likely than any conceivable alternative. It would be hard to think that they were family heirlooms, commemorating generations of victories, for there is no evidence to suggest the long-range hoarding of such trophies, which were, after all, only the containers for the real prize, namely the Panathenaic oil. On the contrary, the testimony of the extant Panathenaic amphoras shows that they were sold freely (still full of oil) and exported widely,⁶¹ and that they would not ordinarily have been kept in any number over any long period of time.⁶² The relatively modest prices which these vases brought at auction further indicate that their value as objects of art was not remarkably high. Their sentimental value, as trophies, would naturally be of real concern primarily to the person who had won them, or otherwise only on his account.⁶³ The thought might occur that, since these vases are here being sold, they could in turn have been acquired by purchase. But, if they were bought in one lot—say, to relieve a friend who needed cash instead of oil—then we should have to explain how the first owner acquired them, and the same set of problems would still confront us, at one step removed from the present situation. It becomes even harder to justify a piecemeal collection, made for whatever reason. Nor can these have been officially owned vases, intended for the Games of 414, for then they would still have belonged to the state.

In summary, the entries of Panathenaic amphoras in Stele II point strongly toward a series of important conclusions, some of them more firmly established than others, but all of them tenable until disproved or replaced by better ones. (1) The vases listed in the Stele are empty, decorated Panathenaics.⁶⁴ (2) Originally full of Panathenaic prize oil, they were won by the subject of this passage in Stele II. (3) They were most probably won in a single Panathenaic year. (4) They could have been won in a single Panathenaic event, the chariot race with full-grown horses. (5) The property listed in this part of Stele II may have belonged to Alkibiades, for whom a victory in this event, probably in the year 418 B.C., would be apt and credible. (6) In consonance with the foregoing statements, but in no way dependent on them, is

nothing of his inability in the first place to support a stable of prize-winning horses. For the relationship of the Panathenaic to the Olympic games, cf. *Development*, pp. 98 f.

⁶¹ On this point, see above, pp. 182, 183; also, for example, Peters, *op. cit.*, pp. 11-12.

⁶² The empty vases were dedicated in sanctuaries, as often on the Acropolis, also at the Isthmia, where the dedicatory graffiti are preserved on the vases (see p. 183, note 55), and once at Sparta.

⁶³ If they were indeed the property of Alkibiades, their salability in this auction might have been somewhat enhanced by their triple significance as souvenirs of Alkibiades, because of his great popularity, of his Panathenaic victory, and of his downfall.

⁶⁴ For examples of Panathenaic amphoras belonging approximately to this period, see *A.B.V.*, pp. 411-412; *Development*, p. 96 (Kuban Group and related pieces, end of the fifth century B.C.).

the conclusion that, as a general practice, all of the prize oil won at the Panathenaic Games was distributed in painted amphoras.

Panathenaic amphoras, with their black-figure technique of decoration, must by the late fifth century B.C. have seemed very quaint and old-fashioned and scarcely to be treasured as works of art. The commercial production of black-figured vases, even as degenerate mass-ware, had all but ceased more than half a century earlier. To our eyes, the Panathenaic vase-decoration of the end of the fifth century appears tasteless and insipid in contrast to good archaic work. Why, then, would Alkibiades (or another) have kept in one lot this large number of Panathenaic amphoras, if not as souvenirs of a glorious event and to gratify his vanity? And why would customers have been found who were willing to pay comparatively good prices for this mediocre art, if not from curiosity and a desire to commemorate an exciting historical event? Was it, rather, a case in which one or more export dealers were at hand, buying up the empties to fill them with oil and send them off to foreign markets, where oil in a decorated *souvenir d'Athènes*, even in shabby condition, might command a premium worth the cost of these vases? We can only speculate as to such details, but the main outward facts must have been fairly close to the hypotheses outlined above.

III. OTHER MEDIUM-SIZED VESSELS

1. KADOS

(II, 142 and 191; III, 13; V, 5)

Before discussing the *kadoi* of the Stelai, which may be of more than one kind, we must first consider the other evidence for the nature and uses of this kind of container. Although the *κάδος*¹ was a common vessel in everyday use, often mentioned in literature, strangely little information is given about its appearance. Most frequently it occurs as a vase used to store and transport wine.² The common type of *kados*, made of clay, was employed, like the amphora, to draw the mature wine from larger containers for use or shipping; and in its general appearance and range of size it seems to have corresponded roughly to the amphora. By a natural extension of usage, the term may have been applied to any sort of amphora-like vessel.³ A clear identifi-

¹ *Κάδος*: Liddell-Scott-Jones, *s.v.* *κάδος, καδίον*; E. Saglio, *Dictionnaire*, I, pp. 777-778, *s.v.* *Cadus*; A. Grenier, *ibid.*, IV, 2, pp. 1357-1360, *s.v.* *Situla*; and A. Jardé, *ibid.*, IV, 1, pp. 779-781, *s.v.* *Puteus*.

² E. g., Herodotos, III, 20; Pollux, VI, 14 and X, 70-71; Athenaeus, XI, 483 d.

³ Cf. Philostratos, in Pollux, X, 71: *παρὰ τοῖς παλαιοῖς τὸν ἀμφορέα καλεῖσθαι κάδον καὶ τὸ ἡμαμφόριον ἡμικάδιον*. But there is also mention of *kadoi* larger than a man (Philippides, in Athenaeus, X, 781 f) and as small as one-third of an amphora (Hedylios, in Athenaeus, XI, 473 a). A *sekoma* at Delos

cation, following these lines of inquiry, is therefore very difficult. The kados was, furthermore, properly a plain-ware vase which, unlike the amphora, seems never to have been made with painted decoration, so that the identification of extant specimens is made even harder.

A different, and more fruitful, approach is suggested by the fact that the kados was also used for drawing water from the well,⁴ and the vessels made for this purpose can be identified with confidence. They are shown very clearly in a number of well-side scenes and related situations which appear on Attic red-figure vase-paintings.⁵ The kind which most frequently occurs resembles an amphora stripped of any refinements, with its squat ovoid body, small but distinct foot, short, indistinct neck with spreading mouth, and vertical handles set on the shoulder.⁶ The circumstances make it plain, however, that these are water pots, and we may justifiably call them *kadoi*. The shapes, though consistent in other respects, vary in that some examples are fatter than others,⁷ but there is no reason to suppose that this signifies a difference of type. It is noteworthy that these examples, whether tall or fat, differ from the common varieties of *situla*⁸ not only in their shape, but also in having well developed side handles. The bail seems in some cases to have been of metal, in others to have been improvised from a length of rope. In one case, however, the shape of the vessel is roughly that of a *situla*,⁹ and in another scene an oinochoe is pressed into service.¹⁰

bears a graffito which has been read *κάδος* (*Délos*, XVIII, p. 169, pl. 60, no. 509 [Museum No. 259]). The reading seems uncertain to me, however, and to M. J. Tréheux, who kindly studied the inscription with me; and even if correct, it would not necessarily be a statement of capacity or even be related to the measures. The largest of the five measures has a capacity of only 2 liters. Another point of similarity between the kados (or kadiskos) and the amphora is that both were used as balloting urns, although for this use the former is more often mentioned (on the shape, see below, p. 188, note 16). This wide range of sizes suggests that the name was applied broadly to vases of a certain general type, without much regard for details of size or use.

⁴ See the references in *Dictionnaire*, above, note 1; but observe also that the object shown *ibid.*, I, p. 778, fig. 922 is a column-krater, not a kados. For *kadoi* used as water pots at the well, see especially Aristophanes, *Eccl.*, 1002-1004; Pollux, X, 31, and (as nautical gear) I, 94; X, 134; *κάδος ἐπὶ τῷ φρέατι*, *I.G.*, II², 1694 (bronze; Attic, fourth century B.C.); *κάδος ἰμνήρη* (bronze, with handles), *Insc. Délos*, 1417, p. 73, A I, line 146 and *B.C.H.*, LIV, 1930, pp. 97-100. At Delos, the water jar used at the well was perhaps also called a *γαυλός* (*Insc. Délos*, 354, lines 60, 72, 78; but cf. Liddell-Scott-Jones, *s.v.*). Cf. also *Délos*, XVIII, pp. 93 ff., also *Délos*, VIII, 2, p. 351.

⁵ Cf. *A.J.A.*, XLIX, 1945, pp. 514-515, and the references there cited.

⁶ Examples are listed by Beazley in Caskey and Beazley, II, p. 35 on no. 81. Cf. also the kylikes, Louvre G 291 (*Dictionnaire*, IV, 1, p. 780, fig. 5892, showing a water jar with handles oddly placed. Onesimos; *A.R.V.*, p. 222, no. 51); Copenhagen, Thorvaldsen 112 (Brygos Painter; *A.R.V.*, p. 249, no. 49: komasts; water pot under handle); and London E 83 (Gardiner, *Greek Athletic Sports and Festivals*, fig. 60, a opp. p. 89. Codrus Painter; *A.R.V.*, p. 740, no. 14).

⁷ For a tall specimen, see, e. g., the kylix Brussels R 263, by the Brygos Painter (*Rev. Arch.*, 1933, I, p. 159, fig. 4; *A.R.V.*, p. 252, no. 99); squat, on the kylix Boston 95.29 by Onesimos (Caskey and Beazley, II, pl. 43, no. 81; *A.R.V.*, p. 220, no. 6).

⁸ Cf. *A.J.A.*, XLIX, 1945, pp. 514-515, note 24; Beazley, *E.V.P.*, pp. 250-253.

⁹ Madrid Inv. 11039 (*C.V.A.*, 2, III Ic, pl. 16, 3. Naples Painter; *A.R.V.*, p. 705, no. 15).

It is possible that any vessel used for such a purpose might have been called a *kados*; but, on the evidence of the literature, that which looks most like an amphora has the best right to the name.

These are all sturdy, sizable pots, and the sharp edges of lip and foot heighten the impression that they must be metal vases.¹¹ Metal *kadoi* for use as water pots are mentioned fairly often,¹² and we can readily suppose that a bronze water pot might in the long run have proved to be a better investment than a succession of clay ones.

The shape of this vessel shown in use in the vase-paintings is strikingly well matched by a prolific series of household-ware pottery vases, recovered (chiefly from wells) in the Agora Excavations. Their form, which is very distinctive, is so close to that of the metal pots shown in the vase-paintings that we must assume it to be a version in clay of the same shape (compare Pl. 47, b with Pl. 47, d),¹³ that is, a pottery *kados*. The size of these clay water pots is not altogether uniform, and they appear to be considerably smaller than those shown in the vase-paintings; if made too large, they would get broken so much the sooner.¹⁴

This shape has, in the Athenian Agora, an interesting if somewhat puzzling history. Its beginnings go back at least to the seventh century B.C.; examples are plentiful throughout the sixth and down to the middle of the fifth century.¹⁵ Then it vanishes from sight for more than a century and a half, to be represented in the Hellenistic period by a rather smaller vase of similar shape, but lacking side-handles and provided with a pottery basket handle.¹⁶ Although the Agora is rich in household pottery,

Similar: *C.V.A.*, Ensérune, pl. 5. Compare also the "bell-pail situlae" represented on the pelike in Berkeley, *A.J.A.*, XLIX, 1945, p. 509, figs. 1-2, and that on a column-krater now in Havana (Lagunillas Collection), *Charites*, in honor of E. Langlotz, Bonn, 1957, pl. 26, 1, attributed by Beazley to the Painter of Munich 2335.

¹⁰ Shown in the well-scene on the fragmentary kylix, *Dictionnaire*, IV, 1, p. 781, fig. 5895.

¹¹ *A.J.A.*, XLIX, 1945, p. 514, note 23; Beazley in Caskey and Beazley, II, p. 35.

¹² See above, note 4. Bronze *kadoi* also in *I.G.*, II², 1672, line 236; XI, 2, 161, B, line 24 and C, lines 89-90; and implied elsewhere. Compare the bronze "amphora," *Mon. Ant.*, XVII, p. 451, fig. 321.

¹³ Plate 47, b: Boston 95. 29 (from Caskey and Beazley, pl. 43, no. 81). Plate 47, d: Agora P 24666, from a well deposit of the early fifth century B.C. H. 0.296 m.; max. diam. 0.235 m. Fat ovoid body, flaring mouth with thickened rim, small round handles placed vertically on shoulder, thumb depression at lower attachments; ring foot slightly flaring. Micaceous red clay with grits. Found with numerous other specimens of the same type.

¹⁴ The specimen figured here, when filled almost to the brim, has a capacity of 6.9 liters, or a little more than 2 choes (not quite one-fifth of the standard Attic amphora).

¹⁵ Cf. Boulter, *Hesperia*, XXII, 1953, pp. 97-98 on no. 125 (pl. 37), with a brief history of the type. Further examples, found in 1955, serve to fill in the sixth-to-fifth century series. Shown ready for use, over a well-head, *Hesperia*, XXI, 1952, pl. 21, c.

¹⁶ E. g., Agora P 25261; H. A. Thompson, *Hesperia*, XXV, 1956, p. 54, pl. 14, a. Early Roman context, but identical in type with many Hellenistic examples. (The form of this Hellenistic type of water pot is remarkably close to that of the balloting urn shown on a [lost] terracotta relief from Smyrna; J. E. Harrison, *Mythology and Monuments*, London and New York, 1890, p. 423, fig. 35.

the lack of water pots in later fifth and fourth-century contexts could be accidental. On the other hand, it might rather be ascribed to a more widespread ownership of bronze objects, as a result of greater affluence. As will be seen, this possibility must be kept in mind in our attempt to identify the kinds of *kados* that are listed in the Stelai.

What, then, of the big *kadoi*, as tall as a man?¹⁷ And what of the *κάδοι εἰς τοὺς ἀγρούς*, which, in Aristophanes,¹⁸ are said to have brought as much as three drachmai each? If this is not merely some joke, now incomprehensible to us, the vases in question should have been very large indeed, approaching the size of the cheapest *phidakne* in the Stelai (VII, line 56) which sold for 4 drachmai. For this kind of vase, we can only suggest that, by extension of the term, larger vases having the same general shape, especially when used for storing wine, may have been called *kadoi*. One kind of *pithos*, found in the Agora in sixth and early fifth-century contexts, has a profile much like that of the water pots, except for its lack of handles (Pl. 47, c).¹⁹ The tops of similar vases were used as well-heads.²⁰ A *pithos* of this kind, as opposed to the flat-rimmed type,²¹ has a fairly good resemblance to the water pot *kados*, and it may not be unreasonable to think that it too may at times have been called a *kados*. This proposal cannot be pressed insistently, for one would expect *pithos* or *pithakne* to be applied to such vases. Perhaps there was a heavy-duty jar of intermediate size (and possibly provided with handles) which was commonly called a *kados*, as in Aristophanes.

Kadoi are listed at four places in the Stelai. Because of the complications outlined above, they are hard to identify very specifically. Prices, which might have helped, are preserved in two entries (II, line 191; III, line 13), but in both cases the termination (and hence the unit price) is lost. The two *κάδοι πιτίνω* of Stele II, line 142 (no price given) can only have been pottery wine jars, lined with pitch as was frequently true of such vessels,²² but their probable size cannot be estimated with any confidence. In the other three cases, even the material is in doubt.

In Stele V, line 5 (price lost), we may be encouraged to think that a water pot

The profile is quite similar, even to the somewhat angular bulge. All that is missing is the basket handle, which would only be a nuisance on a balloting urn. Cf. above, p. 187, note 3).

¹⁷ Cf. above, p. 186, note 3.

¹⁸ *Pax*, 1202.

¹⁹ Agora P 19737. H. 0.805 m.; top diam. 0.389 m. Mended from many pieces; part of the shoulder and rim at one side missing; many small chips. Ovoid body with a low flat base; flaring rim, flattened on top and grooved on its outer edge. Coarse pinkish buff clay with grits, unglazed; the surface somewhat flaked. Sixth century B.C.

²⁰ See above, pp. 172-173, on *φιδάκνη<ς> στόμα*; and cf. M. Lang, *Hesperia*, XVIII, 1949, p. 125, pl. 6, nos. 5, 6.

²¹ E. g., Lang, *op. cit.*, p. 125, pl. 6, nos. 3, 4.

²² See above, p. 172, on *φιδάκναι ἀχών<ι>δες*. There is also mention of *κάδοι πίττινοι* in Aristophanes, Frag. 269 (in Pollux, X, 185), and in *I.G.*, II², 1648, line 27.

is intended, for immediately above this entry there is listed a pulley (τροχιλεία, V, line 4), an object frequently used at the well-side.²³ This kados could, perhaps, have been either of bronze or of terracotta, but bronze may be more likely because of the singular number.

The other two cases where prices are preserved offer thorny problems. In II, line 191, an unknown number of κάδ[οι] was sold for 5 drachmai 1 obol, and, in III, line 13, an unknown number of κάδ[οι] for 8 drachmai 3 obols. The word, though restored, in each case seems probable. The number, lost in each case, is crucial. If singular in either case, metal vases would be probable, for these prices seem too high for pottery kadoi, even big ones. Such prices would not be wholly out of scale for bronze vessels of modest size.²⁴ In that event, water pots might again be thought possible. But is the number singular? In one case (II, line 191) the entry is followed by a listing of κρ[ατήρες] (see below, pp. 198-199), priced so low that they can only have been of clay; similarly, in the other (III, line 13) the next entry lists στ[άμνοι ?] at 1 drachme 2 obols (see below, p. 195), an unbelievably low price for metal. The evidence of these juxtapositions is not compelling, but it must give us pause. On the whole, it seems easier to think that these last two cases represent batches of pottery kadoi, the number, size, purpose, and unit prices of which must remain undetermined.

2. STAMNOS

(I, 117-124; II, 117-118; III, 14; V, 45-79)

The *stamnos* is another kind of vase which, like the *kados*, has strong affinities with the amphora. Again, however, there is evidence that the term may have been applied rather loosely to more than one specific type of vessel. The word *stamnos*²⁵ occurs fairly often in ancient sources, but there is disagreement as to the form of

²³ See especially Pollux, X, 31, where κάδος and τροχαλία (*sic*) are likewise juxtaposed, in a list of things needed to draw water: cf. Pollux, I, 94 (nautical gear), and see Hesychios, *s.v.* ὑπάντλ(ε)ια· χαλκᾶ ἀγγεία, κάδοι. For representations of pulleys in use at the well, see *A.J.A.*, XLIX, 1945, pp. 514-515, note 24. On *trochileia*, see Pritchett, Part II, pp. 304 f. To his discussion of prices, add *I.G.*, XI, 2, 161, A, lines 98-99: τροχιλείας εἰς παλαίστραν· τ.

²⁴ Cf. the *chalkion thermanterion* of Stele I, line 96 (below, pp. 218-219) which sold for 25 drachmai 2 obols, or about 3 to 5 times the prices given here. A kados is priced at some figure between 16 and 19 drachmai in a third-century Attic inscription (*I.G.*, II², 1695, line 4. The other entries include psykters at 7 to 11 drachmai; dinoi, 8 to 13 drachmai; oinochoai, 10 drachmai 3 obols and 11 drachmai. All presumably were of bronze).

²⁵ Στάμνος: Liddell-Scott-Jones, *s.v.* στάμνος· σταμνίον, σταμνάριον, κατασταμνίζω, also σταμνίσκος (not in *Lexicon*, but cf. Pollux, VII, 162 and *Insc. Délos*, 372, B, lines 24-26, 29, 31); Stephanus, *Thes.*, *s.v.*; Furtwängler in *F.-R.*, I, p. 83; E. Pottier, *Dictionnaire*, IV, 2, pp. 1456, 1457, *s.v.* *Stamnos*; H. Nachod, *R.E.*, II, A, 2, 1929, cols. 2140-2141, *s.v.* *Stamnos*; Richter and Milne, pp. xxiii, 8-9.

the vase so named. The type which we commonly call a "stamnos" is of course distinctive and familiar,²⁶ but there is no positive evidence in favor of this identification,²⁷ and students of Greek vase-shapes are probably right to reject it, insisting that such use of the term is purely conventional.²⁸

On the other hand, no wholly satisfactory definition of a *stamnos* has yet been offered, surely because of that imprecise usage which confused the ancient lexicographers. Pottier thought that the "stamnos" could be one form of *stamnos*, but that the word was applied to a wide variety of shapes; Nachod seems to follow Pottier.²⁹ This proposal, however, gives the term too much latitude, and relies on evidence of dubious value. For example, the ancient sources which identify the *stamnos* with the *ἀμῖς*³⁰ or with a variety of other forms³¹ prove only that their authors did not know the shape at first hand.

A much better foundation underlies the belief of Richter and Milne,³² that the term *stamnos* "was another name for a regular large amphora," if certain adjustments are made in order to account for discrepancies to be noted below. In fact, it is very difficult to find, in the ancient sources which mention *stamnoi*, any case which could not apply to some kind of "amphora," as we loosely use this latter word in modern times.³³ That *stamnoi* were used as wine jars is frequently attested,³⁴ and in

²⁶ See especially Richter and Milne, *loc. cit.*; Beazley, *C.V.A.*, Oxford I, pl. 28, 1, p. 23; E. Langlotz, *Frühgriechische Bildhauerschulen*, Nuremberg, 1927, pp. 18 ff.; also the forthcoming book by Miss Barbara Philippaki, *The Attic Stamnos* (Oxford University Press).

²⁷ Most strongly against it, the fact that the *stamnos* was often used for storing and transporting wine (cf. above, note 25), whereas the "stamnos" shape, with its wide mouth-opening and lack of a real neck, would have been poorly suited to those purposes. In this connection, Furtwängler (*loc. cit.*) aptly observes that the "stamnos" of modern terminology is better placed among the kraters, or mixing vessels.

²⁸ See especially Richter and Milne, *loc. cit.* Miss Philippaki (*op. cit.*, Appendix) will also deal with this matter.

²⁹ Pottier, Nachod, *loc. cit.*, above, note 25.

³⁰ E.g., Sextus, *Adv. Grammat.*, 234, p. 265; Hesychius, *s.v.* ἀμῖς. Cf. Phrynichos, *Epit.*, XVIII, 400, where those who so identify it are called *amatheis*. The source of the error seems to be in Aristophanes, *Plut.*, 545, which, however, clearly describes a makeshift situation.

³¹ E.g., Hesychius, *s.v.* σταμνίον· ὑδρία, κάλπη, κάλαθος.

³² *Loc. cit.*

³³ The question of what is properly to be called an *amphoreus* is too complicated for profitable analysis here.

³⁴ Cf. Richter and Milne, *loc. cit.*, and the references there cited. Note also that Aristophanes not only mentions a stamnos of Chian wine (Frag. 531, in Pollux, X, 72) but also speaks of Thasian *amphoreidia* (*Eccl.*, 1119; compare the Θάσιον οἶνον σταμνίον of *Lys.*, 196, 199). In all of these passages, it is natural to think of the wine as coming in the characteristic container of its point of origin (cf. above, p. 176). Also, in [Demosthenes], *In Lacritum*, XXXV, 32-33, the *στάμνοι* are mentioned again as *κεράμια*. The word *κεράμιον*, though originally generic, came to mean wine jar specifically, and, as modified implicitly or expressly with an indication of its local make, even to signify a vessel of specific theoretical capacity. The various kinds are no doubt to be identified in actual wine jars of one or another standard measure, distinguishable by their shapes

these situations we can hardly deny them the usual (generic) form of a wine jar. For most of their other uses, to store oil,³⁵ olives,³⁶ vinegar,³⁷ and other "wet" substances, the same kind of vase would have served.

On the evidence of the Stelai, however, *στάμνος* and *ἀμφορεύς* were not, at that time, exactly synonymous. In Stele I, lines 113-124, both *stamnos* and *amphoreus* occur, evidently as actual containers (observe that, wherever endings are preserved, the singular number is used throughout the passage). In two cases they are containers for the same substances: for wine, there is *amphoreus* in line 114, *stamnos* in lines 117-121; for vinegar, there is *amphoreus* in lines 113, 115, 116, *stamnos* in line 122. This close juxtaposition of the terms leaves little probability that these *stamnoi* and *amphores* could be vases of one kind. Similarly, in Stele II, lines 117-118, the quantities of vinegar and olives are surely in real vases, *stamnoi* like those in Stele I. In Stele V, lines 45-79, the long series of entries listing *stamnoi* in batches of five, adding up to a possible total of some 170 pieces, must refer to plain storage vases of the same kind. Their sheer numbers, overwhelming to us and to the stonemason alike, can only mean that this type of vase (whatever it may have been) must have been in very common use. Some particular kind of "amphora" may be meant, but there must also be a distinction.

The *stamnoi* which were used on Delos as money jars³⁸ should also be something other than ordinary wine jars. From a single instance, of 279 B.C.,³⁹ in which bronze coins happen to have been kept in a bronze hydria and a bronze *stamnos*, there seems to have developed a regular system of accounting which made use of (pottery)⁴⁰ *stamnoi* to hold large sums of money⁴¹ in safe-keeping, and to keep apart the various revenues which accrued from different sources. In the end, each jar was ticketed to show the amount and the source of the money in it. Widely varying amounts were

and/or by having stamped on them a coin type or an ethnic name (*knidion*, *thasion*, etc.). Cf. Photius, *s.v.* *Σταμνία· τὰ Θάσια κεράμια. Οἱ δὲ καὶ τὰ Χία καὶ τὰ Μενδαῖα*, evidently derived mostly from Aristophanes (see above), but perhaps of some independent value. Hermippos (in Athenaeus I, 29 e) praises the aroma of a wine as it rises from the opened mouth of the *stamnos*, a description which eminently suits an amphora-like wine jar.

³⁵ *I.G.*, XI, 2, 161, B, line 123, of bronze; the adjective is used descriptively: *στάμνος ἐλατηρός*. Cf. Stele I, lines 123-124, and see below.

³⁶ Stele II, line 118; cf. Pritchett, Part II, pp. 183 f.

³⁷ Stele I, line 122; II, line 117.

³⁸ Richter and Milne, *loc. cit.*

³⁹ *B.C.H.*, XIV, 1890, p. 411, line 5; *I.G.*, XI, 2, 161, B, line 100.

⁴⁰ Cf. *I.G.*, XI, 2, 281, A, lines 43, 76.

⁴¹ See especially *Insc. Délos*, 399, A, *passim*, and Durrbach *ad loc.*, p. 63. Mentioned often thereafter, e. g. in Nos. 405, 408, 441-443, 453, 455, 460-461. The storage of money in jars was in itself a much older practice. Cf. Jacobstal, *A.J.A.*, XLVII, 1943, p. 308, and the references there cited. Of special interest for our period, the Athenian tribute stele of 426/5 B.C. (*I.G.*, I², 65; Meritt, *Documents of Athenian Tribute*, p. 4, fig. 1), with its relief sculpture of money-bags and money-jars (hydriai) piled together.

deposited in the individual stamnoi, from as little as 40 drachmai to almost 2 talents.⁴² Evidently the jars were ordinarily kept in a strong-box (*κιβωτός*), which could be opened only by order of the prytaneis.⁴³ Although in such a situation pointed amphoras could have been made to serve, and although large amphoras usually have a mouth-opening big enough to reach into, one would prefer these repositories (which were bought for the purpose)⁴⁴ to be more comfortably shaped, perhaps with a shorter and smaller body,⁴⁵ a neck-opening of fair width and perhaps even a stable foot.

On the basis of the etymology (*στάμνος* < *ἴστημι*),⁴⁶ the inference that the *stamnos* was a vase with a distinct foot on which it could stand might be a valid explanation of the origin of the word, might even be applicable to the shape in certain instances; but we cannot believe that every *stamnos* was so constructed. We have seen that this notion would do very well for the money jars, perhaps less well for the wine jars. Furthermore, even when footed, the *stamnos* would still not be distinct from the amphora. Among decorated amphoras, for the table and for show, the kinds with a foot to stand on are far commoner than the pointed ones, and the footed ones have clear and persistent parallels in the plainer fabrics (e. g., Pl. 47, e).⁴⁷ If we were to propose that the word *stamnos* may originally have meant simply "the kind of amphora which will stand unsupported," and that this distinction in the course of time became blurred, and finally lost, we should still have to account for the very real distinction which must be present in Stelai I, II and V. Likewise, it would leave unexplained why, if the distinction was lost, the word *stamnos* continued to be used.

Metrological considerations may contain a clue to the distinction which we seek. It seems at least possible that the real difference between the stamnoi and the amphoras of Stele I was one of size, the stamnoi being smaller versions of basically the same shape. Even if the term was used for a measure in fifth-century Athens, the evidence is insufficient to yield any knowledge of its value.⁴⁸ A *sekoma* recently found in Thasos, however, gives for a (Thasian) *stamnos* a capacity one-half that of the (contemporary Thasian) half-amphora. This is valid evidence, as Pritchett is careful to say, only for its time and place,⁴⁹ but at least it appears to suggest that stamnoi were,

⁴² *Insc. Délos*, 399, A, lines 33, 26. One large sum of money was spread evenly among several stamnoi, one talent to a jar; *ibid.*, 442, A, lines 3-6 (income from Tenos). Apparently it was later found more convenient to keep the smallest amounts in smaller vases, e. g., *κοτύλαι* (Durrbach, *op. cit.*, p. 63; cf. Nos. 453, A, line 13; 455, A, line 11; 460, line 11; 461, A^a, lines 41-44).

⁴³ Durrbach, *loc. cit.*; cf. No. 399, A, line 31.

⁴⁴ Cf. below, p. 195, notes 61 and 62.

⁴⁵ By calculation, it appears that a 4-chous jar would easily accommodate two talents of minted silver, even after allowing a generous 50% for air space around the coins.

⁴⁶ Cf. Nachod, *loc. cit.*; Boisacq, *Dictionnaire*⁴, s.v. *στάμνος*.

⁴⁷ Agora P 5173; L. Talcott, *Hesperia*, V, 1936, p. 344, fig. 10.

⁴⁸ Cf. Pritchett, Part II, p. 196. I take the statement of Moeris, p. 44 (*ἀμφορέα· τὸν δίωτον στάμνον, Ἀττικῶς· στάμνον, Ἑλληνικῶς*), to be not metrological, but morphological, for what it is worth.

⁴⁹ Pritchett, *loc. cit.*

normally, smaller than amphoras. Wine jars used for shipping come in a wide variety of sizes, even when the capacity is "standard," and fractional containers were also shipped.⁵⁰ Without seeking too fine or too precise a line of division or any great consistency of practice, might we not think, from the sum of the evidence presented above, that the *stamnos* could be a smaller-sized vase resembling the amphora and, like the amphora, footed or not according to need?⁵¹ Since its use as a standard of capacity was sporadic, even rare, we should not have to look for any uniformity in this respect (consider the case of standards, generally), nor even to hope for any clear differentiation between *στάμνος* and *σταμνίον*. In fact, if we were to take literally the statements of Moeris⁵² and Photius,⁵³ that *stamnos* was the common Greek word for the type of vase which the Athenians called an amphora, and that *stamnia* (here hardly to be distinguished from *stamnoi*) were Thasian wine jars, and also, "as some say," Chian and Mendaean, we might have some clue to the reason for Aristophanes' affectionate use of diminutives for the Thasian and Chian containers. Even if we set aside the possibility of fractional measures, and think only of the full-sized jars, the standard Attic measure of an *ἀμφορεύς* (around 39 liters) was well above known measures for the full-sized jars (*κεράμια*, or whatever) of most other wine-producing centers. One Thasian wine jar, for instance, was found to hold slightly under 21 liters,⁵⁴ and a group of fifth-century Chian jars had an average capacity of approximately 22 liters.⁵⁵ Mendaean wine jars, found in the Athenian Agora, have measurements of capacity ranging from 24 to 32 liters (using barley, which gives a somewhat lower figure than liquids),⁵⁶ bigger than the first two, and of somewhat varying capacity, but all appreciably smaller than an Attic *amphoreus*. And we still have the "fractionals" to fall back on, for special meanings of diminutives. A good illustration of what is possible in this respect appears in the small group of late archaic wine jars from the Agora (fabric unknown), of the type shown in Plate 47, f,⁵⁷ not quite twelve inches high. Suited either for travel or for table, this

⁵⁰ Cf. V. Grace, *Hesperia*, Suppl. VIII, 1949, p. 180.

⁵¹ "Footed" is, of course, a relative term. A good many big wine jars used for shipping will stand, though precariously, on their relatively small feet; smaller jars of similar type will stand quite firmly on a foot of the same size.

⁵² Above, note 48.

⁵³ Photius, *s.v.* *σταμνία* (above, note 34).

⁵⁴ Cf. V. Grace, *Hesperia*, Suppl. VIII, 1949, pl. 19, 6, p. 189, no. 6.

⁵⁵ V. Grace, *Hesperia*, III, 1934, p. 296.

⁵⁶ This information comes from a record made by Miss Lang.

⁵⁷ Agora P 8858. H. 0.302 m.; max. diam. 0.206 m. Fragments missing (restored in plaster), but shape complete. Conical body with very flat shoulder, distinct, slightly concave neck, flaring mouth; conical foot. Handles rising vertically from shoulder, recurving to join neck below lip. Fine moulding around neck between handles and lip. Purplish clay with white grits; creamy slip. Similar, Agora P 8859 and P 13803 (fragmentary). All mentioned in *Hesperia*, Suppl. V, 1941, p. 140. Compared for shape, *A.J.A.*, XXXIX, 1935, p. 241, fig. 42, from Olynthos.

type has a close companion with a handle-stamp,⁵⁸ implying the use of such midgets for commercial purposes. Filled with a suitably fine wine, these little jars might easily provoke terms of endearment—*σταμνία*, *ἀμφορείδια*, or what you will.

We are still some way from finding a precise and inclusive definition of a stamnos, but we should not press this demand too hard. It is very doubtful whether so exact an understanding of the word ever existed in antiquity. There are also some loose ends. If the *κεράμια* which corresponded in purpose to Athenian *ἀμφορῆς* were called *στάμνοι* by the Athenians, then why do we have the Chian and Eretrian *amphoras* of Stele II?⁵⁹ Is there really a difference between *στάμνος* and *σταμνίον*, or are they both, in a sense, diminutives? What is the formal relationship between the bronze stamnoi of the Delian inscriptions⁶⁰ and the pottery vases of the same name? We cannot answer these questions directly, other than by saying that a variety of types of stamnos must have existed (as would be natural) and that ancient nomenclature, with respect to this as to other vase-shapes, could not have been very exact.

As to prices, the Stelai give no help at all. In Stele III, line 14, a *στ[άμνος]* or some *στ[άμνοι]* may, if the word has been correctly restored, have brought 1 drachme 2 obols; but the number is unknown, and even the word is not quite certain. In the Delian temple accounts (third century B.C.), we find entries which record purchases of stamnoi, presumably of clay because of their prices: 3 obols in one case,⁶¹ not more than 3 to 3½ obols each in two others.⁶²

3. ΣΙΠΥΕ

(II, 2, 6, 17; V, 13)

The *sipyē*⁶³ is a container which seems to have been used mainly for the storage of barley meal⁶⁴ and other uncooked cereals. The word, which appears in the Stelai

⁵⁸ Agora SS 6618; *Hesperia*, Suppl. V, 1941, p. 140, fig. 66, no. 28 (handle and neck pictured at left, upside down; stamp at right).

⁵⁹ Cf. above, pp. 175-178.

⁶⁰ Especially those in *I.G.*, XI, 2, 161, B, lines 122-123. Note that the descriptive terms vary: *μέγας*, *Βοιωτιακός*, *ἐλαιηρός*.

⁶¹ *I.G.*, XI, 2, 161, A, line 189.

⁶² *I.G.*, XI, 2, 287, A, lines 76, 43. Plural, but number not stated.

⁶³ *Σιπύη*: Liddell-Scott-Jones, *s.v.*, Stephanus, *Thes.*, *s.v.*

⁶⁴ As in Aristophanes, *Plut.*, 806, *ἡ μὲν σιπύη μεστή ὅστι λευκῶν ἀλφίτων*; and probably in *Eq.*, 1296. The point in the latter passage is sometimes missed, namely, that the glutton Kleonymos, having eaten all the food in sight, is now attacking the raw provisions—*οὐκ ἂν ἐξελθεῖν ἀπὸ τῆς σιπύης*—and must even be begged not to eat the table. Cf. also Galen, XIX, 138, Gloss: *σιπιίδα· πυξίδα . . . καὶ κεραμεοῦν τι σκεῦος, εἰς ὃ ἄλφιστα ἐμβάλλεται*. The *sipyē* is also loosely defined as a *σιτηρὸν ἀγγεῖον* (Hesychius, Harpokration, Photius). There is, further, some indication that, at least in later times, it was a sort of bread box (*ἀροθῆκη*; see Suidas, Hesychius, *s.v.* *σιπύη*, *πεύδρια*; Scholion to Aristo-

in its regular Attic form *σιπύη*,⁶⁵ occurs rarely outside of the lexicographers;⁶⁶ the only extant fifth-century passages in which it appears are Pherekrates (Frag. 142) and the two in Aristophanes (*Eq.*, 1296; *Plut.*, 806). This dearth of material in context, once again, makes it hard to formulate any clear idea of the object.

In the Stelai, the word *σιπύη* occurs four times.⁶⁷ In Stele V, line 13 (price lost), the context reveals nothing, but the three listings in Stele II stand near *κάρδοποι* (kneading basins; on which, see below, pp. 239-241), an association which at least suggests that the sipyai had some use in connection with cereals. In II, line 6, one sipye was sold for 5 obols; in line 17, two sipya⁶⁸ brought 1 (?) drachme 1 obol, that is (if the restoration is correct), 3½ obols each.⁶⁹

What sort of container, used for holding meal, would be best suited to the price-range found here, 3½ to 5 obols? A pottery vase is either specified or strongly implied in most of the ancient sources,⁷⁰ so that the hint of a wooden box which appears occasionally is probably—for our fifth-century context—better ignored. To judge from prices already observed,⁷¹ these sipyai must have been quite large, since one can hardly think here of fine ware. On the other hand, such a vessel would have needed a lid, carefully fitted to keep out bugs, dust and moisture, and this demand might tend to reduce somewhat our notion of an appropriate size. Furthermore, it is notoriously true that vessels of a common type can and do vary widely in their capacity. We might, in this case, think that the size of a sipye may well have varied according to the specific purpose; for example, that larger ones were used to collect the meal as it was ground (i. e., “industrially”), smaller ones (though again of varying capacity according to need) to keep a supply of meal at hand in the kitchen. If we could suppose that the sipyai of Stele II were for industrial rather than domestic use, as the near-by kardopoi might encourage us to think, we should then have some justification

phanes, *Plut.*, 806; and cf. Kallimachos, Frag. 454). In some passages, the contents are not clearly identified (e.g., *Anthologia Palatina*, VI, 288, line 10; 300, line 2, and 302, line 2), but Pollux, X, 131, suggests raw meal.

⁶⁵ The commonest alternative form, *σιπύα*, though allegedly quoted from earlier sources (Aristophanes, Eupolis, Lysias), is actually found only in word-lists (Hesychius, Harpokration, *et al.*) and in Pollux (X, 162), and it may be false (see below, note 68). Other forms (cf. Liddell-Scott-Jones, *s.v.*) are: *σπύη*, *σπύδνος*, *σπυίς*, *σιφνίς*, *σίφνον*, *ίπύα*. Cf. also *σιπύηθεν*, *εὐσίπνος*, *ὀλιγησίπνος*.

⁶⁶ See above, notes 63 and 64. Add Alkiphron, *Epist.*, III, 14 and Hesychius, below, note 76.

⁶⁷ It is very improbable that *σιπύαι* are to be inferred from the *ἕτεροι* of Stele II, line 3. See below, pp. 247-248, on *Tripter*.

⁶⁸ Can this dual form in the Stelai have been, through a misreading by Pollux or another, the origin of the allegedly singular *σιπύα* (above, note 65)? Cf. however, Harpokration, *s.v.* *σιπύα*. . . ἐστὶ δὲ πολλάκις παρὰ τοῖς ἀρχαίοις κωμικοῖς.

⁶⁹ In view of the extant, and legible, price in line 6, this restoration seems far more likely than a mere two obols, or, going above the preferred figure, 5 drachmai 1 obol.

⁷⁰ Cf. also note 64, especially Galen, *loc. cit.*

⁷¹ For phidaknai, above, p. 171; for amphoras, above, pp. 174-178.

for the otherwise rather surprisingly high prices, which run slightly above even those for the decorated Panathenaic amphoras.

The literary sources give no clear notion of the appearance of a sipye, and its form remains to be determined. One would think it to be something like the jar which is represented on a red-figured pelike in Berkeley.⁷² This vase-painting shows two satyrs engaged in mixing some kind of meal with water and wine in a large basin; on the shelf behind them is a "large, lidded crock,"⁷³ much smaller than an amphora, to be sure, but still of respectable size. This scene appears most probably to represent the manufacture of *maza*, the essential dry ingredient of which is barley meal (*alphita*). From these indications, the thought occurs that the jar on the shelf could be a sipye, of the small or "domestic" size. It has been proposed, however, that this picture illustrates the common lidded "casserole" of the Agora excavations, to which it does have a fairly close resemblance.⁷⁴ Nevertheless, the crock on the Berkeley pelike does tell us, in general, what sort of vase we should be looking for. It should be a wide, relatively squat jar, with a reasonably broad bottom to prevent easy tipping, a broad mouth-opening to facilitate reaching or dipping into it, and a raised lip with an inset, well-fitting lid.

Among the kitchenware pots found in the Agora excavations, there is one kind (surely *not* to be identified with the vase shown on the pelike) which offers itself as a candidate for tentative identification with the *sipyē*. It flourished, too, during the latter part of the fifth century. One example, shown in Plate 48, a,⁷⁵ may serve to introduce the type. Besides having all of the characteristics assumed to be necessary for a *sipyē*, it has also a shape which, like the krater form that it resembles, could easily be made as large as might be desired. If the size shown here was for domestic use, we might still believe that the *sipyai* listed in the Stelai were, in view of price and context (above, p. 196), considerably larger vases of the same general kind.⁷⁶ It would be rash to insist on a specific identification, but this line of investigation may have put us on the right track.

⁷² Berkeley, UCMA 8/4583, by the Geras Painter: *A.J.A.*, XLIX, 1945, pp. 508-518, figs. 1-4; Beazley, *Paralipomena*, pp. 144-145.

⁷³ *A.J.A.*, XLIX, 1945, p. 509, figs. 1, 3.

⁷⁴ See C. Boulter, *Hesperia*, XXII, 1953, pp. 94-95, pl. 36, no. 112. Such "casseroles" were, however, cooking ware vessels for which the name *lophas* seems not inappropriate (see below, p. 210, note 76); with regard to Boulter's identification, I am still bothered by the absence of handles from the pictured vase.

⁷⁵ Agora P 4864. Restorations, but the shape fully preserved. H. 0.22 m.; max. diam. 0.284 m. Squat, bulging body with sharply incurving shoulder; distinct, steeply flaring lip with ledge inside to receive lid; vertical loop handles pressed close to rim, low ring foot. Coarse, yellow clay covered inside with a thin brown glaze, much flaked. Around outside, at height of handles, a band of similar glaze. Later fifth-century context. There are other examples which are taller and bigger, but more fragmentary (e. g., Agora P 11787, P 11788).

⁷⁶ Cf. Hesychius, *s.v.* *πιθάκναι καὶ πιθάκνια*: *οἱ μικροὶ πίθοι καὶ σιπύαι*, a definition which obviously concerns big vases.

4. KRATER

(II, 192)

Kraters are mentioned only once in the Stelai. The entry is very fragmentary, only the first two letters ($\kappa\rho[\alpha\tau\acute{\epsilon}\rho\epsilon\varsigma]$) being preserved. Since, however, the last two preceding entries refer to common vase shapes, hydriai and kad[oi], the restoration has a good claim to acceptance. The price, too, is mutilated: more than two, but not more than four, drachmai for an unknown number of pieces. This price, which is far too low for bronze, certainly calls for clay vases here, but neither the number nor the unit price can be established, nor can it be determined whether the ware was plain or decorated.

The *krater*⁷⁷ is commonest among the kinds of vessels used for mixing and serving wine. That the name is correctly applied in modern archaeological practice is shown not only by the obvious suitability of the vessels now so named for the uses indicated by the ancient references to kraters, and by the frequency with which vases of the shape in question are shown appropriately in use, but also by the graffiti on some of the actual vases.⁷⁸ Of the principal types of krater which were produced in fifth-century Athens, the column-krater had already fallen out of favor by the time of our inscription.⁷⁹ Two other shapes, the volute-krater and the calyx-krater, though

⁷⁷ *Κρατήρ*: Liddell-Scott-Jones, *s.v.*; Stephanus, *Thes.*, *s.v.*; Pottier, *Dictionnaire*, I, 2, pp. 1552-1556, *s.v. Crater*; Anger, *R.E.*, XV, 2, 1932, cols. 2030-2040, *s.v. Mischkrug*; Richter and Milne, pp. xx, 6-8.

⁷⁸ For example, on the group of five bell-kraters discussed, for their price graffiti, in *Univ. Calif. Publ. Class. Arch.*, I, 8, 1941, p. 189. It is a fair assumption (despite Anger's doubts, *op. cit.*, col. 2031) that the word *κρατήρες* in these graffiti refers to the bell-kraters (and others like them) on which the inscriptions occur. On *κρατήρες Κορινθιοურγείς* for column-kraters, see below, note 79. I take this opportunity to correct an error (*op. cit.*, p. 197, note 111) concerning the fabric of these bell-kraters. All five of them were, as I should have known, already recognized to be Attic. On Louvre G 503, once thought to be Italiote, cf. Beazley, *B.S.R.*, XI, 1929, p. 27 and note 4; *A.R.V.*, p. 804, line 8 (Kadmos Painter).

⁷⁹ It is not quite fair to say, of *all* the varieties of krater (Richter and Milne, *loc. cit.*; cf. Anger, *loc. cit.*), that "their ancient names have not been identified." It has been established that the column-krater was called in antiquity a *κρατήρ Κορίνθιος* or *κρατήρ Κορινθιοურγής* (A. Rumpf, *Chalkidische Vasen*, Berlin, 1927, pp. 45, 123; cf. H. R. W. Smith, *Univ. Calif. Publ. Class. Arch.*, I, 3, 1932, p. 110 note 60), an identification which is reinforced by Beazley's discussion of several pertinent graffiti on column-kraters, *A.J.A.*, XLV, 1941, p. 597. Add to these examples the graffito on a r-f. column-krater in Bowdoin College (No. 13.8, from Gela; reportedly assigned by Beazley to the Group of Polygnotos: A, Oidipous and Sphinx; B, Man and Woman): under its foot, retrograde, $\text{Κορι(ν)θι(ου)ργείς} \text{ ΠΙΙ } \text{Ἀχενάτω}$, and a short undeciphered graffito perhaps having to do with the price. I know of no match for "Achenatos" (?), which seems to be the name of the consignee, who was presumably not a Greek. One might possibly compare *Ἀχένης*, gen. *Ἀχένους* (Preisigke, *Namenbuch*, col. 68), but there is no clear connection. The column-krater Princeton 29.203 (assigned by Beazley to the Agrigento Painter) has the graffiti KOP, ME, and a monogram for ΑΠ, the first two perhaps standing for *Κορ(ι)θιοურγείς* and *Με(γάλοι)*.

still produced, were in the main limited to fine show-pieces. The reigning favorite at this time was in fact the latest to be born, the bell-krater, which had first appeared toward the end of the archaic period⁸⁰ and had become increasingly popular in the course of the century. If compelled to guess (for here we can only guess), we might conjecture that our entry refers to bell-kraters. The examples of bell-kraters bearing price-graffiti⁸¹ are not far from the time of our inscription; they were decorated by the Kadmos Painter,⁸² the Pothos Painter⁸³ and the Dinos Painter.⁸⁴ The prices recorded on them (kraters at 4 to 4½ obols each) would, if applied to the entry in Stele II, line 192, suggest for decorated vases, in view of the possible range in price (2 to 4 drachmai), a lot of some 3 to 6 pieces.

We must ask again whether plain vases of some kind may not be intended. In fact, however, no plain-ware bell-kraters have appeared in the Agora excavations, and it seems likely that this distinctive shape was restricted to finer vases. In everyday use, the functions of the krater appear to have been fulfilled by simpler shapes, most notably the common lidless mixing bowl (usually called a "semi-glazed krater" in the Agora excavation reports), a shape which may with some justification be called a *lekane* (see below, pp. 204-205). If this identification is correct, and if vases of that shape were not called kraters, this differentiation may add some slight weight to the possibility that the vases in this entry were black or decorated bell-kraters.

5. LEBES

(I, 91, 92; VI, 145)

The word *lebes* appears three times in the Stelai. In Stele I, lines 91-92, the text is fragmentary: [λέβ]ες each time. The prices are completely lost. The restoration is conjectural, but not improbable in view of the context (bronze vessels and other bronze objects). The generally high prices preserved elsewhere in this vicinity suggest that these lebetes (if the readings are correctly restored) were also of bronze. The fact that each (leb)es was listed separately also points in this direction. In the third instance, in Stele VI, line 145, the word is complete, but no price is given.

The form of the lebes,⁸⁵ as a roughly hemispherical bowl often provided with a

⁸⁰ On the fifth-century history of the bell-krater and of the "lugged krater," see H. R. W. Smith, *C.V.A.*, San Francisco, I, text, pp. 44-45. For the possibility that bell-kraters were called κρατήρες Μιλησιουργεῖς, cf. Mingazzini, *Röm. Mitt.*, XLVI, 1931, pp. 150-152, figs. 1-2 (graffito).

⁸¹ Cf. above, note 78.

⁸² *A.R.V.*, p. 804, nos. 8, 9 (Hackl, nos. 596, 595). On the former, see above, note 78.

⁸³ *A.R.V.*, p. 803, nos. 20, 21 (Hackl, nos. 597, 598).

⁸⁴ *A.R.V.*, p. 791, no. 28.

⁸⁵ Λέβης: Liddell-Scott-Jones, *s.v.*; Stephanus, *Thes.*, *s.v.*; A. de Ridder, *Dictionnaire*, III, 2, pp. 1000-1002, *s.v. Lébès*; C. Robert, *R.E.*, V, col. 655, *s.v. Dinos*; Anger, *R.E.*, XV, 2, cols. 2033 ff., *s.v. Mischkrug*; Richter and Milne, pp. xxi, 9-10.

tripod or other stand, is attested directly by a labeled representation on a black-figure vase fragment from the Athenian Acropolis,⁸⁶ which shows the bowl on a tripod stand. As Richter and Milne have stated,⁸⁷ the shape occurs in both metal and clay, the former kind having been used mainly for boiling liquids over a fire⁸⁸ but also for other purposes, and the latter chiefly for mixing wine.

The affinity of the lebes with the krater is obvious, and there are indications that the two terms were at times used interchangeably.⁸⁹ Good examples of bronze lebetes are the huge early specimen from Gordion, now in Istanbul, the bowl of which is nearly three feet across;⁹⁰ the well known inscribed prize lebes from Argos;⁹¹ and those in the Metropolitan Museum of Art in New York.⁹² Pottery specimens, some of which clearly imitate metallic prototypes, are common from the early archaic period onward.⁹³

On the modern use of the term *dinos* for this shape, see Richter and Milne, p. 10.

6. HYDRIA

(II, 190)

In this line, a price of 14 drachmai is entered for an unknown number of hydriai. Neither the unit price nor the material can be determined. Fourteen drachmai might have bought a single bronze hydria, but the modest prices stated in the same passage for kadoi and kraters (II, lines 190-191; on these, see above, pp. 190, 198) make it seem more likely that here a batch of pottery vases is meant.

The form and uses of the hydria⁹⁴ are well established by the ancient evidence.⁹⁵ It is the familiar three-handled water jar, the history of which reaches back into the

⁸⁶ Richter and Milne, p. 10.

⁸⁷ *Ibid.*

⁸⁸ Add to the passages cited by Richter and Milne, *loc. cit.*, the reference in *I.G.*, II², 1425, line 404, to λέβητες ἔμπυροι.

⁸⁹ Lebetes sometimes had handles; cf. *I.G.*, II², 1425, line 396, ὄρα λέβητος; *Insc. Délos*, 1400, B^b, col. I, lines 14-15, ὄρα ἔχοντα δύο. Two lebetes, in the Delian inscription, weighed 14 and 15 minas each.

⁹⁰ P. Devambez, *Grands bronzes du Musée de Stamboul*, Paris, 1937, pp. 7-8, pl. 1, with lid and tripod stand.

⁹¹ A. H. Smith, *J.H.S.*, XLVI, 1926, pp. 253 ff., pl. 14.

⁹² Cf. Weinberg, *Hesperia*, XXIII, 1954, pl. 31, c and d.

⁹³ Weinberg, *op. cit.*, pp. 131-133, pl. 31.

⁹⁴ Ὑδρία: Liddell-Scott-Jones, *s.v.* ἕδρια, κάλπις; Richter and Milne, pp. xix-xx, 11-12.

⁹⁵ See especially Richter and Milne, *loc. cit.*; E. Fölzer, *Die Hydria*, Leipzig, 1906, pp. 1-4. Pottier, *Dictionnaire*, III, 1, pp. 319-321, *s.v.* Hydria, doubts unduly the correctness of modern usage with respect to this word. Note that the word (or parts of it) may be found in graffiti on certain specimens of the shape; cf. *Univ. Calif. Publ. Class. Arch.*, I, 8, 1941, p. 188 and p. 197, note 114; also written beside the hydria shown on the François Vase, F.-R., pl. 12.

Bronze Age.⁹⁶ Two principal types are found in decorated Attic pottery of the sixth and fifth centuries: the common black-figure kind with flat shoulder,⁹⁷ and the later, round-shouldered "kalpis" of red-figure.⁹⁸ Of these, the latter was of course prevalent at the time of our inscription. It is clear that the Athenians of that period made no distinction between *kalpis* and *hydria*, and that the vessel of "kalpis" shape was normally called by them a *hydria*.⁹⁹

If our *hydriai* were decorated pottery vases, we could assume for them the normal late fifth-century shape (Pl. 48, b).¹⁰⁰ If they were household ware, however, they would have had the old-fashioned, more nearly globular form (Pl. 48, c)¹⁰¹ which persists in Agora deposits, with very gradual changes,¹⁰² at least from the early sixth to the very end of the fifth century B.C.

Lacking knowledge of their number, we cannot know which kind of *hydria* is meant in this entry, or anything about their size, but the foregoing notes may help to illustrate what the choice would mean, if choice were open to us.

On prices of painted *hydriai*, see Section IX in the next number of this journal.

⁹⁶ Fölzer, *op. cit.*, pp. 27-30; Frankenstein, *R.E.*, IX, 2, 1916, cols. 2516-2520, *s.v.* *Hydria*. See also W. Kraiker and K. Kübler, *Ausgrabungen im Kerameikos*, I, Berlin, 1939, p. 122, with the references there cited; and V. R. d'A. Desborough, *Protogeometric Pottery*, Oxford, 1952, esp. pp. 43-45, pl. 14.

⁹⁷ On the still earlier "globular" type in Attic black-figure, the shape of which persists in the household ware of later times, see H. R. W. Smith, "The Hearst *Hydria*," *Univ. Calif. Publ. Class. Arch.*, I, 10, 1944, pp. 241-242.

⁹⁸ On the applicability of the word *kalpis* to this shape, see Fölzer, *op. cit.*, pp. 1-4, and Richter and Milne, *loc. cit.*

⁹⁹ The evidence is given in Richter and Milne, p. 12. Fölzer (*op. cit.*, p. 4) also points out that the *hydriai* of the Panathenaic frieze on the Parthenon are of this "kalpis" shape, whereas the temple inventories speak only of *hydriai*.

¹⁰⁰ Agora P 6053. H. 0.285 m.; max. body diam. 0.20 m. Mended from many pieces; one side handle, and several body fragments, missing. Three women. The style is compared by Beazley with that of the Kleophon Painter (*A.R.V.*, p. 788, below middle, no. 2).

¹⁰¹ Agora P 874. H. 0.315 m.; max. diam. 0.255 m. Complete except for parts of vertical handle and one side handle (restored). Coarse reddish clay, micaceous; remains of fine reddish slip. Fat ovoid body, spreading foot, short neck with rolled-out lip. Latest fifth-century context.

¹⁰² Development is perhaps observable in the elongation of the body, the heightening of the foot, and the increase in the overhang of the lip.

IV. VARIOUS SMALLER VASES

1. LEKOS

(II, 116)

Within a short series of entries concerning supplies of farm produce,¹ there is a mutilated word of about eight letters ending in *νι*, then *λέκος*. This latter word does not occur elsewhere in the Stelai, and individual prices were not stated for the items in this passage. From the context, however, it seems likely that the missing word was a genitive plural (e.g. *ἀλφίτων*) which named the contents of the *λέκος*; hence, that the contents were of greater interest to the buyer than was the container.

The word *λέκος*² is rare. It is found only here, in Pollux³ whose quotation of it from the Stelai may refer to this passage, in Hipponax (sixth century B.C.),⁴ in Phoenix (third century B.C.)⁵ and in the lexicographers Hesychius⁶ and Photius.⁷ There are also attested the diminutive forms *λεκίς*,⁸ *λεκίσκος*,⁹ and *λεκίσκιον*.¹⁰ But the place of *λέκος* appears to have been usurped mainly by the derivatives *λεκάνη*¹¹—by far the most commonly used word of this whole group—and the other forms which are in turn derived from it: *λεκανίς*, *λεκανίσκη* or *λεκανίσκος*, *λεκάνιον*, *λεκανίδιον*, *λακάνη* (late), and *λεκάριον* (late?).¹² Apart from whatever diminutive force the derivatives may have had, all the words of this family appear to have been roughly synonymous. Distinctions of meaning among them are hard to establish, particularly as regards the relationship of *λέκος* to the others.

All of these vessels have the form of a broad, shallow bowl: *κοίλη καὶ περιφερής*,¹³

¹ Ten medimnoi of something (the word is lost; possibly *πυρῶν*); three stamnoi of vinegar; four stamnoi of olives.

² *Λέκος*: Liddell-Scott-Jones, *s.v.* *λέκος*, *λεκάνη*, etc.; Stephanus, *Thes.*, *s.v.* *λέκος*, *λεκάνη*, etc.; Boisacq, *Dictionnaire*⁴, *s.v.* *λέκος*; Richter and Milne, pp. xxi, 23-24, *s.v.* *Lekanis*, and the references there cited.

³ Pollux, X, 87.

⁴ Hipponax (Frag. 58 Bergk) in Pollux, X, 87 *λέκος πυροῦ*.

⁵ Phoenix, in Athenaeus, VII, 358 (J. U. Powell, *Collectanea Alexandrina*, Oxford, 1925, p. 231, no. 2, line 2): *λέκος πυρῶν*.

⁶ Hesychius, *s.v.* *λέκος*: *λεκίσκιον*, *λεκάριον*, *τρύβλιον*: *οἱ δὲ λεκάνιον*.

⁷ Photius, *s.v.* *λεκάνη*: *παρώνυμος τοῦ λέκουσ, κτλ.*

⁸ Epicharmos (fifth century B.C.), in Pollux, X, 87; Iamblichos, *Vit. Pyth.*, XXVI, 119.

⁹ Hippokrates, in Pollux, X, 87.

¹⁰ Hippokrates, *Acut.* (sp.) 63,69.

¹¹ Cf. Photius, *s.v.* (above note 7).

¹² Cf. above, note 6.

¹³ Pollux, VI, 110.

πλατύ,¹⁴ ἐκπέταλον,¹⁵ and in one case the definition explicitly mentions handles.¹⁶ The size must have varied widely, but full-sized specimens were probably fairly large. When used as a κότταβος-bowl, one of them would hold several smaller vases.¹⁷ In an inscription of Eleusis (fourth century B.C.), eight lekanai, for use as hods (?) and perhaps of terracotta, are priced at 2 drachmai altogether or at 1½ obols each, a cost which in plain ware would call for an object of considerable size.¹⁸

The uses of the λέκος and its companions are varied, but suited to the shape.¹⁹ Though mainly intended to hold foodstuffs, especially for service at the table, they also, at least on occasion, were used to contain shoe-blackening, to hold kottabos-boats,²⁰ as washbasins or footbaths, to vomit into, as hods, to wash kylikes in,²¹ for medical purposes,²² and as containers for ladies' trinkets and cosmetics.²³ The material, according to the intended use, was most commonly pottery²⁴ or bronze,²⁵ but Pollux speaks of wooden specimens,²⁶ and examples made of silver²⁷ and of gold²⁸ are known as articles of luxury.

Among the extant types of decorated pottery, there are two which answer especially well to these requirements. Though similar in most other respects, they differ essentially in that one kind is regularly lidless, the other always designed to have a lid. From the literary evidence, it seems probable that their names were different, the lidless and the lidded varieties having been called, respectively, *lekane* and *lekanis*.²⁹ The latter is recognized, in fine ware, in the familiar wide flat bowl with broad foot;

¹⁴ Suidas, *s.v.* λεκάνη.

¹⁵ Hesychius; Suidas.

¹⁶ Photius, *s.v.* λεκάνιον. In this passage, λεκάνιον and λεκανίς are both described as having handles. Handles are commonly present on vases of this type, but they were probably not a determining feature for nomenclature, since the words of this group were often used in an extended or more generalized sense. Synonyms and implied equivalents for the λέκος-words, though admittedly cited very freely and not necessarily aptly, cover an amazingly wide range: ἐμβάφιον, κάναστρον, λέβης, λοπάς, πατέλλα, πίναξ, ποδανιπήρ, σκάφη are only a few of those given by the lexicographers.

¹⁷ Pollux, VI, 110.

¹⁸ *I.G.*, II², 1672, line 184.

¹⁹ In general, cf. Richter and Milne, *loc. cit.*, and the references there cited.

²⁰ Pollux, VI, 110.

²¹ *C.I.G.*, II, 3071, line 8 (Teos).

²² Pollux, X, 149; *I.G.*, IV², 1,122, line 57.

²³ Cf. Richter and Milne, *loc. cit.*

²⁴ Aristophanes, Frag. 366; Pollux, X, 122; Hesychius; Photius; and implied elsewhere.

²⁵ Implied in Pollux, VI, 110 and X, 122; probable, from the context, in *I.G.*, II², 1694, line 3; and implied elsewhere.

²⁶ Pollux, X, 78.

²⁷ Lucian, *Am.*, 39; Athenaeus, V, 197 b.

²⁸ Athenaeus, *loc. cit.*

²⁹ For the arguments, see Richter and Milne, p. 23, with the references there cited, especially Deubner, *Jahrb.*, XIV, 1900, p. 152. The two words have often been used without distinction as to meaning, but the differentiation is rather widely accepted and observed.

horizontal handles, often ribbon-shaped and flanked by spur-like projections; and a distinct vertical rim with offset ledge to accommodate the lid. The lid is usually flattish or spreading-conical, with vertical lip, and a knob-handle often consisting of a cylindrical shaft capped by a disk. This well known type is encountered throughout the Greek world of archaic and classical times, in a wide range of sizes.³⁰ The other name, *lekane*, is reserved for vases of similar type which were not made to take lids.³¹

The literary sources appear, in the main, to support this distinction, even though it is likely enough that the ancient Greeks did not always adhere closely to it.³² The problem is further complicated by the many derivative words with which we have to deal.

In its context, our *lekos* can scarcely have been a vase of very fine quality, but in order to keep its contents safely, it should have had a lid. *Lekos* is the parent word to all the others, and it would be hard to insist on linking it exclusively with one or the other of the principal derivatives. We must ask, however, in our case, whether there is any plainer Attic vase of the period which corresponds to the fine-ware *lekans*, as defined above. It happens that, for the late fifth century, there are excellent household ware candidates for both names, *lekane* and *lekans*, found in abundance in the Agora excavations and persistent enough to deserve specific identification. For the *lekane*, we have the ordinary plain mixing bowls of which hundreds have been found.³³ If any household pot deserves that name, it is a most likely candidate.³⁴ The *lekans*,

³⁰ Small pieces: *C.V.A.*, Oxford, I, pl. 48, 19 (max. dim. 0.122 m.); *Hesperia*, XX, 1951, p. 220, pl. 13, no. 6 (max. dim. 0.121 m.). Large pieces: Würzburg 442 (Langlotz, *Würzburg*, pl. 119), Attic b.-f. (max. dim. 0.408 m.); Würzburg 869 (Langlotz, pl. 244), Apulian r.-f. (max. dim. 0.490 m.).

³¹ Cf., for example, A. D. Ure, *Metropolitan Museum Studies*, IV, 1932, p. 18.

³² As possible exceptions, cf. Pollux, X, 84, where *lekans* is cited, with *lekaniion* and *lekansiske*, among vases for serving food; VI, 85, equated with *patella*; VI, 110, bowl for kottabos-boats, equated with *chalkion* and *skaphe* (contrast Athenaeus, XV, 667 d-f, where the kottabos-bowl is called a *lekane*); and X, 49, listed among a doctor's requirements (contrast *I.G.*, IV², 1, 122, line 57, where *lekane* is so used). On the other hand, these definitions are all functional rather than descriptive. A *lekans* without its lid could fulfill any of the purposes of a *lekane*, but the converse would not necessarily follow; and these cases have to do with the use of a *lekans* where a *lekane* would be expected, not the other way round.

³³ E. g., Agora P 21929 to P 21935. C. Boulter, *Hesperia*, XXII, 1953, pp. 88-89, pl. 32, nos. 85-91: "semi-glazed kraters," with discussion, under no. 91, of the shape, its frequency of occurrence, and representations of it in vase-paintings. It is to be understood, of course, that almost any open, bowl-shaped vessel might have been called a *lekane*. This is only one of various types to which the name might be applied.

³⁴ Miss Talcott writes: "It is always an open two-handled bowl and it never has a lid. The shape is more or less fixed as early as the second quarter of the sixth century, and although it undergoes some development it meets with no real change until some time in the fourth century, when the rim finally flattens out. So far as we know, there was no other common standard all-purpose basin in classical times, though there are heavier, larger tubs, such as washtubs and bath-

which requires a lid and is therefore better associated with our *lekos*, is also well represented among the types of household pottery found in the Agora. The most suitable type, which occurs abundantly in contexts of the late fifth century, is the "semi-glazed lidded bowl" which, as Corbett has already suggested, may be a "humbler version of the *lekaneis*."³⁵ It agrees closely enough with the standard black-glazed *lekaneis* to make it seem likely that this less expensive kind was called by the same or a similar name. The resemblances are striking, in the rather squat bowl with broad ring foot and horizontal side-handles (sometimes ribbon-like, but not provided with spurs). The lid is of a different, simpler kind,³⁶ and the flange on the bowl is inset, but these peculiarities are not important enough to imply a difference of names. The range of sizes extends from smallish pieces (diam. *ca.* 0.165 m.) to fairly large ones (diam. *ca.* 0.25 m.) and it seems probable that even bigger ones were made.³⁷

It is easy to believe that the *lekos* of Stele II was a vase of the sort described above, that is, a version of the lidded *lekaneis* designed for everyday use. Such a vessel would have served very well to keep cereals or legumes safely covered and handy for use.

Our illustrations (Pl. 48, d-f)³⁸ serve to sum up the argument, based on the available evidence, both as to usage of nomenclature and as to the prevalence of these types, in the late fifth century. The shapes illustrated indicate how readily one of the names (or forms of the same name) might do duty for another, and how easily, even in antiquity, confusion of terms might occur. They enable us, however, to make three practical distinctions. Plate 48, d is the familiar fine-ware *lekaneis*, always lidded, usually glazed, often decorated, essentially a woman's toilet box but useful in other ways as well. Plate 48, f is our candidate for the *lekos* (which might, especially in small sizes, also have been called a *lekaneis*), likewise lidded, but a much humbler vase, well adapted to storing modest amounts of cereals or other supplies, or to serving food at the table. Plate 48, e is the lidless, all-purpose "mixing bowl," which may reasonably be named a *lekane*.³⁹

tubs, which are found occasionally. A good indication of the omnipresence of this *lekane* is the fact that out of the 1225 ostraka found in the Agora excavations, over 20% are from pots of this shape."

³⁵ P. E. Corbett, *Hesperia*, XVIII, 1949, p. 304. His late-fifth-century examples include Agora P 11004-11006 (p. 334, nos. 87-89, pl. 96, no. 87). Fragments of many similar vases were found in the same context.

³⁶ For the lids, see Corbett, *op. cit.*, p. 334, nos. 90-91 (Agora P 11007-P 11008), pl. 97, no. 90.

³⁷ See above, note 30, on the fine-ware *lekaneis*.

³⁸ Pl. 48, d: Agora P 10370; f: P 11004 and lid P 11007; e: P 21931.

³⁹ A similar shape may be intended on the kylix Oxford 1911.617, by the Pan Painter (Beazley, *C.V.A.*, 1, III I, pl. 7, 3, p. 6; *A.R.V.*, p. 368, no. 88).

2. POTERION

(VI, 172-173)

This entry is found in two fragmentary words which have been restored *ποτή-
[ριον] τορ[ευτόν]*; both the price and the number are lost.⁴⁰ There is nothing in the context to support this restoration, but *poterion*, or something like it, seems probable by default of any other acceptable candidate. *Toreuton*, taken as its adjective, has a good claim to consideration.⁴¹ The expression goes easily with *poterion*, for, in general, the association of metal relief-work with drinking cups is common in ancient sources.⁴²

Etymologically, the word *ποτήριον*,⁴³ like its synonym *ἔκπωμα*,⁴⁴ could be applied to any kind of drinking vessel. Usage also indicates that its meaning was normally generic. In Pollux,⁴⁵ in Athenaeus,⁴⁶ and elsewhere, *poterion* and *ekpoma* include comprehensively a wide variety of more specifically named cups.⁴⁷ Similarly, in the Delian temple inventories the general heading *poteria* covers broadly, indeed loosely, all sorts of drinking cups, the individual names of which often coincide with those found in literary sources.⁴⁸ Under *poteria*, the principal sub-headings are *κύλικες*, *φιάλαι*, and *σκάφια*. More narrowly specific terms, which occur in great profusion, are joined adjectivally to one or another of these, or to *poterion* itself. There is also some over-

⁴⁰ In the present discussion, the number will be treated, conventionally, as singular.

⁴¹ *Τορόνη*, a spoon or ladle, or *τόρος*, drill (cf. Liddell-Scott-Jones, *s.v.*) would be possible, assuming a new entry, but neither seems very attractive.

⁴² A *ποτήριον τορευτόν* is mentioned by Menander (in Athenaeus, XI, 781 e; Frag. 977 Kock); a *σκύφος τορευτός* in an inscription of Miletos (Dittenberger, *O.G.I.*, 214, line 54), and we may compare the *pocula caelata* which Pliny (*H.N.*, XXXIV, 47) attributes to the hand of Kalamis. These and other ancient references to relief-work are collected and interpreted in an important article by M. J. Milne, "The Use of *ΤΟΡΕΥΩ* and Related Words," *A.J.A.*, XLV, 1941, pp. 390-398; for cups, see especially pp. 392-393 and notes 21a, 22, and 29. For examples of fifth-century table service of silver and gold, with relief decoration, see Richter, *A.J.A.*, XLV, 1941, pp. 363-389 (especially p. 381), LIV, 1950, pp. 357-370.

⁴³ *Ποτήριον*: Liddell-Scott-Jones, *s.v.* *ποτήριον*, *ποτήρ*, *ποτηρίδιον*; Stephanus, *Thes.*, *s.v.* *ποτήριον*; Athenaeus, XI, *passim*; Pollux, VI, 95-100; *I.G.*, XI, 2, 287, B, lines 129-142 and remarks thereto by Homolle, *B.C.H.*, VI, 1882, pp. 111-116. Cf. also Richter and Milne, pp. xx, xxii-xxiii, 24-27, *s.v.* *kylix*, *kantharos*, *skyphos*, etc. The word *ποτήρ*, with the same meaning as *ποτήριον*, is rarely found (cf. Euripides, *Alc.* 236 and *Cyc.* 151) and can have had little currency.

⁴⁴ *Ἐκπωμα*: Liddell-Scott-Jones, *s.v.*; Stephanus, *Thes.*, *s.v.*; Pollux and Athenaeus, *loc. cit.*

⁴⁵ Pollux, VI, 95-100.

⁴⁶ Athenaeus, XI, *passim*.

⁴⁷ For example, Herodotos uses the word *poterion* for the drinking cups of barbarians, such as those of the Egyptians (II, 37, 1) and Persians (VII, 190), even for the gruesome skull-cups of the Scythians (IV, 65). Similar cases of vague, inclusive or generalized usage could easily be multiplied.

⁴⁸ A typical series, following the heading *καὶ τὰδε ποτήρια . . .*, occurs in *I.G.*, XI, 2, 287, B, lines 129-142; but altogether many other specific words occur.

lapping, and neuter diminutives are freely formed. It is hardly surprising that attempts to define these terms descriptively have not been very successful.⁴⁹

For our *poterion* we may think of some kind of drinking cup, perhaps a kylix, since a good part of the *poteria* which are named in ancient sources could also come under this heading, which is only somewhat less general. The word *κύλιξ* is actually written, denominatively, on several ancient kylikes (showing, incidentally, that the name is correctly applied in modern times),⁵⁰ and there are also two inscribed Attic black-figured kylikes which declare themselves to be *ποτήρια*;⁵¹ yet another seems to claim both names at once.⁵² A kylix, then, seems quite likely for our *poterion*, but of just what kind, we do not know.

If *τορ[ευτόν]* is correctly restored, the cup listed here should be of metal. Although relief-work in pottery vessels was not uncommon in the late fifth century B.C.,⁵³ the adjective is not really appropriate to ceramics.⁵⁴ Silver was the commonest material for drinking cups of metal. There are numerous references, both literary and epigraphical, to silver *poteria*.⁵⁵ Most of those listed in the Delian treasuries mentioned above were of silver, and several examples appear separately in the Parthenon treasury inventories.⁵⁶ In our inscription, we should therefore expect *τορευτόν* to refer to metal relief-work, whether pictorial or patterned, or both. A Milesian

⁴⁹ Sometimes it is hard even to say whether, for instance, a *kylix* or a *phiale* is meant; cf. H. Luschey, *Die Phiale*, Diss., Bleicherode am Harz, 1939, esp. pp. 18 f. (*rhodiake*), 21 (*cheli-doneios*), 28 (*therikleios*); and, in general, pp. 10-30 for the various terms which apply to *phialai*. Cf. also Dumbabin, *B.S.A.*, XLVI, 1951, p. 61 and note 49. In all this territory the modern Lexicons are practically useless.

⁵⁰ Richter and Milne, pp. 24-25. There are also cases of more generic use, *κύλιξ* on a Chioté chalice (*J.H.S.*, LXXV, 1955, Suppl., "Archaeological Reports," p. 22, pl. 2, e), and *κάλιξ* (*sic*) on a kotyle (Beazley, Έφθ. Ἀρχ., 1953-1954, pp. 205-206). It does not follow, however, that the graffito on the column-krater *C.V.A.*, Schloss Fasanerie (Adolphseck), I, p. 31, pl. 44, 5-6 (Pig Painter: *A.R.V.*, p. 371, no. 12) means to say that this vase is a kylix; nor should those on the amphoras Munich 2309 (Euthymides: *A.R.V.*, p. 25, no. 3) and London B 196 (Leagros Group, Painter "S": *A.B.V.*, p. 366, no. 84) be applied to the vases on which they are written (nor is this, presumably, what F. Brommer, *C.V.A.*, *loc. cit.*, wishes to imply, but the distinction needs to be kept clear).

⁵¹ Beazley, *J.H.S.*, LII, 1932, p. 178 and note 21 (Rhodes 10,527, Eucheinos Potter: *A.B.V.*, p. 162, no. 1; and Louvre F 66). The earliest self-named *poteria* are a deep drinking cup of the mid-seventh century which was found in the Athenian Agora (*Hesperia*, Suppl. II, 1939, pp. 124-126, B 55, figs. 89-90), and, possibly still earlier, a skyphoid cup of Geometric style found on the island of Ischia near Naples (*J.H.S.*, LXXVI, 1956, Suppl., p. 61, fig. 14).

⁵² London B 601.10 and B 601.7, fragments from Naukratis: *A.B.V.*, p. 79, above, middle, connected with Kleitias.

⁵³ Cf. G. M. A. Richter, *Attic Red-Figured Vases*, New Haven, 1946, pp. 162-163, and p. 200, notes 56-58.

⁵⁴ Milne, *A.J.A.*, XLVI, 1941, pp. 395-396.

⁵⁵ Milne, *op. cit.*, pp. 392-393.

⁵⁶ E.g., *I.G.*, I², 236, lines 87-88; 239, lines 50-51; 313, lines 11-12.

inscription⁵⁷ describes a skyphos which was decorated with a braid pattern as well as figure-work in relief; cups ornamented with relief are attributed to Kalamis⁵⁸ and Mys;⁵⁹ and there are numerous examples of pattern-work among the cups which are described, in the inscriptions, as “myrtled,” “ribbed,” or the like.⁶⁰ The identification of our ποτή[ριον] πορ[ευτόν] with silver cups of this kind depends, of course, on the correctness of the restoration, but the extant letters of the text point most strongly in the direction followed here.

Such a silver drinking cup would be a very handsome, and thus far unique, example in the Stelai of the fine silver tableware which the wealthiest of the Profaners must have owned. Even in their fragmentary state, the Stelai are remarkably lacking in entries which refer to small objects of any great value. Nevertheless, we know that fifth-century tables were graced with such treasures,⁶¹ which, like jewelry in modern times, must have served also as an easily portable reserve of wealth for the vulnerable rich.⁶² The reason why such precious objects are not found elsewhere in the Stelai can only be that they had already been successfully removed by the convicted persons, or stolen by others. If our proposed interpretation of this passage is correct, the unlucky victim⁶⁴ was unable to secrete this valuable piece before it was seized by the State.

3. ΜΥΚΕ

(V, 35)

The whole line reads [μ]ύκη χοῦ μολυβδόδετος (price lost). One's first thought is that the χοῦς of this entry might refer to an actual vessel, to which the *myke* belonged, but this interpretation leads to serious difficulties. If this chous were indeed a vase,⁶⁵ we know very well what it should look like (Pl. 48, g; P 23861, plain glazed). The vase of this name is a variety of oinochoe. It has a broad base; a squat, plump body; a rather wide neck and mouth opening with trefoil lip; and a single vertical handle opposite the pouring side.⁶⁶

⁵⁷ Cf. above, p. 206, note 42.

⁵⁸ Pliny, *H.N.*, XXXIV, 47.

⁵⁹ Athenaeus, XI, 782 b.

⁶⁰ Cf. *Univ. Calif. Publ. Class. Arch.*, I, 8, 1941, p. 191 and p. 198, note 124.

⁶¹ See D. B. Thompson, *Hesperia*, VIII, 1939, pp. 313, 314-315, and cf. especially Plutarch, *Alc.*, 4.

⁶² Cf. D. B. Thompson, *op. cit.*, p. 315.

⁶⁴ Nikides (cf. lines 166-167), who appears also in line 85, and in Stelai II (lines 172 and 176) and IV (lines 17-18).

⁶⁵ Cf. Liddell-Scott-Jones, *s.v.* χοῦς (principal emphasis on the measure, but some of the passages cited under this heading have to do with the actual vase); Richter and Milne, pp. 19-20 (“Oinochoe, Type III”), figs. 118-121.

⁶⁶ This identification is also confirmed by the many examples of such vases that are decorated

The trouble is that, if this chous is an actual vessel, then *myke* should be something belonging to it, for which it is hard to imagine anything other than a lid. Although the word *μύκη* (or *μύκης*)⁶⁷ seems not to occur elsewhere with quite the meaning needed here, its original sense ("mushroom") and its extended uses call for something mushroom-shaped. A lid might answer to this description, but it would be very surprising to find a fifth-century chous equipped with a lid, mushroom-shaped or not. The chous, a vessel designed for dipping and pouring, would have little reason for needing a lid, and archaeological evidence for the existence of Attic oinochoai with lids is almost totally lacking.⁶⁸

Another solution, which seems much better, is to take *μύκη* as a form of container, *χοῦ* as an expression of its capacity.⁶⁹ The *chous* was a liquid measure equal to one-twelfth of an Attic amphora. Official measures found in the Athenian Agora and on the North Slope of the Acropolis appear to fix its content at approximately 3.2 liters.⁷⁰ The word is used twice elsewhere in a similar sense (Stele VI, lines 60-61 and 64-65), where, however, the total quantities of wine are given in amphoras, with the fractional remainders stated in choes.⁷¹ If the meaning of *χοῦ* is 'having the capacity of a chous,' the *μύκη* then must be a container for liquids, holding this specified amount, and of a shape somehow suggesting a mushroom.⁷² The fact that it was *μολυβδόδετος*, 'bound or fastened with lead,' surely indicates that our *myke* was a clay vessel, mended with leaden clamps, a kind of repair which was very extensively practiced and which prolonged the useful life of many a broken pot.⁷³

with scenes referring to the festival of the *Choes*; cf. especially L. Deubner, *Attische Feste*, Berlin, 1932, pp. 246-247; H. R. W. Smith, *C.V.A.*, San Francisco, I, text, pp. 47-48; S. Karousou, *A.J.A.*, L, 1946, pp. 122-139; G. Van Hoorn, *Choes and Anthesteria*, Leiden, 1951.

⁶⁷ Cf. Liddell-Scott-Jones, *s.v.* *μύκη*; *μύκης*, where the form and gender are discussed, with some doubts as to the legitimacy of a full first-declension paradigm. The gender of *μύκη* is not determined, but the existence of this nom. sing. form is here epigraphically established.

⁶⁸ One example is the b.-f. olpe, *C.V.A.*, Compiègne, pl. 11,22 (No. 1008). The lid, which fits and is said to belong, has a tall button-handle not unlike certain kinds of mushrooms. Another b.-f. olpe, found in a grave, was apparently "stopped" by a small, footed bowl, inverted and placed over the mouth of the olpe (*Clara Rhodos*, III, p. 164, fig. 156), but the bowl obviously was not made for this purpose. There are also Attic Geometric pitchers with lids (e. g., *Hesperia*, Suppl. II, 1939, p. 72, fig. 46, XIV-1, and p. 102, fig. 72, XXV-2), and lids were regularly provided for Corinthian broad-bottomed oinochoai. None of these cases, however, has much relevance to late fifth-century choes.

⁶⁹ This idea was first suggested by Miss Clairève Grandjouan. The arguments for it, as presented here, were developed mainly by Miss Lucy Talcott.

⁷⁰ Broneer, *Hesperia*, VII, 1938, pp. 222-223, fig. 57; Susanne Young, *Hesperia*, VIII, 1939, pp. 278-279, figs. 2-3. Cf. also Pritchett, Part II, p. 195.

⁷¹ I agree with Pritchett (Part II, pp. 199-203) that the *choes* of Stele VI are fractional measures, and do not express the standard of capacity for these amphoras (evidently Attic in one case, hence they should conform to the Attic standard of twelve choes each).

⁷² The definition given by Suidas, *s.v.* *μύκη*· *θήκη*, i. e., a 'container,' 'chest,' or 'sheath,' is too vague to be of much use here. Certainly a box-like container would not be appropriate.

⁷³ *Μολυβδόδετος* occurs elsewhere only in Pollux, VI, 88, where *μολυβδόδετοι ἐσχάραι* are mentioned

The shape which seems best to meet all these requirements is a two-handled wine jug of peculiar form, which flourished briefly in Athens at the end of the fifth century and into the fourth. A typical example is illustrated on Plate 48, i.⁷⁴ The dome-shaped upper part of the body, met at a sharp angle by the flaring lower part, does indeed strongly suggest the form of a mushroom. The size of these vessels varies; the one illustrated here holds somewhat less than a chous, but another example holds rather more.⁷⁵ The fact that our *myke* happened to be chous-sized may have been noted exactly because its equivalence to a standard measure would have increased its usefulness and its market value.

The identification of the *myke*⁷⁶ with this humble two-handled decanter has no direct proof to support it. It is here offered tentatively, in the hope that conclusive evidence may one day be forthcoming. The angular, domed-topped vase is not known to have continued beyond the earlier years of the fourth century, and we need not be surprised that it and its name were unknown to the lexicographers of later times, such as Suidas. Its function was taken over in the Hellenistic period by the ubiquitous *lagynos*,⁷⁷ the form and use of which recommended it as the logical successor to the shape which we would call a *μύκη*. The strong resemblance between the two shapes, at least in their bodies, may be fortuitous, since it is improbable that the *lagynos* shape originated in Athens.⁷⁸ It is, however, of some interest that the name of this highly specialized vessel,⁷⁹ which in later times served the purposes of our “*myke*,” also designated a measure of twelve kotylai, or one Attic chous.⁸⁰

among the objects used in cookery (see below, p. 230, note 101). The meaning there (not understood by Pollux?; note his use of the generic plural) seems also to be ‘mended with leaden clamps.’ Lead was very cheap in Athens (see under funnels in next number of this journal), and it was freely used for mending coarse as well as fine pottery, from the Bronze Age onward (cf. O. Broneer, *Hesperia*, VIII, 1939, p. 401 and note 134).

⁷⁴ Agora P 9428; *Hesperia*, VII, 1938, p. 346, fig. 30; *A.J.A.*, XLI, 1937, p. 181, fig. 5. For other examples and for the history and uses of the shape, see P. E. Corbett, *Hesperia*, XVIII, 1949, pp. 334-335, no. 92, pl. 96, nos. 92, 163-165. Numerous unpublished specimens of the same type, and from the same period, have been found in Agora deposits. The shape seems also to be represented on the wine jar stamp Agora SS 1844 (*Hesperia*, III, 1934, p. 304, above), as Virginia Grace has noticed.

⁷⁵ Corbett, *op. cit.*, p. 345, no. 163, pl. 96. The shape is not quite the same and there is only one handle, but this vase, though appreciably earlier, belongs to the same general class as the others; it represents a preliminary step toward the mushroom-shaped decanter.

⁷⁶ Other vase-names sometimes are inspired by natural shapes, e.g., the *lopas*, or ‘limpet,’ which, if one may judge from the usage of Aristophanes’ day, was probably the shallow lidded casserole, common in household deposits of the fifth century B.C. Cf. Liddell-Scott-Jones, *s.v.* *λοπάς*. A characteristic example is shown on Plate 49, e; Agora P 2360.

⁷⁷ G. Leroux, *Lagynos*, Paris, 1913.

⁷⁸ Leroux, *op. cit.*, pp. 82-84; cf. *Hesperia*, III, 1934, pp. 450 f.

⁷⁹ For the identification with *lagynos*, which is surely correct, see Leroux, *op. cit.*, pp. 74 ff.

⁸⁰ Athenaeus, XI, 499 b. The use of *λάγυνος* for a measure as early as the archaic period is also indicated, *ibid.*, 499 e, by the quotation from Stesichoros, *ἔμμετρον ὡς τριλάγυνον*. Hence the word is

In addition to the evidence offered above, there is one other argument in favor of identifying this remarkably mushroom-shaped vase as a *myke*. This is the very fact that it had so short but so vigorous a life, the heyday of which coincides so exactly with the time of the Stelai.

4. CHYTRA

(I, 15-17)

This series of three entries, in a badly mutilated passage, has been restored to read [χύτ]ρα χαλκῆ, thrice repeated. The prices are lost. Of the first word, only the last letter is preserved in line 17, the last two letters in lines 15-16, but in each case the second word is complete. The context helps little toward restoration, but *χύτρα* may stand as a good guess.

*Chytrai*⁸¹ are common cooking pots, frequently mentioned in literature. Sometimes the use of the word suggests that its meaning was generic,⁸² but in most cases a fairly specific kind of vessel seems to be meant.

One gathers that it was usually rather small, for it could be carried about.⁸³ It commonly had two handles, as is shown by the use of the term *chytra* for a kind of kiss in which the ears of the kissing partner were grasped.⁸⁴ It must have been wide-mouthed, for a baby could be put into one.⁸⁵ There is no mention of its having a base or foot, and indeed it was often placed on a separate base or stand (*χυτρόπους* or *λάσανα*).⁸⁶

We are, fortunately, able to identify the shape of the *chytra*. The Agora excavations have yielded many pottery vessels of cooking ware, extending over a long period

old enough to suggest that in the fifth century *lagynos* and *myke* might have been synonyms. But the former does not occur as a vase shape before the fourth century B.C.; the shape itself, and the descriptions which clearly identify it, do not come before the Hellenistic period (cf. Leroux, *op. cit.*, pp. 74 ff.). Therefore it seems best to keep for our fifth-to-fourth century decanters the highly descriptive name *myke*, reserving *lagynos* for the distinctive long-necked jug of the Hellenistic period.

⁸¹ *Χύτρα*: Liddell-Scott-Jones, *s.v.*; Stephanus, *Thes.*, *s.v.*; E. Saglio, *Dictionnaire*, I, pp. 1140-1141, *s.v. Chytra*.

⁸² As, for instance, in the use of the term *αι χύτραι* for the pottery market: Aristophanes, *Lys.*, 557; Pollux, VII, 163; cf. Saglio, *loc. cit.* Note also that the word *χυτρεύς* (Liddell-Scott-Jones, *s.v.*; Blümner, *Technologie*, I², p. 33) is occasionally used for 'potter.'

⁸³ E.g., Aristophanes, *Lys.*, 297, 308, 315; *Plut.*, 1198 ff.; *Av.*, 358 ff. In Plato, *Hipp. Maj.*, 228 D, a fine, well formed chytra is given a capacity of six choes (about five gallons), but here the large size contributes to the beauty of the pot, in a theoretical discussion. In practice, we should, however, expect a pot of such great utility to be made in a fairly wide range of sizes.

⁸⁴ Eunikos, in Pollux, X, 100; cf. also Plato, *loc. cit.*

⁸⁵ Aristophanes, *Thesm.*, 505, 509, oddly misrepresented in Liddell-Scott-Jones as a case of infant exposure. But cf. *χυτρίζω*, *ἐγχυτρίζω*, and see especially Aristophanes, *Vesp.*, 289 and Scholion *ad loc.*

⁸⁶ Aristophanes, *Pax*, 893 and Scholion; Diokles in Pollux, X, 99.

of time, which correspond exactly to the type indicated by the literature.⁸⁷ A good example, from the middle of the fifth century, is shown on Plate 48, h.⁸⁸ Its form is characteristic of the type: no foot, round pot-belly, wide mouth, two handles set vertically opposite each other. Direct confirmation of the name has at last been found in the dipinto on a Hellenistic coarse-ware pot of this shape, found at Corinth.⁸⁹ There is some difficulty in reading the full text of the graffito (cursive, and partly obscured) but the words which identify the pot as a *χύτρα* are clear.⁹⁰ If chytrai are meant in Stele I, lines 15-17, this familiar shape should no doubt be assumed for them.

The chytra seems especially well designed for cooking meats and broths over a fire; it was used for carrying the coals to start a fire;⁹³ and uglier uses are also known.⁹⁴ Although the chytra was ordinarily made of clay⁹⁵ (and unpainted),⁹⁶ there were also examples in bronze, which were therefore more durable and of course more valuable. In Aristophanes (*Plut.*, 812) prosperity is marked by the possession of bronze kitchen-ware, including *chytrai*. In the temple inventories we find *chytrai* of bronze,⁹⁷ as well as *chytrides* of silver⁹⁸ and *chytridia* of some undetermined material (silver?).⁹⁹

In our passage the material, bronze, is certain, and the restoration of *χύτρα* seems reasonably convincing. For the shape of these objects, we can picture something like the clay pot shown on Plate 48, h.

⁸⁷ Cf. Saglio, *loc. cit.* (above, note 81).

⁸⁸ Agora P 21947; Boulter, *Hesperia*, XXII, 1953, p. 95, pl. 35, no. 115. One-handed vases, of the same fabric and designed, evidently, for the same uses, are also common, e. g., *ibid.*, pl. 35, no. 116. The two-handed kind ideally suits the description, but all such cooking pots, large and small, one-handed or two-handed, were doubtless called *χύτραι*.

⁸⁹ Corinth C 48-65. G. R. Edwards, *Hesperia*, XVIII, 1949, p. 152, pl. 16, 15 and 16 right. Fragmentary and mended, the missing parts restored in plaster, but the shape is fully determined by the extant parts.

⁹⁰ *Ibid.*, pl. 16, 15. Mabel Lang, who brought this vase to my notice, tentatively reads the dipinto as follows: *χωρεῖ ὄγκος τῆς χύτρας κιννάβαριν μνᾶς τριάκοντα*, 'The capacity of this *chytra* (is such that) it holds 30 mnas' worth of cinnabar.' See also Edwards, *loc. cit.*

fire⁹¹ but it was also put to other uses. It appears among sacrificial implements;⁹²

⁹¹ So often in Aristophanes, where the word is frequently used, e. g., *Eccl.*, 1092; *Plut.*, 673, 682, 686; *Ran.*, 983; *Av.*, 78; *Eq.*, 1174; *Frag.* 591. Cf. Pollux, VII, 88 and X, 95.

⁹² Aristophanes, *Av.*, 42; *Ach.*, 284.

⁹³ Aristophanes, *Lys.*, 297, 308, 315; *et al.*

⁹⁴ See above, note 85.

⁹⁵ Aristophanes, *Thesm.*, 403; *Ach.*, 284; cf. *Plut.*, 812. See also Pollux, VII, 162 and X, 122; Plato, *Hipp. Maj.*, 288, D.

⁹⁶ On the expression *χύτραν ποικίλλειν* for useless effort, cf. Scholion to Aristophanes, *Vesp.*, 279. The fire-blackened aspect of chytrai (often observed in actual specimens) is also relevant: Aristophanes, *Eccl.*, 734; *Vesp.*, 938.

⁹⁷ E. g., *I.G.*, II², 1416, lines 3-4; *Insc. Délos*, 1400, A, line 5 and 1409, B^a, II, line 27.

⁹⁸ *I.G.*, XI, 2, 110, line 115 *et al.*; Dittenberger, *Syll.*², 588, line 93.

⁹⁹ *I.G.*, II², 1426, line 21; *Insc. Délos*, 1403, A^b, I, line 84.

5. ALABASTOS

(I, 234)

Six *alabastoi* are entered in this line (price lost) in the company of beds, tables, and coverings. The meaning of the word ἀλάβαστος¹⁰⁰ (later ἀλάβαστρος and ἀλάβαστρον)¹⁰¹ is securely established. It refers to the familiar vase of “alabastron” shape¹⁰² which was used for holding μύρον, or perfumed oil.¹⁰³ Nowhere is it an ‘alabaster box’ or ‘casket,’ as in the eighth edition of Liddell and Scott, and in English translations of the Bible,¹⁰⁴ and often in translations of other works.

¹⁰⁰ Ἀλάβαστος: Liddell-Scott-Jones, *s.v.*, with the reservations noted below; Boisacq, *Dictionnaire*⁴, *s.v.*, but cf. K. Sethe, *Sitz. Berl. Akad. Wiss.*, 1933, 1, pp. 882-889; A. Mau, *R.E.*, I, 1894, cols. 1272-1273, *s.v.* Ἀλάβαστρον, 2; E. Saglio, *Dictionnaire*, I, pp. 175-177, *s.v.* Alabaster ou Alabastrum; Richter and Milne, pp. xviii, 18, figs. 109-111; *Thesaurus Linguae Latinae*, *s.v.* alabaster; H. E. Angermeier, *Das Alabastron*, Diss., Giessen, 1936.

¹⁰¹ On the forms, cf. Liddell-Scott-Jones, *s.v.* The earlier spelling, ἀλάβαστος, is also used or specifically mentioned by the lexicographers, e.g., Hesychius, *s.v.*; Bekker, *Anecd.* I, p. 374; *Etymologicum Magnum*, *s.v.*; *Etymologicum Gudianum*, *s.v.* ἀλάβαστρον; Suidas, *s.v.* ἀλαβαστροθήκη. The form with rho was already coming into use in the fourth century B.C.: *I.G.*, II², 1501, B, line 4 (= *I.G.*, II¹, 745). The spelling ἀλάβαστος is supported also by ἀλαβαστοθήκη in *I.G.*, II², 1425, lines 265-266, 270 (i.e., *Ἐφ. Ἀρχ.*, 1903, 143-144 [not 443], col. 3, lines 53-54, 59); Demosthenes, XIX (*Fals. Leg.*), 237; and Pollux, X, 121; ἀλαβαστοθήκας τῶν ἀλλῶν λεγόντων Ἀριστοφάνης ἐν Τριφάλῃσι ἀλαβαστροθήκας ἔφη. For Aristophanes, however, Pollux may have been quoting from a manuscript already corrupted by the later spelling. Sethe, *op. cit.*, p. 887, note 3, suggests a similar corruption (or “modernization”) for the text of Herodotos, III, 20, 1, where the MSS have ἀλάβαστρον (masc. according to Suidas *s.v.* λήκυθος, but gender not shown by the context).

¹⁰² Richter and Milne, p. 18. In the new Liddell-Scott-Jones definition, which corrects the eighth edition, “globular vase without handles” is wrong on both counts: “globular” by confusion with aryballoi, “without handles” under influence of the late definitions, based on false etymology?

¹⁰³ Μύρον ἀλάβαστος, or the like: Herodotos, III, 20, 1; Krates Comicus, *Frag.* 15,6 (in Athenaeus, VI, 268 a); Alexis Comicus, *Frag.* 62 (*ibid.*, XV, 691 e); Euboulos, *Frag.* 100 (in Pollux, X, 120); Kallimachos, *Lav. Pall.*, 13 and 15; Theokritos, XV, 114; New Testament, *Ev. Marc.*, XIV, 3, *Ev. Matth.*, XXVI, 7 and *Ev. Luc.*, VII, 37; Lucian, *Meretr.*, XIV, 2; etc. In Latin, *alabastra unguenti*, Cicero, *ac. Frag.* 11; Petronius, 60; and often. Cf. Pliny, *H.N.*, XIII, 19, *unguenta optime servantur in alabastris*. Most of the Greek lexicographers specify *myron* as the proper contents. More narrowly, the inscription on an alabastron of alabaster from Egypt, in the Louvre, gives the scent: *Κυνάμωμον παρὰ Κρινίππου* (*Arch. Anz.*, 1910, cols. 503-504).

¹⁰⁴ *Ev. Marc.*, XIV, 3; *Ev. Luc.*, VII, 37; *Ev. Matth.*, XXVI, 7. The correction was already observed in the 1921 edition of *Webster's International Dictionary*, *s.v.* *Alabastrum*. The reading ‘alabaster box’ occurs in both the King James and the Douay as well as other English versions of the Bible. Although the definition of ἀλάβαστος was altered in the Liddell-Scott-Jones *Lexicon* (see above), this edition still gives, for the ἐξάλειπτρον of Aristophanes, *Ach.*, line 1063, the old definition, ‘unguent-box,’ but the object in question can only be the alabastron mentioned in line 1053. Cf. the Scholion on line 1063: *πρόφερε τὸ ἀλάβαστρον, φησίν, ἐξ οὗ ἀλείφονται οἱ δειπνοῦντες, τὴν τοῦ μύρου λήκυθον* (cf. also Pollux, VI, 106). The verb ὑπέχε, before ἐξάλειπτρον, is graphically illustrated by the way in which alabastra are usually carried (e.g., Richter and Milne, fig. on p. 21). But *exaleiptron*, which is not descriptive in itself, seems later to have the meaning of ‘basin,’ e.g., in

Although there are many variants, the basic shape of the alabastron is distinctive, and it may go back to a very early period in Egypt, whence it is derived.¹⁰⁵ So also the name,¹⁰⁶ and no doubt many of the specimens in alabaster and other materials which are found widely distributed throughout the Mediterranean area. The earliest Egyptian examples, of alabaster, may antedate the Greek period by many centuries, but the type is commonest in the Saitic period and later.¹⁰⁷ It is found in classical sites over a wide area, including Greece¹⁰⁸ and Italy,¹⁰⁹ as are also the many glass alabastra, in the manufacture of which at least one important center was Egypt.¹¹⁰

Antiphanes, Frag. 208 (in Pollux, IV, 183; cf. X, 46) and in the Septuagint, *Job*, XLI, 22; on ἀλείφομαι in connection with louteres, cf. below, p. 221. In Aristophanes, we may be sure that the obscene suggestion in line 1066 was suitably demonstrated on the alabastron.

¹⁰⁵ W. von Bissing, *Musée du Caire, Catalogue général: Steingefässe*, Vienna, 1904-1907, p. xii, seems to place the origin of the type familiar to the Greeks "no earlier than the end of the Middle Kingdom," but an Old Kingdom date is claimed by H. Ranke (*Art of Ancient Egypt*, Vienna, 1936, fig. 284, right), for a very clear, if somewhat plump, example of the type in question here. Petrie, *Funeral Furniture and Stone Vases* (*Pub. Brit. Sch. Arch., Egypt*, vol. LIX, 1937), pp. 14-15, 37, seems to date the type to the Saitic period and later. I do not see the relevance of the supposed Egyptian prototypes in clay which are cited by Angermeier, *op. cit.*, p. 12: *Qau and Badari*, III, *B.S.A.E.*, vol. L, pl. 18, 30 M, 40 M, 60 D, 61 C). Evidently there is need for a study of the history of the shape in Egypt.

¹⁰⁶ Cf. Sethe, *op. cit.*, p. 888, who states that the name of the stone, alabaster, is derived from the vase's name, and not *vice versa*. So also Mau, *loc. cit.* and Richter and Milne, *loc. cit.*

¹⁰⁷ Most of the specimens in Cairo which have the characteristic "classical" (Greek) form are dated to the Late Period by von Bissing, *op. cit.*, pl. 3, nos. 18317, 18322, 18325, 18326, etc., and text thereto. Cf. also Petrie, *op. cit.*, pp. 14-15.

¹⁰⁸ E.g., Rhodes (Chr. Blinkenberg, *Lindos*, Berlin, 1931, p. 671, nos. 2860-2862); Thera (H. Dragendorff, *Thera*, II, Berlin, 1903, p. 53, Grave 66); Delphi (*Fouilles de Delphes*, V, Paris, 1908, p. 208, fig. 907); Corinth (G. R. Davidson, *Corinth*, XII, *The Minor Objects*, Princeton, 1952, No. 832, p. 125, pl. 61); Athens (*Ath. Mitt.*, XVIII, 1893, pp. 167-170: in a woman's grave of the fifth century B.C., an alabastron—of alabaster?—fitted with a silver mouth, and, near it, a silver dipstick); Olynthos (*Olynthus*, XIII, pp. 422-423, pls. 255-256, nos. 1067-1069 A); Delos (cf. Robinson, *loc. cit.*); and this is only a sampling. Also, of course, in the Near East, as at Deve Huyuk, in North Syria (*Liverpool Ann. Arch.*, 1914-1916, pl. 26, 2-3; fifth-century context).

¹⁰⁹ E.g., the Tomba Regolini-Galassi at Cervetri (O. Montelius, *La civilisation primitive en Italie*, II, Stockholm, 1904-10, pl. 337); Spina (S. Aurigemma, *Il regio Museo di Spina*², Ferrara, 1936, pp. 106, 206, 220, etc. found with Attic fifth-century vases). Also popular, the plastic type with figured upper end, as at Vulci in the "Isis" Grotto (Montelius, *op. cit.*, pl. 266, 3; G. Q. Giglioli, *L'arte etrusca*, Milan, 1935, pl. 50,4); for its Eastern origin, see Blinkenberg, *Lindos*, p. 471, no. 1921.

¹¹⁰ Concerning glass alabastra, which were common from the sixth century B.C. onwards, and on their faience predecessors in the Mediterranean trade, cf. Blinkenberg, *Lindos*, pp. 669-671, who states that glass vases were made in Egypt from the Eighteenth Dynasty onward, but were not widely distributed before about 550 B.C. They are found very often at Italian sites, e.g., Bologna (Montelius, *Civ. prim.*, I, pl. 103,8), Montefortino (*ibid.*, II, pl. 156,1), Cumae (*Mon. Ant.*, XII, pls. 90, 117), Spina (Aurigemma, *Spina*², pl. 80), perhaps less commonly in Greece. But examples have been found at Delos and at Rhitsona (P. N. Ure, *Aryballoi and Figurines from Rhitsona in Boeotia*, Cambridge, 1934, p. 76), on Rhodes (Ure, *loc. cit.*), and Cyprus (E. Gjerstad, *Swedish Cyprus Expedition*, IV, 2, Stockholm, 1948, pp. 173-174, fig. 38).

In Greek pottery, the adoption of the alabastron shape is said to have followed two distinct courses, one in Corinthian ware, the other in Attic. The Protocorinthian alabastron, according to Payne,¹¹¹ was not derived directly from the Egyptian type, but rather from an Asiatic ("Assyrian") version. From the Protocorinthian there developed in its turn the regular Corinthian alabastron with its bag-like shape and its single loop handle below a widely overhanging lip.¹¹² In Attica, on the other hand, the alabastron shape, which first appears around the middle of the sixth century¹¹³ and is continuously popular to the end of the fifth,¹¹⁴ seems to be copied directly from the Egyptian prototype of alabaster, contemporary versions of which were reaching Greece during this period. The two principal types, those with two lugs and those completely without handles, are both derived from Egyptian alabaster vases,¹¹⁵ and so, probably, is the rare "Columbus" alabastron with its flattened bottom.¹¹⁶ After the fifth century, the last-named type has a kind of successor (with ring foot) in Italiote pottery, where this shape became widely popular.¹¹⁷

The perfumed oil which came in alabastra was much used in fifth-century Greece, as we know not only from numerous references to it in literature¹¹⁸ but also from the many representations in art. Its use, as one would expect, is most closely associated with women¹¹⁹ and funerals.¹²⁰ Usually it was applied with a dipstick or spatula

¹¹¹ H. G. G. Payne, *Necrocorinthia*, Oxford, 1931, pp. 269-270, and note 3. K. F. Johansen (*Les vases sicyoniens*, Paris and Copenhagen, 1923, p. 102) had taken the shape to be "une imitation fidèle de la bourse en cuire serrée en haut et portée par une ficelle."

¹¹² Payne, *op. cit.*, p. 281.

¹¹³ The earliest example, decorated by the Amasis Painter, was found in the Athenian Agora (E. Vanderpool, *Hesperia*, VIII, 1939, pp. 247-256; on the shape, p. 251; *A.B.V.*, p. 155, no. 64). It is slightly Corinthian-looking in the baggy shape of the body and in the width of the lip, but it has two lugs, like most Egyptian alabastra of the time.

¹¹⁴ Cf. Haspels, *A.B.L.*, pp. 100-104; Richter and Milne, *loc. cit.*; *A.R.V.*, Index of Collections, *passim*.

¹¹⁵ E.g., von Bissing, *op. cit.*, pl. 4, showing numerous specimens of both types.

¹¹⁶ Beazley, *C.V.A.*, Oxford, 1, pl. 47, figs. 10, 14, and those mentioned on p. 38. Add one by the Pan Painter, *Arch. Anz.*, 1932, cols. 15-16, fig. 2; *A.R.V.*, p. 367, no. 73. There are also two specimens in Beirut, C. Clairmont, *Berytus*, XI, 1955, p. 129, pl. XXIX, 10-11, nos. 2975 A-2975 B; cf. others cited there. Egyptian: von Bissing, *op. cit.*, pl. 4, no. 18684, and others. Corinthian alabastra with flattened bottom are not uncommon, and this shape was very popular in Italo-Corinthian pottery. One group of Corinthian alabastra is provided with a distinct foot-ring: Payne, *op. cit.*, Cat. Nos. 388, 456A, and others decorated by the same artist.

¹¹⁷ E.g., Apulian, *C.V.A.*, Taranto, I, IV D r, pl. 38, 5; "Gnathia" ware, *C.V.A.*, Lecce, I, IV D s, pl. 6, 3-4; Campanian white-coated, *Mon. Ant.*, XXII, pl. 110, 8, and two examples in the Portland Art Museum (Nos. 26.90 and 26.101). Cf. also Beazley, *V.P.*, p. 75, note 2.

¹¹⁸ Cf. V. Chapot, *Dictionnaire*, V, pp. 591-598, *s.v. Unguentum*; also above, note 103.

¹¹⁹ E.g., on the hydria by the Phiale Painter, Berlin F 2385 (*Annali*, 1844, pl. K; *A.R.V.*, p. 656, no. 62), and on the Meidian lekanides in Naples, Stg. 316 and M. N. 2296 (G. Nicole, *Meidias*, Geneva, 1908, pp. 101-102, figs. 22-23; *A.R.V.*, p. 840, nos. 76-77), and very often.

¹²⁰ See below, note 122.

(σπάθη, σπαθίς; cf. σπαθίζομαι),¹²¹ to the hair or elsewhere on the person, as we can see from representations in vase-painting.¹²² The great number of alabastra which are shown hanging on walls¹²³ or being carried in womens' primping scenes¹²⁴ or on funerary lekythoi¹²⁵ are eloquent witnesses to the popularity of perfumes in Greece at this time.

Alabastra, which in their usual form would not safely stand upright, were kept in a special case called an *alabast(r)otheke*.¹²⁶ This meaning is given for the word by Pollux¹²⁷ and Suidas,¹²⁸ and such boxes are shown in use in red-figured vase-paintings.¹²⁹ The Parthenon inventories list an *alabastotheke* of wood, and another (material not stated) with a silver chain.¹³⁰ Demosthenes,¹³¹ no doubt with reference to wooden examples,¹³² mentions among humble but respectable occupations that of painting alabastothekai.

¹²¹ E.g. Euboulos in Pollux, X, 120; Hesychius, *s.v.* σπαθίζομαι. For the form of these spatulae, cf. the examples in the Metropolitan Museum, from Cyprus: J. L. Myres, *Handbook of the Cesnola Collection*, New York, 1914, p. 492, nos. 4831-4834 (bronze); also G. M. A. Richter, *Metropolitan Museum of Art, Greek, Etruscan and Roman Bronzes*, New York, 1925, nos. 871-873. A glass example: Myres, *op. cit.*, p. 506, no. 506 D.

¹²² E. g., in Attic r.-f., Pfuhl, III, fig. 564 (Group of Polygnotos; *A.R.V.*, p. 695, no. 1); in Etruscan r.-f., Beazley, *E.V.P.*, p. 78, pl. XIX, 2. In some vase-paintings, the tip of the spatula may be seen projecting from the alabastron, as on the Phiale Painter's hydria and on the first Meidian lekanis mentioned above (note 119). In Athens, a fifth-century grave of a woman yielded an alabastron and a silver spatula together (cf. above, note 108).

¹²³ E.g., see the list in Haspels, *A.B.L.*, p. 101, note 2.

¹²⁴ E.g., on the vases mentioned above, in note 122.

¹²⁵ E.g., Pfuhl, III, figs. 529 (Achilles Painter; *A.R.V.*, p. 640, no. 98) and 551 ("Group R"; *A.R.V.*, p. 828, no. 14). Alabastra pictured on painted grave stelai, *Jahrb.*, XXIV, 1909, pp. 56-57 (with references to others), pl. 5. Like the funerary lekythoi, many Attic alabastra are white-ground with polychrome decoration.

¹²⁶ Ἀλαβαστροθήκη: Liddell-Scott-Jones, *s.v.* (on the spelling, cf. above, note 101); E. Saglio, *Dictionnaire*, I, p. 177, figs. 207-208.

¹²⁷ Pollux, X, 121, which contradicts both the *Lexicon's* definition "case for alabaster ornaments," and the statement that Aristophanes (Frag. 548) uses the term in a general sense for "a small box or casket." Nor, indeed, is it at all clear why *alabastrotheke* in *British Museum Papyri*, II, London, 1898, no. 402, *verso*, line 28, should have a more general meaning than the word has elsewhere.

¹²⁸ Suidas, *s.v.*

¹²⁹ E. Saglio, *loc. cit.* Also on the lekanis Naples 2296 (above, note 119). As Saglio says, many other boxes of this shape which do not show their contents may be presumed to contain alabastra. (The reason for wishing to own alabastra in such numbers would be, of course, to have available a variety of scents). An Etruscan example, with tops of alabastra showing (*C.V.A.*, Villa Giulia, I, IV B r, pl. 6, 2; Beazley, *E.V.P.*, p. 83) is shaped like a Praenestine cista.

¹³⁰ *I.G.*, II², 1425, lines 265-266, 270 (see above, note 101). Cf. also *I.G.*, II², 1408, line 8.

¹³¹ Demosthenes, XIX (*Fals. Leg.*), 237. The translation of C. A. Vince and J. H. Vince (Loeb Library edition), giving 'alabaster boxes' for *alabastothekai*, cannot stand.

¹³² Compare Egyptian cosmetic-boxes of wood, such as von Bissing, *op. cit.*, Nachträge, pl. D, 18721a, and (more elaborate) Ranke, *op. cit.*, fig. 301.

At the end of the fifth century B.C., Attic clay alabaster were still being produced,¹³³ but this must also have been a time when imported examples, both of alabaster and of glass, were very popular. We have also, besides the extant alabaster of pottery, stone and glass, references to examples made of gold¹³⁴ and of silver.¹³⁵ It might seem hazardous, therefore, to try to specify the most likely material for the alabastoi of Stele I. On the other hand, the very fact that their material is not stated makes it seem probable that these were "real" alabaster, made of alabaster,¹³⁶ of which those in other materials were frankly imitative. Furthermore, since no mention is made of their contents, it is almost a necessary conclusion that these were empty, not filled with some expensive perfume.¹³⁷

Excellent examples of alabaster made of alabaster have been found in Athens, outside the area of the Agora, in a group of women's graves dated in the third quarter of the fifth century B.C. These agree well with the contemporary representations in vase-paintings.¹³⁸ We may suppose that the *alabastoi* of Stele I were in all probability objects looking much like this fifth-century lot, one example of which is shown on Plate 49, a.¹³⁹ How much these objects may have brought at auction, we have no means of judging.

¹³³ E.g., cf. Richter and Milne, fig. 111. But examples with figure-decoration after about 430 B.C. must be very rare, and I know of none at all in Kertch ware.

¹³⁴ Theokritos, V, 114.

¹³⁵ Apparently of silver in *I.G.*, II², 1539, line 11 (late third century B.C.).

¹³⁶ They were not necessarily imported objects. The local manufacture, in Athens, of alabaster vases is attested by the drill cores of alabaster found on the Pnyx in a context of the fifth-fourth centuries B.C. (*Hesperia*, Supplement VII, 1943, p. 99, no. 11).

¹³⁷ E.g., cf. New Testament, *Ev. Marc.*, XIV, 3, where the alabastron of perfume, according to the grumbling Apostles, could have been sold for 300 denarii. Their objection lay not in the fact that the woman used some perfume on Christ, but that she broke the (glass?) alabastron and wastefully poured out the entire contents. On prices of perfumes, see Chapot, *loc. cit.* (above, note 118); A. C. Johnson in T. Frank, *Economic Survey of Ancient Rome*, II, Baltimore, 1936, p. 473, and Frank, *ibid.*, V, pp. 284-287. At Delos, in the third century B.C., we find *μύρον* selling once at 4 drachmai 3 obols per kotylos (*I.G.*, XI, 2, 287, A, line 54), *μύρον ῥόδιον* at 4 drachmai per kotylos (*ibid.*, 203, line 39).

¹³⁸ Cf. above, notes 119, 122, 125.

¹³⁹ Agora ST 201, of alabaster; cf. also Agora ST 196, *Hesperia*, VI, 1937, p. 363, fig. 24 (also *A.J.A.*, XL, 1936, p. 202, fig. 23) published with vases found in the same burial. Stone alabaster were evidently regarded as very desirable grave-furniture for women, since, in the fourth century B.C., "dummies" of limestone made by turning were deposited in such burials; cf. R. S. Young, *Hesperia*, XX, 1951, p. 115, no. 2, pl. 50, b; p. 118, no. 1, pl. 51, a; p. 121, no. 6; and p. 124, no. 1, pl. 52, b. These are all without lugs, like those found at Olynthos (above, p. 214, note 108), suggesting that these appendages fell out of favor during this fifth-to-fourth century interval. Cf. von Bissing, *op. cit.*, p. xii, who implies that the Egyptian alabaster specimens without handles, i. e. those in the "Late" series, are the latest. Most of those found at Delos (apparently from the "purification" burials on Rheneia; cf. K. A. Rhomaios, *Δελτ.*, 1929, p. 210) have lugs. The example found at Corinth (above, p. 214, note 108), which also has lugs, was found in a Roman context of the first century A.D., but this is not the sort of object that might have been kept in use for a very long time, or might easily have "wandered" from its original context.

V. KETTLES AND BASINS

1. CHALKION THERMANTERION

(I, 96)

The *χαλκίον θερμαντήριον*¹ is a bronze cauldron used for heating water. It appears only once in the Stelai (I, 96), with a price of 25 drachmai 2 obols.² Even for bronze, this price suggests a vessel of considerable size.

In this expression, the two words are both adjectival in origin, but *χαλκίον* appears to be (substantivally) the stronger,³ since this word is often used, alone, to mean a bronze *vessel*; *θερμαντήριον* is then, in this case, its adjective, 'for heating' (sc. water). The substantive form *θερμαντήρ*, meaning a 'heating vessel' or a 'cauldron,' is found only in Pollux,⁴ and it may well be (as in the parallel case of *louter-louterion*; below, pp. 221-222) historically the later form. At least *θερμαντήριον*, though rare, is the only form attested for the classical period.⁵ The word *chalkion* may stand by itself for a bronze object of any kind, and in particular for 'bronze cauldron.'⁶ Hence the idea of a chalkion thermanterion is inherent in some passages in which water is heated in a chalkion.⁷ In temple inventories, too, although the meaning is sometimes hard to fix exactly, the word *χαλκίον* occurs often enough in what appears to be this sense.⁸

¹ Cf. Liddell-Scott-Jones, *s.v.* *χαλκίον, θερμαντήριον*; E. Saglio, *Dictionnaire*, I, p. 822, *s.v.* *Caldarium*.

² In spite of the poor condition of the stone, this reading seems fairly secure.

³ Cf. A. Boeckh, *Staatshaushaltung der Athener*³, II, Berlin, 1886, p. 120, on the adjectival sense of *θερμαντήριον* in what is now *I.G.*, II², 1416, line 2. Boeckh's guess, that Pollux drew the expression from the *Demiooprata* (though based on an incorrect placement of the inscription quoted by him), may not be altogether inconceivable in view of our entry in Stele I, 96 (see also below, p. 221, on *Thermaustis*).

⁴ Pollux, X, 66 and 89.

⁵ I have found it elsewhere only in *I.G.*, II², 1416, line 2; 1641, line 37 (partly restored); 1673, line 38 (Eleusis); *I.G.*, IV, 39, lines 18-19; Pollux, X, 66; and Galen, vol. XIII, 663 (ed. Kühn). Kirchner's reading, [*θερμαντήρ*]ιον *ελεφάντινον*, in *I.G.*, II², 1467, line 23, is hardly credible.

⁶ See Liddell-Scott-Jones, *s.v.*, 1., but with certain reservations. In *I.G.*, I², 395, line 1, and in Xenophon, *Oec.*, III, 19, the word hardly seems to mean anything more specific than a bronze vase. In Aristophanes, Frag. 107 (in Pollux, IX, 69), the text is uncertain. And in Aristophanes, *Ach.*, 1128, the meaning of *χαλκίω* is disputed: 'cauldron' (Liddell-Scott-Jones), 'lamp' (Dindorf), 'mirror' (Starkie), 'shield' (Rogers, Merry); on the whole, the last seems most likely.

⁷ As in Aristophanes, Frag. 330 (in Pollux, IX, 69), τὸ *χαλκίον θερμαίνεται*; and Eupolis (in Athenaeus, III, 123 a), τὸ *χαλκίον θέρμεινε*. In Homer, the generic word *χαλκός*, 'bronze,' is at times used specifically for a bronze cauldron, e.g., *Il.*, XVIII, 439; *Od.*, VIII, 426 and X, 360. On the word in Stele II, line 246, see Pritchett, Part I, p. 261.

⁸ Cf. *I.G.*, II², 1424 a, line 158; 1425, line 363; 1524, line 251; XI, 2, 147, A, lines 32 and 45;

The form of a chalkion thermanterion is not at all clearly definable. We are inclined to think, naturally, of a wide-mouthed kettle, comparable in a general way to a lebes (see above, pp. 199-200), in which enough water could be heated to warm the bath. The price, especially for a second-hand object in unknown condition, is indicative of a vessel of considerable size, but we must be careful not to make it too large. Based on the probable salvage value of the metal alone, this object can hardly, at the uppermost limit, have weighed more than about 41 pounds,⁹ and there are factors which make it certain that this figure is considerably greater than its actual weight.¹⁰

2. THERMAUSTIS

(I, 97, 98)

Immediately following the chalkion thermanterion of Stele I, 96, the word [θέρ]μανστis appears in two entries. The prices are lost. The Liddell-Scott-Jones *Lexicon* has no entry for the word in exactly this form, but it does occur at least once elsewhere, in an Attic inscription.¹¹ The meaning, in both inscriptions, is to be sought in a group of variously spelled but closely interrelated words, to which θέρμανστis must belong. These are:¹² θερμάστιον or θερμάστριον,¹³ θερμαστίς,¹⁴ θέρμαστρις or

161, B, line 124; 164, B, line 13; 199, B, lines 76-77; and often. Sometimes χαλκία stand next to kraters and lebetes in the lists. The costs of repairing *chalkia* (probably bronze vessels) are recorded also, e. g., in *I.G.*, XI, 2, 154, A, lines 32 (4 drachmai 3 obols) and 45 (1 drachme); 165, A, line 99 (1 drachme 3 obols).

⁹ Meritt (*Hesperia*, V, 1936, pp. 371-372) cites *I.G.*, I², 371, lines 3-7 (restored) as direct evidence for the prices of copper and tin around 420 B.C. The price for copper is 35 drachmai per talent, for tin, 230 drachmai per talent. At these prices, the largest possible amount of metal to be had for 25 drachmai 2 obols, ignoring the tin and calculating for pure copper, would be 0.72 talent, or about 41 pounds. The price of copper might have been higher or lower in 414 B.C., but only a wild fluctuation could have made any significant difference here.

¹⁰ Most important is the (unknown) amount of tin in the alloy; for, at its much higher price, the tin would, even in modest rates, bring the price up sharply. Secondly, there is the condition of the object; for, if at all usable or repairable, it would probably have sold for more than its value as scrap metal.

¹¹ *I.G.*, II², *Add. et Corr.*, 1428 a, line 287.

¹² For all but θέρμανστis, see Liddell-Scott-Jones, *s.v.*, where the forms in -αστ- are described (wrongly, we see now) as deviant or erroneous spellings (see also *ibid.*, *s.v.* θερμάστρα, and Herwerden, *Lex. Dial.*, *s.v.* θερμαστ(ρ)ήθεν, where the MSS spellings in -αστ- are similarly criticized). The inscriptions make it clear that these variations are not the fault of the MS traditions, since they existed already in inscriptions of the fifth and fourth centuries B.C.

¹³ Only in Aeneas Tacticus, XVIII, 6, where the MSS give both spellings; conjecturally, in *I.G.*, II², 1425, line 379, θερμάστρι[a? pl.]; and in *Insc. Délos*, 1417, A, II, line 58, with spelling θερμάστριον.

¹⁴ Only in *I.G.*, II², 1514, line 29; 1515, line 21; 1516, line 8. On the meaning, see below, note 25.

θερμαστρίς,¹⁵ θέρμανστis,¹⁶ and θερμανστρίς.¹⁷ The variation in the spelling of these words seems so erratic¹⁸ that there is little prospect of differentiating their meanings according to orthography. In fact, it appears likely that all of the forms in *-is* are intended for the same *word*, of which θερμάστ(ρ)ιον may be understood as the diminutive.

The meanings of the word θέρμα(ν)στ(ρ)is or θερμα(ν)στ(ρ)ίς, as given in the *Lexicon*¹⁹ and derived from literary sources²⁰ through definition or context, are as follows: I. 1 'Tongs,' 'pliers' or 'pincers';²¹ I. 2 'A violent dance, in which the legs are crossed *tong-fashion*.'²² II 'Spike, clamp.'²³ III 'θερμαντήρ, i.e., a cauldron.'²⁴ In the inscriptions, the context is generally less revealing,²⁵ but the θερμαύστεις

¹⁵ *I.G.*, II², 1414, line 42; *Insc. Délos*, 1415, A, I, line 15, and 1417, B, I, line 12; Aristotle, *Mech.*, 854 a, 24; Pollux, X, 66; *et al.*

¹⁶ Only in our inscription and in *I.G.*, II², *Add. et Corr.*, 1428 a, line 287.

¹⁷ Pollux, IV, 102 and 105, X, 66 and 192 (Eupolis); Athenaeus, XIV, 629 d, 630 a ("Cod. A," Liddell-Scott-Jones; but cf. ed. Kaibel "θερμανστρίς. θαυμαστρείς A: corr. Cas[aubon]"). For the spelling, cf. also θερμαύστρα, Kallimachos, *Hymn. Del.*, 144; θερμανστρίξεν, Lucian, *de Salt.*, 34, Kritias, *Frag.* 36 Diels. Compare also θερμαύστ[τ]ρ[α]ς (?), *I.G.*, XI, 2, 144, line 19.

¹⁸ The declension varies, too, for the forms in *-is*: e.g., plural in *-eis* or *-ides* (so Pollux, IV, 102; cf. genitive *-idos*, Aristotle, *Mech.*, 854, a, 24). See also K. Meisterhans, *Grammatik*³, p. 130, 5; W. Petersen and C. D. Buck, *Reverse Index of Greek Nouns and Adjectives*, Chicago, 1944, p. 18.

¹⁹ Liddell-Scott-Jones, *s.v.* θέρμαστρίς or θερμαστρίς.

²⁰ The forms θερμαστίς and θερμανστίς appear only in inscriptions; see above, notes 14, 16. For the omitted second *rho*, however, cf. Aeneas Tacticus, XVIII, 6, where the MSS have both θερμάστριον (H) and θερμάστιον (M).

²¹ Hesychius, *s.v.* θερμαστρίς· σκεύος παραπλήσιον καρκίνω ᾧ χρώνται οἱ χρυσοχοῖ· καὶ ὄρχησις ἔντονος καὶ διάπυρος τάχους ἕνεκα; Aristotle, *Mech.*, 854, a, 24 (Bekker); and, similarly, θερμάστ(ρ)ιον, Aeneas Tacticus, XVIII, 6. Both the restoration and the meaning in *I.G.*, II², 1425, line 379 (above, note 13) are uncertain. Cf. Pritchett, Part II, p. 292.

²² Pollux, IV, 102: ἐκατερίδες δὲ καὶ θερμανστρίδες ἔντονα ὄρχήματα, τὸ μὲν χειρῶν κίνησιν ἀσκοῦν, ἡ δὲ θερμανστρίς ποδητικόν. Cf. also *id.*, IV, 105; Athenaeus, XIV, 630 a; Hesychius (above, note 21); Lucian, *de Salt.*, 34. Is it, however, really certain that the name of the dance is derived from the meaning, 'tongs,' and not from a comparison of its rapid, fiery pace (Hesychius: ὄρχησις ἔντονος καὶ διάπυρος τάχους ἕνεκα) with water bubbling in a cauldron?

²³ Athenaeus *Mechanicus*, 34, 4.

²⁴ Pollux, X, 66: τραπομένη δ' ἐπὶ τὸ πίνειν, ἵνα μὲν τὸ ὕδωρ θερμαίνεται, θερμαντήρες, θερμαστρίς, θέρμανστρίς, χαλκία θερμαντήρια, ἐσχαρίδες, λέβητες, λεβητάρια, ἵππολεβήτια, κτλ. Cf. also *id.*, X, 192 (Eupolis) and Septuagint, *III Kings*, VII, 26 (40) and 31 (45).

²⁵ On θερμάστι[a ? pl.], see above, note 13. For θερμαστίς (above, note 14) the entry, thrice repeated, reads: χιτωνίσκιον καρτὸν παιδείον ἀν[επ]ίγραφον, παρῶν ἔχει θερμ[α]στήν, in lists of garments dedicated to Artemis Brauronia. The sense is obscure; for a suggested interpretation, see E. S. Roberts and E. A. Gardner, *Introduction to Greek Epigraphy*, II, Cambridge, 1905, p. 280 ('a border with dancing figures'). Perhaps, more simply, 'a border with criss-cross ornament'? In *I.G.*, II², 1414, line 42, and in the Delian inscription P. Roussel, *Cultes égyptiennes*, Paris, 1915-1916, p. 220 (= *Insc. Délos*, 1417, A, II, line 58) the meaning, according to the *Lexicon*, 'may be I. 1 or III.' The Delian object, most probably a kettle, was made of iron. In *I.G.*, XI, 2, 144, line 19, the meaning of θερμανστ[τ]ρ[α]ς is uncertain.

of Stele I may best, from their proximity to the chalkion thermanterion,²⁶ be understood as cauldrons, perhaps of a somewhat different kind (smaller?). In the Attic inscription which contains the only other occurrence of this form,²⁷ the text reads *θερμαύστεις* II, ἢ ἐτέρα ἄλυστιν ἔχει; the fact that one of these objects has a chain would better suit a kettle than a pair of tongs. In both these inscriptions, then, *θήρμανοστις* may be defined as 'probably a cauldron of some kind,' but we have no indications as to size or other details of their appearance.

3. LOUTERION

(II, 233-234)

The *λουτ[ήριον]* [λ]ίθ[ιων] follows several entries of stone and pottery *kardopoi* (see below, pp. 239-241). The price is lost, and this badly mutilated line is followed by a lacuna.

The words *λουτήριον* and *λουτήρ*, which are equated in meaning by Pollux²⁸ and Hesychius,²⁹ receive very sketchy treatment in the *Lexicon*.³⁰

The former, *λουτήριον*, seems strange and archaic to Pollux,³¹ who illustrates its use only from fifth and fourth-century writers.³² The word does occur, however, in inscriptions ranging from the fourth to the second century B.C.,³³ and in Pausanias' account of the painting by Polygnotos in the Lesche of the Knidians at Delphi.³⁴ The word *λουτήρ*, on the other hand, in spite of its being etymologically the more primitive

²⁶ So also in Pollux, X, 66. Although Pollux does not say so, it seems at least possible that he was drawing here from the *Demioprata* (cf. above, p. 218 note 3, on Chalkion thermanterion).

²⁷ Cf. above, note 16; note that the particular spelling is likely to be significant.

²⁸ Pollux, VII, 167; X, 46; and cf. IV, 183 and X, 78.

²⁹ Hesychius, *s.v.* *λουτήρια*: *λουτήρα(ς)*.

³⁰ Liddell-Scott-Jones, *s.vv.* *λουτήρ*, *λουτήριον*. Defined as a 'washing or bathing-tub'; no references to Pollux or Pausanias; no distinction of meanings between or within these words. Better, Stephanus, *Thes.*, *s.vv.*

³¹ Note especially the hesitant language of X, 46 and 79; and cf. VII, 167: *Αισχύλος δ' ἂν εἰοῖκοι τὰ βαλανεῖα λουτήρια λέγειν*.

³² Quoting Aeschylus in VII, 167 and in X, 46, with the meaning surely misconstrued; Anaxilas in VII, 167; Antiphanes in IV, 83 and X, 46.

³³ E.g., *I.G.*, II², 1425, line 371; *Add. et Corr.*, 1424 a, line 273; cf. *I.G.*, IV, 39, line 18. *χαλκίον ἐγλουτήριον* (Aegina) and *Délos*, XI, p. 123, line 81, *λουτήριον λίθινον*.

³⁴ Pausanias, X, 26, 9. Other occurrences of the word are less helpful toward defining it. In Epigenes (in Athenaeus, XI, 486 c), where the *louterion* is classed as a kind of cup, we must take this application of the word to be derivative, designating a cup shaped like a louterion; or perhaps simply as comic hyperbole. In *Tab. Heracl.*, 1, line 184 (*I.G.*, XIV, 645; Collitz, *G.D.I.*, III:2, 4629; R. Dareste, B. Haussoulier, and S. Reinach, *Receuil des inscr. jurid. grecques*, Paris, 1891-98, pp. 193 ff., XII), the word *λωτήριον* refers to a family emblem, and gives no help toward defining the object. Cf. also *British Museum Papyri*, II, no. 193, line 211; and on *C.I.G.*, III, 3847, b, see below, note 36.

form, is not attested before the Hellenistic period,³⁵ and even there it develops a new, specialized meaning³⁶ not originally applied to *λουτήριον*. It seems probable, therefore, that *λουτήριον* was the form in regular use during the fifth and fourth centuries B.C.³⁷

Even in the fragmentary state of the text, *λουτήριον* may be taken as a safe restoration. We have seen that *λουτήρ* is unlikely. Furthermore, we are told by Pollux (X, 46) that the *Demio-prata* listed a *λουτήριον καὶ ὑπόστατον*. Even if this is not the exact source to which his reference applies, his citation bears witness to the existence, somewhere in the Stelai, of this form of the word.³⁸ His mention, from the *Demio-prata*, of a support or base (*ὑπόστατον*) in conjunction with the louterion is repeated in another passage (X, 78), and the two words appear frequently conjoined in other places.³⁹ The form *ὑπόστατον* is not, in fact, extant anywhere in the Stelai, and it is not quite what we should expect (*ὑποσταθμόν* is used, in conjunction with *kardopoi*; see below, pp. 239-240),⁴⁰ but Pollux may have been quoting (directly or indirectly) from a passage now lost to us, conceivably the first line in the lacuna which follows our entry.⁴¹

A louterion, in any case, is something supported by a stand or pedestal, used for

³⁵ Kallixenos, in Athenaeus, V, 199 c; Moschio, in Athenaeus, V, 207 f; Septuagint, *Exodus*, XXX, 18, *et al.*; and in many inscriptions mostly of Roman date (see below, note 36).

³⁶ Cf. Liddell-Scott-Jones, *Addenda et Corrigenda*, p. 2088: "s.v. *λουτήρ*, add: used for oil, Dittenberger, *O.G.I.*, 479, 10 (Dorylaeum)." Indeed, this is by far the commonest meaning of *λουτήρ* in the inscriptions, including two which are erroneously cited in the text under the main heading ('washing or bathing-tub'): *I.G.R.R.*, IV, 454, line 10 (Pergamon) *ἀλείφοντα ἐν λουτήρων . . . ἐκ τῶν ἰδίων*, and *S.E.G.*, IV, 263, line 10 (Stratonicea) *τιθέντα τὸ ἔλαιον ἐλκουστὸν ἐν λουτ[ή]ρων*. Oil is also supplied in *louteres*, usually at the expense of the gymnasiarch, in the following inscriptions: *C.I.G.*, II, 3613, lines 12-13 and 3617, lines 11-12 (Assos); *Ath. Mitt.*, XVI, 1891, p. 145 (Kyzikos); *I.G.*, XII, 1, 382, line 6 (Lindos); and *I.G.R.R.*, IV, 555 (Ancyra). The word *λουτήριον* is used in the same sense in *C.I.G.*, III, 3847, b. Many other inscriptions express the same idea in different words; see Dittenberger, *O.G.I.*, 479, line 10 (Vol. II, pp. 83-84, notes 10-11), cited above, at the beginning of this note (the same inscription, *I.G.R.R.*, IV, 522). This same duty of gymnasiarchs is also commemorated on coins showing a picture of the basin; cf. Anson, *Numismata Graeca*, 358-359 (Syedra, Cilicia), 360 (Anazarbus, Cilicia: gymnasiarch beside basin), and perhaps 357 (Pergamon: here, rather, a water basin?).

³⁷ Compare *θερμαντήρ-θερμαντήριον* (above, p. 218).

³⁸ In two places he makes explicit acknowledgment of this source: X, 46 and 79.

³⁹ E. g., in *I.G.*, II², 1425, line 371; *Add. et Corr.*, 1424 a, line 273; and cf. Pausanias, X, 26, 9. The word *ὑπόστατον* is often linked with *περιρραντήριον* (on which see further below, p. 225): e.g., *I.G.*, II², 1544, line 66; 1639, line 6; *I.G.*, XI, 2, 161, B, line 126. For kraters with *ὑπόστατα*, cf. *I.G.*, II², 1640, lines 19-20, 24; *et al.*

⁴⁰ Pollux says (X, 78) that *ὑπόστατον* is the term generally used in the *Demio-prata* for a support of any kind. But, although this word is found often elsewhere in Attic inscriptions, the only form that is extant in the Attic Stelai is *ὑποσταθμόν* (II, lines 32-34, 35-37).

⁴¹ It is also possible that Pollux, or his source, misquoted from the Stelai. On misquotations of the Stelai in Pollux, see A. Pippin, Pritchett, Part II, pp. 324-327.

bathing or washing;⁴² here, it is made of stone. It is generally assumed,⁴³ no doubt rightly, that this is the correct name for the familiar basin-on-a-pedestal (or 'laver,' as it is often called) which appears with great frequency in red-figured vase-paintings of the fifth and fourth centuries B.C., especially in scenes of washing and bathing.⁴⁴ Usually women or athletes are present, often merely standing by,⁴⁵ but sometimes washing,⁴⁶ or bathing,⁴⁷ about to bathe,⁴⁸ or just finished with their bath.⁴⁹ Women also wash their hair near by, with water that is dipped out and poured over their heads.⁵⁰ The term 'bathing,' however, requires some qualification. In its use, the louterion stands between the shower-bath at the fountain (shown often in later black-figure vase-paintings)⁵¹ and the regular tub-bath in which the bather sits inside the tub (see *Pyelos*, below, pp. 252-254).⁵² In other words, the louterion served mainly

⁴² See especially Pollux, *loc. cit.*, above, note 28.

⁴³ E.g., Kenner, *Jahresh.*, XXIX, 1935, pp. 137-139; P. Hartwig, *Die griechischen Meisterschalen*, Stuttgart, 1893, p. 599; cf. Pottier, *Dictionnaire*, III, p. 1317, *s.v.* *Louter*, *Louterion*. *Louter*, for the reasons given, is less apt; and *loutron* (sometimes misapplied by modern writers) is wholly unacceptable (see Liddell-Scott-Jones, *s.v.*). On *perirhanterion*, see below, pp. 225-226.

⁴⁴ These are very numerous, and a complete list would run into the hundreds. Samplings are given in Hartwig, *Meisterschalen*, p. 599, note 1; Sudhoff, *Aus dem antiken Badewesen*, I, Berlin, 1910; *Délos*, XVIII, Paris, 1938, p. 75, note 4; *Olynthus*, XII, pp. 246-247, note 10. In this part of the present section I have been helped much by the unpublished M. A. Thesis of Mr. Allan Dean McKenzie, *Representations of the Louterion in Attic Vase-Paintings*, University of California, Berkeley, 1955.

⁴⁵ E.g., *A.R.V.*, p. 847, no. 14 (Nikias Painter); *C.V.A.*, Lecce, I, IV D r, pl. 2, 3 (Apulian); etc.

⁴⁶ Figures are most often shown with both hands plunged into the basin, e.g., *A.R.V.*, p. 76, no. 1 (Pedieus Painter); p. 261, no. 25 (Briseis Painter); p. 290, no. 173 (Douris).

⁴⁷ In these scenes, washing and bathing are of course much the same thing. Where nude female figures are shown, it might generally be argued that they are bathing, e.g., on the Troilos Painter's stamnos in Florence, *A.R.V.*, p. 190, no. 8; of males, not necessarily so.

⁴⁸ E.g. (to cite only a few), *A.R.V.*, p. 126, no. 69 (Kleophrades Painter); p. 549, nos. 1 and 3, p. 550, no. 18, and others (Boot Painter); p. 695, no. 1 (Group of Polygnotos); p. 745, nos. 62-65 (Washing Painter); and on many Apulian vases. On a kylix in Boston by the Euegides Painter (*A.R.V.*, p. 64, no. 92), a boy dips hot water (?) from a low bowl (a chalkion thermanterion? cf. above, pp. 218-219; or a podanipter), meanwhile testing with his free right hand the temperature of the water in the louterion.

⁴⁹ Such scenes are hard to separate from the "stand-by" scenes already noted (above, note 45); but cf. e.g. Lenormant and de Witte, IV, pl. 30 (Apulian).

⁵⁰ E.g., Lenormant and de Witte, IV, pl. 21. Cf. the Etruscan mirror, Bossert and Zschietzschmann, fig. 138.

⁵¹ E.g., on the b.-f. hydria in Leyden by the Antimenes Painter (*Development*, pl. 38, 1-2; *A.B.V.*, p. 266, no. 1) and on Berlin 1843; K. Neugebauer, *Führer durch das Antiquarium*, II, *Vasen*, Berlin, 1932, pl. 34; Bossert and Zschietzschmann, fig. 137; and on the b.-f. olpe, Lenormant and de Witte, IV, pl. 17.

⁵² Sometimes the bather is seen actually bathing inside the basin, e.g., on the Apulian hydria, *C.V.A.*, Syracuse, I, IV E, pl. 11, 1; or seated on the edge of the louterion, as in *C.V.A.*, Florence, I, III I, pl. E, 5 (Attic); but these cases are exceptional. Erotes also often stand (or hover) on

for a 'sponge-bath,' and indeed there are scenes in which the bather is shown using the sponge near a louterion.⁵³

In the shape of these louteria shown on vases, there is great variety of detail, but all examples conform more or less closely to the same general pattern: a broad, open basin supported by a columnar pedestal with spreading foot, sometimes mounted on a rectangular plinth, in short, something very much like our bird-bath.⁵⁴ The basin may be deep or shallow, the shaft fat or thin, the foot narrow or spreading, in many degrees and combinations. Ornamentation may be lavish, sparse, or altogether lacking. The cylindrical form of the shaft often prompts "columnar" ornamentation: vertical fluting, horizontal moldings, scrolls suggestive of Ionic capitals. As yet, no satisfactory scheme of typological sequence has been worked out for the louteria of the vase-paintings, although something of the kind has been attempted for the actual extant specimens.⁵⁵

The louteria of the vase-paintings usually look as if they were made of stone, like the one listed in our inscription. Many stone basins of this kind have in fact been found.⁵⁶ There is little doubt that those found in private dwellings, as at Olynthos, Delos, and elsewhere, should be called louteria. For those found in temple areas,⁵⁷ it

the rims of the basins in South Italian r.-f., e.g., *C.V.A.*, Petit-Palais, pl. 37, no. 333; A. D. Trendall, *Paestan Pottery*, London, 1936, pl. 13, a, but this is not quite the same as bathing. On the Attic fourth-century pelike, Leningrad 15,449, Schefold, *Untersuch.* no. 494; H. Metzger, *Les représentations dans la céramique attique du IV^e siècle*, Paris, 1951, p. 362, pl. 43, right, the Eros seems actually to be resting inside the basin.

⁵³ Lenormant and de Witte, *op. cit.*, IV, pl. 21. The sponge is of course present in many bathing scenes, and it was a regular part of an athlete's equipment, together with the aryballos and the strigil.

⁵⁴ The birds used them, too, e.g., *A.R.V.*, p. 745, no. 62 (Washing Painter); and often, especially in Apulian r.-f.

⁵⁵ See especially E. Pernice, *Hellenistische Kunst in Pompeji*, V, Berlin, 1932, pp. 38-54. But, since there are relatively few well preserved examples in stone that can be dated before the end of the fifth century B.C., any conscientious attempt to deal with "development" in the sixth and fifth centuries would have to lean heavily on the vase-paintings for evidence. The great variety of forms found here in the fifth century indicates that this classification would not be a simple task. A good beginning has been made by McKenzie (see above, note 44), but much more needs to be done.

⁵⁶ Cf. *Olynthus*, XII, pp. 246-247; *Délos*, XVIII, 1938, pp. 75-76; H. A. Thompson, *Hesperia*, Suppl. IV, 1940, pp. 142-143; A. E. Raubitschek, *Dedications from the Athenian Akropolis*, Cambridge, Mass., 1949, pp. 370-412; and the references cited in these works. Something should be added to the statement that few two-piece louteria were found at Delos (*loc. cit.*). Actually, there are many pedestals, found apart from religious areas, which look exactly like those shown in the vase-paintings. These differ from the Olynthian specimens in one important feature; the shafts have, in their tops, square mortises of the expected kind. Fragments of basins are also fairly common, and two or three nearly complete examples are still lying in the houses in which they were found. One complete pedestaled basin, in the Museum, has a very shallow bowl, like some which appear in the vase-paintings, tenon under basin, matching mortise in top of pedestal. The basin rests very firmly in place. Thus the Delian louteria, though primarily of Hellenistic date, clearly follow the established tradition in their form.

⁵⁷ E.g., at Epidauros, cf. Blinkenberg, *Ath. Mitt.*, XXIII, 1898, pp. 14-23; at Aegina, A.

has been argued that the correct name should be *perirrhanterion*, or 'lustral basin';⁵⁸ but denied, too, on the ground that the basins found in sacred precincts are far too numerous for all of them to have served so specialized a purpose.⁵⁹ Indeed it would seem, from the complete impossibility of distinguishing the one from the other on the basis of shape, that louterion and perirrhanterion may often be exactly the same kind of basin, differentiated only by their use. Some (though surely not all) of the basins found in temple areas could have been used as perirrhantaria,⁶⁰ and the basins shown in vase-paintings beside a deity or near the entrance to a temple might have some claim to this designation.⁶¹ But, when actual specimens are concerned, apart from a few unusually splendid pieces, the form of the object does not clearly determine whether it should be called louterion or perirrhanterion. The problem applies also to basins of terracotta having a louterion-like shape, to which the name perirrhanterion must sometimes apply.⁶²

Some of these terracotta louteria have been found in circumstances which

Furtwängler, *Aegina*, Munich, 1906, pp. 164-166, pls. 65-67; at Athens (Acropolis) Raubitschek, *loc. cit.*

⁵⁸ Cf. Liddell-Scott-Jones, *s.v.* *περιρραντήριον* (use with caution); Ziehen, *R.E.*, XIX, 1937, cols. 856-857, *s.v.* *περιρραντήριον* (where the literary sources are better handled than the archaeological evidence); Raubitschek, *op. cit.*, p. 370; H. von Gaertringen, *I.G.*, I², p. 221, on nos. 739-759.

⁵⁹ Blinkenberg, *op. cit.*, p. 16; H. Kenner, *Jahresh.* XXIX, 1935, pp. 138-139, No. 6. Blinkenberg objects also that the heavy one-piece specimens found in considerable number at Epidauros (with dedicatory inscriptions) could not have been fine enough to serve as perirrhantaria.

⁶⁰ Perirrhantaria are mentioned fairly often in temple inventories, e.g., *I.G.*, II², 1544, line 66; 1639, line 6; 1640, line 26; *I.G.*, XI, 2, 199, B, line 78. They were *dedicated* objects; cf. Herodotos, I, 51; *I.G.*, XII, 8, 365; Fränkel, *Inschriften von Pergamon*, no. 336, line 7; probably also *I.G.*, XI, 2, 161, B, line 126. Dedications, too, have a way of multiplying the number of available objects beyond any conceivable need. In such a case, even the superfluous examples, if intended for lustral basins, would still no doubt have been called perirrhantaria. But we have no way of knowing in which instances that was true; louteria also are found in temple inventories.

⁶¹ Cf. *A.R.V.*, p. 443, no. 5 ("Apollo at laver"); F.-R., text, III, p. 35 (Hera; Apulian); and the Paestan Phlyax krater, F.-R., pl. 110. Perhaps also meant for perirrhantaria are the basins which stand near buildings and are dipped into by passing persons about to enter the buildings (temples?), e.g., *A.R.V.*, p. 375, no. 30 (Paris Gigantomachy Painter; Bulas, in *C.V.A.*, calls the building a "Gymnasium"); *A.R.V.*, p. 368, no. 92 (Pan Painter). Compare also the heavily robed figure with hand over a basin, *A.R.V.*, p. 113, no. 8 (Painter of Berlin 2268), where no building is shown, but the figure could hardly be washing or bathing; and the b.-f. fragment, B. Graef, *Die antiken Vasen von der Akropolis zu Athen*, I, Berlin, 1909, pl. 54, 887, where a hand holds a branch over the basin. Kenner, *Jahresh.*, XXIX, 1935, pp. 142-143, says that the basins on many South Italian vases which appear beside naiskoi, in which a figure stands, record a cult of the dead in which the louterion figures significantly, citing as evidence the widespread practice in South Italy of using louteria as grave markers.

⁶² Cf. S. Weinberg, *Corinth*, VII, i, *The Geometric and Orientalizing Pottery*, Cambridge, Mass., 1943, p. 50, pl. 25, no. 180 (pedestal). Weinberg identifies this example as a perirrhanterion, and cites a number of parallels in support of this proposal, but his language is suitably cautious. On the other hand, some that were found in the Athenian Agora certainly were used as perirrhantaria.

guarantee their use as wash-basins,⁶³ although of course such pedestaled basins must have been used also for a variety of purposes, both sacred and profane.⁶⁴ Examples of louteria are also known to have existed in bronze,⁶⁵ and in combinations of different materials, formed in a way which has suggested an originally haphazard association of a basin and a stand intended for distinct uses.⁶⁶ This situation raises a number of questions concerning the origin of the louterion.

Blinkenberg⁶⁷ has in fact advanced the theory that the classic form of the louterion came into existence through the arbitrary association of two originally distinct elements, and the cases of the tripod lebes and the lebes with pedestal stand come at once to mind as being perhaps comparable. Nevertheless, the so-called perirrhanteria of terracotta, which were made in one piece, go back at least to the seventh century B.C.,⁶⁸ leaving hardly any room for priority of Greek examples in stone.⁶⁹ There is, however, another consideration which might offer some help. It seems highly probable that the louterion, the use of which as a wash-basin is well authenticated from the late sixth century onward, had a logical predecessor in the splash-basins which are often represented under fountain-spouts in black-figure vase-paintings.⁷⁰

⁶³ Especially those found at Olynthos, *Olynthus*, VIII, p. 317 and note 1, p. 320; XII, p. 55; XIII, p. 434.

⁶⁴ E.g., M. Z. Pease, *Hesperia*, VI, 1937, p. 297: 'kneading troughs'; but see above, note 62.

⁶⁵ *I.G.*, II², *Add. et Corr.*, 1424, a, line 273; cf. *I.G.*, IV, 39, line 18. Cf. the perirrhanteria of gold and silver (Herodotos, I, 51) and of bronze (*I.G.*, XI, 2, 161, B, line 26 and 199, B, line 78; perhaps also *I.G.*, II², 1640, line 26); one example, listed in *I.G.*, II², 1639, line 6, had an iron pedestal.

⁶⁶ Pausanias, IX, 26, 9 (bronze basin on a stone pedestal); and see end of note 39. The louterion published by Raubitschek, *op. cit.*, pp. 400 f., no. 372, is a one-piece object, the basin part roughly picked out, perhaps, as Raubitschek suggests, to accommodate a bronze basin. In the vase-paintings, some of the bowls appear to be quite separate from their stands, e.g., on the Apulian vases *C.V.A.*, Lecce, II, IV Dr, pl. 12,8; *C.V.A.*, Taranto, I, IV Br, pl. 6, 1; Lenormant and de Witte, IV, pl. 15.

⁶⁷ Blinkenberg, *Ath. Mitt.*, XXIII, 1898, p. 16.

⁶⁸ See above, note 62.

⁶⁹ Raubitschek, *op. cit.*, p. 373, supposes that the elaborate type with caryatid figures supporting the basin must have had an eastern origin. So also do Kenner, *Jahresh.*, XXIX, 1935, pp. 140 f., and F. Matz, *Geschichte der griechischen Kunst*, I, Frankfurt am Main, 1950, p. 382 and p. 526, note 444. The finest and largest of these is the seventh-century example recently found at the Isthmian Sanctuary of Poseidon (Broneer, *Hesperia*, XXVI, 1957, pp. 24-27, pls. 10 and 11, a). This type is of course a special case, in which the supporting figures are mainly in question. On the other hand, there is nothing inherently improbable in the thought that the basic form of the louterion may be of Asiatic origin. Cf., e.g., the pedestaled bowls from Level III (third millennium B.C.?) at Alaca Hüyük, *Arch. Anz.*, 1941, col. 265, fig. 4; and there must be many others.

⁷⁰ They appear most often in scenes of the ambush of Troilos (though not present on the François Vase). A few examples should suffice to show, despite their wide variety of details, the essential similarity of these objects. CORINTHIAN: bottle by Timonidas, Pfuhl, III, fig. 174. ATTIC: Siana kylix in New York by the "C" Painter, *C.V.A.*, Metropolitan Museum, II, pl. 2,2 (*A.B.V.*, p. 51, no. 4); Acropolis fragment, Graef, I, pl. 85, no. 2115; b-f. hydria, New York 4.5.11.2 (*A.B.V.*, p. 85, no. 2, Painter of London B 76, and p. 683); two ovoid neck-amphoras, one

These objects, though of somewhat varied form, have essentially the shape of a louterion. The change in bathing habits which came about with an increase in the density of population may be reflected in the fact that representations of shower-bathing in a fountain house seem not to endure beyond the archaic period.⁷¹ This fact may indicate a change in custom which would naturally have led to the shifting of the basins from the fountain house to the well-side, where they are shown in a number of red-figure vase-paintings.⁷² In this way, the louteria of the late archaic and subsequent periods might be explained as descendants of the fountain splash-basins. This proposal still does not solve the problem of ultimate origin, but it does bring into account a considerable amount of early evidence for the form. Some, at least, of the splash-basins would tend to support Blinkenberg's theory of originally separate basin and stand for the louterion.

The idea of separateness, or two-piece construction, also has direct relevance to the entry in our inscription. Separateness of basin and pedestal is in fact either stated or implied in most of the sources which mention louteria,⁷³ and most extant examples of stone louteria were actually made in two pieces, a basin provided with a tenon underneath and a pedestal with a mortise in the top of the shaft.⁷⁴ Sometimes the positions of mortise and tenon were reversed,⁷⁵ but this must have made the basin more fragile. In most cases, the two parts were no doubt simply fitted together, but

in Munich (E. Buschor, *Griechische Vasen*, Munich, 1940, p. 107, fig. 24; *A.B.V.*, p. 95, no. 4, "Tyrrhenian Group"), the other in the British Museum (No. 97.7-21.2, *C.V.A.*, III, III He, pl. 35, 1). CHALCIDIAN: a neck-amphora in Rome, Villa Giulia (*Studi Etruschi*, XXIV, 1955-56, p. 147, pl. IV, a); cf. also (not Troilos), Phineus kylix (Rumpf, *Chalkidische Vasen*, pls. 40-42). ETRUSCAN wall-painting: Tomba dei Tori (Giglioli, *L'arte etrusca*, pl. 107).

⁷¹ See above, note 51.

⁷² See above, p. 187 and notes 5 and 6. Even where the well is not shown, its nearness may easily be inferred. Cf. Caskey and Beazley, II, p. 35.

⁷³ Cf. above, p. 222.

⁷⁴ Tenons are regularly present on the basins found at Olynthos (*Olynthus*, VIII, p. 319) and at Athens (Raubitschek, *op. cit.*, p. 373); and often elsewhere. On the louteria at Delos, see above, note 56. One-piece examples were harder to carve, and were wasteful of material. Where they do occur (as at Epidauros, Blinkenberg, *Ath. Mitt.*, XXIII, 1898, pp. 14-23), they are heavier and cruder than the usual kind. It appears likely that the big monolithic basins which were sometimes found near well-heads in private houses at Delos were mortars, not louteria as Déonna suggests (*Délos*, XVIII, p. 88, pl. 32, nos. 229, 230, 232). These are roughly worked outside, and worn smooth inside in a deep conical hollow. Their form agrees better with that of other objects identified as mortars (cf. below, pp. 236-238).

⁷⁵ Mortised basin: Raubitschek, *op. cit.*, p. 406, no. 308. This case, though exceptional, may explain how the numerous pedestals without mortises which were found at Olynthos were fitted into their basins. The basin may simply have had a shallow mortise adapted to the form and size of the pedestal shaft at its top, though admittedly no such basins have been found at Olynthos. In actual specimens of pedestals, however, the area of the shaft's top seems altogether inadequate to have supported with any security a basin that merely rested flat on it. Those found elsewhere, e.g. at Delos, regularly have mortised pedestals.

sometimes the joint was made more secure by filling it with molten lead.⁷⁶ In any event, two-piece construction was the rule, and this fact, together with Pollux's⁷⁷ ascription to the *Demioprata* of a *louterion kai hypostaton*, must lead us to ask whether the entry *louterion lithinon* is meant to include both parts of the object, or whether the support was listed and sold separately. The analogy of the *kardopoi*,⁷⁸ which were probably similar in form and construction, and for which the bowl and stand were listed and sold as distinct items, suggests that the meaning of this entry, too,—and of Pollux's statement—is that the *louterion* and its stand were separately listed.⁷⁹

For the form of our *louterion*, we may perhaps suppose something like the handsome stone example found at Olynthos, comfortably high and broad, with its fluted shaft and its painted decoration on the mouldings.⁸⁰

It is true that in the vase-paintings, where representations of *louteria* abound,⁸¹ the archaic and early classical representations show, in general, the most impressive shapes.⁸² Those of the later fifth century tend to be somewhat lower, and simpler.⁸³ On the other hand, there seems to be a return to the taller and more elegant forms in the fourth century, in both Attic and Italiote red-figure.⁸⁴ Furthermore the types of *louteria* represented in vase-paintings may more often be attributable to mere fashion of rendering on the part of the vase-painters than to actual changes in the form of the object. The persistence of the taller, elegant form in actual *louteria*, as at Olynthos, Delos, and Pompeii, also gives us some encouragement to believe that this finer type persisted through the last decades of the fifth century. Our text may still, therefore, refer to one of these large, carefully worked *louteria*.

⁷⁶ A channel for pouring the lead was cut into the basin; see Raubitschek, *op. cit.*, p. 406, no. 378; and *Délos*, XI, p. 121, fig. 85.

⁷⁷ Pollux, X, 46.

⁷⁸ See below, pp. 239-241.

⁷⁹ On the possible relationship of this entry to Pollux, X, 46, see above, p. 222. Pedestals also were sometimes used separately for seats (probably *ad hoc*); cf. Beazley, *E.V.P.*, pp. 67, 135.

⁸⁰ *Olynthus*, XII, pp. 246-247, pls. 218-220 (the last showing the painted details in color); also *A.J.A.*, XLIII, 1939, pp. 60-61, fig. 14; top diam. 0.90 m.; H. not stated, but looks to be about 0.75 m., or close to 30 inches.

⁸¹ See above, note 44.

⁸² Cf., e.g., the very elegant specimen with "Ionic" shaft, *A.R.V.*, p. 70 β, (E. Gerhard, *Auserlesene Vasenbilder*, Berlin, 1840-58, pl. 272, 5-6); or *A.R.V.*, p. 290, no. 173 (Douris; "Doric" shaft), for the typically refined appearance of most archaic examples. These continue into the early classical period; but another common type, already seen in the work of the Briseis Painter (*A.R.V.*, p. 268, no. 25) and the Kleophrades Painter (*A.R.V.*, p. 126, no. 69), but continuing into that of the Boot Painter (e.g., *A.R.V.*, p. 549, no. 3), the Deepdene Painter (*A.R.V.*, p. 327, no. 21), and others, is very heavy and deep-bowled by contrast.

⁸³ E.g., in *A.R.V.*, p. 743, nos. 62-64 (Washing Painter); *A.R.V.*, p. 840, no. 85 (Manner of the Meidias Painter).

⁸⁴ E.g., Attic: Schefold, *Untersuch.*, p. 3, no. 10 (Bossert and Zschietzschmann, fig. 143, top), and fig. 39, no. 484; *C.V.A.*, Robinson Collection 3, pls. 14 and 15, 1; Italiote: *C.V.A.*, Taranto 2, IV Dr, pls. 28, 29,3; Lenormant and de Witte, IV, pls. 13, 19, etc.

4. ESCHARA

(III, 9)

The word *ἔσχαρα*⁸⁵ first appears in Homer, where it usually refers to the domestic hearth, in a sense equivalent to *ἑστία*.⁸⁶ In classical times, however, the *eschara* was a portable coal-pan or brazier, used both to provide warmth and for cooking;⁸⁷ also, and perhaps more often, it signifies a sacrificial fire or hearth, and, by extension, an altar.⁸⁸ In the one entry in the Stelai, *ἔσχα[ρα]* (III, line 9), the end of the word is lost, hence the number is undetermined; the total price is two obols. Since this is presumably a portable, secular object, the meaning 'brazier' seems certain here. In view of the price (two obols or less), the material must be terracotta.

Braziers have been found in all parts of the Mediterranean world, dating from the Bronze Age onward.⁸⁹ Those of the fifth century B.C. are well known from specimens found in the Athenian Agora and at Corinth.⁹⁰ Fourth-century examples, similar to certain of these, are best represented by the finds at Olynthos.⁹¹ Hellenistic specimens, of various (and usually more elaborate) types, were widely distributed. One favorite kind, which is found at many Greek sites, is believed to have emanated mainly from a single place of manufacture.⁹² In the Roman period, both cooking

⁸⁵ *Ἐσχαρά*: Liddell-Scott-Jones, *s.v.* *ἔσχαρα*, *ἔσχαρίς*, *ἔσχαριον*, *ἔσχαρίδιον*; P. Gachon, *Dictionnaire*, II, pp. 1194-1196, *s.v.* *Focus*; Reisch, *R.E.*, VI, 1909, cols. 614-617, *s.v.* *Eschara*.

⁸⁶ Cf. Reisch, *loc. cit.*; Hesychius, *s.v.*

⁸⁷ E.g., Aristophanes, *Ach.*, 888, and *Vesp.*, 938.

⁸⁸ On this meaning, see especially *Olynthus*, XII, pp. 201-202, note 57, p. 459, and the references there cited.

⁸⁹ Bronze Age braziers exist in a variety of forms, no doubt indicative of various uses. There is no clear line of continuity from any of these types to those of historic Greece, but it can be assumed that the production and use of objects having the same or a similar purpose was unbroken.

⁹⁰ Cf. C. Boulter, *Hesperia*, XXII, 1953, pp. 96-97, pl. 36, nos. 121-124, and other braziers there mentioned.

⁹¹ See especially *Olynthus*, XIII, pp. 407, 411, nos. 1023-1024, pl. 247 (for no. 1024 also *Olynthus*, XII, pp. 4-5, pl. 4, 1). For the fine bronze brazier of similar shape which was found at Olynthos, cf. *Olynthus*, X, pp. 181-182, pls. 37-38, no. 570 (also *Olynthus*, VIII, p. 186, pls. 52, 1 and 102, 2). Another example, found at Pella and published in *Πρακτικά*, 1914, pp. 144 f., fig. 11, is smaller and less well preserved. The metal *escharai* which are listed in temple inventories were, to judge from the descriptive adjectives sometimes applied to them, of this "open-pan" type; cf. *I.G.*, II², 1416, line 8 (bronze); XI, 2, 161, B, line 129 (*ἔσχαρα σιδηρά*); *ibid.*, line 124 (*ἔσχαρα πυρκαϊός* repeated in later lists in the series) and *ibid.*, line 17 (*ἔσχαρίδιον ὑπόστατον ἔχον*); etc.

⁹² Examples of this particular Hellenistic type are common in the Athenian Agora; cf. H. A. Thompson, *Hesperia*, III, 1934, pp. 391-392, figs. 79-80, no. D 76; pp. 420-421, figs. 108-109, no. E 150; and pp. 466-468. For the type, see also *Jahrb.*, V, 1890, pp. 118-141; *Arch. Anz.*, 1890, cols. 166-167 (Conze); VI, 1891, cols. 110-124 (Furtwängler); XII, 1897, cols. 160-167 (Winter); *Röm. Mitt.*, X, 1895, pp. 38-46 (Mau); *B.C.H.*, XXIX, 1905, pp. 373-404 (Mayence); and (a different kind) *B.C.H.*, LVIII, 1934, pp. 203-217 (Bakalakis).

and heating braziers, known chiefly from bronze specimens, achieved an even greater variety and degree of elaboration.⁹⁸

Fifth-century terracotta braziers, which are our chief concern here, occur in two principal types. The first (Pl. 49, c)⁹⁴ is the so-called "shallow brazier," designed mainly for broiling or grilling, as is shown by the frequent presence of spit-racks, and by the flat, unperforated bowl.⁹⁵ The other is the "deep brazier" (Pl. 49, b),⁹⁶ in the form of a ventilated fire box, designed to accommodate a pot which was placed on top.⁹⁷ There are also related, but often larger, objects, such as the "barrel-shaped cooking stand,"⁹⁸ which were used for cookery, but which, because they used brush-wood as fuel, rather than charcoal as the ancient sources generally seem to demand,⁹⁹ do not qualify properly as *escharai*.¹⁰⁰

Either of the two kinds of brazier, however, could appropriately be called an *ἔσχάρα*, and both may well have been so named. One is inclined to favor the "shallow brazier" (known not only in Athens and at Corinth in the fifth century, but also represented by excellent examples in fourth-century Olynthos),¹⁰¹ not merely under

⁹⁸ The Hellenistic and Roman types (chiefly the latter) are discussed by P. Gachon, *loc. cit.*

⁹⁴ Agora P 21956. C. Boulter, *Hesperia*, XXII, 1953, pl. 36, p. 96, no. 121. Other examples (cited by Boulter, *loc. cit.*): *Hesperia*, IV, 1935, pp. 514-515, no. 82, fig. 27; VI, 1937, pp. 305-306, no. 212, fig. 36 (from Corinth); and XVIII, 1949, p. 355, no. 99, pl. 97. Cf. the smaller-sized objects of like shape, VI, 1937, p. 50, i, fig. 33; and XVIII, 1949, p. 336, no. 100, pl. 97. Still others, unpublished, are in the Agora Museum.

⁹⁵ A separate grill (cf. below, p. 232, on *γαστρόπτης*) could, if desired, easily have been used in place of the spits.

⁹⁶ Agora P 21958. Boulter, *op. cit.*, pl. 36, p. 97, no. 123. Other examples (cited by Boulter, *loc. cit.*): *Hesperia*, IV, 1935, pp. 514-515, no. 83, fig. 27; VI, 1937, pp. 305-306, no. 213, fig. 36 (from Corinth). Others in Agora Museum.

⁹⁷ In this respect it seems to be the logical forerunner of the Hellenistic type (above, note 92), which was designed expressly to support a pot. The new features are: the (usually rather tall) foot, with a large vent in one side; the holes in the bottom of the fire box, none on the side; and the moulded supports for the pot. Matching specimens of chytrai and tall braziers of this type have been found in the Athenian Agora (P 2393, P 3421: cf. H. A. Thompson, *Hesperia*, III, 1934, pp. 420-421, figs. 108-109, and pp. 466-468). Functionally, this type served the same needs as the fifth-century "deep brazier." It may be that this kind of brazier was also called, as Mau has argued (*Röm. Mitt.*, X, 1895, pp. 43-46), a *χυτρόπους* or *λάσανα*. On the other hand, Pollux (X, 99 ff.) seems to imply that *χυτρόπους*, *λάσανα*, *ἀνθράκιον*, and *ἔσχάρα* were (at least in his time) synonymous. In general, it would appear that all these terms were too broadly applied, perhaps especially so in later times, to allow for any of them so strict a definition as Mau proposes.

⁹⁸ Cf. Agora P 21959. Boulter, *op. cit.*, pl. 36, p. 125, no. 124, and others there cited. The type goes back at least to the seventh century.

⁹⁹ E.g., Aristophanes, *Ach.*, 888 ff.; Strattis in Pollux, X, 101.

¹⁰⁰ Looser terms, such as *χυτρόπους*, or *λάσανα* (above, note 97), would fit them well enough. *Ἀνθράκιον*, on the other hand, seems inappropriate.

¹⁰¹ Cf. above, note 91. The terracotta brazier, no. 1024, is mended with lead clamps, offering a curious analogy to Pollux's (VI, 88) *μολυβδόδετοι ἔσχάραι*. On *μολυβδόδετος*, which occurs in Stele V, line 35, see above, p. 209 and note 73.

the influence of our modern notion of what a fire-pan should look like. The "deep brazier," it is true, must have used charcoal too, and the fact that it could support a chytra¹⁰² gave it a special utility which helps to explain the great popularity of its Hellenistic descendant. The name *eschara*, however, seems better suited to the shallow type, which so closely resembles the modern Greek heating brazier (cf. also Mod. Greek *σχάρας*, applied to meat that is grilled over charcoal). We have concluded, therefore, that the "shallow brazier," Plate 49, c, is most probably an *ἔσχάρα*.

*5. ΣΚΑΠΗΕ, GASTROPTES, DEUTER (*Pollux*).

Although these objects are not mentioned in any extant part of the Stelai, Pollux states that they were listed in the *Demioprata*. A brief note on them may, therefore, be in order here.

Skaphe.¹⁰³ Pollux, X, 103: *ἐν δὲ τοῖς Δημοπράτοις εὑρίσκεται σκάφη μακρὰ καὶ σκάφη στρογγύλη*. Evidently the word could be applied to any broad, shallow vessel, but Pollux is here speaking, more narrowly, of things used in cookery. We may perhaps picture such an object as the basin shown on the red-figured pelike in Berkeley,¹⁰⁴ in which a boy-satyr is preparing some kind of food. In this sense, the *skaphe* bears a strong functional resemblance to the *κάρδοπος* or *μάκτρα*.¹⁰⁵ These last were, however—at least as the *kardopos* appears in the Stelai—heavy objects; some of them were made of stone; in two cases a separate pedestal is mentioned.¹⁰⁶ In general, the usage of *σκάφη* implies something more easily portable. The terms *μακρὰ* and *μέγλη* in Pollux's account suggest, respectively, an oval and a round basin. The mention elsewhere of a *σκάφη στρογγύλη*, as if this distinction were significant, may perhaps mean that oval *skaphai* were not uncommon.¹⁰⁷ The derivation of the word, from *σκάφω*, may indicate a wooden¹⁰⁸ or stone prototype, but the term could of course be applied to bowls of any material. Prices for *skaphai* are given in an Attic inscription of the third (?) century B.C.: *σ[κάφ]αι μεγάλαι* at 4 drachmai each, *στρογγύλαι* at 1 drachme each.¹⁰⁹ The material is not stated. In the Edict of Diocletian,¹¹⁰ the maximum price

¹⁰² Chytra is mentioned in the same passage with *eschara* in Aristophanes, *Vesp.*, 938, and elsewhere; but this does not prove that they were used together.

¹⁰³ *Σκάφη*: Liddell-Scott-Jones, *s.vv.* *σκάφη*, *σκαφεῖον* (2), *σκάφιον*, *σκαφίς*; *A.J.A.*, XLIX, 1945, p. 515 and the references there cited.

¹⁰⁴ *A.J.A.*, *op. cit.*, p. 509, fig. 1.

¹⁰⁵ Below, pp. 239-241.

¹⁰⁶ Stele II, lines 32-34, 35-37. Cf. *I.G.*, II², *Add. et Corr.*, 1424, a, line 257: *σκάφη χαλκή· λεοντοβάσις*, for a different sort of combination, in metal.

¹⁰⁷ See below, note 109.

¹⁰⁸ Cf. *I.G.*, II², 1648, line 20: *[σ]κάφια ξύλινα*; and *Edict. Diocl.*, XV, 48-51.

¹⁰⁹ *I.G.*, II², 1695, lines 16-19. Cf. also *I.G.*, XI, 2, 146, line 80, where a *σκάφης* (*sic*) is priced at 4 obols, and *Ins. Délos*, 290, line 76, where a *σκαφίς εἰς παλαιίστραν* cost 3 obols.

¹¹⁰ *Edict. Diocl.*, XV, 48-51.

allowed, for a skaphe of 5-modius capacity ($\frac{5}{6}$ of a medimnos), is 150 denarii; for one of one-modius capacity, 50 denarii; for the same, iron-bound, 75 denarii; and, for a small bowl (κάβαθα ἤτοι κάμηλα) of half-modius capacity, turned, 30 denarii. For all but the first, wood is specified as the material.

Gastroptes.¹¹¹ Pollux, X, 105: Γαστρόπτης δὲ ἐν τοῖς Δημοπράτοις πέπραται, καὶ δευτήρ, κοινὸν ἄρτοποιῶ καὶ μαγείρῳ σκεῦος, ἀπὸ τὸ δεύειν ὠνομασμένον. The word γαστρόπτης, which has been defined from its etymology¹¹² as a 'vessel for cooking sausages,' occurs very rarely. It is found elsewhere only in the Delian temple inventories (there spelled differently),¹¹³ where it is listed among bronze objects. The gastroptes is hard to visualize, but, since "dry" cooking (ὄπτησις) is here in question, it need not have been a vessel. Dr. Pippin thinks of some kind of utensil.¹¹⁴ One could suppose, also, a grill or toasting rack, or even a toasting fork, as well as a pan or tray. For the grill, metal would be preferable,¹¹⁵ but there were found in the Athenian Agora terracotta objects (cf. Pl. 49, d)¹¹⁶ which must have been used for just this purpose.¹¹⁷ It seems possible that such a grill may have been called a *gastroptes*, but the information at hand does not allow a positive identification.¹¹⁸

Deuter.¹¹⁹ The word occurs only in Pollux, X, 105 (see above). The *Lexicon* defines it as a 'kettle' or 'cauldron,' comparing δεῦμα (itself a *hapax legomenon*, and a doubtful one at that),¹²⁰ and implying that food was boiled in it. But Pollux explicitly states that the deuter was used by both bakers and cooks, and he says that the word is derived from δεύω, which is more aptly connected with kneading than with boiling.¹²¹ It may be better, therefore, to define the deuter as a kind of mixing bowl

¹¹¹ Γαστρόπτης: Liddell-Scott-Jones, *s.v.*

¹¹² Cf. Liddell-Scott-Jones, *s.vv.* γαστήρ, I, 3, and ὀπτῶ.

¹¹³ *I.G.*, XI, 2, 161, B, line 128 (γαστροππίς), and 199, B, line 79 (γαστροποπίς). Both entries refer to the same object. In *I.G.*, II², 1640, line 30, the entire word is restored.

¹¹⁴ Pritchett, Part II, p. 318.

¹¹⁵ Cf. *Délos*, XVIII, pp. 228-229, fig. 254, pl. 630, for leaden models of such grills.

¹¹⁶ Agora P 8305. Context of fourth to third century B.C. To be published in G. R. Edwards, *Athenian Agora, Hellenistic Pottery*.

¹¹⁷ The clay is fire-blackened. For a representation of such a grill in use, cf. the terracotta in Berlin, Cloché, *Classes*, pl. XXXV, 1. There is a similar group in the Athens National Museum (Helène Stathatos Collection). A grill of this sort was found at Olympia, E. Kunze and H. Schliel, *IV. Bericht über die Ausgrabungen in Olympia, 1940-41*, Berlin, 1944, pp. 103-104, figs. 87-88. Cf. also an Early Helladic example, remarkably like its classical descendants, which was found at Rafina in Attica and is now in the National Museum (Τὸ Ἔργον τῆς Ἀρχ. Ἐτ. κατὰ τὸ 1954, p. 31).

¹¹⁸ There is also a rare type of round frying-pan with parallel grooves in the bottom, perhaps for draining off fat, which could have been used for this kind of cookery. Cf. Agora P 18790, to be published by G. R. Edwards.

¹¹⁹ Δευτήρ: Liddell-Scott-Jones, *s.v.*

¹²⁰ Pindar, *Ol.*, I, 50, *dub. l.*

¹²¹ Cf. Liddell-Scott-Jones, *s.v.* δεύω (A), especially under I, 2.

or kneading basin, or perhaps a utensil¹²² for combining wet with dry substances. If it is a vessel, it may be in some way related to the *skaphe* and the *kardopos*.¹²³

VI. MORTARS, TROUGHS, TUBS, AND RELATED OBJECTS

This chapter deals with the large, open containers used in the preparation of bread, wine and oil; certain other vessels and implements applied to these processes; and finally, the *pyelos*, which is here taken to be a bathtub. Such unity as the chapter possesses therefore depends on the physical similarity of the principal objects, and on the functional relationship of the others to them.

Break-making in antiquity was done by a series of processes¹ involving types of equipment which remained in use, with remarkably little change, over the centuries. Even with the invention of new and more efficient methods, which were applied mostly in commercial production, the old, time-honored practices continued, especially for domestic or other small-scale needs. Whatever methods were used, the necessary steps included, after the crops were harvested, the flailing and winnowing of the grain (or other cereal) to remove the chaff, pounding or grinding the meal, sieving the meal either to remove chaff and other impurities or to obtain different grades of fineness or both, mixing and kneading and shaping of loaves or cakes, and baking. Most of these steps made use of objects which are listed in the Stelai. For the first, there are the *pteon* or *ptyon* (winnowing shovel) and the *thrinax* (winnowing fork).² For pounding and grinding, the *holmos* (mortar) and the *hyperon* (pestle) occur, as well as the more efficient friction mill, of which the movable part is the *onos aleton* (upper millstone).³ For sieving, there is the *koskinon* (sieve);⁴ and for mixing and kneading, the *kardopos* (kneading basin), perhaps also the *skaphe* (open bowl)⁵ and the *telia* (baker's tray?).⁶ Of these objects, the present chapter deals only with the *holmos* (pp. 235-238), the *hyperon* (pp. 238-239), and the *kardopos* (pp. 239-241).

The main processes of bread-making and the utensils required for them are

¹²² Cf. Pritchett, Part II, p. 318.

¹²³ Cf. below, pp. 239-241.

¹ These are fully described in Blümner, *Technologie*, I², pp. 1-96. Cf. also Pottier, *Dictionnaire*, III, p. 231, *s.v.* *Holmos*; E. Baudrillart, *ibid.*, III, pp. 2008-9, *s.v.* *Mortarium*; Cloché, *Classes*, pp. 14-15; Hug, *R.E.*, XVI, 1, 1933, cols. 319-321, *s.v.* *Mortarium*; *Délos*, XVIII, pp. 103-106; *Olynthus*, VIII, pp. 326-336. On some of the work in this section, I was assisted by Mr. Pershing Jung.

² On these entries, see Pritchett, Part II, pp. 293, 299 f.

³ Pritchett, Part II, pp. 298 f.

⁴ See below, Section VII, following number of this journal.

⁵ See above, pp. 231-232.

⁶ Pritchett, Part II, p. 315.

vividly shown in a familiar kind of terracotta sculptures,⁷ mostly of the archaic period. The most elaborate of all the groups which illustrate this theme are two in the National Museum (Pl. 50, a and b).⁸ In these, the various operations are so vividly depicted that we may let them serve to introduce the whole subject, before proceeding to the individual utensils which are listed in the *Stelai*.⁹

In the first group (Pl. 50, a), starting from the far side and moving clockwise, we see a widely vaulted oven (*ἰπνός*) resting on a low fire box which opens to the right. Inside the oven, which has a fully open front, there are small oblong cakes, pointed at both ends. The oven is tended by a small figure which sits or kneels in front of the opening, holding in the left hand some undistinguishable object, perhaps a cake. On the floor, in front of the oven and to the left, is a small bowl, possibly to hold water used for cleaning the oven between batches.¹⁰ To the right of the oven, there is a covered vase at the back, then the stump of what must have been a standing figure facing inward. Then a long, oval basin with high sides, inside it apparently two masses of dough and a broken-off projection which may be the stumps of a figure, inside the basin perhaps in order to work the dough by trampling it. Next, nearest us, a small round vase painted white inside; behind it an indistinct projection, perhaps the stump of a figure facing inward. Then, at our near left, we see another oblong kneading basin (*κάρδοπος*),¹¹ resting on a low support; over it are bent two figures kneading masses of dough; at the farther end there is a third mass of dough, and space for a third figure, now entirely missing. Finally at our far left, a figure stands facing us holding a large bowl-shaped sieve (*κόσκινον*)¹² over a basin on a tall pedestal (perhaps another kind of *κάρδοπος*?).¹³ Near the center of the whole group stands a figure, taller than the rest, which faces left and holds both arms extended; in the left hand is an object similar to that held by the oven-tender; the right hand is missing. The style of rendering the figures is crude, but, since there is no indication of their sex, they may be males, operating a commercial bakery.¹⁴

In the second group (Pl. 50, b), consisting of women, again the oven appears: barrel-shaped, full-width opening with a slight overhang of the roof, inside it an

⁷ E.g., Agnes Stillwell, *Corinth*, XV, ii, *The Potters' Quarter*, Princeton, 1952, pp. 206-207.

⁸ Athens, N.M. 4431 and 5773. The new photographs were made by Alison Frantz, after the objects were cleaned. For permission to publish them here, I am grateful to Mme. S. Karousou, Assistant Director of the National Museum.

⁹ These terracottas were first published by K. Kourouniotis, *Ἐφ. Ἀρχ.*, 1896, cols. 200-215, pl. XI, 1-2 (from drawings), with a detailed description and commentary, the latter especially valuable for the comparison drawn between ancient and modern Greek practices. Since then, the drawings have been often reproduced, e.g., *Dictionnaire*, IV, p. 495, fig. 5694 (= N.M. 5773).

¹⁰ Cf. Kourouniotis, *op. cit.*, col. 212.

¹¹ See below, pp. 239-241.

¹² Above, note 4.

¹³ See below, p. 241.

¹⁴ So Kourouniotis, *op. cit.*, col. 214.

irregular flat piece of clay perhaps meant as a cake;¹⁵ the end of it hangs limply out the front. The oven rests on a tall apsidal structure which opens to the right, housing the fire box; inside, four sticks of wood. A woman stands before it with a baby on her left arm, apparently poking the fire (or stoking it?) with a long stick which she holds in her right hand. The end of the stick is broken off. Next to her, a woman stands with a round one-handed tray, on which is a large, round loaf of unbaked bread. Then, on our near right, a woman holding in her arms a large container, more or less semicircular with high back and sides sloping downward to an open front edge, from which she appears to be shaking roughly-shaped pellets into a spreading bowl which rests on the floor in front of her. This may represent, as Kourouniotis thinks,¹⁶ the final winnowing of the grain to remove any remaining foreign matter. Nearest us, two standing figures flank a mortar (*ὄλμος*),¹⁷ in which they are pounding the cereal with heavy pestles (*ὑπερα*).¹⁸ Finally, at our left rear, a woman stands nursing a baby held on her left arm; the lower part of the baby and the woman's right hand are missing. At her right, on the floor, is a small dog.¹⁹ The center is occupied by a large round tray, on which are shown loaves in a variety of shapes,—round, doughnut-shaped, square,—and with various decorative patterns. This may be a scene of domestic bread-making, but there is actually no reason why the women could not be operating a commercial bakery.

In both of these groups, the lively and charmingly naïve representation has the immediacy of a snapshot, telling us more about bread-making than we could learn from many words. We may turn now, with a feeling of having visited two ancient bakeries, to our consideration of the relevant entries in the Stelai.

1. MORTAR (*Holmos*)

(II, 22-23 and 25-26; III, 10)

The *ὄλμος*²⁰ appears as a mortar as early as Hesiod, where it is described as a wooden object,²¹ and mentioned together with the (wooden) *ὑπερον*, or pestle, as often

¹⁵ Cf. Kourouniotes, *op. cit.*, cols. 211-212.

¹⁶ *Op. cit.*, cols. 207-208. The utensil may, then, be a *λίκνον*. Cf. J. E. Harrison, *J.H.S.*, XXIII, 1903, pp. 292-324.

¹⁷ See below, pp. 236-238.

¹⁸ See below, pp. 238-239.

¹⁹ Located here in Kourouniotis, *op. cit.*, pl. XI, 1 and so described by him. In our photograph (Pl. 50, b), and in the actual group as it now is constituted, the dog has moved to a position in front of the woman tending the fire. On the underside of the dog, there is a pencilled number, 5691.

²⁰ *ὄλμος*: Liddell-Scott-Jones, *s.v.*, but see below, note 21.

²¹ Hesiod, *Op.*, 423. So also in Eustathius, *ad Il.* XI, 147 (p. 835,48): *ὄλμος . . . σκεῦος κοῖλον ἐκ λίθου ἢ καὶ ξύλου*, and cf. Pliny, *H.N.*, 112, *pila lignea*. The word occurs twice in Aristophanes, once as a heavy mortar (*Vesp.*, 201), and once specifically as a wooden object, surely again a mortar (*Vesp.*, 238; cf. School. *ad loc.*: *ὡς ξυλίνου ὄντος τοῦ ὄλμου*). In neither case is there warrant

in Greek literature.²² The size which Hesiod recommends for a mortar is three feet (ὄλμος τριπόδης; in height or breadth?), for the pestle three cubits in length (ὑπερον τρίπηχυν[ν]). These dimensions agree fairly well with the apparent size of such objects as they are represented in vase-paintings, as will be seen below.

In the Stelai, three holmoi are listed. One, of stone (II, lines 25-26), has a price of 8 drachmai 5 obols.²³ A second, of wood (II, lines 22-23), is given a price which is partly lost, but with possible readings which range between 3 drachmai 3 obols and 14 drachmai 1 obol.²⁴ The third holmos, for which the material is not stated, but which should be of terracotta (III, line 10), brought 1 drachme 5 obols. The range of prices indicates that these were fairly large objects, and encourages us to suppose that they were on the scale of those seen in vase-paintings or of the large stone mortars found in excavations.

Representations of mortars in use appear in several vase-paintings, the best known of which are the East-Greek lebes in Boston and the Attic black-figured amphora in Leningrad. On the Boston lebes,²⁵ which represents some kind of religious festival, a man and a woman are shown with pestles, pounding meal (?) in a heavy mortar supported by a three-legged stand. The Leningrad vase²⁶ shows two women at work over a large, apparently one-piece, mortar with a conical base. From a later period, there is the Corinthian red-figured bell-krater, Athens N.M. 5815 (1391),²⁷ on which there is a comic scene of cooks being attacked by geese; in the center is a large, chalice-shaped mortar with conical foot, from which protrude the upper halves of what seem to be two large pestles. In none of these cases is it certain that a cereal product is being pounded in the bowls, but there can hardly be any doubt that mortars and pestles are represented. The material of which the mortars are made cannot be determined, but the pestles at least should be of wood.²⁸ There are also, among the numerous terracottas which represent different phases of bread-making and similar

for distinguishing a special meaning (e.g., 'kneading trough') as is done by some commentators and in Liddell-Scott-Jones. On the ὄλμος ξύλινος of Stele II, lines 22-23, see below.

²² E.g., Herodotos, I, 200; Pausanias, V, 18, 2; Pollux, X, 114.

²³ If, as Pritchett believes possible (Part I, p. 256), the first obol sign was miswritten for a drachme, the price would be 9 drachmai 4 obols.

²⁴ See Section IX, next number of this journal.

²⁵ A. Fairbanks, *A.J.A.*, XXIII, 1919, pp. 279 ff.; *id.*, *Museum of Fine Arts, Boston: Catalogue of Greek and Etruscan Vases*, I, Boston, 1928, pl. 58, no. 546; F. Villard, *Mon. Piot*, XLIII, 1949, especially pp. 42-49.

²⁶ Blümner, *Technologie*, I², p. 19, fig. 3; *Dictionnaire*, III, fig. 5149; Cloché, *Classes*, pl. IX, 2 (Beazley, *A.B.V.*, p. 309, no. 95, Swing Painter). There is a similar group on the b.-f. fragment Eleusis 1055, *Ath. Mitt.*, XLI, 1916, p. 58, fig. 13.

²⁷ M. Bieber, *History of the Greek and Roman Theater*, Princeton, 1939, p. 92, fig. 136; Corinthian, not Boeotian, as Trendall has pointed out (T. B. L. Webster, *Greek Theatre Production*, London, 1956, p. 132).

²⁸ Cf. above, note 22.

occupations, examples of figures using mortars and pestles, similar to those shown on the vases, as, for example, on our Plate 50.²⁹ In all these cases, the mortar appears to be a large, heavy object, the pestles long and narrow. The mortars shown on the vases seem, on a rough estimate, to be about 0.75 m. to 0.90 m. high, and perhaps up to 0.60 m. wide.

It has been doubted whether the figures in the vase-paintings and terracottas are actually pounding cereals into meal,³⁰ and of course mortars must have been used for many other purposes.³¹ One use, which still has to do with the preparation of cereals, might have been the pounding intended merely to remove the husks, the actual grinding process having been accomplished by some other means, in classical times often by a mill of one kind or another.³² In an Egyptian tomb painting of the Twelfth Dynasty (*ca.* 2000-1780 B.C.), the grain is pounded in a mortar much like the Greek examples (except that it is shaped like a truncated cone), but only to free the husks; it is then sieved to remove the remaining husks, and only after that is it ground on a saddle-quern.³³ Mixing or blending must also have been done often in the holmos, as the scene on the Boston lebes appears to suggest.

Actual specimens of mortars, quite naturally, vary widely in size, shape and apparent purpose. Prehistoric stone mortars,³⁴ like those found in Thessaly,³⁵ all tend to be small, shallow bowls, often provided with a spout at the side. It is questionable how useful they would have been for preparing meal. A Mycenaean terracotta mortar, found at Athens,³⁶ has a spout and three legs. These early types in many ways resemble the plain pottery vessels, identified as mortars, which have been found in fifth-century Corinth and Athens.³⁷ One need not doubt that such objects were called holmoi; but, since the large, heavy types known from the vase-paintings and from extant examples in stone appear to be far more relevant to our present discussion, we need not consider further the small clay types, beyond noting that they exist.

The stone mortars found at Olynthos³⁸ and at Delos³⁹ give a more reliable picture of the kind of holmoi that must be meant in the Stelai. Of the five found at Olynthos,

²⁹ Cf. also Blümner, *Technologie*, I², p. 19, fig. 4 (= F. Winter, *Die Typen der figürlichen Terrakotten*, I, Berlin, 1903, pl. 33,9), and p. 69, fig. 29.

³⁰ *Ibid.*, pp. 18-20.

³¹ *Ibid.*, p. 19; cf. Pausanias, V, 18,1.

³² On mills, see Pritchett, Part II, pp. 298f.

³³ Cf. Singer, Holmyard and Hall, *Hist. of Tech.* I, p. 274, fig. 175. Déonna (*Délos*, XVIII, p. 105, pl. 142, nos. 294-300) observes that this Egyptian form of mortar is also common on Delos.

³⁴ Blümner, *Technologie*, I², p. 18; *Délos*, XVIII, p. 102, note 2.

³⁵ A. J. B. Wace and M. S. Thompson, *Prehistoric Thessaly*, Cambridge, 1912, p. 122, fig. 172, cf. pp. 72, 191.

³⁶ O. Broneer, *Hesperia*, VIII, 1939, pp. 411-412, fig. 94.

³⁷ C. Boulter, *Hesperia*, XXII, 1953, p. 98, no. 122, pl. 34; and references there cited.

³⁸ *Olynthus*, VIII, pp. 335-336.

³⁹ *Delos*, XVIII, pp. 103-107; see also above, note 33.

two had handles projecting from the rims and two were made in two pieces with the basin extending into the lower stone. One specimen from Olynthos⁴⁰ had been broken in antiquity and mended with lead clamps. There is a mortise in the lower stone; the two parts were held together by a tenon which projected from the upper stone. The average measurements of five of these Olynthian mortars⁴¹ yield a height of 0.665 m., and a top outer diameter of 0.689 m., not very much smaller in either direction than Hesiod's *holmos tripodes* (above, p. 236). The Hellenistic types from Delos are more varied,⁴² both as to size and form, but they are characteristically deep, and suggest a definite line of continuity with the fourth-century examples from Olynthos. Our examples, since they belong to the late fifth century, may be best compared with those from Olynthos for their shape, and may well have been of comparable size.

2. PESTLE (*ὑπερον*)

(II, 224; V, 84)

The pestles (*ὑπερα*)⁴³ which are used with the large mortars shown in the vase-paintings and terracotta figurines⁴⁴ are long, paddle-like cylinders, somewhat pointed at either end, and tapered or thinned in the middle where they were gripped. Either end could thus be used for pounding (the object was held in a vertical position when in operation), the remaining half serving as a balance. The size usually appears to be about 0.75 m. to 0.90 m., but those shown on the Corinthian bell-krater in Athens⁴⁵ look as if they might well attain the three-cubit length recommended by Hesiod.⁴⁶ Other objects of this type, usually (and no doubt correctly) taken to be pestles, are brandished offensively by Thracian women in scenes of the Death of Orpheus,⁴⁷ defensively by Trojan women in Iliupersis scenes.⁴⁸

⁴⁰ *Olynthus*, XII, pp. 50-51, pl. 29,1, 3-4.

⁴¹ *Olynthus*, VIII, p. 335.

⁴² Above, note 39.

⁴³ ὑπερον: Liddell-Scott-Jones, *s.v.* ὑπερος, with a note which tends to favor the neuter form, on the evidence of what is now Stele II, line 224, where the plural ὑπερα is clear, and complete; Caskey and Beazley, p. 73, note 1. The text in Stele V, line 84 is incomplete, but is perhaps to be restored to allow for the existence of a number.

⁴⁴ Cf. above, notes 25-29.

⁴⁵ Above, note 27.

⁴⁶ Hesiod, *Op.*, 423. Cf., for the shape, Aeneas Tacticus, 33, 2.

⁴⁷ E.g., hydria, *C.V.A.*, Petit Palais, pl. 18, 2-6 (*A.R.V.*, p. 388, no. 5, "related to the Nausicaa Painter"). On the subject, see M. Z. Pease, *Hesperia*, VI, 1937, pp. 264-266, nos. 6-7; *C.V.A.*, Robinson Collection, 2, p. 33, pls. 46 and 47, 1; F. Brommer, *Satyroi*, Würzburg, 1937, p. 45, nos. 69-71. On the Beldam Painter's lekythos Athens N.M. 1129 (*A.B.V.*, p. 709; Haspels, *A.B.L.*, p. 266, no. 1, pl. 49) one of the attacking satyrs wields a pestle.

⁴⁸ E.g., hydria, Naples 2422 (Pfuhl, III, fig. 378; *A.R.V.*, p. 126, no. 66, Kleophrades Painter); kylix, Louvre G 152 (Pottier, *Vases du Louvre*, III, p. 184, pl. 121; *A.R.V.*, p. 245, no. 1, Brygos

Hypera are listed twice in the Stelai: once in II, line 224, where three pieces apparently were sold for 1 drachme 3 obols, yielding a calculated price of 3 obols each; and again in Stele V, line 84, where the termination of the line (and hence the number of objects) is lost, and where no price is given.

Pestles were of course made in many different sizes and shapes, and of various materials, wood,⁴⁹ iron,⁵⁰ stone,⁵¹ or terracotta,⁵² but those pictured in the vase-paintings must, because of their size and form, have been wooden objects. This is the type which would best suit the large mortars listed in Stelai II and III. The unit price of 3 obols is not inconsistent with the theory that they were probably large wooden pestles of this sort,⁵³ although stone is also possible.

3. KARDOPOS

(II, 4-5, 9-10, 11-12, 103-104, 229-230, 231-232)

Kardopoi occur only in Stele II, but we find there, individually listed, three examples of stone (II, lines 4-5, 11-12, 231-232),⁵⁴ three of clay (II, lines 9-10, 103-104, 229-230), and bases for two others, the material of which is not stated (II, lines 32-34, 35-37). In several of these entries, the prices are fortunately given, and extant. The stone kardopos in Stele II, lines 4-5 is priced at 7 drachmai 2 obols; for that in II, lines 11-12, where the price is incompletely preserved, we might, by analogy, best read 7 drachmai 5 obols.⁵⁵ The pottery kardopos in Stele II, lines 9-10 is priced at 2 drachmai. The entries in II, lines 32-34 and 35-37 list a broken base of a kardopos at 1 drachme 3 obols, and a base (presumably intact) for a broken kardopos at 6 drachmai 3 obols. From the prices, we might infer that these two

Painter) on which the warrior whom Andromeda attacks with a pestle is named "Υπερος! For other illustrations of this and the Orpheus theme, with a discussion of actual weapons of pestle-like form, see G. Kropatschek, "Morserkeulen and Pila Muralia," *Jahrb.*, XXIII, 1908, pp. 79-94, 181-184; cf. Blümner, *Technologie*, I², pp. 19-20.

⁴⁹ Cf. above, note 22.

⁵⁰ Cf. Pollux, VII, 107; Lucian, *Herm.*, 99.

⁵¹ The primitive pestles or pounders found with small stone mortars (cf. above, notes 34, 35) were also of stone.

⁵² E.g. *Olynthus*, XII, p. 50.

⁵³ We may compare the wooden lamp-stands of Stele II, lines 199-200 (Pritchett, Part II, pp. 240-241), at one obol each, but these probably used proportionately much less wood and owed their value more to the labor of making them. The grape-stakes of Stele II, lines 254-255, which must have cost less than .035 obol each, and may have sold at .03 obol each, were of course of unknown size, but they were probably unworked whips of olive wood or the like, since split-wood stakes would have wasted costly material better put to other uses. For pictures showing such stakes in use, see below, p. 243, note 78.

⁵⁴ Cf. *Insc. Délos*, 1403, B^b, col. 2, line 29: *κάρδοπον λιθίνην*.

⁵⁵ Possible, but less likely: 3 drachmai 5 obols or 12 drachmai 5 obols.

bases were of stone, and also that the stone kardopoi were probably made in two parts, since bases are listed and sold separately.⁵⁶ These inferences raise the problem whether the prices for the stone kardopoi in Stele II, lines 4-5 and 11-12 apply to the bowl and base together, or only to the bowl, a question which will be considered further below (Section IX). For the present, it may be observed that, in size, these objects seem to belong in the general neighborhood of the stone mortar in Stele II, lines 25-26, which brought 8 drachmai 5 obols (see above, p. 236).

Α *κάρδοπος*⁵⁷ is a basin or 'trough' which was used principally for mixing and kneading dough. The word 'trough,' however, with its suggestion of an oblong shape, cannot be applied generically, for most of the objects used for this purpose in bread-making scenes are round. On the other hand, *μάκτρα*, which is used as a synonym⁵⁸ for *κάρδοπος*, has (in its later form *μάκρα*) the meaning of bath or sarcophagus;⁵⁹ and there are representations of oblong kardopoi in terracotta groups showing two or more persons simultaneously kneading dough, as on our Plate 50.⁶⁰ The oblong shape was perhaps favored for industrial use, but in the great majority of terracottas which represent kneading, the container is a circular basin on a pedestal, somewhat like a louterion,⁶¹ but heavier and coarser.⁶² In most aspects of their shape, they are remarkably like the kneading basins shown in old Egyptian figures and reliefs of many centuries earlier.⁶³ In some cases, kneading and shaping appear to take place in the same basin, as, evidently, on our Plate 50, a;⁶⁴ in other cases, there seems to have been a division of these operations, the shaping of

⁵⁶ Cf. the remarks on louteria, above, p. 222.

⁵⁷ *Κάρδοπος*: Liddell-Scott-Jones, *s.v.*; Stephanus, *Thes.*, *s.v.*; M. Besnier, *Dictionnaire*, IV, pp. 494-496, *s.v. Pistor*; E. Pottier, *ibid.*, III, p. 1479, *s.v. Mactra*. Cf. also the references given above, p. 233, note 1.

⁵⁸ Cf. Aristophanes, *Ran.*, 1159; Artemidoros, *Oneirocr.*, I, 5 (58).

⁵⁹ Cf. Liddell-Scott-Jones, *s.vv. μάκτρα, μάκρα*. Pollux (I, 245) also gives, as a synonym for *κάρδοπος*, the word *θνία* (i.e., *θνεία*, properly a mortar).

⁶⁰ Cf. above, notes 8, 9. Also, the group in the Louvre showing four women kneading bread to the musical accompaniment of a flute; Bossert and Zschietzschmann, fig. 143, b; *Dictionnaire*, IV, p. 496, fig. 5695.

⁶¹ Cf. above, pp. 222 ff. An Attic fourth-century Kertch lekanis in Leningrad (Schefold, *Untersuch.*, p. 5, no. 11; Bossert and Zschietzschmann, fig. 143, a), has a scene which seems to be concerned with the preparation of wedding cakes. Two seated women are shown kneading or shaping the cakes on a three-legged table; at their left, a standing figure holds her hands down to a white basin on a pedestal, in its form undistinguishable from representations of louteria; is the object here serving as a kneading basin?

⁶² Examples and literature on these terracottas, which are numerous, are collected in *Corinth*, XV, ii, pp. 206-207.

⁶³ E.g., those shown in scenes of beer-making, such as the figurine, H. Ranke, *The Art of Ancient Egypt*, Vienna, 1936, fig. 75 (Old Kingdom); and often. In the three-dimensional group, *ibid.*, fig. 82 (Middle Kingdom), illustrating a bakery, the loaves are apparently fashioned on a flat disk supported by a cylindrical pedestal.

⁶⁴ Cf. above, note 8.

loaves or cakes having been done separately on a flat table or table-like object.⁶⁵ Of course, a mixture of dough can be obtained by applying liquid gradually to meal heaped on a flat surface, but usually the kneading seems to have been done in a basin of some depth. That later kardopoi had a similar form is indicated by the early third-century Megarian bowls in the Louvre and in Athens (replicas from one mould),⁶⁶ on which a worker is shown sifting meal into a pedestaled, louterion-like basin, which is most easily understood as a kardopos.

The identification of actual kardopoi cannot be attempted with any great feeling of assurance, for the expected shape is one which could be applied to a variety of uses. One possible example may be cited, however, which was found by J. H. Young in a (fourth-to-third-century?) context at Boundazeza in South Attica.⁶⁷ Among mortars and other objects belonging to a mill, there was found a "basin-like marble disk" which Young compares with the pedestaled basin on the Megarian bowls mentioned above, and a near-by block which "probably served as the stand for this basin." Young concludes that these objects "together . . . constitute one of the 'bird-bath' sifting tables such as the Louvre Megarian bowl shows." The basin, which was observed as a partly buried surface find, has a top outside diameter of 0.96 m.; the stand appears, from the published sketch of it, to have a height of some 0.30 m. Taken together, the two parts would form a fairly large object. We cannot be certain that this was, specifically, a kneading basin, but from all appearances it seems likely that it was.

From the materials discussed above, we have a reasonably clear notion of the kardopos, in both its round and its oblong shape. One cannot say whether those mentioned in Stele II were round or oblong; but the round form, being commoner, seems more probable. If this is a fair hypothesis, then our kardopoi should have been round, shallow basins on stands, shaped more or less like louteria, but probably rougher and heavier. The terracotta figurines of women kneading dough⁶⁸ probably give the most convincing picture of the object.

4. LENOS

(II, 255; V, 31; VI, 137)

The separation of the grape juice from the skin, seeds and pulp was accomplished in fifth-century Greece by primitive methods which reach far back into the Bronze Age, and no doubt even earlier. This method needs only a walled or rimmed area

⁶⁵ Cf. above, note 63. A large trestle table is so used on the Monument of Eurysaces in Rome; *Dictionnaire*, IV, p. 496, fig. 5697.

⁶⁶ *A.J.A.*, XLI, 1937, p. 88; *Εφ. 'Αρχ.*, 1914, p. 51, fig. 3. Cf. also below, on *κόσκινον* in the following number of this journal.

⁶⁷ J. H. Young, *Hesperia*, X, 1941, p. 190, figs. 11-12. Cf. *Délos*, XVIII, pp. 103-107.

⁶⁸ Cf. above, p. 234 and notes 8, 9.

in which the grapes are placed, a run-off channel, and a suitable catch-basin.⁶⁹ The grapes, after being put in place, are trodden by the bare feet of the workers, and the juice runs off through the channel into the basin. Even after the invention of more efficient devices, such as, first, the level press and, later, the screw press, the simpler method remained in use, as is evident from literary sources and from many illustrations.⁷⁰ Indeed, it is still practiced today in Greece and other parts of the Mediterranean area.

Ληνός,⁷¹ in the meaning most often given to it, is the place within which the grapes are trodden or squeezed, i. e., the press-bed,⁷² whether in the form of a simple treading-vat or as part of a more complicated apparatus.⁷³ Other uses of the word, as for 'watering trough,'⁷⁴ 'kneading trough,'⁷⁵ 'coffin,'⁷⁶ 'mast-socket,'⁷⁷ etc., are less frequent, and none of them seems to have any relevance here.

In Stele II, line 255 and in V, line 31, stone lenoi are specified; in VI, line 137, whatever followed *ληνός* is lost. The price is lost in V, line 31, and in the other two cases no separate price was given. In II, line 255, however, a stone lenos was sold

⁶⁹ Cf. for example, the illuminating discussion of Old Kingdom vintaging, wine treading and wine pressing given by P. Montet, *Les scènes de la vie privée dans les tombeaux de l'Ancien Empire*, Strasbourg and Paris, 1925, pp. 265-273. The best known Egyptian illustrations of grape treading are those in the Fifth-Dynasty tomb of Ti at Saqqarah (Montet, *op. cit.*, pl. 21, opp. p. 264) and in the Eighteenth-Dynasty tomb of Nakht (N. de G. Davies, *The Tomb of Nakht at Thebes*, New York, 1917, pl. 22; Nina M. Davies and A. H. Gardiner, *Egyptian Painting*, Chicago, 1936, pls. 48 and 98). A detailed comparison of Greek and Egyptian methods of wine-making would have great interest.

⁷⁰ On ancient Greek wine-making, see A. Jardé, *Dictionnaire*, V, pp. 360-362, *s.v.* *Torcular*; V. Chapot, *ibid.*, pp. 919-920, *s.v.* *Vinum*; Cloché, *Classes*, pp. 18-20; *Délos*, XVIII, pp. 97-101 (where, however, the Delian presses under discussion are taken, no doubt correctly, to have been used for oil), especially pp. 97-98, note 9.

⁷¹ *Ληνός*: Liddell-Scott-Jones, *s.v.*; Stephanus, *Thes.*, *s.v.*, Boisacq, *Dictionnaire*⁴, *s.v.*

⁷² Cf. C. C. Edgar, *Zenon Papyri*, III, no. 59,300, line 15 (*Cat. général Musée du Caire*, vol. 85, Le Caire, 1928). So also in Theokritos, VII, 25, XXV, 28; Diodorus Siculus, III, 63; Pollux, I, 225, VII, 151, X, 130; Hesychius, *s.v.*; Photius, *s.v.* Our inscriptions give the earliest use of *ληνός* in this sense, but Pollux, X, 130, quotes it from the *Demioprata*, as the *Lexicon* should have noted.

⁷³ 'Press-bed' appears also to be the meaning in Bekker, *Anecd.*, I, p. 277, not 'catch-basin' (i.e., *τριπήρ*), as Jardé, *loc. cit.*, supposes. In Photius, *s.v.*, the definition *ἄγγος ἔυλινον οἴνου δεκτικόν* should also mean the press-bed, the channel or basin of which receives the juice from the operation of the press above it.

⁷⁴ Only in the Homeric *Hymn to Hermes*, 104, and in the Septuagint (*Genesis*, XXX, 38, 41). Compare the similar use of *τριπήρ* in *I.G.*, II², 1673, line 21, on which see below, p. 247.

⁷⁵ Only in Menander (*Frag.* 116), quoted as a curiosity by Pollux, VII, 22, VII, 179, and X, 102.

⁷⁶ Pherekrates, *Frag.* 5 Koch; and often later in Christian inscriptions (*I.G.*, XIV, 150, line 5; *C.I.G.*, 1979, etc.) and in Pollux, III, 102, VII, 160, VIII, 146, and X, 150. Compare the similar use of *πέλος*, Liddell-Scott-Jones, *s.v.*, 3, and cf. below, p. 253, note 138; listed in the Stelai (VI, 138) immediately after a *ληνός*.

⁷⁷ Asklepiades Myrelaios in Athenaeus, XI, 474; Pollux, I, 91.

together with 10,200 grape-stakes⁷⁸ for a total sum of 59 drachmai. If, in this composite entry, the unit price of the charakes came to an even figure, the simplest one would be 100 for 3 obols, which would yield a total of exactly 51 drachmai for the 10,200 stakes. The remainder of 8 drachmai could then be assigned to the stone lenos, a price which compares well with that of the stone mortar, at 8 drachmai 5 obols, in Stele II, lines 25-26. But it must be emphasized that the convenience of this division may be purely accidental, and that the two kinds of objects in the entry may never have been evaluated separately.

It is said that the wine press and the oil press in antiquity were alike in their form and operation;⁷⁹ and it is even suggested that the same apparatus served both purposes.⁸⁰ This is no doubt true in a general sense, and the press-bed for grapes (as opposed to the treading floor) would require essentially the same design as for olives. But, in the case of olives, greater pressure was needed for efficient extraction of the oil, and it is possible that the use of devices to exert this pressure (wooden shoes, a press-board laid over the bag of olives and trampled on, a lever-press, a screw-press, and finally, for preliminary crushing, the rotary mill, in ascending order of complexity) were invented first for use on olives,⁸¹ and only later applied to grapes. Even the lever-press, which is fairly simple, is found in use in Greece for olives⁸² several centuries before the earliest evidence of its use for grapes.⁸³ Furthermore, the word *ληνός* seems not to have been used with direct reference to an olive press,⁸⁴ and we might assume that the object belonged, originally and properly, to the vintage. In this latter context, *ληνός* may also have meant 'treading-floor'; but some other term, perhaps *σταφυλοβολεῖον*,⁸⁵ may have been more common. In any case, our *ληνοί* appear to have been portable. On this evidence, it seems most likely that the lenoi in the

⁷⁸ *Χάρακες*. On these, see Pritchett, Part II, pp. 305 f. Illustrated on the Attic b.-f. amphora Louvre AM 1008, *C.V.A.*, IV, III He, pl. 29, 3, where the tops of the stakes are forked, as is natural for such supports. Similarly forked poles are used as uprights of an enclosure for fowl in a relief in the Tomb of Ti at Saqqarah (V Dyn.), Montet, *op. cit.*, pl. X, opp. p. 120, and elsewhere in Egyptian art.

⁷⁹ Cf. Jardé, *op. cit.*, p. 360 and note 4; *Délos*, XVIII, p. 97 and note 2.

⁸⁰ Cf. M. Deffner, *Ath. Mitt.*, XXXIV, 1909, p. 346.

⁸¹ On ancient oil presses, see *Délos*, XVIII, *loc. cit.*, and the references there cited; *Olynthus*, VIII, pp. 339-341. There were pressing devices for grapes at least as early as the Old Kingdom in Egypt (cf. above, note 69), but these were apparently used for squeezing the pulp after completion of the first, and simpler, process of grape treading, which appears in the same scenes.

⁸² On the b.-f. skyphos Boston 525, Blümner, *Technologie*, I², p. 344, fig. 124; Cloché, *Classes*, pl. X. Here the press-bed and the run-off basin (a column-krater?) are quite similar to those shown in contemporary wine treading scenes, the differences being only in the addition of pressing apparatus. Cf. also the unpublished skyphos in Thebes, mentioned in *Olynthus*, VIII, p. 341, note 14.

⁸³ E.g., on the relief in Naples, Jardé, *op. cit.*, p. 362, fig. 7017.

⁸⁴ Unless, in Pollux, X, 130, *ληνός* and *ὑπολήμιον* are meant, respectively, as exact equivalents to the olive press and run-off basin described immediately above.

⁸⁵ See below, pp. 249-250, on *plinthoi staphyloboloi*.

Stelai were simple treading-vats of stone for use in the vintage, not presses in the technical sense, nor fixed treading-floors.

The work of harvesting and treading the vintage is shown in a number of vase-paintings, which range from the sixth to the middle of the fifth century B.C. From these representations we can obtain a good notion of the process. Although these are mostly ideal scenes, in which satyrs rather than humans do the work, and although the latest of them is several decades earlier than the time of the Steilai, still there are many later works, principally reliefs, which show that the same methods continued in use much later.⁸⁶ It seems reasonably safe, therefore, to rely on the vase-paintings, at least in their principal elements, as evidence applicable to the time of Alkibiades. The vases known to me which have scenes of grape *treading* are the following:

A. Corinthian

1. Louvre E634. Column-krater. Payne, *Necrocorinthia*, No. 1182; Pot-
tier, *Vases antiques du Louvre*, I, pl. 48; Cloché, *Classes*, pl. XII, 2.

B. Attic Black-Figure

2. Würzburg 265. Amphora. (*A.B.V.*, p. 151, no. 22; Amasis Painter).
Langlotz, *Würzburg*, pl. 74; Pfuhl, III, fig. 222; *Development*,
pl. 23,2; Cloché, *Classes*, pl. XI.
3. Leningrad. Amphora. Gerhard, *Auserlesene Vasenbilder*, pl. 15;
Pfuhl, III, fig. 287.
4. Würzburg 208. Amphora. Langlotz, *Würzburg*, pl. 44.
5. Brussels 278. Eye-neck amphora. *C.V.A.*, II, pl. 17; *Dictionnaire*, V,
p. 361, fig. 7014.
6. Paris, Bibliothèque Nationale 320. Kylix. (*A.B.V.*, p. 389 middle;
unattributed). *C.V.A.*, II, pls. 49-50; *Dictionnaire*, V, p. 361,
fig. 7015.
7. Rome, Villa Giulia 20748. Nikosthenic amphora. (*A.B.V.*, p. 218, no.
14, "Painter N"). *C.V.A.*, III, III He, pl. 24, 1.
8. Munich 1388 (J1110). Amphora. (*A.B.V.*, p. 140, bottom, no. 2, com-
pared with Painter of the Vatican Mourner). *C.V.A.*, I, pl. 25, 2.

C. Attic Red-Figure

9. Lecce, Museo Provinciale 602. Column-krater. (*A.R.V.*, p. 374, no. 32.
Leningrad Painter). *C.V.A.*, I, III I c, pl. 6, 1.

⁸⁶ E.g., on numerous reliefs, such as Bossert and Zschietzschmann, p. 203, below; on sarcophagi, such as those in H. Stuart Jones, *Sculptures of the Museo Capitolino*, Oxford, 1912, pl. 83, 5; *id.*, *Sculptures of the Palazzo dei Conservatori*, pl. 26, 4; F. Deichmann. *Frühchristliche Kirchen in*

10. New York, Metropolitan Museum of Art. Column-krater. (*A.R.V.*, p. 351, no. 4, Cleveland Painter). *C.V.A.*, (Fogg)—Gallatin, pl. 57, 2.
11. Bologna, Museo Civico 241. Column-krater. (*A.R.V.*, p. 347, no. 20, Orchard Painter). *C.V.A.*, I, III Ic, pl. 28, 1.
12. Rome, Vatican. Column-krater. (Repainted.) *Ἐφ. Ἀρχ.*, 1924, p. 108, fig. 5; *Dictionnaire*, I, p. 33, fig. 63 (old drawing, from *Museum Etruscum Gregorianum*, II, Rome, 1842, pl. 24, 1).
13. Athens, National Museum. Column-krater. *Ἐφ. Ἀρχ.*, 1924, pp. 106, 109, figs. 3, 6.

These representations vary in some details, but in most respects they agree. The center of operations is usually a flat table-like structure standing on thin legs, provided with low sides and having a drain-spout at one end (e.g., nos. 2, 9, 10, 12, 13). This must be one kind of *lenos*, as is generally assumed. Legs are present on all but nos. 1 and 7. Evidently the material is wood in most of these representations, since the legs appear to be turned, and the nailheads are shown where the legs are fastened on (cf. no. 9). Heavier specimens, like that on no. 6, may also be of wood, but some examples in stone may have been similar to it. In all these lenoi, the treading-basin is quite shallow, except for no. 10, which seems to have somewhat higher walls.

Under the spout of the *lenos* there is regularly shown a vessel which serves as a catch-basin, the *hypolenion*, or *tripter*.⁸⁷ The grapes are brought to the lenos in containers of various kinds, but consisting of two main types: large, deep baskets (e.g., no. 3 and elsewhere in vintaging scenes)⁸⁸ or heavy, wooden-looking bowls (e.g., on no. 13 and elsewhere).⁸⁹ The treader stands in the lenos, inside a container which keeps the grapes from spilling off. This inner container may be simply another basket, of the same kind as those used in harvesting the grapes (no. 13; cf. no. 2), or a low, flexible, boat-shaped basket with handles (nos. 3 and 6; cf. no. 7). Still other representations show skin-like or cloth-like sacks (nos. 9, 10, 11; cf. no. 12), sometimes apparently with handles which are grasped by the treader. The name for these interior containers has not been established, but it seems at least possible that they, like the carrying baskets, were called *staphyloboleia*.⁹⁰

Actual stone lenoi have been found, however, which can confidently be assigned to wine-making. These obviously are not direct copies of the wooden kind repre-

Rom, Basel, 1948, pl. 17 (Sarcophagus of Constantia); F. Gerke, *Der Sarkophag des Iunius Bassus*, Berlin, 1936, pl. 35; and often elsewhere.

⁸⁷ See below, pp. 247-249.

⁸⁸ *Staphyloboleia*? See below, p. 249.

⁸⁹ *Skaphai*? See above, p. 231.

⁹⁰ See below, pp. 249-250. In no. 13, above, the treader stands inside a tall carrying-basket.

sented in the vase-paintings, but are more closely parallel to the stone press-beds used in making olive oil. For wine, an impressively complete establishment of Hellenistic date was recently found at Mirmeki, near Kertch in the Crimea,⁹¹ with press-bed, run-off channels and vats all in place. Here the press-bed is a heavy circular stone with a channel near its perimeter, intended of course for mechanical pressing, and not a treading-floor in the primitive sense. A Bronze Age Minoan press (L.M. I, or 16th century B.C., according to Marinatos) found at Vathypetro in Crete⁹² more closely resembles the classical Greek arrangement as seen in the vase-paintings. In this case the grapes were trodden in deep open vases provided with spouts and drain-basins. In the classical press-beds which are thought to be intended for oil, there is a closer likeness to the equipment found at Mirmeki. The bed itself is most often made of a separate slab, usually square but sometimes round, which rested on a stone block or structure of blocks. Such are the press-beds found at Olynthos and at Delos.⁹³ A crude example of one-piece construction, presumably of Bronze Age date, which was found at Methana⁹⁴ illustrates how clumsy and hard to move such a press would be in contrast to the flat slabs of classical times.

From the foregoing evidence, we may conclude that the stone lenoi of the Stelai were most probably, like the press-beds from Olynthos and Delos, square or circular blocks, hollowed or channeled, provided with a run-off spout, and meant to be either imbedded in a floor or supported on a separate structure, the latter no doubt usually also of stone. Real portability, of the kind suggested by the lenoi of the vase-paintings, is scarcely to be assumed. As to their size, we can only guess; but, in order to offer room for a treader to work comfortably or for a press to work efficiently, a minimum diameter of about one meter would be required.⁹⁵ The price of 8 drachmai, which is conjectured above for one of our lenoi, seems appropriate for a stone object of such a size.⁹⁶

⁹¹ *Illustrated London News*, Jan. 5, 1957, pp. 28-29, figs. 1-2, 4-6; brought to my attention by Professor H. A. Thompson.

⁹² *Πρακτικά*, 1952, pp. 594-597, fig. 6; *B.C.H.*, LXXVII, 1953, p. 237, fig. 31.

⁹³ *Olynthus*, VIII, p. 342, pls. 81,4; 82,2; 83,1. The authors take these for oil presses, but suggest (*ibid.*, note 18) that the two spouted basins, pls. 81,4 and 83,1, may have been used for grapes. Cf. also the Hellenistic press-bed from Praisos, *B.S.A.*, VIII, 1901-1902, p. 265, fig. 31, which, though itself round, was supported by one or more square blocks. The press-beds found at Delos (*Délos*, XVIII, p. 100) are nearly all square (the round one, Cloché, *Classes*, pl. IX, 1) and quite heavy. The largest is 1.37 by 1.15 by 0.27 m. (*Délos*, XVIII, pl. 39, figs. 273-275). Their great thickness, as well as the nature of their channeling, favors Déonna's assumption that these were oil presses.

⁹⁴ Deffner, *Ath. Mitt.*, XXXIV, 1909, pp. 345-347, pl. 25,1. Deffner suggests that both grapes and olives may have been pressed on this object.

⁹⁵ The press-beds found at Delos are even bigger (cf. above, note 91). There is one from Olynthos (*Olynthus*, VIII, pl. 81,4) with an outer diameter of 0.86 m., length including spout 1.15 m.

⁹⁶ On the price, see further in the following number of this journal.

5. TRIPTER

(II, 1, and possibly 3; V, 32)

According to Pollux, a *τριπτήρ*⁹⁷ is a vessel into which the oil flows from the olive press (X, 130: ὁ κρατήρ εἰς ὃν ἀπορρέει τοῦλαιον).⁹⁸ In the same passage he seems to equate it with *ὑπολήμιον*,⁹⁹ which he quotes from the *Demioφρατα*, but which is not extant in the Stelai. It is not clear whether there is any real difference in meaning between these words, or whether they are synonymous. The earliest use of *τριπτήρ* occurs in Aristophanes (*Ach.*, 937), where the sense seems to be as in Pollux.¹⁰⁰ In Suidas, also, where Isaios (Frag. 24) is cited, *τριπτήρ ἐστὶ πιθάκνη, ἐκπέταλος, οἶα τὰ ἐπιλήμια*.¹⁰¹ In other cases, the press itself is meant, or the wooden press-board, but the distinction is not always evident from the language.¹⁰² Tripter is associated with wine, as well as oil, so that Pollux' mention of oil need not be taken as restrictive.

Tripter is also used for a kind of mortar,¹⁰³ and for a pestle.¹⁰⁴ In a fourth-century inscription from Eleusis,¹⁰⁵ tripteres are mentioned as water troughs for livestock, but this is an isolated case, and need not be taken as a primary, or even regular, meaning (other large, open vessels, intended for different purposes, were also put to this use).¹⁰⁶ It is nevertheless true that *τριπτήρ* had a variety of meanings, as Suidas (*s.v.*) says: *πολλὰ γὰρ καὶ ἄλλα σημαίνει τούνομα*.

In the Stelai, there are two certain listings of tripteres (II, line 1 and V, line 32). In both lines the prices are lost, but the second at least gives the material as terracotta.

⁹⁷ *Τριπτήρ*: Liddell-Scott-Jones, *s.v.*; A. Jardé, *Dictionnaire*, V, pp. 360-362, *s.v. Torcular*; E. Pottier, *ibid.*, V, p. 469, *s.v. Tripter*.

⁹⁸ So also in Pollux, VII, 150; and cf. I, 246.

⁹⁹ Liddell-Scott-Jones, *s.v.* In Dittenberger, *O.G.I.*, 383, line 247 (Nimrud Dagh; first century B.C.), the reason why a *κρατήρ ὑπολήμιος* is mentioned in that context is not clear, but the expression should mean the same as *ὑπολήμιον*.

¹⁰⁰ Cf. Rogers, *ad loc.* It seems obvious that *τριπτήρ* here means a vessel.

¹⁰¹ For the use of *ἐπιλήμιον* in a similar sense (though differently understood in Liddell-Scott-Jones, *s.v.*) cf. Oppian, *Cynegetica*, I, 167 and A. W. Mair, *ad loc.* (Loeb Cl. Lib. Ed., pp. 14-15, note d).

¹⁰² Nicander, *Alex.*, 494, and Schol.; Bekker, *Anecd.*, I, p. 302: τὰ ξύλα τοῦ ὀργάνου, οἷς ὑποβάλλονται αἱ σαργάναι τῶν σταφυλῶν, οἷς στρέφουσι τοὺς στύλους τοῦ ὀργάνου. Cf. also Hesychius, *s.v. τριπτήρ*: ᾧ τὴν σταφυλὴν τρίβουσιν.

¹⁰³ Theophrastos, *de Lapid.*, 56. Cf. Bekker, *loc. cit.*: ἄλλοι δὲ φασὶ τριπτήρες εἶδος θυ<εί>ας, where, however, a press may again be meant.

¹⁰⁴ Only in Nicander, *Ther.*, 95, and Frag. 70, 15 in Athenaeus, IV, 133 e. Cf. Bekker, *loc. cit.*, οἱ δὲ ἀκόνην, i.e., a whetstone, which might be compared for its shape or its purpose.

¹⁰⁵ *I.G.*, II², 1673, line 21.

¹⁰⁶ Cf. Liddell-Scott-Jones, *s.v. ληνός*, 2. Note also the use of louterion-like basins for watering livestock on an East-Greek b.-f. amphora in Munich, Pfuhl, III, fig. 149, and on a relief from Otricoli in the Vatican, S. Reinach, *Répertoire des reliefs grecs et romains*, I, Paris, 1909-1912, p. 415,2. Suggested also by the unpublished b.-f. lekythos (white ground), Agora P 24067, by the Gela Painter (*A.B.V.*, p. 715, no. 16 ter).

Furthermore, in Stele II the first line is followed (lines 2-3) by a *σίρπη* (price lost; but cf. above, p. 196), then by the entry *ἔτεροι* III, with a price of 5 drachmai 1 obol. Since the gender does not agree with that of *σίρπη*, it seems logical to refer this entry back to the *τριπτῆρες* of line 1, as Pritchett has said.¹⁰⁷ Elsewhere in this Stele, too, the unit prices for *σίρπαι* are given as 5 obols in one case (Stele II, line 6), apparently 3½ obols in the other (II, line 16), which is not very consistent with the price stated in line 3. If *ἔτεροι* refers to *τριπτῆρες*, we have for them in this entry a unit price of 1 drachme 4½ obols, a figure which invites comparison with that of 2 drachmai for the pottery kardopos listed a few lines down (II, lines 9-10).¹⁰⁸

Of the possible meanings for *τριπτερες*, that which best fits the entries in the Stelai is the first, that is, they were run-off basins used to catch the flow of grape juice or olive oil from the press. 'Pestle,' the first meaning given in the *Lexicon*, occurs only in one author, and so also 'mortar,' which is given next; in both instances the authors are later than the fifth century B.C. 'Pestle' seems particularly ill-suited, since terracotta is twice mentioned as the material for tripteres, since *ὑπερον*, for 'pestle,' occurs in both Stele II and Stele V, and since the price (3 obols) does not agree very well with the possible price of 1 drachme 4½ obols for a tripter. This brings us back to the wine (or oil) press and its equipment. And again, since *ληνός* is used in Stelai II and V for the press itself, and for other reasons, the tripteres of the Stelai must be vessels of the sort defined by Pollux and implied by Aristophanes. Vessels of terracotta, large enough to cost nearly two drachmai, would suit this situation very well. The fact that they are sold in pairs in Stelai II, line 1 and V, line 32 may have no special significance, but it would be convenient to have an empty vase ready to put into position when the one in use was filled.

The exact form and size of our tripteres cannot readily be established. One difficulty is that almost any vessel that was large enough could have been applied to this use. Pollux calls it a *κρατήρ* (VII, 151; X, 130),¹⁰⁹ Suidas (*s.v.*) a *πιθάκνη*, *ἐκπέταλος*, and indeed a wide mouth-opening would be advantageous. In most of the pictures of wine treading that appear on vases,¹¹⁰ the juice flows from the lenos into a wide-mouthed vessel, sometimes partly sunk into the ground. In some cases, it looks like a pithos,¹¹¹ but more often it resembles a krater,¹¹² or at any rate a broad, basin-like vessel.¹¹³ All of these containers are quite large and heavy-looking, some of them

¹⁰⁷ Pritchett, Part I, p. 256.

¹⁰⁸ See also above, p. 239.

¹⁰⁹ Cf. Aristophanes, *Ach.*, 937, where *κρατήρ* and *τριπτήρ* are rhetorically balanced.

¹¹⁰ See above, pp. 244-245.

¹¹¹ E.g., above p. 244, no. 2.

¹¹² E.g., above, p. 245, no. 13, where a lugged bell-krater, partly buried in the ground, seems to be represented; and cf. above, notes 91-92. The shape also resembles that of a round bathtub; see below, p. 254, note 142.

¹¹³ E.g., above, p. 244, nos. 3, 9. On no. 10, the run-off basin is a squat, bulging vessel with

more so than others.¹⁴ After all due allowances for variety of shape and size, it seems likely that vessels of this type are meant by the *tripteres* in the Stelai. If so, and if the unit price of 1 drachme $4\frac{1}{2}$ obols is valid for *tripteres* in Stele II, line 3, this conclusion adds valuable evidence to our knowledge of prices for pottery in the late fifth century B.C.

6. PLINTHOS STAPHYLOBOLOS

(V, 36)

The whole entry reads [π]λινθοισταφυλοβόλοι, with no interruption between the two words. The price is lost, and the number of objects sold is apparently not stated.¹¹⁵ The word *σταφυλοβόλοι* is new, and the question must first be asked, whether it is here a noun or an adjective.

The only comparable word, *σταφυλοβολεῖον* (or *-βόλιον*), appears only in lexicographical sources.¹¹⁶ Pollux, in one place (VII, 151), calls it a vessel in which the vintagers put the grapes (*ὁ κρατήρ ἐν ᾧ τὰς σταφυλὰς βάλλουσιν οἱ τρυγῶντες*); in another passage (X, 129), where perhaps the same meaning is intended, he lists it among containers in which the crops are collected (*τὰ ἀγγεῖα τὰ ὑποδεχόμενα τὴν ὀπώραν*), and in the company of baskets, so that we might be justified thus far in calling it a vintage basket.¹¹⁷ Finally, Pollux (I, 245, with the form *-βόλιον*) lists it again among containers used by farmers, and again in proximity to baskets, but gives as a synonym *ταμιεῖον*, which properly means a storage-room or storehouse. The passage is, therefore, ambiguous. On the one hand, *ταμιεῖον* might have a special application here, such as 'storage basket,' with *σταφυλοβολεῖον* defined as before; on the other, if *ταμιεῖον* has the significance of a 'room,' *σταφυλοβολεῖον* might be understood as a place where grapes are put for treading, i.e., a treading-floor (see below).

Among the lexicographers, Photius has the fullest entry, offering three definitions for the word:¹¹⁸ (1) the container *within* the lenos, in which the vintage is trodden; (2) the basket in which the grapes are brought from the fields, to be

two side-handles, tilted upward. Cf. also the large stone catch-basin in the Minoan press-bed found at Vathypetro, p. 246.

¹¹⁴ Compare the size of the amphora as represented on the column-krater in Athens, above, p. 245, no. 13.

¹¹⁵ Cf. Pritchett, Part I, pl. 77, a.

¹¹⁶ Liddell-Scott-Jones, *s.v.*, which cites Pollux, I, 245; VII, 51; X, 129; and Bekker, *Anecd.*, I, p. 303. To these references, add Hesychius and Photius, *s.v.*, and Suidas, *s.v.* *σταφυλή*; and note that the *Lexicon's* definition, 'vat or basket in which grapes are put for pressing,' is hardly adequate. Cf. also E. Pottier, *Dictionnaire*, IV, p. 1464, *s.v.*

¹¹⁷ Such baskets appear frequently in scenes of vintaging; cf. above, pp. 244-245.

¹¹⁸ Photius, *s.v.* *σταφυλοβολεῖον*: οἱ μὲν φασὶ σταφυλοβολεῖον εἶναι ἐν ᾧ ἀνακόπτουσιν ἐν τῇ ληνῷ τοὺς βότρυς οἱ πατοῦντες, ἀπὸ τοῦ βάλλειν τὴν σταφυλὴν· οἱ δὲ τοὺς κοφίνους φασίν, ἐν οἷς ἀπὸ τῶν ἀγρῶν φέροντες τὴν σταφυλὴν βάλλουσιν εἰς τὴν ληνόν· ἄλλοι δὲ λέγουσιν σταφυλοβολεῖον εἶναι ἄγγος τι χωρητικὸν οἴνου.

emptied into the lenos; and (3) a kind of container for wine. Essentially the same information is given in Bekker, *Anecd.*, I, p. 303. The second of these definitions, 'vintage basket,' agrees with Pollux, VII, 151 and X, 129. Something like the first, 'vessel or place in which grapes are trodden,' seems to be meant by Hesychius and Suidas.¹¹⁹

In the grape treading scenes in vase-paintings,¹²⁰ the treaders sometimes stand inside a basket, or bag-like container, which rests on the floor of the lenos,¹²¹ and it is possible that this kind of thing was called a staphyloboleion. It is also possible that when, as must have been usual later on, a fixed treading-floor was used, this floor itself was so named,¹²² as the language of Suidas (*τὸ καλούμενον πατητήριον*) suggests. The ancient definitions, at any rate, seem to have a fairly wide range of meanings for the word, a word which is, after all, more functional than graphic, and which demands from its etymology no very precise meaning.

What, then, of *plinthoi* and *staphyloboloi*? Although *σταφυλοβόλοι* is unique, we might without difficulty accept it as a substantive, and a probable equivalent for staphyloboleia (i.e., 'vintage baskets,' 'treading baskets,' or the like), if it had a line to itself. But instead, it follows, in the same line and without interruption, upon *πλίνθοι*, and with no number after either word. A curious juxtaposition of bricks and baskets, both unnumbered, if the two words are to stand separately! Because of this difficulty, it seems better to take *staphyloboloi* as an adjective with *plinthoi* and to understand 'bricks (or tiles) for a treading-floor' (cf. above, on *σταφυλοβολεῖον*). These, too, are without parallel, but at least this interpretation brings the sense of the words together and would help to explain the puzzle of the missing numbers. The pavement of treading-floors was usually made of plaster, but that of one found west of the Acropolis at Athens¹²³ was made of river pebbles and lime-mortar. One can easily suppose that a very effective floor could be made of bricks set in mortar, and that was perhaps the purpose of these *plinthoi staphyloboloi*. The fact that they are not numbered might also suggest that they were not in very good condition. Possibly they had been taken up, deteriorated and in more or less fragmentary state, from an old treading-floor.

On the manufacture, uses, and prices of bricks, see Pritchett, Part II, pp. 286 f.

¹¹⁹ Hesychius, *s.v.* σταφυλοβολεῖον· μέρος τι τῆς ληνοῦ; Suidas, *s.v.* σταφυλή . . . καὶ σταφυλοβολεῖον, τὸ καλούμενον πατητήριον.

¹²⁰ Cf. above, pp. 244-245.

¹²¹ E.g., above, pp. 244-245, nos. 2, 9, 10.

¹²² Cf. A. Jardé, *op. cit.*, p. 361: "le sol où l'on foule le raisin."

¹²³ Jardé, *loc. cit.*, identifies it as a *staphyloboleion*. It is described by W. Dörpfeld, *Ath. Mitt.*, XX, 1895, pp. 168-170, with ill. Other treading-floors: *Olynthus*, VIII, pp. 342-343; *B.S.A.*, XXV, 1921-23, p. 69 (Mycenae, Hellenistic).

7. PIESTERION

(V, 10)

The words *πιεστήρ* and *πιεστήριον* are cited by various writers on Greek antiquities as if they were established terms for 'wine press' or 'oil press.'¹²⁴ *Piesteria* are therefore placed in this section; but it became evident, upon close study of the words, that the *πιεστήρια* of this entry can hardly have anything to do with oil or wine presses.

The word itself is not very concrete or graphic, and it is so rarely encountered that one has great difficulty in obtaining any clear impression of these objects. In the *Lexicon*,¹²⁵ the terms *πιεστήρ*, *πιεστήριον* and *πιεστήριον ὄργανον* are defined very loosely ('squeezer,' 'press'), and treated as if they were all more or less synonymous, as indeed they are if one is content with a broad enough definition. Inherently, there is probably no reason why oil presses and wine presses could not have been covered by these expressions. Actually, however, there is not one ancient source¹²⁶ in which any of these words appears to have been used or defined in this sense.

The words in question occur chiefly in medical writings, where they have a variety of specialized meanings. There, the *piester* or *piesterion* is a pressing or squeezing instrument used in preparing medical concoctions.¹²⁷ Adjectivally, there is (only once) *piesterion organon*, for a kind of clamp used in setting dislocated limbs.¹²⁸ *Piesterion*, found only three times, refers to a very specialized surgical instrument.¹²⁹

Apart from the foregoing cases, the occurrence of these words is very rare indeed. For *piester*, we have only the (restored) fourth-century inscription from Eleusis,¹³⁰ in which the epistatai report their re-use of some old iron *μοχλοί* for wedges, hammers, and *πιεστή[ρες]*. These objects certainly were not wine or olive presses; perhaps clamps to be used in construction work? Finally, there is a later source containing an obscure passage in which the word *πιαστήρ* (*sic*) appears to mean some-

¹²⁴ A. Jardé, *Dictionnaire*, V, p. 360 *s.v.* *Torcular*; Cloché, *Classes*, p. 17; cf. Blümner, *Technologie*, I², p. 344, note 1.

¹²⁵ Liddell-Scott-Jones, *s.vv.*

¹²⁶ In *Corpus Glossariorum Latinorum*, II, 407, lines 44-45, *πιεστήριον* is equated with *pressorium* (itself a late word: 'clothes-press' in Ammianus Marcellinus, XXVIII, 4, 19), *πιεστήρ* with *prelum*; but cf. *C.G.L.*, III, 263, lines 17 and 20.

¹²⁷ *Gleukinon* (Galen, vol. XIII, p. 1044); *mekon*, the opium poppy (Dioscurides, IV, 64); *mandragoras*, the mandrake root (*ibid.*, IV, 65). For *piester*, I have been unable to consult Aetius Medicus, XII, 55 (sixth century A.D.), but it too is of course a medical source.

¹²⁸ Oribasius, XLIX, 4, 68.

¹²⁹ Galen, vol. XIV, 104 and 130, in his Glossary of Hippocratic words; its use is described by Hippocrates, *Mul.*, I, 70 = 680, 15.

¹³⁰ *I.G.*, II², 1672, line 304. If the word is *πιεστήρες*, this is the only occurrence of the form in classical Greek. Perhaps, on the evidence of our inscription, it should be restored *πιεστή[ρια]*. Cf. above, pp. 221 and 218, on *λουτήρ-λουτήριον* and *θερμαντήρ-θερμαντήριον*.

thing like 'grappling hook';¹³¹ and Suidas (*s.v.*) defines *πιεστήριον*, not very helpfully, as an *ἔκθλιβον*, which I have been unable to find elsewhere.

Our inscription gives by far the earliest occurrence of the word *πιεστήριον*. The evidence for its meaning, as surveyed above, offers no encouragement for identifying these objects with oil or wine presses. Without further clues, we can hardly define our *piesteria* more accurately than to call them 'objects for pressing, squeezing, pinching, or the like.' Whatever they were, there were seven of them in this lot, and one is disinclined to allow them any great size or importance. The context, though otherwise not very revealing, is unimpressive: a broken cot (V, line 9), a block of wood (V, line 11), a bench or stool (V, line 12).¹³² But the entry in line 9 may, just conceivably, have some connection. Could these *piesteria* have been some kind of fittings or clamps from the cot, perhaps relevant to its broken condition? This is rather a desperate guess, but here we have little else to guide us.

*8. ΕΚΠΙΕΣΤΗΡΙΟΝ (*Pollux*)

Pollux has no mention of *piesteria*, but he does attribute an *ἐκπιεστήριον* to the *Demioqrata*,¹³³ in a passage dealing with the care of clothing. Here the *ekpiesterion* seems to be some kind of fuller's press. The word is not extant in the Stelai, but there is no compelling reason to suppose that Pollux was erroneously citing the *piesteria* of Stele V, line 10.

9. ΠΥΕΛΟΣ

(VI, 138)

The word *πύελο[ς]* occurs only once in the Stelai, in a passage which does not give separate prices for the objects listed. The text of this line is mutilated, too, so that even the number of *pyeloi* is uncertain. The fragment apparently lists real property on Thasos, auctioned as a single lot together with some large, more or less stationary objects, a fact which supports the restoration of *pyelos* in the singular. Besides the *pyelos*, there is a *lenos* (see above, p. 242) and perhaps a number of *pithoi* (above, p. 168).

A *πύελος*¹³⁴ is, usually, a bathtub, and that is most probably its meaning in this case. Other uses of the word, where they occur, are most often natural derivatives

¹³¹ *Martyrium Arethae*, 50, in Boissonade, *Anecdota Graecae*, vol. V. Cf. E. A. Sophocles, *Greek Lexicon of the Roman and Byzantine Periods*, New York, 1887, *s.v.*

¹³² On these entries, see Pritchett, Part II, pp. 215; 230 f.; 300 f.

¹³³ Pollux, X, 135; a *hapax legomenon*, but cf. above, note 126 on *pressorium*.

¹³⁴ *Πύελος*: Liddell-Scott-Jones, *s.v.*; Stephanus, *Thes.*, *s.v.*; E. Saglio, *Dictionnaire*, I, p. 650, *s.v. Balneum, Balneae*; G. Karo and E. Pottier, *ibid.*, IV, pp. 781-782, *s.v. Pyelos; Olynthus*, VIII, pp. 198-204; *Délos*, XVIII, pp. 84-89.

of this meaning¹³⁵ and in any event seem to come earlier or later than the fifth century. The meaning in Aristophanes, our only really contemporary source, is regularly 'bathtub.'¹³⁶

Bathtubs of historic Greek times are of a more or less standardized form, the essential features of which were inherited from the Bronze Age.¹³⁷ The material, except in public baths, was regularly terracotta, and the tub was frequently built into one corner of a specially designed bathroom, which was provided with a paved floor and a drain. Often the tubs themselves did not have drains, and had to be emptied by hand; to facilitate this operation, there was provided a circular depression in one end (the foot) of the tub, into which the remaining water would collect during drainage. The form of the tub was strikingly consistent from the Bronze Age to the Hellenistic period, with only minor evolutionary changes. It was usually of a long oval shape, often tapering downward toward one end and with walls sloping inward toward the bottom. Designed to accommodate a single seated bather, it was seldom more than 1 m. long, with walls seldom higher than 0.40 m. at the highest point (the back). Although Bronze Age examples¹³⁸ do not have such a feature, the drainage (or foot) basin is usual in classical and later times.¹³⁹ A further refinement, common in the Hellenistic period but perhaps introduced much earlier, is the raised seat at the back of the tub.¹⁴⁰

¹³⁵ See especially Karo and Pottier, *loc. cit.*

¹³⁶ For the full range of meanings, see the *Lexicon*; but see also the note on Aristophanes, *Vesp.*, 141, in *Olynthus*, VIII, p. 179, note 72, where the meaning 'bathroom' (as opposed to the *Lexicon's* 'vat, kitchen-boiler') is defended by citation of the materials found at Olynthos. But if the meaning here is actually 'bathroom' (and not simply 'bathtub'), even this is an extension of the original sense.

¹³⁷ For Bronze Age examples, see especially Karo and Pottier, *loc. cit.*, and below, note 138. In Homer, the word for bathtub is ἀσάμυνθος, which is apparently of Bronze Age origin. The one occurrence of πύελος in Homer (*Od.*, XIX, 553) is defined in the *Lexicon* as a 'trough for feeding animals' (*sc.* geese), a generally accepted but not altogether certain translation. The geese do not necessarily feed *from* the πύελος, rather, beside it (παρὰ πύελον); the setting is very vaguely defined (ἐνὶ μεγάροισι); and, besides, it was all a dream.

¹³⁸ E.g., from Knossos: Evans, *P.M.*, I, p. 580, fig. 424, also illustrated *ibid.*, III, p. 386, fig. 257 (M.M. III); *ibid.*, III, p. 384-385, figs. 255-256 (L.M. II). From Milatos: *Mon. Ant.*, I, p. 201, pl. II. From Tiryns: Karo and Pottier, *loc. cit.*, p. 781 and note 7. The bathtubs found at Phylakopi on Melos (*B.S.A.*, Suppl. IV, *Phylakopi*, 1904, pp. 139-143, pl. 30) are of a different form, more closely resembling that of a wash-basin. It should be noted also, for the Bronze Age, that pottery *larnakes*, used as coffins, are called 'bathtubs,' though it is often doubtful whether they were so used (e.g., G. Maraghiannis, *Antiquités Crétoises*, II, Candia, 1907-11, pl. 30, from Gournia). An exceptional case is that of the bath at Pylos, which consists of a terracotta basin of larnax type imbedded in a "tub-like undercontainer" (C. Blegen, *A.J.A.*, LX, 1956, p. 100, pls. 47-48, figs. 19-21).

¹³⁹ See especially *Olynthus*, VIII, p. 200.

¹⁴⁰ See Broneer, *Hesperia*, XXVII, 1958, p. 18 and note 18, citing examples from Olympia which are believed to go back to the fifth century B.C.; but see also *Olynthus*, VIII, pp. 200-201, note

In the fifth century B.C., the current type probably resembled most closely the examples found at Olynthos.¹⁴¹ Such a form is no doubt what we should visualize for the *pyelos* as it occurs in Aristophanes and in our Stele.¹⁴²

(To be continued in the following number of this journal.)

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75. A specimen found at Leuktra, allegedly in a fifth-century context (*Arch. Anz.*, 1934, col. 162, and 1935, col. 212), has such a raised seat, but the dating seems uncertain. A good Hellenistic example, with seat, is that found at Mycenae, *B.S.A.*, XXV, 1921-23, p. 100, fig. 24. New examples, recently discovered in the excavations at Isthmia (Broneer, *Hesperia*, XXIV, 1955, p. 127, pl. 49, c; XXVII, 1958, pp. 18-19, pl. 8, a) include one built-in specimen, with a seat, and fragments of terracotta bathtubs. These latter appear to have been seatless (e. g., IM 816 A, unpublished), but it is still possible that seats may have been set in separately, or attached only to the (missing) back end of the floor. The context of these tubs is tentatively put around the turn of the fourth to the third century. (Professor Broneer has very kindly shown me this material and discussed the question of its date.) Hence, it is hard to say just when the bathtub with seat was introduced, but the Olympia evidence suggests an earlier date than I had formerly supposed.

¹⁴¹ *Olynthus*, VIII, *loc. cit.*, especially pls. 49, 1-2; 53, 1-2; 54, 2. A fragmentary bathtub of mid-fifth-century date, found recently in the Athenian Agora (C. Boulter, *Hesperia*, XXII, 1953, pp. 98-99, pl. 37, no. 130), although the back half is not preserved, tends to confirm this impression. We cannot be certain of this, but the tub may, like the Olynthian examples, have been seatless. It is interesting that the foot-basin has a small drainage-hole, a convenience not usually provided (see above, p. 253).

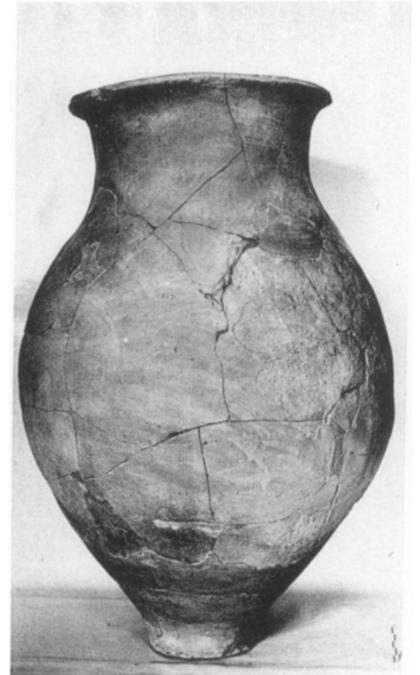
¹⁴² Another type, the round, krater-like basin, which appears in vase-paintings (e.g., *C.V.A.*, Oxford, II, III I, pl. 53, 3, cf. Beazley, *ad loc.*, p. 105; Euergides Painter, *A.R.V.*, p. 60, no. 20), may also have been called a *pyelos*, but the context of our entry suggests that the other kind was more probably meant. On the round tub, see also, *Délos*, XVIII, p. 88.



a. Chian Amphora
P 18816



b. Kados on Red-Figured Cup
Boston, M.F.A. 95.29



c. Kados-Shaped Pithos
P 19737



d. Kados
P 24666

e. Stamnos (?)
P 5173

f. Small Wine-Jar
P 8858



a. Sipye (?)
P 4864

b. Red-Figured Hydria
P 6053

c. Household Hydria
P 874



d. Black-Glazed Lekanis
P 10370

e. Lekane
P 21931

f. Household Lekanis
P 11004 + 11007



g. Black-Glazed Chous
P 23861

h. Chytra
P 21947

i. Myke (?)
P 9428



a. Alabastron
ST 201



b. Deep Brazier
P 21958

c. Shallow Brazier: Eschara
P 21956

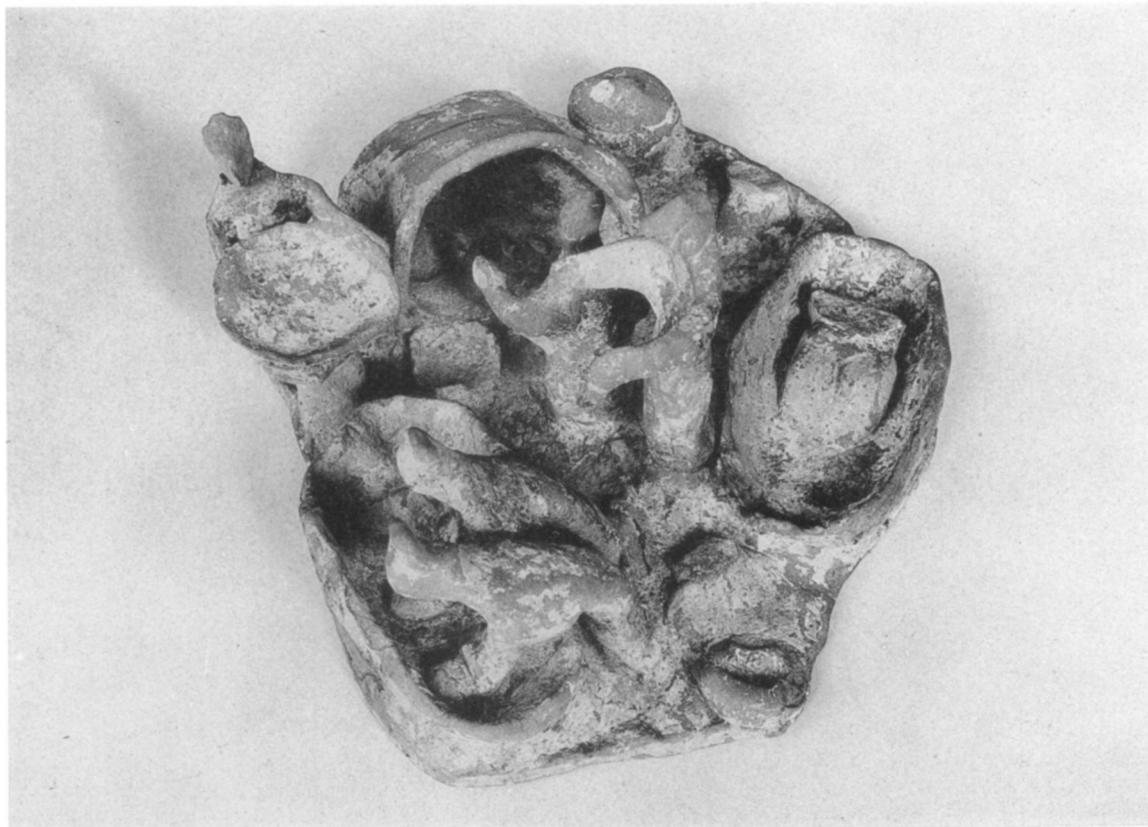
d. Grill: Gastropotes (?)
P 8305



e. Lopas (?)
P 2360

f. Chone
P 6646

g. Hethmos
P 16387



a. Terracotta Group. Athens, National Museum 4431



b. Terracotta Group. Athens, National Museum 5773