

# THE ROMAN AND BYZANTINE POTTERY

Plates VIII—X

The material discussed here includes all the significant pieces of Roman and Byzantine pottery found during the first year of excavation in the Athenian Agora. It embraces, more specifically, those wares used in Athens from at least the first century B.C. to the eighteenth A.D. so far as they are represented among the finds of the year's digging. A brief introductory section on some Hellenistic sherds does no more than emphasize the need of a study of the pottery of that period before the origins of the Roman fabrics can be determined. Since only in recent years have the ceramic products of the Christian centuries been given due notice in some reports of excavations in Greek and neighboring lands, little comparative matter is at hand, and as a consequence of this and due, also, to the nature of this report the treatment of the material is primarily descriptive.

## HELLENISTIC PROGENITORS<sup>1</sup>

It is a truism to say that the Roman red-glazed pottery, the terra sigillata and the eastern provincial products, cannot be studied adequately and its problems resolved until a history of the Hellenistic wares has been written. So far the lack of closely dated material of that time and the refusal of most students to evince any interest except in the fancier vases have combined to prevent the appearance of such a work. The first season of the Agora gave no results of much value for the purpose but it

<sup>1</sup> The numbers under which the shapes are discussed refer to Pls. VIII—X where almost all the fragments to be described are drawn in profile half size. For the sake of brevity the following abbreviations will be used in the discussion of the Roman Pottery. The initial letter, followed by a number alone refers to the numbered pot-forms of the particular work.

CH: refers to the pots found in Roman graves at the hill Cheliotomylos at Old Corinth. These will appear shortly in a volume of the Corinth publications dealing with the North Cemetery.

D: Dragendorff, *Bonner Jahrb.* 96 and 97, 1895, pp. 18 ff. and Pls. I—III.

E: Österreich. Arch. Inst., *Forschungen in Ephesos* I, pp. 167 ff.

K III: *Mitteilungen aus dem Kerameikos* III, Oxé, *Terra Sigillata aus dem Kerameikos*, *Ath. Mitt.* 52, 1927, pp. 213 ff.

K V: Karl Kübler, *Mitteilungen aus dem Kerameikos* V, *Spätantike Stempelkeramik* in *Ath. Mitt.* 56, 1931, pp. 75 ff.

O: Knipowitsch, *Materialien zur römisch-germanischen Keramik* IV, I *Die Keramik römischer Zeit aus Olbia*.

Pr: Zahn, *Priene* (Wiegand and Schrader), pp. 430 ff.

Pg: *Altortümer von Pergamon* I, 2, pp. 268 ff.

S: Technau, *Griechische Keramik im Samischen Heraion*, *Ath. Mitt.* 54, 1929, pp. 48 ff.; Schneider, *Samos in frühchristlicher und byzantinischer Zeit*, *id.*, pp. 126 ff.

T: S. Loeschke, *Sigillata-Töpfereien in Tschandarli*, *Ath. Mitt.* 37, 1912, pp. 344 ff. and Pl. XXVIII.

would be only a continuance of past neglectful omission not to mention what little was brought to light.

Several fourth century and Hellenistic deposits were found but without stratigraphical evidence of successive deposition. A few fragments from these, together with others similar or patently Greek from disturbed deposits, illustrating the kind of pottery which was in use in the centuries preceding the appearance of the Roman wares, will be mentioned briefly here to contrast and compare the shapes and glazes.

With all the digging which has been done in Athens the occasional occurrence of red glaze before Roman times could not have passed unobserved. Apart from mention of misfiring, however, small notice has been taken of the phenomenon despite the fact that its frequency precludes the possibility of chance having been the cause in most cases. Even in the sixth century Athenian potters were producing red-glazed ware as is shown by several sherds, apparently from skyphoi of Corinthian shape, from a stratum of that date. As long, however, as black-glazed vases held sway the plain red ware would not greatly be sought after. Whether they continued to be produced throughout the fifth century in small quantity is unknown but at the end of the century and in the early fourth they occur rather frequently. As has been mentioned in describing some of the pottery from the Pnyx excavation, it is the lamps, more closely dated than the pots, which illustrate the fact best.<sup>1</sup> As for the pottery, some of the profiles of Pl. VIII are quite patently to be dated in the fifth or fourth century, the rest are later but none should come after the first century B.C. since they fall into none of the known classes of Roman pottery and come, for the most part, from deposits predominately, if not exclusively, Hellenistic. All the pieces are assumed to be of Athenian manufacture since it is as yet impossible to distinguish the plain Hellenistic wares of different localities.

In addition to this pottery, lamps of Types II, and V to VII<sup>2</sup> were found partially or wholly colored to the rich red-brown which Attic glaze shows when fired in an oxidizing atmosphere.

#### THE SHAPES. PLATE VIII, NUMBERS 1 TO 42

1 and 2. This shape seems to have had no Roman descendants. It is fairly common in fifth and fourth century times and is not infrequently red. No. 1, the earlier, has the bottom touched up with milto and is unpainted except for a single ring; the bottom of No. 2 is completely covered with glaze.

3-9. Compare the stands of Samian vases, O, 7 *a* and *b*. The high form of the fifth century, Nos. 3 and 4, is replaced by the lower in Hellenistic times. The brown color of 3 is not unique although, when red and black occur on the same vase, as

<sup>1</sup> *Notes on Greek and Roman Pottery from the Pnyx*; to be published in an early volume of *Hesperia*, Annual of the American School of Classical Studies. Lamps of Broneer's types IV, VI-VIII were found with the glaze partly or wholly red.

<sup>2</sup> The types of lamps are those established by O. Broneer in *Corinth* IV 2; *Terracotta Lamps*.

on 4, there is usually no transitional hue. Concerning the resemblance of 9 to our Roman Class I in clay and glaze more will be said presently.

10-18. No. 10 (Fig. 1) is a good fifth century sherd with impressed palmettes and is only partly glazed underneath, but the bottoms of the others in this group are covered with glaze. No. 11 (Fig. 1) has palmettes of later form, 12 concentric rows of fine slanting lines; 13 (Fig. 1), a circle of dots, roughly rouletted, with plain oval depressions supplanting palmettes. The others are plain or have a crude depressed circle (15) or spiral (13) formed on the wheel. The feet of plates suffered little change until Roman times.

19-24. These bear a striking resemblance to our Roman Class III. The cone inside the bottom occurs on Samian pots but is not common.<sup>1</sup> Class III is boldly distinguished by the cone and heavy foot and one would like to regard these Hellenistic bases, showing a transition from black to red glaze, as marking the line of descent, but that can hardly be true if these are Attic.

25-27. Compare these heavy bases with those of Classes I and III. The glaze of these three fragments is of the splotchy, metallic lustre kind which is described below.

28-35. More Hellenistic feet. Compare 30 with 92. The profiles of 31-35 are rounded, the finish is smooth, the glaze is rich and thick and they are, therefore, of the same date as No. 2; hence the lack of similarity with Roman bases.

36-38. The rim form of 36 is a Hellenistic metallic form and often occurs in black glaze with metallic lustre. Neither it nor the earlier rounded rim lasts into Roman pottery which aped the more angular, metallic forms like 41. Nos. 37 and 38 show a lower foot. Compare Class I, 57-61.

39-41. The first (Fig. 1) has an excellent black glaze and must belong to the fifth century. Even its profile could be called metallic. The glaze of 40 is a thin wash which does not cover all the sherd evenly. No. 41 probably shows a development of this early form since the workmanship, the clay and the good glaze, which is non-porous and is mid-way in color between the early Attic red-brown and the Samian red, mark the sherd as Hellenistic, and it approximates none of the Roman classes. D 3 has a rim like this.

42. Little cups like this with in-curving sides were very popular in Roman pottery but Greek specimens are rare. The glaze is good and it is probably of the fourth century. In Roman times the rim changed its shape, the roll at the very edge indicating rather the copying of metal technique than a development of this simpler form.

43. A late fifth century shape (Fig. 1) which did not survive much later. It is noted here as an excellent example of the early Attic red-glazed pottery. Although the shape is usually found glazed in black, this fragment, of the best workmanship and of

<sup>1</sup> If, indeed, the bases of this shape figured in Pr, Abb. 551, p. 433 are Samian; the identity of profile of some pots on that and the preceding page with those of pots of other classes from the Agora fosters the suspicion that all listed by Zahn in his Class A are not Samian.

extremely fine, thin fabric, is covered with a thick, shiny glaze (absorbent) of a uniform rich, red-brown. The shape and the thin fabric are in imitation of metal forms but the fine, even-colored glaze shows that the red color was intentional.

This brief survey of some Greek pottery shapes shows, then, that not all survived into Roman times and those that did underwent a change, usually in the direction of sharper profiles as a result of copying metal forms. But these few examples, which are limited to some of the discoveries in the Agora, are not significant for drawing conclusions. The few indications given by shape are useful but for the most part they are accidental and their chief value lies in proving the early manufacture of red-glazed ware in Athens.

The fact that the natural (unfired) color of Attic glaze is red and that this color is retained by baking in an oxidizing atmosphere or is turned black in a reducing atmosphere, has been demonstrated by experiment and is illustrated by the pottery itself.<sup>1</sup> The quality and the color of the red glaze thus fired vary, naturally, with the composition and the temperature. It may have a glossy metallic sheen totally impervious, or a soft high gloss, very porous (as 43), or it may be intermediate between the two or it may be of inferior quality. None of the sherds here described shows the use of miltos as a coloring undercoat.<sup>2</sup> In this connection, however, should be mentioned the metallic, varicolored lustre which seems to make its appearance about the same time as these Athenian red-glazed pots. It takes the form of a metallic sheen overlying the black glaze upon which light shines with an oil-on-water effect. On 10 it appears sparsely, on the later 11, 19, 20, 25, 27, 29 and 30 more pronouncedly while on 26 it is so prominent as to resemble a glassy coat over the dull, black glaze. It occurs, too, on the foot and inside of 21 (black and dark red glaze) and on 24 (red) but its counterpart on red glaze seems to be a glassy sheen like the Arretine without the lustre. The method of producing this effect is unknown but it is certain that an accident of firing first caused it. It should be noticed that the lustre is not uniform or unbroken on any of our sherds. On the early No. 10 it appears merely as thin lustre spots on the excellent glossy surface, on the others as a special surfacing which is always broken by matt patches over which it did not form. Later the trick was thoroughly mastered as some Campanian bowls with silver-lustred medallions show.<sup>3</sup> Our sherds prove that the effect was often aimed at as do, also, some of the lamps of Type XVII on which it appears prominently. Almost all the plain black ware of Hellenistic times has this lustre to some degree and indeed the predilection for it may have delayed the arrival into favor of red glaze.

<sup>1</sup> The results of experiments conducted by Binns and Fraser are published by them in *A.J.A.* 33, 1929, pp. 1 ff. In examining the Greek pottery from the Pnyx it was found that the portions of the vase unexposed to the atmosphere of the oven were the parts most frequently red. Similar observations had been made previously by Zahn, *Pr.* p. 405, note to No. 32, and others.

<sup>2</sup> An undercoat of miltos was found on several red-glazed fragments from the Pnyx.

<sup>3</sup> A. J. Butler in *Islamic Pottery*, although concerned chiefly with mediaeval wares, cites and illustrates more ancient examples of lustre in his chapters on *Lustre Ware and its Origin*, pp. 37 ff. The Campanian vases are excellently reproduced in color on his Plates I and II.

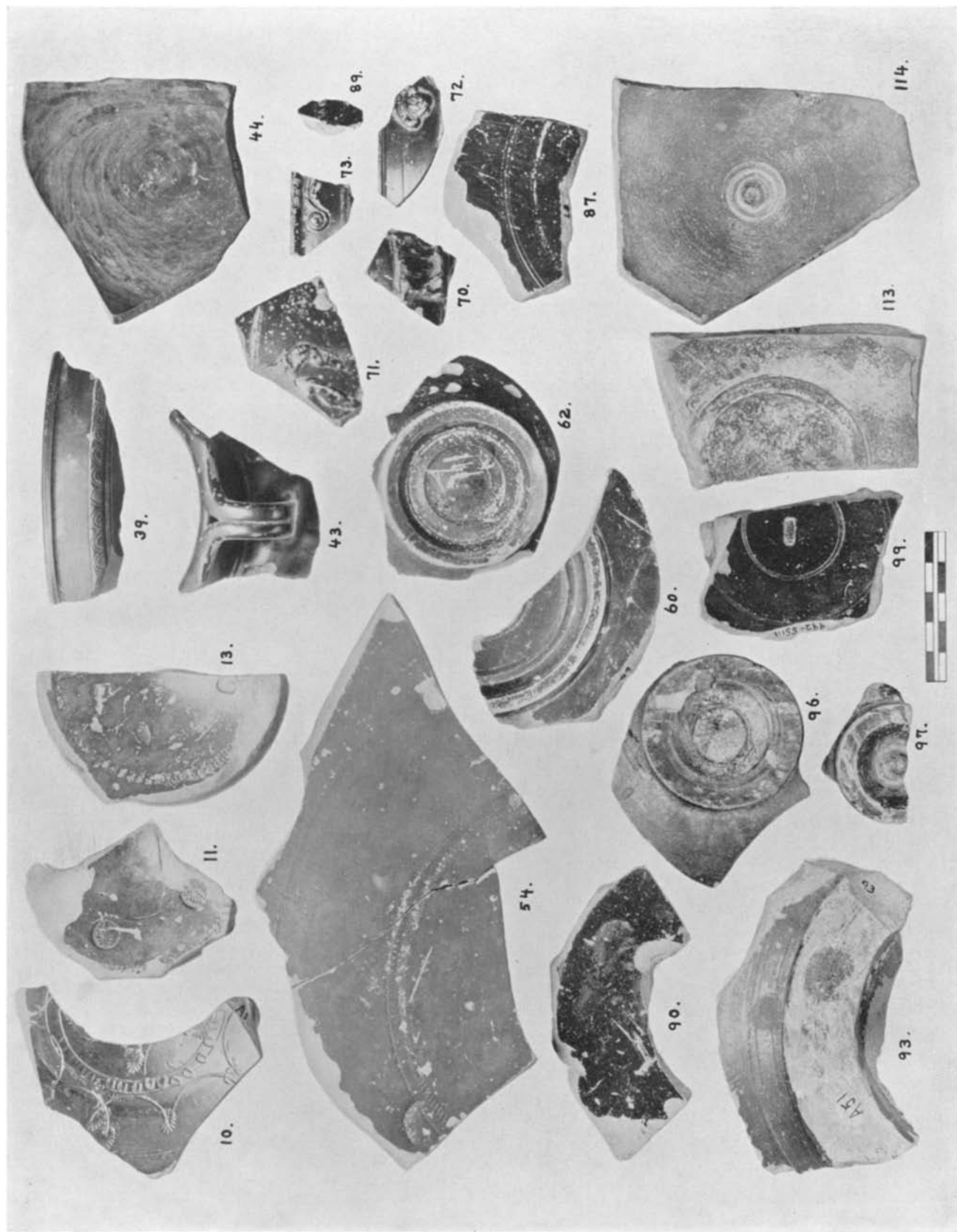


Fig. 1. Attic, Hellenistic and Early Roman Pottery

It has already been observed that the color of the Athenian red glaze approximates that of the Samian, or vice-versa. The hue is red-brown and prior to describing the Samian bases, Nos. 98 and 99, it can be noted that their glaze both in quality and in color is, if anything, more like that of the late fifth and early fourth century Nos. 2 and 43 than that of the Samian ware of the first and second centuries A.D. An interesting example of voluntary mottled effect in red and black is No. 44.<sup>1</sup> A good metallic lustre covers most of the base, casting a violet hue over the red and a silvery tone over the black (Fig. 1). The coloring of this piece is unique.

Athenian clay as well as glaze undergoes changes beginning perhaps at the end of the fifth century. The fine buff to reddish clay varies in quality and not infrequently it is of a whitish to yellow-buff hue. This may be due to underbaking or to the admixture of another clay. No. 1 is made of the light clay which, in this case, is very soft; so too are other black-glazed pieces, 11, 19, 20, 27. The texture is grainy and on some better-baked sherds where the coloring is reddish, it resembles closely that of Class III. The presence of mica in some pots and lamps of the fourth and third centuries should be noted<sup>2</sup> and it may well be that the great production of the fifth century exhausted the old clay beds and forced the use of others of inferior quality.

No. 9 is a puzzling piece; soft, light yellow-buff clay and dark red-brown glaze, non-porous and of poor gloss. In these respects it resembles Class I very closely yet the shape is unusual. The clay is somewhat nearer that of No. 1 than that of Class I and, although it is slightly more coarse-grained, the resemblance is striking. It was found in a Hellenistic deposit free from later intrusions which is to be dated roughly in the third and second centuries.

The series 19-24 is troublesome. Comparing the profiles with Class III one would presuppose a connection immediately but while the glaze supports this view the clay for the most part does not. But Nos. 19-24 are Hellenistic and probably Athenian while Class III was in use certainly in the late first and in the second centuries A.D. and is of Asia Minor origin. As noted above, 19 and 20 are black-glazed with a metallic lustre, but in the cases of 21, 22 and 27 the inside of the foot and the bottom are burned red,<sup>3</sup>

<sup>1</sup> Base of a nearly flat dish; fine, red-buff clay, thin and hard-baked. The outside is unglazed but very well smoothed; inside the glaze swirls around the centre in a mottling of black and of a light purple to reddish. The effect is striking if not beautiful but how this two-coloring was obtained is a problem. On some Early Helladic pots a streaked bi-chrome in black and red or orange seems to be brought about by the uneven application of the glaze-paint (it looks actually as if two colors had been used); on those pots the thin and thick streaks are readily discernible but on this piece the black are not noticeably thicker than the reddish. I suspect, however, that that may be the cause, the thinner portions having re-oxidized after the reduction took place while the thicker did not.

<sup>2</sup> It occurred noticeably but in extremely fine particles in lamps of Type VII (unglazed variety) and some contemporaneous pottery from the Pnyx.

<sup>3</sup> As has already been noted, the red color of the glaze was retained on those parts not exposed to the atmosphere of the oven—the inside of the foot and the centre inside where the foot of the pot stacked above rested.

and the lustre on the red brings a glassy finish to it as on Classes II (Italian) and III (Tschandarli). The clay, however, is unlike that of Class III. It has the light color of No. 1, burned occasionally to buff or reddish although that does not preclude the possibility of a high-temperature oxidizing oven, as a totally red glaze would necessitate, burning it to like color and hardness. No. 24 (all red) is most like Class III although clay and glaze are not quite so highly fired. Can these indeed be the ancestors of the Class III ware imported from Tschandarli? At present one can merely point out the resemblances between these Hellenistic and some Roman pots, here so striking, and hope for an explanation in the future.

### CLASS I. PERGAMENE

This distinctive and wide-spread ware needs no introduction beyond a brief reiteration of its characteristics, a thick, whitish-yellow clay and a dark red glaze, which has only fair lustre but is seldom porous. The occasional occurrence of pots of thin fabric, darker clay and lighter glaze detracts little from the compactness of the group. It has been discovered at Priene, Samos, Athens, Corinth and Olbia and in view of this distribution it must have been found at many other sites but has been neglected or overlooked by the publications.<sup>1</sup>

The identification of such pots as Pergamene was proposed by Zahn and has been followed by Knipowitsch.<sup>2</sup> It is of course tentative and must await confirmation by finds at Pergamon before final acceptance, but at present there are no reasons for rejecting the hypothesis and there are several for accepting it. In addition to those proposed by Zahn and Knipowitsch, another, perhaps the most cogent so far, is suggested by the Agora pottery. There are certain pieces so like the pottery found by Loeschke at Tschandarli that one must suppose them to have been imported thence, for reasons presented in the discussion under Class III, and a comparison of these with the Pergamene betrays several points of similarity: *a*) while the clay and glaze of both these classes

<sup>1</sup> Pottery belonging to this class which has been recorded so far:

CH: 119, 239.

E: p. 175, Nos. 65-67.

K: p. 216; No. 2 of Group IV should be included as a later specimen of the same ware.

O: pp. 21 ff., Group C and some of D, pp. 29 ff.; see following note.

Pr: p. 437, Nos. 159-162 and pp. 447 ff.; judging from the profiles, it appears that some Pergamene pots of darker clay-color are incorrectly listed under Class A, pp. 430 ff., with the Samian.

Pg: So little pottery from Pergamon has been published, and that so summarily, that no conclusions can be drawn from the few illustrated on pp. 268-270; it should be noted, however, that the most common shapes of this class in Greece are not among them although that fact, because of the small number of examples cited, cannot weigh too heavily against the proposed identification of the ware.

S: pp. 48 ff.

<sup>2</sup> Pr, pp. 447 ff. and O, pp. 21 ff.; but the identity with Knipowitsch's Pergamene group rests on clay and glaze rather than shape. The shapes from Olbia are different from those found elsewhere, except O 12 and 14. Can it be that they represent Pergamene shapes of the second century B.C. (before the ware seems to have been imported into Greece)?

are distinctive in their most characteristic phases there are some fragments which are almost transitional between the two in these respects; *b*) there is considerable similarity in the shapes of the two classes, particularly in the heavy fabric of the plates; *c*) in both classes the large plates when stacked in the oven for baking were separated from one another by small round disks of clay which occasionally in the Pergamene, always in the Tschandarli, left marks where they were in contact with the glaze on the inside and on the foot of the pot. Similar marking is not reported, nor to my knowledge found, on other Roman pottery. These points of resemblance greatly strengthen the cause for the identification of this ware as Pergamene when it is remembered how near to and in what intimate connection with the great city the port of Tschandarli must have been.

The date of the Pergamene pottery is not well fixed. The early fragments from the Kerameikos may belong to the second century B.C. while the absence of late profiles, our Nos. 107–109 for instance, suggests the end of the first century A.D. at the latest as a *terminus ante quem*. Most of the Agora fragments should fall between 100 B.C. and 100 A.D.

45–53. Rims. The large diameters show them to be from plates or large bowls; 51 and 53 belong with the shape of 67. No. 52 is unusual in the softness of the clay but its color and texture and the glaze are very similar to 68 so it should be classed here provisionally if not definitely; the shape is uncommon but it appears in this class in E No. 66 and in the related piece from Tschandarli, T No. 25.

54–61. Bottoms of plates or shallow bowls. This is the most common as well as the most characteristic shape of the class, of which 54 is an excellent example (Fig. 1). The glaze is fairly light, the clay correspondingly buff and the inside is decorated with a double circle of rouletted lines. It is the only base, however, ornamented in any way except 58 which has two narrow grooves. More important in the case of 54 is the fact that there are plainly visible inside and on the foot the marks of the clay disks upon which a like pot was set, and on which this one rested, in the oven. Three other bases show similar marks and their occurrence is of great importance in proving a relation with Class III, the only other ware on which they occur. It should be noted that in the bases of heavy fabric, Nos. 54 and 55, the inside of the foot is deep while in those of thinner body, Nos. 57 to 60, it is on the same level as the outside. The chronological difference between these two cannot be determined. The Kerameikos plates are level<sup>1</sup> while our raised ones are far nearer them in similarity of glaze than the level bases, which show a more careless and thinner application of glaze. At Tschandarli bowls with level bases are dated in the reign of Tiberius<sup>2</sup> but the raised Agora bases of thick fabric and of good glaze can be hardly later than the thinner specimens. There should, also, be compared the Arretine base, No. 88, which has a raised centre. The side of No. 61 bends up at a little distance from the foot and so resembles in this respect the shallow bowl bases of Nos. 92–94 (Class III) and the

<sup>1</sup> K, p. 214, Abb. 1; but note that the only a little later No. 8 is slightly raised.

<sup>2</sup> T 25 and 26 a.



Tschandarli pots just mentioned. A sharp little ridge is left inside the foot of Nos. 59 and 60 (Fig. 1) and this peculiar way of finishing the bottom of a pot seems to be a typical Pergamene device. It is found on some cups of this class from Corinth (unpublished), on our Nos. 62 (Fig. 1), 66 and 67 below and it is apparently copied in No. 91 of Class III. No. 56 is an uncommon form without an actual foot which seems to be unique.

62-68. Small bowls or cups. Nos. 62-64 are of the thick fabric, Nos. 65-68 of the thinner, although the profiles show that there is no strict line to be drawn between the two, and since the workmanship on both is careful the terms "poor" and "fine" are not applicable. The more important difference is that of shapes which, in general, are but two. One is a small bowl-like cup with a round foot and with sides which rise uniformly to a plain rim. The straightness of the side of 62 is unusual and more often the side curves inward at the bottom as in 62*a*. Cups of this shape are usually of a heavier, thicker fabric than those like 67 which illustrate the common early form of Roman cup found in Samian and Arretine ware, the distinctive feature of which in this class is the high, straight foot. The side may, as in 67, or may not, as in 68, make an angle near the bottom. The fine quality as well as the sharper shape of 67 indicates it to be the earlier of the two. The high foot shows that, if any influence is to be assumed here, it is Arretine and not Samian, for low feet were the rule even in the earliest Samian vases. Particularly characteristic of the thinner type of vase is the flatness of the base inside the foot, where the oft-occurring little ridge is found which has been mentioned above. One of the two similar pots from Corinth (CH 119) can be dated in the first century A.D., and all others with similar high feet should not be later.

The thin ware, particularly the cups, presents, thus, a superficial difference from the thick. They, also, seem to have been fired in a little clearer atmosphere so that the clay burned to a light buff and the glaze to a brighter red, changes which were facilitated by the lighter fabric and the usually thinner application of glaze. The glaze of 67 is glossy and of excellent quality, that of 68 and of the Corinth pots is poorer and more carelessly applied so that finger marks and light, porous patches appear where the clay is barely covered. The bases of plates do not show the color difference so distinctly since 59 has a glaze of a dark hue but the clay is a light salmon-buff, while the clay of 60 is the usual whitish-yellow but the glaze is light like that of the bowls. No. 63 is not glazed inside. It seems to be an exceptional case as it is the only pot or fragment of this class so far observed which is not completely covered by the glaze. Nos. 64-66 show exceptions to the common types. No. 64 appears to be the very high foot of a large cup of thick fabric which has a shape similar to that of 67 or 68. The flat bottom of 65 is unique and 66 combines a side like 67 with a foot like 62 and 63.

No. 69 is a piece of a high foot like those of 67 and 68, which it also resembles in clay and glaze. The vessel may have had a similar shape but it was very much larger.

## CLASS II. ITALIAN

As no great amount of Italian ware came to light this subject can be treated briefly. Except for two small fragments, all were of plain, wheel-made pottery, and several had small applied decorations. A few of the plain sherds showed an unusually light shade of clay-color similar to that of 59 and 64-69. The glaze, too, was a little darker than is customary, for the formation of which under-oxidation must have been responsible. On some pieces accidents of firing caused a slight bluish lustre with an oil-on-water color effect to form. Its feebleness shows that the occurrence was casual, and that it was not a relic of the Hellenistic lustre on black glaze which is mentioned above. It furnishes further evidence as to how readily and unavoidably this sheen was produced in small measure.

70 (755-P 88), 71 (1003-P 164) (Fig. 1). Fragments of moulded bowls showing a goat and the legs of a warrior holding a spear.

72-77. Straight, upright rims of plates (except 73 [1004-P 165], from a cup). The first three have the common applied decorations, a Medusa head, a double scroll (Fig. 1) and probably a wreath.

78-82. Curved rims of plates and bowls. The glaze was applied so thick on No. 78 that it is much crackled. No. 82 is part of the side of the shape of common cup with a rim like 73. It was copied in the Pergamene ware (our 67) but it is more likely that the similar Samian shape was copied by, rather than from, the Arretine.

83. A most interesting piece and a rare Arretine shape. It is a direct development of the shape found on the pre-Arretine pottery of the Pergamene group; compare K III, 5-7. This early form occurs also in the Samian (P 132) and in the Gallic (Oswald and Pryce, *Terra Sigillata*, Pl. xli) where even in the first century A.D. it degenerates into the later form, a straight sloping edge (Oswald and Pryce, *ibid.*, 2) common in Greece in Samian ware of the second century (our 109 and references there).

84-88. Feet: 84 of a bowl, the others of plates or shallow dishes. The bottom of the plates inside the foot is raised as in the specimens of thick fabric of Class I, Pergamene, 54 and 55. No. 87 (Fig. 1) is one of the few Italian pieces which betray traces of stacking in the oven. On the bottom inside there is a circle marking the spot where the foot of a pot of the same size rested. Tiny bits of clay are imbedded in the glaze.

89 (476-SS 7) (Fig. 1). The stamp of Umbricius is a not uncommon one on Arretine vessels; *C.I.L.* XI, 6700, 819.

## CLASS III. TSCHANDARLI

This is a most interesting ware which has points of similarity with both the Italian and the Pergamene. Except at Tschandarli, Olbia (references below) and Corinth (CH 94, 104, 36) it has not been reported. In describing the several small bowls of this kind from

Corinth I saw reason to suggest an Italian origin for them, but the new specimens from the Agora indicate Asia Minor as a certain provenience. Though the former attribution must be abandoned the considerations which prompted its adoption remain unchanged.

The fragments include pieces of the bottoms of nine shallow bowls and the bases of six deep bowls. The lack of remains of the upper parts of the pots is strange for the fabric is not delicate. As the profiles show, it is thick, hard, and durable and so is not subject to shattering. Most of the deep bowl-bases are whole. The workmanship is not very good for, though the inner surface is fairly well smoothed, the outer is left in a rough state and is often scored by the tool. The clay is hard and rather granulated. It ranges in color from a salmon-buff, which is a little more reddish and coarser in texture than that of the thin, Class I pots, to a dull, light red hue. A few particles of mica or quartz are occasionally noticeable. Inside, the glaze is of excellent quality and on most it can hardly be distinguished from the Arretine, although it is just a little redder than Arretine usually is. The glaze outside is seldom as good as that inside, being less glossy and more carelessly applied; and sometimes, it is so poor as to be almost matt and porous. Variations in it and in the clay are best remarked by a description of some of the pieces.

90 (Fig. 1). This is one of the least characteristic of the group and is strongly reminiscent of Class I, Pergamene, in shape and fabric. The clay is more finely grained than usual and has a light reddish-buff color. The glaze is that of this class but here it is a little lighter and is less glossy than most Arretine. On the outside it is even less glossy. A disk mark is visible on the inner surface.

91. This also has Class I resemblances such as the sharp little ridge left by the tool between the body and the foot, within the foot, which has been noted as occurring on Nos. 59, 60, 62, 66 and 67. The clay, too, is a rich, almost reddish salmon-buff, a hue met in lighter shades in Nos. 45, 59 and 64, but this may be due to underfiring, for the glaze is a little lighter than even on No. 90. Outside, as usual, it is thinner and is not so evenly applied. Above and below the foot there are the slightly impressed marks of clay disks used to separate the pots when stacked one upon the other in the oven.

92, 93 (Fig. 1). These two illustrate the characteristic shape of the Class. The clay is finely granulated, sometimes with tiny grains of yellow in it, and is hard-baked. Inside the glaze is thickly and evenly applied and varies a little in shade; outside it is always poorer, sometimes almost matt and with light, barely covered spots. Marks of the clay disks are always present.

94. Although the bottom is almost flat this was probably a deep bowl, hence the narrow foot. The size would explain the disk-marks, none of which occurs on the other deep bowls. The clay is of more pulverized consistency than usual and is more cinnamon in hue, and the former quality may explain the serious chipping which the glaze has suffered on the inside. The glaze is a little less glossy than is ordinarily the case but it is almost the same outside as in. Inside near the centre are two grooves. There is no trace of a stamp.

95-97. Typical feet for the deep bowls of this class, with a cone of clay shaped inside. Similar examples have been found at Corinth. No. 95 has a perfect Arretine glaze inside and out. The interior is scratched by the tool in a line which makes a spiral from the centre. The glaze of Nos. 96 and 97 (Fig. 1) is almost as good but it is a trifle redder, and on the outside it is less carefully applied. The clay is similar to that of the shallow bowls, Nos. 91 and 92. Disks of clay were not used in stacking these pots for baking, for marks of them never appear on these bowl bases, while No. 96 does show that left by the foot of a superimposed pot.

A glance at the text and profiles of Loeschke's description of the pottery from Tschandarli will suffice to show the very great similarity of this group with it.<sup>1</sup> The shape of the bases of the shallow bowls is that of his 26 *b*, and like ours "ist die Außenseite gegenüber der Innenseite oft vernachlässigt und nicht selten glanzlos" (p. 374). The shape of the smaller deep bowls is similar to his 19. Perhaps more striking is the presence of the disk marks. At Tschandarli not only were there found many sherds so marked, but the clay disks themselves were discovered in great numbers, proving thereby the presence of ovens. These marks do not occur in any other class of Roman pottery which I know except on some Pergamene fragments. Even the excellent glaze is matched, for in speaking of the later pots Loeschke says (p. 351): "Ihr Ton ist meist dunkelrot und der Überzug hat gleichfalls hochrote Farbe von lebhaftem Glanz. Hierdurch sehen sie den meisten gallischen und germanischen Sigillaten zum Verwechseln ähnlich." It has already been noted that more often the glaze of the pieces from the Agora is lighter and redder than the Arretine usually is and so is more like the Gallic. It is with these later pots from Tschandarli that ours must be correlated. The earlier ones are dated as Tiberian-Claudian on the basis of lamps found with them and the later are placed in the second century (T, p. 401 and 402). The deep bowls were found in both early and later strata, but the glaze of ours places them with the later, while among the shallow bowls only No. 90 has a profile more like the earlier 26 *a* of Loeschke's series than the later 26 *b*. It is very probable, however, that some of the Agora sherds belong to the first half of the first century A.D., and that none extends far into the second century. None shows a glaze as poor as a late second century bowl from Corinth (CH 36). Two pieces from Olbia (22300, p. 47 and 22367, p. 48) indicate that the pots were exported northwards as well as to the west.

So here one has a ware which was made within the Pergamene sphere of influence but which exhibits Arretine characteristics. Certainly Loeschke is correct in emphasizing the strong Italian influence at Tschandarli in early Roman times (T, p. 402). The glaze shows a conscious effort at imitation, but the similarity of clay is a chance and a less frequent occurrence. Fortunately shape and fabric were not imitated closely, too, for then the two wares would be indistinguishable. As it is, some sherds are a problem, for instance CH 104 *a* from Corinth. In studying that material I classified it as an

<sup>1</sup> T, Pl. XXVIII and the following references in the text to pages.

example of late Italian manufacture and, though it now seems that the other pots of the group there described are not Italian, that sherd must still be regarded as such by reason of its thinness, and so it should be placed with the Arretine.<sup>1</sup>

But Tschandarli is not far from Pergamon and, if the Pergamene attribution of the ware so called is correct, there should be points of similarity between the two. Such indeed is the case. The shapes betray it well as illustrated in our Nos. 58 and 91, and the thickness of fabric is characteristic of most of the Pergamene and of all the Tschandarli pots. Nos. 90 and 91 are almost intermediary between the two classes, 90 recalling the thinner Pergamene bases and 91 possessing the little ridge inside the foot which is a particular Pergamene method of finishing the base. Even the clay of 91 is like that of a few Pergamene sherds, and the clay of all Class III is of the granulated, though usually coarser, consistency of the Pergamene. But the difficulty inherent in an identification based on similarity of clay is well evidenced by the identity in appearance of some of this class with some Arretine, as has already been remarked. The glaze is a more distinct feature but, of all other east-provincial fabrics, the Pergamene glaze most closely resembles Arretine, and therefore this class also, in color, and in hard, impervious quality. But the best evidence of a relation between these two classes is in the use, common to both, of clay disks for supports of vases in the oven. Their employment is limited to these two classes of pottery, the marks left by them on the glaze appearing occasionally on the large Pergamene bases and always on the Tschandarli.<sup>2</sup> So this ware, indubitably connected with the region near Pergamon by identity with the Tschandarli pottery, gives powerful support to the correctness of the identification of the Pergamene ware itself by the striking points of likeness between the two.

#### CLASS IV. SAMIAN

This ware, first identified correctly by Zahn, appears everywhere in Greek lands and is well on its way towards justifying its ancient fame in the eyes of scholars who have hitherto been sceptical in their misunderstanding of the name.<sup>3</sup> Unfortunately

<sup>1</sup> Perhaps the Italian pots with clay similar to that of this group were made at some place other than Arretium. As noted above, the clay in question is a dark, brown-red, of granulated consistency with many yellow inclusions. It occurs in some of the later Roman sherds and Kübler calls "Egyptian" one such piece (K V, p. 84, n. 3). It seems barely possible that a fairly distinctive clay such as this could have been used by potters working in Italy, Asia Minor and Egypt; at present the problem can merely be stated, not resolved.

<sup>2</sup> As noted under Class I, the disk marks occur on No. 54 and several other large bases of like shape. Where they are clear enough to be measured they are found to be the same size on both the Tschandarli and Pergamene wares—0.015—17 m. in diameter.

<sup>3</sup> The following material is known to me:

CH: 2, 12, 51, 207, 208, 216, 226, 227, 234, 235; as in the case of the Pergamene ware, Samian fragments are fairly common at Corinth and include some nearly whole pots and signatures, all as yet unpublished except a few stamps from the theatre, pictured in *A. J. A.* 33, 1929, p. 500, Pl. VIII, Nos. 36–39: ΔΩΡΟΝ and

even since the identification was made students have not always troubled to appreciate the fact, and this has delayed progress in the study of the ware. The date of the earlier pieces is still unknown so its relation to the Arretine cannot be fixed, but two of the pieces from the Agora are to be placed among the earliest typologically. The characteristics of this class are a fine, brown (cinnamon-hued) micaceous clay and a light red ("orange-red") porous glaze.

98. Piece of the bottom of a plate like S II. The clay is less micaceous than usual, very thin, very hard-baked and of a reddish rather than a cinnamon hue. The glaze is darker and is more like the Arretine in its brownness. It seems to be wholly impervious except inside the foot where water is slightly absorbed. The bottom was decorated by a rouletted band of slanting lines.

99 (992-SS 111) (Fig. 1). Bottom of a small bowl somewhat like P. 147. Inside are three grooves and in the centre the stamp **KAAA**. The quality of the piece is hardly less excellent than that of No. 98. It is just a little thicker in fabric and is more characteristically Samian. The clay, although hard-baked, is decidedly micaceous, and the glaze, barely porous, is redder, although in color it is closer to the Athenian red glaze of the early fourth century B.C. than it is to the Samian of the first and second A.D. The stamp, carefully imprinted from a well-cut stone, gives us the name of a new Samian potter, or rather the part of the name, for there are a number of common ones with these initial letters.

On pots such as these the reputation of Samian ware was established. They must be dated in the first century B.C. although how early in it is uncertain. The lack of similarity in profile shows that in this respect at least there was no borrowing in either direction between it and the Arretine.

The other sherds are later and resemble most closely Samian pots of the first and the second centuries A.D. Only No. 100 has the rich, thick, adherent glaze of earlier times.

KOIPANOY certainly, ΘΕΟΔΩΡΟΥ very probably, are the names of Samian potters but no mention is made of the kind of ware or even of the kind of clay and glaze.

E: pp. 169 ff., Nos. 15-64; almost all these are probably Samian.

K III: p. 221, No. 4 = Beil. XXVI, No. 9 (this is called Italian!) and p. 222, IV, No. 1 which is carelessly classed as "Jüngere hellenistische (kleinasiatische) Sigillata" along with a Pergamene fragment (No. 2).—Can one wonder at our lack of knowledge of the East Provincial wares when an authority like Oxe cannot, or neglects to, distinguish Samian even from Italian?

O: Group B, pp. 12 ff. and some of D, pp. 29 ff.

Pr: pp. 430 ff. and 440 ff.; the profiles indicate that some Pergamene pots are included with the Samian of Group A.

S: pp. 49 ff., II-IV. Strictly speaking, all pots of these groups are Samian since they are local products but naturally it was the early ones of II which first made the ware famous; Technau is not correct, however, in intimating that one shape alone established the reputation (p. 50) for, as it is unnecessary to say, there must have been more, our Nos. 98 and 99 for example. Shape is of prime importance only when considered in relation to the ware in which it occurs.

Technau mentions (S, p. 50) that his (early Samian) Type II is represented also at Rhodes, Gortyn, Ktesiphon and Sparta. In the museum at Split (Spalato) I counted over two dozen Samian pots of different shapes and in Italy found that little Samian cups occur rather often at Pompeii and Herculaneum.

100. Compare O 5 of which this may be a later rather than a divergent form. The rim is narrower and curved, and the side is more bowed.

101, 102. The ubiquitous cup rims. No. 101, the earlier, is ornamented with the common applied double scroll. Compare our Hellenistic No. 42 and Arretine No. 82.

103. A simple form of bowl rim.

104. The side of a bowl like O 9.

105, 106. Rims of plates like O 22. This shape would be expected rather in the second than in the first half of the first century A.D.

107–111. The first three show the rim form common in the second century, which occurs usually on flat-bottomed plates like 110 and 111. Compare CH 2 and O 1*a*; the latter is apparently dated too early. No. 111 has the bottom decorated inside with two sets of triple grooves and it doubtless carried a potter's stamp in the centre.

112–114. Bases of a small bowl or cup, 112, and of shallow open bowls, 113 and 114. After clay and glaze, the most distinctive feature of Samian ware is the very low foot or the complete absence of a foot. The inside of 113 (Fig. 1) is slightly sunk down in two steps, the ledge and disk thus formed being of large diameter in this instance. This is found commonly in later Samian pots, and several other fragments show the same treatment.<sup>1</sup> No. 114 (Fig. 1) is the latest of this series. The glaze is thinner and is almost matt, and the clay is harder and less micaceous. The two grooves in the centre may be a reminiscence of the earlier method of interior decoration seen in No. 113. Similar grooves are found on the local bowls of later Roman times, as No. 277. This fragment may well belong to the late second century.

## CLASS V. LATER ROMAN WARES

After the second century the wares of earlier times cease to appear and others, somewhat less characteristic, take their place. These form the great bulk of the Roman pottery from the Agora. They have here been grouped under the subdivisions of a single class-heading, not by any means to belittle the real differences between them but rather to indicate that they do not form such closed groups as the preceding. Four different kinds of ware were distinguishable, the few variant pieces being placed with the group which they most resemble. The first three, A, B and C, represent importations, for the most part from Egypt; the last, D, embraces all the local products and so includes a few early pieces in addition to others which are contemporaneous with and are imitations of A, B and C. Stamped ware forms an important element in B, C and D. It has recently been made the subject of a thorough study by K. Kübler (KV) who deals, however, chiefly with the local products found in the Kerameikos. The stamped pottery

<sup>1</sup> It occurs on the Corinth pot CH 234 and was copied on the local bowl CH 230.

of the Agora is of particular importance since imported pieces were even more plentiful than the local ware and so add many more examples to the few found at the Kerameikos.

Apart from the stamped ware there is little comparative data for the shapes of this later Roman pottery since it seems to have been neglected previously.<sup>1</sup>

## A

The best sherds of the class are from pots made of extremely fine, pure red clay, which is thin and hard-baked. The clay has been made the factor of selection and serves to distinguish the fragments fairly well from all the others. The glaze varies from a good, impervious one of the hue of Arretine, which is rare, to one similar to the Samian but of thinner texture. On most of the pots it is a thin, porous coating of poor gloss and of a hue which approximates the Samian but which is decidedly more pink, and is often almost matt. Inside it is usually thicker and more glossy than on the outside, although almost invariably the exterior is completely glazed.

115-116 (Profile of 115 is like that of 139). Of best workmanship are the flat, plain-rimmed plates like these. The fragmentary one, 115, was found in a burned stratum above coins of Gallienus and Salonina (253-268 A.D.). Apparently, then, the second half of the third century saw a renaissance of fine pottery in the east provincial district. The shape is an old Samian one<sup>2</sup> and it is tempting to see in this ware a rebirth of the fine Samian pottery, but even though the difference in glaze might be spanned, the clay is quite different in color and is entirely free of mica. The rims and bases of over a dozen similar plates were found. No. 116 is thicker than usual and the tiny foot is placed at the angle of the side.

117. Doubtless the side of a similar plate but slightly curved.

118, 119. These two curved plate-rims are the only examples of this type in the group, all the others being like Nos. 115 and 116.

120. An excellent piece of the same quality as 115 and 116. The glaze, which is darker than usual, is a rich, glossy brown-red on both surfaces. It is slightly porous. Most probably this is the rim of a shallow bowl or plate.

121 (1000-P 161), 122 (1001-P 162) (Fig. 2). Rims of bowls with applied animals. The glaze is light and thin, and is considerably poorer than that of the fragments listed above. They show a fish and a dog, and are similar to fragments which have been found at Corinth.

123 (Fig. 2), 124. Rims of bowls with glaze in color and quality intermediate between the two preceding and No. 120.

<sup>1</sup> The usual plight of undecorated ware. Kübler gives a list of the publications of stamped ware, K V, pp. 79 and 80, notes. In the material available for consultation profiles are shown only in Fitzgerald, *Beth-Shan Excavations*, 1921-1923, Vol. 3, Pl. XXXIV and S, p. 127.

<sup>2</sup> S, p. 50, Abb. 41. Only metal prototypes can explain this identity.



125. Perhaps this is a local imitation. The clay is coarser and is brown rather than red. The glaze is of fair quality.

126 (Fig. 2). The rim of a straight-sided platter, a shape uncommon in Greece.<sup>1</sup> The clay and the glaze, which is a little browner than usual and is impervious, are those of

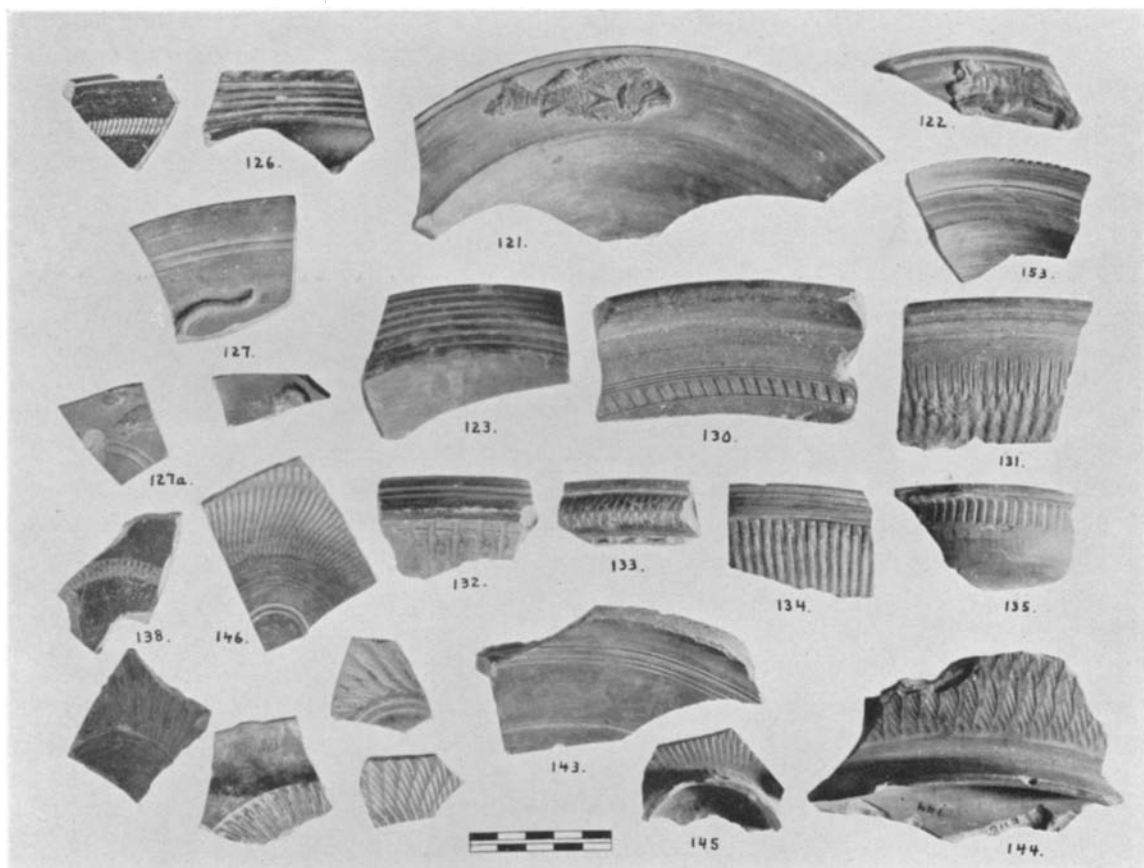


Fig. 2. Roman Pottery; Late A Ware

good pots of this group but this fact does not connect the piece inextricably with them. It may be of earlier date.

127, 127*a* (Fig. 2). The rim and bottom (from different pots) of a small open bowl with applied animals. A similar fragment is shown on Fig. 2. The quality of the glaze is mediocre and is like that of Nos. 121 and 122.

128. A plate rim. The glaze is of Samian color.

<sup>1</sup> It occurs more frequently in Asia Minor: E, p. 176, Nos. 6 and 7; Pg, p. 296. A handle from a similar shape was found on the Pnyx.

129-135 (Fig. 2). Rims of plates or of shallow bowls with roulette decoration. The feet of similar pieces are Nos. 142-145. No. 130 shows decoration on the inside, but this practice seems to have been reserved generally for smaller plates of much thinner fabric, some pieces of which are shown on Fig. 2 (not numbered). No. 146 gives the form of the base. No. 145 is small but has a foot like the larger ones and is decorated on the outside only. The clay of the larger bowls usually breaks with a shattered, laminated edge which is quite different from the even smooth break of other pots of the group. This may be due to its somewhat greater thickness.

136-139. Bottoms of the fine plates like Nos. 115 and 116. The bottom is either flat and marked off from the side by a small set-out (136-138) or by a tiny flat ridge which forms a miniature foot (115, 116, 139). Several other fragments of both types occur.

140-141. Feet of plates. Perhaps the form of the rim of this shape is No. 128.

142-145 (Fig. 2). Feet belonging with Nos. 129-135. Several grooves score the inside of all but No. 145. Two other fragments of large plates were found.

146 (Fig. 2). Bottom of the small plate mentioned above (129-135).

147-152 (Fig. 3). On none of the bases certainly to be placed in this group is there any stamped decoration, and either this ware went out of use before the custom of stamping the inside of pots became common or it was not affected by it. The plain curved rims, Nos. 118 and 119, however, of fabric thicker than usual, seem to be later than the rest and they may have had stamped bases. At any rate, without definitely deciding that they belong here, one can assert that of all the stamped fragments only these numbers could be of this group by reason of clay and glaze. Nos. 147-149 are the better; the glaze of 147 is a thick, although not too glossy coat much browner than usual, that of the other two of a light red, Samian hue; the clay as usual is pure in quality, reddish in color. Nos. 150-152 are nearer Group B of which they might be unusually good specimens. On all these pieces the bottom is flat and is covered by the glaze in an application thinner than that on the upper surface but not nearly so much more so as that on the outside of stamped sherds of Group B.

## B

153-159. These sherds are of a nature intermediate between A and B proper. Unlike B the clay is pure or nearly so but in color may resemble that of either group. The thick fabric is foreign to A and on the whole they would belong rather here with B. Shallow bowls and plates again seem to be the shapes although No. 153 (Fig. 2) may have been from a deep dish. The very edge of its rim is notched at intervals. Two other fragments of rims similar to No. 156 exist. No. 159 (Fig. 3) is the only base to be placed here unless it be some of the preceding stamped bases. As usual the inside is marked by several grooves. The outside is very thinly glazed.

The more distinctive sherds are as numerous as those of A. The fabric is thick, the clay, which is brick-like in color and consistency, has a browner hue, and is always rough on the break; it often contains grit. The glaze can be said definitely to be Samian.

At its best it is exactly like the red, porous Samian of good quality and, while on many pieces it appears thinner, lighter and almost matt, it never assumes the dark hues found occasionally in A.

160, 161. The only two plain rims found. The excellent quality of the clay of No. 161 would justify its placement with the intermediate sherds above.

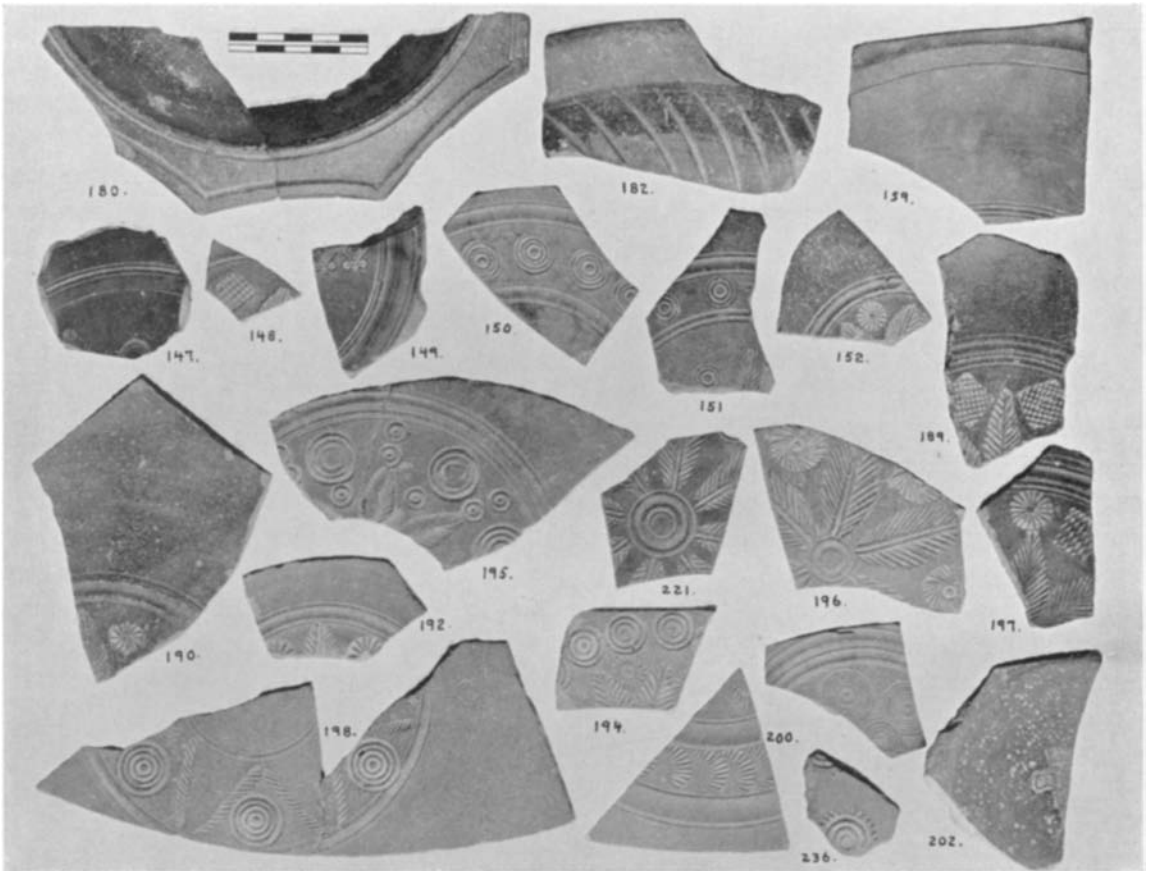


Fig. 3. Roman Pottery; Late B Ware

162. Two keeled rims of almost straight-sided bowls occur.<sup>1</sup>

163-170. Rims of shallow bowls or plates with No. 170 showing the base form. No. 166 may be the piece of a spreading rim like Nos. 171-174. The series is arranged

<sup>1</sup> This seems to be a development of the keel of the slightly ridged rim of earlier pots like our Nos. 73, 101, 102; in Athens we find in the second and third centuries an overdevelopment of the straight rim (Nos. 280, 281) in both Europe and the Mediterranean area, of the keel; compare D 38 with our No. 162; also Fitzgerald, *Beth-Shan Excavations*, Vol. 3, Pl. XXXIV, No. 48 and Dragendorff, *Bonner Jahrb.* 101, p. 150, Fig. 15. The pots Dragendorff mentions there may be identical with our Group B (some of them have stamped decoration) except that he describes them as of fine, thin clay.

typologically but 163 is certainly the earliest. Compare our Samian Nos. 107, 109 and the notes there. Several other fragments mostly like 164 and 170 were found.

171–174. Rounded spreading rims of plates. Although they may not be parts of spreading rims Nos. 171 and 173 are included here because of similarity and perhaps No. 166 belongs to the same group.

175–179. Curved spreading rims of plates. With No. 175 should be compared Nos. 156–158 above. The clay of 178 is unusually fine.

180–183. Straight spreading rims of bowls and plates. Unusually fine are No. 180 (1002–P 163) (Fig. 3) and No. 182 (Fig. 3). The gouges on the latter have left the inside gently fluted.

184–202, 221, 236. Bottoms of pots. Like No. 170, Nos. 189, 190, 184 to 187 and 202 show the foot forms. No. 188 is shaped like the bottom of 170; 191 and 192 have faint feet like 189 while on the others feet are not preserved. The majority of the better stamped bases belong here as Fig. 3 shows. Only 170, 184 and 185 seem not to have carried a stamped decoration, and 186 and 187 are too fragmentary to judge. On the outside most of the bottoms are glazed but the coat is always much poorer than that inside, and is often a mere wash.

202 (Fig. 3) is particularly important inasmuch as it is the only fragment of the group which is stamped with a Christian symbol. It is that of a cross (or the cross monogram, for it is uncertain whether the blur at one arm is the head of a *rho* or a mark of double stamping, being more likely the latter). Although the impression is fragmentary and not too clear it is evident from one arm that the cross is jewelled. This arm is divided into halves in the outer one of which there are three, in the inner, two pellets. The jewelled cross occurs in the earliest Christian centuries on Coptic grave-stones and on the so-called "African" lamps.<sup>1</sup>

### C

Less distinctive in clay and glaze than the preceding but more so in shape is a third group of ware. A shallow bowl on a very low foot and with a keeled rim is almost the only form although the sizes differ considerably. It is a descendant of an early Roman plate whose evolution Knipowitsch has shown in O, p. 51, Abb. 12. The fabric is thin and hard-baked. The clay varies from brown to almost red, the latter hue being less common, and is finely granulated, and apart from tiny yellowish inclusions<sup>2</sup> is otherwise pure. The glaze is usually a matt red paint although darker hues of fair gloss occur; rarely is the outside not wholly covered.

<sup>1</sup> Dalton, *Byzantine Art and Archaeology*, p. 681; p. 611, Fig. 386; Wulff, *Altchristliche und mittelalterliche Bildwerke* I, Nos. 85 and 87 (cross) and Nos. 1238, 1239, 1241 (cross monogram); Duthuit, *La Sculpture Copte*, Pl. LXIII a, c, and Pl. LXVIII b.

<sup>2</sup> And so is like the clay of pots of earlier ware; see note 1, p. 291.

The rim forms are shown in 203–213.<sup>1</sup> No. 203 is earlier than the others and belongs to a small bowl or cup. Bases to go with this and with the half-dozen similar rims were not found but probably they were not stamped. No. 213 is smoked to black and purple and is probably an unsuccessful brother of 214–217 since the shape never occurs

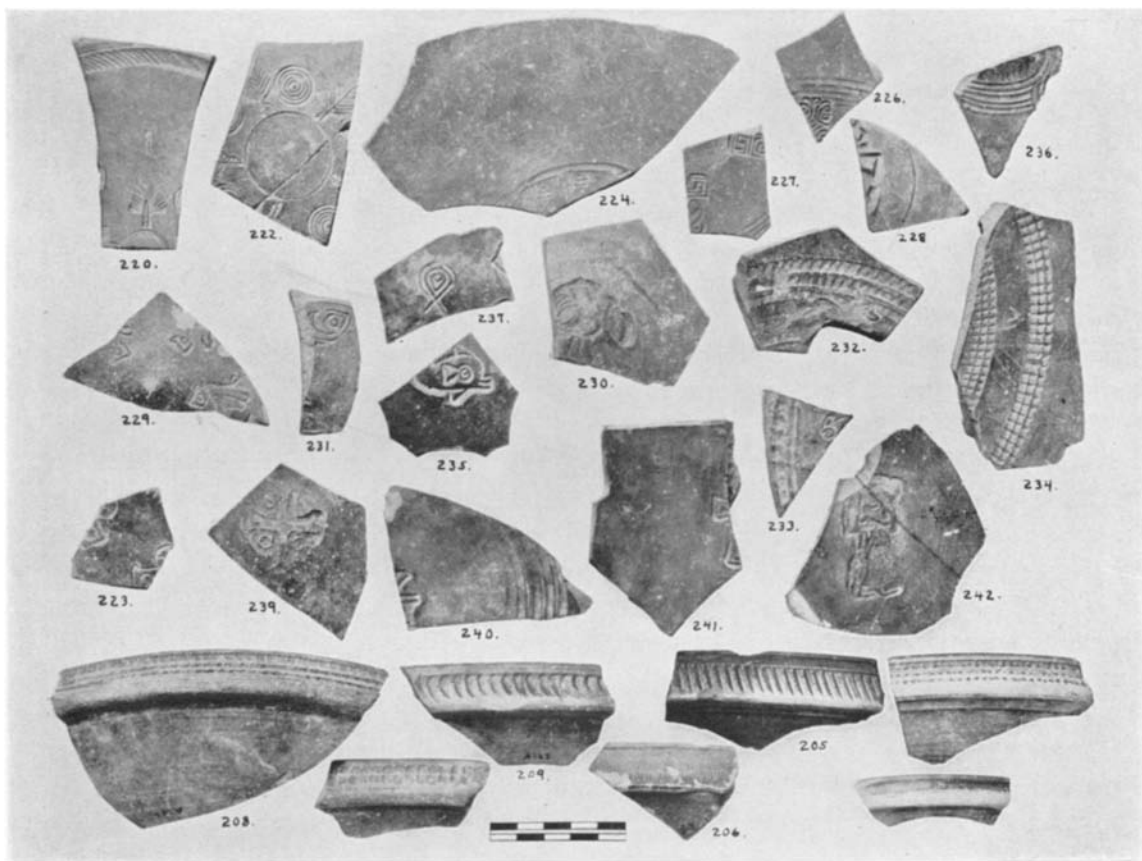


Fig. 4. Roman Pottery; Late C Ware

burned wholly red; it may, however, be a local piece. The rims, except 213, occur both with and without the rouletted decoration illustrated on Fig. 4.

<sup>1</sup> Pr, No. 164, Abb. 551, p. 433 belongs to this class and, similar to the following Nos. 214–217, the outer edge of the rim is gray. The means by which this part of the pot alone was burned darker than the rest is uncertain but absence of the glaze-paint is not responsible (as Zahn, p. 405, note under No. 32) since it covers the rim too. Although the pots of this group are often very thin they cannot, because of their much later date, be related to the other thin ware mentioned in Pr, pp. 438 and 439. The plain rim is found on S, p. 127, Abb. 19 which also has a cross like our No. 241 in the centre; note the thin fabric. Dragendorff's mention of a rouletted rim of this shape in connection with pots bearing the stamp of Plusius (*Bonner Jahrb.* 101, p. 142 and p. 141, Fig. 1, No. 8) is puzzling but need cause no concern until such a stamp with such a rim are found certainly to belong to the same pot.

214-217. These rims were fired so that the paint on the outside of the rim was black. Elsewhere it is red. Four fragments with a profile similar to 208 are the same. The clay of 216 and 217 is less characteristic than usual but the peculiar firing recommends a place here rather than with the following group of local ware.

224, 225, 232, 234, 241, 218, 219. The first five show the common foot-form of stamped and unstamped bases. The last two occur, once each, unstamped.

A majority of the bases are decorated with stamped designs (Fig. 4) of which 220 (1017-P 178), 222 (1016-P 177), 223 stand apart from the others in excellency of workmanship and of glaze, which is a dark red of fair gloss. The clay is that of this group, however, so they are best included here. No feet are preserved.

Ten other sherds of ordinary quality show more simple designs. They are very fragmentary and only 224, 226-228, 237 are plain enough to be photographed. No. 225 has a palm leaf and circle and forms a link with the fine sherds just mentioned. Its glaze is unusually dark but did not cover the outside near the foot. The clay and glaze of 226-228 are very light and are not characteristic of this group but they are more at home here than elsewhere (227 = 1015-P 176).

229-233, 235. These show little stamped animals. No. 230 (1009-P 170) seems to be a cock with a bunch of grapes? in his beak; 231 shows the heads of fish. Only with the animals were the roulettes, used to decorate some of the rims, also employed in the bottoms of the pot as 232 (1007-P 168) and 233. No. 234 probably had animals in the centre. No. 235 (1008-P 169) is a dolphin.

236. This sherd has roughly incised lines between two sets of grooves and pendent from the outer ones. It resembles a sherd from the Kerameikos, KV, Beil. XXXVI A, 6 and Abb. 3, 7.

239-242. Christian symbols (239 = 1018-P 179; 242 = 1005-P 166).

Parallels for the decorative stamps are found *a*) on the so-called African lamps, a type found throughout the Mediterranean area and manufactured locally in various places but upon the question of whose origin the authorities refuse to commit themselves, *b*) on products of the Coptic arts and crafts in all materials (in the light of which one would think the origin of the lamps to be clear).<sup>1</sup> The stamped pottery of the groups B and C is that which Kübler has already indicated to be of Egyptian origin from the few samples of it found in the Kerameikos, and the greater richness of that from the Agora bears this out.<sup>2</sup> Hardly less readily matched are the little animals which appear occasionally. Again the two

<sup>1</sup> For references to this type of lamp see the section on lamps. One lamp fragment of this type from the Agora (Inv. number 114-L 114) must, by reason of identity of clay and glaze, have been made at the same centre which produced the pottery of Group B. True, the lamps are more common in Africa than in Egypt and from there, too, come plates with stamped animals and Christian scenes and symbols (Leclercq, *Manuel d'Archéologie Chrétienne* II, pp. 530 ff.) but earlier than both are the decorative stamps which all evidence on hand at the present connects with Egypt and to which, by identity of ware, the later animal and Christian symbols too are related.

<sup>2</sup> Herr Kübler kindly allowed me to examine several sherds in his possession which were discovered in Egypt (KV, Beil. XXXVI A); they are identical with those of our Groups B and C.

sources supply sufficient kindred, the lamps not so strikingly since animals, when represented on them, fill the centre and are not disposed around the rims as are the decorative ornaments, better so Egyptian work of all kinds where animals appear so frequently.<sup>1</sup>

The Christian symbols are more intriguing, particularly in their variety. Of the five crosses and cross monograms found so far, no two are alike; parallel types for these are found not on the "African" but on later lamps and on Coptic grave-stones.<sup>2</sup> The jewelled cross of 212 has been mentioned. No. 223 appears to have a jewelled cross with the circles at the angles incorporated into the outline of the cross. No. 239 is a cross monogram with two circles in the lower angles. The, usually jewelled, cross monogram is most frequent on the "African" lamps but it does not have the circles, while the later lamps show the simple cross with circles in all the angles as do also the grave-stones except the one noted which is very similar. No. 240 has a short-armed Greek cross with the extremities concave and the sides accentuated by an inner line. No. 241 has a cross, or less likely a cross monogram, of the long type. The outlining of the form is common on the grave-stones. No. 242 shows a figure *orans*, but unfortunately the mould was coarsely cut and one cannot make out the detail. A long garment falls down to the feet with folds and hanging sleeves roughly indicated, the arms are raised almost as high as the head, on the very top of which is a row of dots, perhaps decoration on the mantle which seems to fall over the shoulders and to be drawn across the breast and around the left arm. The Orans is one of the earliest of iconographical figures and its Egyptian origin is pretty well assured.<sup>3</sup>

The relations between these groups of pottery are uncertain and can be determined only through further information concerning their origin and date. For the latter the following data alone are available:<sup>4</sup>

<sup>1</sup> Similar pots from Egypt: Wulff, Nos. 1556, 1557; other objects, Pl. XXXII, XXXIV. An excellent example is the clay cover (Wulff, No. 1471) which is decorated with stamps of jewelled crosses, palm-leaves, dogs, cattle and a shepherd. It is dated in the IVth-Vth centuries; unfortunately the cover is from Constantinople so its origin (Egyptian or African) is uncertain. Fish and animals are found also on some of the painted Egyptian pottery of the period, Wulff, Nos. 1564, 1565. Leclercq notes other specimens of stamped animals from Africa and Egypt, pp. 530 ff.; also *Musées de l'Algérie et de la Tunisie, Musée Lavignerie* III, Pl. XI (from Carthage; notice the absence of the earlier decorative stamps).

<sup>2</sup> Similar pottery, Wulff, Nos. 1559-1562; Leclercq, pp. 530 ff. The following, in various materials, are the closest parallels for the Agora stamps: No. 223: compare Wulff, No. 89 (grave-stone); No. 239: Wulff, No. 1241 and 1294 (lamps) and Nos. 84, 96, 98 (grave-stones). On a Coptic sepulchral slab (Dalton, *Catalogue of Early Christian Antiquities*, No. 942) circles are placed at the extremities as well and the *rho* is to the right; on both this and on our sherd it is the eastern open form, by far the most common in Egypt: M. A. Frantz, *A.J.A.* 33, 1929, p. 24. No. 240: compare Duthuit, Pl. LIX a; Wulff, Nos. 94, 95 (grave-stones); No. 241: S, p. 127, Nos. 5 and 6; Pg, p. 322; Wulff, Nos. 83, 89 (Coptic grave-stones) and Nos. 939, 940 (Syrian bronze crosses). Greek lamps of the fourth and fifth centuries show a similar variety in the crosses and monograms: Broneer, *Terracotta Lamps*, p. 110, Fig. 52.

<sup>3</sup> Dalton, p. 673; Wulff, Nos. 74-78, and Duthuit, Pl. LXV a, b (Coptic grave-stones). Compare the earlier terracotta orantes, Kaufman, *Græco-Egyptische Koroplastik*, Pl. 31 and 36, 37; the dots on the head of this stamp may be a relic of the head-dress of some of the earlier types.

<sup>4</sup> Conclusions drawn, it is unnecessary to say, may be altered at any time by the addition of more material. This résumé merely attempts to do as much as possible with the material on hand at present.

- Group A: i. No sherds or pots were found at Cheliotomylos or on the Pnyx.<sup>1</sup>  
 ii. A fine pot was found in the Agora in a stratum of burning over coins of Gallienus and Salonina.  
 iii. Absence, or rarity, of stamped decoration.  
 iv. Presence of moulded animals in applied relief.  
 v. Absence of stamped Christian symbols.

The first two show that the ware was being used in the second half of the third century but had not come into general use before the beginning of it.<sup>2</sup> The third and fourth indicate that it did not continue long after the beginning of the fourth century, for stamped pottery became common then, and about the same time incision replaces moulding as the method of treatment. But this practice on terracottas does not furnish conclusive evidence. The fifth proves, however, that it did not continue long after the middle of the century for then crosses and cross monograms began to be used. The wares of Group A, therefore, are to be dated *ca.* 250–300 with the possibility of extension of fifty years in each direction.

- For Group B. i. Absence at the Pnyx.  
 ii. Presence in a columbarium at Cheliotomylos not in use after the beginning of the third century.<sup>3</sup>  
 iii. Presence of stamped decoration whose relation to the local Athenian presupposes its existence at least at the end of the third century.<sup>4</sup>  
 iv. Presence of Christian symbols rarely.

The Corinth pot stands out as a surprisingly early specimen indicating the existence and even exportation of the ware before 300. It is not stamped but as noted in iii. such stamped decoration must have appeared a little before the fourth century. The length of the life of the ware is suggested by one occurrence of a stamped cross. The cross does not come into popularity as a Christian symbol until the middle of the fourth century and is not really common until the fifth.<sup>5</sup> Since, although decorative stamps are frequent, the cross appears but once, it can be doubted that Group B pots were imported into Athens after *ca.* 400.

The indications drawn from these facts raise two points of question: a) Since stamps were used on B at the end of the third century, why are they not found, or not found

<sup>1</sup> See note 1 on p. 279; the cemetery at Cheliotomylos was in use from Augustan times up to the first part of the third century. The Roman pottery from the Pnyx antedates the Hadrianic retaining wall behind which it was found; Kourouniotes and H. A. Thompson, *Hesperia* I, 1932, pp. 180 ff.

<sup>2</sup> Sherds of this and the following (B) ware were found in the large drain in Section E which was filled up in the second half of the fourth century (latest coin one of Gratianus 365–383). This furnishes an *ante-quam* date only since many earlier sherds occurred too.

<sup>3</sup> CH 145; CH 50, also from the Columbarium, belongs to this group too but is a less characteristic and poorer piece.

<sup>4</sup> K V, pp. 80 ff.

<sup>5</sup> M. Sulzberger, *Byzantion* 2, 1925, pp. 426, 430.



more frequently, on the partly contemporaneous A? The latter, apparently, lay outside the (Egyptian) sphere of influence which dominated B and carried on the tradition of the earlier plain Roman wares as it did at least one of the shapes. One should look for its origin, then, in Italy, Greece or Asia Minor. *b*) The decorative stamps of B find their parallels on the "African" lamps yet at the Kerameikos these appear hardly before the fifth century.<sup>1</sup> Despite the resemblance, then, the lamps must follow the pottery for the most part since any considerable stretch of contemporaneity would betray itself in the presence on the pottery of the crosses and cross monograms so common on the lamps.

- For Group C:
- i. Absence at Cheliotomylos and on the Pnyx.
  - ii. Presence of a few fragments in the large drain of the Agora (see note 2, p. 302).
  - iii. General presence in the highest Roman levels in the Agora.<sup>2</sup>
  - iv. Presence of incised decoration on some sherds.
  - v. Presence of Christian symbols rather commonly.

The few sherds from the drain (a couple of rims like 204 and 208 and a piece of a base like 241, of which the centre is missing and may have been stamped) show that the ware was just coming into use in Athens in the second half of the fourth century. The piece of this ware from the Kerameikos (KV, Abb. 3, 7) seems, accordingly, to be dated too early (third century, KV, p. 84), all the more by reason of the incised decoration which on terracottas and lamps is later. The base with the stamped animal from the Kerameikos (KV, Beil. XXXVI B, 4) is dated in the fourth century (*id.*, p. 78); the profile differs, however, and the animal bases from the Agora, although no foot is preserved, are apparently from the shallow dishes with low feet common to the group and not from deeper bowls on higher feet (KV, Abb. 3, 1). It may be possible to suggest the following chronological sequence for the group. Earliest are those pieces decorated with stamped circles, palm-leaves, etc., the field of decoration being surrounded by one or more plain shallow grooves. The decorative elements are the same as those of B and were probably taken directly from it. The presence of but one fragmentary base with five grooves, which may well have been stamped in the centre, in the drain indicates export into Athens in the second half of the fourth century. Second in date are the pieces with the stamped animals and incised decoration surrounded by plain or rouletted grooves. Their absence from the drain would signify a date at the end of the fourth

<sup>1</sup> The one lamp fragment mentioned on p. 300, note 1 shows that at least some of the lamps were made with the same clay and glaze as the pots. For the date see KV, p. 81.

<sup>2</sup> Hardly a valid point but at least an indication. In those areas not disturbed by mediaeval cisterns or modern cesspools yet not exhibiting definite strata, sherds of this group are found mingled with Byzantine; when the latter cease, C sherds continue down to the ancient street level along with earlier Roman wares (chiefly B and A) and with Greek.

century.<sup>1</sup> Third, and certainly later than the others, are the Christian symbols.<sup>2</sup> As noted above, these were beginning to come into use in the second half of the fourth century but not until the fifth were they commonly used. To that period at least belong fragments of the type and perhaps the examples without any stamp. How long the ware continued in use is uncertain. The coins show that the area was inhabited into the seventh century<sup>3</sup> and, while it is unlikely that pottery should continue to be produced so long unchanged, there is no other to succeed it. This absence of any pottery in Greece between the latest Roman and the earliest Byzantine is a great puzzle which is only partly solved by the apparent depopulation of the country in early Byzantine times.

#### D. LOCAL WARE

A considerable quantity of the Roman pottery is of less fine quality than any of the preceding pieces, and is certainly of local manufacture. The proportion of this to the imported wares is relatively small and it seems indeed, since all those described thus far are importations, that all the good pottery used at Athens in Roman times was imported. *A priori* one would not expect this to be the case, but the sharp difference between this and any of the others makes the conclusion seem inevitable.

Clay and glaze vary considerably and the only constant feature is the poor quality of both. The clay may be any hue from very light buff to dark red-brown. Grit is usually present but the fabric may be hard or soft. The glaze does not merit the name and is a flat paint almost always matt. Generally it is some hue of red but careless firing produced black and intermediate shades. The paint on the exterior does not extend far below the rim. Despite such lack of character there is no hesitation in sorting out these pieces, as they fit into none of the other groups and are, in fact, the leavings. Where a few pieces even of these show slight peculiarities leading one to suspect an origin not local, attention will be called to the fact.

Most of this local ware was found in the large drain which, as noted above, filled up towards the end of the fourth century, and thus furnishes a handy date *ante quem*. The other limit can be determined by the Roman pottery from the Pnyx, all of which antedates the middle of the second century. A comparison of the two will show that, with the exception of the high-rimmed little bowls like 280 and the coarser forms 283 and 284, all the Agora pottery is later than the Pnyxian. Some of the shapes

<sup>1</sup> Such negative evidence is not too reliable but at present no other exists. A more symmetrically satisfying arrangement would be to place the stamped designs in the first, the stamped animals and incised designs in the second half of the century. Evidence against contemporaneity is the presence of the rouletted grooves with the animals, never with the stamped designs.

<sup>2</sup> The only cross with grooves about it is No. 240; four smooth ones. The glaze of this piece is a bit redder, the clay a little purer than the others.

<sup>3</sup> Of the coins of the first year identified so far, those of the second and third centuries are common, of the fourth to the seventh less so; no emperor is represented between Heraclius, 610-641, and Leo VI, 886-912.

represented in the drain and those not found there were also in use in the fifth century and later, such as the incised jugs, 293–295, and the cup, 289.<sup>1</sup>

### 1. *Painted Ware*

In later Roman times some pots were decorated with simple designs painted in thick, creamy white over the glaze-paint. The designs are spirals on the rims of deep bowls

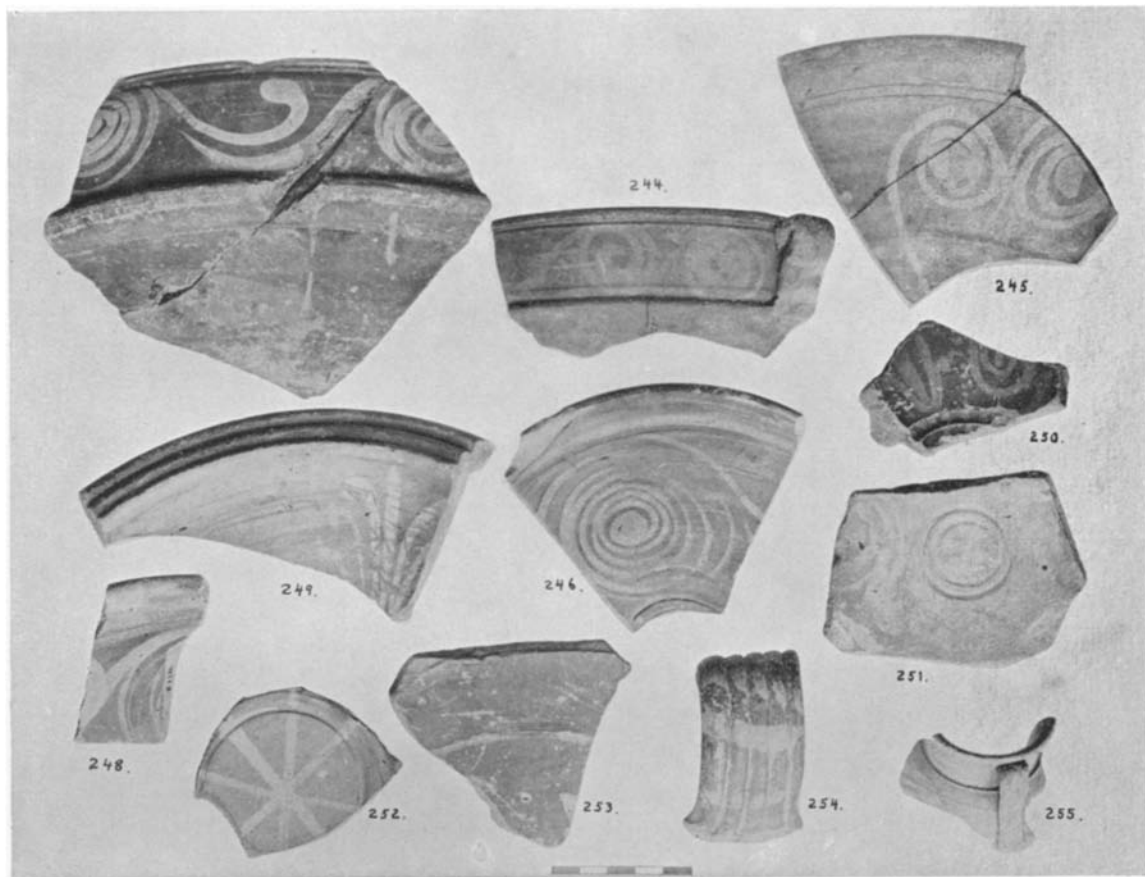


Fig. 5. Roman Pottery; Local (Athenian) Ware

or inside more shallow ones, and less often other geometric or floral designs occur on the open shapes, Fig. 5.

243 (1013–P 174). Deep bowl with high straight rim set off by a keel and with two applied horizontal handles. This is the most common shape decorated and seems to appear only thus painted. The designs are confined to the rim outside.<sup>2</sup>

<sup>1</sup> The following shapes were not represented in the drain and so may be, but are not necessarily, later than those found in it: Nos. 269–271, 273, 275, 277 (without the white paint), 279, 281–282, 285–287, 289.

<sup>2</sup> Compare Pr, No. 134, p. 432.

244. Smaller, deeper bowl with vertical handles. Decoration, as before, with stripes on the handles.

245-249. Shallow bowls and plates. The decoration on these, naturally, covers the inside.

250. The common foot-type with two incised rings inside like 277.

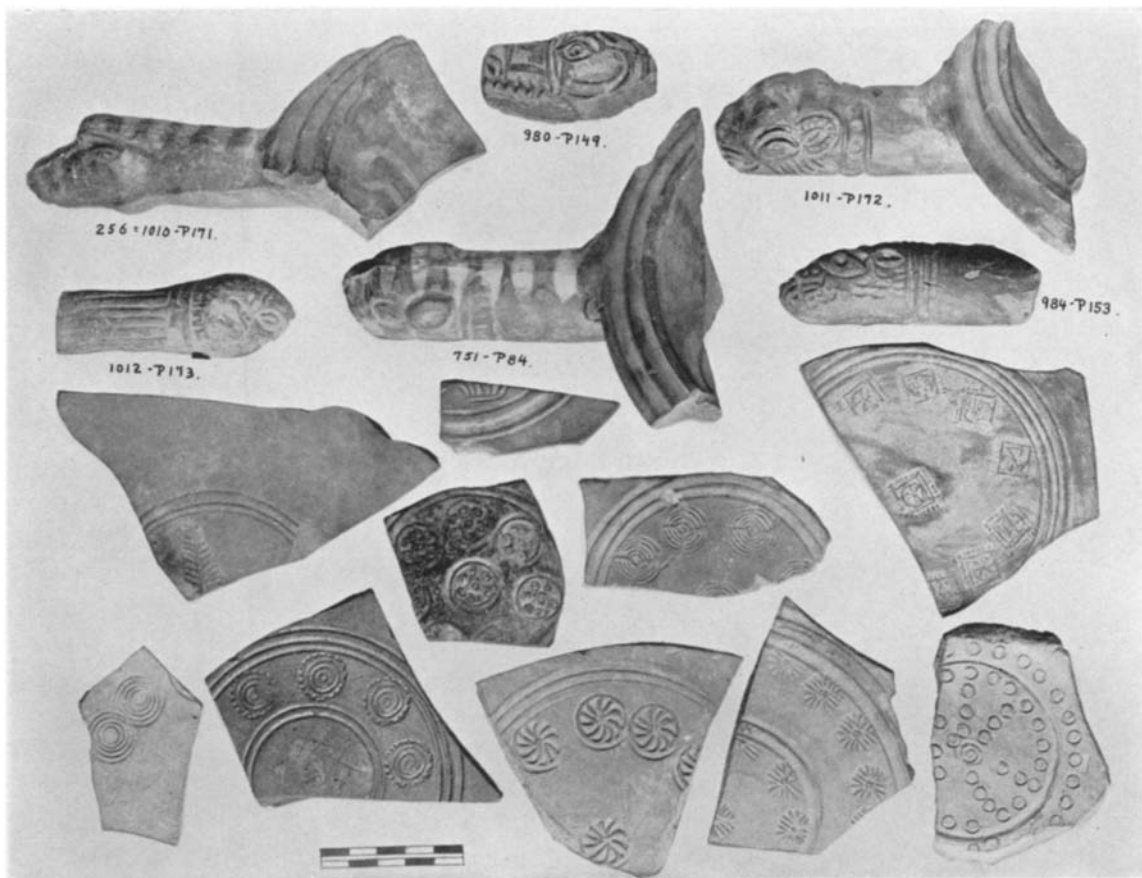


Fig. 6. Roman Pottery; Local (Athenian) Copies of Imported Wares

251, 253. The sunk base, a peculiar way of finishing off the bottom of a pot. Note the usual two grooves inside.

252. A flat bottom. The piece is unique in that on the brown paint inside, the design of spirals in a circle of dots is drawn in black and not in white paint.

254, 255. Handle of a large jug, and part of the top of a small one showing that closed shapes were also decorated in this style.

256 (1010-P 171). Handle of a large dish. These have been noted under the terracottas. The white paint is found in parallel lines on top of the handle and inside

the vessel in the usual spirals. The heads show both the moulded and incised techniques. Recognizable animals are the following: lion (almost always with a collar), boar and ram (Fig. 6). The shaft of the handle is usually plain, but is occasionally moulded with spiral or parallel grooves. It is hollow and the longitudinal mould-seams show clearly.<sup>1</sup>

This white-painted ware dates in the third and the fourth centuries along with the other pottery from the drain, as is further indicated by the presence of both moulding and incision on the handles.

## 2. *Stamped Ware*

Herr Kübler's study of stamped ware from the Kerameikos leaves little to be said about the relatively few fragments from the Agora. Samples of the different designs are shown on Fig. 6. Kübler gives the profiles (KV, pp. 76 and 77) and all ours are from similar flat-bottomed plates, except the strange base with the punched dots from a dish like 277 but smaller.

## 3. *Plain glaze-painted Ware*

267-273. Flat-bottomed dishes with rims of various forms. The size varies and some pots with a plain rim like 267 are very small and deeper. The flat rims of shapes like 272 are often deeply grooved, doubly or triply.

274-276. Little dishes or cups. The base-form of 276 is found on pots with the white decoration, 251 and 252. Sizes a little larger occur too.

277. Base of a bowl, rim form uncertain. A large number of bases like this, of varying sizes, but always with the two incised circles, were found. Strange is the absence of rims which might definitely be associated with them.

278, 279. Plain and spreading rims of deep bowls.

280. Rim of small bowl. The clay and glaze of this piece are good and differ from the other pieces. The shape, resembling that of early second century pottery from the Pnyx, shows it must be of no later date. The red clay is pure, the red porous glaze of fair gloss covers only the rim outside. It is uncertain whether this piece is an importation, or if this type of rim is a local variation. It occurs on the large white-painted bowls, but 280 is a unique piece and none were found to bridge the gap unless it be the two following.

281, 282. A rare form of rim with the keel accentuated. As just mentioned they may represent stages in the period of development between the early second century, 280, and the third century, 243. The shape occurs also in small bowls.

283-288. Rims of bowls and plates. The first two show the second century shape; the second two resemble pots of Group C. The last is a rare form of the later rim. Imitation is doubtless responsible for similarities with Group C.

<sup>1</sup> A bone handle carved to represent a horse's head is very similar to the incised clay ones: Wulff, No. 520; from Alexandria, dated VIth-VIIth centuries. Both are doubtless derived from the handles of metal vessels.

289. This odd and unique piece, a cup on a high foot, may not be local but it resembles this more closely than other fabrics. The glaze-paint, brown inside, is black outside where it covers only the rim. Cups on stands, though of different shape and with lead glaze, occur in middle Byzantine times. But the shape is not Roman and this may be a sample of their prototype.

290–292. These are interesting as Athenian imitations, or copies, of the finer wares of late Roman times.<sup>1</sup> With 290 should be compared 134 and 141. The piece is much better than usual. The clay is hard-baked, fairly pure, and the brown glaze-paint, of good quality where applied thickly enough, covers the whole pot. The surface is smoothly finished and on the outside are rouletted parallel lines. The glaze, however, shows very uneven application and several large inclusions mar the fabric. Nos. 291 and 292 are typically poor in glaze, fabric and finish; compare 170 and 158.

293–295. One handled jugs, the sides of which are decorated by incisions and grooves. The sizes vary as shown. Sherds from such jugs as these are very common and occur in the drain and in the highest Roman levels with those of Group C. The simple form of decoration was wide-spread although the shapes varied slightly according to locality; Wulff, Nos. 1532, 1534.

## BYZANTINE AND TURKISH POTTERY

The Byzantine pottery from the Agora presents a less comprehensive survey of the ceramic history of the times in Athens than does the Roman, since it is less complete, lacks in large part the better wares, and is without evidence for chronology. Even more than in the deeper Roman levels had modern pits, cellars and cisterns disturbed the mediaeval fill. No stratification was observed, and while some of the numerous stone and mortar cisterns contained sherds, lack of coins made only their association of any importance.

No certain traces of any fabrics appeared to bridge the gap between the late Roman pottery and the earliest Byzantine *sgraffito* ware. Occasional pieces of coarse pots were found covered on one or both sides with lead glaze but these were too fragmentary to determine shapes.<sup>2</sup> The absence of a slip, especially over red clay, is an indication of early date in general but is not necessarily valid in the case of the rougher kitchen ware.

<sup>1</sup> Two of the three different profiles of the Athenian stamped ware are copied after Egyptian (our B) pottery shapes: K V, p. 85. They are represented by our Nos. 170 and 183; the third is found in the A wares, No. 118.

<sup>2</sup> Such pottery seems to be the earliest lead-glazed ware at Corinth: Broneer, *Terracotta Lamps*, p. 124, n. 3. The glaze, of course, is not actually brown but yellow; it turns brown through contact with the unslipped red surface of the pot.

No sherds of the Polychrome or the Petal Ware, the earliest Byzantine fabrics at Constantinople, came to light and even good *sgraffito* pieces were rare.<sup>1</sup> The coins, too, as many as have been cleaned so far, would indicate that only in the eleventh century was the area inhabited again to any degree. To determine limits in the other direction is more difficult, however, in the lack of evidence from other sites. The *sgraffito* technique survives to this day and to mark out absolutely pieces as Byzantine or Turkish or modern is not possible in many cases and, to be sure, would not be permissible, since the Turkish conquest cannot have disrupted life in Greece fundamentally and its ceramic history must describe a steady evolution marked by no cataclysmic changes and few innovations from middle Byzantine through to modern times. Since typology, then, becomes the criterion of classification and description, certainly one none too trustworthy, the chances of error are too great to justify any amount of exactitude in treatment. The classification proposed by Rice for the Byzantine glazed pottery will form the basis of discussion and reference will be made to his groups in mentioning similar ones represented in the Agora. In the present case, however, it will not be convenient to follow his outline exactly since some wares are lacking and others later are included, so the pottery will be described according to the technique of its decoration.

### SGRAFFITO WARE

#### 1. *Early Sgraffito Ware*. Rice B 1. Figs. 7–9.

This is one of the most wide-spread of Byzantine fabrics and the various designs of Fig. 7 are met commonly.<sup>2</sup> Whatever may have been the convergent influences which gave rise to the ware, the general plan and shapes are fairly uniform, rather deep open bowls (Pl. X 1, 2 = Fig. 7*l, j*) and plates (Pl. X 3 = Fig. 7*e*) with straight or turned up rim having a round central design surrounded by several narrow decorated bands, the outermost usually near the rim. The decoration is effected by drawing fine, thin lines in the white slip of the pot thus exposing the red clay so that in them the yellow, or less often green, glaze turns a brown or russet color, or black with green glaze.

The reproductions on Fig. 7 show how various the designs are both in the bands and centre circle but it should be noted that they are ultimately of two kinds betraying two conceptions of design. One is plainly linear (Fig. 7*b, d, g, k, m*), the decoration being formed purely by the coursings or interrelations of single lines; in the other the element

<sup>1</sup> The known Byzantine glazed wares have been classified and described recently by D. Talbot Rice in *Byzantine Glazed Pottery*, Oxford 1930. Frequent reference will be made to the wares listed therein. The Agora pottery is almost identical with that from Corinth (*Δελτ. Χρυστ. Αρχ. Έρ.*, No. 11, 1923, pp. 21 ff.), Sparta (*B.S.A.* 17, 1910–11, p. 23) and Thebes (unpublished).

<sup>2</sup> References in Rice; to be added are recent finds from the Athenian Kerameikos (*Ath. Mitt.* 53, 1928, p. 182), Samos (*Ath. Mitt.* 54, 1929, p. 135), and Corinth (*A.J.A.* 33, 1929, p. 523, and 34, 1930, p. 442). The Corinth plates are most important inasmuch as they can be dated by the evidence of coins to the eleventh and twelfth centuries.

is not line but space, the conception is areal, not linear (Fig. 7 *a, c, e, f, h-j, l*) and the function of line is not to form *per se* the actual design but merely to serve by darkening certain areas from which as background the reserved parts stand out as the design. In a few cases the emphasis falls equally upon the shaded and the reserved portions but

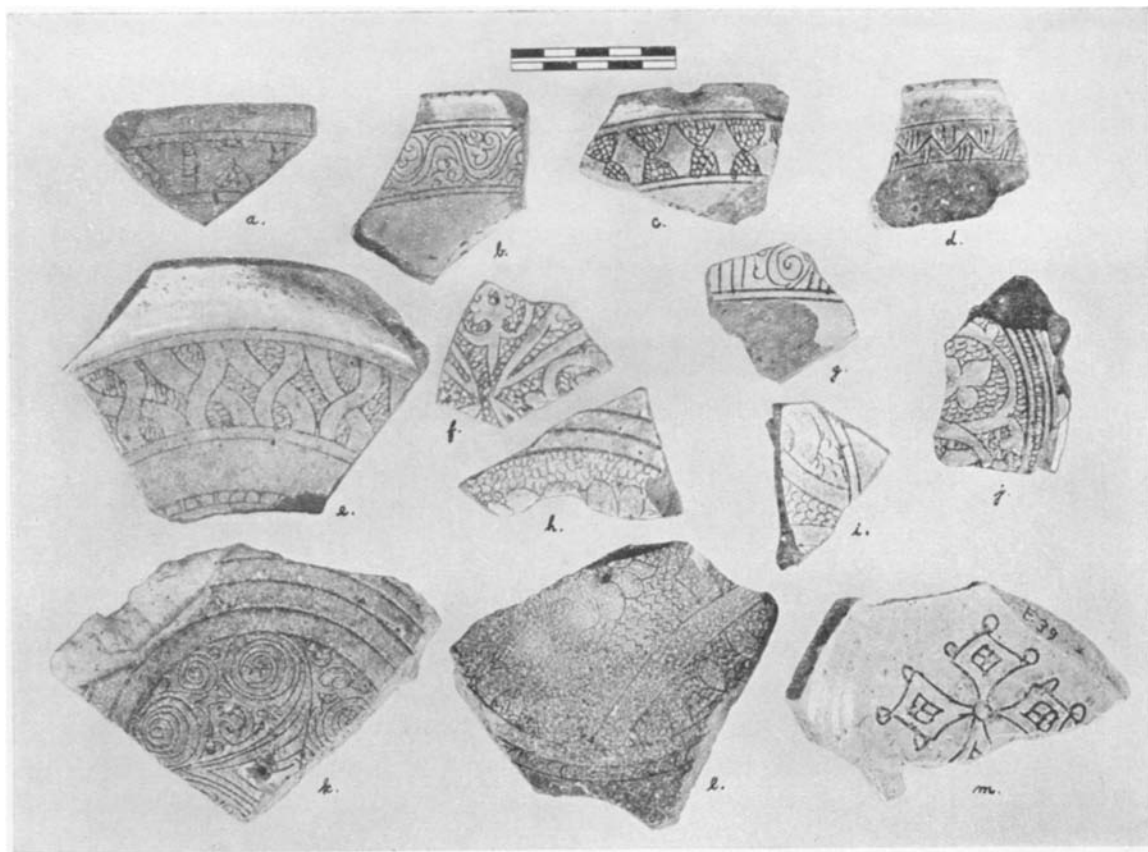


Fig. 7. Byzantine Pottery; Early *Sgraffito* Ware

this is due to the fortuitous symmetry of the design (Fig. 7 *a, c*) since it is evident that the desired effect was one of light on dark.

Which of these designs on the pottery is the earlier is not wholly certain but the fact that the areal is usually the more carefully drawn, that the incised technique brought an improved means of effecting the contrast of areas and that the linear style continued to live a long and for the most part degenerating existence after the areal disappeared indicates that the latter arose first, to be followed by the linear as an adaptation which declined in its artistry along with the fortunes of the empire. The quality of fabric and of glaze varies little. Most of the fragments are of rather pure, light buff (soft) to



red (hard) clay with a fairly thick colorless to light yellow or yellow-green glaze. Fig. 7*d* has a good green glaze; *h*, *k* and *l* are of thicker fabric and the glaze is thin.

Not infrequently animals take the place of designs as Fig. 8 shows. The shapes of the pots are the same, bowls and plates, except that on *e* and *h* a high foot like Pl. X 7

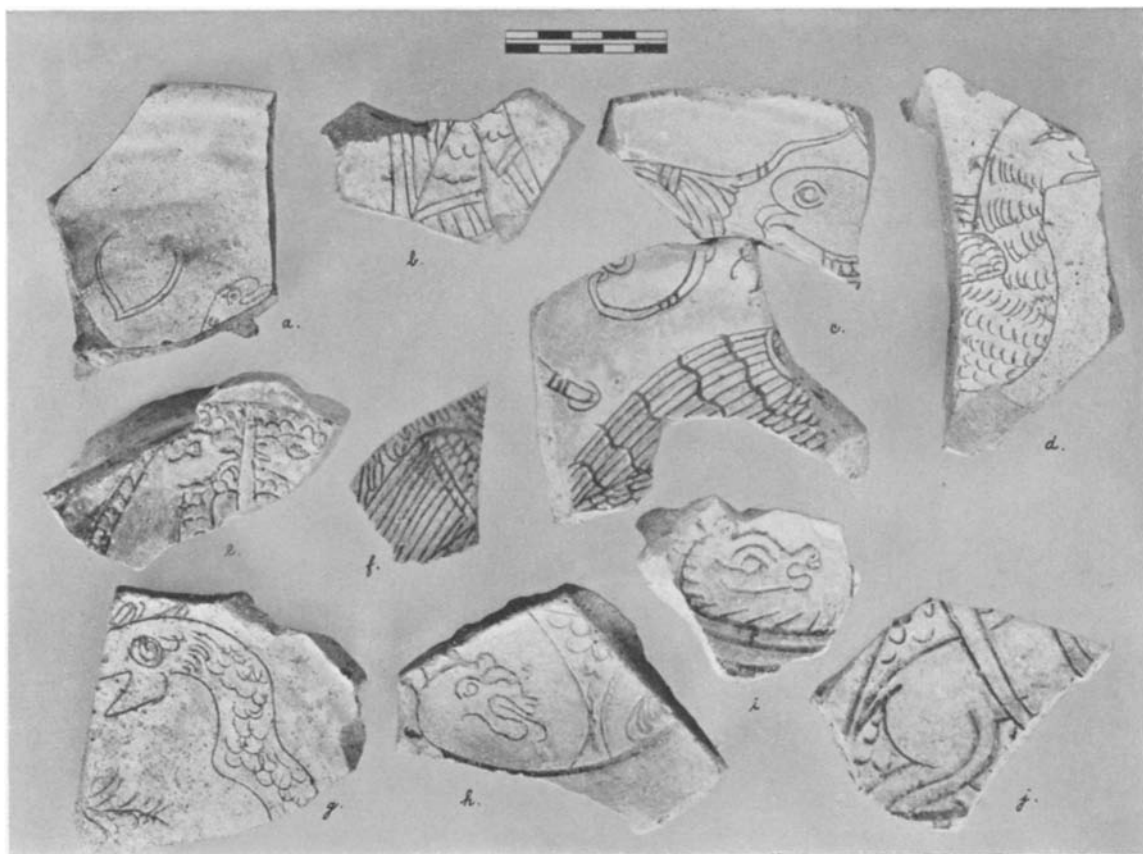


Fig. 8. Byzantine Pottery; Early *Sgraffito* Ware

occurs. The profiles of *a* and *c* are drawn on Pl. X 4 and 5. There is evident, however, in the rendering of the figures, a touch of carelessness, a hasty sketchiness of stroke which is comparable to the poorer linear designs. The fine dove (*e*) is an excellent specimen beside which the other birds and the serpent (*g*) appear at a disadvantage. These figures, contrary to the designs, occupy the whole field of the pot, confined by no encircling bands and with only occasional floral sprays as stop-gaps. Thus the effect is really areal rather than linear, with the difference that while light designs appear against a dark background, here a darker animal stands out from the white or yellow surface of the pot. This change was brought about necessarily by the choice of subject;

particularly in the case of birds is this so for it would be impossible to draw against a darkened field a bird with plumage indicated.

But with other animals whose bodies required merely an outlining to make them intelligible the light on dark treatment was employed. Of this *e, h-j* are examples. The working of the background required a certain limitation of field which, by reason of the labor involved, is of only moderate size. The problem is met on *e* by shrinking



Fig. 9. Byzantine Pottery; Early *Sgraffito* Ware, Later Styles

the ornamented field, which is no longer the whole surface of the vessel, and on *h-j* both by confining the field somewhat and by drawing the animals to cover most of it.

These last three fragments, and perhaps *e* should be included though while similar in other respects its ornamentation is not typical, deserve special reference. The thicker fabric, the high feet<sup>1</sup> and the heavier drawing mark them as later than *c* at least, although their glaze is of good quality. If they are not later than the other animals, too, they

<sup>1</sup> Of *e* and *h*; those of *i* and *j* are medium. Another unusual feature is the occurrence outside of *i* and *j* of a reddish or brownish slip. Most Early *Sgraffito* pots are slipped with the same white slip outside as in, a few are slipped and glazed (Fig. 7 *e, i*) and several of the poorer are plain (Fig. 7 *g, h, k*; 9 *a, d, e, g*); none is glazed without a slip.

certainly represent a distinct style. The vessels are plates, almost the whole interior of which is taken up by a large animal straddling a smaller one or with the smaller above him. The motif is eastern but these particular examples may prove to be local Greek adaptations of it.<sup>1</sup>

A special group of *sgraffito* pots (Fig. 9 *a-f*) is set apart by uniformity of shape, a small bowl with turned up sides on a low foot (profile of *b* on Pl. X 6). The glaze is colorless passing to cream of good quality, the thin body is slipped and glazed outside, and there is simple decoration in the centre. Somewhat atypical is *a* in its intricate floral sprays and its decorated exterior. These are surely later than the better *sgraffito* and so they are probably derived from it. Fig. 7 *m* is a possible connecting link although for all its thicker fabric and plain exterior it is nearer to these little bowls. They may be contemporary with the crude and late pieces of Fig. 12 but developed to smallness of shape and compactness of design. Yet the purity and general good quality of the glaze would set them earlier.

Fig. 9 *g*, a large bowl of thicker fabric, is perhaps a poorer member of this rather select group; *h*, however, is a total outsider. It is the bottom of a small bowl on a medium foot; inside is a childish scrawl, perhaps intended to be a bird, covered by a dark olive glaze and outside is a slip of clay color (buff). It may be very late.

## 2. *Elaborate Incised Ware.* Rice B 2. Fig. 10.

Of this, the most striking if not the most subtly charming of Byzantine fabrics, the Agora yielded only a few pieces and those not the most characteristic. Rice makes the quality of line the distinguishing mark between this and the Early *Sgraffito* Ware; in the latter it is thin and fine removing only the slip, in this it is broad and heavy scraping away some of the clay as well as the slip. But stress should be placed not so much upon the line which the tool produced, not even upon the tool itself, scraper in place of point, but rather upon the motive which encouraged, if it did not initiate, its use, which was to draw the contrasting areal rather than the linear designs. This is the ultimate purpose the technique must have had. By its very nature the broad scraped groove could not form such twisting nests or bands of linear spirals, but it could heighten immensely the contrast between light and dark areas by darkening the field, not merely with a multiplicity of tiny strokes but by removing the white surface completely.

The small fragment Fig. 10 *a* is the only piece from the Agora which shows the initial appearance of incision on otherwise pure *sgraffito* bowls. It is employed first in

<sup>1</sup> Compare the Caucasian plate illustrated by Rice, *Byzantine Glazed Pottery*, Pl. XIX. Similar pottery is found in Greece itself (a fine plate from Corinth, *A.J.A.* 34, 1930, p. 443, Fig. 6 *b*) and the motif is seen also on marble reliefs. Pieces exactly like the Agora fragments have been found at Corinth (not published; for similar incised pots see in addition *Δελτ. Χρυστ. 'Αρχ.* 'Ετ., No. 11, 1923, pp. 21 ff.; Figs. 7 and 11) and Sparta (*B.S.A.* 17, 1910-11, Pl. XVII 50).

the small circles which interrupt the inmost band of design and in the bands themselves,<sup>1</sup> then finally in the main centre design. There is evident reason why incision both made its way slowly at first and did not survive long, for whatever the process gained in sharp and brilliant contrast, it lost in delicacy and intricacy of design and in ease and speed of execution. The harsher tool could not follow elaborately woven patterns except

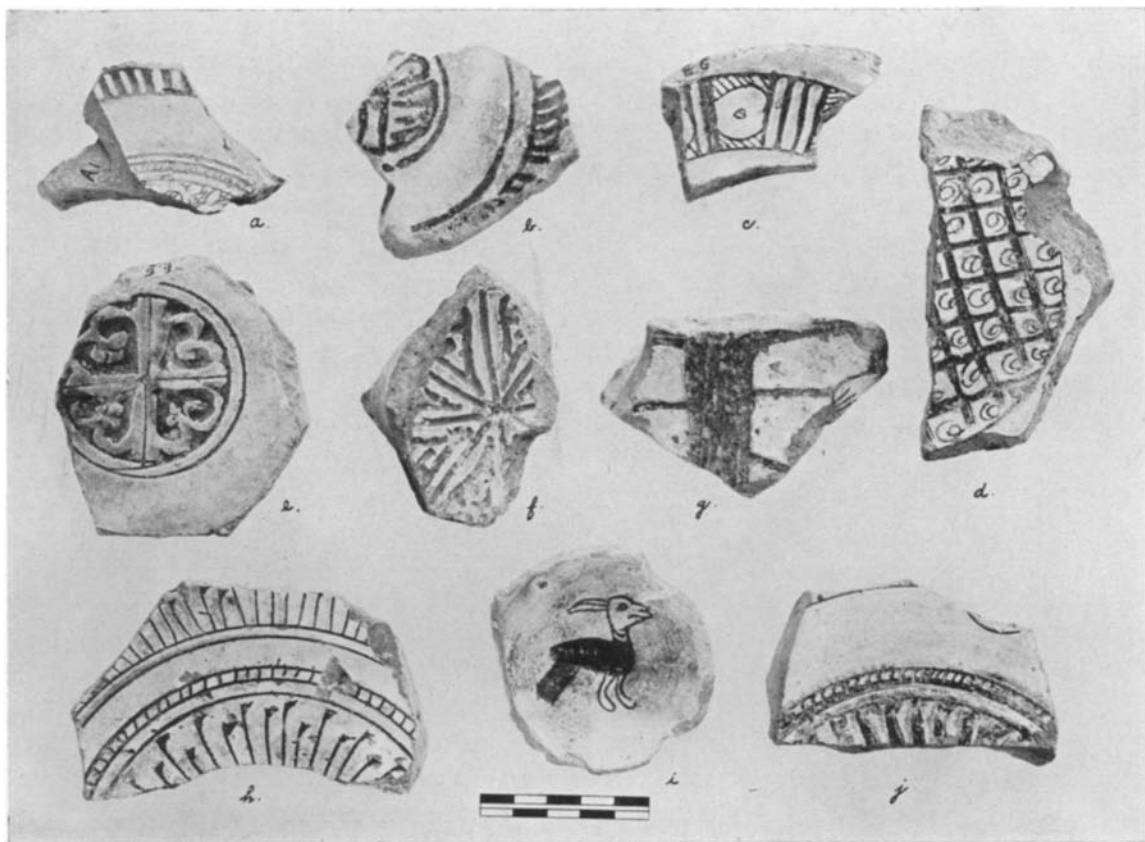


Fig. 10. Byzantine Pottery; Elaborate Incised Ware (except *h*)

at the expense of great pains and those its use did not exclude often had to have their plainness relieved by auxiliary *sgraffito* lines as in Figs. 10 *c* and *d* and Fig. 11. *Sgraffito* designs were taken over directly, becoming considerably simplified thereby; compare Fig. 7 *f* and *j*, the common quatrefoil rosette, with the incised versions, Fig. 10 *f*, still reminiscent of the *sgraffito* treatment, and *g*, fully incised. Fig. 10 *h* and *j* show a simple linear design derived from Cufic script transformed into an areal one by incision.

<sup>1</sup> *B.S.A.* 17, 1910–11, Pl. XVI 36.

Animals presented a problem to the artist using the new technique and the rabbit Fig. 10*i* shows that no effort was made to solve it at first. It is like the early *sgraffito* animals with body darkened and head reserved for the sake of detail of eye and mouth. Of course it was impossible to scrape out the whole animal, and not until the best days of the incised ware were past does the proper solution seem to have been found under

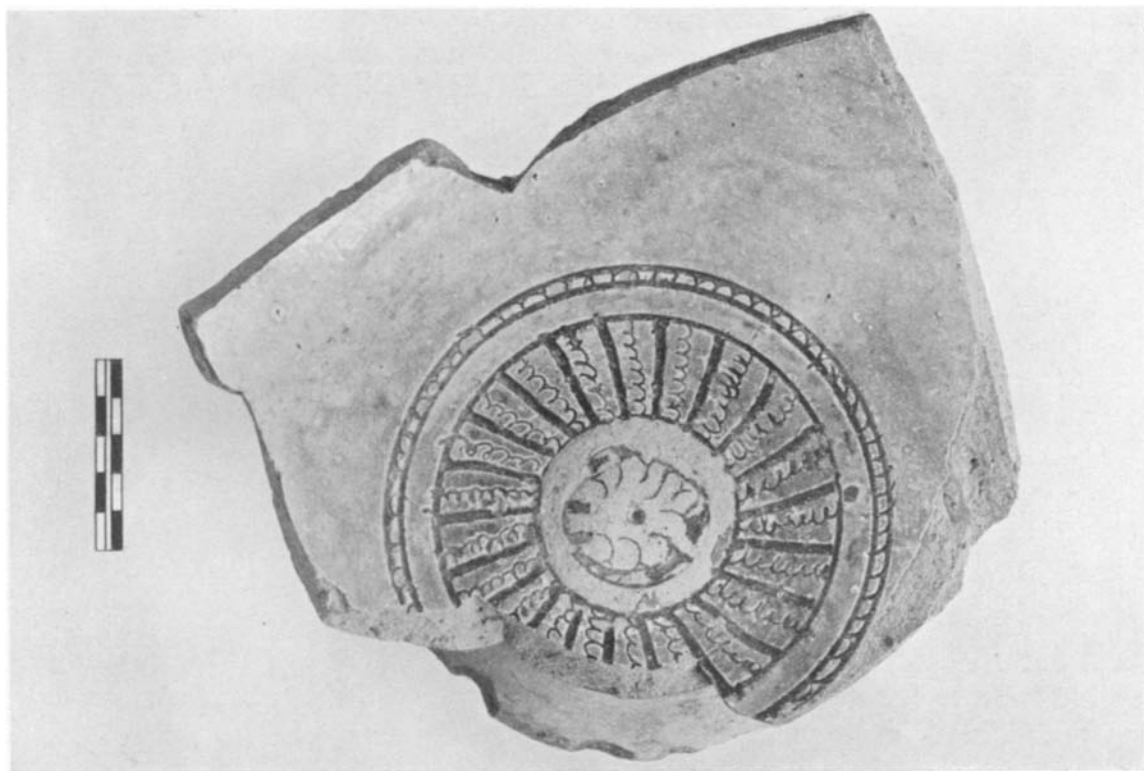


Fig. 11. Byzantine Pottery; Elaborate Incised Ware

the influence, perhaps, of the later *sgraffito* animals, that is, to restrict the field and scrape it away leaving the whole animal reserved.<sup>1</sup>

Human figures appear occasionally and Fig. 10*g* shows a hand and perhaps part of a body.

While the incised ware is later than the best *sgraffito* the two would seem to be partly contemporary, for specimens of both have been found together in a context of the eleventh and twelfth centuries at Corinth.<sup>2</sup> At Constantinople the ware falls in the thirteenth and fourteenth centuries. The shapes are the same except that high feet are

<sup>1</sup> *B.S.A.* 17, 1910–11, Pl. XVII 48.

<sup>2</sup> *A.J.A.* 34, 1930, p. 443, Fig. 6*a* (*sgraffito* plate) and 6*b* (elaborate incised plate of eastern style; perhaps such importations introduced the incised technique into Greece and so are the earliest of the type).

more common, Fig. 10 *e, f, j* and Fig. 11. The profile of the latter is given on Pl. X 7. The glaze is good and the fabric only a little thicker than is usual among the earlier *sgraffito* pots.

3. *Late Sgraffito Ware*. Rice B 3. Fig. 12, 13.

The history of the *sgraffito* technique is long, indeed not yet all told as has been mentioned, and the specimens pictured on these two and the following plates take us



Fig. 12. Byzantine Pottery; Late *Sgraffito* Ware

through late Byzantine and into Turkish times. The inspiration behind the finer ware seems to have died and only a little new life sprang into being. Shapes, designs, glaze, and in the very latest pieces, fabric too change, but hardly for the better. The lines are heavy, coarse and careless and although rough hatching or dotting occurs sometimes, the patterns are linear primarily. These do not follow the old rule of central design with surrounding bands but spread themselves loosely over the surface in circles, segments and pendants, sometimes degenerating into a mere circle or two, or scrawl, at the centre of the pot (Fig. 13 *e* and *f*).

A characteristic of these later wares is the variation of glaze color and the frequent addition of splashes of brown or green under the yellow or colorless glaze. These colors are used also on some pots which are rather to be classed with the earlier *sgraffito* ware, Fig. 13*g*, for instance, and a particular variety of poor *sgraffito* pots of the earlier type with hastily drawn linear central and band ornaments is represented elsewhere in Greece with added decoration in green and black.<sup>1</sup>

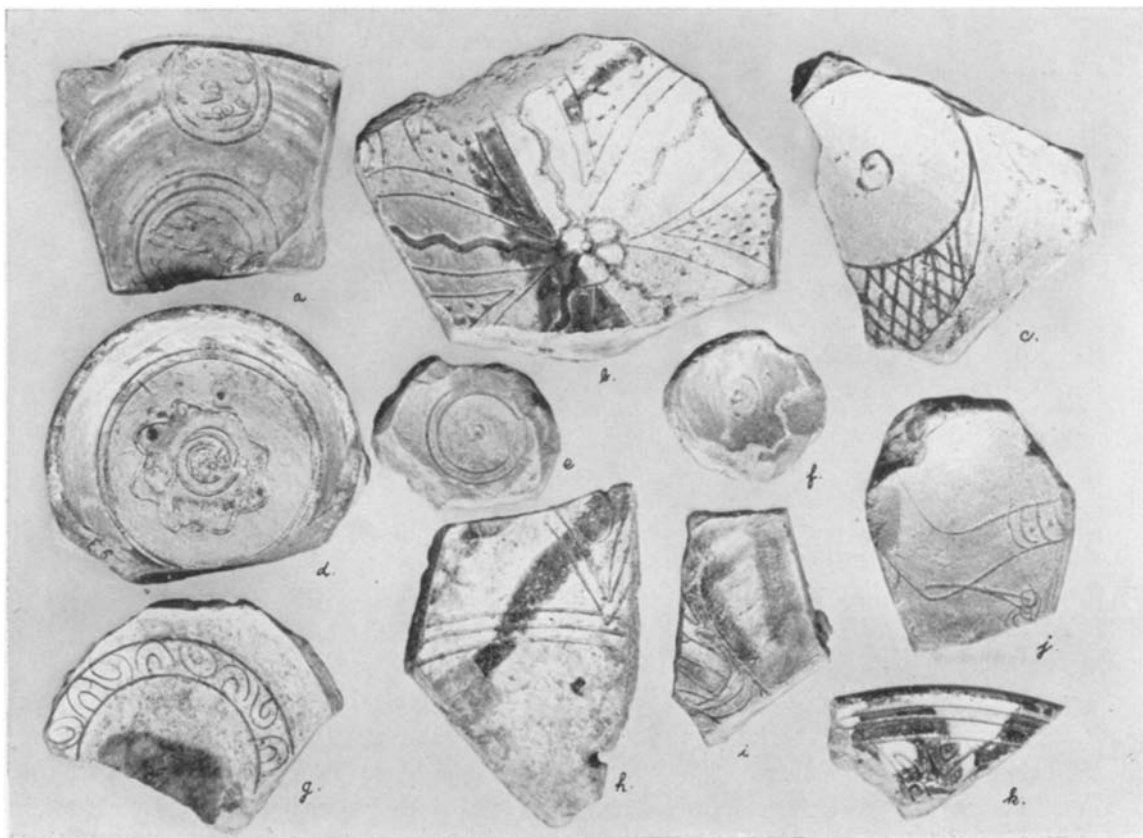


Fig. 13. Byzantine Pottery; Late *Sgraffito* Ware

A few animals belong here. Birds, or what are intended to be birds, have been found only so far. Of the fragment Fig. 13*j* the glaze is a uniform green, on Fig. 13*i* and Fig. 14*f* it is colorless or light yellow with added green, but the careless drawing is identical in all. Even the quality of line of the particular type of large *sgraffito* animal mentioned above approximates that of these later renderings and may be contemporary with them.

<sup>1</sup> At Corinth (unpublished) and Sparta (*B.S.A.* 17, 1910–11, Pl. XVIII 71 and 72).

A change of shape is evidenced in the turned-out rims of plates of Fig. 12*a* and *e* (when flat as in *e* it is usually decorated; Fig. 12*e* = Pl. X 8) and the turned-up rims of open bowls as Fig. 12*b*. The feet preserved are medium.

The following pieces call for special mention; Fig. 13*d*: this is the inside of the foot, the only fragment carrying decoration there. It is touched up with a streak of green and brown while the interior has a large spiral in the centre and a uniform light yellow glaze. Fig. 13*k*: on this dark green glaze is applied apparently to form rough patterns and the parts not covered by it are unglazed. The sherds of Figs. 12 and 13 show, as usual, little attempt to conceal the natural body outside; it is not as well smoothed as in the earlier pots, only seldom slipped (Fig. 12*a, e, f*, Fig. 13*a, b*—here a dark green slip is used instead of white—and *c*) and only the fragment with decoration inside the foot is slipped and glazed (Fig. 13*d*).

An indication of the relative date of these pieces is given by their poor quality. They must be later than the better *sgraffito* and the incised pieces, yet earlier than the following wares which take us well down towards modern times. The Sparta pottery should all come before the middle of the thirteenth century and of it only one piece approaches the later *sgraffito* (*B.S.A.* 17, 1910–11, Pl. XVII 42). Rice dates the Late *Sgraffito* Ware in the thirteenth to fifteenth centuries, some examples occurring both slightly earlier and later. One can safely, then, assign these fragments, for the most part of poor quality, to the fourteenth to sixteenth centuries.

#### 4. *Turkish Sgraffito Ware.* Figs. 14, 15.

It will be noted in Figs. 12 and 13 that a number of the fragments have a plan of design which resolves itself into a row of triangles with bases pendant from a circle and apices centripetal. These are either drawn as triangles or formed necessarily by contiguous circles set inside and tangent to a larger circle. Now a certain type of pots, similar to each other in various points, shows this same general plan, sometimes with the addition of a narrow band near the rim. Specimens are illustrated in Fig. 12*d* and 14*a–d*. I should regard these as a special ware originating through a development and refinement of the later *sgraffito* pottery. The shape is uniform, a deep almost straight-sided bowl with plain rim ornamented by several grooves outside (Fig. 12*d* = Pl. X 9); feet are not preserved but were probably medium. The glaze is hard and glassy, straw or colorless, with added brown (Fig. 14*a*) or green (14*c*) or both (14*b, d*). The fabric is thinner and finer and the exterior is carefully smoothed and not infrequently slipped and glazed in green (Fig. 14*c*). Until archaeology furnishes definite evidence for the date of the ware one can say only that it is later than the late *sgraffito* and so belongs surely to Turkish times.<sup>1</sup>

<sup>1</sup> While a general homogeneity marks the group individual pieces vary from ancient to almost modern looking, so a considerable latitude of error is possible in assigning dates on the basis of appearance. Note the pendant of *c* with the scrawly loops so frequent in later pots of Turkish times and in *a* the more



Probably contemporary are the remaining three fragments on Fig. 14 *e, g* and *h*. Most interesting is *e* which represents a galley, the heads of the rowers appearing above the gunwale and fish swimming below the oars. As in the ware just described, the glaze is colorless with added green and brown. The pieces *g* and *h* are *sgraffito* versions of the late stamped ware mentioned below, or, it may be, the ancestors for certainly they seem to precede rather than to follow them. The glaze with added colors is the same as on

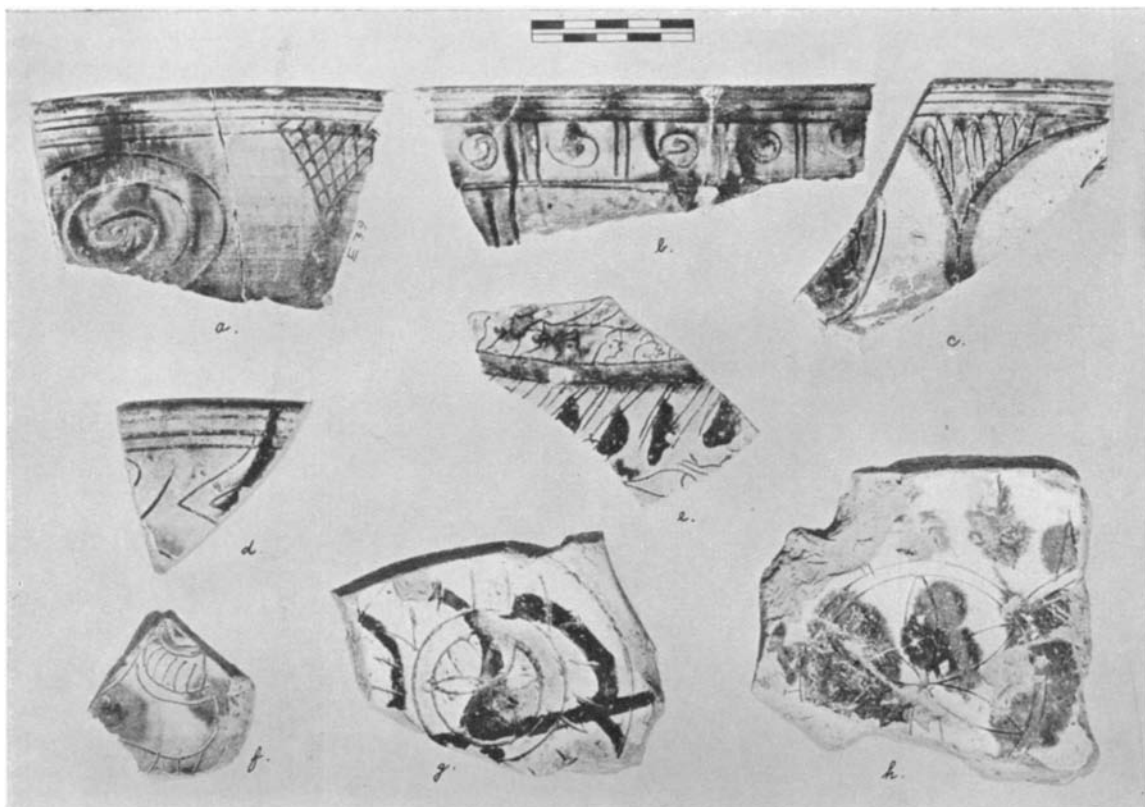


Fig. 14. Turkish *Sgraffito* Ware (except *f*)

the other sherds of Fig. 14, and is very different from the poor, thin coating of the stamped ware. The fabric is thicker and is less carefully worked, a characteristic rather of late than of post-Byzantine pottery. But the design, central star with surrounding band, is the same and the two can hardly be removed far from each other.

This decoration occurs also on trefoil-mouthed jugs with the addition of *sgraffito* scrawls around the neck, Figs. 15 *b* and 16 *c*; the whole surface is not glazed but only

Byzantine cross-hatching. Yet the quality of the glaze is late, and some bowls, without *sgraffito* decoration but identical in shape and with the same colorless glaze inside and green outside (as *c*), were found in the highest levels and cannot be very old.

the parts so decorated. Several of these jugs were found in an old cesspool along with dishes of late stamped ware, Figs. 15 *a* and 17 *d-f*.

A further development of *sgraffito* decoration enlivened by added brown and green is found in some comparatively modern-looking deep little bowls, Fig. 16 *a, e*. The influence of European china shows itself in the pure, thin and hard-baked (but red) clay and the

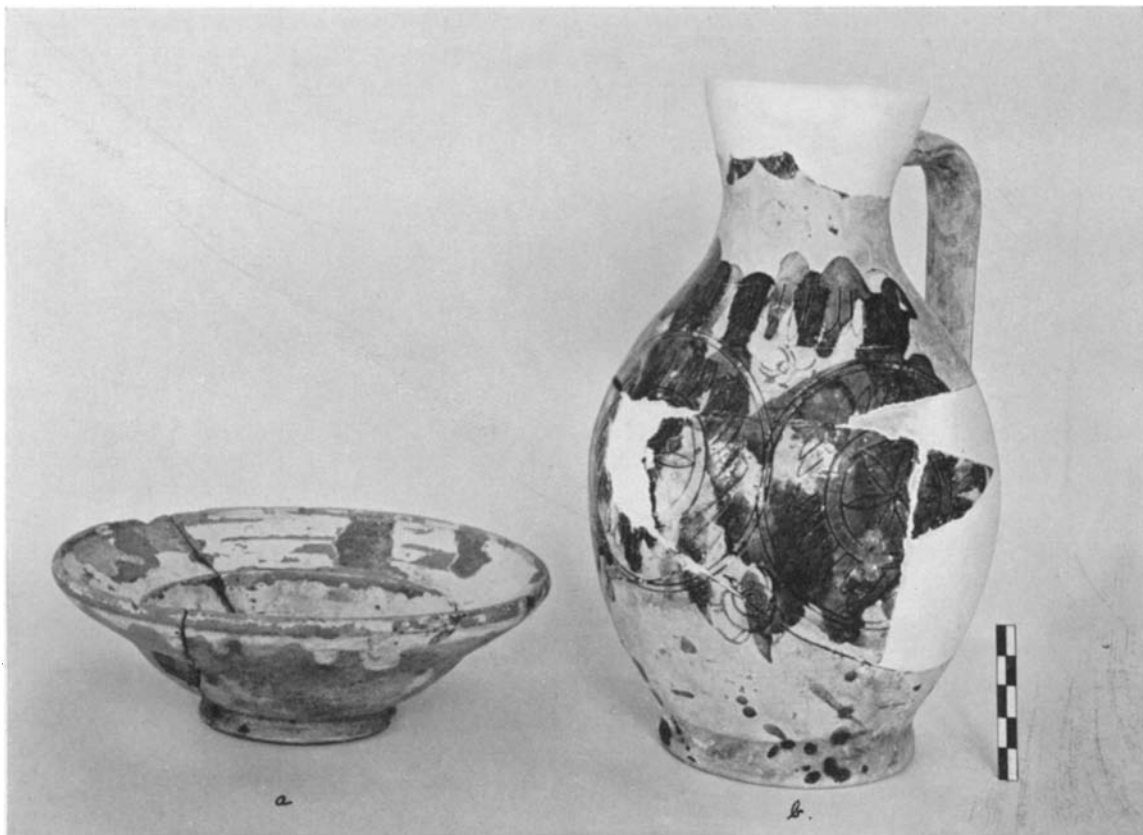


Fig. 15. Pottery of Turkish times

nearly colorless glassy glaze. In the latter the careless streaks of green and orange-brown stand out with a prominence more striking than becoming. The exterior surface alone is decorated, a point of total difference from all earlier pots of open shapes, whereon the inside only carries the ornamentation. The inner surface of these is slipped and glazed but plain. The three other bits of bowls Fig. 16 *b, d* and *f* may be a little earlier.

Fig. 16 *g* and *h* are one in fabric with certain Marbled Ware fragments and are similar to the garish little bowls. The red clay is fairly thin, pure and hard-baked and the outside is completely covered by the glaze which turns a deep russet over the clay.

Inside a cream (Fig. 16 *g*) or light green (16 *h*) glaze lies over the white slip and *sgraffito* lines and these latter are accented by the addition of green and a pale thin "Rhodian red." The bird of *g* can have no kinship with even the latest Byzantine fowls while the sketchy floral design of *h* faintly recalls the naturalistic renderings of the Asia Minor wares. Such pieces and the others of similar fabric are rather antiques than antiquities.

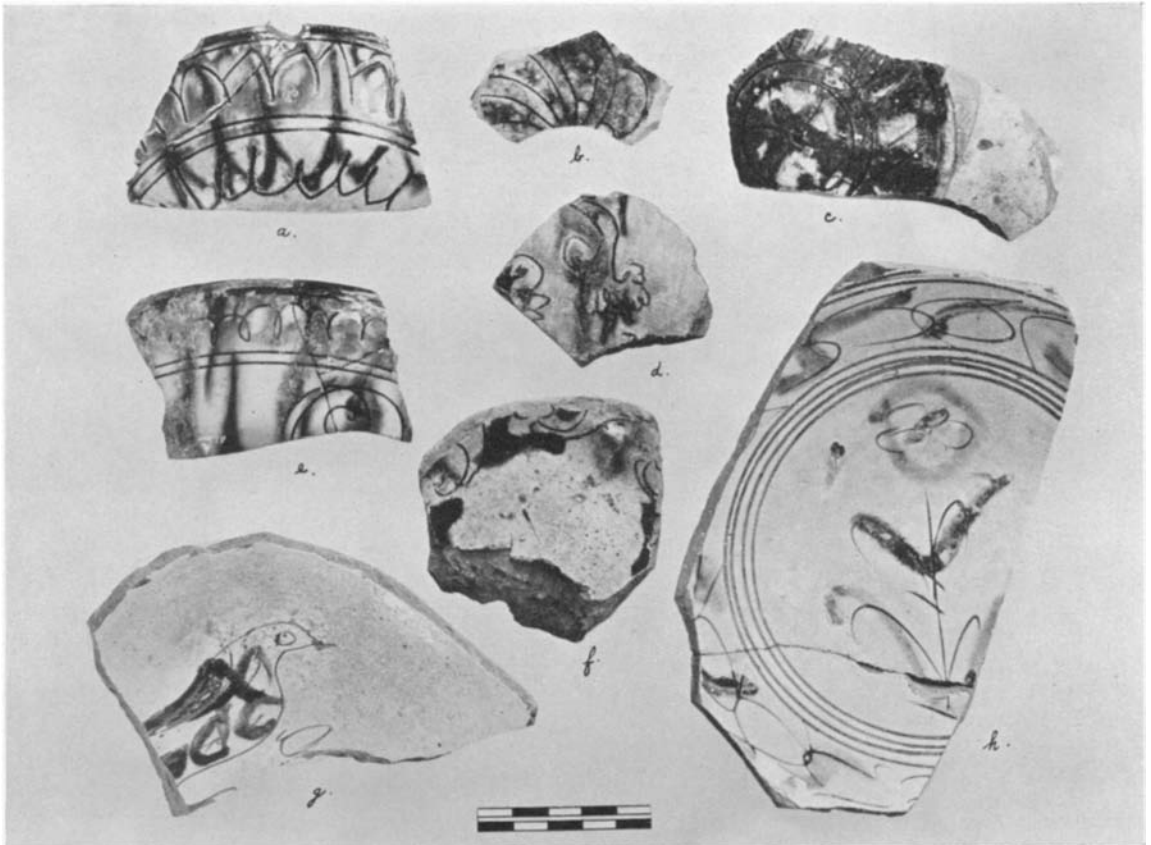


Fig. 16. Turkish *Sgraffito* Ware

### STAMPED WARE

Pots of three different types were decorated with designs stamped into the fabric by a wood or clay negative.

#### 1. *White Stamped Ware*. Rice A 5. Fig. 17 *a, b*.

The white body does not necessitate the use of a slip so the interior is stamped and then glazed. Fig. 17 *a* is part of a large open bowl which had a turned-out rim. A band of short, thick lines is at the angle of the rim and around the centre are floral sprays

between medallions enclosing an illegible object. The glaze varies from yellow to dull brown and green over the surface. The other fragment *b* is a far less clear fragment, also perhaps from a stamped pot; the glaze is a uniform orange-brown. The ware is dated in the ninth to twelfth centuries.

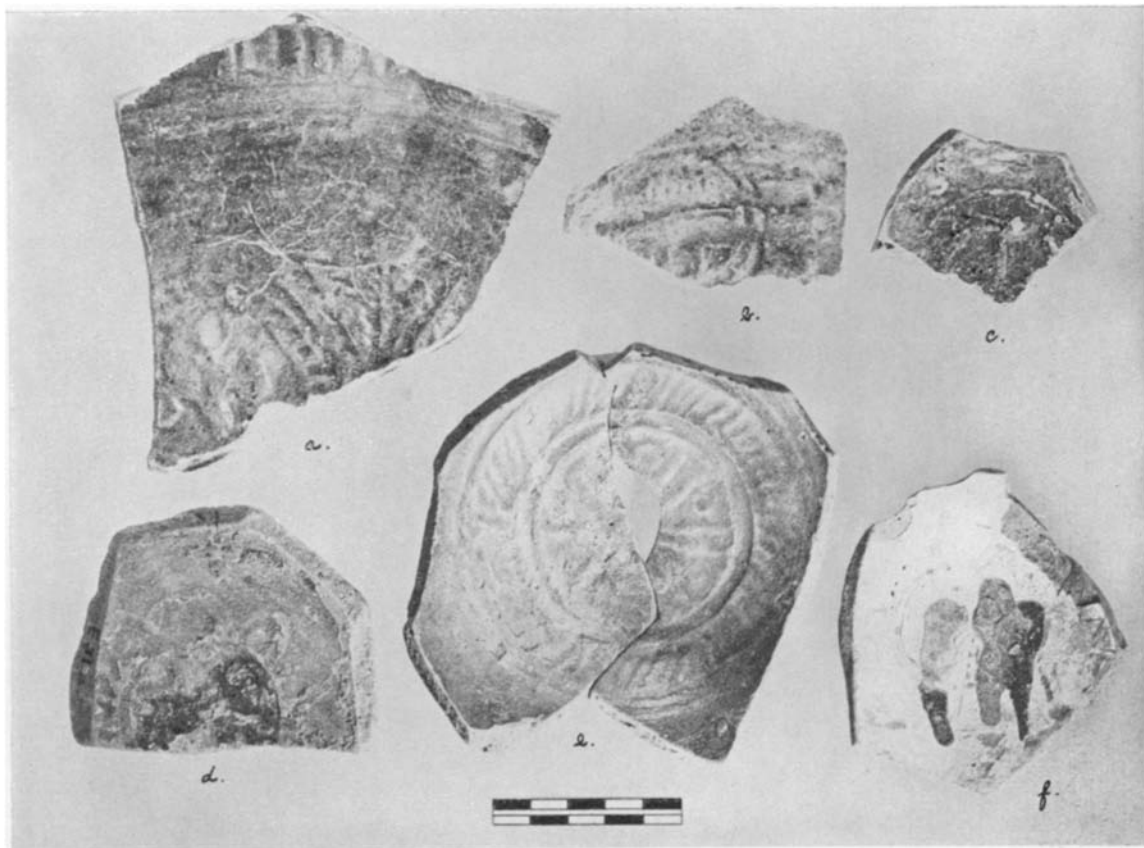


Fig. 17. Stamped Wares

2. *Red Stamped Ware.* Fig. 17 *c*.

The foot of a small bowl has the centre stamped with an octagon-shaped design. The buff clay, however, required the application of a slip after the stamping to preserve the green color of the glaze. Other examples of the kind have not been reported although some unpublished specimens are preserved in several of the museums of Saloniki. By reason of glaze and fabric it cannot be very late and the design is reminiscent of the Elaborate Incised Ware so it may be assigned to the thirteenth or fourteenth century.

### 3. *Turkish Stamped Ware*

The technique is the same as that of the preceding fragment but on no other points is there similarity. The shape is a medium-sized bowl or dish with low foot and a flaring rim separated from the body inside by a ridge (Fig. 15 *a*). At the centre is the decoration consisting of a six-armed star (Fig. 17 *d*) or Greek cross with dots in the angles (Fig. 17 *e*) surrounded by a band of petals (Fig. 17 *d*), slanting lines (Fig. 17 *e*) or eyelets (Fig. 17 *f*; the centre of this piece is illegible). The interior is slipped and covered with a very thin orange-brown glaze of the poorest quality touched up with a streak or two of dark brown and green at the centre. Not infrequently the glaze is applied only in spots (Fig. 17 *f* and Fig. 15 *a*) leaving the slip exposed. The designs on these pots relate them to certain *sgraffito* bowls and jugs mentioned above; they may be later than the bowls but were found together with the jugs in one cesspool. The fragments always occur in the highest levels. On some specimens the stamped decoration is omitted but they are in all other respects identical with those on which it is present.

## PAINTED WARE

### 1. *Slip Painted Ware*. Included by Rice in B 2. Fig. 18 *a-f*.

The decoration is formed by painting white slip on the pot so that the glaze, which is colorless to light yellow, retains its color over it but turns brown over the red body. In one case, Fig. 18 *e*, to darken the ground color, the inner surface of the pot was covered with a dark red-brown slip before the white was applied. This is an easy method of obtaining an Elaborate Incised Ware effect but permits of linear designs. These they always are, too, and while a few fragments show a direct copying of *sgraffito* linear designs most have more simple, loose and degenerate ones. It is evident, then, that this ware as a whole is later than the better *sgraffito*. The shapes are medium-sized open bowls on low feet; a small turned-out rim is found on Fig. 18 *e*.

### 2. *Black and Green Painted Ware*.<sup>1</sup> Fig. 18 *g-l*.

On the white slip covering the buff to red body of the pot are painted designs in black and black outline filled in with green. An evolution can be traced perhaps in the use of the over-glaze. On Fig. 18 *j* this is a fairly thick, light yellow of good quality, on *h* it is colorless and thin, on *i* and *k* so thin as to be visible barely and on *g* entirely lacking (as on the Sparta sherds *B.S.A.* 17, 1910-11, Pl. XVIII 68 and 69). On *h* and *j* the black is a purple (manganese) black, on the others a brown black;

<sup>1</sup> Only *j*, by reason of its thick over-glaze, might be classified with Rice's White Painted Ware from his description; all the other fragments are more akin to B 3, Late *Sgraffito* Ware, due to the presence of *sgraffiti* on some pots with like painted decoration and to the darker color of the clay. Identical sherds from Sparta, however (*B.S.A.* 17, 1910-11, Pl. XVIII 61, 66, 73, 75), are identified by Rice with his White Painted Ware (*Byzantine Glazed Pottery*, p. 108).

as *g* shows, on which the over-glaze is lacking, the black is a matt paint (not fluxed in the baking) whereas the green is itself a glaze. The shape is a fairly deep bowl with a tall, straight rim; profile of *k* on Pl. X 10. The feet are low to medium. The occurrence of this black and green decoration in conjunction with rather poor linear bands and centres of the Early *Sgraffito* style at Corinth and Sparta indicates that this ware is partly contemporaneous with the latter phases of that style but the gradual



Fig. 18. Byzantine Pottery; Painted Wares

degeneration traced in the decay of the designs and the progressive deterioration and final disappearance of the over-glaze show that many of the specimens are later. Its history would then seem to run parallel to that of the Slip Painted Ware and this is proved by the fact that the two are usually found together. If this is really the equivalent of the Constantinople White Painted Ware it is to be dated with it to Palaeologue times although in that case the presence of so many examples at Sparta is surprising and points, perhaps, to extensive use throughout the thirteenth century as well.

The piece, Fig. 18*l*, is probably a variety of this ware. Under a fair glaze of light yellow, patterns in the late *sgraffito* style are drawn in brown-black without the addition of green. Compare the Sparta sherd B.S.A. 17, 1910-11, Pl. XVIII 75.

3. *Turkish Painted Ware.* Figs. 19, 20.

Shapes and colors are different from the above. Linear designs are painted in light blue under a very light cream-green to colorless glaze and there is seldom any filling-in

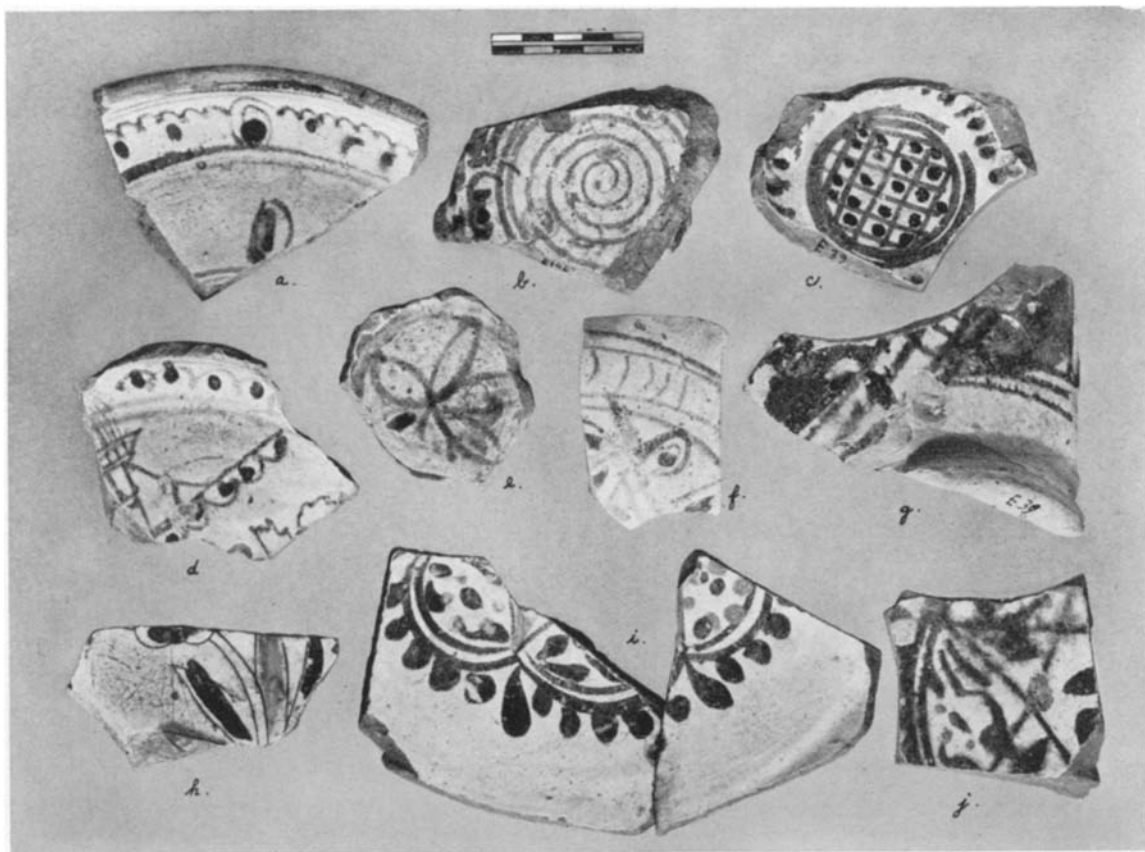


Fig. 19. Turkish Pottery; Painted Wares

of outline. Where this occurs (as on Fig. 19*g*) the color is a light "Rhodian red" but usually this color, with or without brown-black, is applied only in dots or small patches. The designs are simple and call for little comment; on Fig. 19*d* may be represented a scene (a ship?) while the six-pointed star of *e* has been encountered already on *sgraffito* and stamped pots. The shapes are flat-bottomed plates with turned-up edges (profile of Fig. 19*a* on Pl. X 11), small bowls with turned-up sides (profile of *b* on Pl. X 12) and jugs or pitchers (*f* and *g*). The exterior of all open shapes is slipped and glazed in a

deep bright green but on *e* the glaze outside is a dark purple brown. A general observation valid in most but not all cases (though especially so when the color is green) is that an exterior slipped and glazed is a sign of post-Byzantine date. This particular ware bears some resemblance to the so-called Dardanelles ware of the eighteenth century and should be of about the same date. It would seem to be later than Rice's Island Ware, and is, perhaps, a later form of it.

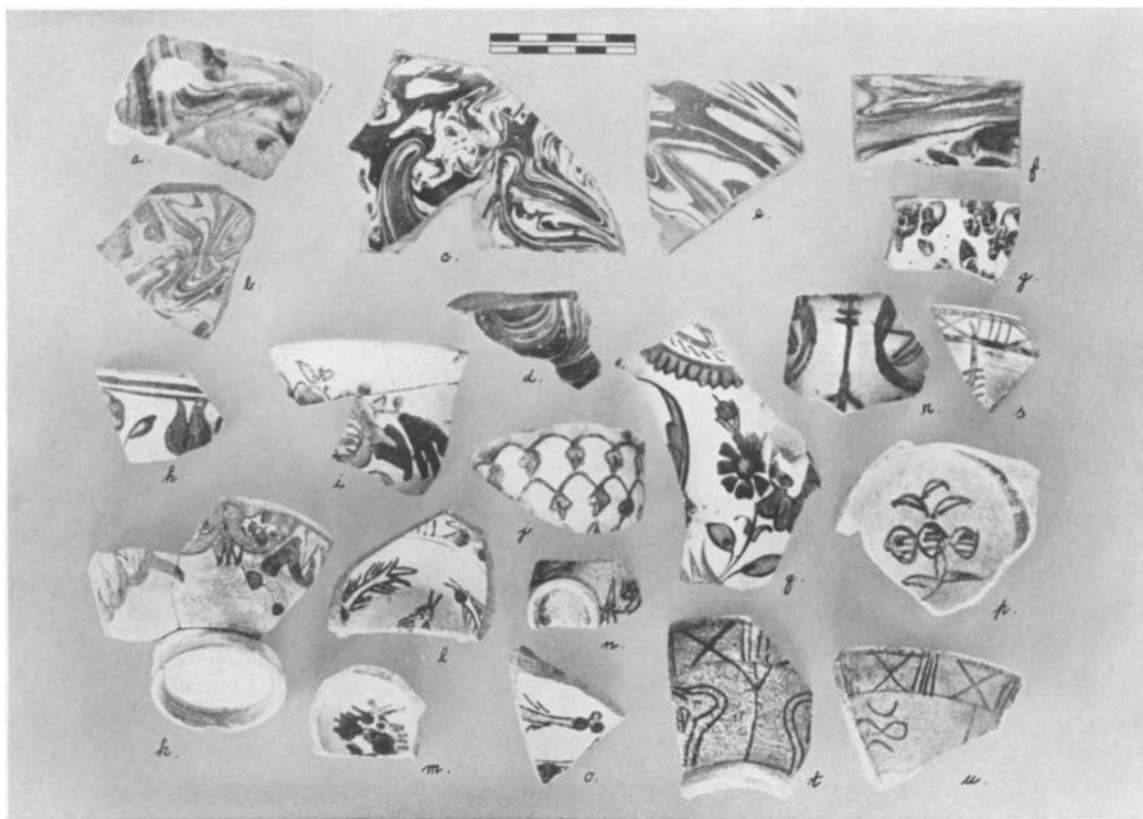


Fig. 20. Turkish Pottery; Marbled and Asia Minor Wares

The following are somewhat different but perhaps contemporaneous; Fig. 19 *h*: a *sgraffito* flower and leaves are painted in thin "Rhodian red" and light green under a light yellow glaze; *i* and *j*: floral-like designs painted in purple-black under a light yellow or colorless glaze.

On Fig. 20 are illustrated the best Turkish wares. The pieces *a-g* are of the so-called "Marbled Ware" (Rice BV); the veined effect is produced by allowing a liquid preparation of fine brown or russet clay to run over the slipped inner surface of the pot; occasionally the colored earth is laid on first and the slip run over it. The glaze



is colorless to yellow and green, sometimes with added spots of green. Almost invariably the pots are glazed outside, with or without slip. The bright red clay is usually pure and hard-baked; only one piece is made of buff clay so light in color that no slip is necessary (Fig. 20 *a*). The spotted decoration seems to be the latest (Fig. 20 *g*) and sherds in green and brown were found in the same cesspool with the pots shown in Fig. 15.

The Asia Minor wares are represented by the fragments of a number of little Kutahia

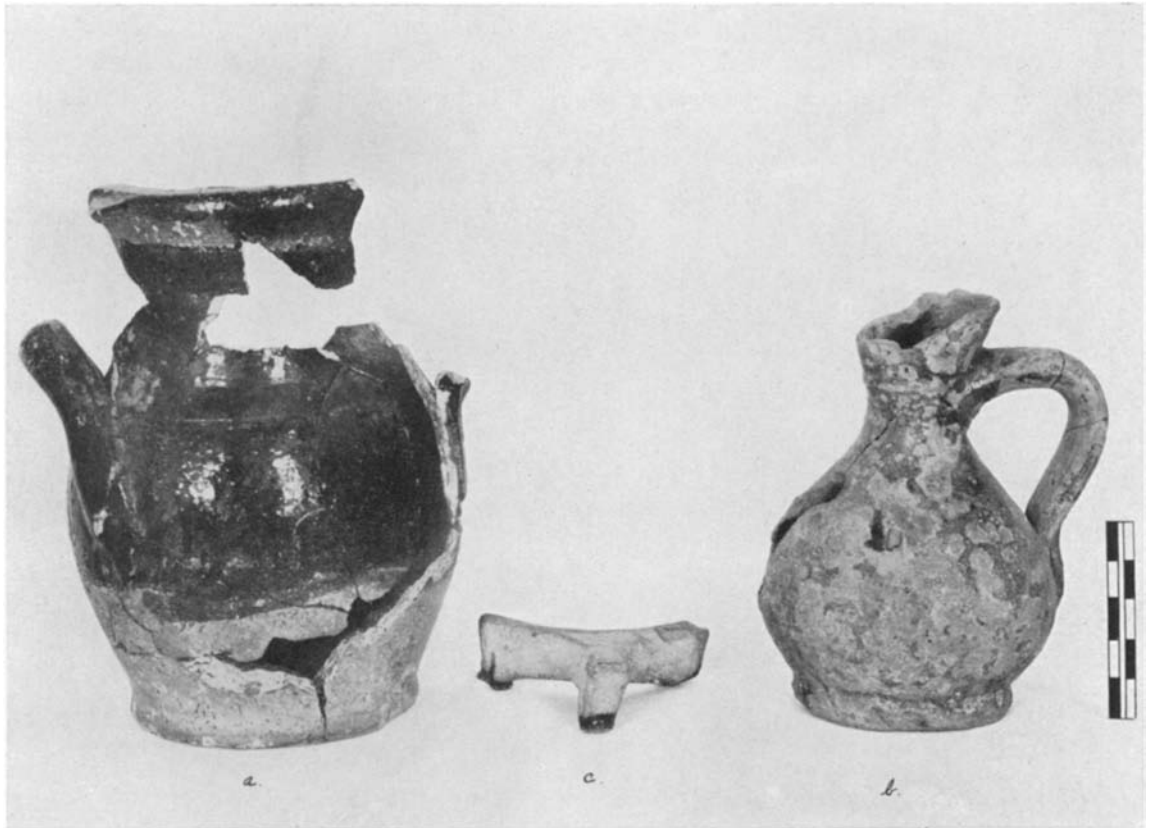


Fig. 21. Byzantine Pottery

cups (Fig. 20 *h-p*) and by one of a "Rhodian" jug (Fig. 20 *q*). Of similar sandy paste are the cups Fig. 20 *r-u* but the decoration is a simple geometric one done in black under a blue (*r* and *s*) or green (*t* and *u*) glaze.

#### PLAIN WARE

Plain glazed pots without any decoration were made throughout Byzantine times with shapes similar to the others. Little jugs seem to be the only shape which occurs alone undecorated, of which two types are shown in Fig. 21 *a* and *b*. The one with

two handles is unusual ( $a = 384$ -P 33; height: 0.12, diameter: 0.095, d. of foot: 0.072); the white clay is thin and hard and over it inside and out is laid a light orange-buff slip on top of which is green glaze reaching outside to near the bottom; the interior is not glazed. The little trefoil-lipped jug with one handle is the most common form ( $b = 349$ -P 25; height: 0.105, diameter: 0.075, d. of foot: 0.055); the light buff clay did not require a slip under the light green glaze.

The little clay support used in stacking pots in the oven (Fig. 21,  $c = 953$ -P 122; length of one arm: 0.035, height: 0.02) shows that some pottery was made at Athens in Byzantine times. Glaze sticks to the points of the legs and not infrequently the marks left by these supports are visible on the interior of the pots (Figs. 9 *a*, 16 *h*, 19 *b*).

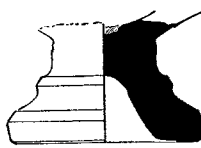
FREDERICK O. WAAGÉ, 3<sup>D</sup>



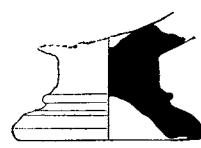
1 (black)



2 (black inside, red outside)



3 (brown)



4 (black and red)



12 (black)



13 (red)



14 (brown)



21 (black and dark red)



22 (black and red)



23 (black and red)



31 (red)



32 (black and red)



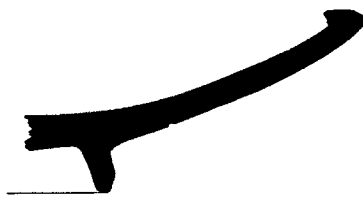
33 (red)



34 (red)



35 (red)



36 (red)



50



51



52



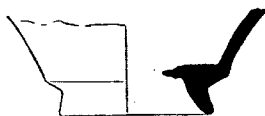
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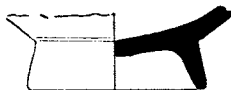
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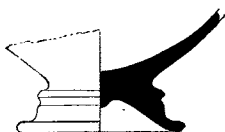
73



74



5 (red)



6 (black and red)



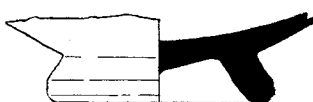
7 (red)



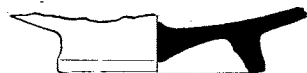
8 (red)



15 (red)



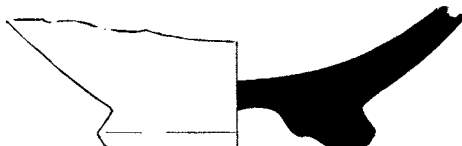
16 (dark red)



17 (red)



24 (red)



25 (red)



26 (black)



37 (red)



38 (red)



39 (black)



40 (thin black)



41 (red)



42 (black)



56



57



58



59



60



75



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77



78



79



80



81

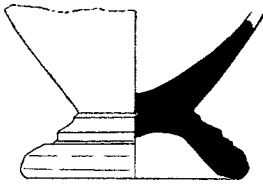


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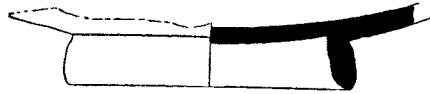


83

# PLATE VIII



9 (dark red)



10 (black)



11 (black)



18 (red)



19 (black)



20 (poor, thin black)



27 (black)



28 (black)



29 (black)



30 (black)



44



45



45 a



46



47



48



49



61



62



62 a



63



64



65



66



84



85



86



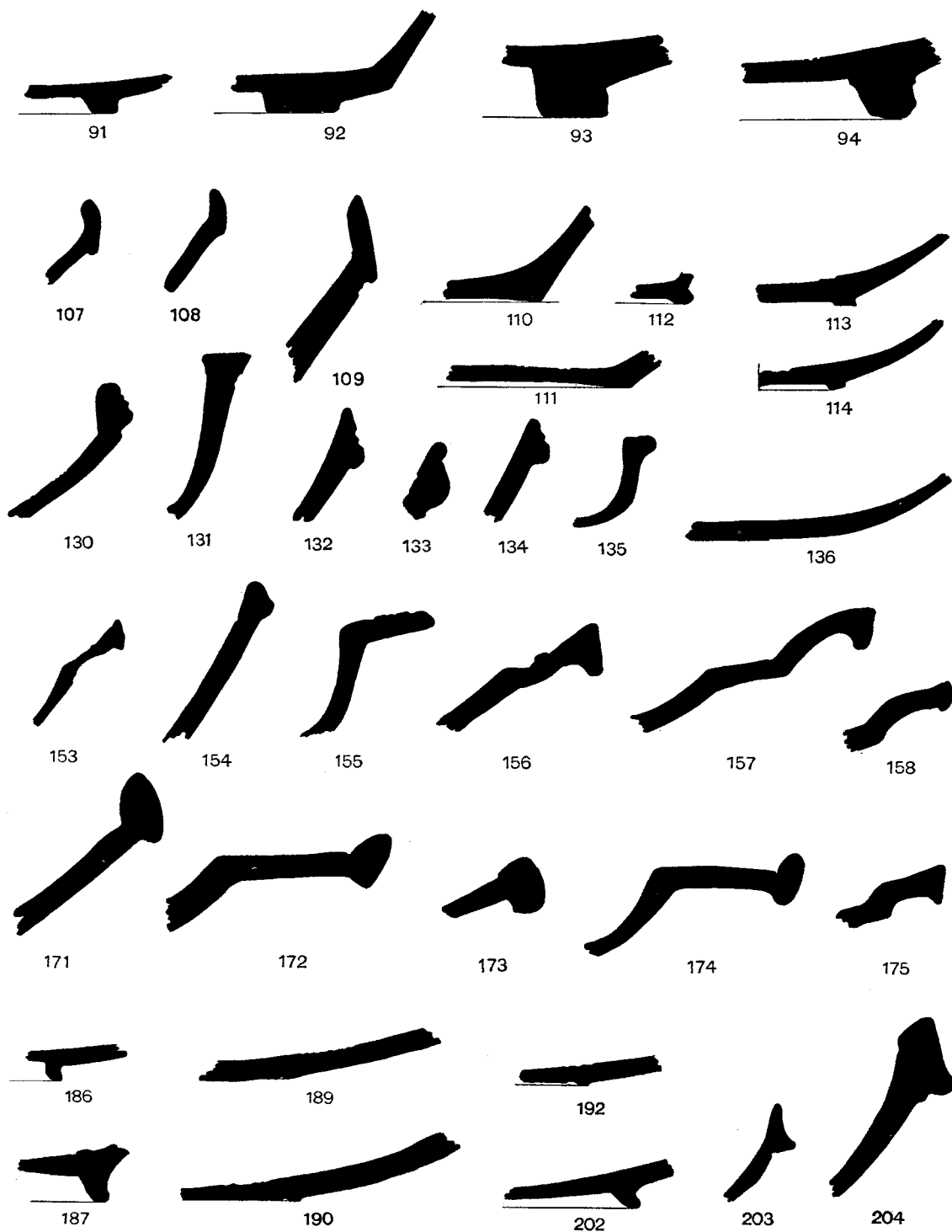
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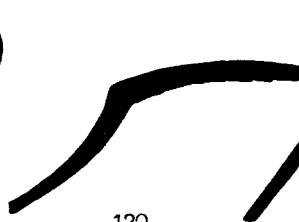
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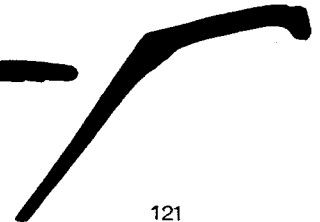
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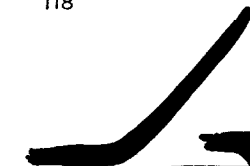
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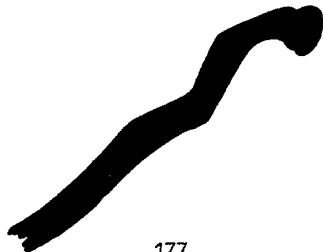
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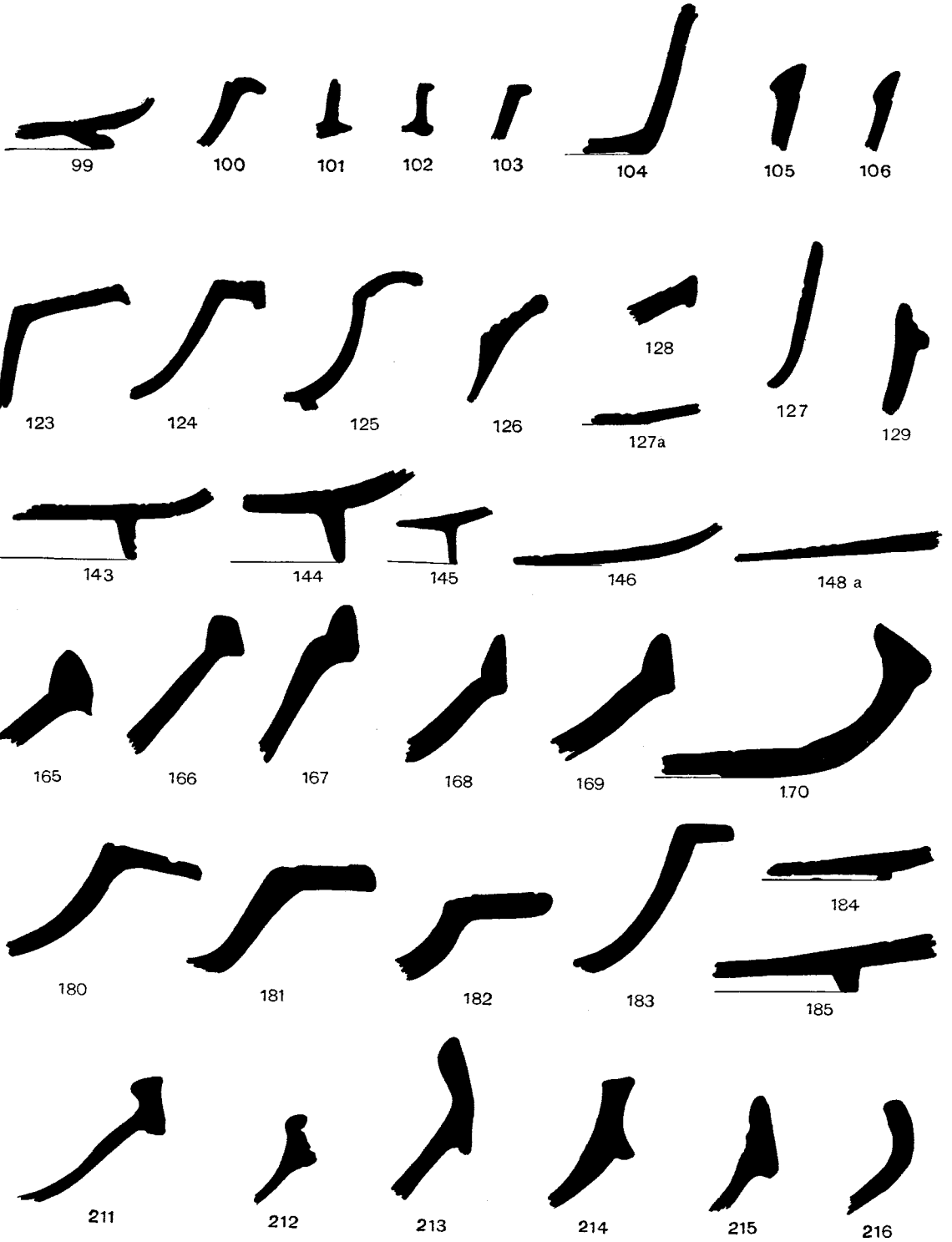


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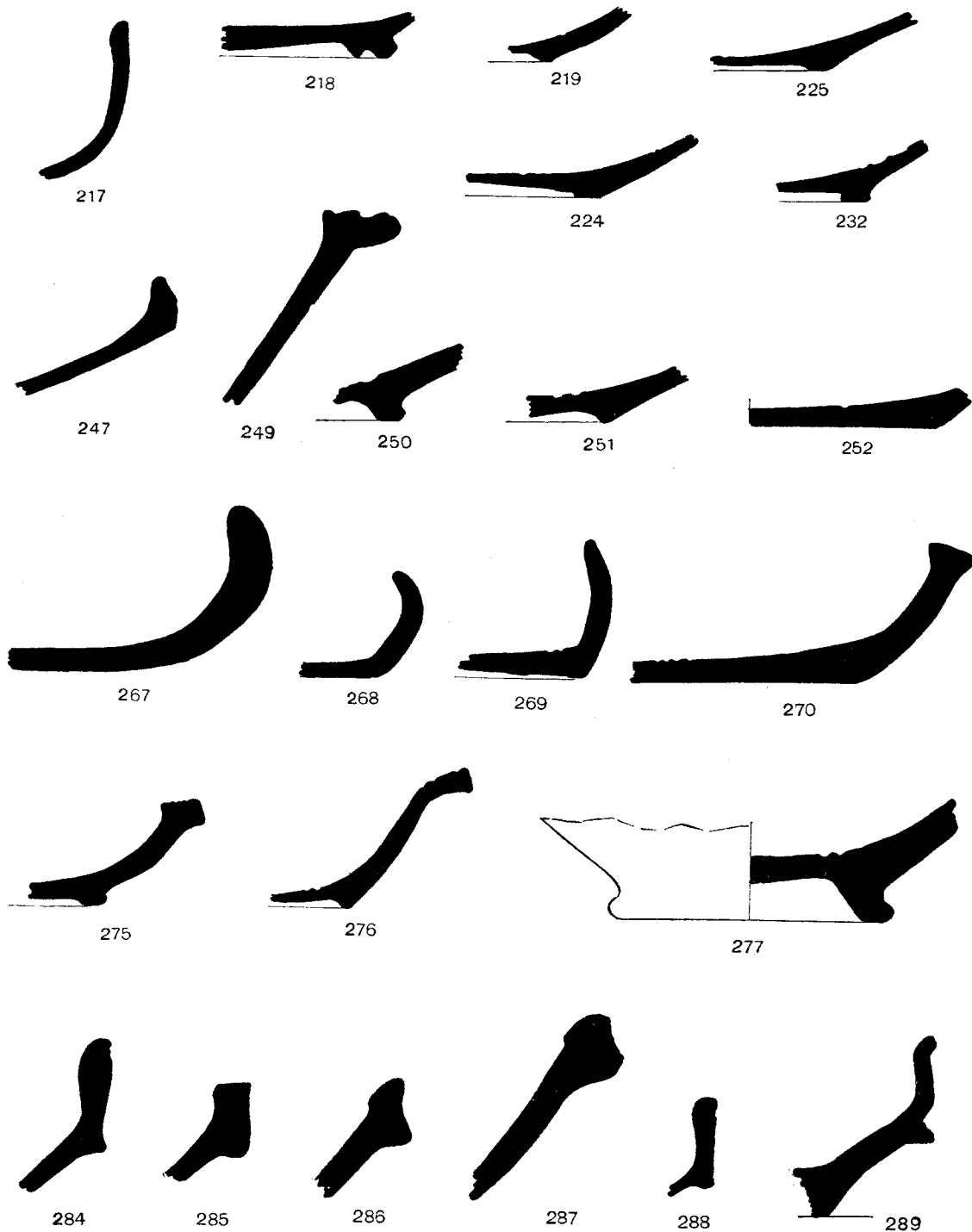


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# PLATE IX





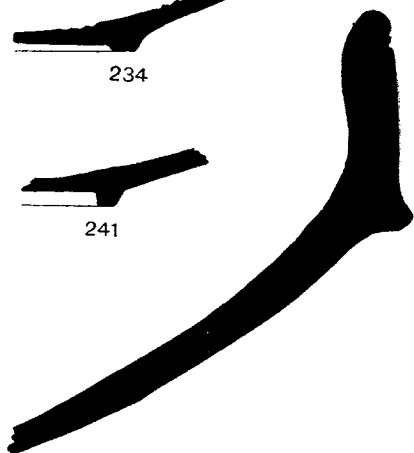




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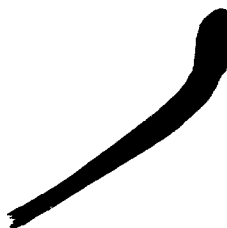
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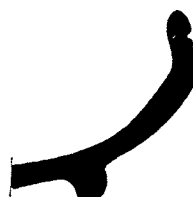
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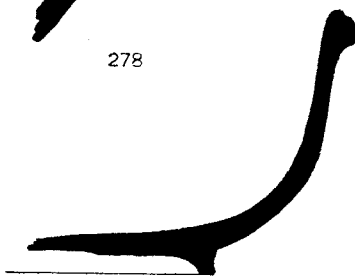
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PLATE X



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