

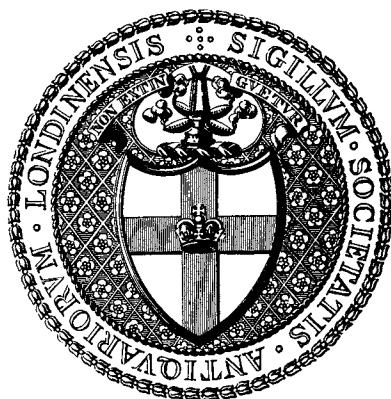
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Excavations at Fishbourne
1961 – 1969

By
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Volume II: The Finds



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ABBREVIATIONS

<i>Antiq.</i>	<i>Antiquity.</i>
<i>Antiq. Journ.</i>	<i>Antiquaries Journal.</i>
<i>Arch.</i>	<i>Archaeologia.</i>
<i>Arch. Ael.</i>	<i>Archaeologia Aeliana.</i>
<i>Arch. Camb.</i>	<i>Archaeologia Cambrensis.</i>
<i>Arch. Cant.</i>	<i>Archaeologia Cantiana.</i>
<i>Arch. Journ.</i>	<i>Archaeological Journal.</i>
<i>B.B.C.S.</i>	<i>Bulletin of the Board of Celtic Studies.</i>
<i>B.M.G.</i>	<i>British Museum Guide to the Antiquities of Roman Britain</i> (London, 1951).
<i>Bull. Inst. Arch.</i>	<i>Bulletin of the Institute of Archaeology.</i>
<i>Cam.</i>	C. F. C. Hawkes and M. R. Hull, <i>Camulodunum</i> (London, 1947).
<i>Gents. Mag.</i>	<i>Gentleman's Magazine.</i>
<i>J.R.S.</i>	<i>Journal of Roman Studies.</i>
<i>J. Sedim. Petrol.</i>	<i>Journal of Sedimentary Petrology.</i>
<i>Mem. Am. Ac. Rome</i>	<i>Memoirs of the American Academy at Rome.</i>
<i>Norf. Arch.</i>	<i>Norfolk Archaeology.</i>
<i>Oxon.</i>	<i>Oxoniensia.</i>
<i>P.H.F.C.A.S.</i>	<i>Proceedings of the Hampshire Field Club and Archaeological Society.</i>
<i>P.P.S.</i>	<i>Proceedings of the Prehistoric Society.</i>
<i>Proc. Camb. Ant.</i>	<i>Proceedings of the Cambridge Antiquarian Society.</i>
<i>Proc. Soc. Ant. Lond.</i>	<i>Proceedings of the Society of the Antiquaries of London.</i>
<i>Proc. Yorks. Geol. Soc.</i>	<i>Proceedings of the Yorkshire Geological Society.</i>
<i>Rec. of Bucks.</i>	<i>Records of Buckinghamshire.</i>
<i>R.I.B.</i>	R. G. Collingwood and R. P. Wright, <i>Roman Inscriptions in Britain</i> , 1 (Oxford, 1965).
<i>S.A.C.</i>	<i>Sussex Archaeological Collections.</i>
<i>S.N.Q.</i>	<i>Sussex Notes and Queries.</i>
<i>Surrey A.C.</i>	<i>Surrey Archaeological Collections.</i>
<i>T.B.G.A.S.</i>	<i>Transactions of the Bristol and Gloucestershire Archaeological Society.</i>
<i>T.L. & M.A.S.</i>	<i>Transactions of the London and Middlesex Archaeological Society.</i>
<i>W.A.M.</i>	<i>Wiltshire Archaeological Magazine.</i>

Structural and Decorative Stonework

1. BUILDING STONE USED FOR THE BASIC STRUCTURE

A WIDE variety of building stone was employed at various times during the history of the site. The types are best considered in terms of the individual periods in which they were used. Where samples have been submitted for identification to Mr R. W. Sanderson of the Geological Survey, the sample number is given in brackets with the prefix sp.

STONE USED IN FIRST-PERIOD PROTO-PALACE (Neronian–Early Flavian)

1. Blocks of igneous rocks, coming in either as ballast or as water-borne erratics from the west coast of Britain and the western coasts of France, were incorporated in wall footings of the proto-palace and the dry-stone footing in front of the Period 1 B timber buildings. For detailed identifications, see p. 2.
2. Fine-grained glauconitic sandstone, probably from the Church Rocks reef at West Wittering (sp. 39, 40). Found in the Period 1 B dry-stone footing.
3. Foraminiferal limestone. One specimen (sp. 38) contains the foraminifera *Nummalites globulus*, which is restricted, as far as is known at present, to the Lower Eocene of the Mediterranean region. The other example (sp. 41) is probably of similar origin. Found in the Period 1 B dry-stone footing, possibly brought in as ballast.
4. Fragments of column drums (see p. 15) in fine-grained glauconitic sandstone, probably from Church Rocks (sp. 26).
5. Corinthian capitals (see pp. 11 ff.). Foraminiferal limestone of Lower Eocene date, probably from the Mediterranean region (sp. 27).
6. Fine-grained silty limestone with minute flakes of white mica, closely similar to Pulborough stone from Radwell, near Pulborough. Used as building blocks in the walls of the proto-palace (sp. 28, 29).

STONE USED IN THE FLAVIAN PALACE

7. Lumps of coarse-grained calcite used in Period 1 C and Period 2, crushed into small pieces as an ingredient in wall plaster. Probably from Hampshire or Dorset.
8. Large blocks of glauconitic sandstone of Wealden origin. Used for gutter blocks in front of the West Wing of the palace.
9. Large blocks of a shelly white limestone from Bembridge or Headon Hill in the Isle of Wight (sp. 54), used for all the stylobates in the palace and for gutter blocks along the north and east side of the garden. The main pier bases in the Aisled Hall were of similar stone.
10. Small blocks of fine-grained silty limestone with minute flecks of white mica. Used for all the walls in the North and East Wings. Closely comparable with Pulborough stone from Radwell near Pulborough (sp. 28, 29).

11. Small blocks of fossiliferous limestone used as facing stone for the West Wing. From the Mixon reef, off Selsey Bill.
12. Columns of a soft cream-coloured granular limestone, used for most of the columns of the palace (sp. 25). Probably Caen stone from La Maladrerie quarry near Caen.
13. Columns of a white foraminiferal limestone. Used for some of the columns of the palace (sp. 23, 24). Lower Eocene limestone possibly of Mediterranean or French origins.
14. Columns of pale yellow bioclastic, pisolitic limestone (sp. 22), probably from the Inferior Oolite similar to that found at Osthill Quarry, Temple Guiting, Glos.
15. Small blocks of tufa, probably used in the superstructure of the building but not necessarily in the initial stages of the Flavian palace. One block was found in rubble layers from the destruction of the Third-Period bath building in the East Wing. Fragments of other blocks came from the rubble filling the west end of the Aisled Hall, close to the early Third-Period baths in the North Wing.

ERRATIC STONE BOULDERS

A number of boulders of different kinds of foreign stone were recovered from First-Period levels. Usually they were lying loose but occasionally some had been incorporated in Period 1 B and 1 C wall footings. All showed signs of being water-worn. Samples were submitted to Miss A. H. MacDonald and Mr R. W. Sanderson, whose identifications are listed below. The sample numbers are given in brackets.

1. Hornblende-diorite (sp. 1) containing large plates of greenish-brown hornblende and laths and irregular crystals of andesine very altered to sericite. There are also a few small crystals of colourless augite, patches of serpentinous material and a few flakes of epidote. Thin sectioned, Geol. Survey no. ENQ 1920.
 2. Hornblende-diorite (sp. 12) similar to above but in addition there are some flecks of mica. Thin sectioned, Geol. Survey no. ENQ 1924.
- Exact matches for nos. 1 and 2 have not been found, but similar specimens are known from Jersey.
3. Hornblende-diorite (sp. 16, 17) similar to specimens from Green Island, St Clement's Bay, Jersey.
 4. Porphyritic hornblende-quartz-diorite (sp. 21). Possibly derived from the Channel Islands.
 5. Epidiorite (sp. 18). Contains sheaves of fibrous amphibole, flakes of biotite and patches of chlorite. Crystals of twinned oligoclase are altered to sericite and crowded with needles of amphibole and flakes of biotite. Irregular crystals of iron ore also occur. Generally similar to epidiorites of Cornish origin. Thin sectioned, Geol. Survey no. ENQ 1993.
 6. Coarse-grained, conglomeritic arkose or granite (sp. 31), which has undergone strong shearing pressures. Possibly Cornish.
 7. Sheared porphyrite (sp. 32). Possibly Cornish.
 8. Hornblende-diorite (sp. 33) similar to a sample from St Clement's Bay, Jersey.
 9. Foliated porphyritic muscovite biotite granodiorite (sp. 34). Possibly Cornish.
 10. Coarse arkosic sandstone, iron-stained (sp. 55). Similar rocks occur on the east side of Alderney.
 11. Hornblende-quartz-diorite (sp. 59). Similar to a sample from St Sampson's, Guernsey. Thin sectioned, Geol. Survey no. ENQ 2143.

12. Biotite-muscovite schist (sp. 62). Possibly from Brittany, which is the location of the nearest known outcrop of this type of stone.

The above identifications show that the erratics derived from the Cornish Peninsula and from the Channel Islands and Brittany. The process by which they arrived at Fishbourne is, however, less certain. One possibility is that they were brought here as the result of geomorphological agencies, such as long-shore drift. This could account for the Cornish-derived stones but surely not for those from the south. Another explanation, and one which on present showing is more likely, is that the boulders were brought in as ballast in ships using the harbour in the early years of the Roman occupation.

2. COLUMNS

The structural elements which formed the colonades of the proto-palace and palace are divisible into the following categories:

- A. Columns of a simplified Tuscan order turned from various limestones.
- B. Ornate Corinthian capitals carved from limestone.
- C. Columns carved or turned from glauconitic sandstone.
- D. Segmental elements of stone and tile (see p. 44) used to construct column drums.

Stratigraphical considerations show that Group A columns are invariably associated with the main Flavian palace, whilst the others formed part of the decoration of the Neronian 'proto-palace'.

A. COLUMNS OF SIMPLIFIED TUSCAN ORDER (figs. 1-5 and pls. I-IIa)

Altogether some 150 individual fragments of Tuscan columns have been found scattered about the site of the palace, usually amid the heaps of rubble which filled the robber trenches in the courtyards of the North and East Wings, and close to the verandas which once surrounded the garden. In two instances, however, fragments have been found in the construction levels of the palace: three small pieces of a capital had been used as building stone in the north wall of room N 11 (Vol. 1, pl. xii**b**), whilst an unfinished base (or a base which was undergoing re-cutting) was found in three parts in a make-up layer below the floor of room E 5, in the East Wing. In both cases it seems likely that the pieces were rejects from the masons' workshops, discarded during the construction of the palace. The contexts of the other pieces leave little doubt that they were used in the palace itself, but the only columns to survive *in situ* were found on the extreme western part of the stylobate fronting the North Wing, where three bases still remained in position with a fallen capital close by. The particular superstructural significance of this discovery has been discussed elsewhere (Vol. 1, p. 121), but in general terms it shows that the normal size of a colonnade column was about 12 ft. (3.6 m.) high with a drum-diameter of 16¼ in. (0.42 m.). The base and cap of one of these columns are illustrated below (figs. 2 and 4, nos. 4 and 8). The westernmost base of this group was larger (0.53 m.) in diameter, but this was a special case designed to give additional headroom for the steps leading up to the West Wing.

The illustrations and their supporting text show clearly that while all the surviving fragments belong to a simplified Tuscan style of some quality, a considerable variety exists in minor detailing, particularly of the capitals. The provenances of the individual pieces give no indication that different styles were related to different features or functions, but the finds were so few and so scattered that generalizations cannot be expected. Indeed the stylistic differences may have had little significance to the builders. Size variation, however, is more important. Apart from two bases (2 and 3) of intermediate size, the surviving fragments fall into two categories: those with drums approximately 2 ft. (0.60 m.) in diameter and those 16 in. (0.40 m.) across. The smaller, as we have seen, were used for the main colonnades, while the larger presumably formed part of the more imposing elements in the Entrance Hall and the Audience Chamber, though not necessarily the main façades. The distribution of fragments of different sizes gives no clear indication where the pieces were originally used. There had been so much rebuilding, robbing and reorganization between the time of the original construction *c.* A.D. 75 and the eventual destruction 200 years later, that little significance can be attached to individual provenances.

The columns were made from limestone of differing qualities and textures, ranging from a very fine-grained cream-coloured stone to a whiter limestone composed of large fossil fragments. Four basic types were recognized (specimens 22-5) and were submitted to Mr R. W. Sanderson for identification (see p. 2). The most commonly used, a fine-grained, soft cream-coloured granular limestone (sp. 25), compares closely with Caen stone from La Maladrerie Quarry, near Caen. The second group were made from a coarse foraminiferal limestone containing fragments of fossil molluscs (sp. 23 and 24), which was found to contain an Eocene fauna restricted to the Lower Eocene of the Mediterranean region and the Paris Basin. A third, less commonly used, stone (sp. 22), a pale yellow bioclastic, pisolitic limestone, closely resembles the Inferior Oolite of the Osthill Quarry, Temple Guiting, Glos. It is evident that the masons had at their disposal large quantities of stone carefully chosen for its qualities, expense being no object.

No trace of a masons' working yard of this period has been identified, but the discovery of the unfinished (or re-worked) base in the make-up below the East Wing and of several fragments of sawn stone from similar positions suggests that the columns were being finished on the site. Two stages in the working are apparent from the surviving fragments: the elements were first roughly dressed, using a serrated chisel, while the final finish was given by turning the units on a lathe — no mean task when it is remembered that each section weighed more than half a ton. The movement and placing of the capitals and bases would have provided no great difficulties with simple scaffolding and a block and tackle. The drum sections, however, smoothly finished with no protuberances around which to anchor ropes, were each cut with four small wedge-shaped rebates to form grips for the lifting apparatus. These were presumably filled with mortar, after the column had been placed in position.

Bases (figs. 1-3)

1. Large base, drum 24 in. (0.60 m.) in diameter. Found in the western courtyard (courtyard 1) of the North Wing, lying in the rubble filling the robber trench of the gutter in the north-west corner. Fine-grained limestone.

Fragmentary torus mouldings of similar proportions were recovered from rubble deposits in the south-east corner of courtyard 1 in the East Wing, the east side of courtyard 2 in the East Wing, the west side of courtyard 1 in the North Wing, the east side of courtyard 2 in the North Wing and in the north-east corner of the garden.

2. Large base, drum 22 in. (0.55 m.) in diameter. Found in the Third-Period well in courtyard 2 of the East Wing. The base had evidently shattered during use and had been repaired

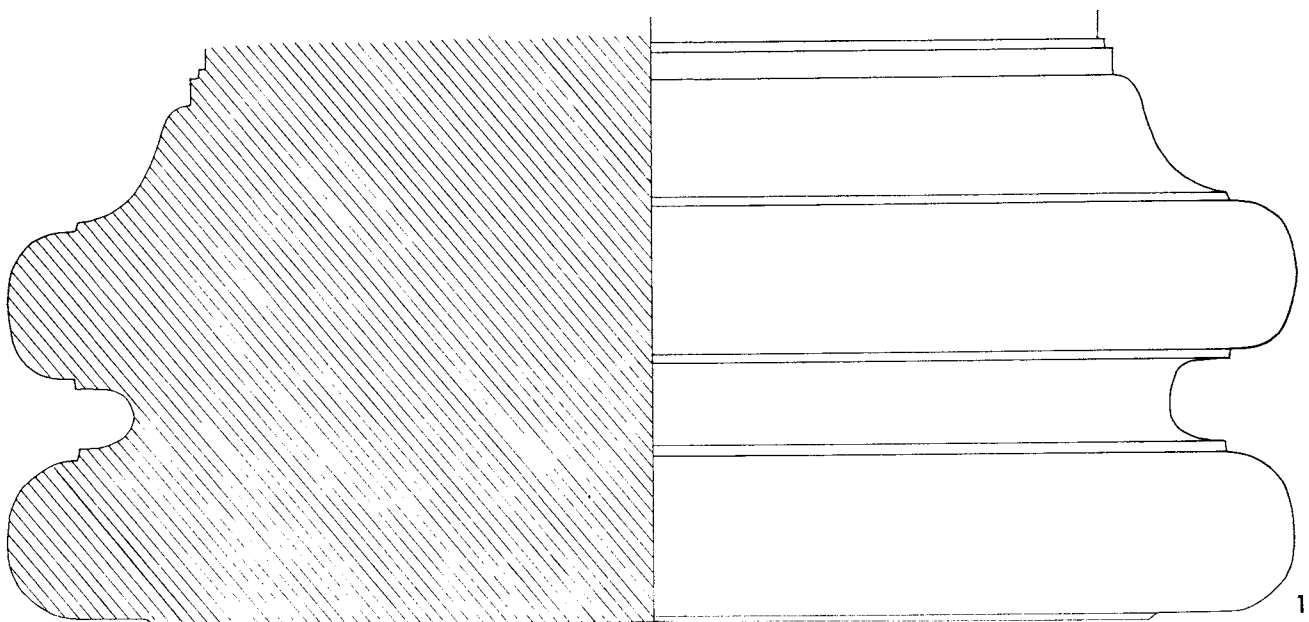
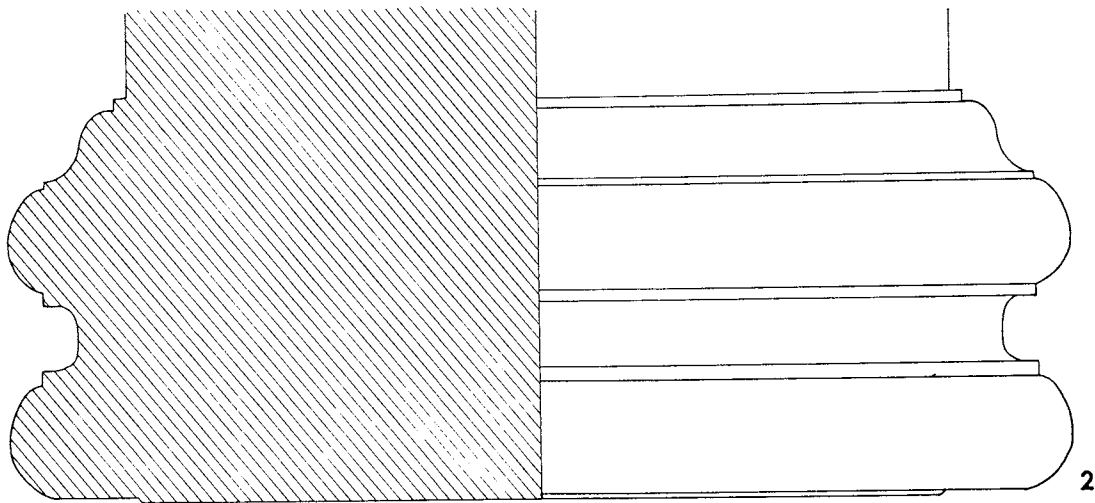


FIG. 1. Column bases: scale $\frac{1}{16}$ (pp. 4-5)

by clamping the broken fragments together and pegging a detached flake back on the drum (pl. 1*b*). Oolitic limestone with large fossil fragments.

3. Large base, drum 21 in. (0.53 m.) in diameter. The drawn example was preserved in position on the stylobate fronting the North Wing. It is the westernmost column, which was found to be larger than those of the rest of the colonnade (see p. 12). Fine-grained limestone. Fragments of torus mouldings of generally similar proportions were recovered from rubble deposits in the south-east corner of courtyard 1 in the East Wing, the south side of the central garden path close to the Entrance Hall and from rooms N 7 and N 14 in the North Wing.
4. Base, drum 16½ in. (0.42 m.) in diameter. Two bases of this type were found *in situ* on the stylobate fronting the North Wing. They represented the second and third columns from the west end. Fine-grained limestone.
5. Base, drum 16½ in. (0.42 m.) in diameter. Similar to no. 4 but with thicker torus mouldings. Found on the floor of room N 3, lying amid the collapsed rubble. It had been badly shattered by fire. Medium-grained Oolitic limestone.
6. (a)-(g). Fragments of different torus mouldings generally similar to nos. 4 and 5.
 - (a) Fine-grained limestone; from rubble at the east front of the Entrance Hall.
 - (b) Fine-grained limestone; north-west corner of the garden.
 - (c) Fine-grained limestone; from east side of garden, north of the central path.
 - (d) Limestone with large fossil fragments; from north-west corner of courtyard 1 in North Wing.
 - (e) Fine-grained limestone; from north-west corner of garden.
 - (f) Fine-grained limestone; from western veranda of west courtyard in North Wing. Re-used in a Third-Period wall.
 - (g) Fine-grained limestone; from north-east corner of garden.

Capitals (figs. 3-5)

7. Capital with a plain abacus and a shallow cyma recta followed directly by a shallow cavetto. The drum measures 16 in. (0.41 m.) in diameter at the neck. Found in courtyard 1 in the East Wing, in the robber trench for the gutter on the south side of the courtyard. Another fragment was found in the rubble layers immediately to the south between the two courtyards. Both in fine-grained limestone.
8. Capital with a plain abacus and a cyma recta divided from the cavetto by a quadrant bead. The drum measures 16 in. (0.41 m.) in diameter at the neck. From the north-west corner of the garden. A section showing the neck of an identical column was found in courtyard 2 in the North Wing, lying in the north-east corner of the robber trench for the gutter. Both in fine-grained limestone.
9. Capital with a plain abacus and a cyma recta separated from the cavetto by a well-formed bead. The drum measures approximately 14 in. (0.35 m.) in diameter below the cavetto. Found in the late pit cut into the west garden path in front of the northern part of the West Wing. Parts of similar capitals were found in rubble layers on the road north of the Entrance Hall, corridor N 24 at the east end of the North Wing, in the north-west corner of the garden and in courtyard 1 in the North Wing. Two fragments were also found built into the north wall of room N 11. Fine-grained limestone.

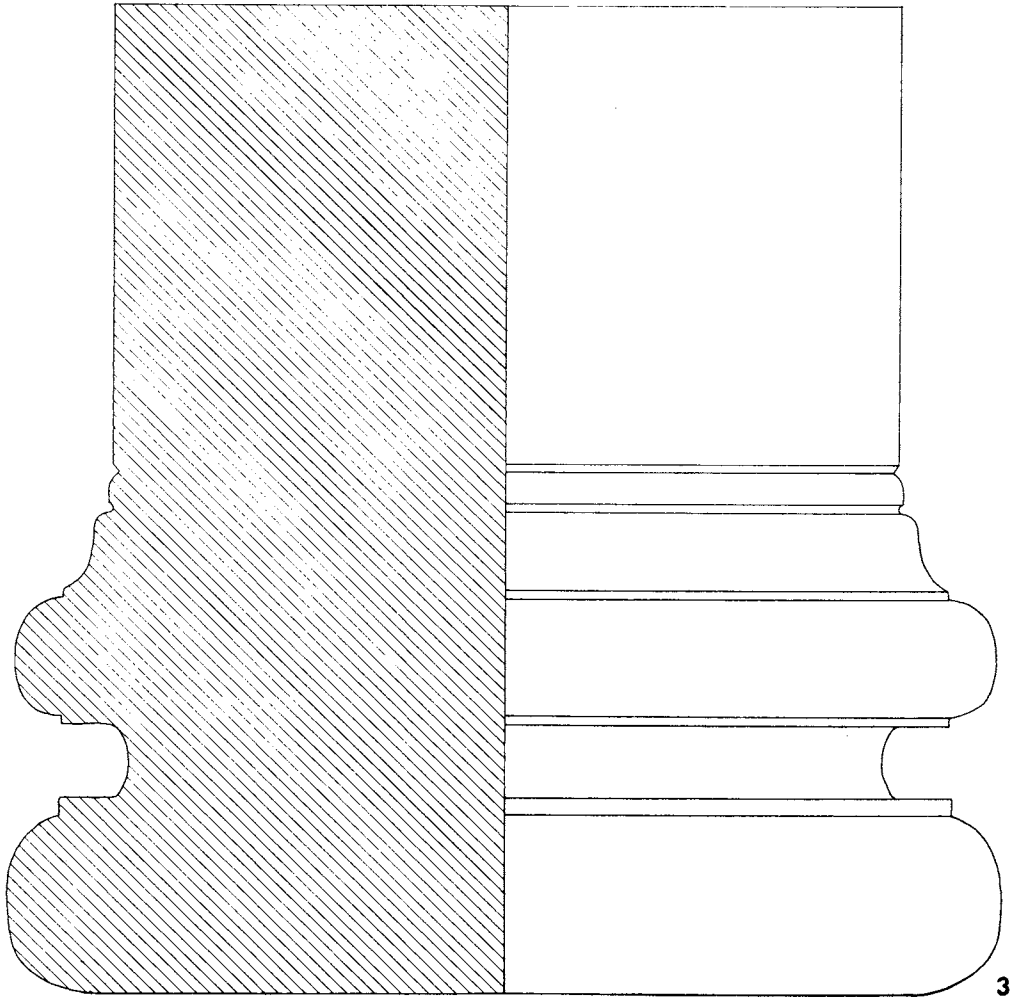
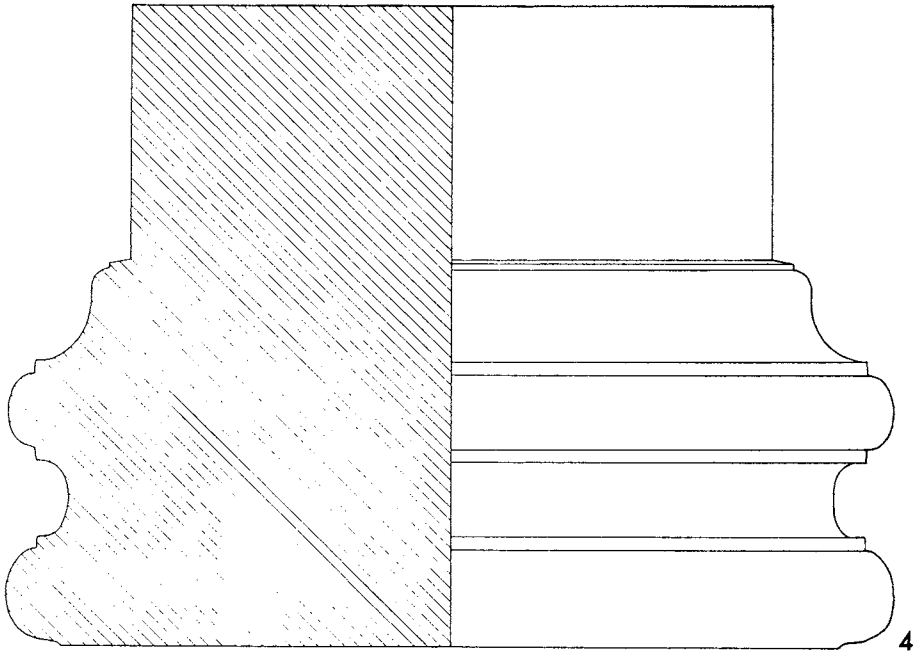


FIG. 2. Column bases: scale $\frac{1}{10}$ (p. 6)

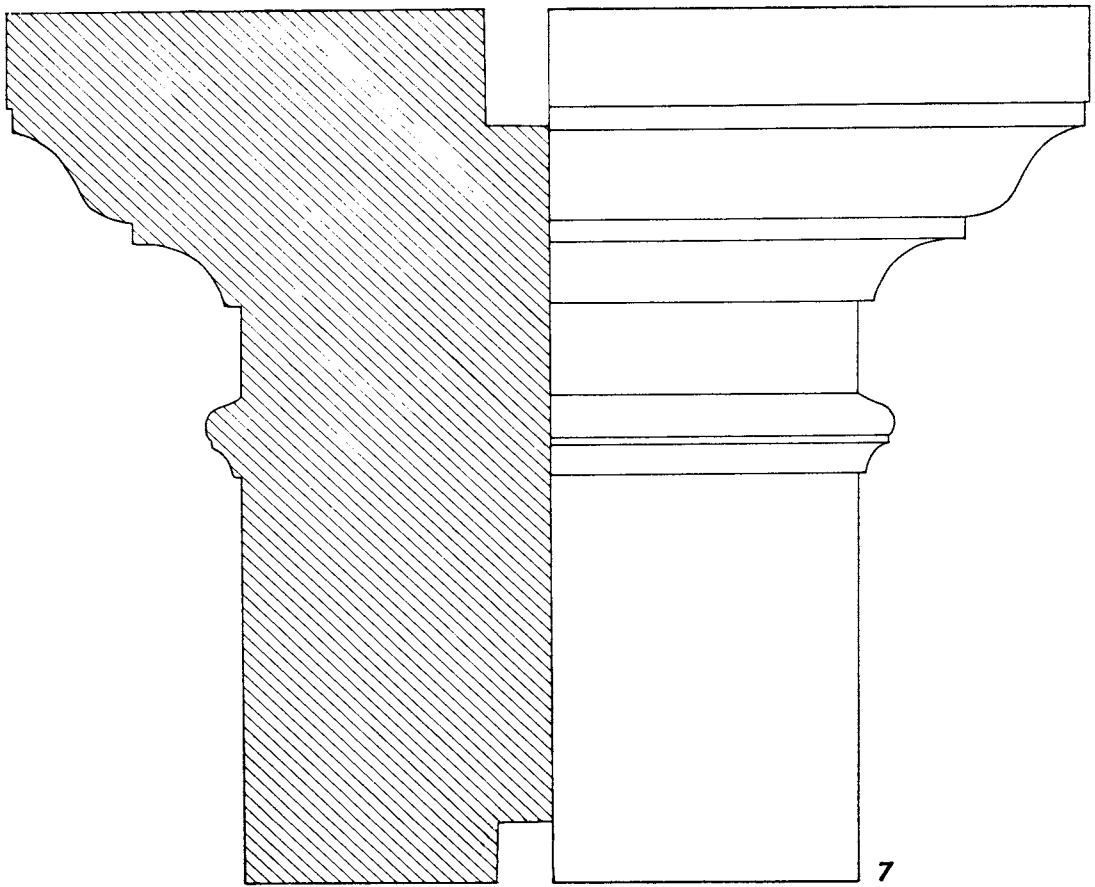
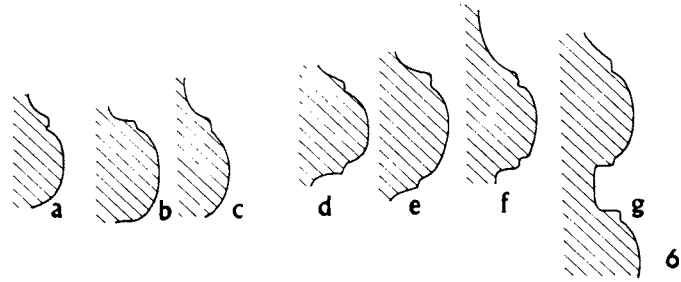
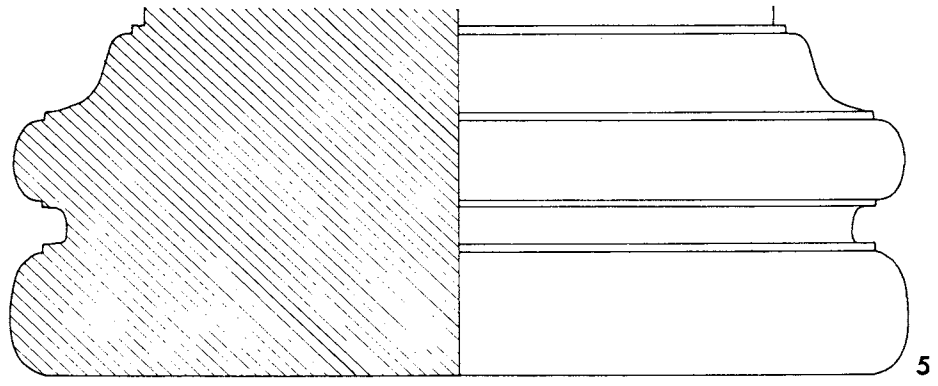


FIG. 3. Column bases and capital: scale $\frac{1}{10}$ (p. 6)

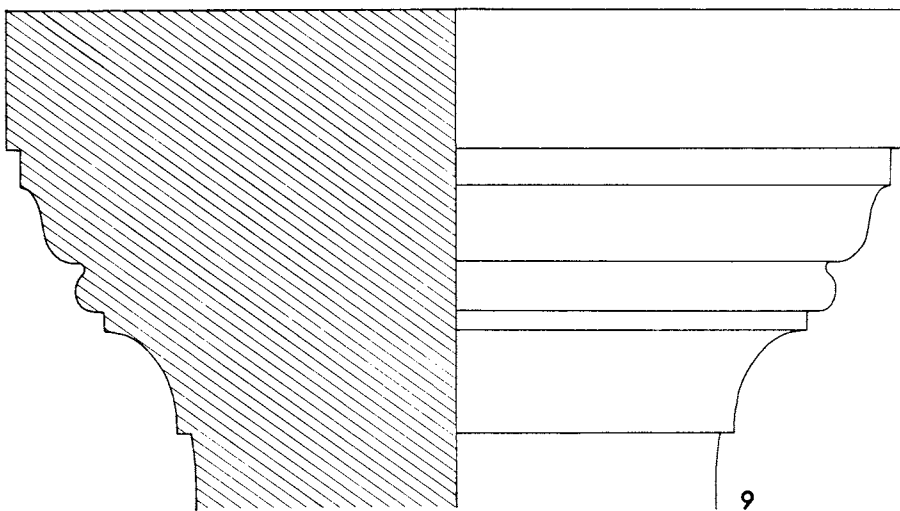
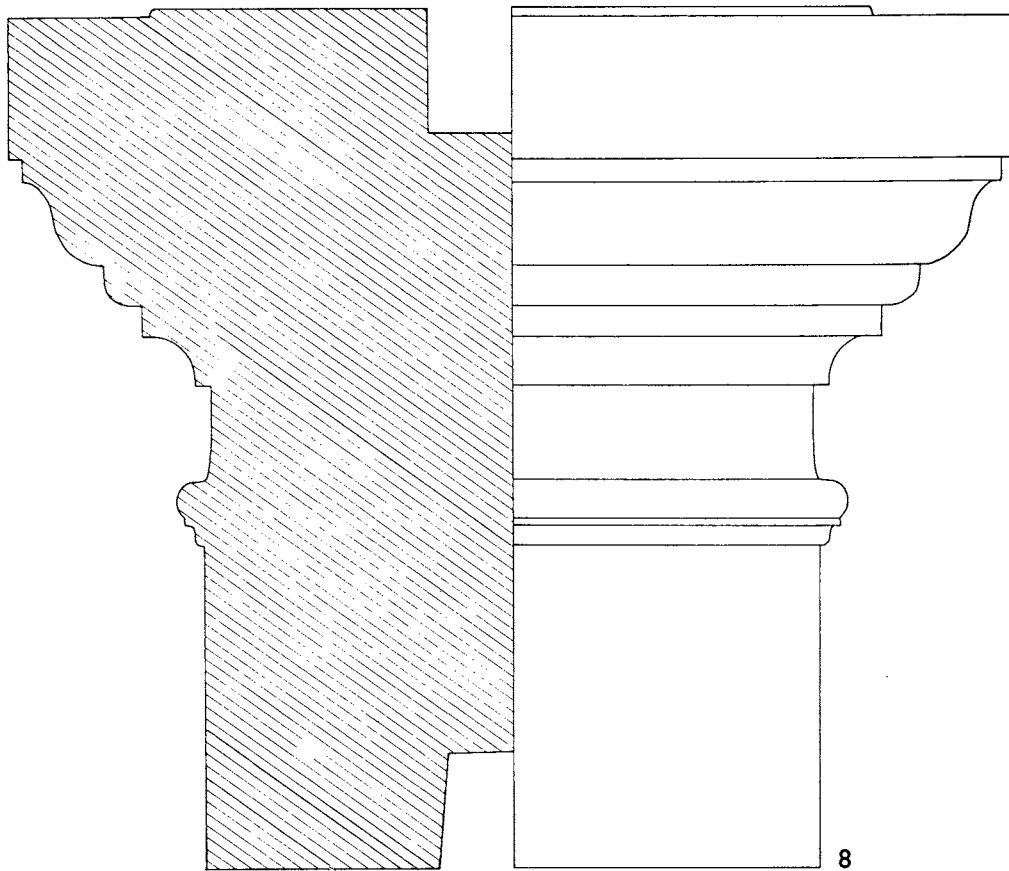


FIG. 4. Column capitals: scale $\frac{1}{10}$ (p. 6)

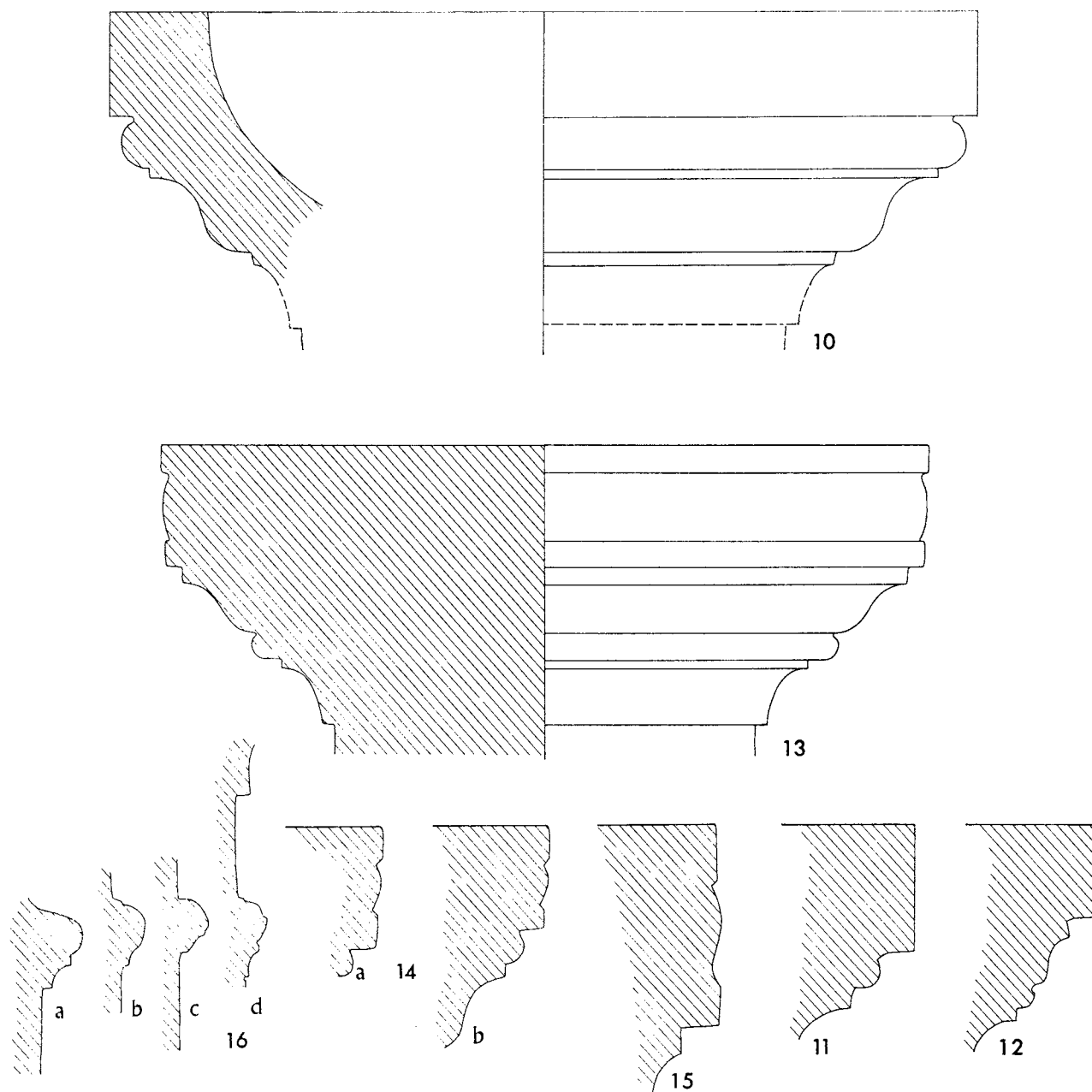


FIG. 5. Column capitals: scale $\frac{1}{16}$ (pp. 10-11)

10. Capital with a plain abacus divided from the cyma recta and cavetto by a well-formed bead. Three fragments, apparently part of the same capital were found together in courtyard 1 in the East Wing, lying in the robber trench for the gutter on the south side of the court. The drum would measure approximately 15 in. (0.38 m.) in diameter below the cavetto. The centre of the cap has been carved out quite regularly to form a basin-shaped hollow and the projecting corners

of the abacus have been perforated. Such hollowing would have reduced considerably the load-bearing capacity of the cap. Indeed, it is unlikely that it would have been strong enough to support an entablature. It seems probable, therefore, that the capital was non-structural and may have served as a purely decorative free-standing feature. Coarse limestone with large fossil molluscs.

11. Capital with a plain abacus divided from the cyma recta by a quadrant-shaped bead. A number of fragments, possibly from the same capital, were found in the rubble filling the north robber trench of courtyard 1 in the North Wing; all show signs of having been burnt. Fine-grained limestone.
12. Capital with a plain abacus and a steep cyma recta divided from the cavetto by a tightly-moulded bead. From the north side of the garden, in the robber trench for the gutter fronting the north colonnade. Other fragments were recovered from rubble layers in courtyard 2 in the North Wing, the north-west corner of the garden and from room E 6 in the East Wing. Fine to medium-grained limestone.
13. Capital with a ribbed abacus and a bead dividing the cyma recta from the cavetto. The diameter of the drum above the neck measures approximately 13 in. (0.33 m.). Fossiliferous oolitic limestone. Found in the north-west corner of the garden.
14. Capital with a ribbed abacus separated from the cyma recta by a bead. Several fragments survived, mainly in a coarse fossiliferous oolitic limestone; one example in a fine-grained limestone is known. Found in rubble layers in the north-west corner of the garden, courtyard 1 in the East Wing and the north robber trench of room N 11.
15. The ribbed abacus of a large capital with the cyma recta starting immediately below the abacus. Fine-grained oolitic limestone. From the rubble at the west front of the Entrance Hall.
16. A number of fragments of neck mouldings were recovered which had become detached from their capitals. All were in fine-grained limestone: (a) and (c) were found in the north-west corner of the garden, (b) in the north-east corner of the garden and (d) in corridor N 24 at the east end of the North Wing.

Column drums

Large numbers of fragments belonging to column drums have been recovered, mainly from the north-west corner of the garden. All were turned from a fine-grained limestone in sections measuring up to 29½ in. (0.74 m.) in length. Two distinct sizes are represented among the measurable fragments: the smaller with diameters varying between 14–16½ in. (0.36–0.42 m.), the larger with diameters of 23–24 in. (0.58–0.60 m.).

B. CORINTHIAN CAPITALS, *By* PROFESSOR D. E. STRONG, F.S.A.

Institute of Archaeology, University of London

Fragments of Corinthian capitals re-used in the Second-Period garden

The fragments of carved limestone which had been used as packing for posts when the palace period garden was laid out (Vol. I, p. 126) belonged to a series of capitals of Corinthian type. It looks as though these capitals had been deliberately broken up, and the fragments,

of which there were well over a hundred, consist mainly of the prominently projecting parts, the most clearly recognizable being the angle-volutes and corners of the abacus, and the curious leafy loops or 'handles'; there are very few pieces of the leaves and the core of the capitals. The number of surviving corners and volutes shows that there were, originally, at least four capitals.

It is possible to reconstruct the general form of the capitals, and this is shown in pl. iv, which illustrates a rather hasty, but basically sound, reconstruction in plaster incorporating ancient fragments, made for exhibition in the Fishbourne Museum by the masons of the Department of Greek and Roman Antiquities in the British Museum. Precisely accurate reconstruction is much more difficult because the core of the capitals is missing and because the design, as will be seen, is very unorthodox. A more orthodox Roman capital would have presented less problems; in the case of the Fishbourne capitals, although several details have parallels elsewhere in the Roman world, the design as a whole is unique.

Reconstruction (pl. iv)

A few fragments surviving from the lower parts of the capitals show that there was the normal ring of acanthus leaves, and from these it was possible to reconstruct the base-diameter as *c.* 46 cm. The leaves were *c.* 16 cm. wide and between them there was a narrow rib, probably the mid-rib of an upper leaf. The reconstruction makes no attempt to show the likely form of this upper leaf, but it will be seen that the lobes of a leaf appear on the side of the leafy 'loop' immediately below the right-hand angle-volute. The mid-rib may, therefore, belong to a leaf which occupied most of the empty space left in the reconstruction and curved outwards at the top to touch the loop.

All elements for the reconstruction of the upper part of the capital survive. The abacus consists of a decorated ovolo, upside down, and the standard vertical element decorated with parallel fluting. Grotesque masks in leafy frames, of which two fragments, both used in the reconstruction, survived, took the place of the abacus rosette on one or more faces of the capitals, with the upper parts of the heads rising above the top line of the abacus. In several cases the corner of the abacus and the angle-volute were found in one piece, and two of the best examples were used in the restoration. Adjacent volutes are strongly splayed towards the bottom and a pointed tongue occupied the space between them. The volutes are deeply undercut and carved in the form of a ram's horns. The coil is drawn out like the whorl of the horn, and grooves, rather summarily carved on tops and sides, indicate the growth rings. Immediately below each of the corner volutes, and set at the same angle, was a strongly convex surface, deeply undercut and decorated on the front by a pair of parallel leaves with pointed lanceolate lobes. The feature is rather like a leafy 'handle'. Below the 'handle' comes a narrow concave moulding and below that the fleshy overhang of the angle leaf of the bell of the capital. This sequence can be completely reconstructed from the fragments, the only uncertain element being the height of the acanthus leaf.

The key to the arrangement between the angle-volutes is given by one fragment which shows that the volutes issued from a central 'handle' similar in form to those at the angles and that between them there was a widely-splayed fluted cauliculus crowned by a horizontal concave moulding. The upper surface of this cauliculus was flat; its relationship to the mask above it is not clear. Another fragment shows that, while the 'handle' in the

centre was similar to those at the angles, it rose not from a leaf but from a narrow fluted cauliculus above the central acanthus leaf, the top of which overhung sharply.

Enough elements survive, therefore, to give the general form of the capitals, but the exact dimensions and the proportions of the various parts are uncertain, and probably cannot be exactly determined. The base diameter was *c.* 46 cm. (see above) and the width across the abacus *c.* 56 cm. The height is not known. The most straightforward way to calculate this, if the capital were orthodox Corinthian, would be the ratio of the height of the abacus, in this case *c.* 12 cm., to the capital as a whole. In early Corinthian this ratio is about 7 : 1 (Gütschow, 1921, 76-7); but in the 'Corinthianizing' capitals of this kind it is often less. In the reconstruction it seemed better to adopt a height which gave a reasonable form to the lower acanthus leaves. This gave a total height of 67 cm. for the capital.

Typology

The archaeological evidence shows that the capitals probably date from the Neronian or early Flavian period. Although the design as a whole is unique, they belong to a class of 'Corinthianizing' capitals with unorthodox arrangements of leaves and volutes that became especially popular in the early Empire. Many details link them with the architectural ornament of the period. Especially characteristic of Augustan and Julio-Claudian architecture is the decoration of the abacus which is found, for example, on the well-known capital from the Tiber near Tordinona, now in the Museo delle Terme (Gusman, 1914, pl. 135) and on other Julio-Claudian capitals (Scrinari, 1952, no. 15). This combination of ovolo and fluting is rare later. The ram's horn volutes are another detail which has its origin in Julio-Claudian ornament. Prancing rams take the place of volutes on the capitals from the interior of the Augustan Temple of Concord (Von Mercklin, 1962, 201 ff.) and early Composite capitals, perhaps as early as Claudius and Nero, have rams' heads in the position of the scrolls (*ibid.*, figs. 947-50). Horn-volutes were probably just as early in Composite, but there are no dated examples. The capitals of this type re-used in the Church of S. Cosimato in Trastevere are probably Flavian (pl. *va*) and there are certainly Flavian examples from the Palatine (Strong, 1960, 128). Several other details of the Fishbourne capitals can be matched on capitals of the first century A.D. from Italy. A head or mask in place of the abacus rosette is not uncommon, although surviving examples of heads contained in wreaths seem to be late (Von Mercklin, 1962, figs. 724, 726).

The design as a whole is without parallel, but the source of inspiration is obviously the rich 'Corinthianizing' series of Italian capitals of the first century A.D. The early Augustan capital from the Temple of Apollo in Circo (Colini, 1940, fig. 14) shows the inventiveness of the period, and the leafy tongues below the volutes and the central cauliculus at the base of the leaves have something in common with the Fishbourne capitals. The Fishbourne design is also linked with the series of Dolphin capitals from the Casino of Hadrian's Villa (Von Mercklin, 1962, figs. 997 ff.) (pl. *vb*), on which the springing of the volutes and the leaf cauliculus between them are closely comparable. The capitals from Hadrian's Villa are Hadrianic but some examples of the same type may be considerably earlier. It is perhaps not too imaginative to see the influence of early Composite capitals on the decoration of the 'handles'; Composite scrolls are sometimes decorated with simple leaf ornament carved in a very similar way (Strong, 1962, pl. *xiv*).

Technique

The capitals were carved in soft limestone, mainly with chisels and gouges, and it is clear from the striking differences in execution that at least three different hands worked on them. The workmanship, although it is uneven, is always quite confident, especially in the carving of the leaves, which is sharp and precise; there is a roughness in detail that would not occur in the work of a skilled Mediterranean craftsman. The growth rings of the horns, for example, have nothing of the delicate naturalistic finish that one finds in the Roman capital (pl. va) and the details of the abacus are rough. The decorated mouldings are flat with little modelling, and the inversion of the ovolo is a very odd feature. One distinctive detail of the technique is the use of the drill. A series of drill-holes, 0.5 cm. in diameter and as much as 1.5 cm. deep, appears in regular arrangement along the mid-rib and points of some leaves, along the lower part of the ovolo and on the upper cauliculus. The holes seem to be purely decorative.

Conclusions

The Fishbourne capitals clearly belong to a decorative tradition of the early Empire which is associated rather with interior decoration and small ornamental buildings than with the orders of external architecture. Although they follow Mediterranean fashion they were not carved by Mediterranean craftsmen. This seems clear both from their quality and from the fact that the detail of the leaf-carving is not that of contemporary capitals in Rome and Italy. The sharply concave, pointed lobes of the leaves are much more like late Republican and early Augustan work (Kähler, 1939, Beilage 1) which created a tradition in southern France and Spain (*ibid.*, Beilage 5) that survived well into the Empire. It is not unlikely therefore that the craftsmen who made the Fishbourne capitals came from southern Gaul. There is nothing really comparable in Britain though it is interesting to note that a group of six little Corinthian capitals in the Cirencester Museum, which seem to be among the earliest examples of Roman Corinthian in Britain, also have the volutes carved in imitation of rams' horns.

Fragment of a Corinthian Capital (pl. III)

Found in late rubble deposits in the east veranda of the Palace garden. The limestone fragment consists of the corner of the abacus of the capital (pl. III). The height is 11.5 cm.; the maximum length is 29.3 cm. and the maximum width 17.8 cm. The abacus is crowned by a bead-and-reel and a plain projecting fillet; the angle is formed by a flat trapezoidal surface decorated with a leaf-calyx, approximately 6.3 cm. high and cut back 1.2 cm. into the stone. The corner of the abacus projected *c.* 4.7 cm. beyond the volute. The upper edge of the volute, which was framed by a narrow fillet, is preserved on one side, where it encroached on to the surface of the abacus. On the other side, the detail is less clearly defined and may have been unfinished.

The fragment comes from a large Corinthian capital which was perhaps 80-85 cm. high. Although so little survives, the fragment is not without interest. The two noteworthy details are the bead-and-reel ornament crowning the abacus and the ornamental detail of the corner. The use of bead-and-reel as crowning moulding is rare in Corinthian. The crowning

moulding of an orthodox Corinthian abacus is generally an ovolo profile; in some provincial capitals of the first century and later this is reduced to a small half-round moulding appropriate to bead-and-reel or beading. The capital of the Jupiter column at Mainz, erected between A.D. 58 and 67, provides a good example (Quilling, 1918, 53). The ornamental detail of the corner also links the Fishbourne capital with the Rhineland tradition which was one of the chief influences on architectural ornament in Roman Britain. Leaf decoration of this kind is unknown in Rome and Italy but there are several parallels on Rhineland capitals, for example, the Mainz column, and a number of Romano-British capitals, for example, the capital from the Basilica at Silchester (Fox and Hope, 1893, pls. xxxvii, xxxviii), with comparable details. The simplicity of the Fishbourne capital suggests an early date.

C. COLUMNS CARVED OR TURNED FROM GLAUCONITIC SANDSTONE

Several fragments of columns made from a glauconitic sandstone have been recovered from pre-Period 2 contexts. Samples of the stone (sp. 26) submitted to Mr R. W. Sanderson were compared in general to specimens from quarries in Wiltshire and Dorset, and in particular to the off shore reef known as Church Rocks, five miles west of West Wittering.

1. Part of a capital showing a steep cyma recta moulding (fig. 6). The diameter of the cap at the base of the moulding is approximately 24 in. (0.60 m.). Found, by builders, unstratified in the area north of the North Wing.



FIG. 6. Fragment of greensand column capital: scale $\frac{1}{10}$ (p. 15)

2. Section of a column drum at least 3 ft. (1.0 m.) long and 14 in. (0.35 m.) in diameter. The surface is rough-pecked with chisel marks either as a form of primary tooling or to serve as keying for stucco. Found in Second-Period make-up layers on the west side of the courtyard of the proto-palace.
- 3-7. Fragments of lathe-turned column drum, c. 14 in. (0.35 m.) in diameter. Found in make-up layers and packing scaffold post-holes below the floor make-up of the south end of room N 15 in the North Wing.
8. Part of a column drum with a roughly-pecked surface. Found with nos. 3-7.
9. Fragment of a column drum. Found in pre-Second Period layers to the west of room E 3 in the East Wing.

It will be seen that, with the exception of the unprovenanced no. 1, fragments of greensand columns have always occurred in levels pre-dating the construction of the Flavian palace. While some pieces evidently formed part of unadorned columns, others may well have served as bases for stucco finishing (see Vol. 1, p. 66).

D. SEGMENTAL ELEMENTS OF STONE AND TILE

Several quadrant and semicircular tile and stone elements have been recovered from First-Period levels, mainly below the floors of the East Wing of the palace. The tiles are described elsewhere (p. 44).

The stone elements, invariably quadrants, are roughly cut. They vary in radius from $5\frac{1}{4}$ -7 in. (13.5-18.0 cm.) and in thickness from $2\frac{3}{4}$ - $3\frac{1}{8}$ in. (7.0-8.7 cm.). The stone from which they are made is a hard glauconitic sandstone. Mortared together in pairs, to form half-columns, or in fours to form columns, they would have created a suitable core for stuccoed columns between 14-16 in. (0.35-0.40 m.) in diameter.

3. STONE AND MARBLE USED FOR DECORATIVE INLAY

Decorative stone from Fishbourne has been recovered from two broadly separate contexts. One group comes from the builders' working yard which underlies the East Wing of the Flavian palace and can be shown to be contemporary with the construction of the Neronian proto-palace (see Vol. 1, p. 58). The other group consists of mouldings and inlays used in the Flavian palace itself. The types of stone from these two horizons have been identified by Miss A. H. MacDonald and Mr R. W. Sanderson of the Institute of Geological Survey: specimen numbers are given in brackets.

TYPES OF DECORATIVE STONE

From the Neronian builders' working yard

1. Purbeck 'marble' (sp. 7). Found in large quantities.
2. Red fossiliferous silty mudstone (sp. 11). Of foreign, probably Mediterranean, origin. Found in large quantities.
3. Buff-coloured fossiliferous silty mudstone (sp. 2), probably of similar origin to no. 2. This stone is closely laminated and sometimes merges to a purple-red. Found in some quantity.
4. Grey sandy shale (sp. 3 and 4), similar to stones of the Wealden series of East Sussex. Fairly common.
5. Hard white chalk which fractures with a conchoidal break. Fairly common.
6. Brown breccia (sp. 8), probably Pouillenay Rose from Pouillenay, Côte d'Or, France. Fairly common.
7. White crystalline marble (sp. 13 and 15), closely similar to marble from Carrara. Rare.

The Occupation and rubble layers of the Flavian Palace

Types 1-5 on the above list still form a high percentage of the decorative stone used in the palace, but there is no evidence at all that Types 6-7 were used in this period. Additional marbles now in use in small quantities include:

8. White granular marble (sp. 50), closely comparable to a stone from Balikesir, Erdek, Turkey.
9. White marble mottled with pink and veined with purple (sp. 56). Probably Marmor Docimenicum from Phrygia, Turkey.

10. Brown brecciated marble (sp. 5) similar to samples of Semesanto from the island of Skyros, Greece.
11. Deep green marble (sp. 60) called Porfido Verde Antico from Marathonisi, Laconia, Greece.
12. A brecciated marble (sp. 10), similar to Breccia Violetto from Strazzeina Quarries, Seravezza, Tuscany.
13. Grey-veined white marble (sp. 58). Probably Venata Crocicchio from Crocicchio, Arni, Versalia, Italy.
14. Light brown and white marble breccia (sp. 57) identical to Brèche Romaine Jaune Foncé from Lez, Haute Garonne.
15. Sheared green and white marble (sp. 52). Either Campan Vert from the Campan Valley, Hautes Pyrénées or Vert d'Estour marble from Ariège, Pyrenees.
16. Grey-veined coarse schistose marble (sp. 51), origin uncertain.
17. Hornblende-quartz-diorite (sp. 59). Guernsey. This stone occurs as large erratic boulders, but several fragments have been cut and smoothed into thin sheets.

MARBLE MOULDINGS

The marble mouldings are divided into two groups: (a) unfinished mouldings from the builders' working yard contemporary with the construction of the Neronian proto-palace, and (b) mouldings used in the Flavian palace.

Unfinished mouldings from the builders' working yard (fig. 7)

Amid the rubble and chippings on the floor of the builders' working yard were found seven fragments of mouldings carved from blocks of Purbeck marble (fig. 7, 1-7), which had broken during manufacture or had been left unfinished. Parts of two of the pieces, nos. 2 and 3, had evidently been sawn up for re-use.

Mouldings from destruction levels in the palace (figs. 8-12)

The mouldings listed below had all evidently been used in the Flavian palace. Some showed signs of wear while others still had traces of red mortar adhering to them. They would have been used as a top framing for recessed panels or above doors or windows. Some of the elements are perforated with a clamp-hole for attachment to the walls.

8-14. Cornice mouldings in white and grey-veined marble (fig. 8)

8. White crystalline marble. North Wing, room N 10.
9. Stopped cornice in white crystalline marble. Entrance Hall.
10. White crystalline marble. North Wing, room N 10.
11. Grey-veined white marble. North-west corner of the garden.
12. Grey-veined marble. Immediately west of the North Wing.
13. White crystalline marble. North Wing, room N 10.
14. White crystalline marble. North Wing, room N 10.

EXCAVATIONS AT FISHBOURNE, 1961-1969

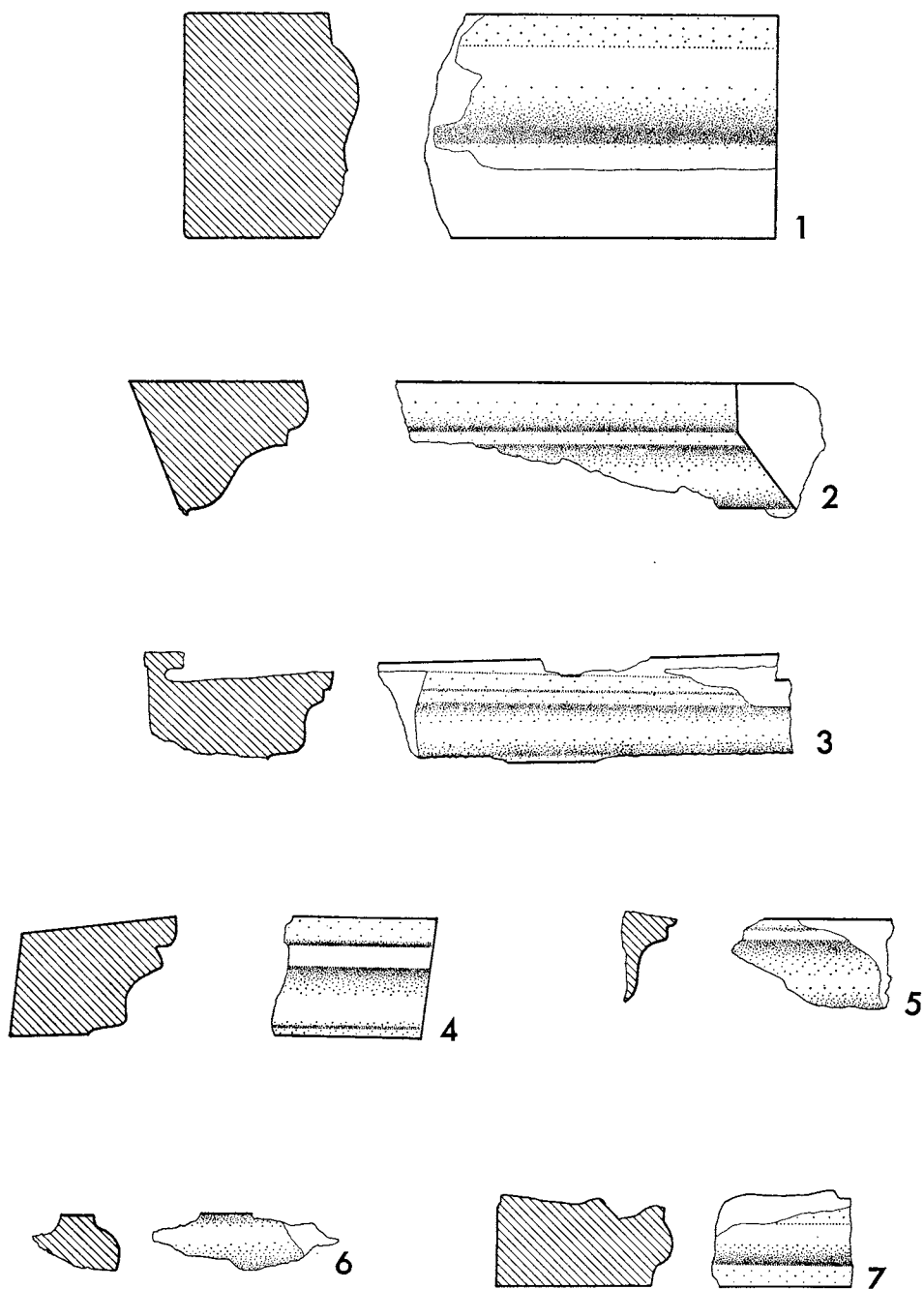


FIG. 7. Mouldings from the builders' working yard: scale $\frac{1}{3}$ (p. 17)

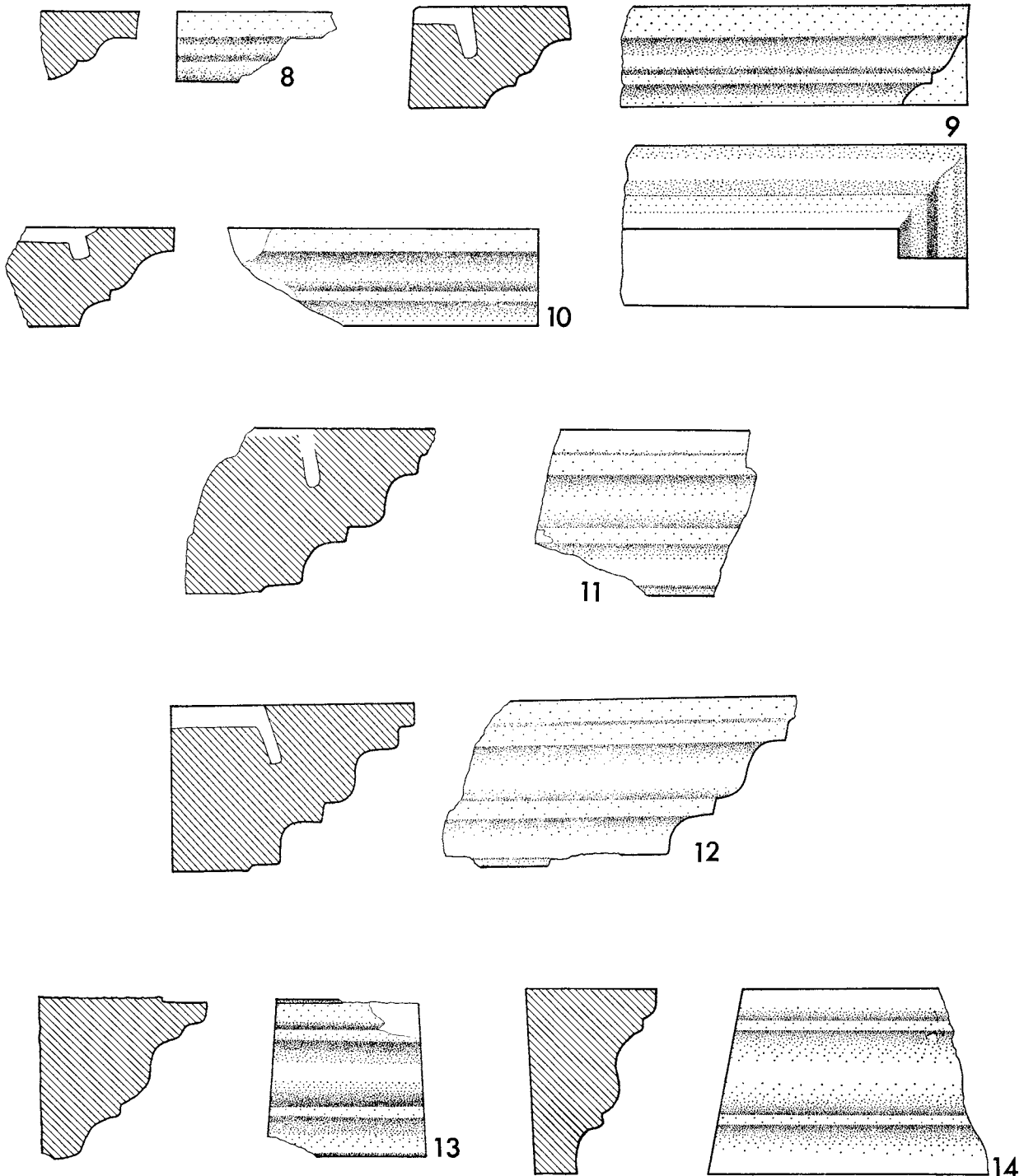


FIG. 8. Marble mouldings: scale $\frac{1}{3}$ (p. 17)

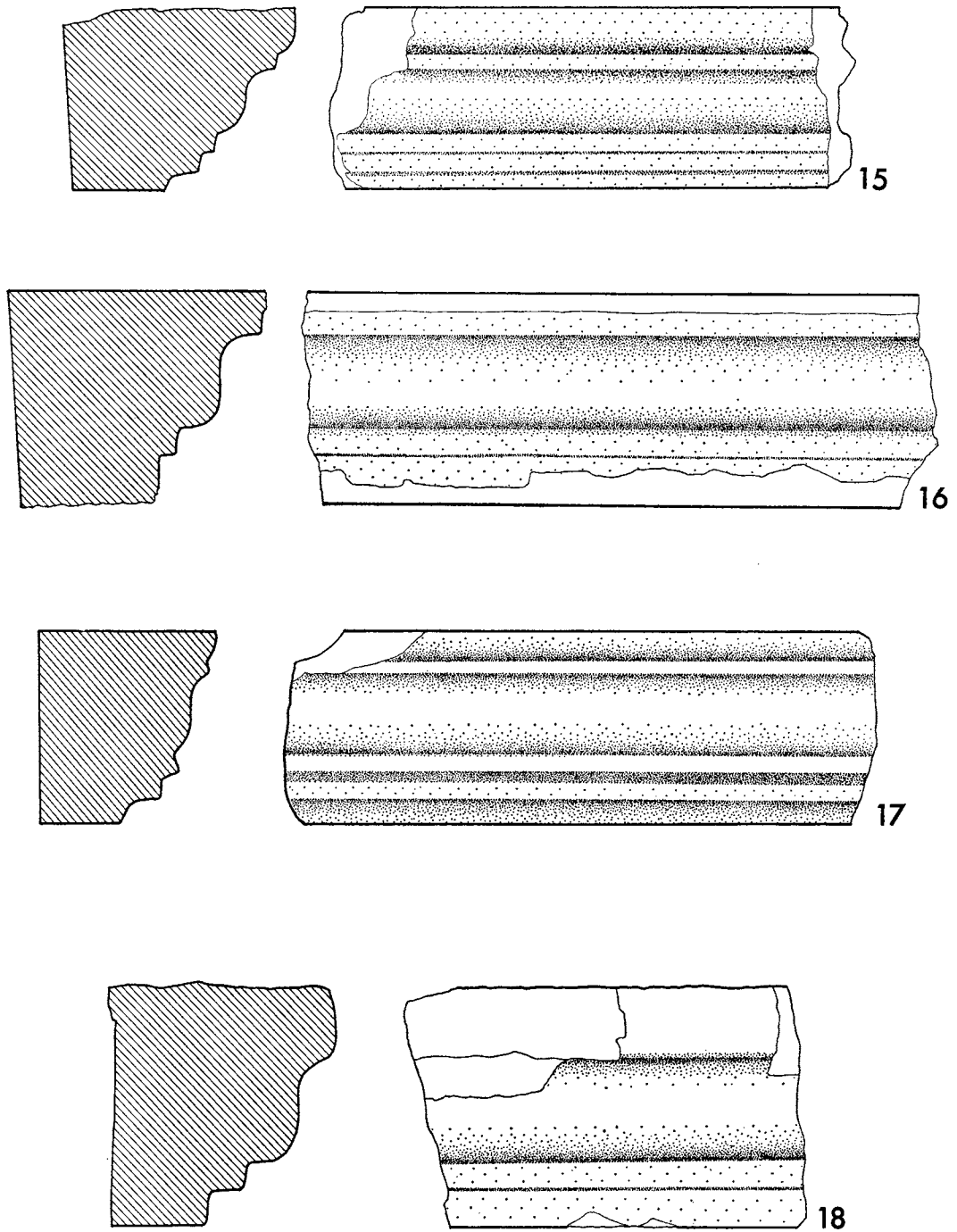


FIG. 9. Marble mouldings: scale $\frac{1}{3}$ (p. 21)

15-23. *Side mouldings in Purbeck marble* (figs. 7-10)

The Purbeck marble mouldings are generally heavier than those of white marble and would have been more suitable as side or base mouldings for recessed panels. That none of the surviving pieces bear any trace of tie-holes tends to support this view, for clamping would not have been necessary if the elements were used in a basal horizontal or a vertical position.

- 15. North Wing, west side of courtyard 2.
- 16. North Wing, room N 10.
- 17. Aisled Hall, southern half.
- 18. Immediately west of the North Wing.
- 19. North Wing, east side of courtyard 2.
- 20. Unstratified, from modern builders' work.
- 21. North Wing, room N 1.
- 22. North-west corner of the garden.
- 23. North Wing, south end of corridor N 24.

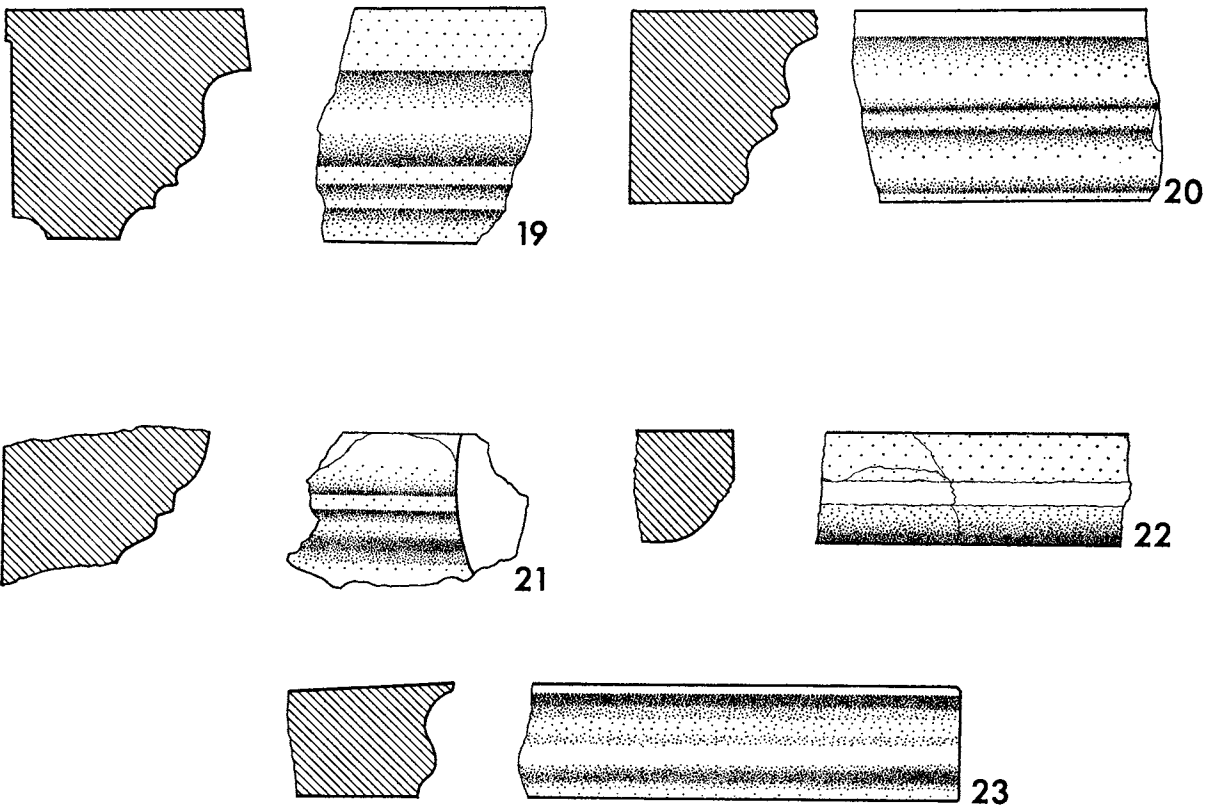


FIG. 10. Marble mouldings: scale $\frac{1}{3}$ (p. 21)

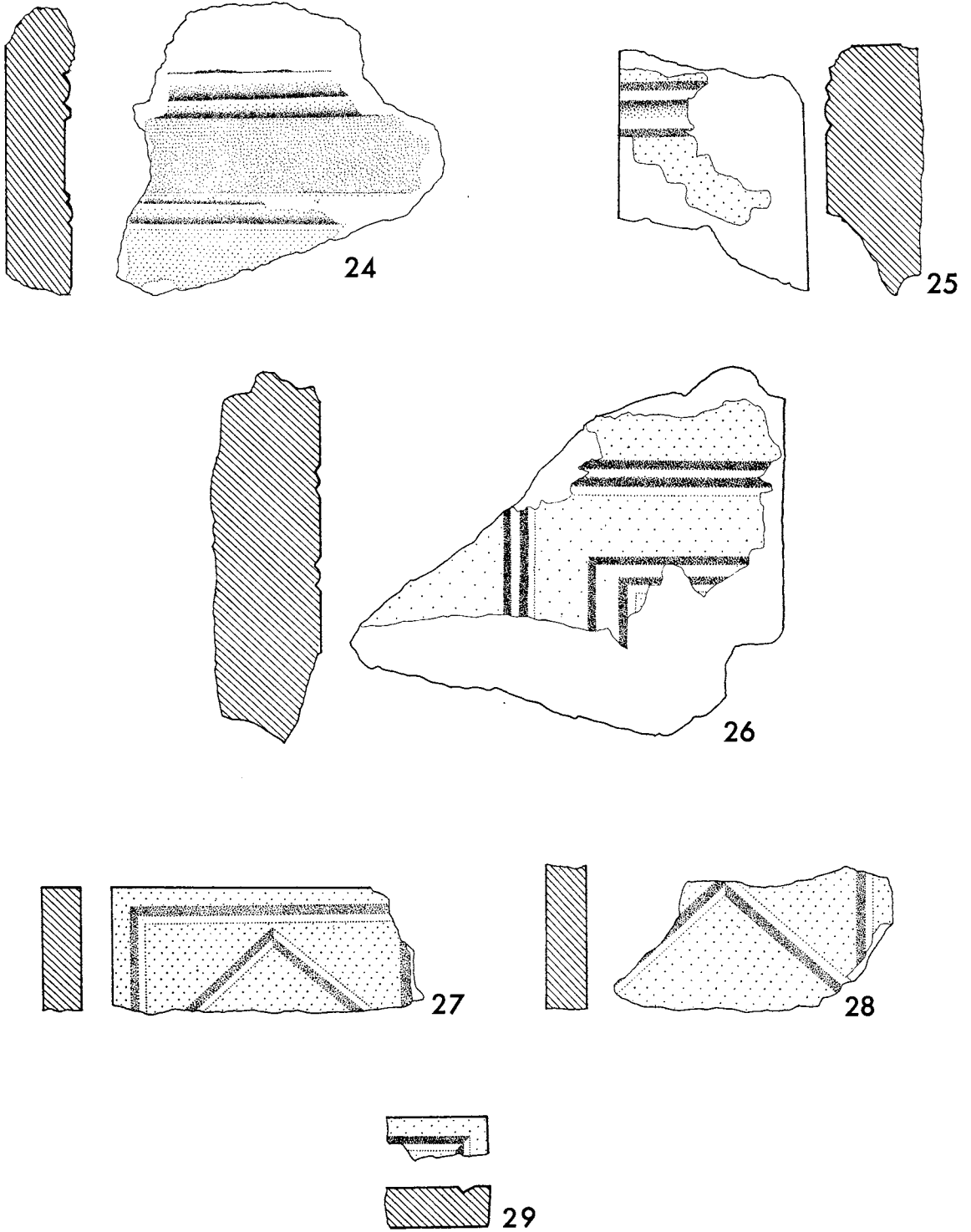


FIG. 11. Marble wall inlay: scale $\frac{1}{3}$ (p. 24)

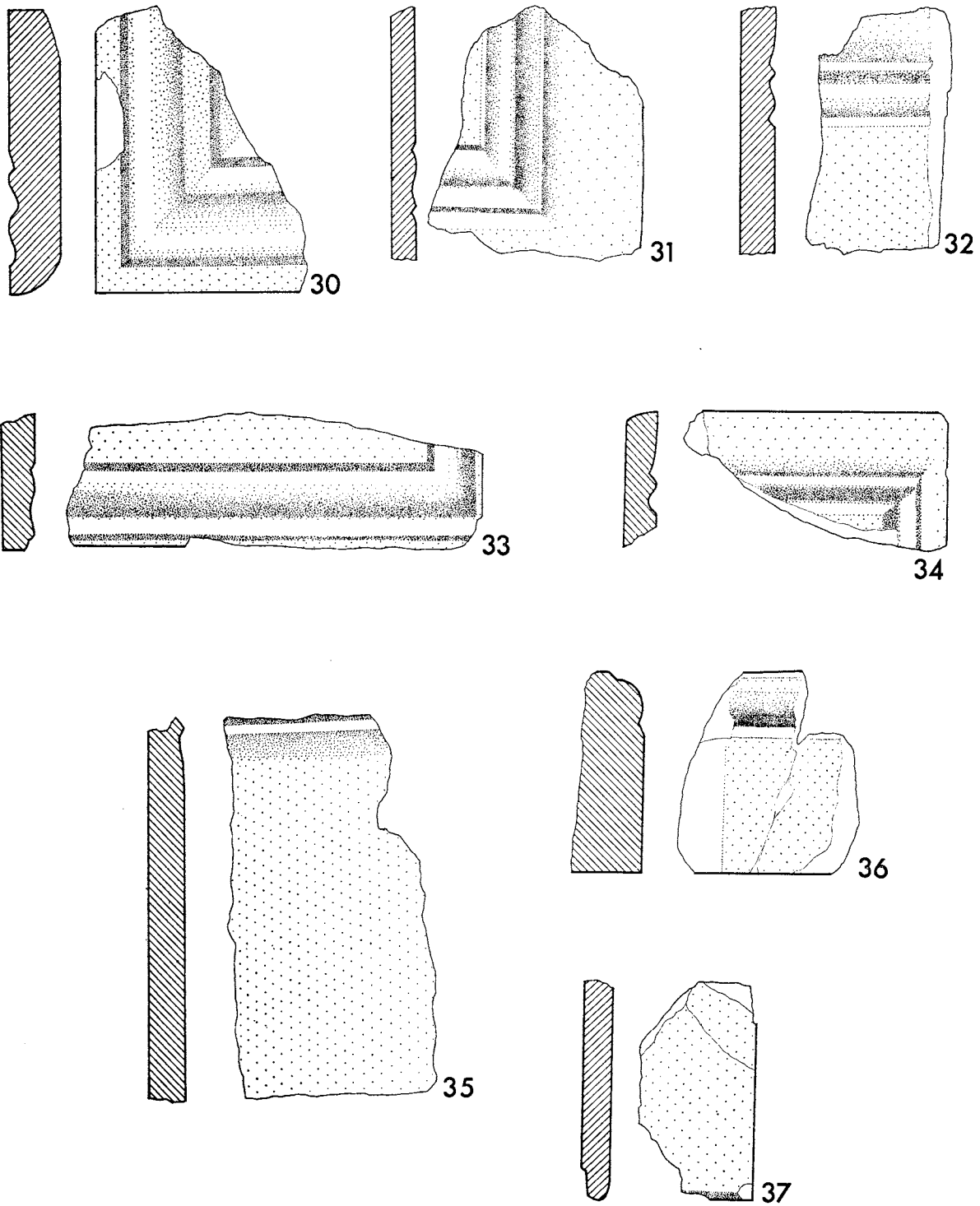


FIG. 12. Marble wall inlay: scale $\frac{1}{3}$ (p. 24)

24-40. *Inlaid panels of various moulded marbles* (figs. 11, 12 and pl. vi)

The size and detail of the various inlay slabs differ considerably, no doubt reflecting the position or functions of the panels of which they formed a part. Unfortunately the individual fragments were too small to give any clear idea of the original sizes of the inlays.

24. Purbeck marble. From the apsidal recess at the north end of the corridor backing the West Wing.
25. Purbeck marble. North Wing, room N 9.
26. Purbeck marble. North Wing, west side of courtyard 2.
- 27, 28. Purbeck marble. North Wing, room N 10.
29. Purbeck marble. North Wing, the southern half of room N 12.
30. White crystalline marble. West Wing, the Audience Chamber.
31. White crystalline marble. North Wing, west side of courtyard 2.
32. Pyrenean marble. North Wing, west side of courtyard 1.
33. Pyrenean marble. North Wing, west side of courtyard 1.
34. White crystalline marble. North side of garden, opposite courtyard 2 in the North Wing.
35. Pyrenean marble. North Wing, west side of courtyard 1.
36. White crystalline marble. North Wing, room N 16.
37. White crystalline marble. North Wing, west side of courtyard 2.
38. (pl. vi*b*). Slab of Purbeck marble, now badly rotted. The exposed surface was carved with shallow mouldings enclosing adjacent panels. From rubble layers covering the East Wing.
- 39-40. (pl. vi*a*). Two large rectangular slabs of grey-veined white marble. Each has one angle of each long edge carved with a simple quadrant moulding. Why opposed angles should both be carved is difficult to understand, for it would have been hard to arrange the slabs to expose both, unless one was carved in error (Vol. 1, p. 177). Found re-used in the floors of the Third-Period plunge bath in the East Wing.

SHEET MARBLE AND STONE WALL INLAY (figs. 13-16)

The stone and marble found in the masons' working yard belonging to the Neronian proto-palace was largely being cut to serve as mouldings (p. 17), elements for *opus sectile* floors (p. 33) or furniture inlay (p. 36), but a small amount of the marble waste seems to have derived from the production of thin slabs for wall inlay. Purbeck marble was commonly used for this purpose, together with lesser quantities of Pouillyen Rose. It is difficult to be sure of the use of Carrara marble since all that the excavation of the working area has produced, with the exception of offcuts from mouldings, are cores of rectangular section, but these could well have resulted from the removal of thin sheets from a large block. No used slabs of marble wall inlay have been found in First-Period contexts, suggesting perhaps that the quantity employed cannot have been large.

PURBECK MARBLE

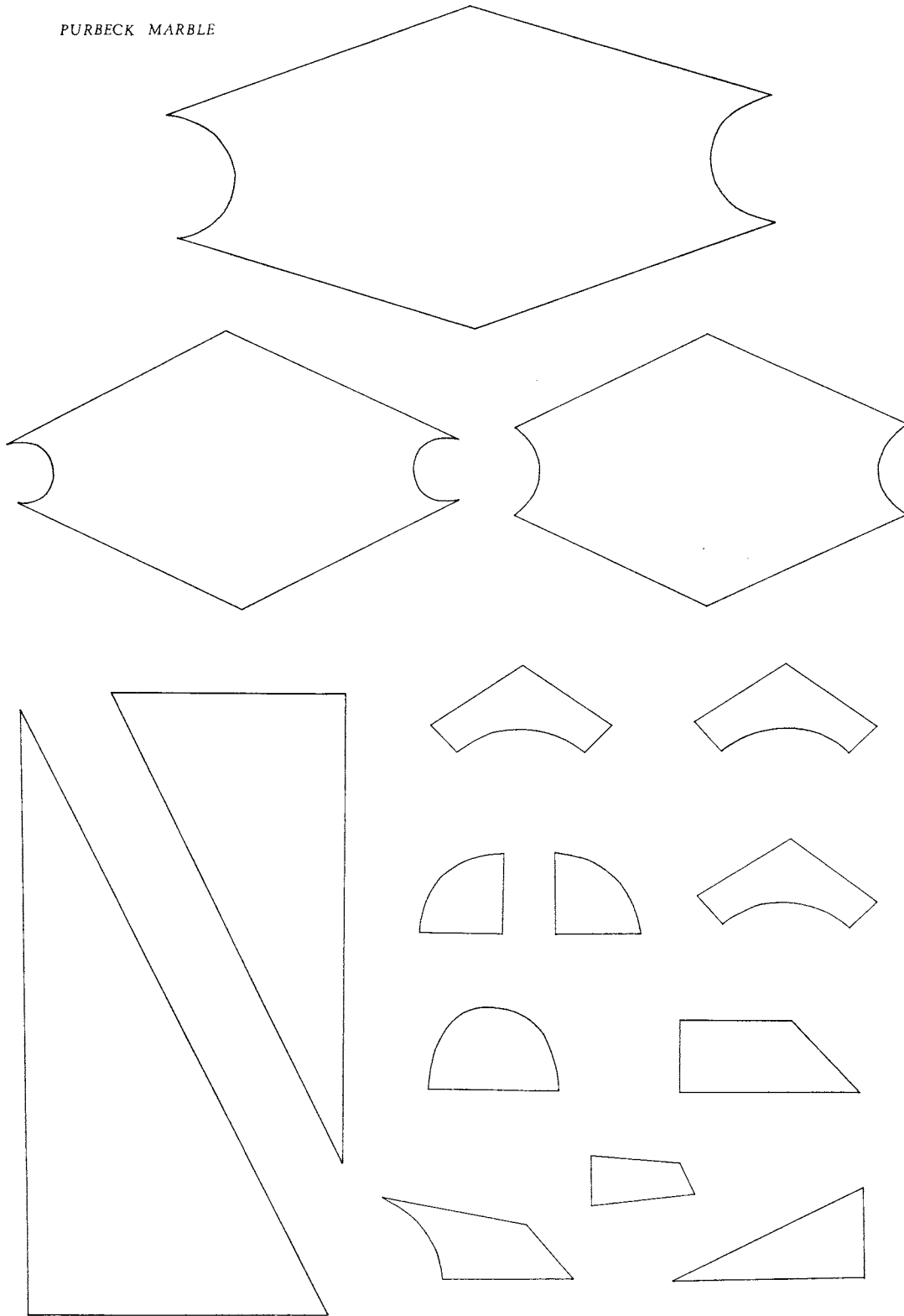


FIG. 13. Marble wall inlay from room N 10: scale $\frac{1}{4}$ (p. 26)

On the other hand, marble wall inlay of all types was lavishly used in the Flavian palace and a surprising quantity survived until the time of the destruction in the late third century, implying that some at least of the original Flavian decorative scheme was retained even though the marble elements may have been reset on several occasions. In one case, room N 10 in the North Wing, a quantity of marble elements were found in a heap on the floor, some of the pieces still retaining the same relative positions as those in which they had once been set. This group will be considered first. The remaining sheet marble, found generally scattered about the building, will be discussed later (pp. 30 ff.).

Analysis of marble inlay from room N 10

The types of stone and marble used in room N 10 were white crystalline marble from Turkey, green veined marble from the Pyrenees, blue-grey Purbeck marble, grey-brown Wealden shale and a hard white chalk. The stone was cut into two categories of shape: (a) strips with a square, rectangular or domed section, and (b) slabs, usually about $\frac{3}{8}$ - $\frac{5}{8}$ in. (1.0-1.5 cm.) thick.

The strips were of various lengths and the ends, where not broken, were cut either at right angles or obliquely. It is difficult to be certain why oblique cutting was so widely practised, but it would have been useful both to form a neat overlapping join in a continuous line and also if two strips were to be placed at an angle to each other. Because of this second possibility, which might give some idea of the angles at which the strips were set, an analysis of the angled ends is offered below (table 2). Some of the strips were cut so as to have a domed upper edge, the function of which was to project slightly above the surface of the main plane to give emphasis by relief.

TABLE 1
QUANTITATIVE ANALYSIS OF STRIP INLAY

<i>Type of stone</i>	<i>Area covered</i>	<i>% of total</i>	<i>Length of longer side</i>	<i>Length of shorter side</i>
White marble (square)	3500 sq. cm.	20%	23.77 m.	22.48 m.
White marble (domed)	437 sq. cm.	2.5%	2.10 m.	2.10 m.
Pyrenean marble (square)	356 sq. cm.	2.3%	1.85 m.	1.55 m.
Purbeck marble (domed)	162 sq. cm.	0.9%	1.32 m.	1.07 m.
Grey-brown siltstone (square)	787 sq. cm.	4.5%	6.96 m.	6.53 m.
Grey-brown siltstone (domed)	1219 sq. cm.	6.9%	12.67 m.	12.10 m.
Chalk (square)	187 sq. cm.	1.0%	1.80 m.	1.78 m.
Chalk (domed)	43 sq. cm.	0.2%	0.35 m.	0.35 m.

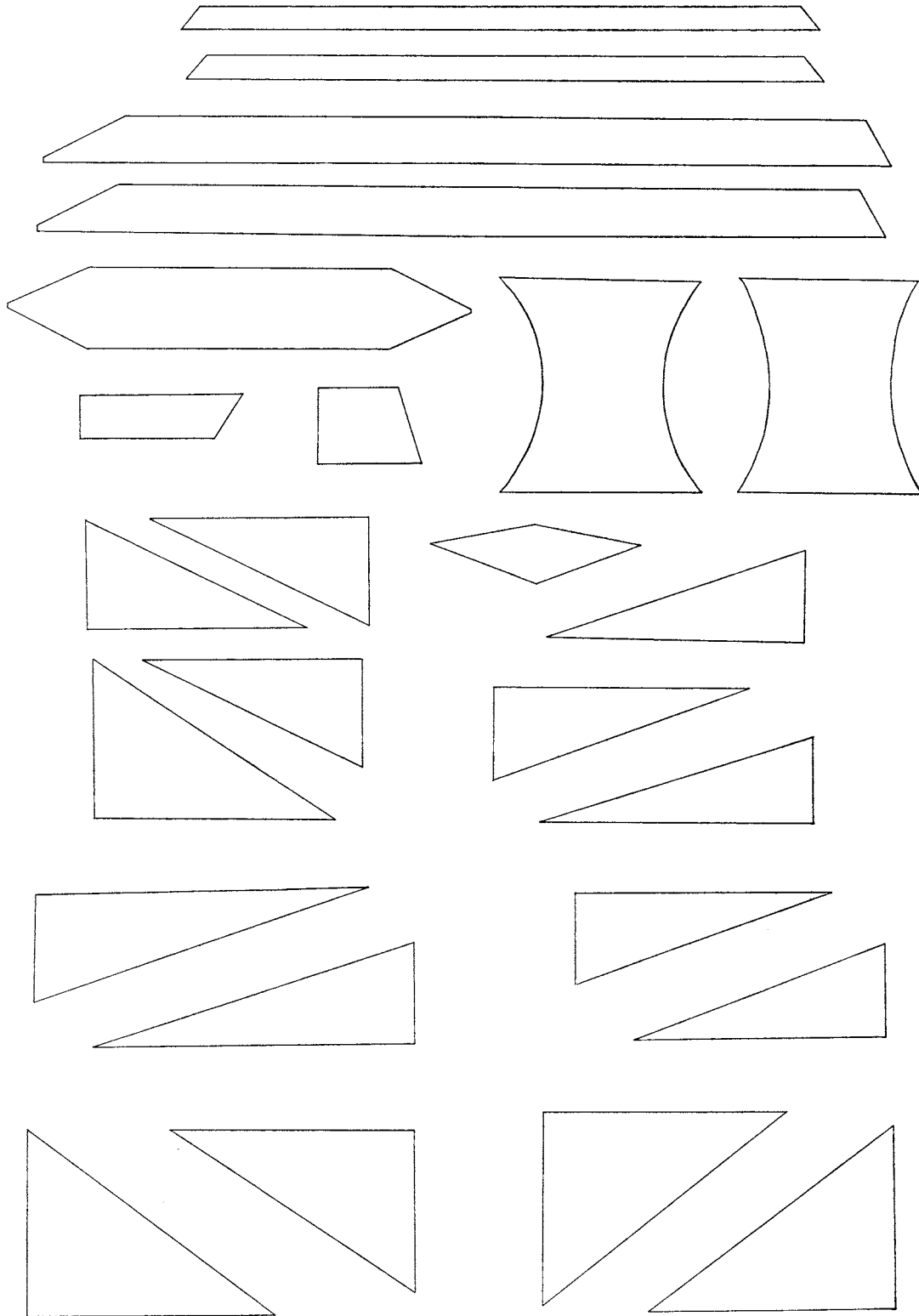


FIG. 14. Pyrenean marble wall inlay from room N 10: scale $\frac{1}{4}$ (p. 26)

EXCAVATIONS AT FISHBOURNE, 1961-1969

TABLE 2
ANALYSIS OF THE ANGLED ENDS OF MARBLE STRIPS

<i>Type of stone</i>	<i>Angles at ends</i>																
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10
White marble (square section)	98	—	1	—	—	—	3	4	10	71	15	3	5	—	—	5	1
White marble (domed section)	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pyrenean (square section)	4	—	—	—	—	—	1	—	—	3	—	—	2	—	—	—	—
Grey-brown siltstone (square section)	39	—	1	—	—	—	3	1	2	20	6	—	2	2	1	5	1
Grey-brown siltstone (domed section)	57	—	—	—	1	—	4	5	5	29	7	3	4	2	1	—	—
Chalk (square section)	28	—	—	—	—	—	—	—	—	4	—	—	—	—	—	—	—
Chalk (domed section)	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTALS	244	—	2	—	1	—	11	10	17	127	28	6	13	4	2	10	2

The slabs of marble were cut into a variety of shapes, summarized in the illustrations (figs. 13-15). For the purpose of analysis two sets of figures are given for some of the types of stone, one for the elements cut into distinctive shapes, the other for plain wide bands. Since it is probable that these slabs were outlined with strips, the total length of the edges is given to provide a comparison with the total length of strip material.

TABLE 3

<i>Type of stone</i>	<i>Area covered</i>	<i>% of total</i>	<i>Length of edges</i>
White marble (shaped)	1660 sq. cm.	9.5%	5.18 m.
Pyrenean marble (slab)	1200 sq. cm.	6.8%	6.33 m.
Purbeck marble (shaped)	2652 sq. cm.	14.6%	7.04 m.
Purbeck marble (slab)	3781 sq. cm.	21.6%	13.08 m.
Brown shale (shaped)	156 sq. cm.	0.9%	mostly curved
Brown shale (slab)	1781 sq. cm.	10.2%	10.57 m.
Hard chalk (shaped)	212 sq. cm.	1.2%	0.99 m.

Reconstruction of the panel of which these elements formed a part is no longer possible, largely because we are dealing with only a proportion of the total marble used in its design: much of it will have been disturbed during the period of robbing while the surface layers were evidently removed by ploughing. Nevertheless, sufficient survives to give some idea of the original arrangement and the remaining pieces alone would cover an area of 27 sq. ft. (24 sq. m.). Two main elements of design seem to be involved: one incorporating a simple arrangement of a diamond set with a rectangle, while the other makes use of curvilinear, petal-shaped pieces suggestive of a simple, stylized floral pattern. Some information is given of the detailed arrangement of the pieces by the positions in which the fallen material lay. It was possible to show that shapes of Pyrenean marble and Purbeck marble were commonly lined by domed strips of white marble, outside which were wider strips of the brown shale, the arrangement no doubt being adopted to highlight the quality of the imported marble, by creating textural and colour variations.

Stone inlay from the rest of the palace (Table 4)

The marble and other stone from the palace has been recovered entirely from rubble layers belonging to the final destruction of the building. The material is best considered in terms of the different types of stone employed.

Purbeck marble. Purbeck marble, as decorative inlay, was used in different ways: as *opus sectile* elements for floors (see below, p. 33) and as slabs and strips for walls. The wall-slabs were on average between $\frac{3}{8}$ - $1\frac{1}{4}$ in. (1.0-3.0 cm.) thick, but the individual slabs were too broken for any complete sheet to survive. The total area covered was about 4.25 sq. ft. (0.38 sq. m.). Most of the material came from the North Wing, from the two courtyards, rooms N 5, N 3, N 12, the north-west corner of the garden and from immediately beyond the west wall of the wing. A few pieces came from the east end of the Entrance Hall and from rooms E 5 and 6.

Strips varied in width, the commonest being between $1\frac{3}{8}$ - $1\frac{3}{4}$ in. (3.5-4.5 cm.) thick, but the range is from $\frac{3}{8}$ - $3\frac{1}{8}$ in. (1.0-8.0 cm.). By far the highest percentage of the strips were found in the rubbish deposits in the eastern courtyard in the North Wing, but other pieces came from the west courtyard, the west front of the Entrance Hall and rooms N 1, N 5, N 7, N 24, and E 5. Several pieces were also found in the rubble in the north-west corner of the garden.

White crystalline marbles from Turkey. Marble of this kind was commonly used in large slabs varying in thickness from $\frac{3}{8}$ - $1\frac{1}{4}$ in. (1.0-3.0 cm.), but usually measuring about $\frac{1}{2}$ - $\frac{3}{4}$ in. (1.2-1.8 cm.) thick. The pieces are too broken to provide any idea of the average size of the individual panels, but the surviving pieces alone would cover about 270 sq. in. (1,700 sq. cm.). Slabs have been found in the North Wing in rooms N 1, N 5, N 7, N 12, N 13, and N 16, in both of the North Wing courtyards, in the north-west corner of the garden and close to the west front of the Entrance Hall.

Strips with either square-cut or domed sections are far less common. Less than 40 individual fragments have been recovered from the North Wing rooms N 4, N 5, and N 7, and the western courtyard, the north-west corner of the garden and in front of the western side

of the Entrance Hall. One strip was found in front of the West Wing, measuring 1 in. (2.5 cm.) thick, with one of the edges domed, $6\frac{3}{4}$ in. (17 cm.) across and more than $6\frac{3}{4}$ in. (17 cm.) long. It had evidently been used as an edge slab on an external corner.

The general impression which these figures give is that while large plain slabs were commonly used, intricate inlay of the type found in room N 10, with its narrow strips and fillets, was not much in evidence, at least by the time the building was eventually destroyed.

Green-veined marble from the Pyrenees. This occurs less frequently than the other types described above. Usually it is found in slabs between $\frac{1}{4}$ –1 in. (0.6–2.5 cm.) thick, which together make up an area of about 160 sq. in. (1,000 sq. cm.). Fragments have been found in the North Wing in rooms N 5 and N 6, in both of the North Wing courtyards, in the north-west corner of the garden, close to the west side of the Entrance Hall and in the East Wing courtyard 2. Only one strip has been recovered from the north-west corner of the garden and from the eastern courtyard in the North Wing. As with the white marble the implication is that slabs of the stone were frequently used as large decorative panels, but finer inlay was much less common.

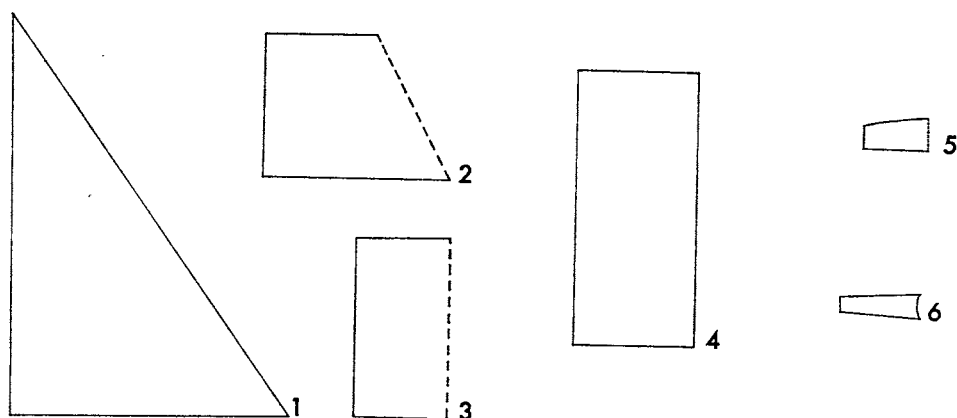


FIG. 16. Marble wall inlay from various parts of the building: scale $\frac{1}{4}$ (p. 30)

Calcite. Calcite, probably derived from the Purbeck region, seems to have been used as a cheap substitute for the white crystalline marble which it resembles. Altogether an area of about 120 sq. in. (650 sq. cm.) has been recovered in slabs measuring from $\frac{5}{8}$ –1 in. (1.5–2.5 cm.) thick. About half of the surviving pieces came from the western courtyard in the North Wing, while other fragments came from room N 11, the north-west corner of the garden and courtyard 2 in the East Wing. No strips are known to have been made in this material.

Brèche Romaine Jaune. Four slabs of this attractive light-brown breccia are known, $\frac{3}{8}$, $\frac{5}{8}$, $\frac{3}{4}$, $1\frac{1}{2}$ in. (1.0, 1.6, 2.0, 4.0 cm.) thick, the thickest slab measuring more than 7 in. (18 cm.) square. One piece was found in the apse at the north-west corner of the building, one in the east courtyard in the North Wing and one in the west, while the large slab was found in the north-east corner of the garden.

TABLE 4
ANALYSIS OF WALL INLAY FROM THE FLAVIAN PALACE, EXCLUDING ROOM N 10

Type of Stone	STRIP INLAY										SLABS						
	Rect. section — 2.0 cm. wide		Rect. section 2.0–4.0 cm. wide		Rect. section 4.0–6.0 cm. wide		Rect. section 6.0–8.0 cm. wide		Domed section up to 2.0 cm.		Total area (sq. cm.)	Recognizable shapes illustrated (fig. 16)					
	No.	length	No.	length	No.	length	No.	length	No.	length		1	2	3	4	5	6
Purbeck marble	4	30.0	28	203.5	27	267.0	3	32.0	—	—	3820						
White Turkish marble	32	151.5	2	23.5	1	4.0	—	—	3	18.5	1700			1			
Pyrenean marble	—	—	1	3.0	—	—	—	—	—	—	1096				1	1	1
Beef (calcite)	—	—	—	—	—	—	—	—	—	—	645						
Brèche Romaine Jaune	—	—	—	—	—	—	—	—	—	—	290						
Porfido Verde Antico	—	—	—	—	—	—	—	—	—	—	3						
Breccia Violetto	—	—	—	—	—	—	—	—	—	—	3						
Red siltstone	1	4.5	—	—	—	—	—	—	1	4.5	—						
Yellow siltstone	—	—	—	—	—	—	—	—	—	—	14		1				
Grey siltstone	4	18.5	5	41.5	1	15.0	—	—	8	38.0	5	1					
Hard white chalk	—	—	—	—	—	—	—	—	2	8.5	0						

Other marbles. Of the three other distinctive marbles found in the palace, there is little to be said. The deep green Porfido Verde Antico is represented by three fragments, two from the Entrance Hall and one from the west of the North Wing, while only one fragment of Breccia Violetto is known, from the robber trench to the south of room N 10. The small fragment of Semesanto was found in a Second-Period make-up layer beneath the East Wing, and may therefore possibly be of the First Period.

Other stone. Coloured stone, as opposed to marble, occurs in small quantities as strips and slabs. The commonest is the grey-brown siltstone from the Weald, of which 18 strips have been recovered from the North Wing. The stones represented, and the quantities are summarized on Table 4, together with details of the more frequently used inlay.

OPUS SECTILE ELEMENTS (figs. 17, 18 and pl. vii)

The principal function of the Neronian masons' yard was to produce geometric elements of coloured stone for use in the *opus sectile* pavements which must have adorned the rooms of the proto-palace. Five types of stone of different colours were used: the red and yellow siltstone of Mediterranean origin, blue Purbeck marble, grey Wealden shale and hard white chalk. A simple quantitative analysis of the basic shapes into which each stone was cut, based on the waste material from the working area, gives some idea of the range of elements produced.

	<i>Red</i>	<i>Yellow</i>	<i>Blue</i>	<i>Grey</i>	<i>White</i>
Squares	17	—	4	2	2
Triangles	37	—	42	13	9
Diamonds	4	—	—	—	—
Kites	7	1	6	—	—
Octagons	—	—	1	—	—
Wide strips	—	—	99	12	—

Since there is no evidence to suggest that one stone fractured during manufacture more than another, it may be assumed that the above figures give a reasonable idea of the relative proportions of each colour and shape generally in use.

No trace of an *opus sectile* floor has yet been found in position in the proto-palace, but a number of sectile elements, showing signs of use, have been recovered from First-Period occupation and destruction layers in the vicinity of the proto-palace and from make-up layers beneath the floors of the Flavian palace. Although basically they fall within the square, diamond and triangle categories, it is evident from the illustrations (figs. 17, 18) that a considerable variation in shape and size exists, reflecting the different designs of which they once formed a part. One notable fact is that almost all of the elements showing evidence of use are cut from white stone. If however, the Neronian *opus sectile* floors were ripped up at the time when the Flavian palace was built, and the more valuable coloured stone re-used to make *tesserae*, etc., it would not be surprising that only the relatively useless white elements were discarded and found their way into destruction and make-up layers.

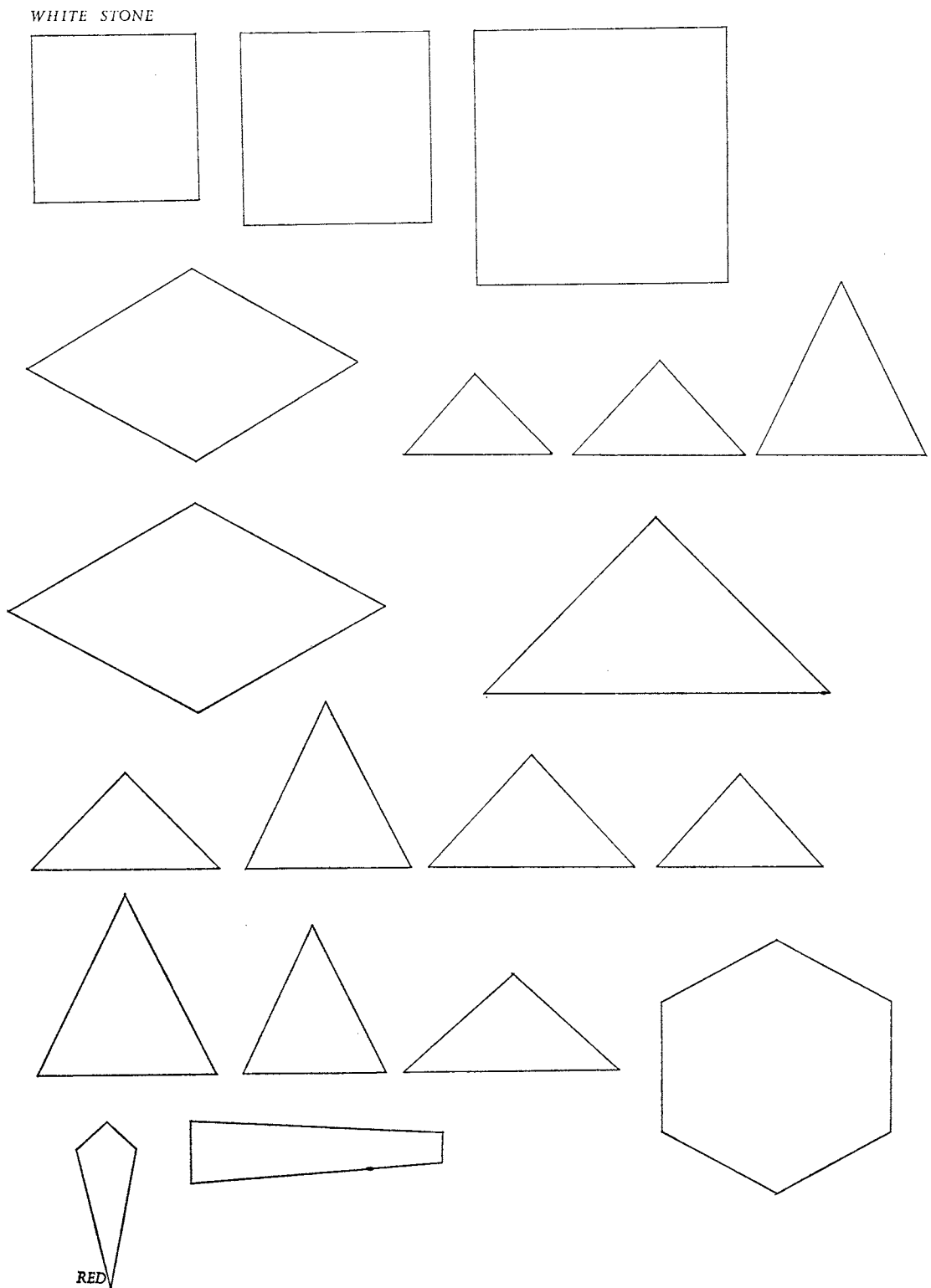


FIG. 17. *Opus sectile* elements: scale $\frac{1}{4}$ (p. 33)

The fact that no floor is known to survive precludes the possibility of reconstructing actual designs with certainty, but since floors of this kind were relatively stereotyped, and the shapes of the elements themselves limit their arrangement, it is possible to offer a series of designs, based on known Italian examples, which could have been made from the surviving Fishbourne material (pl. vii). The range is surprisingly wide but there is, of course, no certainty that all the possibilities were exploited at Fishbourne.

A few elements were found in contexts post-dating the construction of the Flavian palace, mainly late rubble layers. It is highly unlikely, however, that *opus sectile* was used here after the Neronian period and it may therefore be supposed that some of the old proto-palace floors still survived to the end.

FURBECK MARBLE

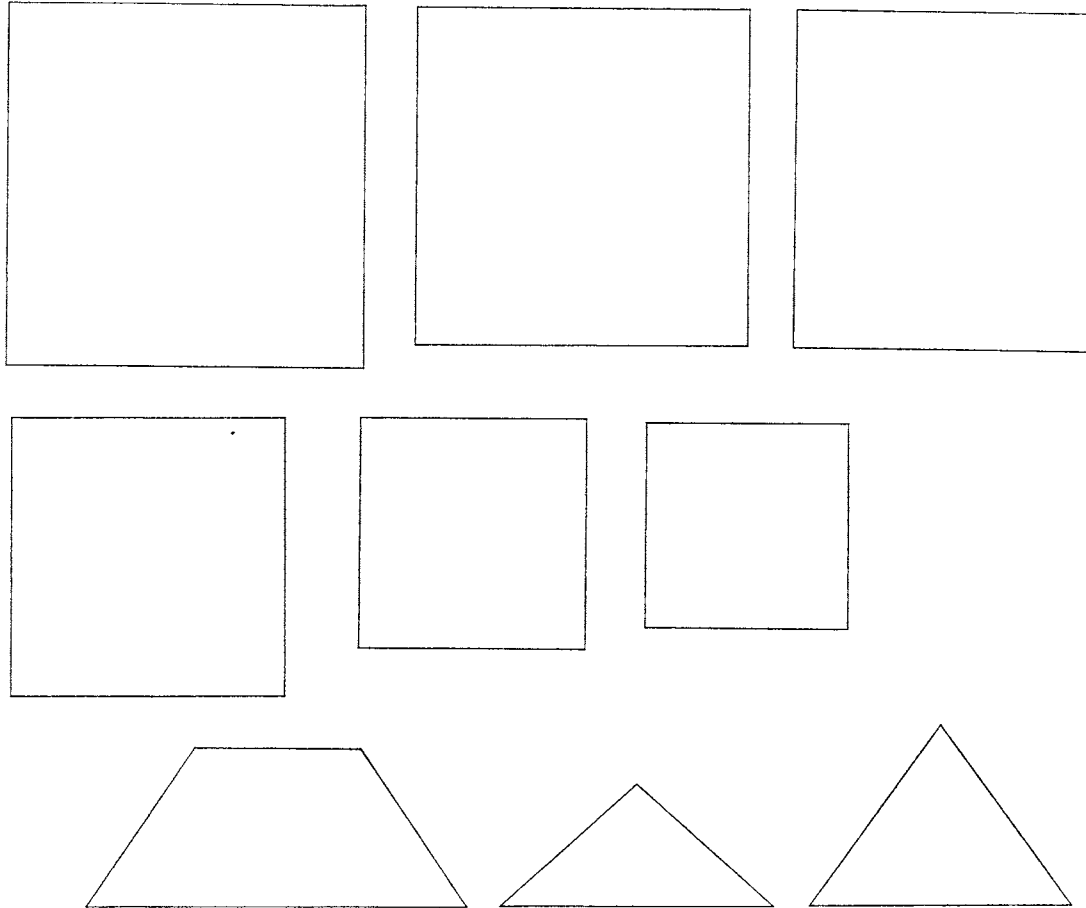


FIG. 18. *Opus sectile* elements: scale $\frac{1}{4}$ (p. 33)

FINE STONE INLAY FOR FURNITURE (figs. 19, 20 and pl. x)

The Neronian masons' working yard produced a quantity of small shapes of varying forms cut from sheets of coloured stone, usually about $\frac{1}{8}$ in. (0.3–0.4 cm.) thick. Red, white and yellow stone was commonly used, with green slate appearing in much smaller quantities.

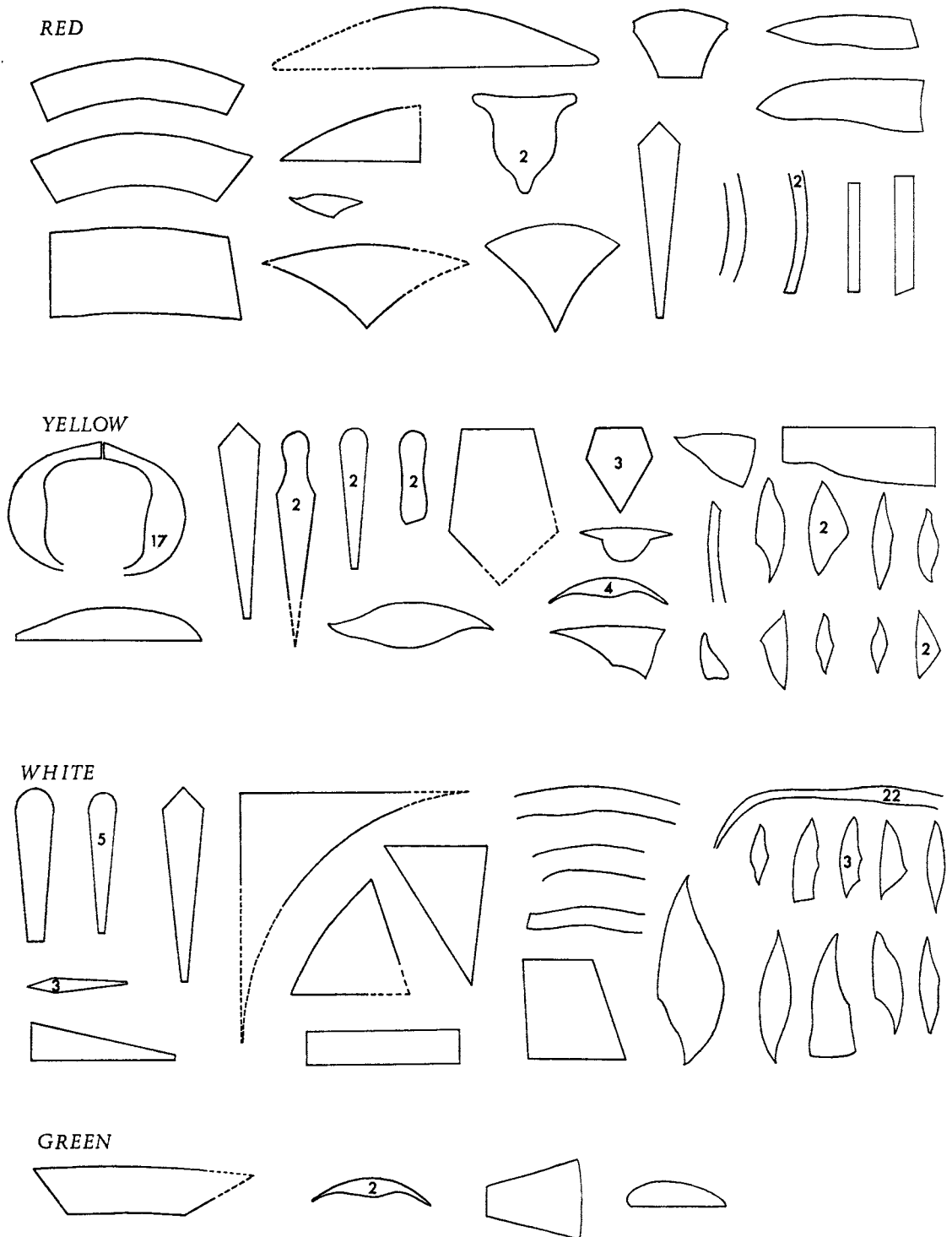


FIG. 19. Stone furniture inlay from the builders' working yard: scale $\frac{2}{3}$ (pp. 35-7).
 The numbers indicate the quantity found: unnumbered pieces occurred singly

The basic shapes are illustrated in figs. 19, 20 and pl. x, and the occurrence of each is summarized in fig. 19. It is evident that the elements were intended for a complex decorative inlay, quite possibly for an article of furniture such as a table-top. Their form would suggest that the design incorporated simple petalled flowers set within circular panels which in turn were retained in a rectangular frame, but since we are dealing only with offcut and waste material, it is difficult to be more precise.

An examination of offcuts show that after a thin sheet had been prepared, presumably with a multiple-bladed saw, the individual motifs were marked out with a scribe. The shapes were then cut out with a hacksaw. One fragment (fig. 20, no. 2) gives some idea of the complexity of the initial construction which clearly involved the use of several centres from which intersecting arcs could be drawn so as to mark out the required shapes.

Only three fragments of inlay (fig. 20, nos. 4-6) were found in levels post-dating the construction of the Flavian palace. Unlike the waste material, all three had evidently been incorporated in a pattern of some kind.

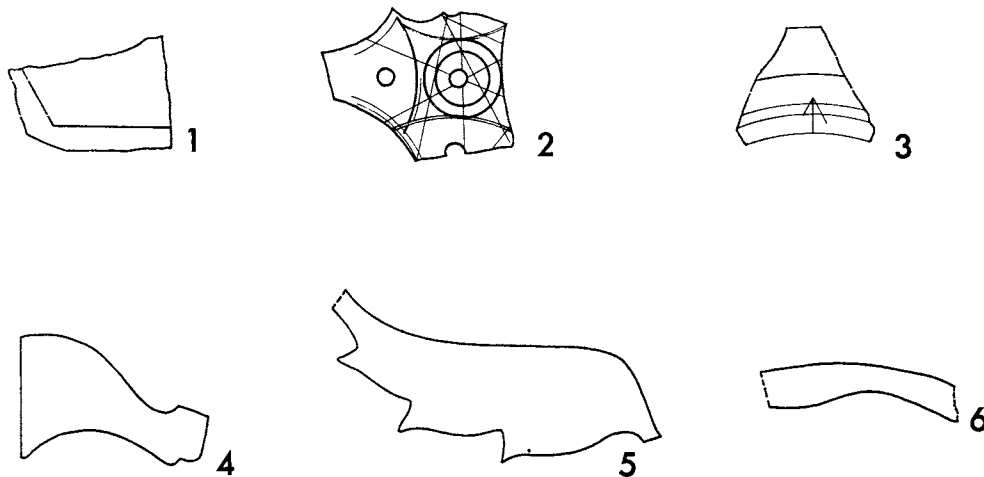


FIG. 20. Stone furniture inlay: scale $\frac{2}{3}$ (p. 37)

MARBLE BASINS (figs. 21, 22 and pl. IIb)

Parts of four marble basins of different kinds were recovered from rubble layers. In all probability they were once used in the garden in a decorative context, perhaps in connection with running water. No evidence of their original siting now survives.

1. Semicircular basin, 38 in. (0.97 m.) across, carved from a single slab of Purbeck marble. The dished surface and the moulded lips have been carefully smoothed, but the base, back and sides have been left in a roughly-chiselled state, suggesting that the basin might have stood at ground-level on its own base. Found in the northern courtyard of the East Wing in a rubble layer filling the south gutter robber trench. Fragments of similar basins are known from Silchester (*Arch.*, 59 (1905), 346, fig. 5) and Verulamium, but the type is otherwise rare.

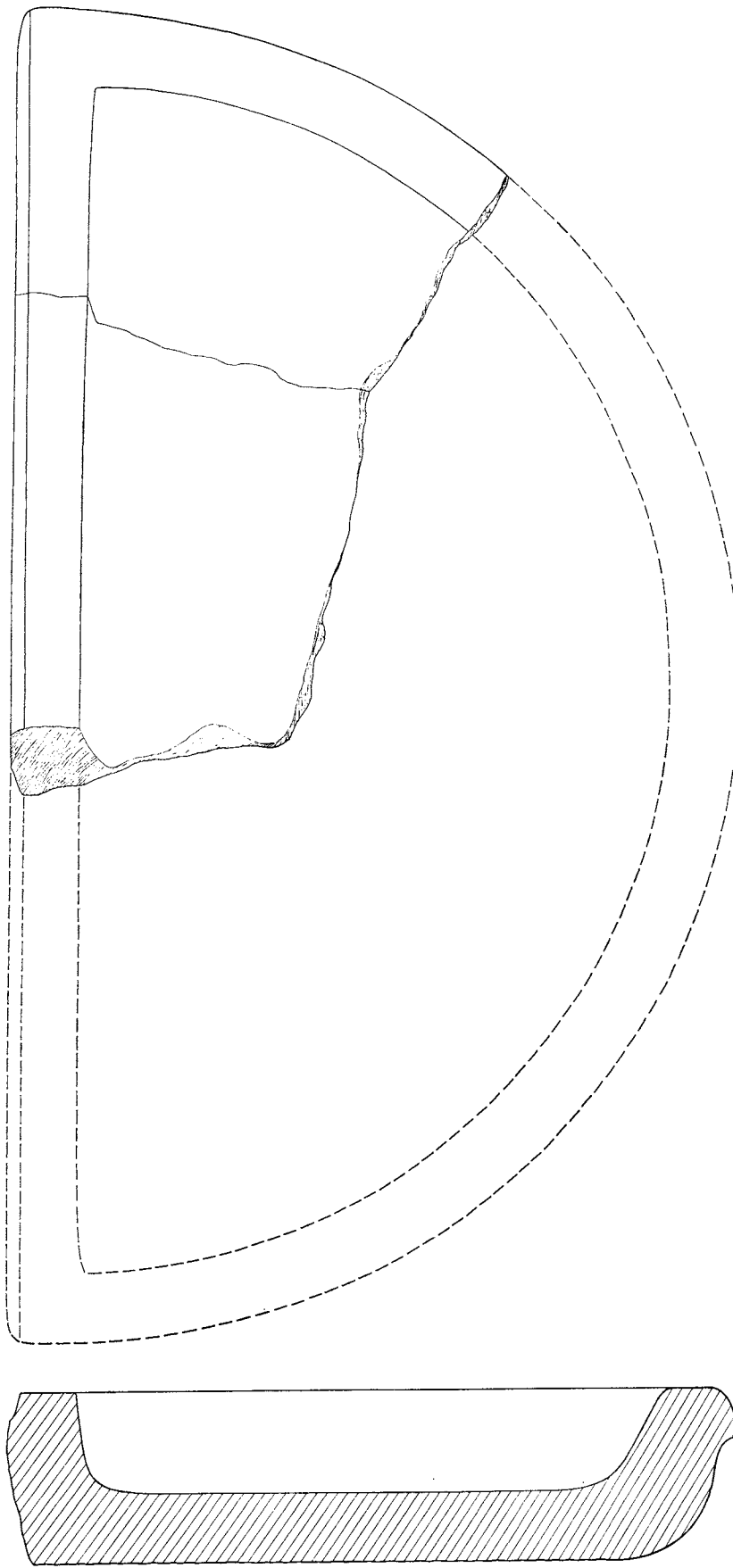


FIG. 21. Purbeck marble basin from the East Wing courtyard: scale $\frac{1}{8}$ (p. 37)

2. Slab of Purbeck marble, 3 in. (7.8 cm.) thick. Its two faces are carefully smoothed and the upper face has been hollowed to a depth of $1\frac{3}{8}$ in. (3.5 cm.). In plan the hollowing appears to be semi-circular, but the slab has been sawn across at a later date. Found at the east end of the Aisled Hall.

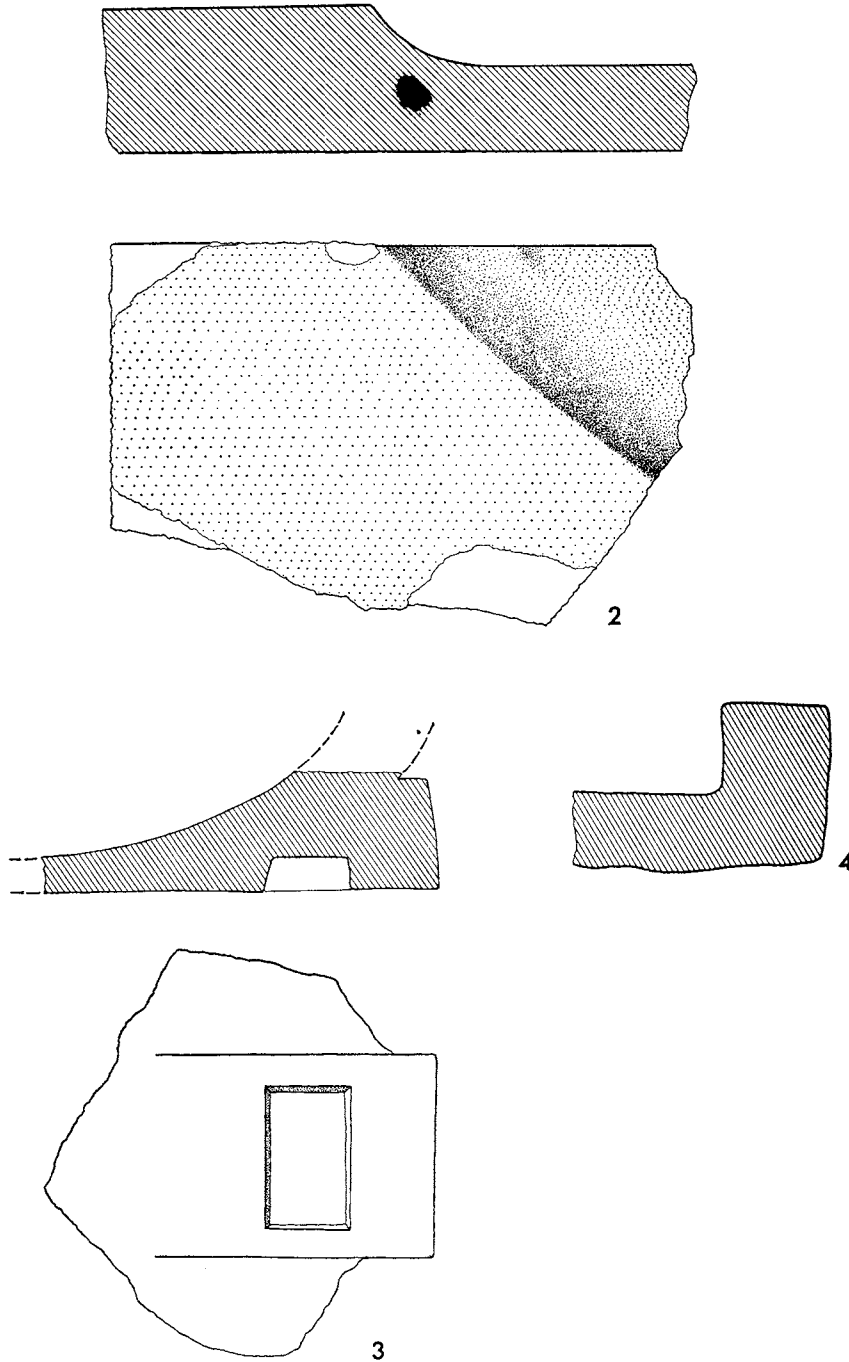


FIG. 22. Marble basins: scale $\frac{1}{4}$ (pp. 39-40)

3. Basin carved from a single slab of Purbeck marble. The upper surface has been hollowed but the depth is uncertain, because the lip is now missing. The under-surface has been cut into a similar curve, but at one point a rectangular block of stone has been left. It is cut to form a recess into which a leg or other support probably slotted. The fragment therefore probably represents the top of a basin supported on tripod legs. Found in the Third-Period well in the southern courtyard of the East Wing.
4. Small fragment belonging to the side of a basin. Made from a blue-grey limestone. From the north side of the garden in front of room N 4.

MISCELLANEOUS OBJECTS FROM THE BUILDERS' WORKING YARD
AND THE BUILDING (fig. 23 and pl. ix)

1. Fragment of a slab of Purbeck marble, $3\frac{1}{2}$ in. (9.0 cm.) thick, with leaves carved in positive relief on the upper surface. The top edge has been cut neatly so that the slab could join another. The feature to which the piece belonged is evidently of monumental proportions, but too little survives to allow anything more positive to be said. Found in late rubbish levels west of the west wall of the North Wing.

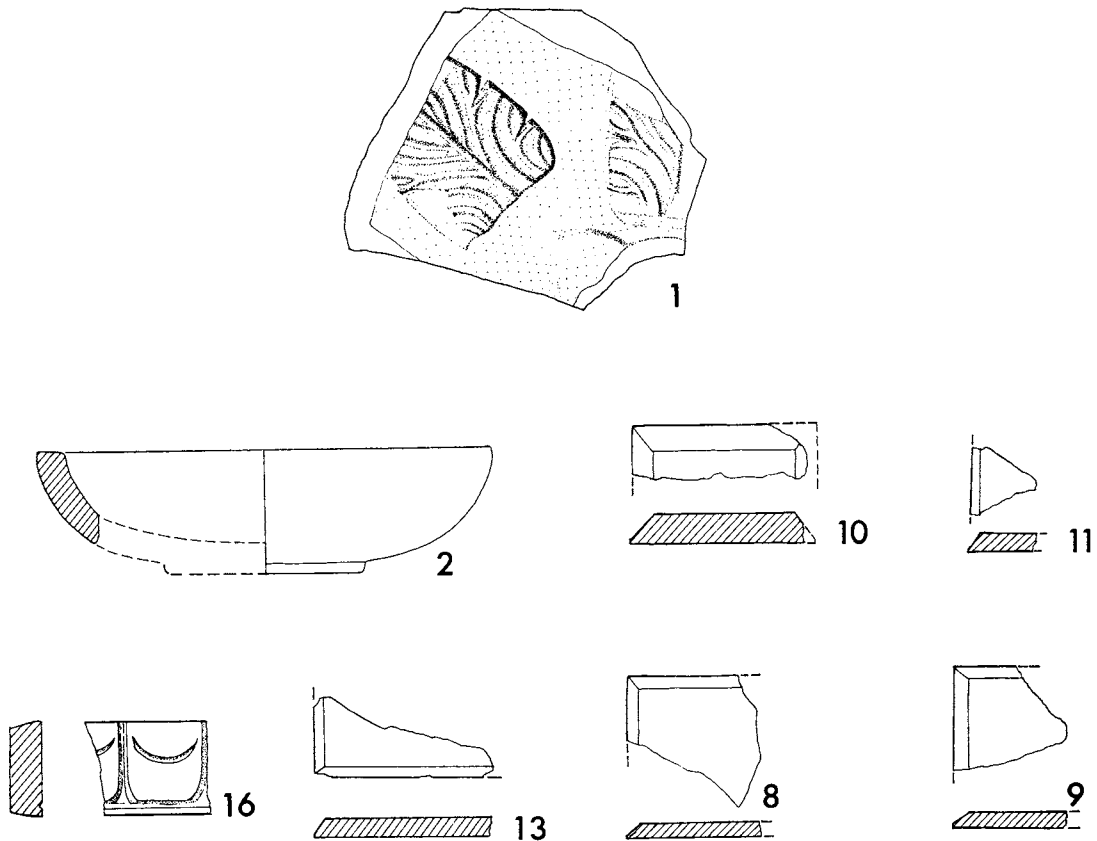


FIG. 23. Miscellaneous objects of marble and stone: scale $\frac{1}{3}$ (pp. 40-41)

2. (fig. 23, no. 2). Fragment of a mortar of Purbeck marble. Builders' working yard.
- 3, 4. (pl. ix). Two roughouts for pestles in Purbeck marble. Both show the primary hammer and chisel dressing but the process of smoothing and polishing had not begun. The pestles probably fractured during manufacture. Builders' working yard.
5. (pl. ix). The unfinished rim of a bowl or basin, $6\frac{1}{4}$ in. (16 cm.) in diameter, chiselled from a block of Purbeck marble. The overhanging rim suggests that the object was not intended to be a mortar. Internally it has been rough chiselled, but externally the chiselling is fine and may well be preparation for lathe-turning. Builders' working yard.
6. (pl. ix). Shallow 'tray' cut into a slab of Purbeck marble. The 'rim' is carefully polished but the inside is coarsely pecked with a chisel. It is possible that the recess was intended to be inset with marble sheeting of a different kind. From rubble layer west of the North Wing.
7. (pl. ix). Block of Carrara marble, presumably a core from which the four sides of slabs have been sawn. One side (illustrated) bears a mason's or batch mark. From the builders' working yard. One other was found without a mark.
- 8, 9. (fig. 23). Two pallets with bevelled edges cut from grey granular siltstone. From builders' working yard.
10. (fig. 23). Pallet with bevelled edges cut from a slab of Pouillyen Rose. Builders' working yard.
- 11 and 13. (fig. 23). Pallets with bevelled edges cut from Porfido Verde Antico marble. From a late rubble deposit in the Aisled Hall.
12. (pl. ix). Triangular *opus sectile* element in a hard white stone inscribed with a simple compass-drawn rosette. From early second-century rubble deposit at the east end of the North Wing.
14. (pl. ix). Slab of white stone bearing compass-drawn rosette and other lines. From the builders' working yard.
15. (pl. ix). Slab of Purbeck marble inscribed with the arc of a circle, to which a series of inscribed triangles are pendant. From the builders' working yard.
16. (fig. 23). Strip of hard white stone cut to represent simple ovolo. From late rubble deposits in room N 16 in the North Wing.

4. STONE USED IN THE MOSAIC FLOORS

The Second-Period mosaics

Most of the Second-Period mosaics were of simple, black and white designs. The white tesserae are cut from a hard white chalk while the black, or more correctly dark grey, are made from a hard silty shale. A recent excavation at Norden Farm, Corfe Castle, has brought to light a stone masons' yard of first-century date, where tesserae of both types were being manufactured, the white from the local upper chalk, the dark grey from a Jurassic, possibly Kimmeridge, shale. Tesserae production at this early date is unusual and it is tempting to suggest that some of the output from this yard may have been destined for Fishbourne, along with other stone, particularly the Purbeck marble, from the same area.

Room N 21. The mosaic in room N 21 differed from the usual type in that it was predominantly white, red and blue against a black background. The red was of fine-grained fired clay, the blue is probably a variety of Purbeck marble.

Room N 20. The most elaborate of the surviving Second-Period mosaics lay in room N 20. Here it is best to consider the motifs individually. The petals of the flowers were infilled with white, red brick, a yellow siltstone possibly of Mediterranean origin (p. 16), and a purple-toned Purbeck marble. The leaves between the flowers contained the same combination of colours. The enclosing circular guilloche incorporated bands of blue Purbeck marble, a grey limestone possibly from the Lias beds, red brick, and a brownish-red sandstone. The guilloche was, in turn, surrounded by concentric circular bands of white chalk, grey lias limestone and black. The full range of all these colours was incorporated in the spandrel designs.

Room N 1. The design was basically black on white, but infillings of red tesserae made of baked clay and of grey lias limestone were used.

Rooms W 4 and W 8. These floors were essentially black on white but the tendril borders incorporated infillings of red ceramic tesserae and yellow siltstone.

Room W 14. A few patches of loose tesserae from the Audience Chamber showed that while black and white were common, red ceramic and yellow siltstone were used in some quantity.

The Third-Period mosaics

Room N 2. This floor incorporates dark grey to black tesserae on a white background. The black would appear to be of a silty shale similar to that used in the Second-Period floors.

Room N 5. The common colours were black, white, red made from brick with occasional tesserae of samian, with a yellow used sparingly at the ends of the rays.

Room N 7. The colour range was limited largely to black, white and brick-red with occasional tesserae of samian. Yellow was used in the quadrant shell motifs and rarely in the tendril border. The cupid and the sea panthers were also drawn in black, red, white and yellow, while the sea horses were of black with limited use of red and white.

Room N 8. The floor was predominantly of black and white with brick red (no samian) used sparingly in the dolphins, vases, knot and guilloche. Yellow was used only in the central knot.

Room N 11. Black and white and brick-red were commonly used with samian occurring sporadically. Yellow was used in the central flower and in the 'cushion' shapes of the border.

Room N 13. The range of colours was fairly wide, most of the tesserae presumably being derived from Second-Period mosaics. The blacks to greys were of the usual shale with a less frequent occurrence of grey lias limestone and even the occasional use of flint. For red, the 'Mediterranean' siltstone (p. 16) was used as well as brick and samian. The yellow siltstone and its purple tones was also used in moderate quantity. Another purple, incorporated in the Medusa head and the guilloche, was made from a very hard stone which may be one of the Purbeck marble bands.

Tiles

A CONSIDERABLE number of tiles of various kinds have been recovered from the excavations. They derive from three main contexts: (a) the levels belonging to the construction, occupation and destruction of the proto-palace, (b) the construction phase of the main Flavian palace, (c) subsequent alterations made to the palace. Broadly, therefore, the groups correspond to the three main phases of occupation but there are areas of uncertainty: for example tiles found in make-up layers for the Flavian palace could derive from the earlier buildings or have been brought in at the time of the new building operations. Similarly, tiles found loose in the destruction layers could, strictly, date to the construction period of the palace or to any of the later reconstructions. Because of these possibilities the types of tile are described separately, their distribution being given in each case.

Bricks (pl. XI; nos. 3-6 only are illustrated)

1. Standard brick, 11 by 17 by $1\frac{1}{4}$ in. ($27.0 \times 39.5 \times 3.0$ cm.). The upper surface usually has at least two rough bosses raised $\frac{1}{2}$ - $\frac{3}{4}$ in. (1.2 cm.), arranged either at alternate or adjacent corners. These were made by pressing balls of clay, about $1\frac{1}{2}$ in. (3-4 cm.) in diameter, into the brick before firing. It seems reasonable to suppose that they were intended to keep the bricks apart during firing so that the hot air of the clamp could circulate freely. A careful examination of a large number of bricks of this kind shows that no other stacking process was employed. The type was used in quantity in the construction of the proto-palace and palace. There is no evidence to suggest that new supplies were obtained after the Flavian period.
2. Standard brick, 1 ft. 3 in. by 11 in. (37.4×26.6 cm.). Made with a wedge-shaped section so that the thickness varies from 1 in. (2.5 cm.) at one end to $2\frac{1}{2}$ in. (6.3 cm.) at the other. The wider end is usually chamfered. Bosses frequently occur on one surface. This type seems to have been specially made for constructing arches. Broken fragments were found in the make-up layers for the palace. They were used to make the small arches which penetrate the easternmost wall of the building (Vol. I, pl. XLIIb). Fragments of fallen masonry, composed of these tiles set in pink mortar, found in front of the Audience Chamber and the Entrance Hall, suggest that they were also used for vaulting.
3. Large brick, 10 in. (25.0 cm.) wide, 1 in. (2.5 cm.) thick, and of unknown length. The upper surface is impressed with rough but regular chevrons formed by a roller stamp, more for keying than decoration. Bosses occur, usually on alternate corners. Bricks of this type often show signs of having been fired in a reducing atmosphere. The type is found frequently in construction levels for the Flavian palace and occasionally in late rubble deposits, but no example has been found actually used in the building. Found also at Angmering (Scott, 1938, fig. 10, no. 3).
4. Large brick of unknown size, $1\frac{1}{4}$ in. (2.7 cm.) thick. The surface is scored with neat parallel rillings, possibly made with a roller stamp. A number of the samples had been fired in a reducing atmosphere. The type was usually found in levels belonging to the occupation and destruction of the proto-palace. For a similar type from Angmering, see Scott, 1939, fig. 10, no. 7.

5. Large brick of unknown size, $1\frac{1}{8}$ in. (2.7 cm.) thick. The surface is scored with a simple lattice drawn freehand with a single or double point. Often the clay fires to a yellow-orange colour. Bricks of this type are found only in First-Period levels belonging to the proto-palace. Examples are known from Angmering (Scott, 1938, fig. 10, no. 6).
6. Large brick, $19\frac{1}{4}$ in. by $12\frac{1}{4}$ in. (49.0 × 31.0 cm.), 1 in. (2.5 cm.) thick. The surface is decorated with wavy bands of combing. Bosses occur on alternate corners. Bricks of this type are usually fired in a reducing atmosphere. Invariably found in Period 1 contexts and in make-up layers for the Flavian palace.
7. Very large brick, $2\frac{1}{8}$ in. (5.4 cm.) thick and greater than $13\frac{1}{2}$ by $9\frac{1}{2}$ in. (34 × 24 cm.). Used in the Third-Period hypocausts in rooms N 8 and N 24 in the North Wing.
8. Very large brick, $2\frac{1}{2}$ in. (6.4 cm.) thick and greater than $14\frac{1}{4}$ by $8\frac{3}{4}$ in. (37 × 22 cm.). From the Third-Period hypocaust in room N 24 in the North Wing.
9. Very large brick, 3 in. (7.8 cm.) thick and of uncertain size. This type was found in rubble layers in the East Wing, derived from the East Wing Third-Period bath suite and also used in the hypocaust inserted into room N 24 in the North Wing in the Third Period. With nos. 6 and 7, tiles of this size would have been used to cap the *pilae*, spanning the spaces in between them so as to serve as a basis for the floor.

Pilae tiles

10. *Pilae* tiles, 2 in. (5 cm.) thick and $8\frac{1}{4}$ in. (21 cm.) square. Tiles of this sort were used to build the *pilae* of the hypocausts in rooms N 6, N 8 and N 24 in the North Wing and in room F in the East Wing bath suite, all in Third-Period contexts. They were also used to floor the cold plunge bath in the East Wing bath suite and the small tepid plunge bath in the North Wing bath suite. No examples are known before or in the construction of the Flavian palace.

Semicircular tiles

11. Semicircular tiles, $2\frac{1}{2}$ in. (4 cm.) thick and $15\frac{1}{2}$ in. (40.0 cm.) in diameter. This type of tile is known only from the Third-Period plunge bath in the East Wing, where they are used to form the seat flanking the north side of the bath (Vol. 1, pl. LXIVa). In this context they are presumably in a secondary position and may therefore have been derived from somewhere in the palace, but no other examples have been found.
12. Semicircular tiles, $2\frac{3}{8}$ in. (6.0 cm.) thick and $10\frac{1}{4}$ in. (26 cm.) in diameter. The fabric is usually a buff-red but some in deeper red do occur. Tiles of this kind have been found plentifully in First-Period levels and were presumably used to form the basis for half-columns or full columns, which were then stuccoed. They were not used in the Flavian palace or later.
13. Quadrant tiles, $2\frac{3}{8}$ in. (6.0 cm.) thick and $5\frac{1}{2}$ in. (14 cm.) in radius. The fabric is often buff-red but a few examples in a deeper red do occur. Like no. 12 they were probably used as core-work for stuccoed columns and occur only in First-Period contexts.
14. Very large semicircular or quadrant tiles, about 3 in. (7-8 cm.) thick but of unknown diameter. Only one example was found, in a First-Period level close to the proto-palace.

Herringbone floor bricks

15. Small bricks, $3\frac{3}{4}$ by 5 in. (7.0 × 12.5 cm.), $\frac{3}{4}$ in. (2.0 cm.) thick. The fabric is usually hard and sandy and baked to a deep red or blue colour. A large number of tiles of this kind have been found in First-Period levels, but none are known in Second- or Third-Period contexts. Tiles of an

exactly similar type were found in room 11 in the bath building at Wiggonholt, where they were used to construct a floor, the tiles being arranged on their sides in herringbone fashion. Although the Fishbourne examples show no sign of having been worn or used, it may be that we are dealing with builders' rejects or surplus. The floor, or floors, may well lie within that part of the First-Period bath suite which is largely unexcavated.

Vousoir box-tiles (fig. 24 and pl. XI)

16. A considerable range of vousoir box-tiles exists, the types to some extent corresponding to the different contexts in which they were found. All of them, however, came from Third-Period contexts: none were found in earlier levels. In size they are usually about $7\frac{1}{8}$ in. (18.0 cm.) deep with the wedge-shape face measuring 12 in. (30 cm.) long, the wide end $6\frac{1}{2}$ – $6\frac{7}{8}$ in. (16.5–17.5 cm.), and the narrow end 6– $6\frac{1}{4}$ in. (15.4–15.8 cm.). It is clear from their shape that they were used to construct hollow ribs (linked to vertical wall vents), which served to strengthen and give form to vaulted roofs. The tiles were either used to form single ribs or were used in multiples to form wider ribs, or even a complete vault. When a multiple use was intended, special tiles with side perforations were employed so that the hot air could circulate laterally. The variations listed below depend upon surface treatment and nature of side perforation, if any.
17. Vousoir box-tile in a red-orange fabric. The surface is combed roughly, as illustrated. From the baths in the east end of the North Wing.
18. Vousoir box-tile in a red fabric. The surface is combed but the comb is wider than that used for no. 17. Found in rooms N 6 and N 8 in the North Wing, flanking the Dolphin room.
19. Vousoir box-tile in a yellowish fabric, combed in a much tighter lattice. From the baths in the East Wing.
20. Vousoir box-tile with a circular perforation in the centre of the side. Examples have been found in room N 6, in the North Wing bath suite and in rubble layers west of the North Wing.
21. Vousoir box-tile with a square perforation in the centre of the side. Found in the North Wing bath suite.
22. Vousoir box-tile with two semicircular perforations cut from opposite edges of the long sides. Found in the North Wing bath suite. Two different sizes.

Flue tiles (fig. 24 and pl. XII)

23. Small flue tiles measuring $4\frac{3}{8}$ by $2\frac{3}{4}$ in. (11.0 × 7.0 cm.), and of uncertain length; the thickness of the sides varies from $\frac{1}{4}$ – $\frac{1}{2}$ in. (0.8–1.2 cm.). The main faces are decorated with a simple, single-line, scored lattice. The fabric varies from orange-red to blue but is invariably well-fired and hard. The sides are perforated with circular, D-shaped or square holes. This type is found exclusively in First-Period layers and in the rubble make-up for the Second-Period building. Presumably therefore, they were used in the baths of the proto-palace.
24. Box-tiles with central divider. A number of small fragments of tiles of this kind have been discovered in First-Period levels, associated with the proto-palace, but the pieces were too small to give any clear appreciation of their size. Complete examples of an identical kind have been published from the Angmering bath suite and from Eastbourne (Sutton, 1952). Box-tiles of this type were found only in First-Period levels but two variants listed below, nos. 25 and 26, were found in later contexts.

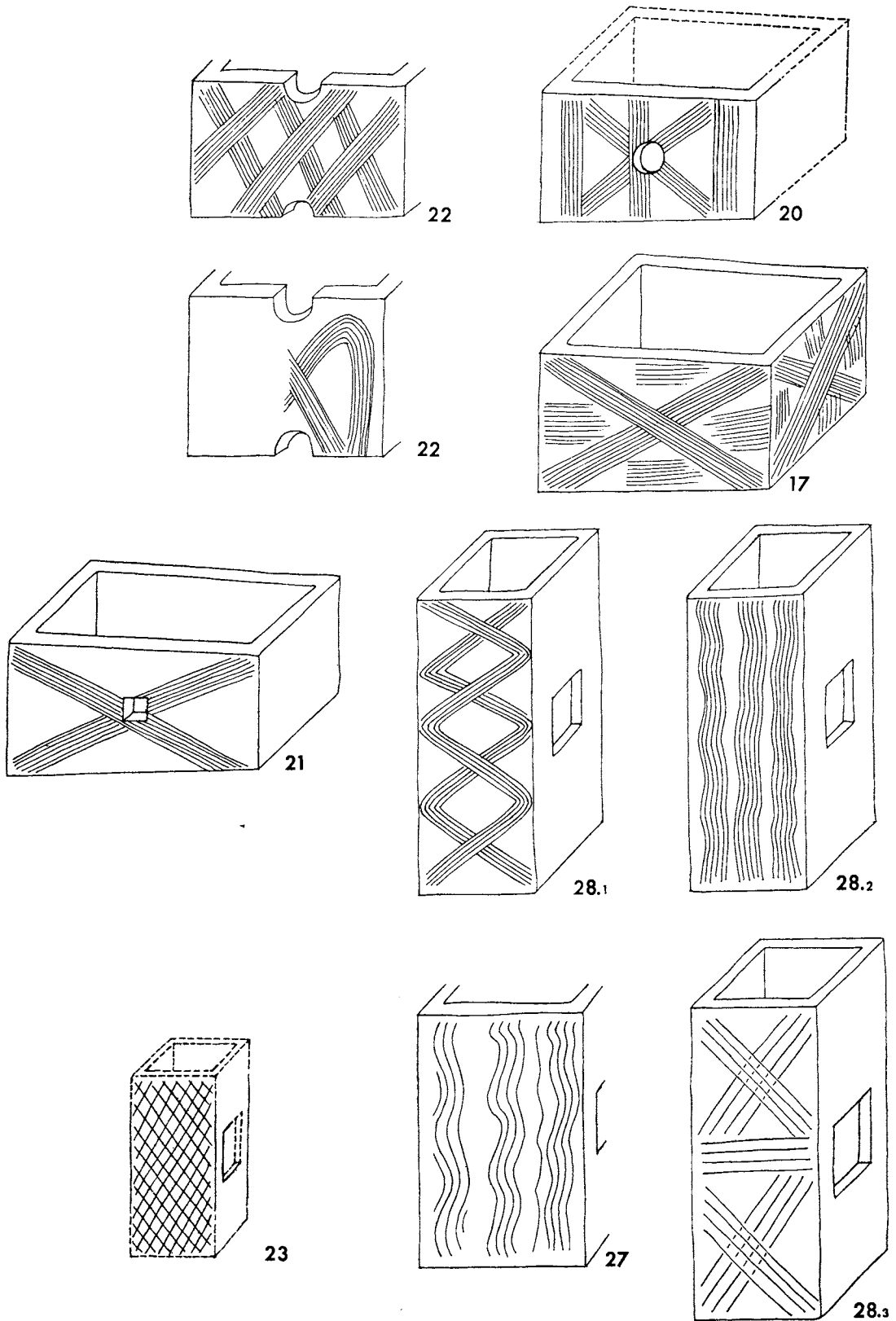


FIG. 24. Box tiles of various types: scale $\frac{1}{8}$ (pp. 45-7 and pls. XI-XII)

25. Box-tile with central divider, $4\frac{1}{2}$ in. (11.5 cm.) wide and 8 in. (20.4 cm.) long, up to the dividing partition. The narrow face is scored with a rough lattice. From Period 2 levels.
26. Box-tile, probably of the type with a central divider. The narrow end is $4\frac{3}{4}$ in. (12.0 cm.) wide and is decorated with roller-stamping in die C. The long sides have been cut into by semicircular vents, but the fragment is too small to show how the rest of the tile was arranged. From the Third-Period bath suite in the East Wing.
27. Flue tile, 10 in. (25.5 cm.) wide, about $13\frac{1}{2}$ in. (34.0 cm.) long and of unknown depth. The surface is decorated with shallow wavy lines and the sides perforated with rectangular vents. Since they are found in Second-Period construction levels and destruction layers, they are presumably the box-tiles with which the Flavian palace was fitted.
28. Flue tiles, approximately $6\frac{3}{4}$ in. (17.0 cm.) across by about $15\frac{1}{2}$ in. (38.0–40.0 cm.) long and $6\frac{1}{2}$ in. (16.5 cm.) deep. The surface is decorated with rectilinear combed patterns of three main types (fig. 24); the side walls are perforated with rectangular vents. Found in the Third-Period bath building at the east end of the North Wing.
29. Flue tile of undefined size, decorated with an all-over lattice composed of double or treble lines crossed by single lines. Found occasionally in Second-Period construction levels. It may have had a central divider. Similar tiles were found in first-century contexts at Angmering (*S.A.C.*, 79, fig. 10, no. 2).
30. Flue tile, about $15\frac{1}{2}$ in. (40 cm.) long, $6\frac{3}{4}$ in. (17.0 cm.) wide, and about $4\frac{3}{8}$ in. (11.0 cm.) deep. The surfaces are decorated with a roller-stamped design in die A (see below, p. 49). The sides are perforated with rectangular vents and the fabric is usually a warm brownish-red. Found only in the Third-Period bath suite in the West Wing.
31. Flue tile, of uncertain length, $6\frac{3}{8}$ in. (16 cm.) wide and $4\frac{3}{8}$ in. (11 cm.) thick. The surfaces are decorated with a roller-stamped design in die B (see p. 49). The sides perforated with rectangular vents. Usually these tiles are made in a hard bright-red fabric. Found only in the Third-Period bath suite in the East Wing.
32. Flue tile of unknown length and thickness, $6\frac{1}{2}$ in. (16.5 cm.) wide. The surface is decorated with a roller-stamped design in die D (see p. 49). The sides, though presumably perforated, do not survive on the one known fragment of this type. Found in the rubble in the north-west corner of the garden.

Pipes

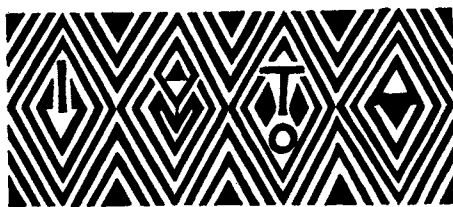
33. Cylindrical water pipe, 16 in. (40 cm.) long and 8 in. (20 cm.) in diameter, with a central bore, $3\frac{1}{2}$ in. (9 cm.) in diameter, made in a red sandy fabric. The ends are so constructed that each sockets into the next. Large numbers of pipes of this kind were used in the garden of the Flavian palace to provide water for the fountains and basins. The pipes are therefore firmly dated to the Flavian period. One element, probably re-used, served as a drain to take waste water from the Third-Period hot plunge bath in the East Wing.
34. Small cylindrical tiles, 3 in. (7.5 cm.) long, $1\frac{3}{4}$ in. (4.5 cm.) in diameter, with a central bore, $\frac{3}{4}$ in. (2.0 cm.) in diameter. Pipes of this kind were found in quantity in First-Period levels, but in no case were they found *in situ* or attached to each other in any way. It is difficult to see how they were used.

Roof tiles

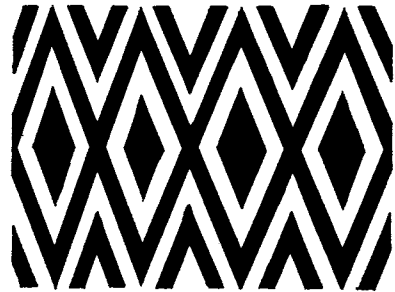
35. *Tegulae* of normal type were found in layers of all periods and it is difficult to see any significant difference between them. Some of those from First-Period levels were made in a softer fabric of a bright red colour, while others were fired in a reducing atmosphere. This contrasts with the more even red colour of the roof tiles of the Flavian palace. In addition to being used as a roof covering, *tegulae* were also used as a base for the drain carrying water away from the north-east corner of the garden and for the construction of the aqueduct which led water to the building from the north. In the Third Period they were used to construct the drain which served the cold plunge bath in the bath suite inserted into the East Wing and later still they were used to floor the hypocaust in room N 1.

36. *Miscellaneous*

Brick, $4\frac{3}{8}$ by $5\frac{1}{8}$ in. (11 × 13 cm.) in section and more than $6\frac{1}{4}$ in. (16 cm.) long. A single example was found in a late rubble layer in front of the West Wing.



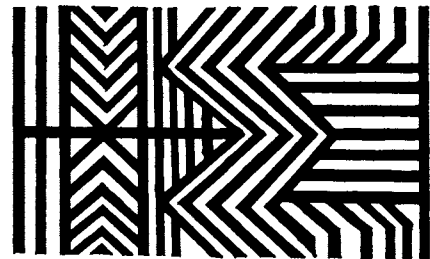
A



B



C



D



E

FIG. 25. Patterns on roller-stamp decorated tiles: scale $\frac{1}{3}$ (p. 49 and pl. XII)

Roller-stamped designs on flue tiles (fig. 25 and pl. xii)

Five different roller-stamps were used to decorate the surfaces of flue tiles (see above, nos. 26, 30-2) Of these all but two are of types previously listed by Lowther (Lowther, 1948).

- A. *Diamond and lattice type*, Lowther's Group 5, die 13. Previously recorded at London, Cobham (Surrey), Beckley (Oxon.), and Leicester.
- B. *Diamond and lattice type*, Lowther's Group 5, die 22. Previously found only at Angmering.
- C. *Diamond and lattice type*. The exact type is unrecorded by Lowther but similar to Group 5, dies 15, 16, 18, 19, and 46.
- D. *W-chevron type*, Lowther's Group 1, die 4. Previously recorded at Farley Heath, Walton, Cobham and Ashtead and Ashtead Common in Surrey, Ridgewell, Chelmsford (Essex), Colney Street (Herts.), St Albans, and London.
- E. Fragment of what may be an unrecorded variety of the W-chevron type.

Stucco and Painted Plaster

1. STUCCO

MOULDED STUCCO FROM THE FIRST PERIOD (fig. 26)

A SMALL quantity of moulded stucco was recovered from Second-Period make-up layers in the vicinity of the proto-palace, mixed with masses of painted wall plaster described below, pp. 52 ff. The fragments belonged largely to pilasters (fig. 26, no. 3) but a few pieces were recessed with circular (or curvilinear) shapes (fig. 26, nos. 5-7), too small for certain recognition but possibly from an ornamented frieze. The basic shape of the moulding had been accurately formed from a single layer of mortar composed of crushed chalk, flint and brick. This was surfaced with a layer of fine, white lime-mortar, $\frac{1}{8}$ in. (0.3-0.4 cm.) thick.

MOULDED STUCCO FROM THE NORTH WING OF THE FLAVIAN PALACE (fig. 26 and pl. xviii)

Several pieces of moulded stucco belonging to two distinct mouldings were recovered from the fillings of robber trenches on the north and west sides of room N 7. The first (fig. 26, no. 1) is from a frieze depicting pairs of birds holding what appear to be fruit in their beaks, standing on either side of a vase containing three pellets, presumably representing fruit. Each scene is divided from the next by a sprig of acorns. Above the frieze is a simple cornice, while below is a continuous bead and reel motif. The figured panel was composed of a series of stamped sections each covering the complete scene, the joins appearing along the line of the acorn stems. Presumably the other elements of the complete moulding were blocked out in this way, but positive proof is lacking.

As the section shows (fig. 26), the moulding was built up with five different layers of mortar. The first was the buff mortar with chips of flint, which represented the initial overall rendering of the wall. This was followed by a mortar of similar texture containing crushed flint, brick and a few small fragments of bone. Over this was spread a finer mortar of the same composition. The final matrix, into which the moulds were impressed, was a very fine white plaster. Finally, the surface was given a coating of white mortar, $\frac{1}{16}$ in. (0.1-0.2 cm.) thick, applied with a brush.

The second moulding (fig. 26, no. 2), was ornamented with an egg and dart design which had been impressed with a stamp, the end of which corresponded with the centre-line of one of the darts. The surviving piece is too small to give any indication of the length of the stamp. The moulding was composed of a fine white plaster laid into an angle, the surfaces of which had been rendered with a buff gritty mortar. After the impression had been made, the moulded surface was coated with a thin wash of fine white mortar.

MOULDED STUCCO FROM THE AUDIENCE CHAMBER

Lying on the floor of the apsidal recess in the west end of the Audience Chamber was a small quantity of plaster which had escaped destruction by ploughing. The fragments were

small, but all show signs of parallel ribs, between which were slightly domed areas painted in deep plum, bright blue or bright red, the ribs themselves being left as plain white (fig. 26, no. 4). There are some traces of white leaves painted over the blue areas. The ribs are not carefully moulded nor is the colour accurately applied. In a room of such importance, this must surely mean that the fragments come from well above eye-level, quite possibly from the ceiling.

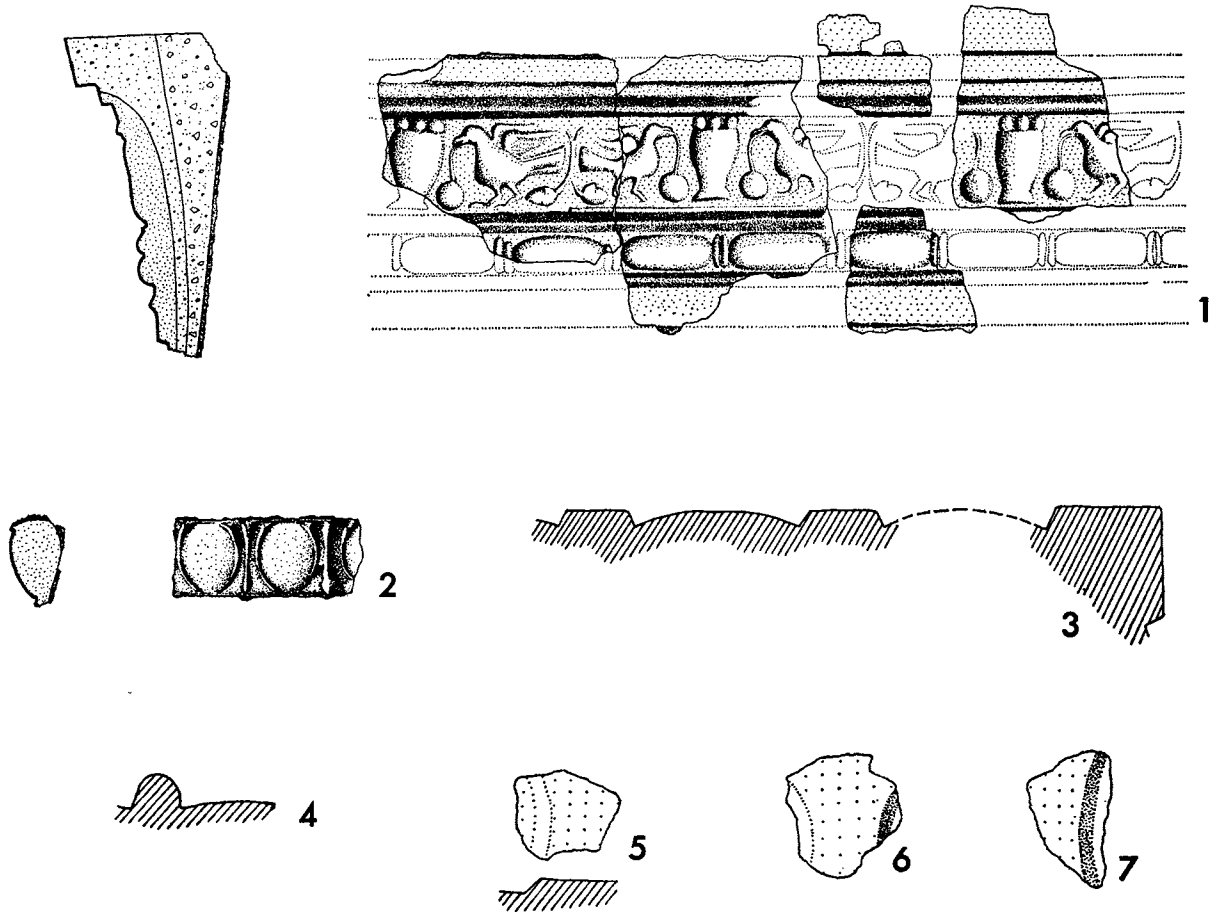


FIG. 26. Stucco: scale $\frac{1}{2}$ (pp. 51-2)

2. THE PAINTED WALL PLASTER

INTRODUCTION

The problems posed by the publication of the painted wall plaster are many and various. Large quantities have been recovered, but almost all in small fragments. The reason for this lies in the nature of the final destruction of the building. At an early date in the second century, parts of the structure were left open to the weather and partially demolished long before the final abandonment, the rubble being removed from the site, leaving only occasional fragments of painted plaster to be trampled into the exposed ground-surfaces. When the final fire set in, the painted walls then standing were often badly scorched and cracked

and there is some evidence to show that small areas of painting, loosened by the intensity of the burning, were dislodged and fell to the floor to be buried by the collapsed and still burning roof. Later the raking through of the destruction levels churned up the plaster still further. Then came a short period during which the charred walls, still standing, were left to weather, the painted plaster flaking off and falling on to the rubble choking the room. This was followed by the deliberate demolition and robbing of the standing masonry, any surviving plaster being thrown back in shattered fragments into the robber trenches. In spite of such violence and neglect, it is surprising that so much plaster still remains; its highly fragmentary state is understandable.

In addition to the plaster found in the destruction levels of the palace there are two other groups to be considered. The first consists of a considerable mass mixed up with clay and rubble, all derived from the demolition of part of the proto-palace, and used as make-up layers in the vicinity for the floors of the Flavian palace. The second is a tip of finely-painted plaster thrown into the top of the partly-filled ditch west of the west end of the North Wing. Since it lies above a layer of clay deposited at the time of the construction of the palace, it is likely to represent material derived from the palace sometime during its life. These two groups will be discussed first, followed by a description of the plaster from each of the rooms of the palace.

The nature of the description raises problems. In general the method adopted here has been to give a general description of the arrangement in each room, followed by a more detailed consideration of the relationships between the various colours. Diagrams are used only when sufficient is known to enable a substantial area to be restored and when lengthy verbal description can be pruned. Coloured illustrations are used sparingly to demonstrate the quality of the brushwork. This approach necessarily means that vivid colours and subtle designs are reported by a somewhat repetitive and inadequate description, but without the enormous expenditure necessary to provide more colour plates this is inevitable. Anyone wishing to appreciate the quality and style of the painting must see it. For the sake of simplicity all measurements are metric.

PLASTER FROM THE PERIOD 1 C PROTO-PALACE (figs. 27, 28, pl. XIII)

The make-up layers from the Period 2 floors in the area of the Period 1 C proto-palace, the Entrance Hall and parts of the South Wing contained large quantities of smashed-up painted wall plaster derived, presumably, from the superstructure of the proto-palace when it was being modified at the beginning of the Second Period. The plaster itself often retained a thickness of up to 10 cm. implying that it had once surfaced walls of wattle and daub. Its chief characteristics are a white gritty appearance, the presence of crushed calcite, and an exceptionally fine smooth finish.

The broken nature of the pieces and the somewhat limited excavation do not allow detailed conclusions to be formed as to the style and proportions of the design, but some attempt at a quantitative assessment of the various colours involved seems desirable.

Red. Red was used solely for large plain panels enlivened only by a white or cream line, 0.75 cm. thick, forming an inner border some 5.0 cm. from a thicker white line, *c.* 1.0 cm., which enclosed the panel. The external corners of the inner border are enlivened with simple tendrils or bobbles.

Total area of plain red, 2.9 sq.m.

Length of inner framing in cream and white, 5.5 m. (2 corners).

Red panels were surrounded by areas of both deep blue and green. Occasionally red was placed close to a mock marbling of purple spotted with white and yellow.

Red adjacent to deep blue, 0.84 m. (2 corners).

Red adjacent to green, 3.7 m.

Red adjacent to purple marbling, 0.20 m.

Yellow. Yellow was used, like red, only in the form of large plain panels enclosed by a white band, 1 cm. thick. An inner framing, depicted by a thin brown line, was always found, 4 cm. from the outer border.

Total area of plain yellow, 1.76 sq.m.

Length of inner framing of brown, 2.4 m. (1 corner).

Yellow panels were surrounded by green.

Yellow adjacent to green, 2.7 m.

Other relationships include two small fragments of yellow adjacent to red, the junction being over-painted with a white band, and plain yellow over-painted with a thin white line (total length, 12.7 cm.).

Deep blue. Deep blue was used principally as large plain panels enclosed by a white border with an inner framing depicted by a thin yellow line, 5.0 cm. from the outer border. Quantities of the colour have also been found over-painted with fronds, in bold brush strokes in yellow and green, and flowers shown as blobs of white. Although the two uses may have occurred in different parts of the room, the flower-painted blue probably serving as a dado, it remains a possibility that the over-painting occurred in the centre of the panels. No positive evidence survives either way.

Total area of plain deep blue and deep blue with over-painting, 0.87 sq.m.

Length of inner framing of yellow, 0.84 m. (1 corner).

Other relationships include (a) deep blue adjacent to orange (total interface 12.7 cm.), and (b) deep blue adjacent to pinky-red (small fragment only).

Green. Green seems to have been used as a background colour to panels of red, yellow and deep blue, presumably extending from the frieze to the dado or floor. Two fragments have been found, painted green, which were finished in such a way as to suggest that they come from the junction of the wall and floor.

Total area of plain green, 0.65 sq.m.

Green adjacent to red, 3.7 m.

Green adjacent to yellow, 2.7 m.

Green adjacent to deep blue, 1.6 m.

The bands of green between one coloured panel and the next varied in width: between panels of red and blue it was as little as 3.5 cm. wide, whereas adjacent to a yellow panel it exceeded 5.0 cm. wide. Another fragment shows a red panel with an area of green next to it more than 20.5 cm. wide and enlivened by two vertical lines of white, 7.5 and 7.7 cm. respectively from the edge of the red. These interstitial green areas were often painted skilfully with brightly coloured designs incorporating fish, fruit, tendrils, etc. Fig. 27, which illustrates the principal designs, needs no further description.

White. Although relatively large quantities of white-painted plaster have been found, none of it appears to relate to the colours and designs described above. Either it comes from a different room or rooms or it derived from ceilings. Generally it may be said that the finish was not as fine as that of the other colours.

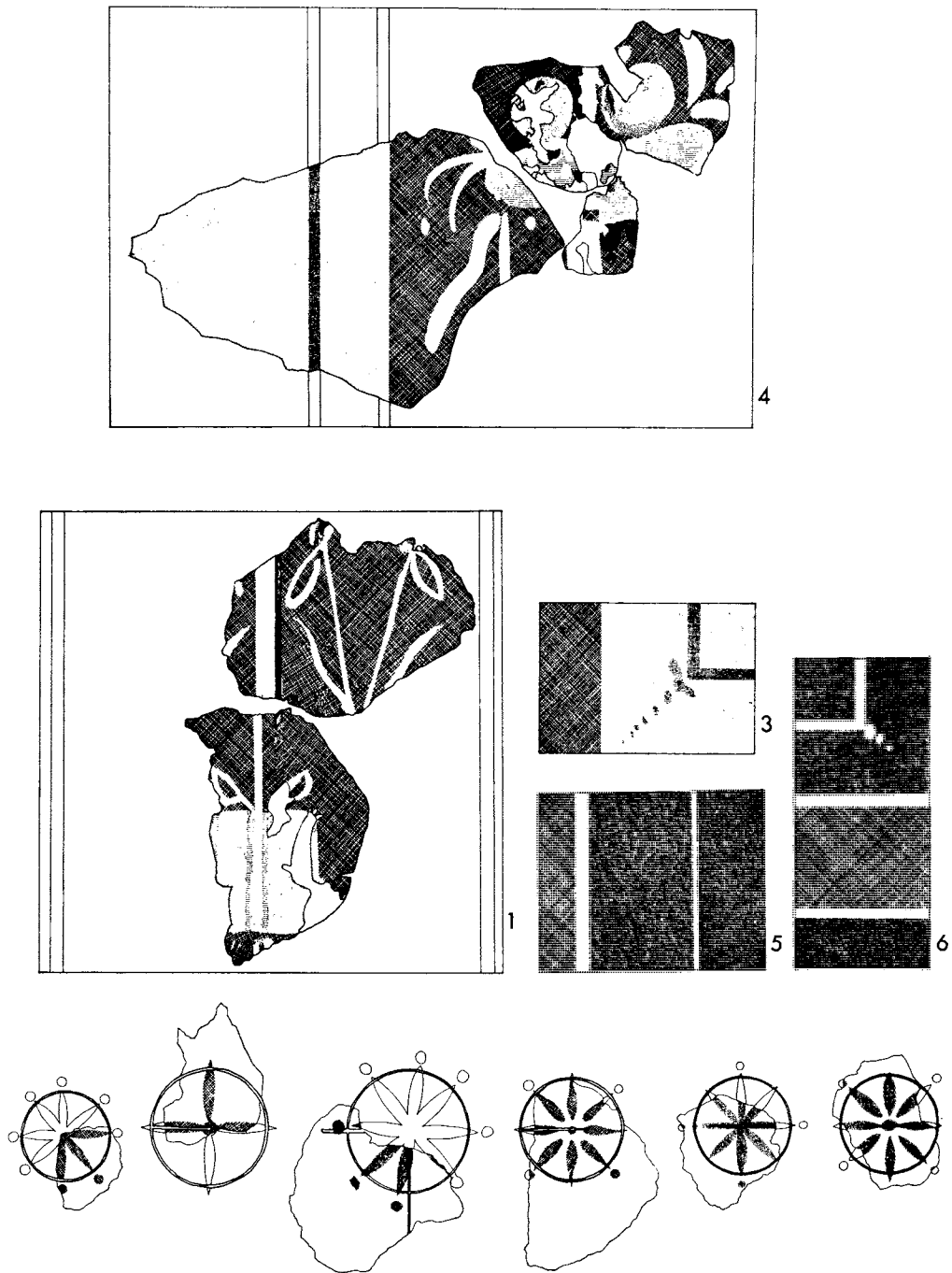


FIG. 27. First-Period painted wall plaster: insets for fig. 28; scale $\frac{1}{4}$ (p. 53)

Total area of plain white, 1.74 sq.m.

The plain white was often decorated with inscribed circles, *c.* 5.0 cm. in diameter, containing simple geometric leaf arrangements painted in pink, red or green (fig. 27). The relationship of the circles to each other is unknown. Several fragmentary graffiti scratched on white have also been recovered (see p. 369).

A number of relationships between white and another colour are known, and may be summarized as follows: (a) white adjacent to black, junction over-painted with a band of yellow, three small fragments; (b) white adjacent to black, junction over-painted with a band of purple, few small fragments; (c) white adjacent to purplish-red, two fragments; (d) white adjacent to green, junction over-painted with a thin black band, three fragments; (e) white with thin red stripe, 0.8 cm. thick, one fragment; (f) white with thin black stripe, 0.8 cm. thick, two fragments; (g) white over-painted with brush-strokes of green, black and yellow, some red splashes, total area 225 sq.cm.

Purple-brown. Purple-brown occurs rarely and only 300 sq.cm. have been recovered. One fragment shows it adjacent to yellow with a white band between.

Orange. A number of small fragments of orange painting have been found, particularly in the make-up below the South Wing. A total area of 320 sq.cm. has been recovered. One fragment shows orange adjacent to deep blue with a thin white line between; another shows orange adjacent to white.

Purple marbling. An area of purple splashed with white and yellow to imitate marble is known, adjacent to a red panel.

Miscellaneous

A few isolated pieces do not fall into the categories described above. These may be briefly summarized as follows:

- (a) Painted mouldings (pl. XIIIa). Two fragments depict mouldings painted carefully in graded pinks and whites, amounting to a 5 cm. strip dividing areas of green from white. It may be that the mouldings were meant to represent cornices at the top of the painted area below a plain white frieze.
- (b) Shaded black, brown and maroon on white; ? architectural moulding.
- (c) A small fragment of red and black freehand painting.
- (d) Two fragments of red with thin lines in yellow-white or grey in pendants.
- (e) An area of white with three parallel bands of black, one of which is edged with green.
- (f) Black and brown on soft cream.
- (g) Wavy white line on buff.

Summary (fig. 28)

In general it will be seen that most of the walls were painted green with large panels of red, yellow and deep blue superimposed. White was probably used for friezes and ceilings, and perhaps external work. The green usually served as a background for delicate flower paintings with deep blue, painted with coarser flowers, as a dado. Other colours occur so infrequently as to suggest that the general style outlined above was adopted in most of the rooms destroyed at the time of rebuilding.

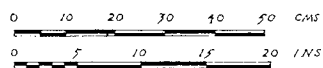
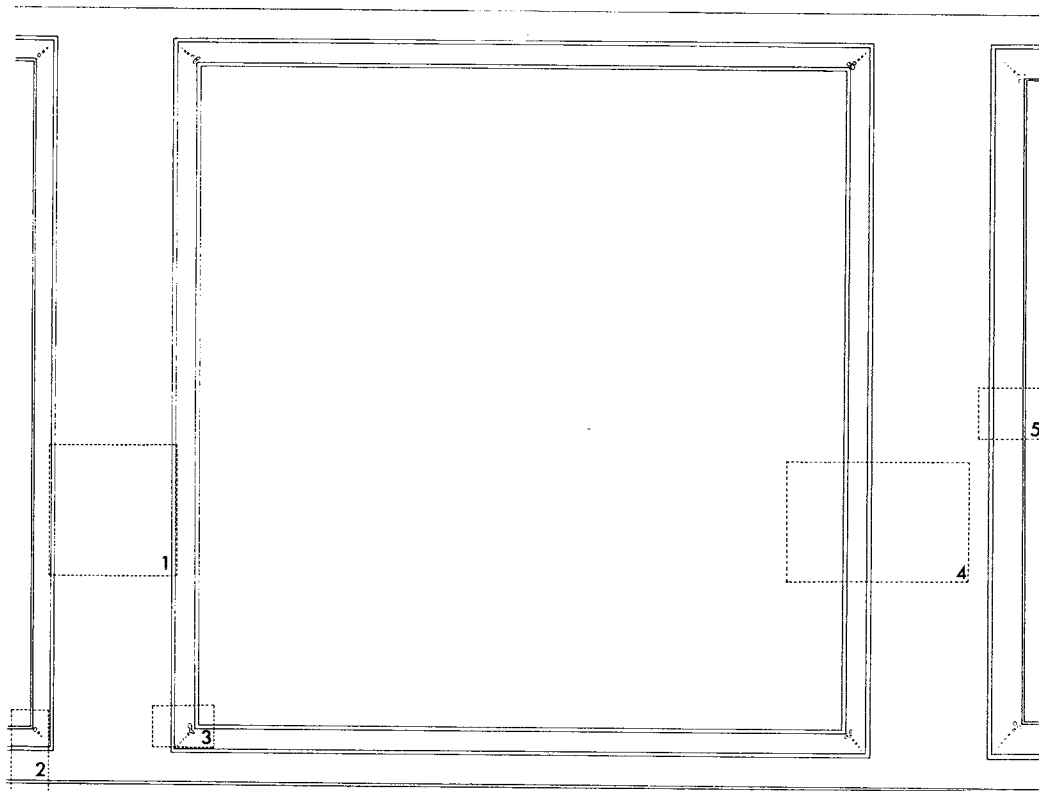


FIG. 28. Diagrammatic reconstruction of First-Period wall painting:
see fig. 27 for detailed insets (p. 55)

PAINTED PLASTER FROM WEST OF THE NORTH WING (pl. xiv)

The old Period 1 ditch which crossed the open area to the west of the North Wing had been filled with a sealing layer of clay at the time that the palace was built, but gradual subsidence occurred giving rise to an elongated hollow, which at a later stage was filled with masses of painted wall plaster of a type known to have been used in the North Wing. It seems likely, therefore, that during one of the Third-Period rebuildings the old painted plaster from one of the rooms of the North Wing was removed and dumped, the room then being replastered and painted. The plaster is, of course, very broken and has suffered from the damp and sometimes waterlogged conditions, in the top of the ditch, but much can be deduced from the surviving pieces.

The range of design represented is considerable and the quality is exceptionally high, as the illustration will show (pl. xiv). Basically, four major elements can be detected, all of which are shown against a plain yellow background which frequently is laid over a pink undercoat.

1. Panels against a plain yellow background delineated with a bright blue frame, 2.8 cm. wide, the inner edge of which is lined with a white band, 0.5 cm. thick. The outer (i.e. unenclosed) yellow area is usually painted with flowers. No evidence survives of how the enclosed yellow areas were treated, but it may well be that they gave way to red panels of the type described below, i.e. the yellow forming an outer frame for a more elaborate coloured panel. One fragment shows two inner yellow panels adjacent to each other, divided only by a blue band.

The flowers were extremely delicately painted. Various types occur: rose-buds shown in pink and white, tendrils in a slightly bluish-green and pale blue, and coarser flowers and fronds in a deep red-brown. A selection of the better examples is illustrated in colour (pl. xiv*b*).

2. Scenes (pl. xiv*a* and *d*). A few fragments survive of scenes painted in a limited range of bright blue, purple-brown and white. They are enclosed within a frame of dark blue, 1.3 cm. wide, lined on the outside with 0.5-cm. thick white line, beyond which is a plain yellow area. The largest fragment shows the corner of a remarkable picture of a villa standing on the shore with a choppy sea lapping up to it. The basic structure of the building is drawn in a purple-brown highlighted with white, while the impression of the waves is created with simple white brush-strokes against the blue background. The scene and the style of its execution bears a striking similarity to the famous harbour scene found at Stabiae, in which the subject matter, colour range and stylistic tricks are almost identical. It is very difficult to believe that the two pictures could have been created without a knowledge of each other. That the two broadly contemporary pictures exhibit the same subject, colour range and unconventional impressionistic style strongly argues that they were painted, if not by the same artist, at least by members of the same school. The suggestion becomes more acceptable when it is remembered that since there was probably no skilled tradition of painting in Britain at the time a large number of foreign artists would have been brought in from the continent to decorate the palace. It is surely not too much of a coincidence to suggest that a work belonging to one of them is already known in Italy.

3. Areas of plain yellow over-painted with bands and lines of deep purple-red. The basic arrangement was of an outer framing band of deep red, 3.0 cm. wide, separated by 2.0 cm. from an inner framing line, 0.5 cm. thick, within which was a simple union-jack arrangement of thin red lines, the entire pattern being painted on a plain yellow background. Outside the outer framing line were traces of red flowers painted on the same yellow background. A variant of the same arrangement in white instead of red is also known, but this is less common. The basic idea and colour range is identical to a painted wall represented by fragments found in the north-west corner of the garden.

4. Red panels of various kinds set against a plain yellow background. A considerable variety of this basic design exists and lengthy verbal description would be tedious — a selection of the better-preserved pieces are shown in pl. xivc. The general idea is always the same: a panel of plain bright red is set within a complex frame composed of bands of yellow, reds and pinks, painted with carefully-mitred corners and shading so as to give an impression of depth and perspective. The red panel is usually enlivened with one or more frame lines of white, concentric with the outer framing, and sometimes the corners are picked out in white with stylized rosettes. One example survived, showing a simple floral border painted in yellow and grey-brown, but this treatment is rare.

Beyond the multi-coloured frame is sometimes an outer framing in a range of yellows, toned to continue the impression of perspective. The panels are set against a plain yellow background and in one fragment sufficient survives to show that they are further delineated by a thin red-brown line followed by a thicker band in the same colour, in much the same style as no. 3, above.

5. Oblique bands. Several of the fragments show that some of the coloured panels and the yellow backgrounds were over-painted with lines and bands set obliquely to the borders. Too little survives to provide a clear idea of how these related to the arrangements described above.

General arrangement. It would be wrong to be too dogmatic about the arrangement of a group of fragments like this which may have been derived from several walls of several rooms, but a number of generalizations can be made, based on the above descriptions. The overall colour of the rooms was yellow, painted presumably from wall to ceiling. The dado was in all probability plain yellow over-painted with flowers and fronds in delicate colours. Above this, without the strong horizontal separation of a painted moulding, came panels of bright rich reds enclosed in elaborate multi-coloured frames within the red-yellow range. These strong centres of interest were split up by predominantly yellow areas painted with simple frame-lines of red-brown to contrast with the multi-coloured panels. Either interspersed with these, or in similar positions on different walls, were small pictures in bright blue, white and red-brown, set against a plain yellow background enclosed within borders of bright blue.

THE NORTH WING

Room N 1 (fig. 29 and pl. xvi)

Slabs of wall plaster remain in position on the east and west walls of the room, but the floor-level to which they relate is above the original mosaic and should be correlated with a

thin mortar floor laid during the Third Period before the hypocaust was constructed. This clear evidence of replastering suggests that none of the fallen fragments within the room date back as far as the Second Period. Much of the plaster backing is of pinkish mortar.

1. The skirting of plaster in position shows the following colours from the floor upwards in horizontal bands: deep purple-red (20.0 cm.), thin white (0.8 cm.), pink with slight traces of over-painted flowers (7.6 cm.), dark green (2.5 cm.), light green, of uncertain width.
2. The light green area was over-painted in a variety of ways. Some fragments include flowers painted in blobs of white and pink, but all too broken to reconstruct. There are also a considerable number of fragments showing composite bands, one of deep red sandwiched between pink, and the other of bright blue between red painted against a pale green background. On one piece the two bands meet at an angle of about 45°. Areas of light green are also shown in conjunction with areas of deep red, the two being divided by a 1.0 cm. thick white line (fig. 29, nos. 1 and 2).
3. Fragments of a curved band of red-brown and bright brown, 2.0 cm. thick, adjacent to an area of bright blue painted in variegated stripes. The junction between the brown and blue is lined by a white line, 0.3 cm. thick, from which pendant white semi-circles spread on to the blue (pl. xvii).
4. An area of yellow, sometimes bearing brown splashes, adjacent to an area of red-brown. Sometimes the junction is marked by a thin white line.

Summary. Although the basal painting is well known from the slabs in position, the few surviving fragments are not sufficient to allow a reconstruction of the superstructure to be attempted.

Room N 4

At some stage before or after the extension of the room, the walls were largely replastered in a rather crude style and painted pale green.

Room N 5

The remodelling of room N 5 in the Third Period led to a complete replastering and repainting, since two of its walls were inserted at this time. Although a reasonable amount of plaster survives, it is almost all in very small fragments seldom more than 4 cm. across. Reconstruction is therefore difficult but several basic relationships can be recognized.

1. Areas of plain red adjacent to blue with a white band, 0.8 cm., between. The blue, of which a large area survives, varies in tone from a bright blue to a purple-blue, but no individual brush-strokes of different tones are apparent. Traces of white bands appear on the blue.
2. Areas of plain green adjacent to red with a white band, 0.8 cm., between. The red is over-painted with floral designs in green, yellow and white.
3. Blue adjacent to purple with a green band in between. The purple is carefully painted with closely-spaced leaves in bold brush-strokes of whitish-green and green.

EXCAVATIONS AT FISHBOURNE, 1961-1969

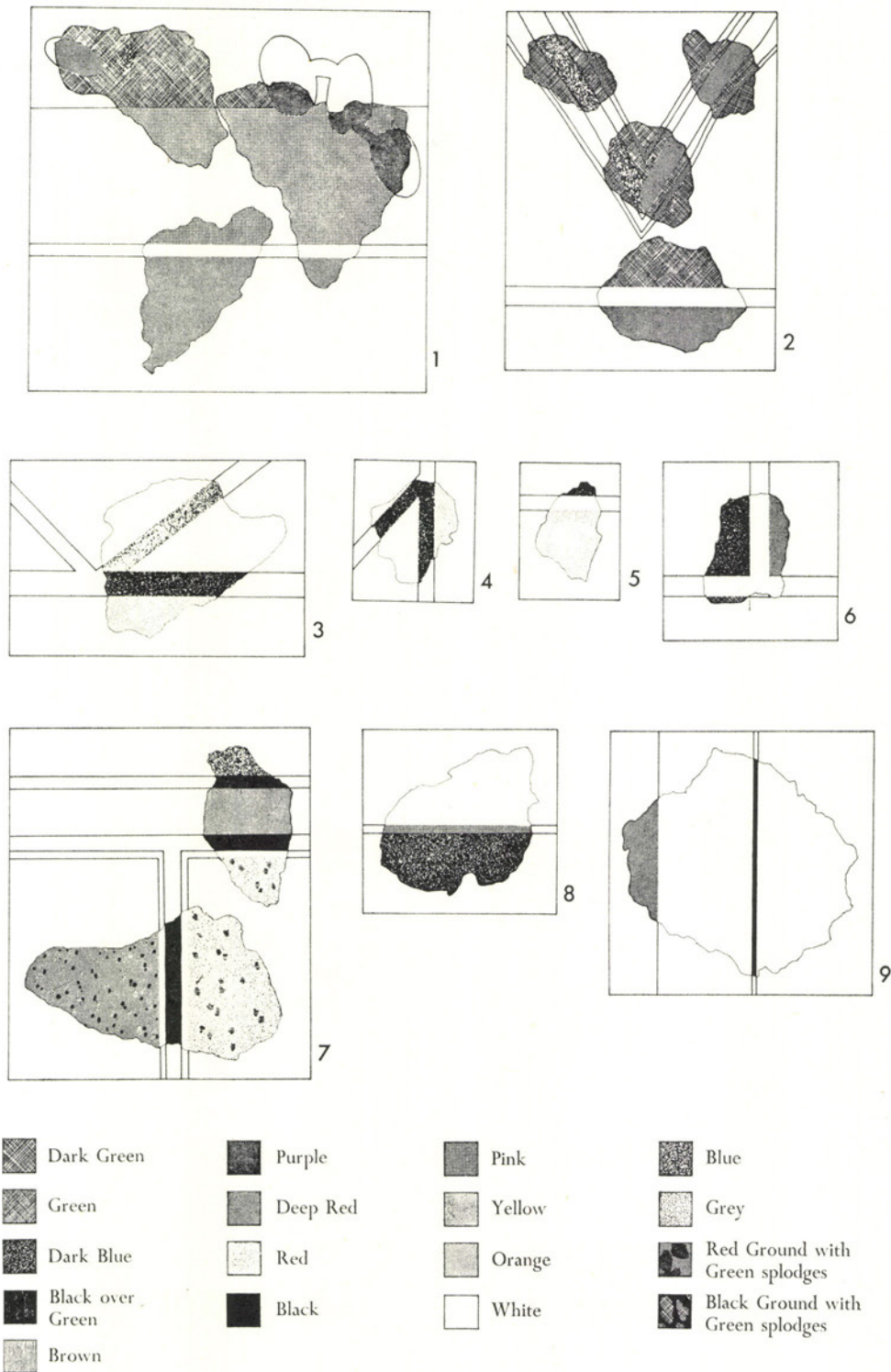


FIG. 29. Miscellaneous painted wall plaster, scale $\frac{1}{4}$.
 Nos 1 and 2 from room N 1; nos 3-6 from the Aisled Hall; no. 7 from room W 3;
 nos 8 and 9 from the west corridor of the West Wing opposite room W 14

4. White over-painted with curvilinear bands of ochre and red-brown together with occasional patches of blue and green.

The good quality and the choice of predominantly blue, purple and green, together with the use of over-painted leaves and area of variegated colour, tend to link the style of painting in this room to the Third-Period paintings in rooms N 1 and N 7.

Room N 5 (Southern Part)

The painting and the plaster backing is generally of good quality, but the amount is small. Large areas of plain red, pink and yellow survived, the yellow being splashed with black, white and red to create the impression of marbling. Yellow and red are found adjacent with the junction over-painted with a white band. Deep blue-black is also found next to yellow with a white band, 1.0 cm., between.

Room N 6 (Southern part)

The small quantity of plaster from this area contains a few pieces of areas of plain white, grey and red, together with a larger amount of plain yellow on a pink-painted background. The yellow shows signs of over-painted flowers in brown and green, thin red-brown bands describing panels and small areas of bright blue. These designs and colours are identical to those on the plaster recovered from the dump west of the wing (above, p. 57) and there can be little doubt that they belong to the decoration of the original Flavian palace.

Room N 7 (pl. xvi)

The painting in this room is bright and various, but the general design consists basically of areas painted as inlaid marble set within frames of other colours.

1. Marbling in a deep bright purple background over-painted with closely-spaced concentric circles grading from deep blue in the centre, through light blue to green around the outside. The effect is of a lively grained marble (pl. xvii).
2. Marbling, paler in tone than no. 1, composed of broad brush-strokes of green, blue-green and red, all merging at the edges.
3. Marbling, dark red with over-painted curvilinear texture in blue with green in between in a style somewhat similar to no. 1.
4. A series of framing bands can be reconstructed in relation to marbling of type 2. Immediately outside is a broad band of black between thin white bands, 0.8 cm., then follows an area of purple and green marbling which is, in turn, flanked by a composite border composed of a broad band of bright blue enclosed within black and white bands.
5. A variant of the above occurs in relation to an area of red marbling, which is bordered by a broad black band framed in white in exactly the same way. What happens beyond is not known (pl. xviii).

6. A relationship exists between marbling of various kinds. A broad band of purple and green marbling is bordered on each side, first by a thin band of white and then by one of black. Beyond this on one side is the green marbling as no. 2 above, whilst on the opposite side is an area of red marbling.
7. Red marbling as no. 3 above occurs, bordered by thin bands of white and black, beyond which is an area of white.
8. Red marbling is also known bordered by a thin black band enclosed in thinner white bands.
9. A series of plain colours in relation to each other reads as follows: purple area, thin white band, wide black band, white area with thin green band and then a thick green band (pl. *xviih*).
10. A further series reads: grey, thin white band, broad black band, thin white band, red area.

The above description gives a flat and somewhat incomplete idea of the very lively and carefully executed wall painting in room N 7. Complete reconstruction is, of course, impossible with so small a quantity but it is clear that the three basic marblings were depicted as large panels divided by bands of plainer colours, usually black and white but occasionally bright blue. Sometimes, as with no. 6 above, three marbled panels were shown in close proximity, but it may be that the middle band in this example was used as a frame to one or both of the adjacent panels. In all probability the wall was divided into the main panels and a dado. Evidently the dado was painted to represent marble, but it is not immediately clear which of the three basic marbles was used.

A second group of fragments belonging to a totally different design was recovered from group N 7.

11. Plain bright red over-painted with stylized floral designs in white or a pale whitish-green. Some of the flowers are represented by simple painted petals. More complicated designs include a row of overlapping semicircles, in the overlaps of which are simply arranged blobs of white (pl. *xviiia*).
12. Some pieces of plaster are curved in two directions, showing that they come from the inner rendering of a small apsidal niche, which must have been set into the wall of one of the rooms. It is decorated with a continuous row of pendant semicircles, the limits of which are marked by lines scored into the plaster. The semicircles are painted deep red and each bears a simple design over-painted in grey. From the junctions of the semicircles run parallel scored lines, the ends of which are painted in green-grey. Most of the area outside the semicircles and scored lines was given a thin coating of pale green paint which has now largely worn off (see pl. *xviiia*).

Room N 8 (Northern part)

Room N 8 produced only a few scraps of painted plaster on a backing of pink gritty mortar. Areas of plain red, black and white were represented.

Room N 8 (Southern part)

Both halves of room N 8 were probably replastered and painted during Period 3, since the style resembles closely that employed in the Third-Period bath building in the East Wing. The dado was pink splashed with red to simulate marble, capped with a horizontal band of deep red. Above this the wall was painted white, but the area was divided by vertical deep red bands (1.5 cm.) into panels which were emphasized by a thin black frame line (0.5 cm.) concentric with the red bands 2.5 cm. away. Judging from the quantities of the different colours, the areas of plain white within the panels were large and dominated the atmosphere of the room.

A few fragments of white paint were found with green stripes 1.3 cm. wide, but it is difficult to see where they fitted with the general arrangement.

Room N 9 (figs. 30, 31)

The quantity of plaster recovered from the robber trenches, particularly on the west and south sides of the room, makes it possible to reconstruct the decor in reasonable detail. The lower part of the walls was painted in red with an over-painting of wide brush strokes in a lighter red to simulate a coarse-grained marble. Imitation joints were shown as thin vertical black lines. Above this was a continuous horizontal 'cornice', 10.5 cm. wide, painted as a broad band of yellow-green, 3.5 cm. wide, shading off horizontally into orange-red, flanked top and bottom with composite bands of black between white representing minor mouldings. Above the cornice there remain fragments of four panels:

- (a) Plain orange with a thin interior frame-line of red-brown (0.5 cm.). The panel is divided vertically from the next by a moulding of black between white (2.5 cm.). The base is framed by a similar moulding, below which is a 3.0 cm. band of plain red dividing the moulding from the cornice.
- (b) Deep blue-black speckled with a finely applied blue-green. Panelled with a white frame-line. This panel is divided from (c) by means of a simple vertical band, 1.0 cm. wide.
- (c) Plain red with a white frame-line.
- (d) A complicated panel. The interior represents a blue-grey veined marble split through the centre, the two 'slabs' being then opened out. This is set within a series of simulated marble framing bands and cornices which, from the centre outwards, include a white-black-white moulding (3.0 cm.), a strip of dark brown with closely spaced dabs of grey-green (3.8 cm.), a white-black-white moulding (3.5 cm.), a band of red-brown (3.5 cm.), a white band (0.8 cm.), a strip of dark brown with closely spaced dabs of grey-green (3.0 cm.), a white band (0.6 cm.), a band of red-brown (3.5 cm.). Carefully shaded areas are employed on some of the mouldings.

The room was provided with a continuous frieze moulding consisting of a white band (2.0 cm.), a black band (1.0 cm.) and a white band exceeding 3.0 cm. in width. It appears to have continued across the top of all the panels described.

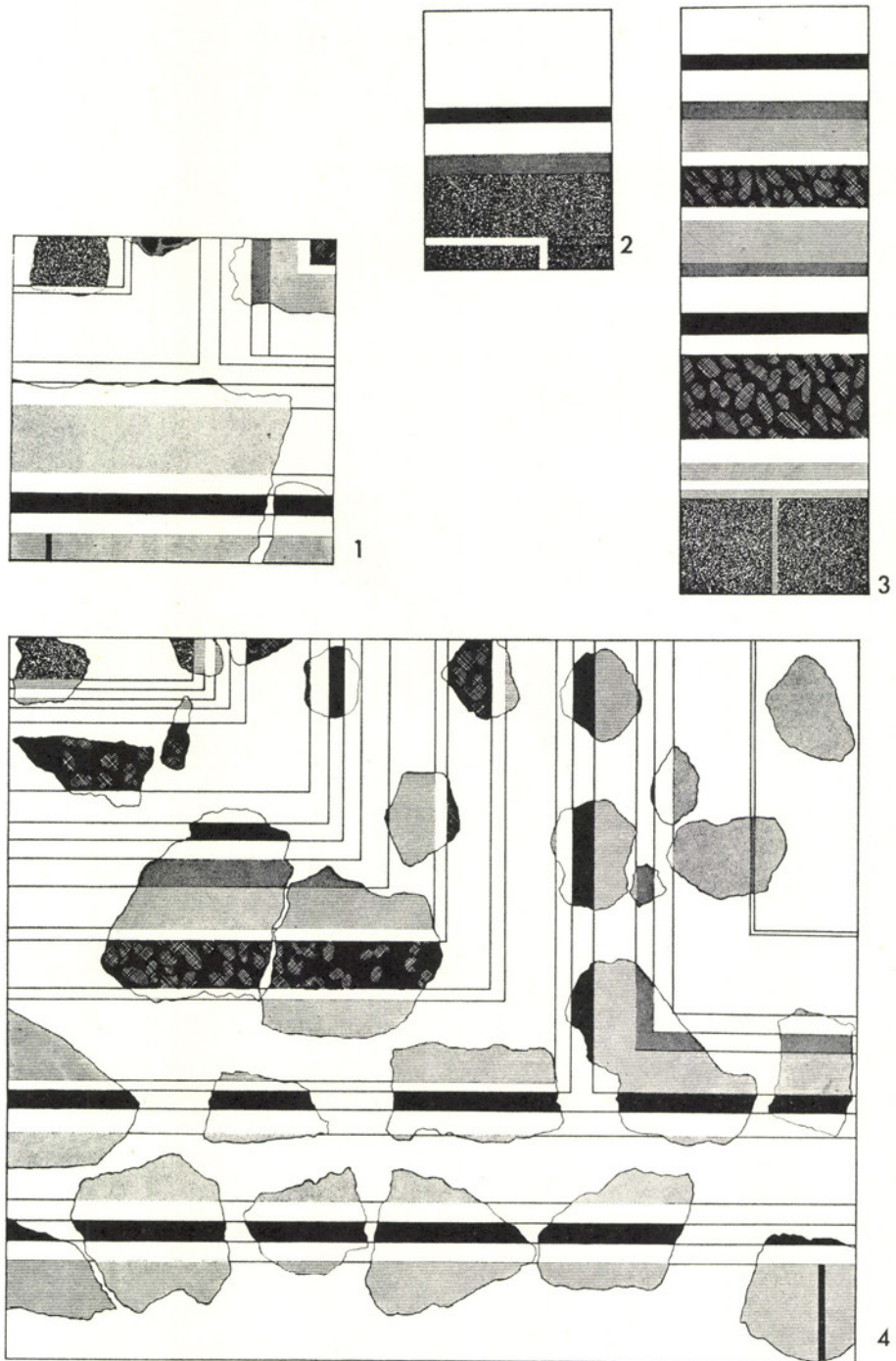


FIG. 30. Painted wall plaster in room N 9; detailed insets for fig. 31; scale $\frac{1}{4}$ (p. 63)

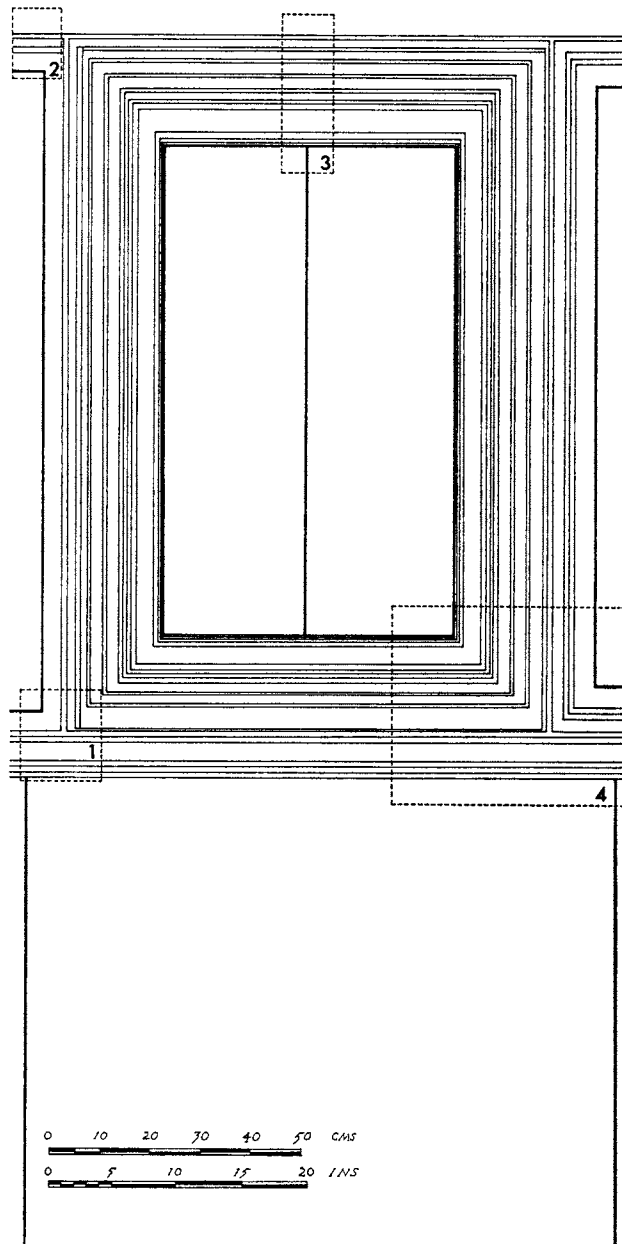


FIG. 31. Diagrammatic reconstruction of the wall painting in room N 9;
for detailed insets see fig. 30

Other relationships may be summarized as follows:

1. Large areas of plain grey with splashes of dark blue. Sometimes shown adjacent to dark blue areas with a white band between, sometimes next to red areas.
2. Areas of red, sometimes adjacent to dark blue with a white line between.
3. Large areas of pink splashed dark blue and red.
4. Areas of bright orange-red sometimes over-painted with a white band (1.0 cm.).
5. Panel enclosed by bands of pink, white and red.
6. Complex painting in blue-grey and red on a white ground, possibly architectural.

Room N 10

The plaster from room N 10 was scrappy in the extreme, but it should be remembered that large wall areas in the room were inlaid with elaborate marble and, as might be expected, the painted areas were restrained in colour so as not to cause a distraction. Plain white was used in quantity, sometimes adjacent to areas of dark red. Plain red was also found in conjunction with areas of deep dark blue and yellow, the junction being over-painted with a white stripe (1.0 cm.). Some areas were painted grey and splashed with black to simulate marbling.

It is difficult to say whether the painting belonged to the original design or whether it was the result of a Third-Period decoration. Generally areas of deep plain colour were more common with the Flavian palace, and it might be argued that the marble inlay is likely to be original but it should also be remembered that the room was divided by a timber partition in the Third Period, and this may well have led to some repainting. The problem is best left open.

Room N 11

The rubble lying on the floor of room N 11 had been reduced in quantity by constant ploughing, but the fragments which survive in the robber trenches show that the quality of the painting was once very high.

1. The room was once provided with a dado of simulated marble painted in streaks of dark blue and green, giving the impression of a horizontal grain (total width unknown). Above this were areas of both plain red and plain yellow divided from the marbling by a white band (1.5 cm.).
2. Another type of marbling was created by splashing a pale grey background with flecks of darker grey and white. Its relationships to other colours are undefined.
3. A number of other fragments of plain areas of deep red, orange-red, white and deep blue occur, the plain red appearing in quantity. In one case a black area was painted adjacent to red, the junction being over-painted in white.

Although the range of colour and relationships is small, the general impression is that the room was painted with panels of plain bright colours above the marble dado. Again dating is impossible, but the simple rich quality of the coloured areas is suggestive of a Flavian origin.

Room N 12

The surviving plaster from room N 12 leaves little doubt that the room was once very elaborately painted with large areas of simulated marble veneering of different types.

1. The plaster along the base of the west wall is still largely preserved. It shows a pink background splashed with deep red, surviving to a maximum height of 56 cm. Vertical black bands (0.7 cm.) were painted at intervals to simulate the junction between one slab of marble and the next.
2. Marbling: deep red background with splashes of black and white.
3. Marbling: streaky pink area more than 28 cm. wide. One fragment shows it adjacent to an area of plain red divided from it by a yellow band (2.5 cm.).
4. Marbling: two adjacent areas, one purple with fine splashes of white, red and black, the other pink with blotchy yellow over-painting. The two are divided by a mock moulding (2 cm.) composed of a black band between two white bands. The purple splashed marble is also shown adjacent to an area of orange-red with a white band (0.6 cm.) between.
5. Marbling: yellow background with streaky red veins. This type is shown divided from an area of plain deep blue by a red band (1.3 cm.).
6. Marbling: blue background with a fine green and blue speckled texture. Shown adjacent to a 'moulding' of white and deep purple bands. The area of marbling is lined with a white band (0.5 cm.) parallel to the edge.
7. Marbling: a large area of off-white skilfully picked out with thin red lines to represent veining. This area is evidently the central infill of a panel. It is edged with a band of deep blue (1.0 cm.) outside which is a 4.5 cm. band of red and blotchy green marbling which is in turn edged with a white band (1.4 cm.); then follow in turn a 4.0 cm. band of dark blue, a 1.4 cm. stripe of white and an area of plain red (pl. xvib).
8. Large areas of plain red were also recovered.

It is clear from the above description that the marbled areas dominated the design, but panels of plain red and probably deep blue were also incorporated, presumably as visual relief between the over-rich marbling. Some of the marble panels were bordered by strips of different marble, adding to the lush effect. The dado was also of marbling but of the splashed rather than veined type.

Dating is uncertain, but the use of deep blue and red was common in the Neronian and Flavian period. Moreover, although the room was divided by a timber partition during the Third Period the plaster recovered from both halves showed that there was no difference in decoration. Both observations suggest that the surviving painting dates back to the Flavian period. It may also be suggested that since the old floor was retained the walls are unlikely to have been repainted.

Room N 13

The decoration, now represented by only a small quantity of wall plaster, was once exceptionally fine. Reconstruction is difficult but broadly it seems that panels of plain colour outlined by fillets of mock marble were shown above a mock marble dado.

1. Marbling of orange-red with splashes of green. Marbling of this character is shown adjacent to plain red with a white band (1.0 cm.) in between. Another group of fragments show a more complex relationship in which the orange and green marbling is divided from a panel of plain red by a composite band composed of a central stripe representing a red-veined white marble bordered on each side by a black and a white line, each 0.6 cm. wide, evidently representing simple mouldings.
2. Marbling of red with fine splashes of white and black.
3. Areas of plain red.

There is no evidence to suggest to which period the painting belongs.

Room N 14 (Northern part)

1. At the south-west corner of room N 14 an area of plaster survives in position to a maximum height of 22.0 cm. above the floor. It was painted in pale pink splashed with black and red to simulate marble, while at intervals the joint between one 'slab' and the next is shown as a vertical black band (1.0 cm.).

Marbling of this kind occurs in quantity and clearly represents the style in which much of the dado was painted throughout the room.

2. Marbling on a background of pinkish-red over-painted with mottled streaks of darker red. This type of painting appears with a vertical black band similar to no. 1, and a more complex band composed of a black band sandwiched between two white bands. Both are clearly meant to represent junctions, one framed with a moulding, between two sheets of similar marble. The jointing suggests that this type of marbling also served as a dado.
3. Marbling shown as fine splashes of red on a deep pink background. Vertical black lines occur.
4. Marbling shown as fine splashes of red-brown and pink on a deep red background.

It seems probable that all four types of marbling were used in the dado of the room. Above were a series of brightly-coloured panels in rich plain colour.

5. Plain white. A large area survives; some pieces bear a 0.6 cm. black band, others a similar band in red, both presumably used as simple frame lines.
6. Plain red. A considerable area of plain red survives. Various relationships are known. Red occurs adjacent to deep blue, yellow and green, in all cases the junction being over-painted with a white band (1.0 cm.). Thin white frame lines (0.6 cm.) are also found on an area of plain colour. Red is also found directly adjacent to white.

7. Orange-red. A small quantity is known; it occurs immediately adjacent to orange and yellow. Thin black frame lines (0.5 cm.) also survive.
8. Yellow. Areas of plain yellow with black frame lines (0.5 cm.) are known.
9. Green. Areas of plain green occur adjacent to black and red, the junctions being over-painted with white bands (1.0 cm.).

The quality of the paint and the range of tones represented by nos. 5-9 show a very close similarity to the Neronian painting in the proto-palace. It is likely, therefore, that the decoration in room N 14 is largely a survival of the original Flavian scheme. One other style of Flavian painting remains to be mentioned, represented by a few fragments of yellow painted on an undercoat of pink in a manner identical to the large mass of painted plaster found at the west end of the North Wing. Where the colour was used in the arrangement is uncertain, but there is no reason to suppose that the pieces were strays derived from other rooms.

It will be seen from the plan that not all of the walls of room N 14 belonged to the Flavian structure, for about half the south wall was probably inserted at a later date as a timber partition. There is, however, no evidence to suggest that it was ever plastered and painted.

Room N 14 (Southern part)

Originally room N 14 was a single L-shaped chamber, divided in the Third Period into two. It is therefore hardly surprising that the painting in both parts was identical, a fact which offers strong support for the view that the decoration remained unchanged from its original Flavian state.

Room N 15

The few fragments of plaster recovered from the room show that its design had incorporated areas of white, red and black. White occurred next to black. Orange-yellow also occurred adjacent to white, with a red band (0.6 cm.) between.

Room N 23

The painted plaster from room N 23 can be divided into two groups: plaster from the original room and plaster from the small plunge bath inserted into it in the Third Period.

1. The plaster from the original room is represented by three fragments, which together represent two sheets of marble separated by a white band (1.0 cm.). One sheet is painted in pale green with the major texture and grain picked out in tones of green and white. Finer veins are painted in red on a green background. The second sheet is basically purple speckled with ochre and white. Since the room was demolished at the beginning of the Third Period, the marble decoration must belong to its original Flavian decor.

2. The bath had been painted largely in plain white with a deep red dado or skirting of unknown height around the base. A painted cornice in graded reds could have served either to top the dado or as a cornice above eye-level, more likely the latter. The white walls were divided into panels by vertical bands of deep red (2.5-3.0 cm.). Each area or panel was lined with a thin orange-red band (0.6 cm.), a few centimetres from the deep red borders and concentric with them.

Recesses or window-embasures were painted white with the angles picked out in orange-red.

One small fragment showing white next to black also occurred, but it may be a stray.

Corridor N 24

Corridor N 24, probably an unroofed alley in the Second Period, was turned into a suite of baths at the beginning of the Third Period. Its decor was closely similar to that of the plunge bath in room N 23, with a red dado surmounted by white panels lined with orange-red. In addition to this, several other types of painting were represented in small amounts:

1. White adjacent to yellow. Areas of white also bear a thin yellow line (0.6 cm.).
2. White splashed with large blobs of red and yellow.
3. White adjacent to black.

It can therefore be assumed that the Third-Period bath suite was painted throughout in a similar style, but that it was enlivened with the limited use of black and yellow against its predominantly white background.

Courtyard 1

The west wall of the court was brilliantly painted with large areas of pink and areas of purple over-painted with bold but carefully executed foliage in blue and green (pl. xvii). One fragment shows pink and purple areas divided from each other by a curved band of bright blue.

The north wall was similarly painted, but in addition large areas of plain white were involved. White paint was taken down to a black skirting 9.0 cm. high. Elsewhere white and deep red were juxtaposed. A single fragment of a complex moulding in white, blue and brown was also found. How all these various elements were arranged is uncertain, nor can any date be given. One substantial area could, however, be reconstructed from fragments found in the north-west corner of the courtyard. It shows two areas of mock marbling next to each other, one of purple splashed with red, the other of mottled green over red, divided only by a white band (1.0 cm.). These would have formed the dado topped by a simple 'moulding' painted as a black line between two white lines (2.3 cm.). Above the moulding was a horizontal strip of plain red (7.0 cm.) and above this were two panels, one deep blue the other green, divided from each other by a vertical white line (1.0 cm.) and from the red band by a horizontal white line (1.0 cm.).

The splashed purple marbling appears again topped by its simple moulding, as above, but above this is shown an oblique moulding dividing an area of red from blue-green. Other fragmentary mouldings occur in grey and orange-red.

The whole arrangement bears a close resemblance in style, quality and choice of colour to the painting of the eastern veranda wall; both are stylistically close to Neronian and Flavian painting elsewhere on the site.

The plaster on the east wall survived in much greater quantity, some of it having fallen back into the robber trench while other areas had collapsed face downwards on to the tessellated floor (figs. 32-3 and pl. xv*a*). So much survives that the general arrangement

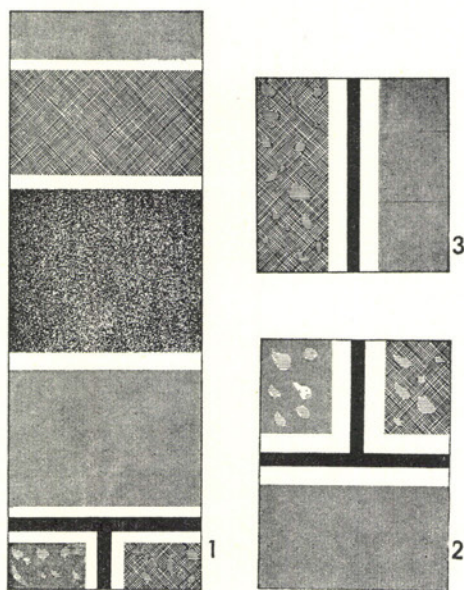


FIG. 32. Painted plaster from the west courtyard of the North Wing. Detailed insets for fig. 33; scale $\frac{1}{4}$ (p. 70)

can be reconstructed in detail. Immediately above the floor was a continuous plain red skirting, 6.0 cm. wide, above which came the dado of marble panels each enclosed within a frame composed of a black line bounded by two white lines meant to simulate a simple moulding. At least four different 'dado' marbles were represented: purple with fine red splashes, blotchy red, green mottled with blue, and yellow-brown over-painted with a mottled red. Above the moulding, running along the top, came a band (7.2 cm.) of plain red merging into yellow, representing a cornice. This was followed in turn by bands of deep blue (8.2 cm.), bright green (6.0 cm.) and red (unknown thickness), each divided from the other by thin bands of white (0.5 cm.). The general colour range and details of arrangement are not dissimilar to the painting in room N 12.

It was evident that the Third-Period tessellated floor of the corridor was laid after the wall had been painted. This does not, of course, prove the painting to be early, but the range of tones, particularly the yellow, green and dark blue, and certain details of application are closely similar to the painting of the Neronian proto-palace, and strongly suggest that the painting belongs to the initial decoration of the Flavian palace.

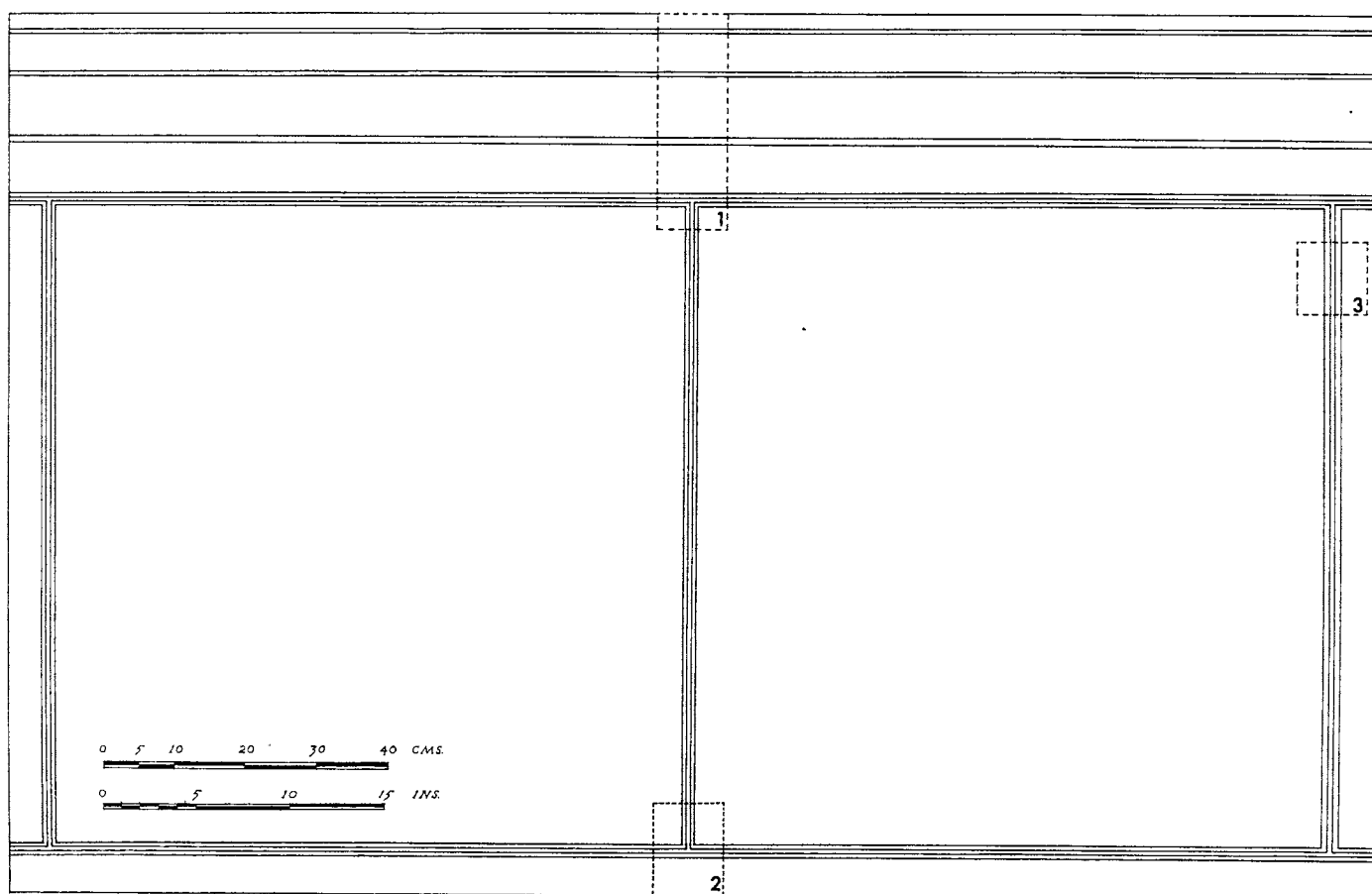


FIG. 33. Diagram of the painted plaster in the west courtyard of the North Wing:
for detailed insets see fig. 32

Courtyard 2

Little survives from courtyard 2, with the exception of a small piece of skilfully painted garden scene with a fluted urn in the foreground (pl. XIIIc). A few fragments of pink with bright blue bands were also found. Since the courtyard was completely demolished early in the Third Period, it is unlikely that the fragments belong to a late repainting. The skill and style, too, suggest that they were part of the Flavian decor. If this is so, it surely implies that the pink and bright-blue painting found in courtyard 1 is also early.

The veranda to the south of the North Wing (fig. 34)

For most of its length practically nothing survived of the painting which must once have adorned the south-facing wall of the North Wing. At the north-west corner, however, where a considerable accumulation of rubble remained, masses of fallen painted plaster were found which can be reconstructed to give an accurate idea of the original style.

The dado was painted plain white, enlivened with large splashes of red and yellow paint. Across the top was a thick band of plain dark red. The area above, also painted white, was divided into rectangular panels by vertical bands of deep red running from the horizontal band, capping the dado to a similar horizontal at cornice height.

The panels, thus delineated, were simply treated with a diamond-shaped frame, touching all four sides of the main frame, outlined first with a thin deep red line (0.5 cm.) immediately followed by a band of yellow (4.0 cm.) painted in two tones. Within, after a distance of 3.4 cm., were two yellow lines (1.0 and 0.6 cm.), 1.5 cm. apart, concentric with the diamond frame. A variant also occurred, though slightly less commonly, in which pale green was used instead of yellow.

Practically all the plaster falls into the main design outlined above, but a very few pieces of slightly different types occur: these include areas of plain yellow painted over a pink undercoat, areas of black, and areas of yellow splashed with deeper yellow, red and blue. They could well belong to specialized details, set within the main frieze, such as the framings for doors, etc.

No firm date can be given to the painting, but the quality of the work and care for the overall visual effect might suggest that it belongs to the Flavian phase of the palace.

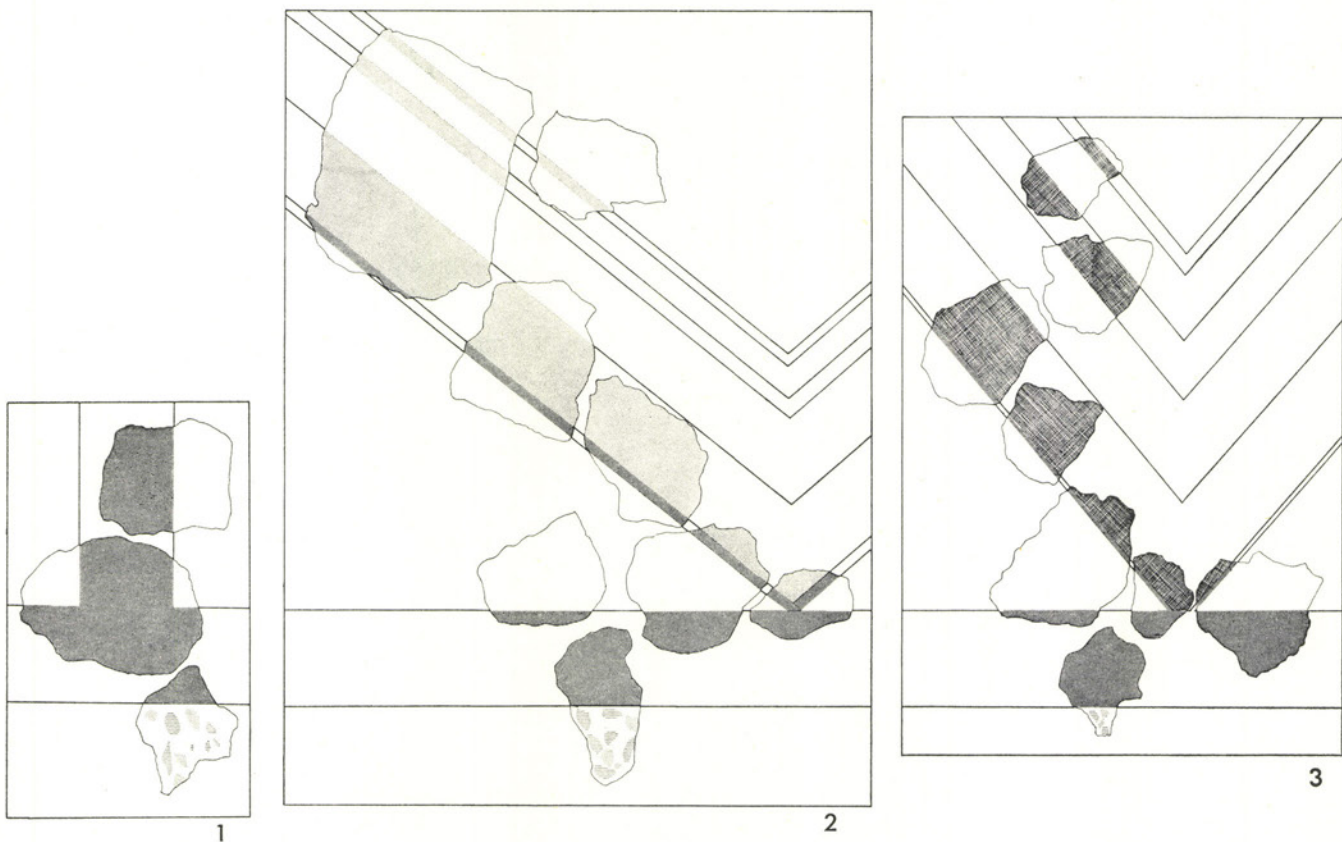


FIG. 34a. Painted plaster from the corridor in front of the North Wing; detailed insets for fig. 34b: scale $\frac{1}{4}$ (pp. 72-3)

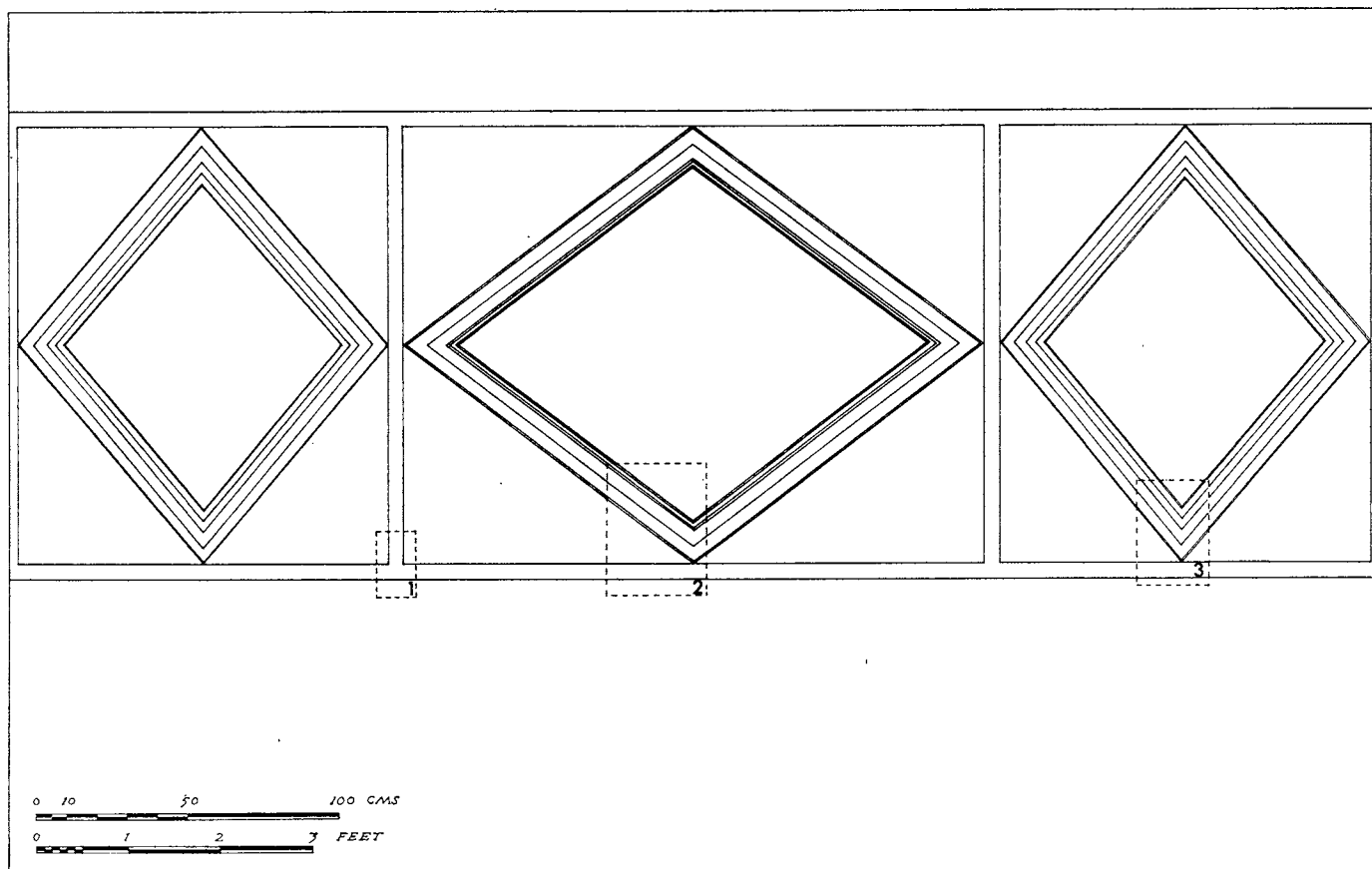


FIG. 34b. Diagrams of the painted plaster from the corridor in front of the North Wing:
for details see fig. 34a

Corridor immediately west of the North Wing

Very little painted plaster was recovered because constant ploughing had removed the rubble layers on the floors. A few areas of pinkish-red were found, one of which is the corner of a panel surrounded by white.

THE AISLED HALL

The excavation of the Aisled Hall has produced a quantity of painted plaster of some quality, nearly all of which came from the southern part of the original hall, that is the area south of the Third-Period division wall.

1. Plain red. A total of about 0.82 sq. m. of plain red was recovered. Some fragments show that the red was treated as panels defined by white panel lines (0.5 cm.). Red areas are found in immediate juxtaposition to white and adjacent to areas of dark blue and yellow, but divided from these by white bands (1.0 cm.). A single fragment shows a red and blue panel divided by a white band with a green panel or band running beneath both, again divided from them by a white band (fig. 29, no. 6).

2. Plain white. A total area of about 3.12 sq. m. of plain white was recovered. Two fragments show that white panels placed next to bright yellow, from which they were separated by a black band, were divided by grey bands painted diagonally to the outer frame lines. White also appears immediately adjacent to grey-black areas, one of which served as a skirting, 9.0 cm. wide. In other contexts white panels are framed with wide bands of deep plum with thin frame lines in the same colour (0.5 cm.) parallel to them. A few fragments show areas of white splashed with black, red and yellow in imitation of marble (fig. 29, nos. 3-4).
3. Areas of black and grey-black occur in small quantities, sometimes adjacent to white and sometimes with thin white lines (0.5 cm.) over-painted.
4. Yellow is found in small amounts, sometimes adjacent to white and occasionally over-painted with green and red leaves.
5. Streaky green occurs sporadically. Plain green is also found adjacent to deep blue and red.
6. Pink or light red areas occur splashed yellow, white and deep blue in imitation of marbling. One such area is juxtaposed to an area of plain red with a black band between.
7. Deep plain red has already been mentioned in connection with white. Deep plain red has also been found adjacent to an area of yellow toned to orange-red, divided from it by a pink stripe (1.0 cm.).

From the above summary it will be seen that the major part of the decorative scheme was executed in areas of plain bright colour identical to those used in the Neronian proto-palace. Red and white predominated, but areas of other colours were used more sparingly, including some simple marbled effects based on white and on pink. The similarity in style, colour range and quality of work to the Period 1 painting leaves little doubt that the fragments surviving from the Aisled Hall belong to the original Flavian layout.

THE THIRD-PERIOD BATH SUITE IN THE EAST WING

The cold plunge bath (Room J) (fig. 35)

Very large quantities of plaster survive, enabling the simple decorative scheme in the room to be reconstructed in some detail. The room was surrounded by a dado about a metre high, painted a deep red on a pink mortar backing. Above this the wall was painted white and was divided into panels by vertical bands of deep red which ran from the dado to a horizontal band of the same colour, representing a cornice. The white panels thus created were lined with a thin black frame line (0.5 cm.) which ran around the panel between 3.0 and 5.6 cm. from the outer red border. Window and door embrasures were painted white with the external angles picked out in deep red.

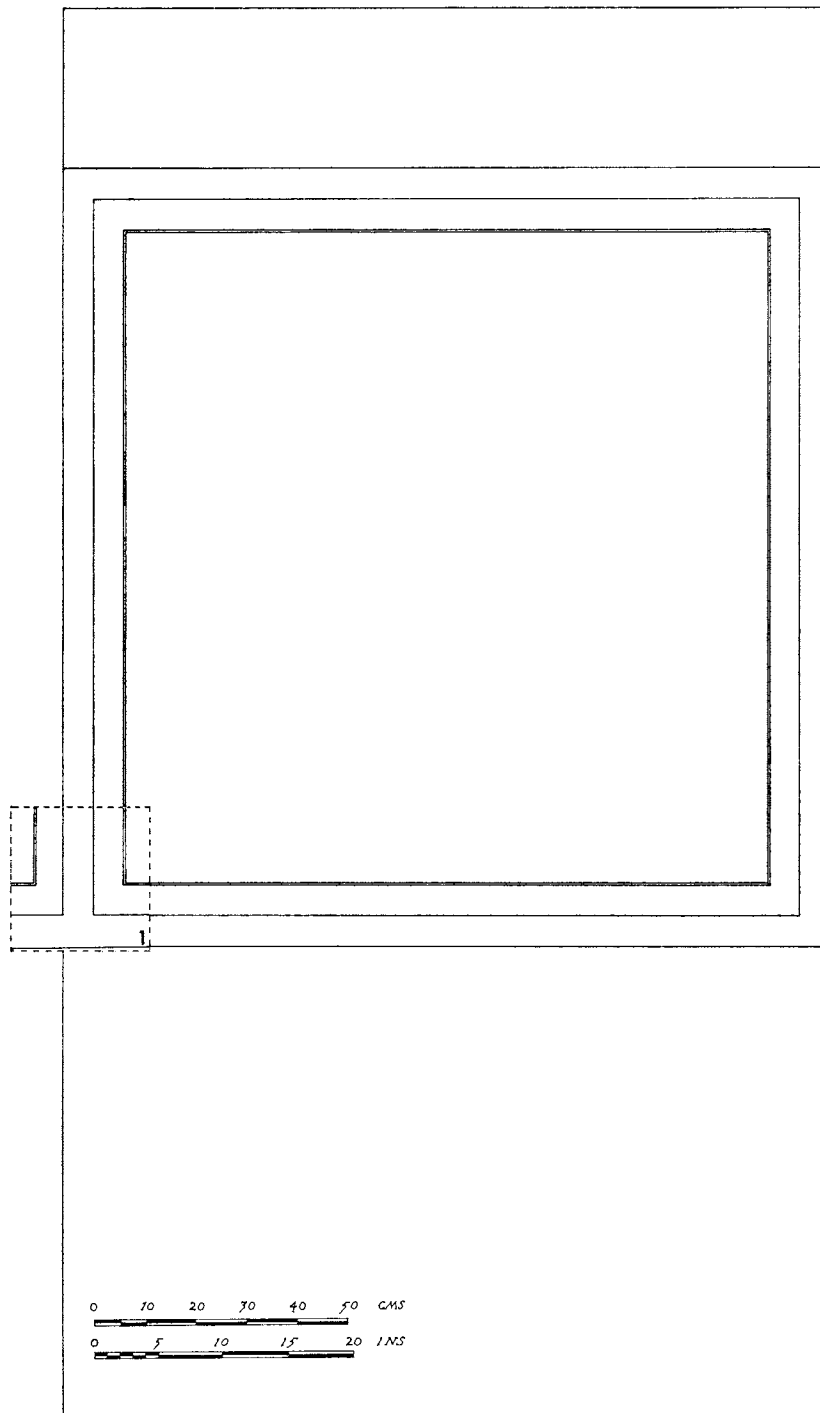


FIG. 35a. Diagram of the painted plaster in the cold bath of the East Wing baths (p. 75).
For inset see fig. 35b

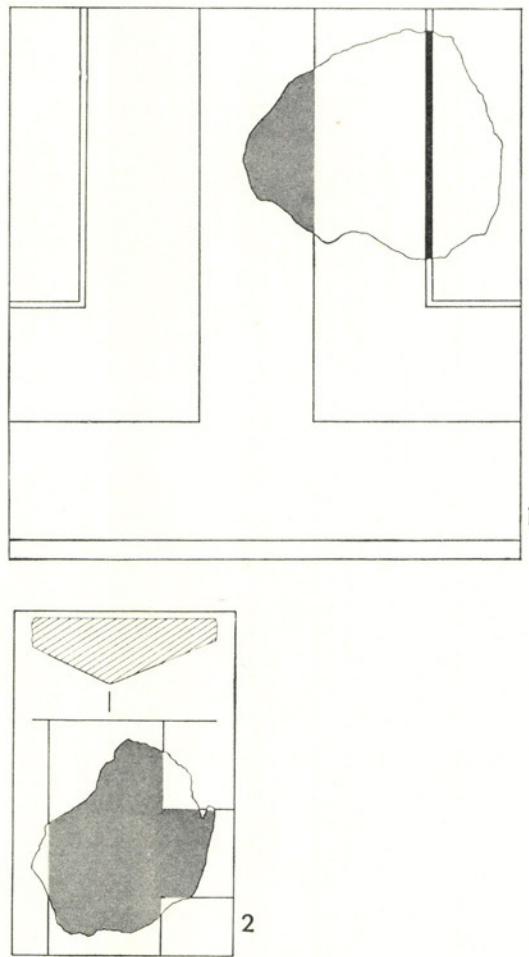


FIG. 35b. Details of plaster from the cold bath of the East Wing baths: scale $\frac{1}{4}$

The ante-room to the cold plunge (room H)

The robber trench between rooms H and I has produced only a small quantity of plaster.

1. Two areas of marbling, one of grey splashed red, black and yellow, the other of deep red splashed with black. The two are divided by a simple 'moulding' (1.5 cm.), painted as a black band between two white.
2. The area of grey splashed marble is also shown next to a band of deep red (2.8 cm.) between two black stripes (0.5 and 0.8 cm.) beyond which is an area, or band, of bright blue.
3. Areas of plain white also occur, sometimes over-painted with thin black frame lines and sometimes shown adjacent to areas of orange-red. One fragment shows signs of a free-hand painting in red and black, but it is too small to discover the subject matter.
4. Areas of plain red and pink are also represented.
5. A moulded piece of plaster from a right-angled window or door embrasure shows that the main wall next to it was white, while the angle was painted red, framed by a thin black band.

The tepidarium (room G)

The plaster from the *tepidarium*, though very fragmentary, shows that basically the room was decorated in the same style as the cold plunge bath, with a deep red dado surmounted by a white panel enclosed in red bands and framed with thin black lines. In addition, a small area of yellow was discovered over-painted with thin black and white lines, 0.5 cm. thick.

THE ROOMS OF THE EAST RANGE

That so little of the original painted plaster survives in the east range of the palace is due to the fact that this part of the building was gutted at an early stage during the Third Period, and practically nothing was left standing. The plaster seems to have been largely removed with the rubble at this time. A few fragments survive, however, and these may be summarized as follows:

Room E 2 and adjacent corridor. From the robber trench between the two came fragments of plain green, red and yellow, identical to the style of the proto-palace.

From the road close to rooms E 7-E 11. Large areas of plain red, some over-painted with white and yellow flowers. One fragment shows a red area adjacent to a green area with a white (1.0 cm.) band between. The plaster painted green is chamfered, perhaps to a window. Areas of white, some over-painted with red bands (0.8 cm.), also occur. The painting is similar to that of the Neronian proto-palace.

THE ENTRANCE HALL

The small square room in the north-east corner of the Hall produced a slab of plaster, lying on the floor, which showed the following sequence of parallel colours and stripes: an area of greyish-white (more than 16.0 cm.), a white band (0.3 cm.), an area of yellow over-painted with a mottled green (8.7 cm.), a white band (0.13 cm.), magenta red (6.6 cm.), a yellow band (0.3 cm.), and finally magenta red again (more than 19.0 cm.).

Although it is uncertain whether the banding was originally vertical or horizontal, the overall simplicity of the decor is evident.

THE BATHS OF THE PROTO-PALACE

The few fragments of painted plaster from the early baths at the south end of the East Wing cannot be dated with certainty, but there was so much reorganization at the time of the construction of the Flavian palace that it seems reasonable to suppose that most of the building was redecorated in this period.

From the corridor on the west side of the *palaestra* came pieces of plain red, red splashed with black and yellow, and bright turquoise blue on a pink mortar backing. Further south, rooms 11 and 16 produced areas of white over-painted with sprigs and lines of pale green, and stripes of red.

THE WEST WING

The West Wing has suffered from extensive ploughing, which has removed most of the rubble from above the floors. Moreover, since the footings have not generally been robbed, no fallen plaster has been able to escape from ploughing in robber trenches. For these reasons little survives to show how the rooms of the wing were decorated, with the exception of a reasonably large quantity of painted plaster from the western corridor, where the plough has not penetrated deeply, and from the area immediately to the east of the revetting wall.

The western corridor

It will be seen from the plan that much of the corridor remains unexcavated; even so, a reasonable quantity of plaster survives.

From within the apse at the north end of the corridor

1. Large areas of plain white occur: the only surviving relationship shows white immediately adjacent to deep red.
2. Yellow occurs in small quantities adjacent to black or deep plain red. In one case an area of yellow bears a red-brown line (1.0 cm.) in another single case deep red is divided from a yellow area by a white line (1.0 cm.).
3. Marbling of pink splashed black, yellow and deep red occurs. One fragment shows pink divided from deep red by a black band (1.2 cm.).
4. A single fragment shows an area of black divided from an area of green painted-over red by a white line.

In addition to the fallen pieces, the apse itself still retained *in situ* the basal plaster up to 12 cm. high, painted deep red. The fragments are not much to go on, but the general impression gained is of a pink marbled dado with red skirting, below panels predominantly of white and yellow and possibly also of deep red.

From opposite room W 6

1. Pink marbling with splashes of white, black and ochre.
2. Areas of plain white. One fragment shows white adjacent to deep plain red. Parallel to the junction (3.8 cm.) the white is over-painted with a thin black band (0.2 cm.). Another fragment of white was over-painted with a red band (0.8 cm.). A piece of plaster from the splay of a window survives, painted white but with the inner part of the splay painted in purple-red.

From opposite room W 10

1. Quantities of plain white.
2. Area of deep plain red.

From opposite rooms W 9-11

1. Large quantities of plain white, some adjacent to deep red, other pieces over-painted with a thin black line (0.3 cm.).
2. Pink splashed white, black and ochre.
3. A fragment from the base shows a skirting of a deep red (3.0 cm.) followed by a splashed pink area.

From opposite room W 14

1. Large areas of plain white were found, the surface of some of which had been pecked, presumably to form a keying for replastering, but there is no evidence that replastering actually did take place. White areas are shown adjacent to deep purple-red, and in one example the white is over-painted with a thin black line parallel to the junction, 5.5 cm. away (fig. 29, no. 9). Another fragment shows that the black lines turn a right angle and must therefore be frame lines. White is also shown adjacent to orange-red and adjacent to black, the junction being over-painted with a pink band (fig. 29, no. 8). One fragment of white has been over-painted with a band of blue-green (0.7 cm.).
2. Areas of pink splashed with ochre, white and black.

From the above summary it will be immediately apparent that the entire corridor was painted in a broadly similar style, with a pink marbled dado and narrow red skirting beneath, while the upper parts of the walls were painted in white panels with an inner frame of black, bordered by wide deep red bands. With the exception of yellow panels in the apse, other colours were very rarely used.

No evidence survives to suggest the date of the painting, but such a simple style could belong to any period.

Room W 3

1. Two areas of marbling divided by a 'moulding' (2.5 cm.) consisting of a black band framed by two white. One area is dirty grey-blue smeared with brush-strokes, the other is purple splashed red and white (fig. 29, no. 7).
2. An area of plain red survives, one fragment of which was over-painted with a wide black band, 3.0 cm. wide. One small piece of red-painted plaster shows evidence of replastering, the new surface being painted a marbled blue.
3. Deep red strip framed by two black bands beyond which, on one side, is a grey-blue marbled area smeared with brush strokes and, on the other, is a bright blue area (fig. 29, no. 7).

Room W 6

1. Plain red areas with some over-painting in white bands (1.0 cm.).
2. Area of pale blue adjacent to purple areas.
3. An area of marbled pink with a bold purple design over-painted.

Room W 2

1. Marbling, pink splashed with deep dull purple and black. Areas of this kind are shown immediately next to deep red and to purple.
2. Bright blue area over-painted with a wide pinkish-red band which in turn is crossed obliquely by a thin deeper red band.
3. Areas of plain red.

Room W 1

1. Marbled pink.
2. Purple splashed white and black.

Room W 14

The painted stucco decoration surviving in this room has been described above, pp. 50-1.

Rooms W 11 and W 12

The plaster wall-rendering of these rooms was of a pink mortar containing crushed tile fragments; its surface was finely and smoothly finished.

1. Areas of plain white. Two fragments show white areas adjacent to mouldings of carefully-graded colours, ochre and greenish-brown.
2. Areas of plain red. Red is shown next to white, sometimes with the junction over-painted in black.
3. Areas of plain blue-green. Blue-green is also shown next to white with the junction over-painted with a blue-black stripe (1.0 cm.).

In front of the Audience Chamber (pl. xvb)

The rubble layers in front of the revetting wall, where it projects forward into the garden, produced a quantity of remarkable wall painting on a pink mortar backing, 7.0 cm. thick. Along one edge the plaster had been chamfered off from behind in such a way as to suggest that it had been laid against a timber or masonry surface, but how such an arrangement would have fitted into the superstructure is obscure, nor is it certain where the plaster had originally been displayed. The pediment above the entrance is the most likely position.

1. Much of the painting belongs to a single design composed of an area of mottled blue-grey, 18.0 cm. wide and extending from the chamfered edge to the next band of paint, which consists of a parallel carefully executed moulding (8.5 cm.) painted in variegated browns and whites. At one end the moulding stops on another moulding similarly painted (11.0 cm.), which runs at right-angles to the blue-grey strip. The two mouldings therefore appear to frame an inner area painted a similar mottled blue with a somewhat irregular deep red fringe extending out from the horizontal moulding.

Another fragment shows moulded bands ending concisely against a blotchy blue area, while another shows one moulding set at an angle to another with blue behind. Another fragment shows a red band flanked on one side by narrow bands of black and white representing a moulding which bounds a panel painted in dark blue and purple-red areas joining on a curved front. Finally, a slab of pink mortar, 6.0 cm. thick, with one of its edges rounded, was found painted in blue-green.

It is very difficult to see what these various fragments are depicting, but it would seem to be an architectural design shown, perhaps, against a blue sky.

2. Area of deep red painted with flowers on ochres, greens and blues.
3. Area of deep red next to a mock marble in blackish-purple smeared with dull green. Between the two is a white band (1.0 cm.).
4. Moulding with a dark red central band flanked by graded whites. On one side is a bright red area.

THE GARDEN

The east side of the garden

On the south side of the central path, close to the front of the Entrance Hall, a small quantity of painted plaster was recovered, coming presumably from the wall of the veranda. The colours represented were red (in quantity), blue-green, white and yellow adjacent to pink splashed red, with a black band between.

The west side of the garden (pl. XIIIb)

The revetting wall along the west side of the garden had been plastered and painted at the time when the Flavian palace was built, and little of the original painting survived in position. In the north-west corner a large slab of plaster, about 5 ft. by 2 ft. (1.5 × 0.6 m.) had peeled away from the wall and lay face downwards on the rubble. Although it had suffered severely from the percolation of surface-water, careful lifting and cleaning brought to light much of the original design.

Basically the wall had been painted in a uniform bluish-green, over which bold designs, usually of floral arrangements, had been painted. A common motif was of simple fronds in dark green highlighted with lighter green along one side. Some fragments (pl. XIIIb) show more elaborate foliage in a range of greens and browns representing multi-pinnate leaves and stems with tendrils growing up them. One piece bears the suggestion of a trellis fence painted with thin white lines against a toned green background, but insufficient survives to be sure of the general arrangement of the scene. It is evident that the wall was painted, or more correctly camouflaged, to appear as an extension of the garden when viewed through the bushes which grew in front of it.

Loose Finds

INTRODUCTION

IN the pages to follow, the small objects found during the excavation are listed and described, with the assistance of several specialists. Except where the individual object deserves special treatment, no attempt has been made to quote all the parallels which can be found in the British and Continental literature; such a task would be time-wasting and unnecessary. In each case the stratigraphical position of the finds is given in relation to the structural phases in the site's development, but only when the object is considered to be part of a structure is its horizontal position given. Anyone wishing to locate precisely the find-spot of a published object should consult a correlation table housed in the Museum.

It is interesting to observe how the quality of the objects tends to reflect the social development of the site. Mr Hull makes the point that the great decrease in the number of brooches after the beginning of the Flavian period may indicate a change of dress, the toga becoming more widely used, while Mr Henig's report on the gems brings out in detail the cultural and social implications of so fine a collection, suggesting the presence of people of high rank during the latter part of the first century. The exotic ceramic objects tend further to emphasize the quality of the site at this time. Thus the finds of this period reflect a development about which we already know from an assessment of the contemporary buildings.

The earlier and later periods are perhaps less clearly to be understood through their finds. It would have been possible to postulate a military occupation on the basis of the bronze and iron equipment of military type and the existence of large numbers of counters or gaming pieces commonly found in military establishments, but without the discovery of the store buildings little weight could have been attached to such a view. The two classes of evidence, however, support each other.

The second- and third-century occupation as seen through the material finds does not seem to have been in any way exceptional — a moderately affluent community living in tolerable comfort and able to afford small luxury objects from the local market. If conclusions of this kind are really justifiable on the evidence of these few small finds that survive, then again the finds can be said to reflect structural history quite closely.

THE GEMSTONES AND OTHER JEWELLERY

By M. HENIG, M.A.¹

1. Amethystine quartz, 13 mm. × 9.5 mm., 4.5 mm. thick (pl. xviii, no. 1).
Oval convex intaglio in extremely fine condition apart from a few scratches; highly polished on all surfaces and within worked area.

From Entrance Hall, found in a destruction layer dating to late third century.

Mercury leaning against pillar on r. and facing l.; he is nude apart from his petasos, a broad-rimmed herald's hat with wings, that covers the crown of his head. Below it, a fringe of hair is visible extending

¹ I would like to thank Professor Frere for reading through my typescript and making a number of useful comments.

down the nape of his neck. The god carries a money-bag of the usual bifid form l. (in his r. hand) and his caduceus r.; he is accompanied by two of his particular animal associations — a cock (l.) and a ram (r.) both facing outwards. The haunches and back legs of the ram are obscured by the column.

Although the torso is shown almost frontally, the body is twisted at the hips and the legs, set in a pose derived from the so-called Doryphoros or Canon of the fifth-century sculptor, Polykleitos¹, are engraved in profile. This anatomical inconsistency (which also appears on an Etruscan scarab) seems to have been employed by the artist as a means of balancing his composition. It is certainly deliberate for the flexed r. arm with the purse held directly above the l. foot provides an excellent focus of attention to counter that of the column and the upward thrust of the caduceus which the god is resting against his l. shoulder. In this way the tendency for the viewer's eye to concentrate too much on the r. side of the gem is corrected. Another interesting detail is that the band around the 'waist' of the money bag is at exactly the same height as the capital of the column. The attempt to achieve harmony even extends to the attributes — the cock standing left, and the ram on the right walking out from behind the column — which carry the engraving of the field to the very edges of the upper face of the stone.

The modelling is remarkably assured and takes advantage of the convexity of the intaglio to give the impression of a youthful, muscular deity full of vitality; a god in whom it is even possible for us to believe; swift of foot and a powerful protector against malignant powers. It is true that certain crudities are observable in the facial features, simply composed of three parallel lines (for the base of the nose, the mouth and chin), the cylindrical neck, and the schematic representation of the right foot,² but, despite these, here is a work of extraordinary quality which is far outside the general run of Roman provincial gemstones. The distinction between dark and light areas of the body is acutely observed and the delineation of the legs and of the left foot leave little to be desired: few finer intaglios can ever have been found in Britain.

At present it is neither possible to point to any other works by the artist responsible for the Fishbourne Mercury (although he clearly possessed true ability in the glyptic art) nor to provenance his studio. There is naturally no need for him to have worked in Britain, despite the fact — which must always be borne in mind — that there were craftsmen in the area with the necessary skills as late as the reign of Verica and probably even later.³ A cautious guess might perhaps locate both artist and workshop in Gaul; the south of the country (i.e. Narbonensis) would suit the sophisticated workmanship and if we accept Pliny's statement (*N.H.*, xxxvii, xl) that amethysts came from the East — India, Arabia Petra, Armenia, Egypt, Galatia, Thasos and Cyprus — this area has ready access to the Mediterranean.⁴

¹ The right leg is tensed to carry most of the figure's weight while the left is flexed behind it r. and only the tips of the toes touch the ground. On the Doryphoros cf. Richter, 1950, 246 ff., and especially fig. 649, a fourth-century stele from Argos, and Furtwängler, 1895, 233 ff. (note particularly 233 — 'It need not surprise us to find the Doryphoros so often adapted to representations of Hermes in Roman times, for copies of this statue were placed in the various palaestrae and gymnasia, which were all consecrated to Hermes').

² These were also observed in the work of the Bath studio (M. Henig in Cunliffe, 1969, 72) and are possibly the result of a residual element of Celtic stylization. In other respects (e.g. the understanding of the muscles of the body) the Fishbourne intaglio exhibits greater sophistication than any of the Bath gems depicting human figures.

³ Mack, 1964, 38 ff. Tincommius may have used Roman moneyers at first but, later, native artists are in evidence. For Verica *ibid.*, 51-4; C. H. V. Sutherland, 1935, *passim* and especially 6 (Silchester) and 29 (Chichester). Also cf. pp. 97-8, below on imitations from Fishbourne. Heliodorus,

Aethiopica, v, xii.3, mentions British amethysts but they are said to be of indifferent quality. Many commentators believe that Heliodorus was mistaken in thinking that amethysts from Britain were worked in Roman times.

⁴ Chiesa, 1966, 69 ff., examines the favourable position of Aquileia with regard to a supply of raw materials from the East; to some extent, of course, the same conditions would appertain to great ports like Massilia further west. Current petrological examination of garnets employed in early Anglo-Saxon jewellery (in the Dept. of Antiquities, Ashmolean Museum, Oxford) may help to confirm Pliny's reliability. However, even if the results show that at least a proportion of the gemstones used came from the East, it will be necessary to bear in mind that the results reflect more on the trade patterns of late antiquity and the beginning of the Byzantine State than on those of the high Roman Empire and to treat them with extreme caution as far as our period is concerned. It is to be hoped that the prolific material from the provinces will also be given the scientific attention it deserves in the near future (Information: David Brown of the Ashmolean Museum).

It is unfortunate that no recent work has been accomplished on the subject of gem-cutting and the location of studios in France.

Ancient representations of Hermes–Mercury exhibit a very great diversity of types although not all are pertinent to the discussion of the Fishbourne intaglio. The number of possible sources may be reduced to five that appear to have some relevance to the gemstone.

Type A: As was stated above, the closest parallel and one of the earliest seems to be an Etruscan cornelian scarab of the fourth century B.C. (Richter, 1968, no. 746). However, Mercury here faces to r. and the body and leg positions are also reversed. The placing of the arms does not correspond to the Fishbourne amethyst, but it is of some interest with regard to attributes that the front part of a ram appears l. Type A would appear to have been known to the artist although whether in the form of an antique such as this scarab or, more probably, of a contemporary intaglio cannot now be determined.

Type B: Mercury standing l. and leaning his l. elbow against a column behind him on r. A gold ring of the fifth century B.C. (Beazley, 1920, no. 48 = Richter, 1968, no. 220) and a sard scarab in Lecce Museum (Beazley, 1920, pl. A, no. 22). The type appears in later times (Furtwängler, 1896, nos. 3517–18) and there are notable variants without the column (Napolitano, 1950, 35, fig. 23 and Richter, 1956, no. 286). The latter is a topaz ringstone which Richter describes as not unlike the statue of Hermes from Andros in the National Museum at Athens. The stance is the familiar one, derived from Polykleitos which will be encountered again in type D, where it is viewed from the other side.¹

In Hellenistic and Roman times, this type seems to be more commonly employed for representations of Apollo (Furtwängler, 1896, no. 2657; Fossing, 1929, no. 555; Richter, 1956, no. 278; Boardman, 1968, 21, no. 14).

Type C: Mercury standing to front with caduceus r. and money-bag l. Sometimes he is accompanied by animal attributes and occasionally there is a column beside him r. (e.g. Furtwängler, 1896, no. 2710; Walters, 1926, no. 1382).

This is by far the commonest representation of the standing god² and is the most likely source for the upper part of the body and for the positioning of the money-bag and caduceus. Parallels in Britain include Bath (in cornelian, Henig in Cunliffe, 1969, 80, and pl. xii, no. 3); Verulamium (in pale cornelian in the Verulamium Museum, unpublished); Ruxox, Bedfordshire (in cornelian, private collection, unpublished);³ Sussex (in nicolo, Walters, 1926, no. 1384); Godmanchester (in nicolo paste, *Proc. Camb. Ant. Soc.*, L., 1957, 86, no. 3) and reversed, Richborough (in cornelian, Bushe-Fox, 1926, pl. xiv, 24).⁴

Although amethysts are frequently used, they account for no more than ten per cent of the material and are, indeed, no more common than others of the lesser used stones such as plasma. Cornelian is very much the most popular gem employed for type C representations.

¹ John Boardman has recently published a chalcedony scaraboid of Graeco-Persian type from Sardis (in 'Three Greek Gem Masters', *Burlington Magazine*, cxi (1969), 595–6, and fig. 34) which depicts a Type B Hermes. He suggests that it may derive from the Hermes Logios by Polykleitos (cf. Pliny, *N.H.*, xxxiv, 56).

² As it is in other media, e.g. bronze statuettes. Menzel, 1966, nos. 29–32, 39–43, and Toynbee, 1962, 134, no. 21 and pl. 33.

³ I am grateful to P. Smith of Luton Museum for this information.

⁴ Note also W. Fol, 1875, pl. xxiv, nos. 8, 10, 11 (no. 8 is an amethyst); Furtwängler, 1896, nos. 2696–710, 7176–86; De Ridder, 1911, no. 3020; Walters, 1926, nos. 1383–91, 1394 and especially 1395 (an amethyst from Trebizond which shows the god accompanied by a ram and a cock)

and 2780–1 (pastes imitating amethyst); Fossing, 1929, nos. 566–71, 1676–9; Steiner, 1911, 122, nos. 45 and 46 (pl. xiii) — both amethysts; Chiesa, 1966, nos. 165–92 (189 is an amethyst and 191 an amethyst paste); Napolitano, 1950, 35, fig. 24; Sale Catalogue of the Story-Maskelyne Collection of Ancient Gems, Sotheby 4 and 5 July 1921, no. 88; the sealings from the public record office of Cyrene (G. Maddoli in *Annuario Scuola Archeologica di Atene*, xlii (1965), 70–3, nos. 68–106) must date to Trajan's reign — when the building was destroyed — at latest.

Unpublished — an amethyst from Vechten (no. 44; in the Collection of the Provinciaal Utrechtsch Genootschap deposited in the Institute of Archaeology, Utrecht) and an amethyst paste in the Ashmolean (Acc. no. 1941, 474).

As far as the upper part of the body itself is concerned, the differences between this and type E are few, although they are decisive, and the Fishbourne intaglio is in one or two ways closer to the latter. The stone of which most of the gems of type C are made is also an objection (though a much less serious one) to its being the only major source for the upper parts of the Fishbourne Mercury, as material is closely linked to subject matter and it must be considered probable that this active presentation of Mercury had a different meaning to the ancients from that of the reclining gods shown in types D and E. However, from type C the artist surely derived the idea of a partially standing figure holding money-bag and caduceus (rather than, for example, a ram's head or a caduceus held downwards).

Type D: Mercury standing in profile r. and leaning towards a column on which he rests his l. forearm. He generally holds a ram's head. His feet are in the position derived from Polykleitos' Canon (as are those of type B). The lower part of the body and its relationship to the column must stem from type D.¹

Over sixty per cent (i.e. nine out of fourteen gems bearing this type mentioned in standard works) are of amethyst or of paste imitating amethyst, and this prevalence is interesting and possibly significant. The ram's head certainly suggests Mercury-Hermes as a pastoral god — and it is possible that he is, in some way, being equated with the wine god Bacchus, for whom the amethyst was an apt stone.² Certainly the adherents of that deity had a very close relationship with wild and tame animals whose flesh was often torn in mystic ecstasy. However, this cannot be the only explanation of the choice of materials and another, perhaps more acceptable, will be found below.

The Polykleitan stance is very widespread on intaglios depicting youthful figures and a number of examples may be cited from the province of Britain, including a fine red jasper of Theseus (Guildhall Museum, London, Acc. no. 21568, unpublished) and the inferior nicolo version of the same subject from Corbridge (*Arch. Ael.*,⁴ xxxix, 1961, 29, no. 74 and pl. 5, 5). Another hero, almost certainly Achilles with the armour of Thetis, is presented on red jaspers from Caerleon (Lee, 1862, pl. xxxv, 13-14) and Corbridge (*Arch. Ael.*,⁴ xxxix, 1961, 29, no. 69 and pl. 5, 3) and on a sard from Chalgrave, Bedfordshire (Luton Museum, Acc. no. 95/49; unpublished). Ganymede is depicted in Polykleitan stance on two virtually identical gems from Godmanchester (*Proc. Camb. Ant. Soc.*, L, 1957, 85-8) and Enfield (on deposit in the British Museum) and there are several portrayals of Bonus Eventus from, e.g. Corbridge (op. cit. 33, no. 23 and pl. 9, 8); Colchester (Walters, 1926, no. 1674), and Silchester (Duke of Wellington Collection in Reading Museum, Acc. no. 03005).

Type E: Mercury seated on rock in easy pose, half turned towards left; left arm rests on rock paralleling the action of the arm of the Fishbourne Mercury, which rests on the column. R. arm originally held a staff but in Roman gems it often clutches a money-bag — perhaps an adaptation from type C. This type is in the style of Lysippos.³

In Britain, apart from a number of poor pastes imitating nicolo, a fine glass intaglio from Reculver should be noted (Smith, 1850, 213 and pl. vii, no. 16).

¹ Note also Chabouillet, 1858, no. 1605; Furtwängler, 1896, nos. 2713-15, 2717; Fossing, 1929, nos. 563-4, and Richter, 1956, no. 290—all amethyst; Fossing, 1929, no. 565 (cornelian); Walters, 1926, no. 1393 (nicolo), Svoronos (1913), no. 149 (material unrecorded), Zazoff, 1965, no. 41 (nicolo), no column, and Maddoli, op. cit., 71, nos. 112-14 (sealings).

² *Palatine Anthology*, ix, 748 (Plato the Younger), describes a Dionysus depicted on an amethyst (cf. p. 88, footnote 1, infra for the Association of Hermes-Mercury with wine).

³ For the type in sculpture, cf. M. Bieber, 1955, 41 and 42 and also J. M. C. Toynbee, 1962, 132-3 and pls. 31 and 236. Parallels on gems include Chabouillet, 1858, no. 1612; Furtwängler, 1896, nos. 2718, 2720, 2724, 2727; Walters, 1926, no. 1398; Fossing, 1929, nos. 560, 1673; Steiner, 1911, 122, no. 47 (pl. xiii); Siviero, 1954, no. 364 (pl. 222c; 223a); Chiesa, 1966, nos. 194, 196-8, 202; Brandt, 1968, no. 481; Napolitano, 1950, 35, fig. 22 — all amethyst. In other materials, note for example Richter, 1956, no. 288; Chiesa, 1966, nos. 195, 199, 200, 201, 203, 204; Brandt, 1968, no. 480; Maddoli, op. cit., 71, nos. 107-8.

After examining a number of specimens of type E, it is clear that the relaxed posture of the Fishbourne Mercury and the position of the l. arm are derived from this Lysippan figure. Amethyst or amethyst paste account for forty per cent of the material — the six amethysts (including one in the museum at Udine) out of a total of eleven from Aquileia are especially significant, for here is a site collection large enough to furnish statistical data.

It is, then, probable from a close study of these types that C, D and to some degree E, were the really important influences on the creation of the Fishbourne amethyst although the very sophisticated early intaglios or their successors (types A and B) were probably known by the gem worker and helped to synthesize his ideas.

Nothing has yet been said of the cock and the ram which frequently accompany the god.¹ The latter symbolizes the god's patronage of flocks and herds; possibly the cock is intended to recall Mercury's wakefulness and, in so far as it is a bird with strong chthonic associations, his role of Guide to the Souls of the Dead (Hermes Psychopompos) — although as Professor J. M. C. Toynbee has pointed out to me, there is no especial emphasis on this activity here.²

King (King, 1872, 265–6) observed that 'the amethyst, specially recommended by the Magi for talismans (Pliny, *N.H.*, xxxvii, xl), seems to have been considered highly acceptable to this god (i.e. Mercury) judging from the frequency with which that particular stone is the vehicle of his figure'. Although cornelian is used very much more extensively than amethyst for type C, King's unsubstantiated statement holds good as we have seen for types D and E. The reason remains unclear but (leaving aside the somewhat tendentious Dionysiac explanation) a substantial clue is provided by Sextus Pompeius Festus' *De Verborum Significatui qui Supersunt* in the epitome of Paulus (Leipzig, 1913, Teubner ed. Wallace Lindsay, Lib. xvii, 382) '*Sobrium Vicum* dictum putant . . . et Aelius quod in eo nullus tabernae locus neque cauponae fuerit: *Alii quod in eo Mercurio lacte, non vino, solitum sit supplicare*'. Mercury in the Roman world was both the patron of prosperous traders and of the vagrants and petty thieves who were anything but sober; also the god was connected with sharp wits and might be expected to use his powers against the more debilitating effects of alcohol; thus it is reasonable to infer that a stone which is prophylactic against drunkenness should come to be associated with Mercury, as well as with Methe (also cf. p. 88, note 1, *infra*).

The high quality of the material³ and the fine workmanship of the engraving suggest that the gem must have belonged to someone of at least local consequence: according to Pliny (*N.H.*, xxxvii, xl) 'The Magi . . . assert that *amethysts will assist people who are about to approach a king as suppliants* and that they keep off hail and locusts' — a remarkable piece of information in view of the fact that the intaglio was found in the entrance vestibule of what few doubt was a royal palace.

During the day as master of flocks and herds and as master of wild animals — and hence of hunting — Mercury could offer protection to the landowner and supervise his recreation; at night he protected

¹ Note for example, De Ridder, 1911, no. 3030; Furtwängler, 1896, nos. 2702–10, 2724–32, 2734; Walters, 1926, nos. 1393–5, 1401–2; Richter, 1956, nos. 287, 289; Chiesa, 1966, nos. 188–92, 197, 201, 203–4.

² For the cock, Pliny, *N.H.*, x, xxiv (Wakefulness).

On associations with death cf. Roscher's *Lexikon*, s.v. Mercurius, col. 2806 citing Lucian, *Somnium Seu Gallus*, 28 f.; Petronius, *Satyricon*, 74; and a gravestone from Tunis (*C.I.L.*, viii, no. 213, 13 ff.). The Ram could also have underworld connotations.

Cf. Daremberg et. Saglio, 1904, s.v. Mercurius, 1819.

³ Pliny grades amethyst into five classes (*N.H.*, xxxvii, xl) according to colour. The least valuable specimens were merely pieces of rock crystal shot with purple, but the

superior varieties had an even intensity of tone. Although Pliny's definitions are not always clear, the Fishbourne gem is certainly composed of one or other of the better kinds of stone.

Very few amethysts have been found on British sites. There are examples from Bath (Henig in Cunliffe, 1969, 83 and pl. xii, no. 18 representing a biga; Wroxeter (D. Atkinson, 1942, 234, no. 5), goatherds; Rodborough; Gloucestershire (Stroud Museum. Unpublished), a satyr, and Richborough (British Museum, cited by Henig in Cunliffe, 1969, 84), a lion. All four are of first- or early second-century date. Cf. above for possible British amethysts.

him in his cups and stopped him from losing his wits.¹ Possibly, too, through the 'interpretatio romana' we may envisage a local — here a Celtic — deity² being invoked although it cannot be emphasized too strongly that nothing in the iconography of the gem involves Mercury in his non-classical guise.

Date: Unfortunately the gemstone is not closely dated by stratigraphy; but some of the prototypes are extremely early and both the convex surface of the intaglio and the high quality of the amethyst suggest a first-century date. Furthermore, the type E amethysts cited from Vetera and Pompeii are presumably of this period although we have, of course, no certainty that the Fishbourne Mercury is not later. However, a gem of this importance is inherently more likely to belong to the Second Period of the Fishbourne sequence than to any other time.

2. Gold signet ring set with an oval convex intaglio of dark green plasma (pl. xviii, no. 2).
Found below Aisled Hall: Period 1.

Dimensions of ring: internal diameter *c.* 15 mm.; external diameter *c.* 17 mm.; width of bezel *c.* 5 mm. Its slight proportions suggest that it belonged to a woman or a child.

The context in which it was found immediately dates it to a pre-palace phase (i.e. before A.D. 75) and indeed it agrees in form with a number of gold rings — some also of diminutive size — found in the 'House of Menander' at Pompeii.³ Small first-century gold signet rings from the Rhineland are figured by Henkel, from Mainz (Henkel, 1913, 24, no. 154) and from Cologne (Henkel, 1913, no. 155, pl. viii).

Gold signet rings of first-century type are not commonly found in Britain although examples from Colchester (Marshall, 1907, no. 453), Backworth (Marshall, 1907, no. 451), Housesteads (*Arch. Ael.*,⁴ xlvii (1969), 39-42) and Richborough (Henig in Cunliffe, 1969, 84) should all be noted as dating from this time or not much later. The wearing of such a ring was still a privilege coveted by the few who were of free birth and possessed at least 400,000 sesterces⁴ (i.e. were eligible to belong to the equestrian order. Men of senatorial rank were similarly honoured).⁵ Three examples of early rings with incised bezels are said to come from London (Wheeler, 1930, 98; fig. 30, 2-4). There is also a gold ring of similar type from Wroxeter (in Rowley House Museum, Shrewsbury). Most signet rings which have survived from this period are of iron, perhaps reflecting the lower rank of their wearers, for example those from London (*Small finds from Walbrook*, 1954-5, 6, pl. 2, no. 10; Wheeler, 1930, 100, fig. 30, 16), Hod Hill, Dorset (Brailsford, 1965, 20, and pl. xvii, M 6), Caistor St Edmund (*Norf. Arch.*, xxiv, part 3, 1968, 263 ff., pl. 1), Silchester (Duke of Wellington Collection in Reading Museum, Acc. no. 03022) and Great Casterton (Todd, 1968, 53, no. 18, pl. iv, notes that 'the iron ring presumably belonged to someone lower in rank than an eques Romanus').

It is probable that wives⁶ could wear signet rings that reflected their husband's status and that children were likewise permitted to display their father's rank, if not by right, at least by custom. Thus

¹ *Palatine Anthology*, vi, 334; xvi, 190 (Leonidas of Tarentum); cf. Roscher's *Lexikon*, s.v. Hermes, col. 2427, and *Hesperia*, xvi (1947), 89 ff. (J. Chittenden, 'The Master of Animals'); Onians, 1951, 122, on the god as 'the generative power in the world at large . . . the universal giver of increase, wealth' and 218 (wine as 'the liquid of the seed of the vine', assimilated to the seed of man).

The medieval lapidaries say that the figure of Mercury on a gemstone imparted wisdom (*Archaeologia*, xxx (1844), 449 and 455).

² Chiesa, 1966, 137, suggests that the large number of representations of Mercury on Aquileia gems might reflect the preference of a local clientele in an area where his cult was widespread.

³ A. Maiuri, *La Casa del Menandro e il suo Tesoro di Argenteria* (Rome, 1932), 382 and pl. lxxv; Siviero, 1954.

⁴ There were occasional abuses (cf. Pliny, *N.H.*, xxxiii, viii, where we are told that during Claudius' censorship a knight named Flavius Proclus was able to reveal no less than 400 freedmen, who had illicitly assumed the gold ring, to the Emperor).

⁵ On this subject, cf. M. Deloche, 1896, 11 (senators) and 26-8 (*ordo equester*).

⁶ Deloche, 53-4 and 102-6; Chiesa (1966), 38, cites Paulus, *Digest*, xxxiv, 2, 32 (ed. Mommsen, Berlin, 1870, vol. 2, 154-5) on '*Mundus Muliebris*'; clearly the Empire saw a great spread in the use of signet rings not only down through the social order but also across to dependent members of families.

the Fishbourne ring presupposes a family of some wealth and importance — such people may well have lived in the Neronian proto-palace. Although the intrinsic value of this child's ring was always slight, it is more significant than the majority of trinkets recovered from sites occupied during the first thirty years of the Conquest.

The intaglio. Is in dark green plasma, 6 mm. × 75 mm. Oval and slightly convex. Surface somewhat worn. It shows a small passerine standing r. on branch. Its tail feathers are raised in the manner of a wren, and the pinions project beyond it to the left. A morsel of food hangs from the bird's beak. The cutting is rather careless but the scale is minute.

Birds frequently occur as subjects on intaglios.¹ Examples from Britain include a cornelian in a silver ring, showing a long-tailed bird holding food in its beak which was found in the Thames at Windsor (British Museum, 1929, 4-12.5); a nicolo from Richborough representing another feeding passerine (Bushe-Fox, 1949, pl. xxxv, no. 89); a paste in a bronze ring from the Walbrook, London, depicting an Indian parrot (Guildhall Museum, Acc. no. 3452; Price, 1873, pl. VIII, 12) and a cornelian in a silver ring from Colchester (Walters, 1926, no. 2842) also showing a parrot. Pet birds occur on as yet unpublished gems from Chester and Colchester.²

There is good literary evidence³ that songbirds were very popular as pets at least in the late republican and early imperial periods, especially with women and children. Lesbia's 'Passer' is the most famous but we also hear of nightingales, blackbirds, goldfinches and thrushes. Magpies, starlings and parrots were also kept for their power of mimicry. It was fashionable to possess an aviary, as is apparent from both literature and wallpainting, although here birds were as often as not fattened for food, and they thus do not quite come into the category of household pets. The diminutive size of a number of rings with bird intaglios and the number of small surviving stones (without settings) that bear this subject⁴ agree with much of the literary evidence.

3. Moulded intaglio of green glass with raised flange. Semi-opaque (pl. XVIII, no. 3).

External dimensions, 18 mm. × 14.5 mm. (within flange 9 mm. × 12 mm.), c. 2.5 mm. thick.

From a Period 1 B occupation level below the East Wing.

Oval, flat intaglio; surface is a little scratched and worn.

The subject is a crow or a raven shown walking to the right; like most glass gems the impression lacks the crisp definition of a genuine cut intaglio. The type is well paralleled by a find from Augst, depicting a parrot (Steiger, 1966, 32, and pl. 8, 6) dated to the late first century B.C. or early first century A.D. Here size and material are more or less identical to the Fishbourne example and the bird fills the field in the same way. The only other flanged intaglio known to me from Britain is a large imitation sardonyx from a cache of charms discovered at Cairnhill Monquhitter, Aberdeenshire (*Proc. Soc. Ant. Scot.*, xxxvi (1901-2), 675-82 and *Antiquity*, xli (1967), 144 and pl. xviii, 9). Unfortunately even if this

¹ De Ridder, 1911, nos. 3333-7; Furtwängler, 1896, nos. 7913-20; Walters, 1926, nos. 2478-82, 2488-90, 2492-5; Imhoof-Blumer, 1889, pl. XXI, nos. 1-3, 16-17; Richter, 1956, nos. 523; Chiesa, 1966, nos. 1248 ff. — especially 1258, 1297-1308.

² Apart from gemstones, there are also gold rings with birds engraved on the bezel from London (Wheeler, 1930, 98 and fig. 30, 3) and Pompeii (Siviero, 1954, 100, no. 425 and pl. 230a); also cf. Richter, 1956, nos. 524-5.

³ Cf. Jennison, 1937, 100 ff. By women, e.g. Catullus, *Carmina*, 2 and 3; Martial, vii, 87, 8, and Pliny, *N.H.*, x, lix; by boys, e.g. Pliny, *Ep.*, iv, 2, 3; Petronius, 46, and Pliny,

N.H., x, lix. The material evidence from Britain is partially summarized by Liversidge, 1968, 346.

⁴ For small gems showing passerines, Ashmolean Museum, 1941.642 (plasma); F. Cooper Collection, Colchester (plasma in diminutive gold ring); P.U.G. Collection, Utrecht, no. 110; Svoronos 1913, no. 551; Kibaltchitch 1910, nos. 42 and 62; Steiner 1911, 136 and pl. xiv, no. 191; de Ridder 1911, no. 3336 (in very small gold ring); Berry 1965, no. 82; Chiesa 1966, no. 1305; Marshall 1907, no. 522 (= Walters 1926, no. 2494, in diminutive ring); Henkel 1913, nos. 198-9 (in diminutive rings); Maddoli, op. cit., 123, no. 847 (sealing).

deposit could be dated through internal evidence, it comes from a remote area and is not associated with any Roman occupation site. In the impoverished circumstances of a native settlement, the intaglio may have been a very precious possession treated with great care by its owners and handed down as an heirloom for many generations. However, there is some evidence that the majority of glass intaglios (apart from the ubiquitous nicolo pastes) are early and a date before A.D. 100 seems most likely for this gem.¹

Often the bird is shown with the symbols of Apollo, e.g. a laurel branch (Furtwängler, 1896, nos. 5826-30); a lyre (Henkel, 1913, no. 167 and pls. LXXVII, no. 291); a bow and quiver (Furtwängler, 1896, nos. 8330-1; Chiesa, 1966, no. 1312) or a tripod (Walters, 1926, nos. 2631; 3414; Fossing, 1929, no. 1473).

Ravens are frequently encountered on a class of symbolic gem which appears to herald prosperity. A cornelian from Silchester (Duke of Wellington Collection in Reading Museum, Acc. no. 03007) depicts a raven or crow standing on an altar and accompanied by a snake, a cornucopiae, corn-ear and poppy-head, etc., and a mottled chalcedony set in a first-century iron ring from the Walbrook (Guildhall Museum, Acc. no. 20794) shows a raven standing on a cornucopiae before a chalice in which there are two ears of wheat or barley and two poppy heads.

Ravens also occur on coins, e.g. the reverses of the bronze semisses of Domitian issued from A.D. 85 until A.D. 96 (*R.I.C.*, Domitian 275, 398, 399, 410, 424B). The obverse type is a head of Apollo in each case and an aureus of Vitellius (*R.I.C.*, Vitellius, 23) shows a raven with a tripod and a dolphin. Denarii of M. Antony, minted in Gaul, represent the bird with a capis and lituus (Sydenham, 1952, 188, nos. 1156 ff.).

On both gems and coins, the raven appears as the attribute of Apollo. Indeed, the only period at which this bird is allowed a coin reverse completely to itself is during the reign of Domitian who especially venerated the god. In particular it was regarded as a bird of prophecy. Suetonius (Domitian, xxiii) has a revealing story about a crow or perhaps a raven.

Ante paucos quam occideretur menses cornix in
Capitolio elocuta est: ἔσται πάντα καλῶς, nec defuit
qui ostentum sic interpretaretur:

"Nuper Tarpeio quae sedit culmine cornix
'Est bene' non potuit dicere, dixit: 'Erit'."

At the time, this incident would have had added spice in the light of the emperor's much vaunted piety. The point of the second line of the couplet, is that the harsh cry of a corvine can be transliterated *cras* (tomorrow), although the Greek sentence would not have been beyond the powers of a talking bird.

It must be remembered that the remarks made with regard to the little intaglio in the gold ring are also apposite here — ravens were common pets and highly valued for their powers of speech.²

The gem can thus be interpreted in two ways, as representing either a tame bird or the power of Apollo; the latter seems to be more likely in this case.

¹ Furtwängler, 1900, vol. 3, 311. Also M. Maaskant-Kleibrink, 1968, 70-4, an intaglio of a different sort from ours but dated stratigraphically to the beginning of the Flavian age or earlier.

In Britain there are a number of pastes belonging to the time of the Conquest and the period succeeding it including one from Angmering (Littlehampton Museum, *S.A.C.*, LXXIX (1938), 31, and fig. 21, 11); also three from Hod Hill, Dorset (Brailsford, 1962, 20, and pl. xiva M4, M5, M6), one from Dorchester (County Museum, *Proc. Soc. Ant.*, 2nd

ser., XXI (1905-7), 153), one from Bath (Henig in Cunliffe, 1969, 87-8 and pl. XII, no. 34), and others found in London and elsewhere.

Other parallels on gems: Furtwängler, 1896, nos. 5826-30 (pastes, first century B.C. — first century A.D.); Walters, 1926, no. 3391; Chiesa, 1966, nos. 1309-12; Fossing, 1929, nos. 1466-9; De Ridder, 1911, no. 3334; Imhoof-Blumer, 1889, p. XXI, 6.

² Jennison, 1937, 118, citing Pliny, *N.H.*, x, 43, 121-3, and Macrobius, *Sat.*, II, 4, 29-30.

4. Oval box-setting of gold with splayed flange set with green glass paste (pl. xviii, no. 4). Dimensions: 9 mm. × 7 mm. Flange is *c.* 3 mm. wide so that the upper surface of the piece measures 12 mm. × 10 mm., 3.5 mm. thick.

From the garden surface in front of the Audience Chamber.

Box settings of this type, set either with actual gems or with imitations are of frequent occurrence as elements in Roman jewellery. They are found in bracelets (Marshall, 1911, no. 2831; Higgins, 1961, pl. 59B), necklaces (Marshall, 1911, no. 2746; Higgins, 1961, pl. 58) and other elaborate ornaments (Marshall, 1911, no. 2866; Higgins, 1961, pl. 62C). However, in these cases they are generally pierced for attachment or fixed very solidly in their mounts. On the Fishbourne piece there is no visible mounting device and at first it was thought to be a bezel from a finger ring.

Although ring settings of this type are known, they are generally late in date (Marshall, 1907, no. 767, and Henkel, 1913, no. 278). The closest parallel of this nature known to me is composed of a box setting soldered on to a ring of twisted wire (from Cyprus, in the Ashmolean, apparently uncatalogued).

The most likely context for this example is in a gold earring of a type common in the Hellenistic world and in the Roman Empire, which consists of an S-shaped gold wire designed to fit through a pierced ear and a soldered box setting attached. There is usually some other, often more elaborate element as well.¹

The delicate and flimsy nature of these pieces of jewellery would easily allow of elements falling off in the general course of wear, without the owner (almost certainly a woman) being aware of her loss.²

5. Silver finger ring with narrow, engraved bezel (pl. xviii, no. 5). It is incomplete, but the diameter is 40 mm. and the bezel is 11.5 mm. wide.

From Period 2 construction level.

The ring can be dated to the first century A.D. A number of very similar examples with narrow engraved bezels have been recorded from Julio-Claudian or early Flavian contexts at Pompeii, Nijmegen and Cologne³ but these are made of gold. Silver rings of this type appear to be much rarer (presumably because they are generally too delicate to withstand corrosion), although there are a few second-century engraved silver rings actually surviving from sites in Britain and elsewhere.⁴

The intaglio cut in the metal may depict the *DEXTRARUM IUNCTIO*⁵ which signifies adherence to an oath. In Rome the idea of such harmony giving rise to practical benefits and material prosperity was very strong and extended from the exalted concept of the *PAX DEORUM* downwards through a range

¹ There are fine specimens from Boscoreale (De Ridder, 1924, nos. 408-9, pl. xvii) with glass paste insets; Pompeii (Siviero, 1954, no. 281, pls. 188, 189); Cologne (Niessen, 1911, pl. cxxxiv, especially nos. 4512-13); Beirut (Pollak, 1903, nos. 286, 287); Smyrna (Ashmolean Museum Acc. no. 1873.69) with green glass inset and Cyprus (Ashmolean Museum — apparently uncatalogued. Plasma inset).

Also cf. Marshall, 1911, no. 2390 (plasma) and no. 2391 (glass paste).

² A number of gold ear-rings are known from Britain including a specimen from Great Chesters with a blue paste in a rectangular box setting not dissimilar from the type which we have been most concerned with; an elaborate pendant of a different style found at Housesteads, cf. *Arch. Ael.*, xxxix⁴ (1961), 35, ear-rings 1-2 and references there cited; another ear-ring with a box setting containing a garnet found at Bath (Cunliffe 1969, 66, no. 4 and pl. xiii); and two ear-rings of identical type made of beaten gold and with a number of tiny insets (from Ashted, Surrey, and Walbrook, London — *B.M. Guide*, 1964, 27

and 28, nos. 3, 4). Also cf. Boon, 1957, fig. 16, 2 and 3. For a portrait of a Roman Egyptian lady wearing elaborate ear-rings, Higgins, 1961, frontispiece.

³ Pompeii, Siviero, 1954, Cat. 425, 230a; Cat. 510, etc.; Nijmegen, Henkel, 1913, no. 61, pl. 3; Cologne, *idem*, nos. 58 and 62, pl. 3; also note B. Segall, 1938, 107, no. 151 and pl. 39; Fortnum Collection (in Ashmolean Museum), nos. 185 and 188; and the gold rings, cited in the discussion of the Fishbourne gold ring, from London and Wroxeter.

⁴ From Britain: Bushe Fox, 1916, 30, and pl. xviii, no. 29, found in a late first- early second-century pit and 'Slay Hill Saltings near Upchurch, Kent' (G. Payne, *Collectanea Cantiana* (London, 1893), 75), part of a cache of second-century jewellery, damaged by fire and probably the contents of a lady's trinket-box, also second century in date (British Museum, acc. no. 83. 12-13. 559); also cf. Marshall, 1907, no. 1132; and Henkel, 1913, no. 352, pl. xviii (found at Vandœuvres near Geneva. Probably late second century).

⁵ This motif is discussed by Chiesa, 1966, 411, no. 1489, footnote 1.

of lesser contractual obligations which bind society together. This is frequently emphasized on gems, engraved rings and coins by the addition of corn-ears and poppy-heads to the design.

Here and on other engraved rings and gems,¹ the type probably had a special relevance to the marriage contract, although its wider meaning, exemplified for example on coins,² must not be forgotten.

THE COINS

By RICHARD REECE

INTRODUCTION

All the coins have been listed according to the context in which they were found. This divides them into three main groups; coins securely stratified in and below the Period 2 palace, coins associated with robbing, destruction and later activity, and coins from the plough-soil. In order to give some idea of the condition of the coins each one has been graded according to the following subjective scale:

- α = in mint condition
- β = signs of wear but in very good condition
- γ = well worn but still identifiable
- δ = worn almost smooth
- ω = corroded.

All reference numbers without prefix are to be found in the relevant volume of *Roman Imperial Coinage* (eds. Mattingly, Sydenham, Sutherland and Carson). Prefixes refer to:

- S = E. A. Sydenham, *Coinage of the Roman Republic*.
- HK = Carson, Hill and Kent, *Late Roman Bronze Coinage*, part 1.
- CK = *ibid.*, part II.
- Barnard = E. P. Barnard, *The Casting Counter and the Counting Board*.

I am very grateful to the late Mr J. D. A. Thompson for help with, and references for, several of the medieval coins and jettons.

¹ *Engraved gems*. Chiesa, 1966, nos. 1489-94; Siviero, 1954, no. 352, pl. 220b, from House of Menander, Pompeii (in gold ring, first century A.D.); Becatti, 1955, no. 515, pl. CXLV (gem in a gold ring, found in a second-century sarcophagus). From Britain: a paste discovered at Charterhouse on Mendip, Somerset (Bristol Museum, acc. no. F2113).

Engraved Rings. Henkel, 1913, no. 61, pl. 3 (first-century gold ring from Nijmegen); Oman, 1930, no. 125, pl. 5 (gold, second century) and no. 131, pl. 5 (silver, third century). From Britain there are some late third- and fourth-century rings with clasped hands shown in relief:

Grovely Woods, Wiltshire; silver (*Num. Chron.*, VI (1906), 345, fig. 1, and *B.M. Guide* (1964), 26. British Museum, acc. no. 1911, 10-26, 11); Richborough, Kent (Bushe-Fox, 1948, 126, no. 93 and pl. xxxv. *B.M. Guide* (1964), 26 and fig. 13, 7); Selsey, Sussex; gold (in Museum of Sussex Archaeological Society, Lewes) and a gold bezel from Akeman Street, Duening Parish, Gloucestershire (Cirencester Museum).

² e.g. *R.I.C.* Vespasian, 14 (*Fides Publ[ica]*) and *R.I.C.* Nerva, 2 (*Concordia Exercituum*).

COIN LIST

* denotes a silver denarius

(1) *Coins from Period 1 levels — pre A.D. 75*

- 1 Republican S 935* (γ).
- 2 Tiberius 3* (β , γ).
- 29 Claudius I 66 (β , γ , ω); copies as 66 poor (2 γ , δ , 4 ω), medium (β , 3 γ , 4 ω), good (2 β , 2 γ), possible (δ , 3 γ); good copy as 67 (ω); illeg. (2 ω).
- 7 Nero 130 (β), 159 (ω), 315 (ω), as 318 (ω), as 325 (ω), illeg. (2 ω).
- 5 Vespasian 528 (ω), illeg. (δ , 3 ω).
- 1 Flavian illeg. (ω).
- 5 First century uncertain and illeg. (5 ω).

(2) *Coins from the construction levels of the Period 2 palace, A.D. 75–80.*

(a) From make-up levels below the Period 2 floors.

- 1 Republican S 706* (γ).
- 1 Agrippa (struck under ?Tiberius *RIC*) 32 (ω).
- 24 Claudius I 66 (2 γ , 3 ω); copies as 66 good (2 β , γ , ω), medium (β , ω), poor (γ , 4 ω); 67 (β), 68 (γ), illeg. copies (β , 5 ω).
- 3 Nero 130 (ω), as 318 (ω), 356 countermarked SPQR on the neck (β).
- 7 Vespasian 519 (γ), 528 (β , γ), rev. illeg. (β , 3 ω).

(b) From the upper gravel of the road surface.

- 1 Domitian 351 (β).

(c) From the garden top-soil.

- 1 Nero rev. illeg. (ω).
- 1 Vespasian rev. illeg. (ω).
- 1 Domitian rev. illeg. (ω).

(3) *Coins from Period 2–3 occupation levels.*

- 1 Republican rev. illeg.* (δ).
- 1 Claudius I poor copy as 66 (ω).
- 3 Nero as 73 (ω), 342 (β), rev. illeg. (ω).
- 1 Vespasian rev. illeg. (ω).
- 1 Domitian rev. illeg. (ω).
- 1 Hadrian rev. illeg. (ω), sestertius.
- 2 Uncertain illeg. (2 ω).

(4) *Coins from Period 3 construction levels.*

- 1 Claudius I good copy of 67 (γ).
- 1 Septimius Severus 479 A b* (γ).

(5) *Coins from Period 3 occupation levels.*

- 1 Republican plated denarius rev. illeg.* (δ).
- 3 Claudius I regular illegible (3 ω).
- 1 Nero rev. illeg. (δ).
- 1 Hybrid denarius with obv. as Nero 47/rev. as Vespasian 10, plated* (β).
- 3 Vespasian 481 (γ), rev. illeg. (δ , ω).

- 1 Nerva 51 (β).
- 2 Hadrian 577 (γ), sestertius rev. illeg. (δ).
- 1 Postumus 67 (β).
- 3 Claudius II 54 (γ), 56 (β), copy as 104 (γ).
- 1 Tetricus I 121 (ω).
- 1 Tetricus II 254 (β).
- 1 Barbarous radiate rev. illeg. (ω).

(6) *Coins from the robbing levels.*(a) *From the primary robbing of the East Wing bath suite.*

- 1 Caligula rev. illeg. (ω).
- 2 Claudius I illegible copies (δ, ω).
- 1 Nero rev. illeg. (δ).
- 5 Vespasian 528 (2 γ), 764 (γ), rev. illeg. (2 ω).
- 1 Titus as (Vesp.) 776 (β).
- 1 Faustina (M. Aurelius) 1665 (ω).
- 2 Gallienus 207 (β), rev. illeg. (ω).
- 3 Claudius II 34 (γ), 65 (β), 104 (γ).
- 1 Victorinus 118 (β).
- 7 Tetricus I 87 (β), 100 (β), 101 (β), 123 (γ), 127 (β), 132 (γ), rev. illeg. (β).
- 2 Tetricus II 254 (ω), rev. illeg. (γ).
- 1 Carausius as 118 (γ).
- 1 Allectus 33 (α).
- 1 Regular radiate otherwise illegible (ω).
- 14 Barbarous radiates copies of Claudius II 261 (β, δ, ω), rev. illeg. (β); copies of Tetricus I rev. Salus (γ), rev. illeg. (β); obverses illegible, reverses from Pax (2 β, ω), reverses illegible (α, 3 ω).

(b) *From robber trenches.*

- 1 Vespasian rev. illeg. (ω).
- 1 Trajan sestertius rev. illeg. (γ).
- 1 Lucilla or Crispina sestertius rev. illeg. (δ).
- 1 Second century sestertius rev. illeg. (δ).
- 2 Gallienus 193 (γ), rev. illeg. (γ).
- 2 Claudius II 52 (β), 261 (γ).
- 1 Victorinus 116 (α).
- 2 Tetricus I 101 (γ), rev. illeg. (γ).
- 1 Tetricus II 280 (α).
- 1 Carausius 179 (γ).
- 1 Regular radiate otherwise illegible (ω).
- 5 Barbarous radiates copy of Claudius II 266 (ω); copy of Tetricus I 70 (β); obverses illegible, reverses from Invictus (γ), Pietas (γ), Salus (γ).
- 1 Maximian I *R.I.C.* 6 Carthage 32 b (β).
- 3 Uncertain worn and corroded (3 ω).

(7) *Coins from the post-robbing rubble.*

- 1 Vespasian rev. illeg. (ω).
- 1 First century otherwise illegible (ω).

- 1 Trajan sestertius rev. illeg. (δ).
- 2 Marcus Aurelius 960 (γ), sestertius rev. illeg. (δ).
- 4 Gallienus 179 (β), 246 (γ), 507 (β), rev. illeg. (δ).
- 2 Claudius II 16 (γ), 110 (γ).
- 2 Radiates regular illeg. (ω), barbarous illeg. (ω).
- 1 Constantine I *R.I.C.* 6 Trier 772 (β).
- 1 Magnentius CK 5 (δ).
- 1 Gratian *R.I.C.* 9 Trier 27 ff. (β not clipped).

(8) *Coins from the plough-soil.*

- 1 Republican S 929* (γ).
- 1 Augustus 350 plated* (β).
- 6 Claudius I 66 (β), copies as 66 medium (β), poor (2 ω); copies rev. illeg. (δ, ω).
- 1 Nero rev. illeg. (ω).
- 4 Vespasian 482 (γ), 528 (γ), as 739 (γ), rev. illeg. (ω).
- 1 Domitian rev. illeg. (ω).
- 2 Trajan as 384 (δ), 489 (β).
- 1 Hadrian 969 (γ).
- 1 Marcus Aurelius 1006 (β).
- 1 Julia Domna (Sept. Severus) 574 plated* (β).
- 1 Severus Alexander 92* (α).
- 1 Victorinus 78 (γ).
- 4 Tetricus I 76 (α), 109 (β), 127 (γ), rev. illeg. (γ).
- 2 Tetricus II as 270 (γ), rev. illeg. (ω).
- 3 Carausius as 878 (γ), rev. illeg. (γ), illegible but overstruck on a coin of Victorinus (β).
- 3 Radiates barbarous copy of Claudius II 261 (γ), of Tetricus I 123 (γ), otherwise illegible (δ).
- 2 Constantine I *R.I.C.* 6 Trier 777 (β), 7 Lyons 5 (γ).
- 1 Urbs Roma copy as HK 51 (δ).
- 1 Henry II or III short cross penny of London (β cut in half).
- 1 Henry VI groat of Calais (β).
- 1 Henry VII or VIII half groat otherwise illegible (δ).
- 1 Philip II (of Spain) copper half cuarto of Saragossa (γ).
- 7 Jettons, etc., copy of a French sterling obv. mitred head/rev. arms of Bishop Beck of Durham, 1280–1300 (β), = French fifteenth century as Barnard France 52 (δ), Nuremberg sixteenth century as Barnard Germany 85 (β, 3 γ); part of a ? fifteenth-century plaque of c. 4 cm. diameter showing the Annunciation (β).
- 1 Seventeenth-century token or farthing otherwise illegible (γ).
- 2 William III farthing (γ), halfpenny 1694 (δ).
- 1 George I halfpenny (δ).
- 2 George II halfpennies (2 δ).
- 7 George III halfpennies 1775 (β), 1776 (β, δ), date illegible (2 β, γ, δ).
- 2 Victoria halfpenny 1840 (β), 4 doubles of Guernsey 1864 (β).
- 1 Uncertain almost flat (?ω).

All illegible coins of the first and second centuries are of the dupondius/as module unless otherwise stated.

As all the coins can be related to the deposits in which they were found, it seems positively dangerous and misleading to conclude with a simple summary list of all the coins excavated, without comment. Such a list would inevitably be used for comparative purposes without any thought for its meaning or, in this case far more probably, restricted meaning. On this site, whose history is so well documented, the futility of setting aside the historical settings and comparing say the coins of 45 to 75 with the coins of 120 to 150, or even worse including two such periods in any list to be compared with any other site, must be obvious. The coins fall into definite groups, each group having a distinct and different history, being deposited by different classes and numbers of people, and governed by different laws of selection, causation, and chance. I would urge the utmost care on anyone who attempts to use the Fishbourne coin list as a whole in any work of synthesis or comparison.

The annotated summary which follows has been arranged on the assumption that the coins assigned to any date entered the site and were lost within the general period within which each one is placed. Thus all Claudian copies are assumed to have been lost before the occupation of the palace. This is an assumption totally unsupported at the moment by factual research, but because of the nature and dates of the occupation of the site I think it may require little modification if the evidence is ever collected together to examine the series in detail. This assumption may well not be perfectly correct for Fishbourne and is almost certain not to be true for other sites whose periods of use and occupation will cut across the general periods of circulation of the Roman coinage.

<i>Consolidated list of coins</i>		<i>Events at Fishbourne</i>
5	Republican S.706, 929, 935, illeg. (2)	Period 1 A. Military occupation.
1	Augustus 350 plated	
1	Agrippa (Tiberius) 32	
2	Tiberius 3 (2)	
1	Caligula rev. illeg.	
66	Claudius I 66 (9), copies as 66 (34), 67, copies as 67 (2), 68, regular illegible (4), illegible copies (15)	
17	Nero as 73, 130 (2), as 159, 315, as 318 (2), as 325, 342, 356, rev. illeg. (7)	Period 1 B. Development of civil occupation.
1	Hybrid denarius Nero/Vespasian	Period 1 C. The proto-palace.
28	Vespasian 481, 482, 519, 528 (5), as 739, rev. illeg. (18)	Period 2. Construction of the palace.
1	Vespasian 764	Period 2. Occupation of the palace.
1	Titus as (Vesp.) 776	
4	Domitian 351, rev. illeg. (3)	
1	Nerva 51	
1	First century otherwise illegible	

<i>Consolidated list of coins</i>		<i>Events at Fishbourne</i>
4	Trajan as 384, 489, rev. illeg. (2)	Period 3. Continued occupation: a period of modification and some rebuilding.
4	Hadrian 577, 969, rev. illeg. (2)	
1	Faustina II (M. Aurelius) 1665	
3	Marcus Aurelius 960, 1006, rev. illeg.	
1	Lucilla or Crispina rev. illeg.	
1	Septimius Severus 479A b	
1	Julia Domna (Sept. Severus) 574 plated	
1	Severus Alexander 92	
7	First or second century otherwise illeg.	
8	Gallienus 179, 193, 207, 246, 507, rev. illeg.	
1	Postumus 67	
9	Claudius II 16, 34, 52, 54, 56, 65, 104, 110, 261	
3	Victorinus 78, 116, 118	
14	Tetricus I 76, 87, 100, 101, (2) 109, 121, 123, 127, (2), 132, rev. illeg. (3)	
6	Tetricus 254 (2), as 270, 280, rev. illeg.	Period of the destruction by fire and subsequent demolition.
5	Carausius as 118, 179, as 878, rev. illeg. (2)	
1	Allectus 33	
28	Radiates Regular illegible (3), barbarous (25)	
1	Maximian <i>R.I.C.</i> 6 Carthage 32 b	
4	Uncertain corroded and illegible (4)	Some robbing activity continues.
3	Constantine I <i>R.I.C.</i> 6 Trier 772, 777, 7 Lyon 5	
1	Urbs Roma copy as HK 51	
1	Magnentius CK 5	Agricultural activities.
1	Gratian <i>R.I.C.</i> 9 Trier 27 ff.	
2	Early medieval Henry II or III, counter	
9	Fifteenth–sixteenth century Henry VI, Henry VII or VIII. Philip II of Spain, counters (6)	
13	Seventeenth–eighteenth century Token, William III (2), George I, George II (2), George III (7)	
2	Victorian	

SPECIFIC COMMENTS

(1) *Claudian copies.* Of the 66 coins of the time of Claudius I only fifteen can possibly be classed as regular products of the Roman mint, and of these four are illegible and therefore to some extent uncertain. The ratio of about four copies to one original is high compared with civil sites such as Canterbury and Verulamium, but compares well with Cirencester (89 coins of which 16 are regular), where most of the pre-Flavian material probably belongs to the fort. Meagre evidence from bronze and

copper coin hoards suggests that Claudian copies dropped out of circulation quickly when the copious issues of Nero (64-8) and Vespasian became available. This means that most of the Fishbourne copies were certainly lost during its military phase. Since the majority of the copies are badly corroded they do not provide a suitable sample for any further comment on style or weight, but they do form a useful group which could be incorporated in any further future study.

- (2) *Early silver.* The eight pre-conquest denarii must belong to the earliest phase of the site's occupation. Very little Claudian silver seems to have entered the country, or at least to have been lost or hoarded, and this selection of Republican denarii mixed with Gallic issues of Augustus and Tiberius must be taken as representative of the silver coinage of the time of the conquest. The absence of denarii of Mark Antony, coins which are commonly said to be a prominent feature of the first-century silver coinage, argues in favour of an early date, for they are distinctly rare in the earliest hoards of silver coins in Britain, and probably unknown as site finds in early contexts.
- (3) *Coins of Vespasian.* Thirty coins of Vespasian were found over the site as a whole; of these ten belong to the third or fourth consulships, 71 to 73, one to 77-8, and eighteen cannot be dated closely. Those coins found below the palace have no date later than the fourth consulship legible. While most sites in Britain have more of the earlier rather than the later coins of Vespasian, the presence of a coin of after A.D. 73 in later levels, and the complete absence of such coins in the construction levels, does argue strongly for a cessation of major building activity sometime soon after A.D. 75. The presence of coins of Domitian in the upper gravel of the road surface and the garden top-soil, both late aspects of the building and layout of the palace, must give a date in the eighties of the first century for the finishing touches of the great enterprise.
- (4) *Coins of 75 to 130.* Only sixteen coins were found that were minted in what is suggested was the main period of palace occupation. Copper coins of Domitian are common in Britain, as are the issues of Trajan and Hadrian, so that the list reflects a surprising absence of such issues. This must reflect the nature of the occupation, and will be considered briefly below.
- (5) *Coins from robbing levels.* Two distinct periods of robbing were noted stratigraphically, hence the divisions of coins from the robbing levels into two sections, 6a and 6b. In the robbing or dismantling of the East Wing bath suite 43 coins were lost of which 11 were pre-third century, 32 were radiates, of which 14 were barbarous, and the series ends with Allectus, giving a fairly wide date bracket of 293 to about 313. In the general robbing of walls, 23 coins were lost, four of which were pre-third century, 15 were radiate of which five were barbarous, and this series ends with a follis of Maximian I giving a very similar date bracket of 295 to about 313. Even on the basis of 66 coins it therefore seems impossible, at the present, to distinguish whether the two periods of robbing were separated by fifteen days or fifteen years.

GENERAL COMMENTS

Coins listed in Section 3 were trapped in the occupation levels of the palace. In terms of occupation these bear a completely unknown and unknowable relation to the coins which

were lost. It does, however, seem safe to assume that because of the continual sweeping and cleaning of the palace they represent only a small fraction of the coins dropped. The coins in Sections 6 and 7, which are associated with robbing and later activity, come much nearer the total picture of coins lost, for both a severely-disturbed site, and no motive for, or likelihood of, large-scale clearance, would suggest that most of what was then lost has been found. The coins from the plough-soil correspond surprisingly well with the known history of the site, in the Roman period at least. Unlike the stratified coins which suggest an episodic occupation, they suggest a smooth but not necessarily continuous occupation in the later first and early second century, and again around the year 200. Unfortunately, the medieval coins, if interpreted in the same way, suggest an intense occupation of the site in the middle of the sixteenth century which is archaeologically unacceptable so this must cast some doubts on the seemingly good correlation between top-soil finds and the Roman history of the site.

Evidence accumulating at Cirencester and Verulamium, where there are comparable collections of surface finds and excavated coins, suggests that the disparity between the two categories is not great, but the Fishbourne coins do suggest two pitfalls which must be avoided in the interpretation of summary coin lists. Firstly, in many instances, only the presence or absence of a particular class of coin is likely to be significant, since the numbers of that class of coin will depend far more on the coin itself, and its relative scarcity or abundance, than on the intensity of occupation. This is very well demonstrated in the case of the Claudian copies, which are far more abundant than their originals, and barbarous radiates, which are well represented, whereas the coins of the contemporary central emperors do not occur. In both these cases the number of examples found is related to their comparative abundance in Britain, and not only to a burst of activity on the site.

Secondly, large numbers of coins lost, whether common or scarce, will only accumulate in what can best be described as middle or lower class conditions. This is very well demonstrated by the common occurrence of copper coins of Vespasian, mainly, but not entirely, in the construction levels, compared with the rarity on the site of the equally common coins of Domitian. As this occurrence in building levels suggests, the coins of Vespasian are associated with an army of building labourers and craftsmen at work in the mud and dust of a building site. Coins of Domitian as Augustus, however, cannot have entered the site until it was a clean, well-kept palace. Therefore, although the numbers of inhabitants was fairly constant, since the army of servants required to run the palace cannot have been much smaller than the army required to build it, the change in the number of coins found reflects not a difference in intensity of occupation, but a complete change in its quality.

Finally, the total of only 265 coins from the whole excavation must be compared with the totals of coins from other sites for only the first three centuries. Fishbourne lacks completely the common copper issues of the fourth century which make up the bulk of coins from nearly all other British sites, and this point, if no other, makes its use in overall comparisons an exercise of very doubtful value.

The brevity and tone of this coin-report must not be taken to imply disinterest in these particular coins or disillusion with the usefulness of archaeological site finds in general. If the approach is critical this is because the nature of coin reporting has not changed fast enough in the past thirty years to keep up with the refinements of archaeological method and interpretation. I have refrained from my usual crop of comments because this is a site

where they would either be seen to be correct, because they had been made archaeologically elsewhere, or incorrect, because they were in opposition to archaeological facts. If therefore, such comments are seen to be of doubtful use on this site, it must be accepted that they are probably of doubtful use on any other site in our present state of knowledge. Until a normal background of site-finds in Britain has been assembled against which to judge individual sites, little progress can be made and few valid conclusions drawn.

THE BROOCHES

(Figs. 36-40)

By M. R. HULL, M.A., F.S.A.

- 1-21. Nauheim derivatives. This is the most numerous group of the site, but there is no genuine Nauheim type among them. All have solid catch plates. Only two have the reverse curve (nos. 10 and 12), each with a row of punch marks down the bow. Apart from the general local appearance about this group there are specific traits, particularly the low-curved thick bows and the transverse grooving, which do not occur commonly elsewhere. A few of the bows, which might be called leaf-shaped, have a groove down the centre (nos. 7 and 8). Several belong to the variant in which the bow suddenly contracts into a knife-edge foot (nos. 1-9.) The remainder are of the usual common type but have a distinct local flavour.
- All 21 are stratified, 11 in Period 1 contexts (1, 2, 4, 5, 6, 9, 11, 13, 14, 19, 20), 8 in construction levels for the Period 2 palace (3, 7, 8, 12, 15, 16, 17, 18), 1 in a Third-Period occupation level (21) and 1 from the plough-soil (10). Thus 19 of the 21 brooches are securely dated to A.D. 43-75.
22. Small thistle brooch, very badly corroded.
First Period, pre A.D. 75.
23. Either a Bagendon D brooch or a S.W. copy of either an Aucissa or Bagendon type. The square division at the base of the bow closely resembles Bagendon D types. Parallels occur at Hod Hill (Brailsford, 1962, c55), Rotherley (Pitt Rivers, 1888, pl. C, 3), Bagendon (Clifford, 1961, fig. 32, 11). There are also several at Colchester, one at Barrington and one at Wroxeter.
First Period, pre A.D. 75.
24. Bagendon type C brooch in which the knobbed iron bars are imitated by lateral projections. See Richborough (Bushe-Fox, 1949, no. 11 and list of continental parallels). Found also at Silchester, Colchester and Cirencester, generally in pre-Flavian contexts.
Unstratified — surface soil over North Wing.
25. Hod Hill type with very bold transverse mouldings occupying half its length. There is one close parallel from Colchester (B.M.)
First Period, pre A.D. 75.
26. Hod Hill B type, rather corroded.
Third-Period construction level.
27. Hod Hill type, much corroded.
Period 2, from the garden soil.
28. Langton Down C type. The triangle with the three incuse spots is commonly employed (e.g. at Sea Mills and Bagendon) but it is very unusual to find the motif repeated three times. The type is invariably pre-Flavian.
First Period, pre A.D. 75.

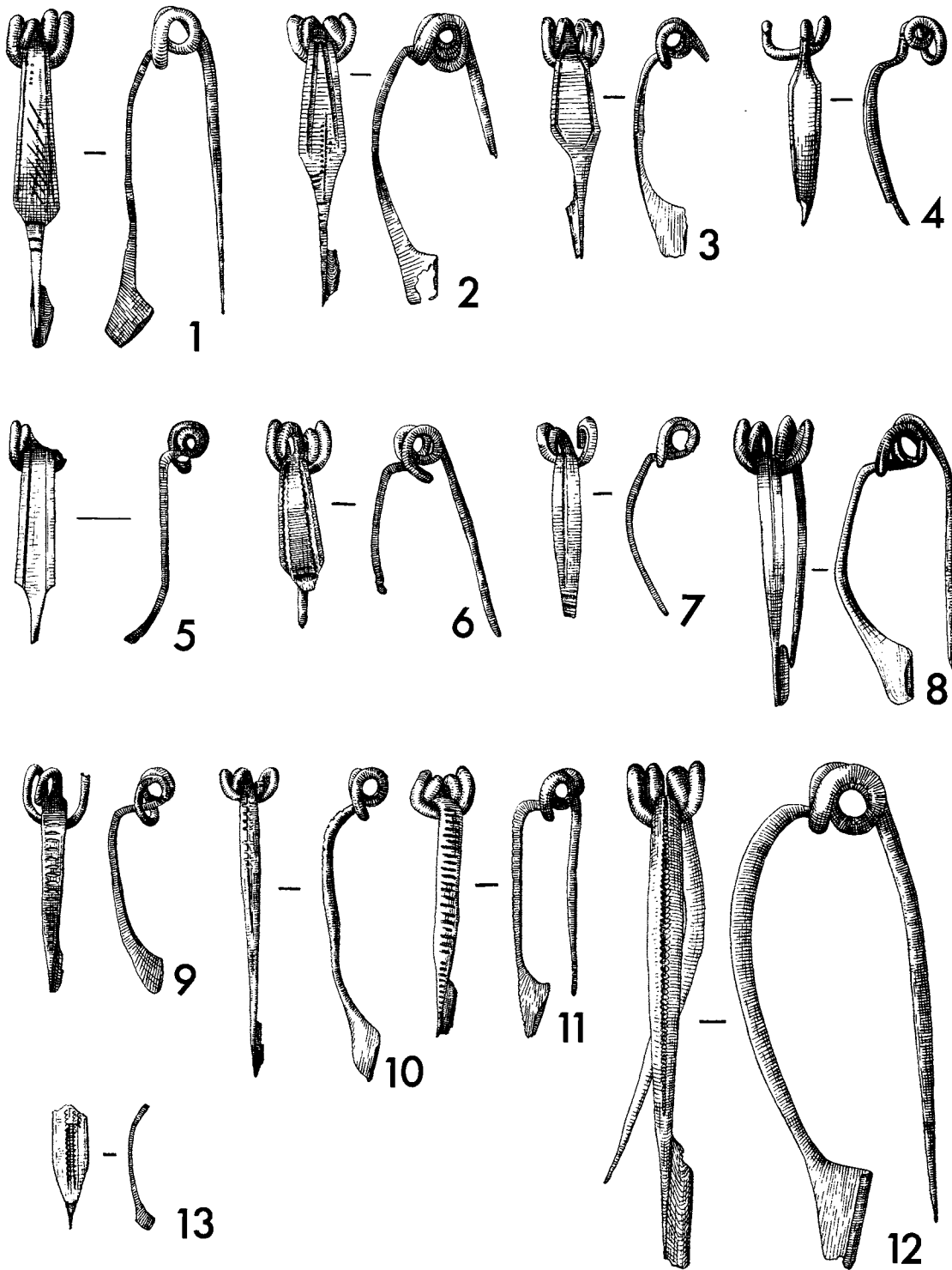


FIG. 36. Bronze brooches: scale $\frac{1}{4}$ (p. 100)

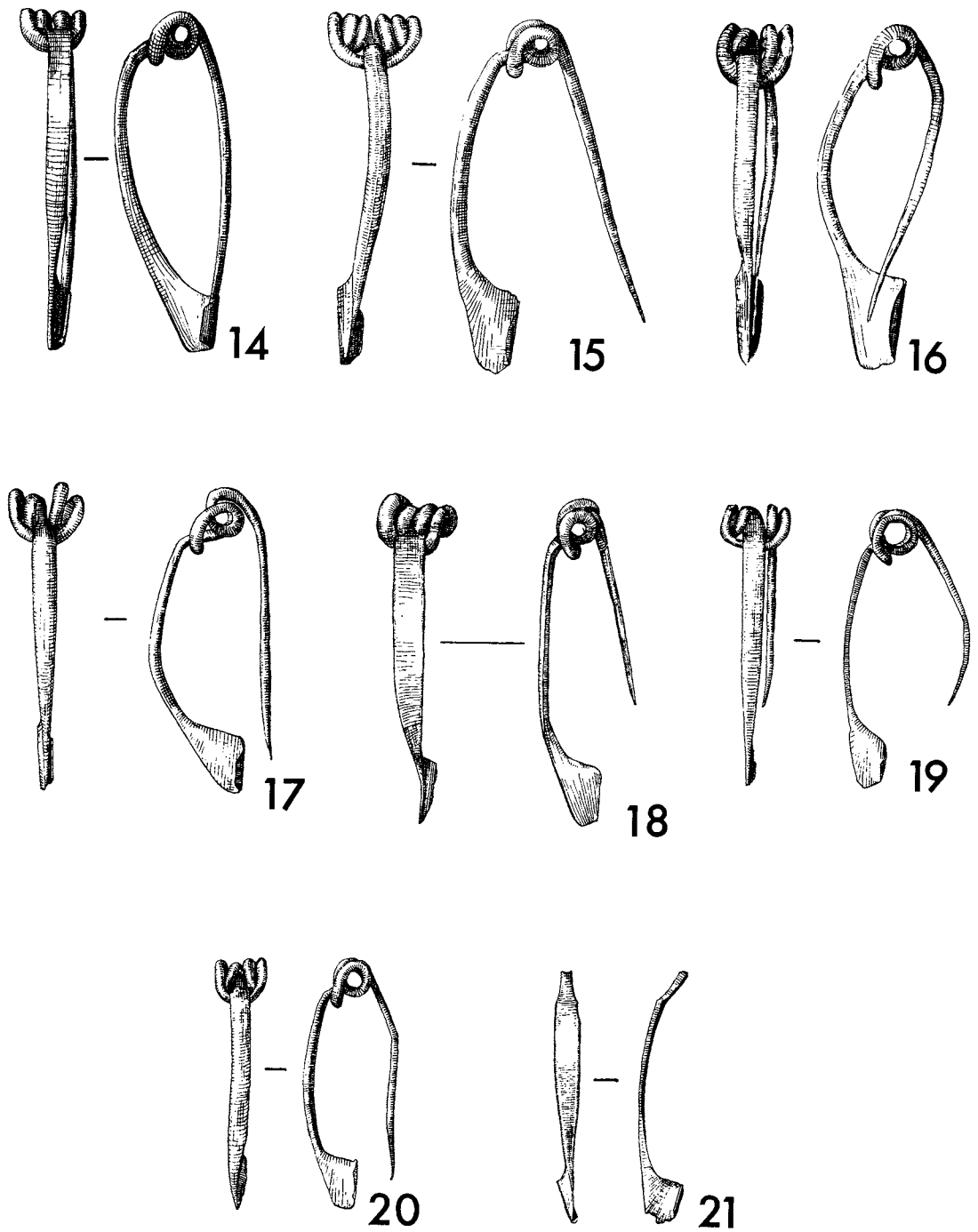


FIG. 37. Bronze brooches: scale $\frac{1}{2}$ (p. 100)

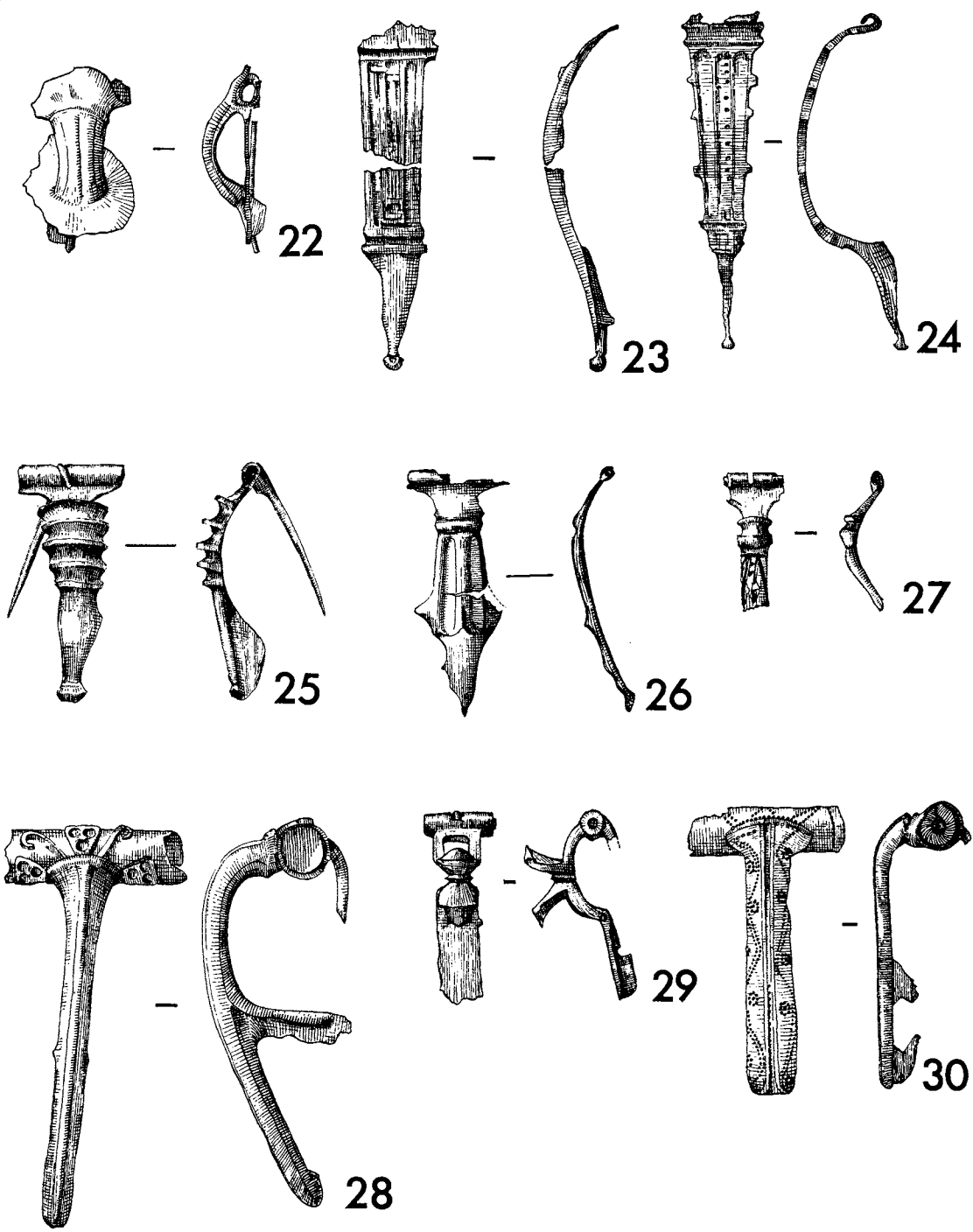


FIG. 38. Bronze brooches: scale $\frac{1}{2}$ (pp. 100, 104)

29. An unusual brooch, possibly a variant of the Rosette brooches which occur in France although the hinged pin is unexpected.
No parallels are known.
From Period 2 construction levels, A.D. 75 or earlier.
30. Langton Down type. The style is unusual: the bow is not reeded in the usual way but decorated with wavy lines and rosettes of pinch marks which are also used on the cylindrical head instead of the usual incised lines. A very close parallel is known from Old Sleaford (5238), probably made in the same workshop.
First-Period occupation layer.
31. Polden Hill type or possibly a Dolphin/Polden hybrid.
From Period 2 construction levels, A.D. 75 or earlier.
32. A Backworth type brooch which might be regarded as Collingwood Riii. It belongs to quite a small group which is distinguished by the straight horizontal line which cuts off the base of the trumpet head. Ten are known, all from the south-west: Caerleon, Charterhouse-on-Mendip, Charlton Down, Cold Kitchen Hill, Dorchester, Kidlington, Rotherley, Stockton, and Wyllye (two examples). All have acanthus leaves and fixed head-loops. The Fishbourne example has lost these by corrosion.
Period 3 destruction levels — late third century.
33. Colchester type, now much corroded. Normally the type can be divided into Colchester B and BB, each with sub-divisions, but the present example is too corroded to be certain of its precise form.
From Period 2 construction levels, A.D. 75 or earlier.
- 34, 35. Brooches of Colchester type, now much corroded.
Both from First-Period levels, pre A.D. 75.
36. Brooch with a trumpet head and pelta-shaped bow, probably once enamelled. Six or seven are generally distributed in Britain (at Lincoln (2), London, Leicester, Water Newton, and Newstead); see Richardson, 1960. They are probably from the same source and date to the second half of the second century.
From a late third- or early fourth-century robber trench.
37. Brooch of Aucissa C type, not at all common in this country.
First Period, pre A.D. 75.
38. A small knee-brooch of well-known type, generally with a northern distribution. In date they usually coincide with the second occupation of Scotland.
From late third-century rubble layers.
39. Disc-brooch with six lugs stamped with concentric circles. The disc bears the remains of three concentric bands, in the centre of which was an enamel stud, now lost. Parallels are not numerous or close, but include Verulamium (more elaborate with eight lugs and a stud), East Garston Warren, Aldborough and White Horse Hill, Berks. (with six lugs, a centre stud and circles of enamel).
First Period, pre A.D. 75.
40. Remains of a flat plate brooch.
From Period 2 construction levels, A.D. 75 or earlier.
41. An ornamentally pierced plate brooch of a little-known type.
Unstratified.

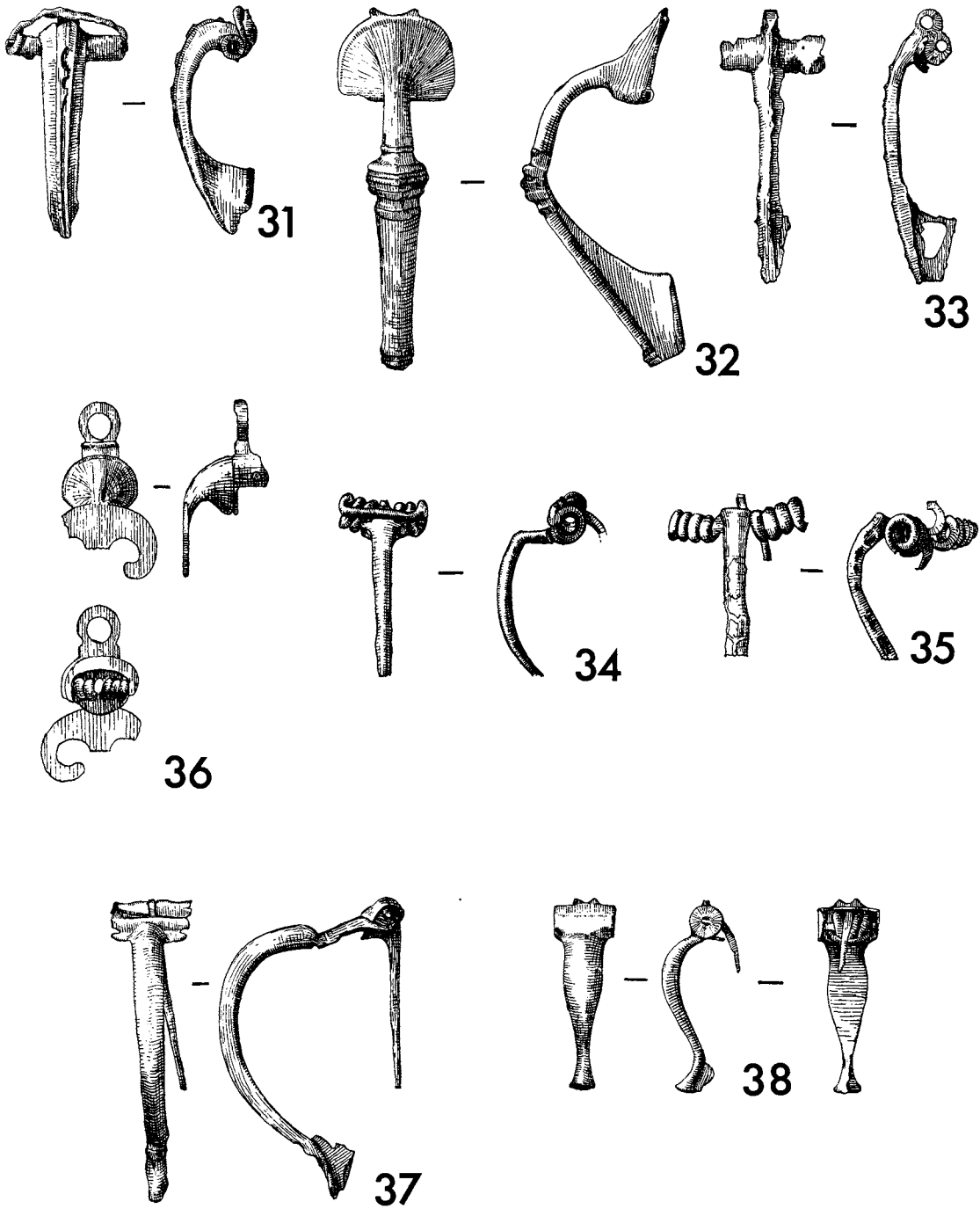


FIG. 39. Bronze brooches: scale $\frac{1}{4}$ (p. 104)

42. Remains of a disc-brooch with a flat central area bounded by a moulded circle. There is a rivet hole in the centre, probably for the attachment of an enamelled stud. This general type is known from Wroxeter, Bollitree (Glos.), Leicester (Kenyon, 1948, fig. 82, 1), Caerleon (Wheeler and Wheeler, 1928, fig. 14, 20), Nor'nour and Dorchester. The Wroxeter example is Flavian. First Period, pre A.D. 75.
43. Oval, gilt brooch with a central stone of deep-blue glass. This type is common in late contexts. From a late third- or early fourth-century robber trench.

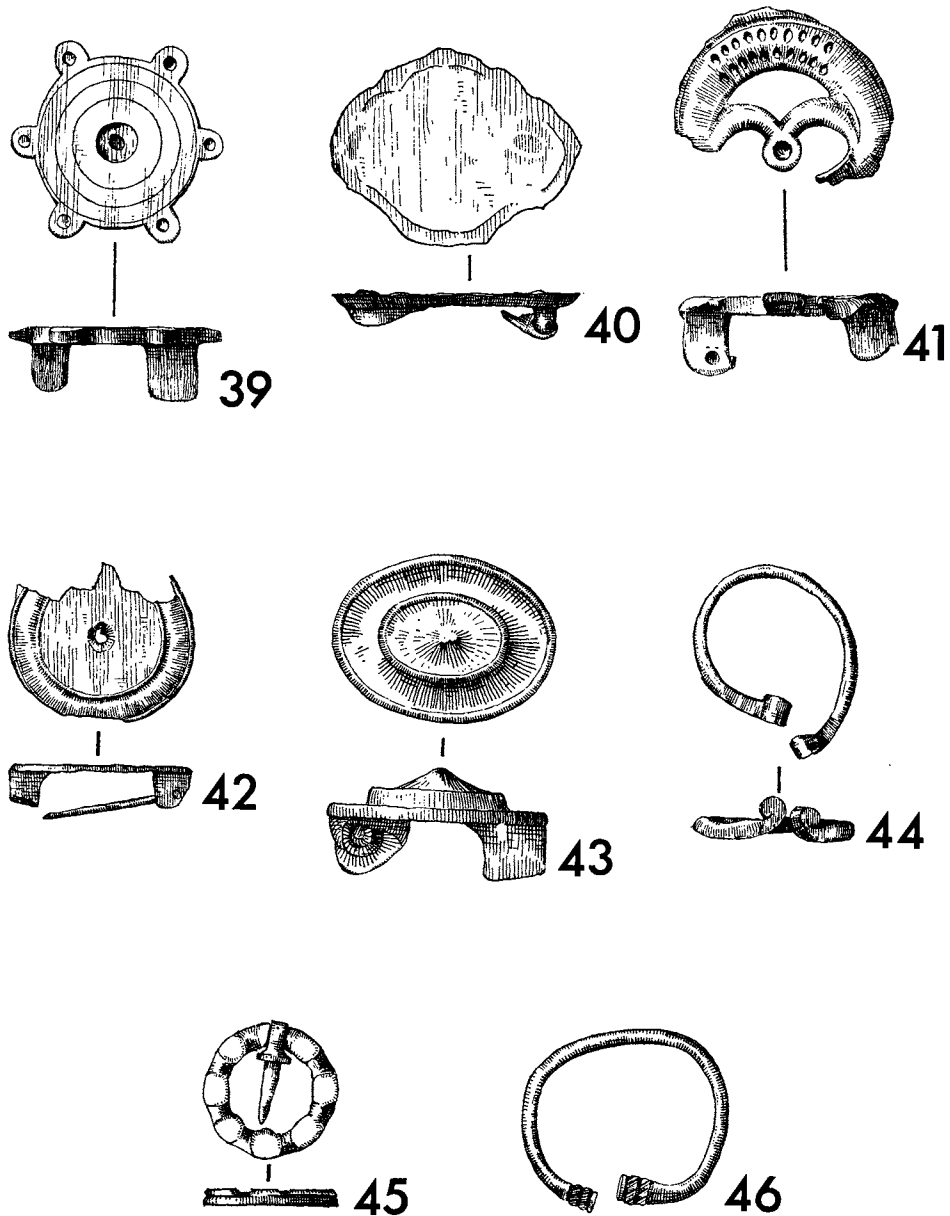


FIG. 40. Bronze brooches: scale $\frac{1}{2}$ (pp. 104, 106-7)

44. Penannular brooch with the ends rolled upwards and only slightly flattened. This lack of flattening is rather unusual but can be paralleled at Colchester.
First Period — pre A.D. 75.
45. Small annular ? brooch of silvered bronze.
Second-Period construction level — A.D. 75 or earlier.
46. Penannular brooch with buffer terminals.
First-Period levels.

The collection of brooches from Fishbourne, though not large, provides an interesting group of closely dated examples belonging to the first period (A.D. 43–75) of which the Nauheim derivatives have a distinctly local flavour. The relative scarcity of brooches dating to after A.D. 75 probably reflects the tidiness of the building in the second and early third periods, but a contributory factor may have been a change in the habit of dress — the toga becoming more fashionable with the rise in status of the site.

OTHER OBJECTS OF BRONZE AND SILVER

(Figs. 41–54)

All are bronze unless otherwise stated.

47. Bracelet with hooked ends.
Third-Period occupation level.
48. Bracelet of twisted wire with hook and loop ends.
Third-Period occupation level.
49. Bracelet of twisted wire.
Late robbing levels.
50. Ring of sheet bronze; the join was originally obscured by an attached setting, now lost.
Surface find.
51. Ring with notched edges.
Late robber trench.
52. Simple ring made from a bronze rod.
Second-Period construction level.
53. Cast ring.
Third-Period destruction, late third century.
54. Cast ring.
First-Period occupation level.
55. Simple ring.
First-Period occupation level.
56. Cast ring with milled edge.
First-Period occupation level.
57. Simple cast ring.
Late destruction rubble.

There are 18 other simple rings from layers of various dates, not illustrated.

58. *Ligula*, probably used for extracting ointment from containers.
Late robber levels.
59. Spoon-shaped spatula with a dropper on the opposite end.
Plough-soil.

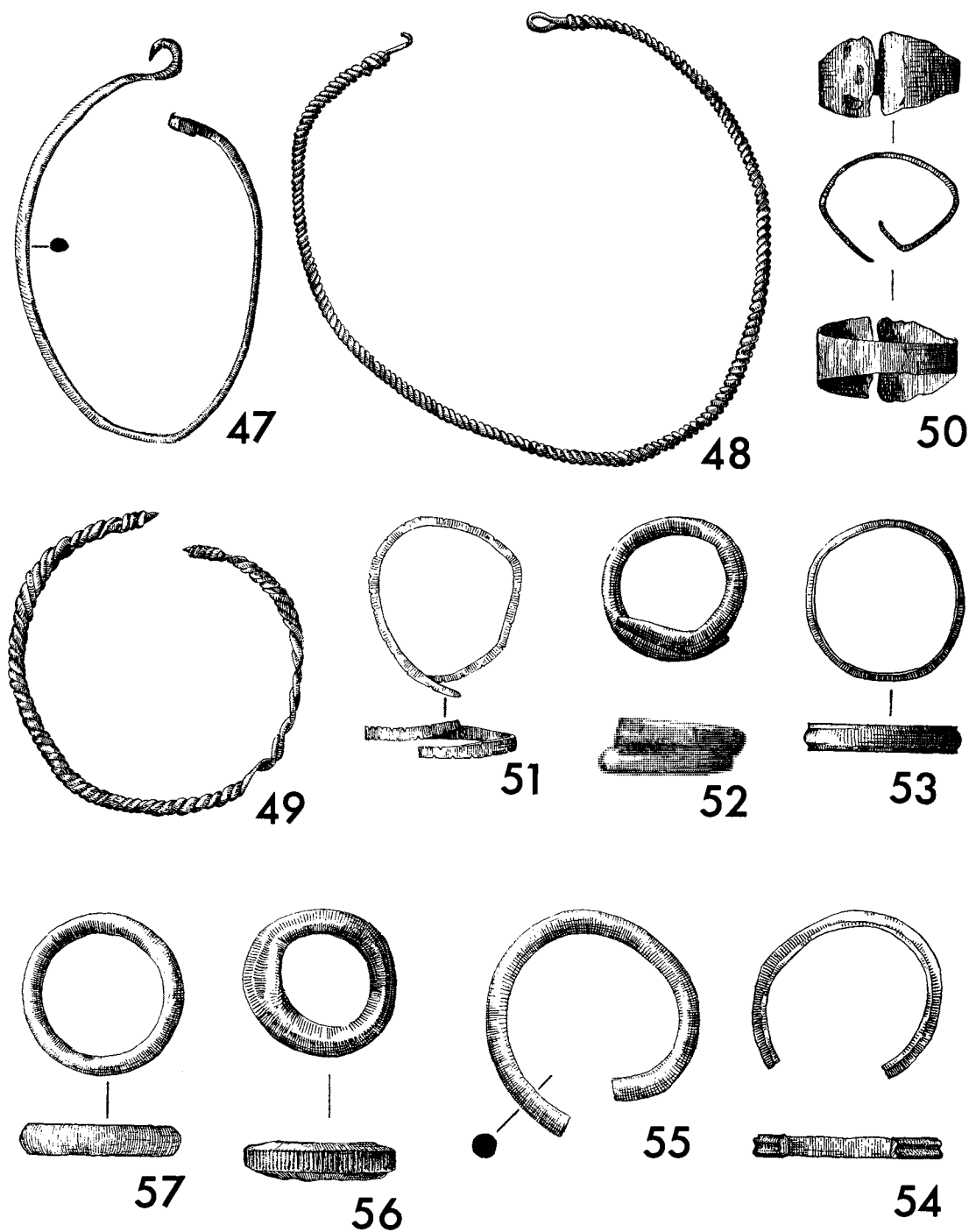


FIG. 41. Bronze objects: scale $\frac{1}{4}$ (p. 107)

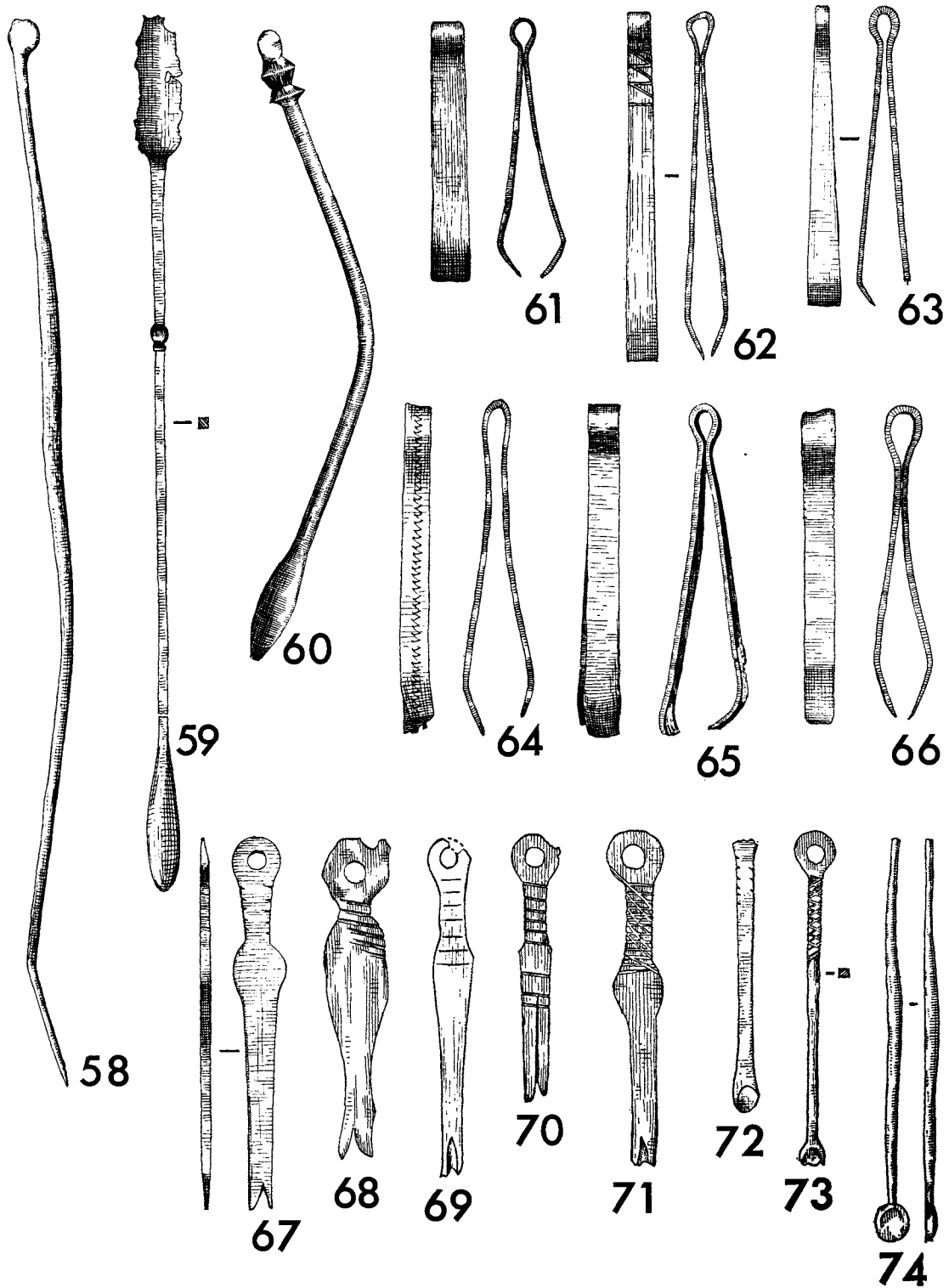


FIG. 42. Bronze objects: scale $\frac{1}{4}$ (pp. 107, 110)

60. Dropper (or 'depresser'?).
Plough-soil.
- 61-6. Tweezers. Six are illustrated here; fragments of several others were also recovered.
Nos. 62, 64 and 66 are from First-Period occupation levels, no. 61 is from a Second-Period construction level and nos. 63 and 65 are from late third-century rubble and robber levels.
- 67-71. Nail cleaners.
All from First-Period levels except no. 69, which comes from a make-up level for the Second-Period building.
- 72-4. 'Ear scoops'. Nos. 72-3 are from pocket sets, no. 74 may be part of a larger *ligula*.
Nos. 72 and 73 are from First-Period levels, no. 74 from a Second-Period make-up level.
75. Plain hinged buckle or fastener of military type, now much corroded. Found in the soil of the Period 2 garden — A.D. 75 or earlier.
76. Part of a hinged buckle or hook of military type.
First-Period occupation level.
77. Belt plate originally with an applied ornamental boss attached by a central rivet. A well-known military type, e.g. Richborough (Bushe-Fox, 1949, pl. xxxvii, 132).
First-Period occupation level.
78. Cuirass hinge. See, for example, Brailsford, 1962, fig. 3, A 73.
First-Period occupation level.
79. Bronze fitting with silver overlay, possibly of military type.
First-Period occupation level.
80. Attachment of silvered bronze, probably from a belt or strap.
Third-Period occupation level.
81. Bronze hinged fastener, presumably military in origin. For a close British parallel at Richborough, see Cunliffe, 1968, pl. xxxv, no. 99.
First-Period occupation level.
82. Cuirass hinge, now much corroded.
First-Period occupation level.
83. Scale, probably from scale armour, although the single perforation is not common.
Unstratified.
84. Hinged plate from a belt or cuirass.
Third-Period occupation level.
- 85-8. Buckles.
No. 85 from make-up layers for the Second-Period building, the others from plough-soil.
89. Cuirass buckle. Cf. Hod Hill (Richmond, 1968, fig. 56, no. 8), Richborough (Bushe-Fox, 1932, pl. xii, fig. 2; Cunliffe, 1968, pl. xxxvi, nos. 110-12), Camulodunum (Hawkes and Hull, 1947, pl. cii, 6-9).
90. Buckle.
Destruction level, late third century.
91. Buckle, of post-Roman type (but a similar example was found at Caerleon (Wheeler and Wheeler, 1928, pl. xxxii, 6).)
Plough-soil.
- 92, 93. Fragments of fittings, probably large buckles.
No. 92 is from Period 2 construction levels, 93 is from a late third-century rubble level.
94. Fitting, probably from leatherwork.
Period 3 occupation level.

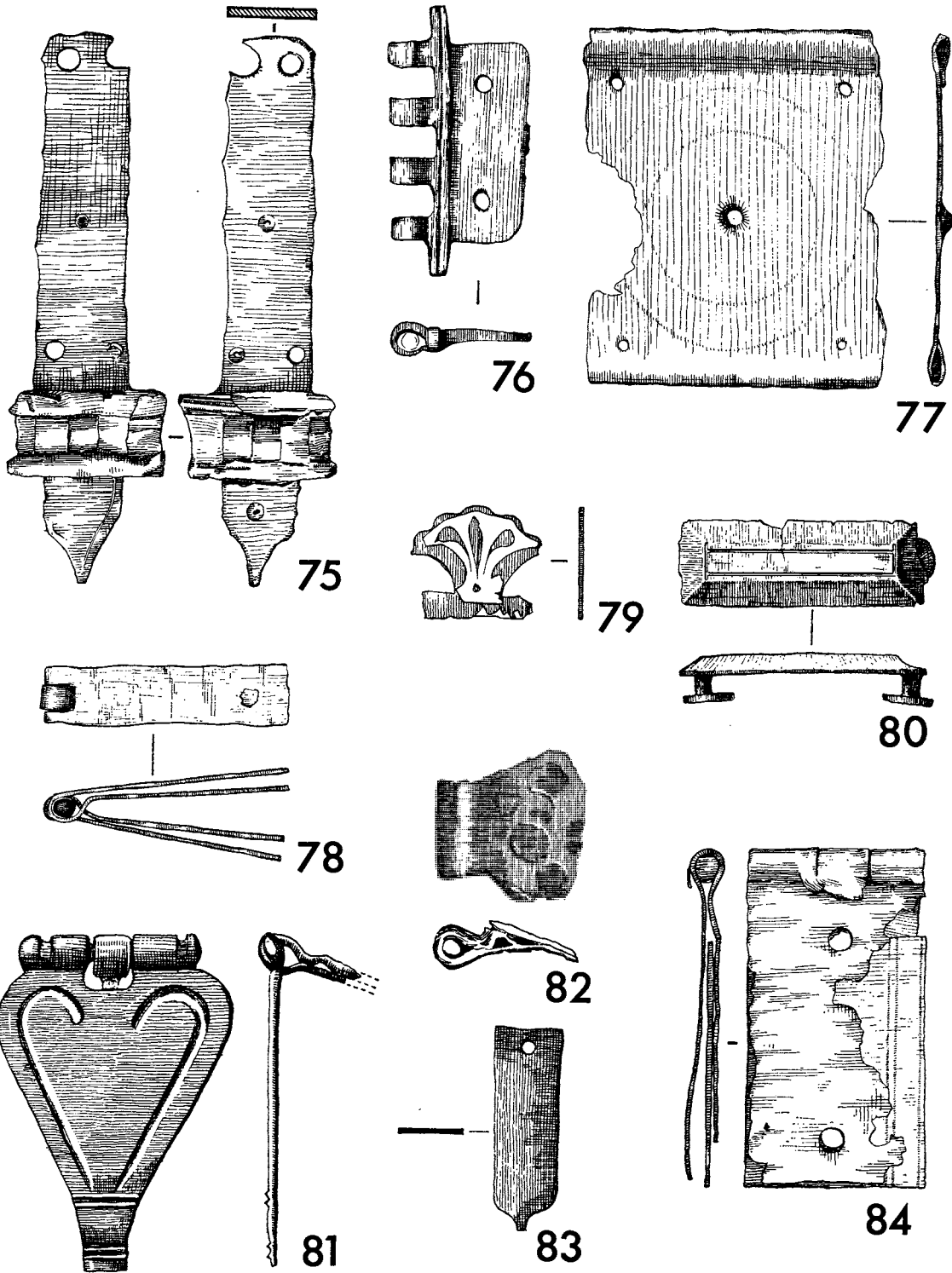


FIG. 43. Bronze objects: scale $\frac{1}{2}$ (p. 110)

95. Fitting of tinned bronze.
Period 3 occupation level.
96. Fragment of a hinge, possibly from a cuirass.
First-Period occupation level.
97. Fitting.
Late rubble level.
98. Hinge, possibly from a cuirass.
Plough-soil.
99. Fitting comprising of a length of braided bronze chain, hanging from a substantial terminal and attached at the other end to a hook. A second hook is hung from the first by means of a similar chain.
First-Period occupation level.
100. Bronze hook.
First-Period occupation level.
101. Bronze hook with chain attached.
Third-Period occupation level.
102. Bronze hook, ? lamp holder.
First-Period occupation level.
103. Length of braided bronze chain.
Construction level of the Second-Period building.
104. Double hook, ? lamp holder. Richborough (Bushe-Fox, 1928, pl. xx, no. 39; 1949, pl. LIII, 203).
105. Bell, dented and with top broken.
Plough-soil.
- 106-8. Bells of various kinds. No. 108 retains its internal hook, to which the clapper would have been attached.
All from First-Period levels.
109. Stud.
Destruction level — late third century.
110. Hook.
Destruction level — late third century.
- 111-18. Studs and terminals of various kinds.
Nos. 115 and 116 are from First-Period levels; 112, 113 and 117 are from construction layers of the Second Period; 114 from Second-Period occupation layers and 111 and 118 are from plough-soil.
119. Object of uncertain function.
First-Period occupation level.
- 120-1. Spoons with circular bowls; no. 121 is silvered.
No. 120 is from Period 3 occupation layers and no. 121 is from destruction levels of the late third century.
122. Spoon with oval bowl and twisted handle.
Plough-soil.
123. Silvered bronze spoon showing wear caused by a right-handed user.
Third-Period occupation layers.
124. Bronze terminal in the form of a human head wearing a Phrygian cap. The eyes and hair are incised somewhat schematically. A very close parallel was found at Richborough (Bushe-Fox, 1949, pl. XLIV, 169).
Third-Period occupation layer.

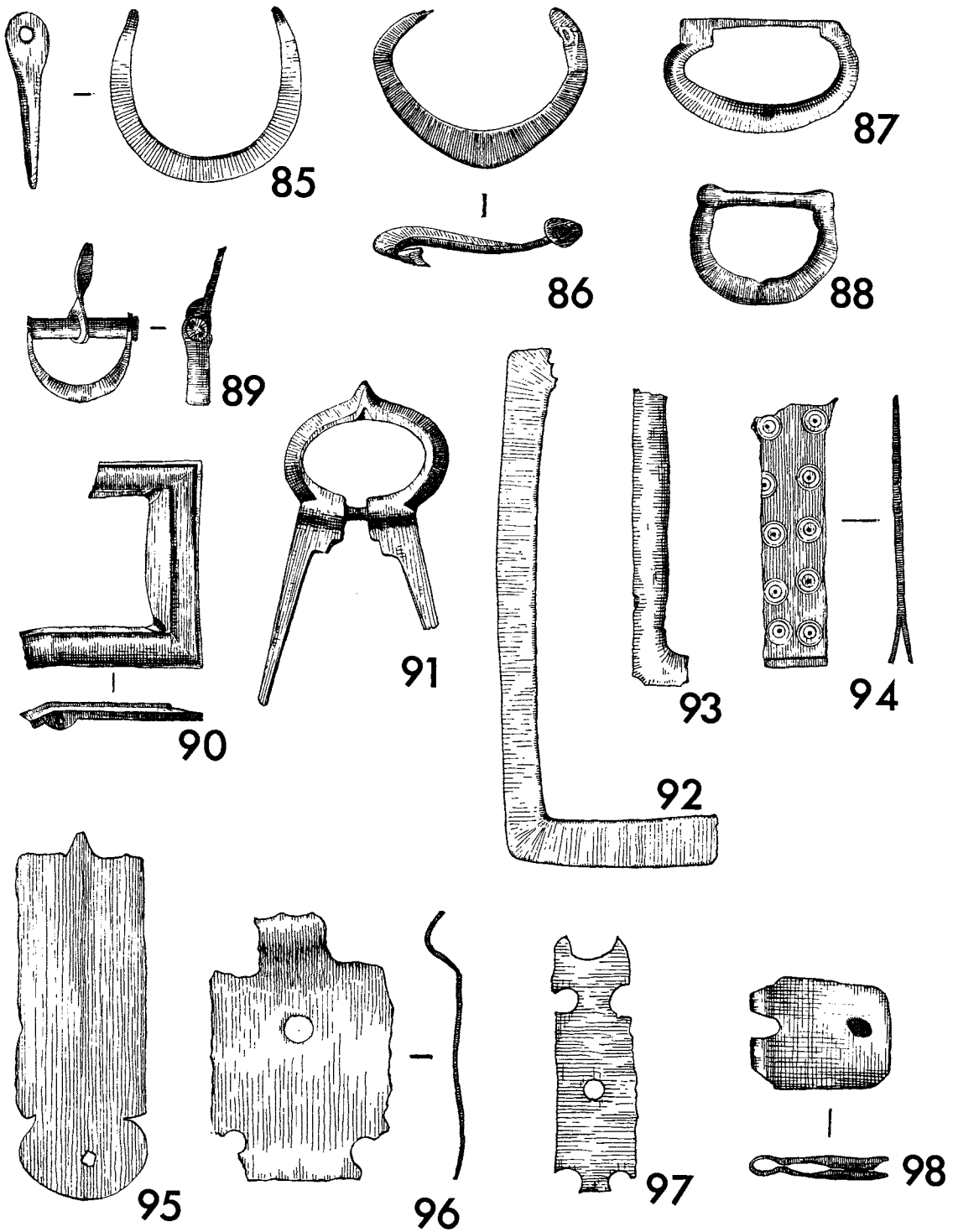


FIG. 44. Bronze objects: scale $\frac{1}{2}$ (pp. 110, 112)

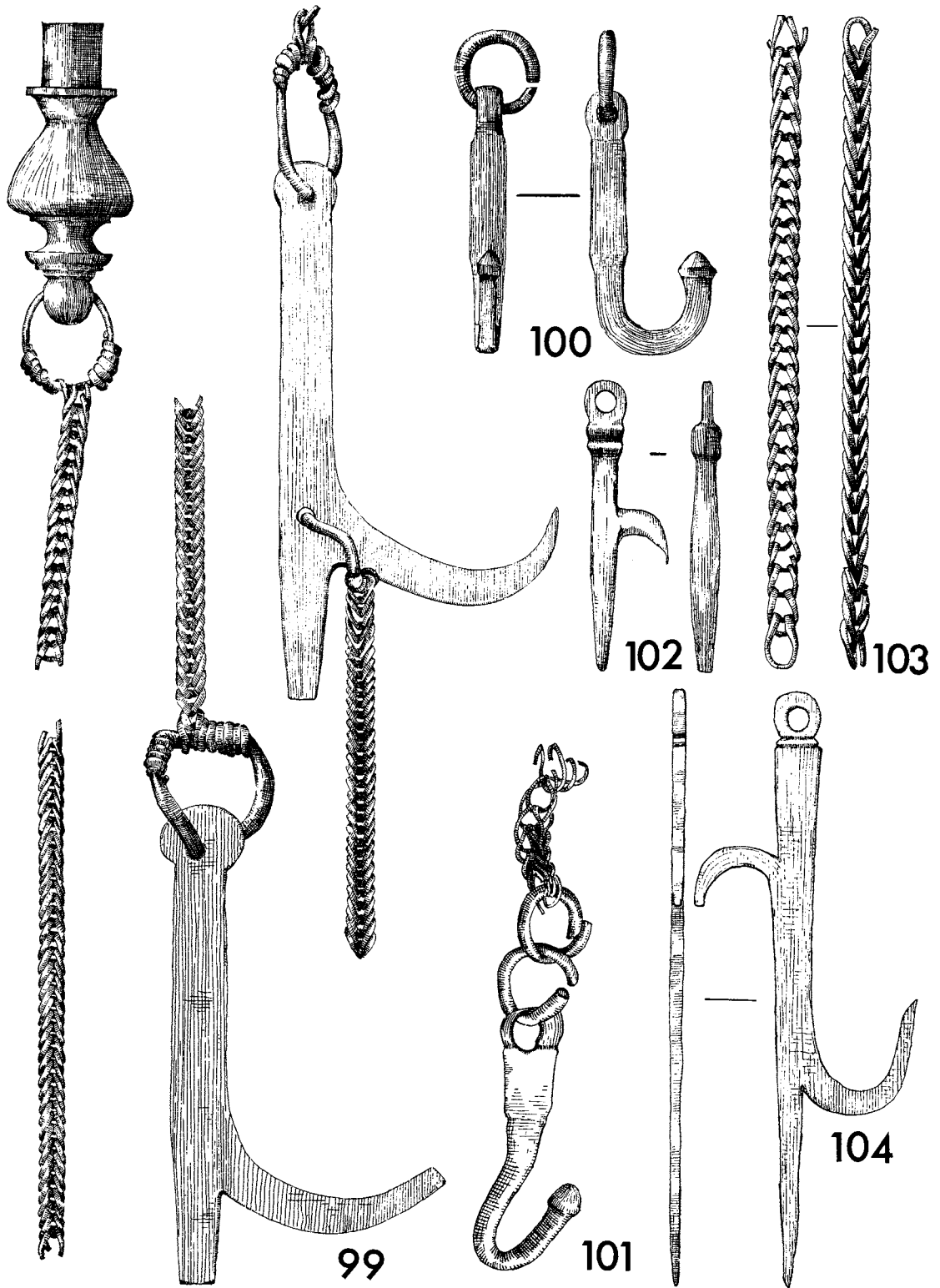


FIG. 45. Bronze objects: scale $\frac{1}{2}$ (p. 112)

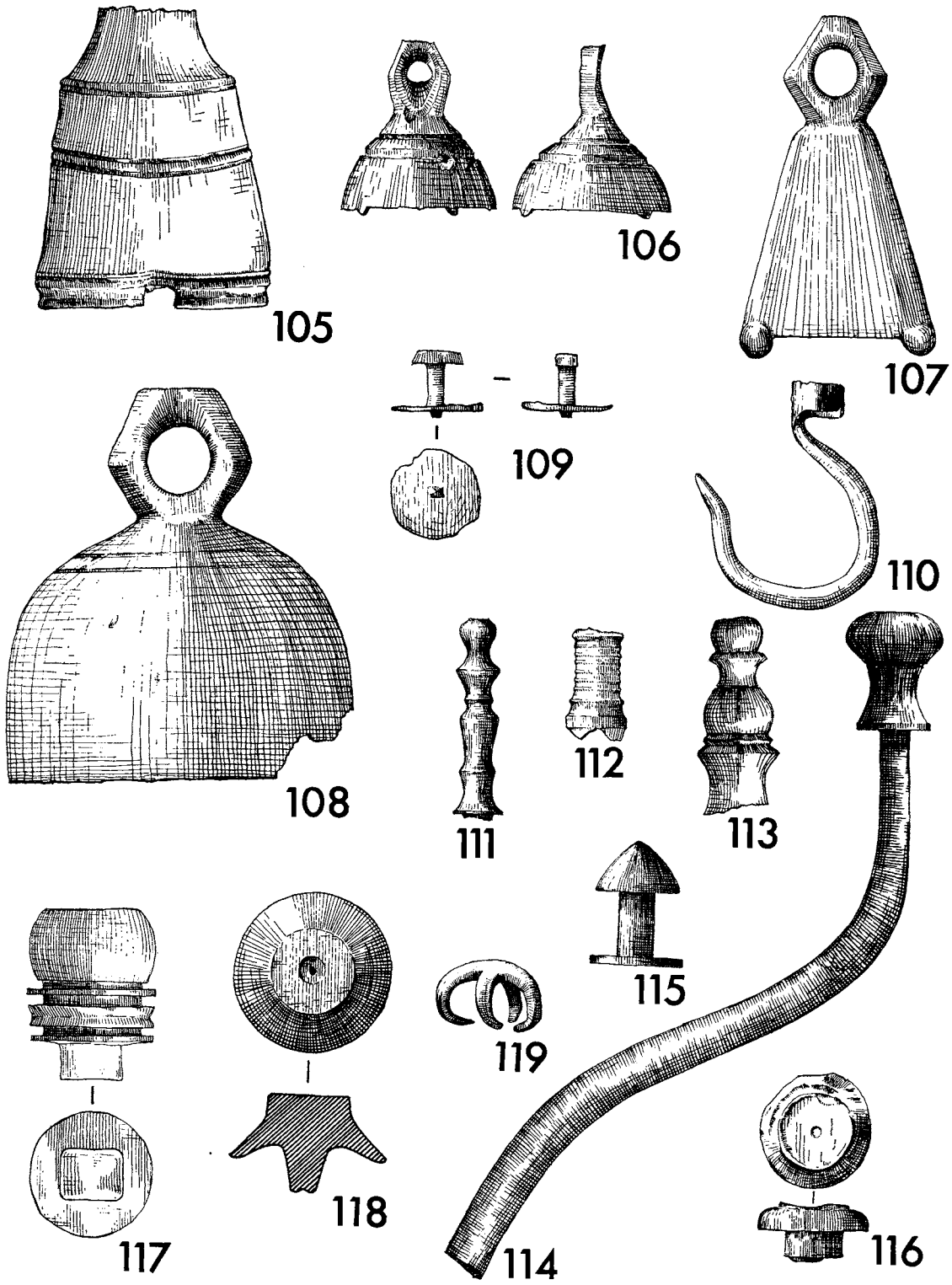


FIG. 46. Bronze objects: scale $\frac{1}{2}$ (p. 112)

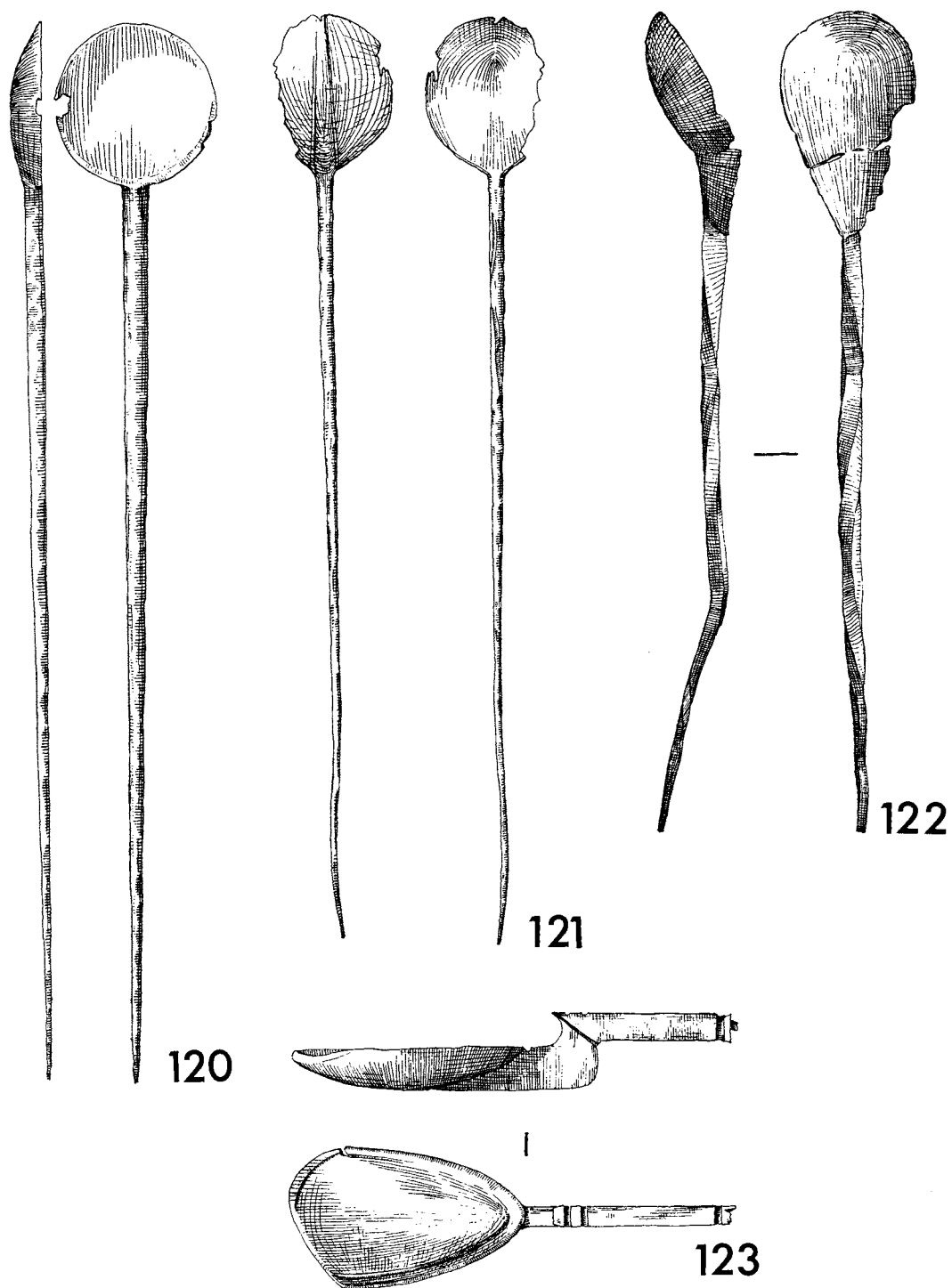


FIG. 47. Bronze objects: scale $\frac{1}{2}$ (p. 112)

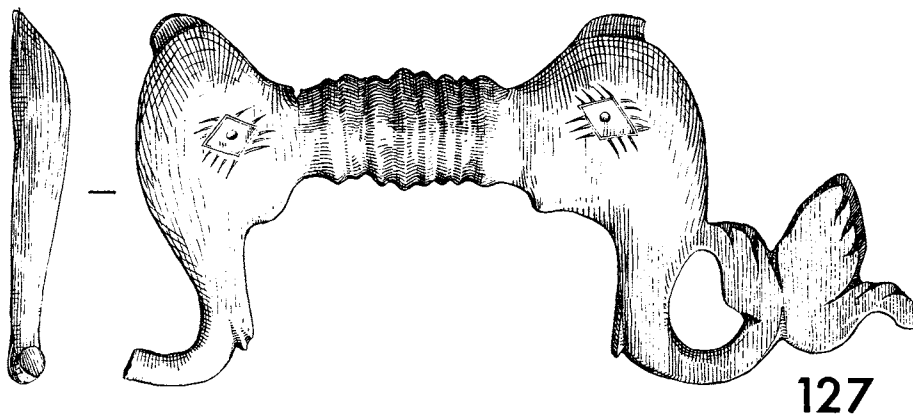
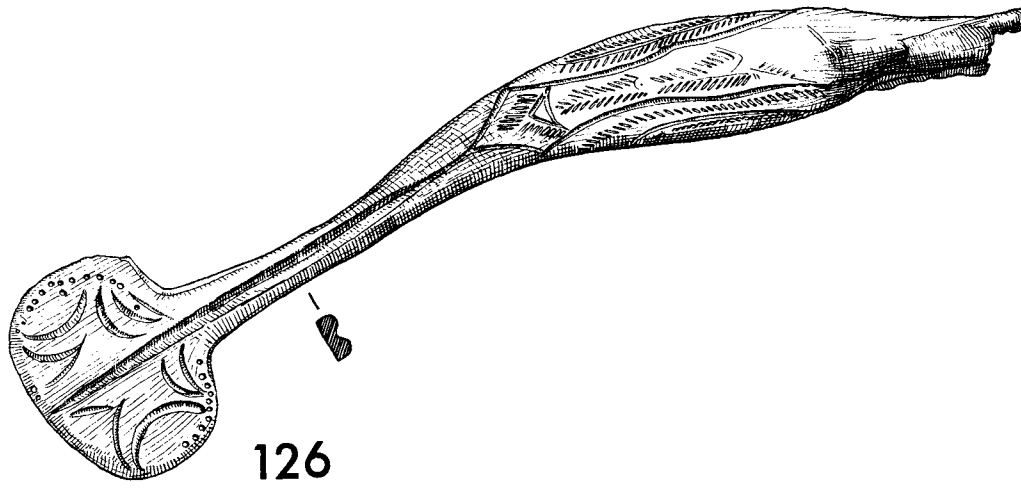
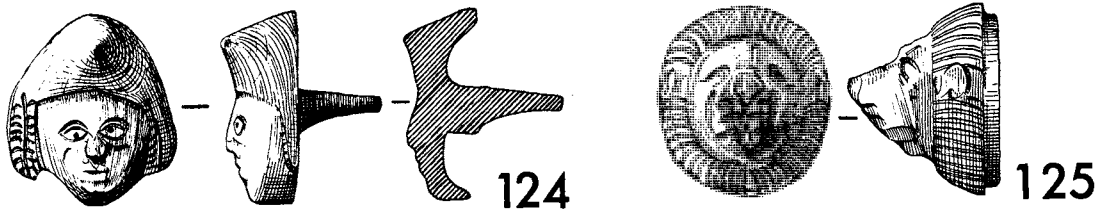


FIG. 48. Bronze objects: scale $\frac{1}{2}$ (pp. 112, 118)

125. Bronze terminal in the form of a lion's head. The main features are incised. The terminal had originally been attached by means of an iron shank set into it, but only the much-corroded stump survives. Closely similar objects were found at Richborough (Bushe-Fox, 1949, pl. XLIV, 168) and Straubing (Walke, 1965, Taf. 115, no. 3).
From a bedding trench in the garden of the Second-Period palace — probably therefore pre A.D. 75.
126. Handle from a bronze jug, now bent out and buckled. The upper surface and circular end (attached to the body) are incised and stamped with a simple geometric design.
First-Period occupation level.
127. Handle in the form of two dolphins snout to snout. The eyes are incised. Similar handles occur sporadically in this country, e.g. Woodcuts (Pitt-Rivers, 1887, pl. XXI, 5).
Late rubble levels.
- 128-32. Seal boxes of various types, complete or fragmentary.
Nos. 131-2 are from First-Period occupation levels; no. 129 is from a Third-Period occupation level; no. 130 is from destruction rubble of the late third century, and no. 128 comes from the plough-soil.
- 133-4. Stylus cases made from bronze sheathing.
No. 132 is from the late third-century destruction, no. 134 from Second-Period construction levels.
135. Stylus.
Third-Period construction.
- 136-9. Lock bolts operated by slide keys such as no. 140. Common type.
No. 136 from late third-century destruction; 137 from Third-Period occupation and 138 and 139 from plough-soil.
140. Key from a slide lock. Generally a common type, but a close parallel occurs at Richborough (Cunliffe, 1968, pl. XLV, 199).
141. Pendant with central suspension loop. For general account of the type see Smith, 1918, 54-63. Good parallel at Camulodunum (Hawkes and Hull, 1947, pl. c, no. 18).
Plough-soil.
142. Small bronze model of a dolphin with simple features inscribed.
First-Period occupation level.
143. Leg from a debased silver statuette, presumably of a putto.
Plough-soil.
144. Iron knife or key with a bronze handle terminal in the form of a docile lion's head. Iron knives with bronze animal terminals are reasonably well known in Britain, e.g. London (Wheeler, 1930, fig. 19, 3); Richborough (Bushe-Fox, 1949, pl. xxxvi, 117); Wall, Staffs. (Webster, 1960, fig. 8, no. 225).
Third-Period occupation.
145. Dress fastener inlaid with blue and white enamel.
Plough-soil. For a general discussion of the type see Gillam in Richmond (ed.), 1961, pp. 79-85.
146. Terret ring, plain undecorative type.
Third-Period occupation level.
- 147-8. Thimbles, both of Roman type.
Third-Period occupation levels.
- 149-50. Barbed fish hooks.
Both from late third-century - early fourth-century robber trenches.

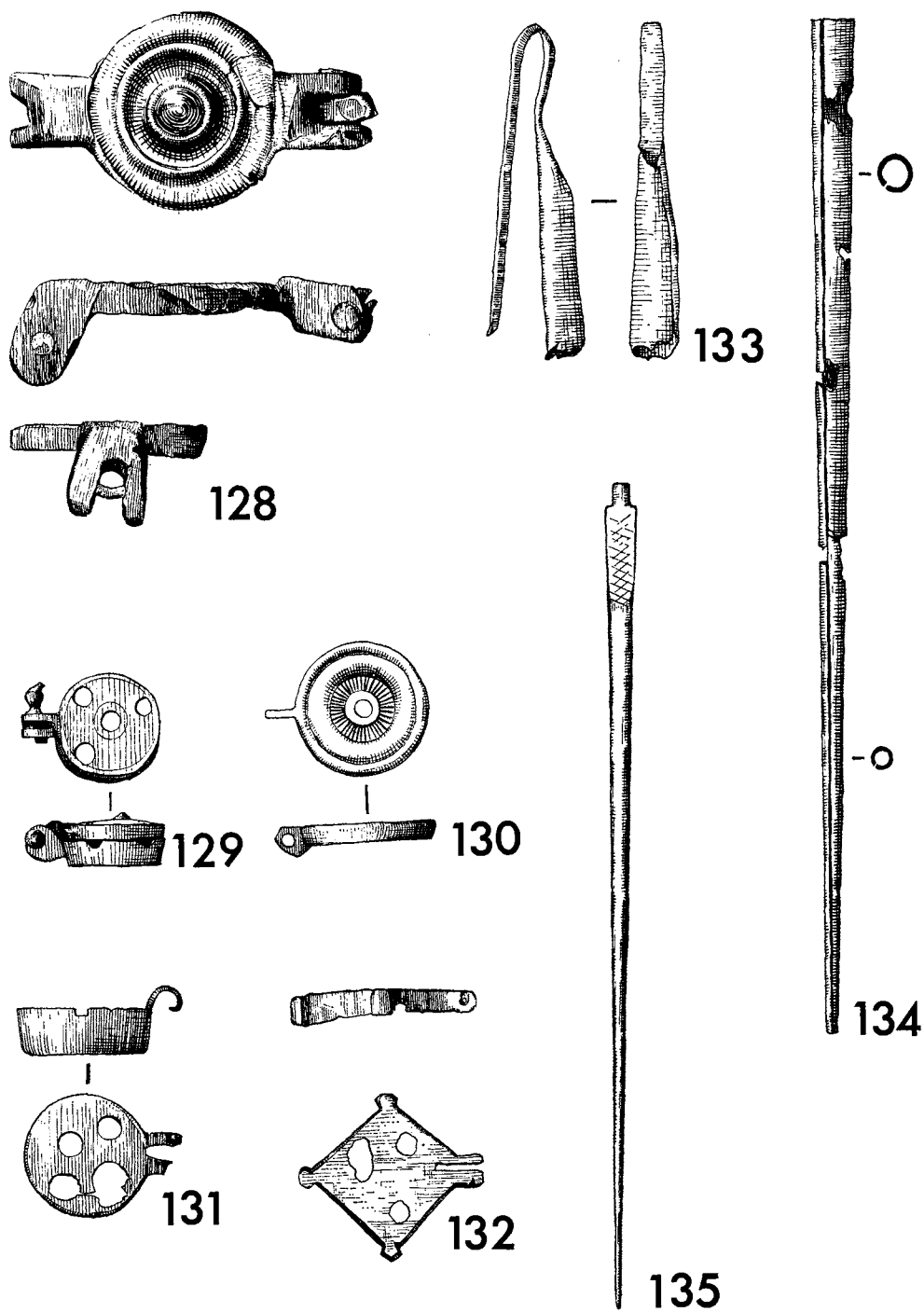


FIG. 49. Bronze objects: scale $\frac{1}{2}$ (p. 118)

151. Cast bronze fitting, probably a foot for a bucket. A parallel occurs at Richborough (Bushe-Fox, 1932, pl. xii, 37).
First-Period occupation.
- 152-3. Fragments of bronze bowls or dishes.
Both from late destruction rubble.
- 154-5. Fragments of thick sheet bronze, probably from statuary. The surface of no. 155 is gilded.
No. 154 from occupation levels of late third century; no. 155 is from a late third- to early fourth-century destruction level.
- 156-61. Studs of various sizes with globular heads.
No. 156 is from Period 3 occupation; no. 157, late third-century rubble; no. 158, Period 3 destruction; no. 159, Second-Period occupation; no. 160, Period 2 construction; no. 161, Period 1. In addition to those illustrated a further 27 are recorded from various levels.
162. Stud with domed head.
From plough-soil. Four more are known from various levels.
163. Studs with large flat heads, sometimes decorated.
Period 2 construction. Three more are known.
164. Bronze cover for an iron nail or rivet.
Period 3 occupation. Four more are known.
165. Studs or nails with small flat heads, sometimes decorated. The size varies.
Late rubble. 15 others are known from levels of all periods.
166. Large bronze nail or dowel.
Period 3 occupation.
167. Bronze nail with conical head.
Period 2 construction.
168. Bronze nail.
First-Period occupation.
169. Pin or slender nail.
Destruction level.
170. Pin or nail with solid head.
Third-Period occupation level.
- 171-4. Pins of various kinds.
171 and 174 from Period I occupation; 172 and 173 from late rubble.
- 175-7. Needles.
No. 175 from Third-Period occupation; 176 from Second-Period construction; 177 from Third-Period construction.
178. Silvered bronze fitting.
Late destruction level.
179. Handle, possibly of a spoon or stylus.
Second-Period construction.
- 180-1. Ring fittings.
Period 1 occupation.
- 182-3. Objects of uncertain use, each consisting of a hollowed bronze disc, to the underside of which is fitted a lead attachment.
No. 183 is from First-Period occupation; 182 is unstratified.
184. *Phalera* with central perforation. See Richborough (Cunliffe, 1968, pl. xxxviii, no. 153).
First-Period occupation.

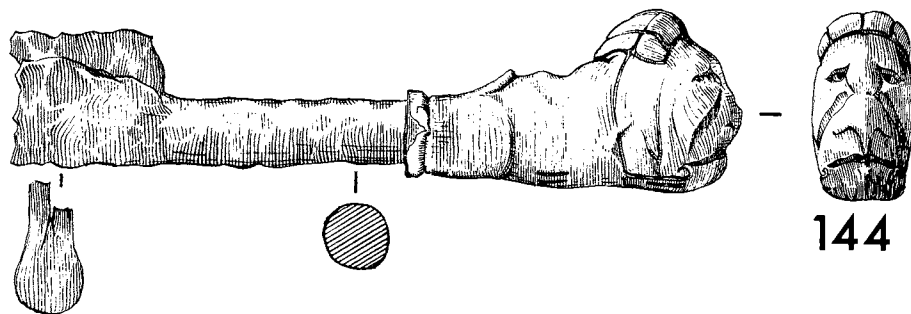
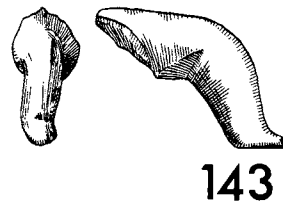
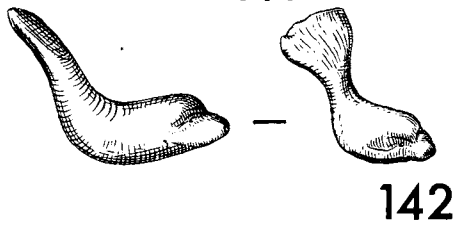
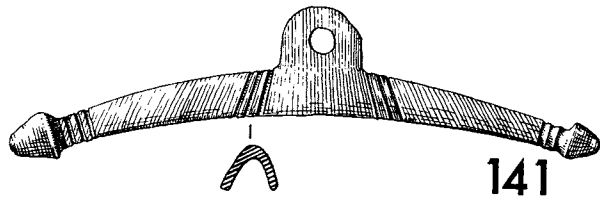
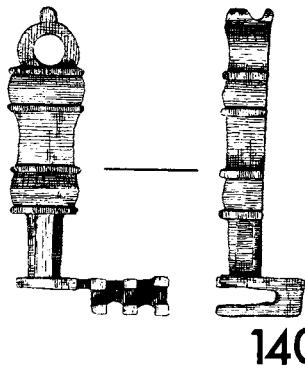
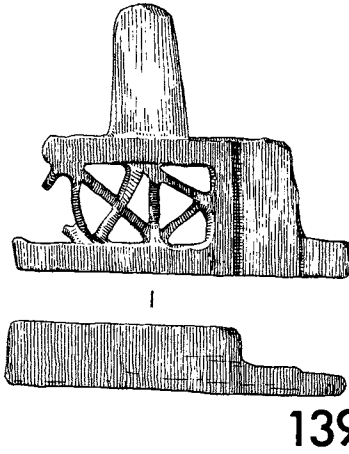
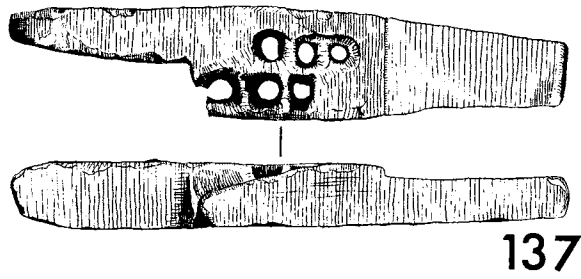
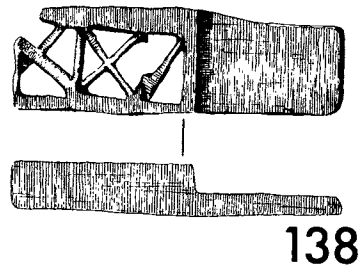
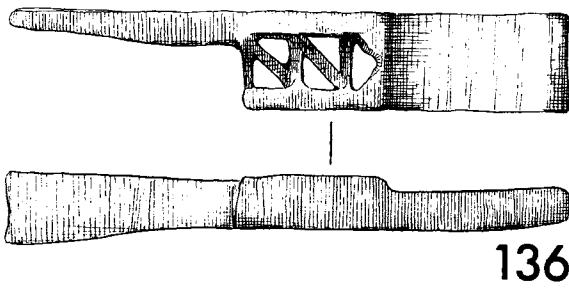


FIG. 50. Bronze objects: scale $\frac{1}{2}$ (p. 118)

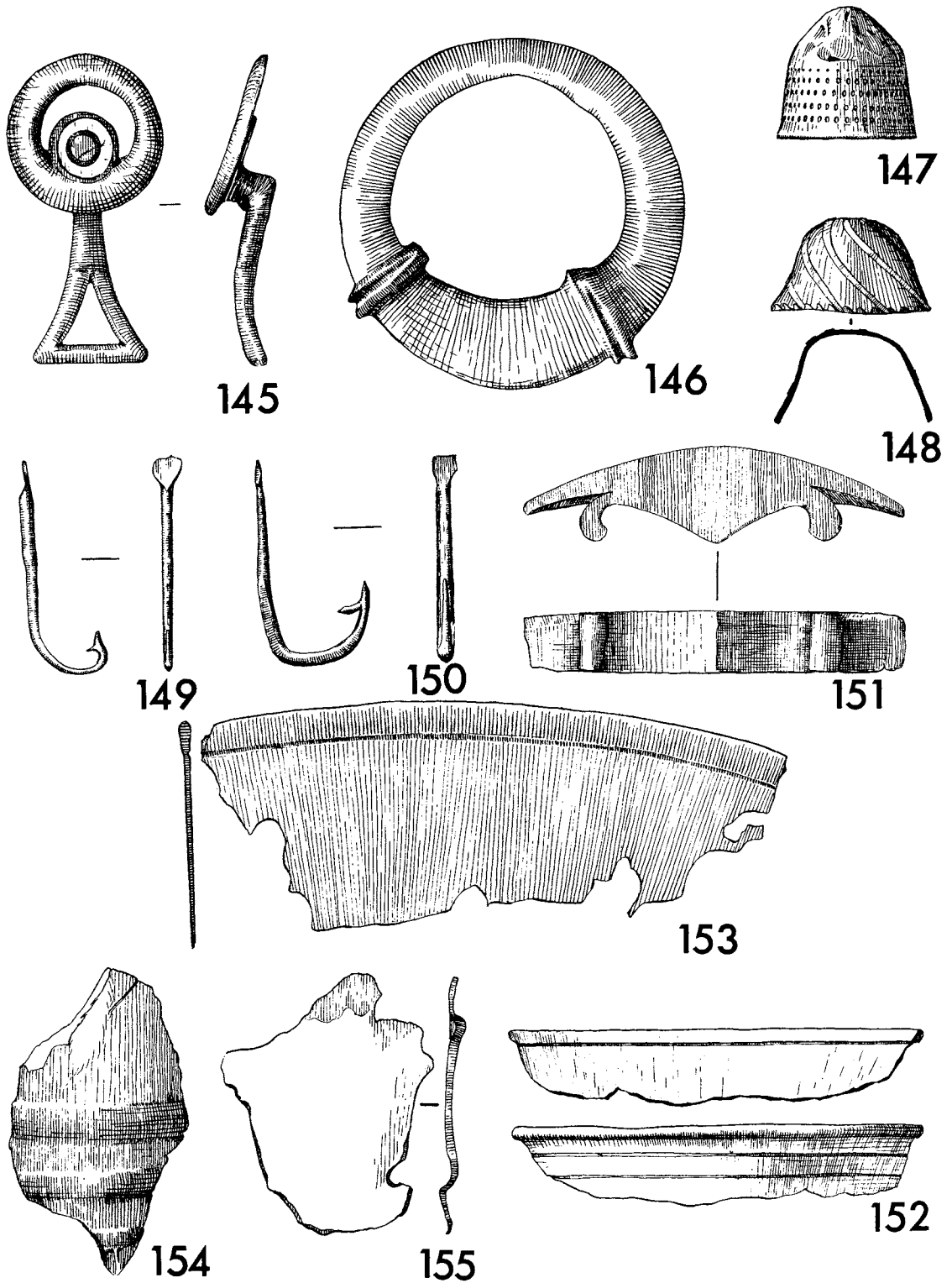


FIG. 51. Bronze objects: scale $\frac{1}{2}$ (pp. 118, 120)

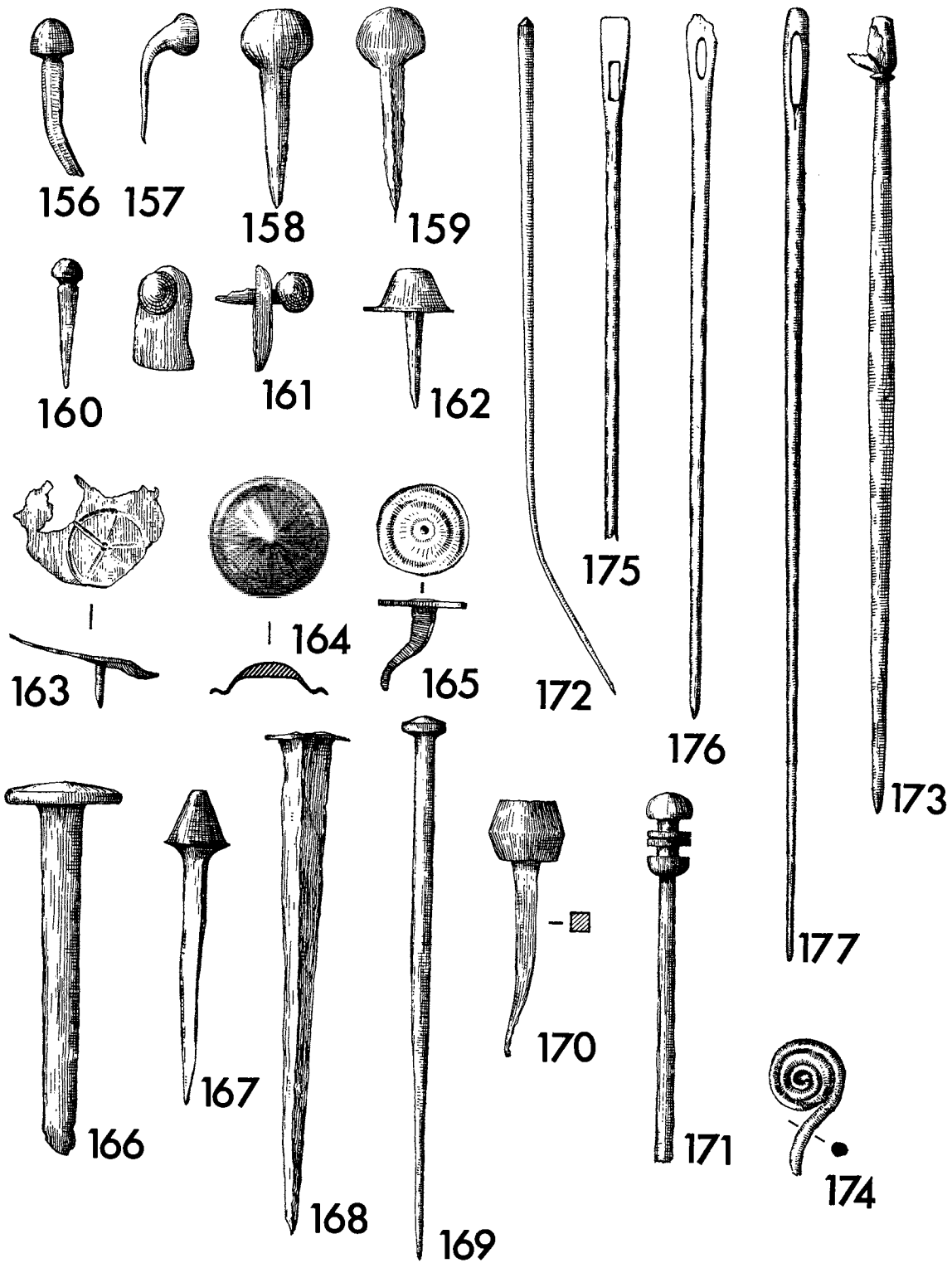


FIG. 52. Bronze objects: scale $\frac{1}{2}$ (p. 120)

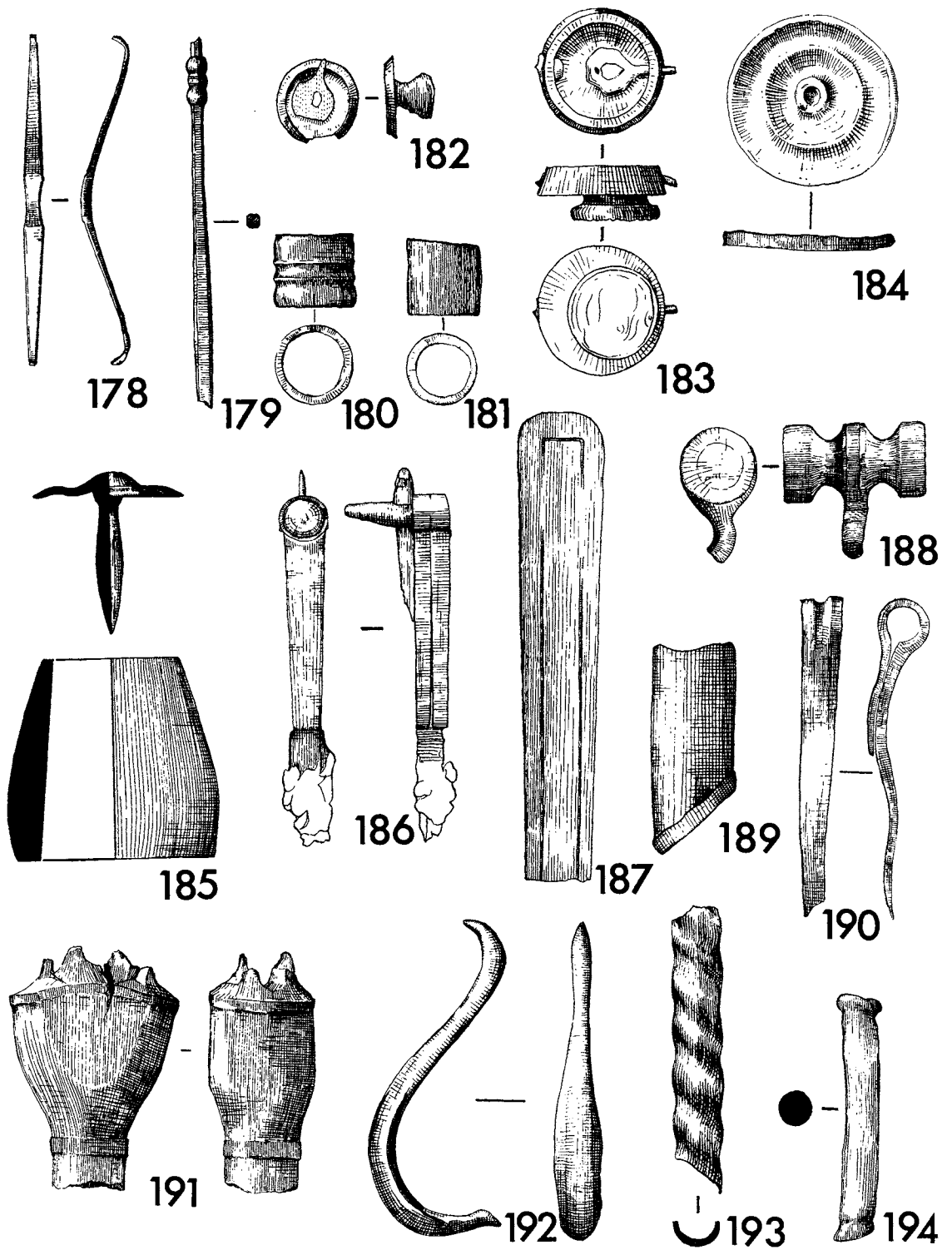


FIG. 53. Bronze objects: scale $\frac{1}{4}$ (pp. 120, 126)

LOOSE FINDS

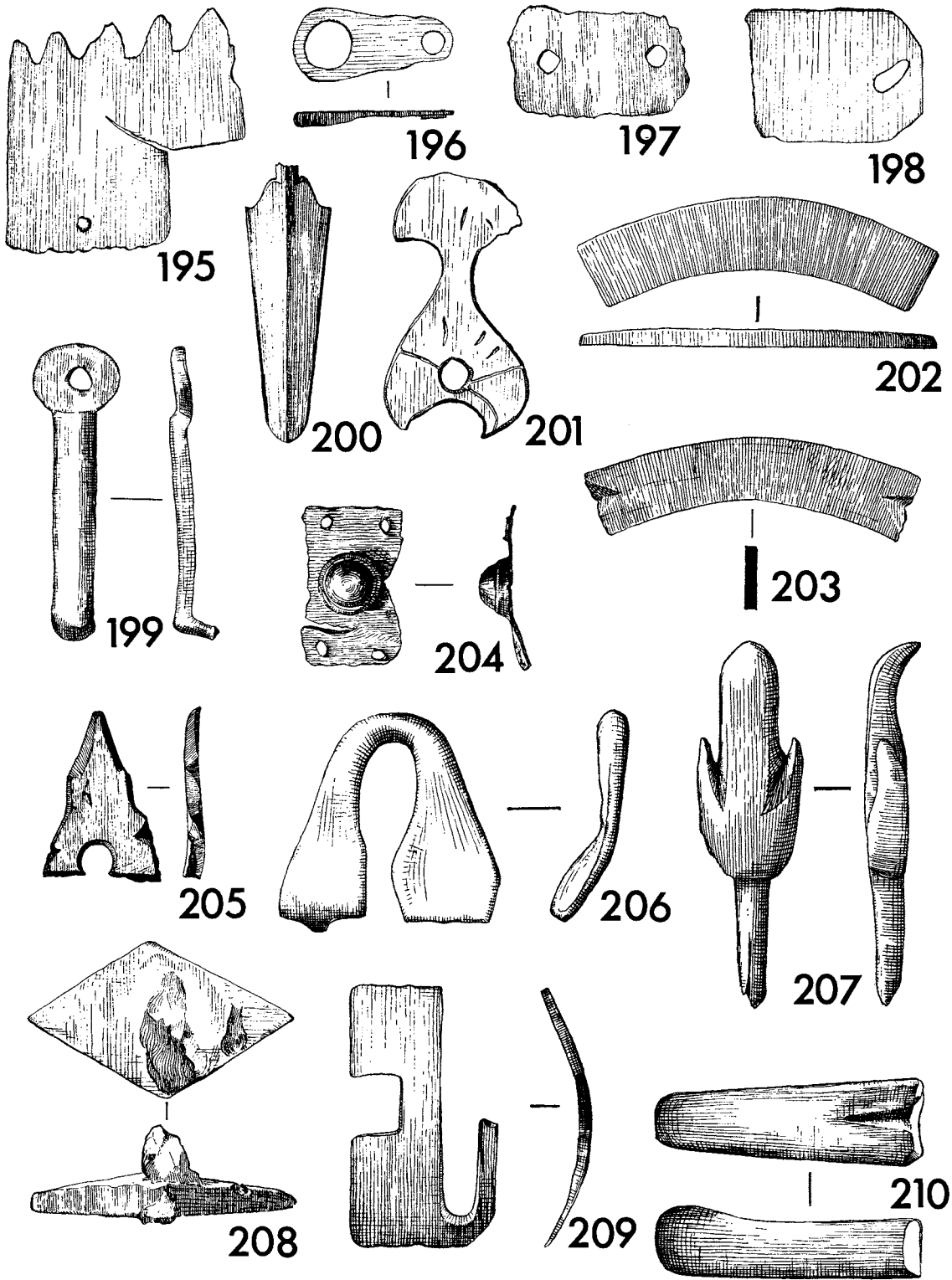


FIG. 54. Bronze objects: scale $\frac{1}{2}$ (p. 126)

185. Bone pommel, originally attached by the bronze stud to a wooden handle.
Destruction level.
186. Dividers with much-corroded iron ends.
Destruction level.
187. Incised strip.
Second-Period construction.
- 188-94. Miscellaneous fittings of uncertain use.
Nos. 190 and 192 are from First-Period occupation; 188 from Second-Period construction;
193 and 194 from destruction levels and nos. 189 and 191 from plough-soil.
195. Sheet bronze cut with teeth.
Late destruction level.
- 196-8. Sheet bronze fittings.
No. 196, late destruction; 197, First-Period occupation; 198, plough-soil.
199. Fitting from the angle of a box.
Plough-soil.
200. Moulded fitting.
Third-Period occupation.
201. Fitting of silvered bronze.
Second-Period occupation.
- 202-3. Curved fittings ?from the base of a bucket.
Late rubble levels.
204. Decorative fittings, probably from the surface of a box.
Plough-soil.
205. Fitting.
Plough-soil.
206. Handle.
First-Period occupation.
207. ? Bucket fitting. Common type. Several collected in Webster, 1960, fig. 4, 69; fig. 6, 141; fig. 8,
256.
Second-Period construction.
208. Diamond-shaped fitting with iron shank.
Third-Period occupation.
209. Harness fitting?
Second-Period construction.
210. Rod with grooved end.
Plough-soil.

IRON FITTINGS FROM THE BUILDING

(Figs. 55-7)

- 1-3. Iron T-clamps. None was found *in situ*, but elsewhere they are known to have been used to hold vertical box-tiles in position, one clamp between two adjacent tiles. Other uses are also possible.
Of the three illustrated, nos. 2 and 3 come from second- and third-century rubbish deposits in the north-west corner of the garden, and no. 1 from a third-century layer in room N 22, close to the early second-century baths.

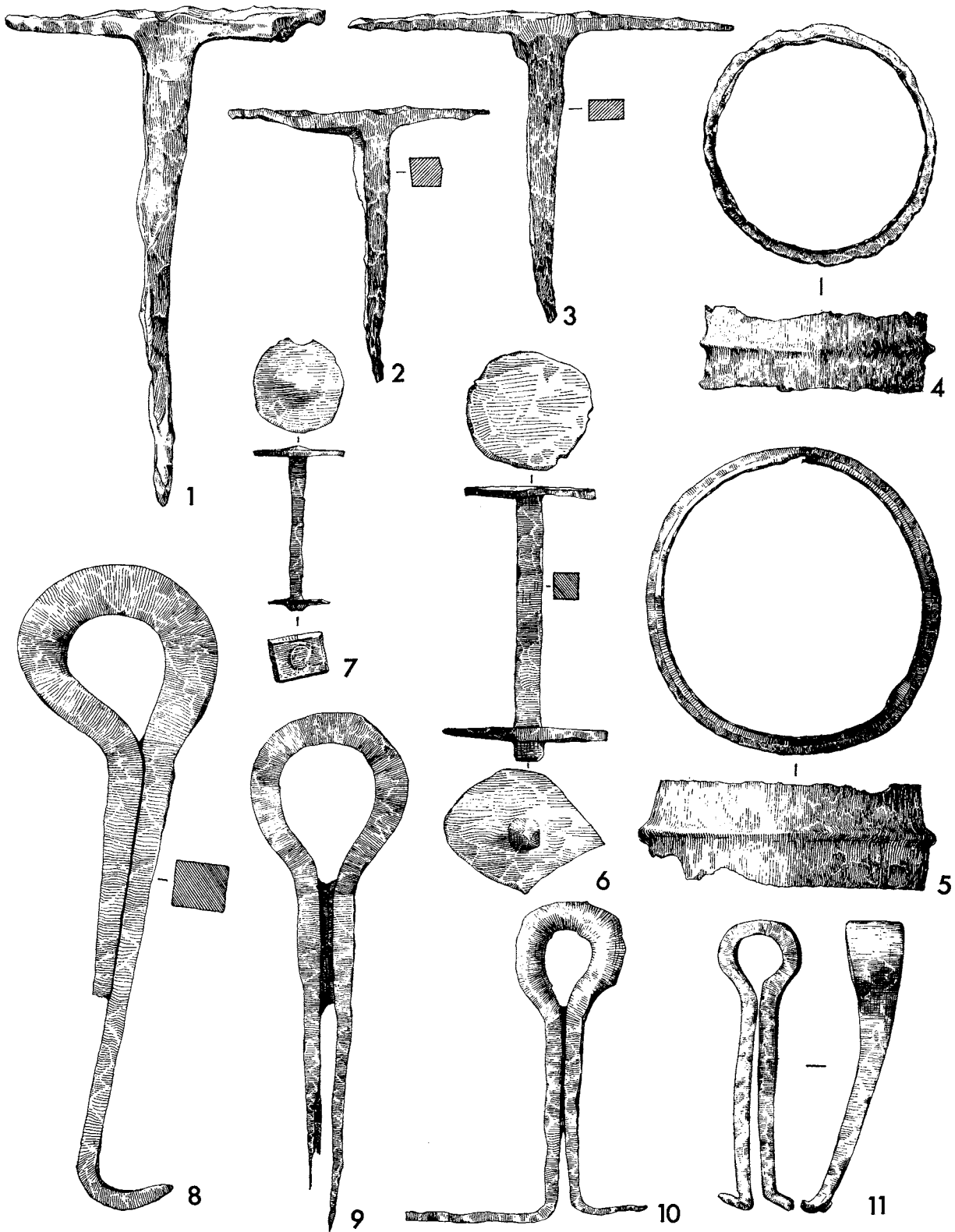


FIG. 55. Iron objects: scale $\frac{2}{3}$ except 4 and 5 which are $\frac{1}{3}$ (pp. 126, 128)

Seven others are not illustrated: one was found with nos. 2 and 3; two in destruction levels in room H in the East Wing bath suite; one in late rubbish layers in the Aisled Hall; one in a robber trench close to room E 14; one lying on the floor of room N 12 and one in rubble layers north of room N 8.

- 4-5. Iron water pipe collars. Iron bands used to join sections of wooden water pipes occurred relatively abundantly in several basic sizes, of which two are illustrated here. The details of each length of pipe are best considered separately.
- (1) In the Aisled Hall three separate lengths of pipe were laid (Vol. I, p. 157):
- (a) pipe leading to cold bath in south end of N 24 — 6 collars *in situ* range from 14.0-16.0 cm. in diameter. One fragment of similar size was found loose, and another, 10.0 cm. in diameter, was found loose near the extreme east end of the line.
 - (b) pipe leading to junction box in south-east corner — two collars, 11.0 cm. in diameter.
 - (c) pipe leading to hot-water boiler — five collars in position, 9.5 cm. in diameter. Fragment of one other found loose.
 - (d) collar loose in rubble filling *tepidarium*, 11.0 cm. in diameter.
- (2) In the area between the north end of the West Wing and the west end of the North Wing — two collars in position, fragmentary but *c.* 11.0 cm. in diameter.
- (3) Pipe serving the hot-water boiler of the Third-Period East Wing baths — two fragmentary collars, one in position, *c.* 11.0 cm. in diameter.
- (4) Three fragments, possibly of one collar, in late rubble at the east end of the Entrance Hall. Diameter uncertain.
- (5) Single collar in rubble immediately west of west front of the Entrance Hall, 8.0 cm. in diameter.
- (6) Miscellaneous:
- (a) collars in rubble filling courtyard 2 in the North Wing, *c.* 10.5 cm. in diameter.
 - (b) one loose in rubble close to front of Audience Chamber, diameter uncertain.
 - (c) fragment loose in rubble on floor of room N 12.
- 6, 7. Iron studs. Each consists of a shank of rectangular section with a beaten-out flattened circular head. To the opposite ends of the shanks rectangular end-plates have subsequently been attached. Studs of this kind occur in two sizes, 7 cm. long and 4 cm. long. They were probably used as ornamentation for doors or timber partitions. A considerable number were recovered from the destruction level on the floor of room N 11. They may well have been used in the timber partition with which the room was divided in the Third Period.
- 8-11. Iron split pins of various sizes. Seven complete examples have been found. Nos. 8 and 9 and one not illustrated from rubble on floor of room N 3; no. 10 from rubble on floor of room N 12; no. 11 and one not illustrated from rubble on floor of room N 10. One not illustrated from the rubble on the floor of the northern half of room N 12. Pins of this kind were found only in destruction layers in the North Wing, and therefore may well have been used as roof or door fittings within the palace.
- 12-16. Iron hinges of pivot type. Four complete and one fragmentary hinges have been recovered. All are of the same type, made of two leaves pivoted together. In the case of no. 15, the original pivot has been replaced with a nail. Each leaf was attached to the timber behind by means of two nails, except in the case of no. 14, where only one was used. Nos. 12 and 16 were found in destruction levels lying on the corridor floor in front of room N 7 and were probably from the central door leading to the room; no. 15 was from destruction levels on the floor of room N 11; no. 14 was from a similar position in room N 10 and no. 13 from the floor of room N 5. There is little doubt therefore that this type of hinge was the standard fitting for the doors of the North Wing.

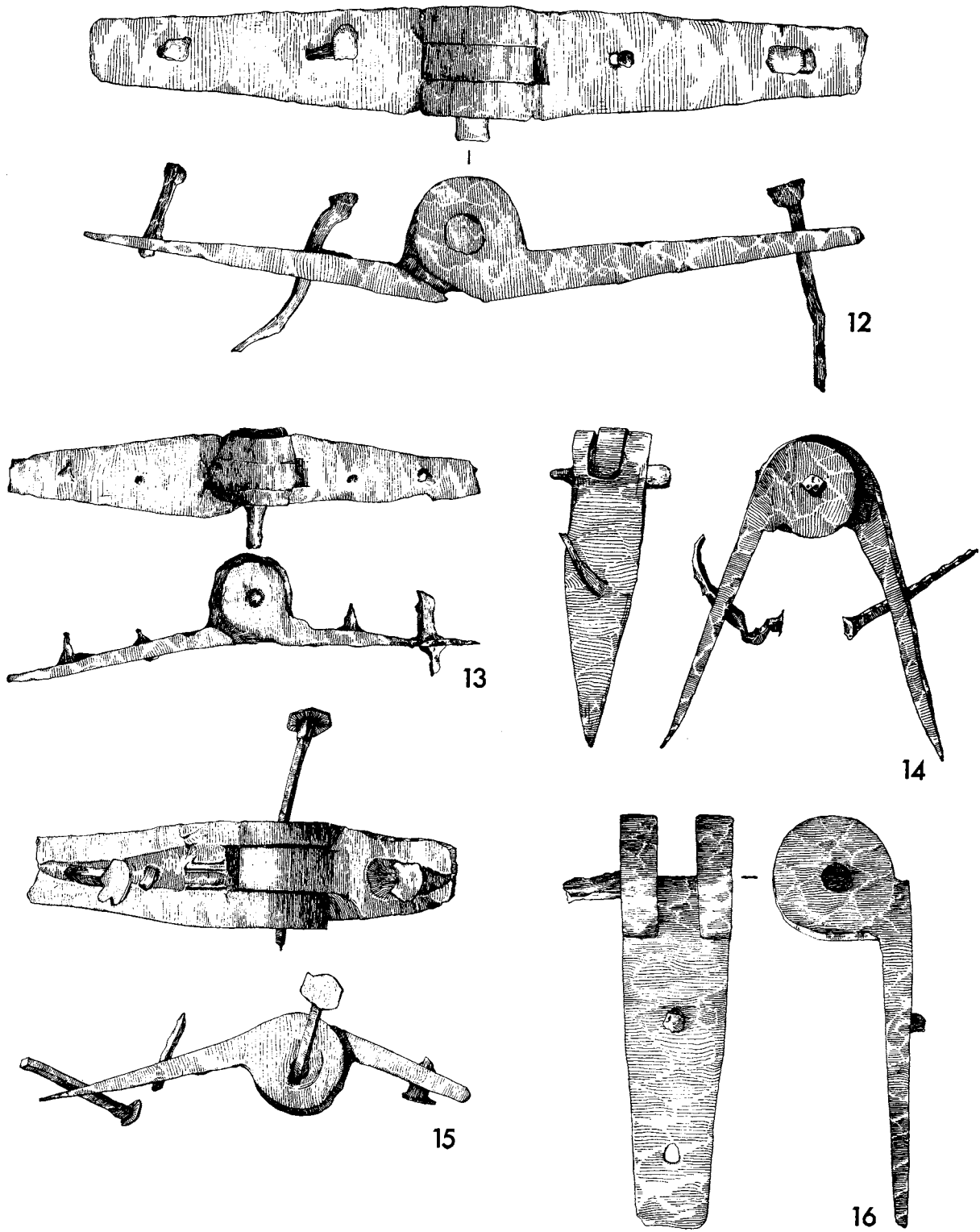


FIG. 56. Iron objects: scale $\frac{2}{3}$ (p. 128)

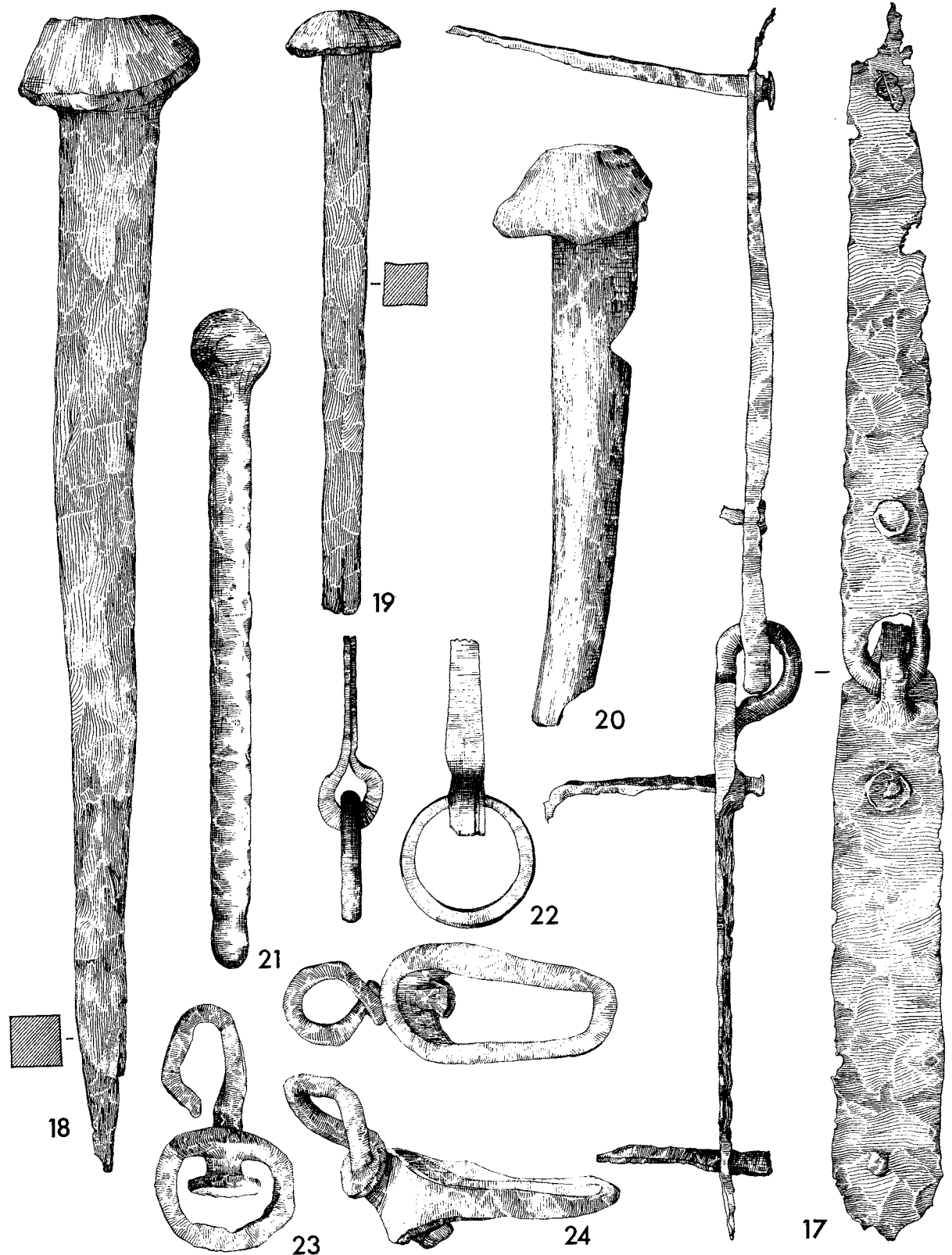


FIG. 57. Iron objects: scale $\frac{2}{3}$ (p. 131)

17. Iron hinge of loop-linked type. Each leaf was attached by two nails. This type is clearly unsuitable for doors.
Found in the robber trench for the north wall of room N 7.
- 18-21. Iron nails and bolts. Very large quantities of iron nails were found in the destruction levels blanketing the floors of the North Wing and derived, presumably, from the burning rafters. Although somewhat broken and corroded, five basic lengths can be recognized: 15 cm., 12 cm., 9 cm., 6 cm., and 4 cm. Nails of 9 cm. and less in length have also been found in Period 1 levels. Four nails and bolts of exceptional size are illustrated here.
No. 18 comes from Period 2 construction levels just north of the Aisled Hall, and no. 20 from a similar level within the Aisled Hall. Attempts had been made to chop the latter into sections, possibly for re-forging. More than 40 were found packed in a small pit north of the North Wing. No. 19 is an example of the type usually about 25 cm. long, found in destruction levels in the North Wing. The illustrated example came from the robber trench between rooms N 10 and 11. Two others of similar size were found in room N 3.
No. 21, a round-headed bolt, was found in a Third-Period occupation layer in the north-west corner of the garden.
- 22-4. Iron ring attachments. Three different types of ring attachment are illustrated here.
No. 22 came from destruction levels in room N 11; no. 23 from Period 2 construction levels beneath the west veranda of the East Wing and no. 24 from late rubble levels in front of the Audience Chamber.

LOOSE IRON OBJECTS

(Figs. 58-65)

- 25-32. Iron keys. Nos. 25-31 from slide locks, no. 32 from a rotary lock.
No. 25 is from rubble in the north-east corner of the garden; no. 26 is unstratified; no. 27 from general Second- to Third-Period occupation levels west of the North Wing; no. 28 from Third-Period destruction levels in room N 22; no. 29 from the garden surface in front of the Audience Chamber; no. 30 from Third-Period rubble layers in room N 18; no. 31 in the destruction level on the floor of room N 12 and no. 32 from Third-Period occupation rubbish in the north-west corner of the garden.
- 33-5. Socketed iron sickles or reaping hooks.
No. 33 from late destruction levels in room N 14; no. 34 from the destruction level on the floor of room N 12; no. 35 from a late destruction layer north of room N 17.
- 36-9. Wedge-shaped iron objects which could have been used as chisels, small field anvils or simply wedges. No. 37 has the beaten surface one might expect of a field anvil, whilst no. 38 is almost certainly a chisel.
No. 36 is from Third-Period rubbish deposits in the north-west corner of the garden; nos. 37 and 39 from rubble on the garden surface close to the East Wing; no. 38 unstratified.
40. Socketed hammer with splayed chisel end.
From early Third-Period occupation levels in the southern part of room N 23.
41. Iron shears, angled and suitable for sheep shearing or napping cloth.
From the robber trench between rooms E 5 and 6.

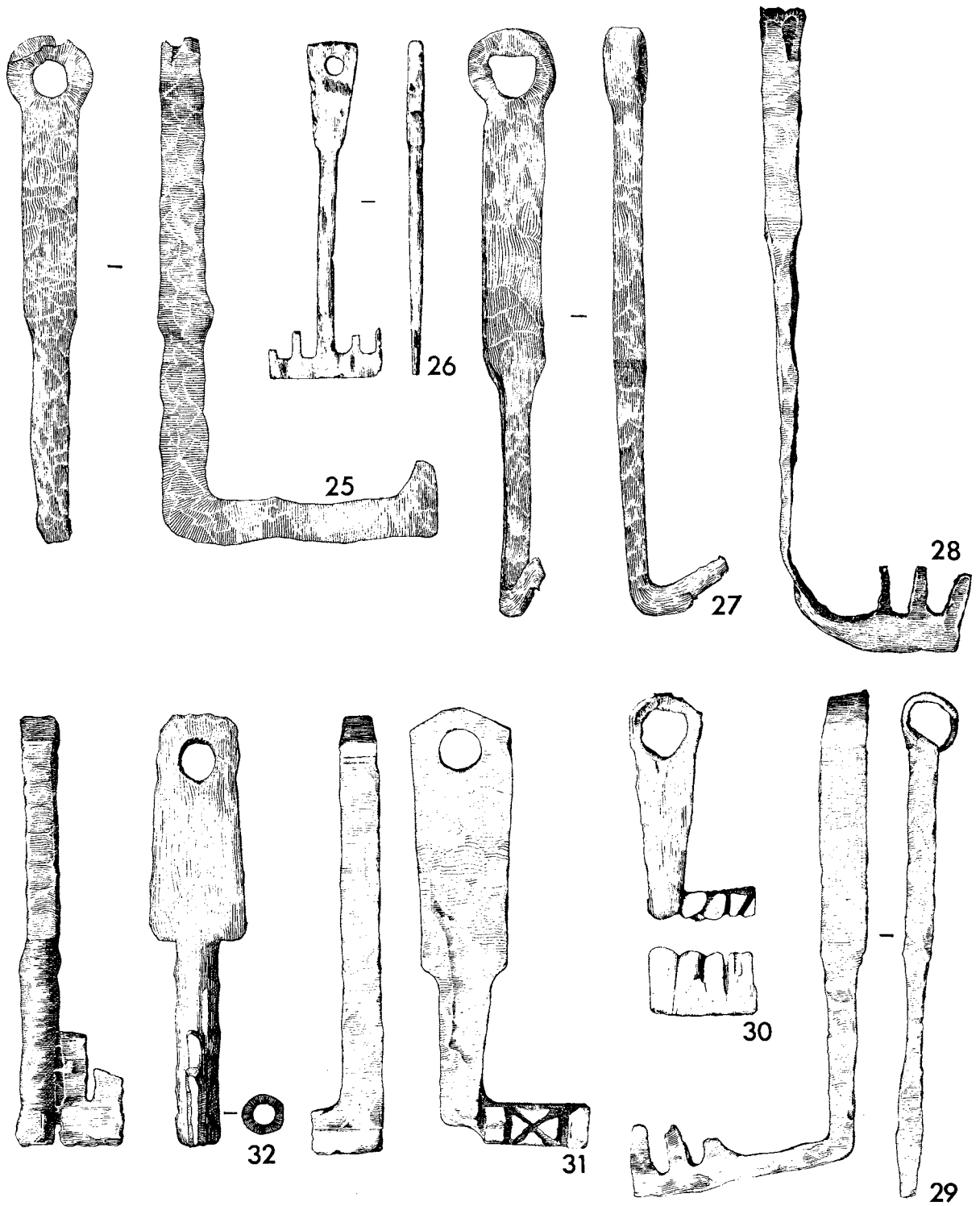


FIG. 58. Iron objects: scale $\frac{2}{3}$ (p. 131)



FIG. 59. Iron objects: scale $\frac{2}{3}$ except 40, 41 which are at $\frac{1}{3}$ (p. 131)

- 42-5. Iron knives of various types.
No. 42 from destruction levels on the floor of room N 12; no. 43 from the robber trench between rooms E 6 and 7; no. 44 from destruction levels in the Aisled Hall; no. 45 from late destruction levels in room N 14.
46. Iron-tanged point.
From late rubble on the garden surface in front of the North Wing.
47. Socketed spear. From a Third-Period occupation level in the south-east corner of the southern courtyard in the East Wing.
48. Small socketed spear.
From plough-soil (and therefore not necessarily Roman) covering the garden surface.
49. Socketed ballista bolt of military type.
Found projecting from the side of the stream which marks the eastern limit of the present excavation, due east of room E 6.
50. Tanged arrowhead.
From plough-soil (and therefore not necessarily Roman) over the floor of the corridor along the west side of the West Wing. Possibly medieval.
51. Three-pronged iron fork or part of a candlestick.
From a late rubble layer over the North Wing.
52. Prick spur.
From a Third-Period occupation layer in the southern part of the corridor flanking the east side of the northern courtyard in the East Wing.
53. Ferrule.
From Second-Period make-up from the floor of the Entrance Hall.
54. Horse-shoe fragment.
From Third-Period occupation levels immediately north of the apse terminating the west corridor of the West Wing.
55. Ladle with twisted handle.
From occupation layers in room E 3 belonging to the late third- to early fourth-century demolition.
- 56-8. Hipposandals. Three hipposandals of closely similar type were found on the floor of the northern part of room N 12, sealed by the collapse of the superstructure. None showed any obvious signs of wear on the undersurface and one, no. 58, bears a simple pattern chased, on the undersurface, with a chisel. For a useful general discussion see Wheeler and Wheeler, 1936, 220-1 and Aubert, 1929, 5.
- 59-60. Iron axle caps, used to bind the ends of the axles which would have projected beyond the wheels. Both mounts are perforated to allow linch-pins to pass through the axles in order to keep the wheels in place.
The pair illustrated here were found together lying on the floor of room N 3 and sealed by the collapsed superstructure. Their relative positions suggest that they were in position on an axle at the time of destruction.
- 61-2. Bindings from the angles of a wooden box, attached by means of two small iron studs. Two are illustrated of the four found together lying on the floor in the southern part of room N 12 and sealed by the destruction levels. They probably formed part of the same container, which must have been lying here or have fallen at the time of the final destruction.
63. Iron fitting, possibly from a wooden structure.
From late rubble layers on the floor of room N 9.

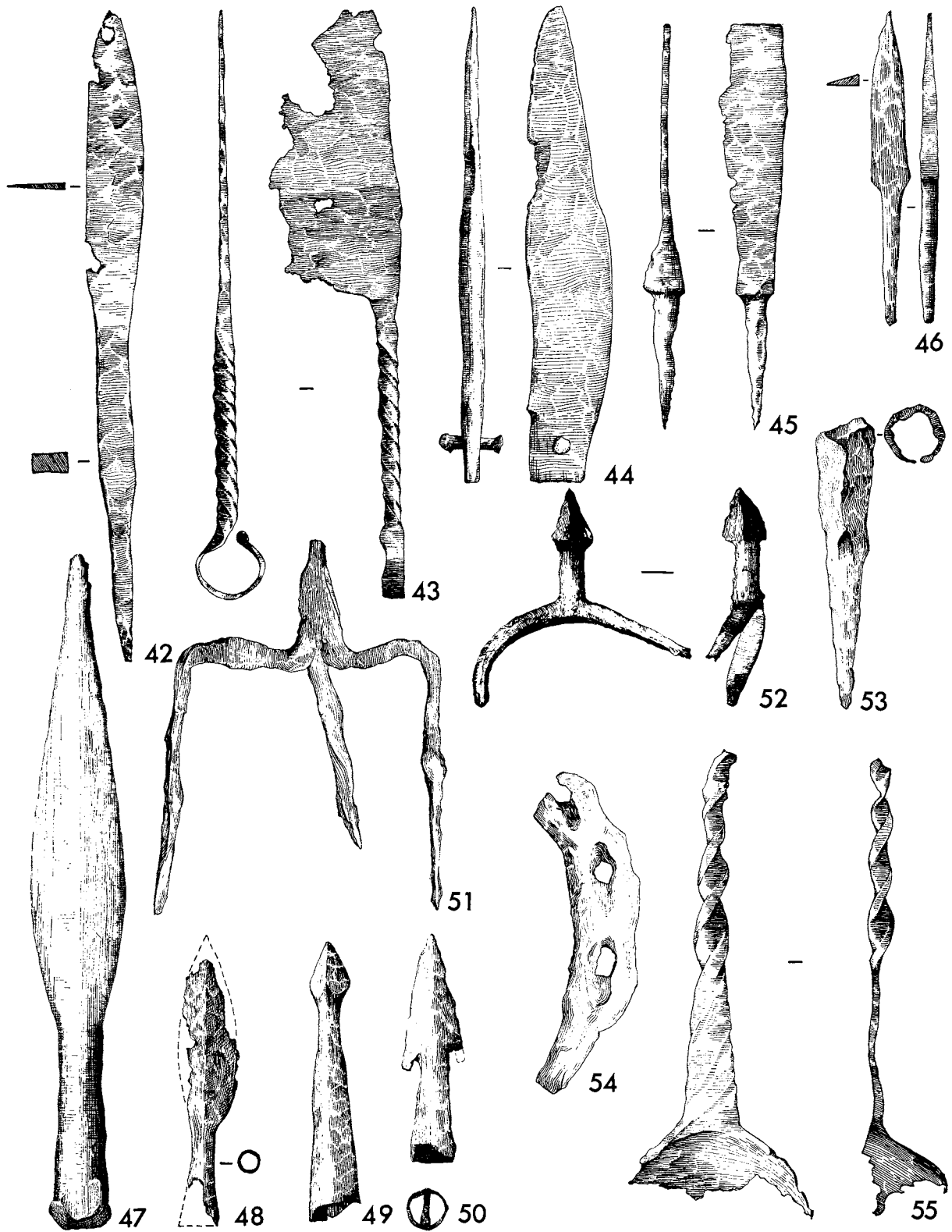


FIG. 60. Iron objects: scale $\frac{2}{3}$ (p. 134)

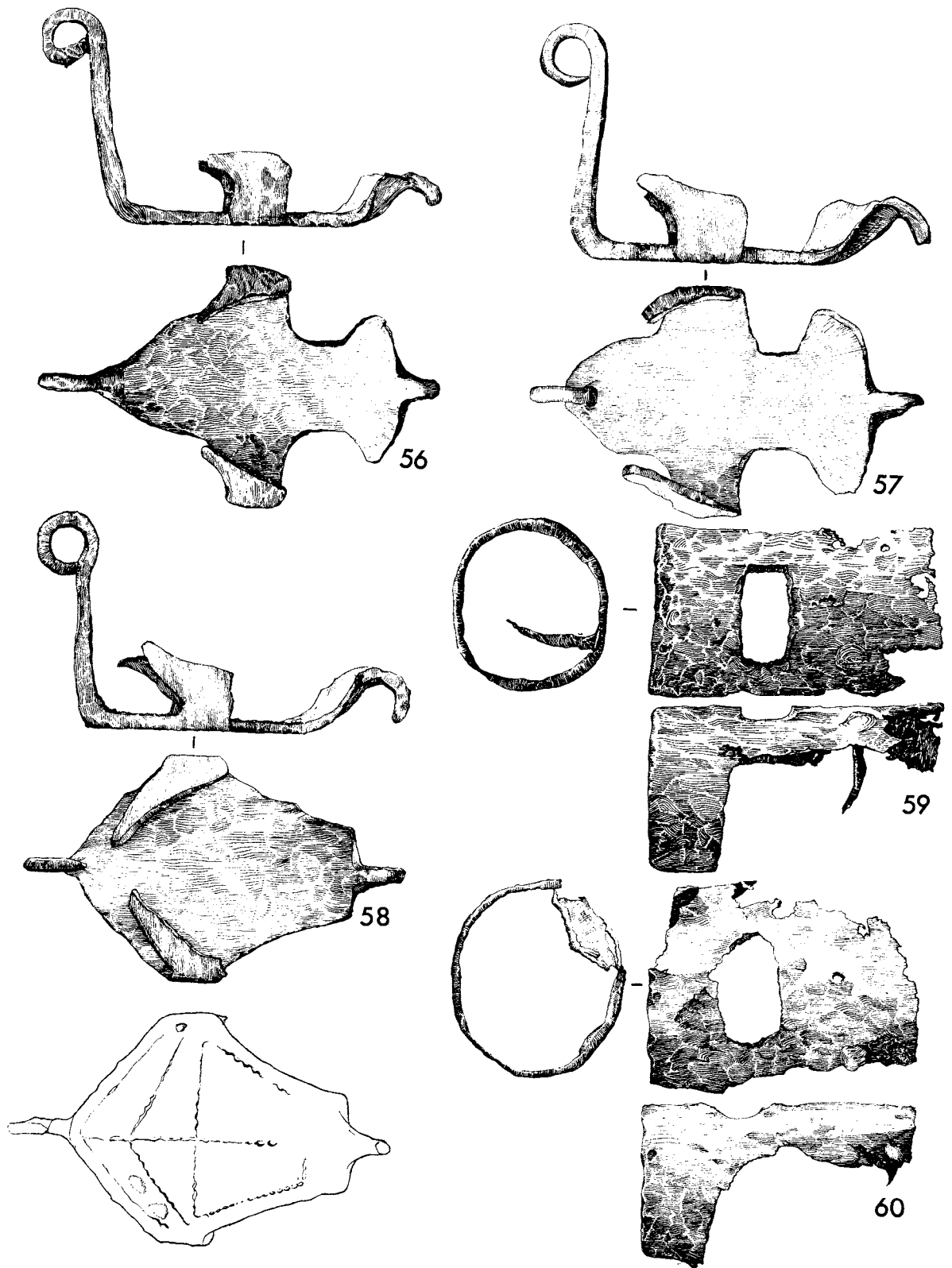


FIG. 61. Iron objects: scale $\frac{1}{3}$ (p. 134)

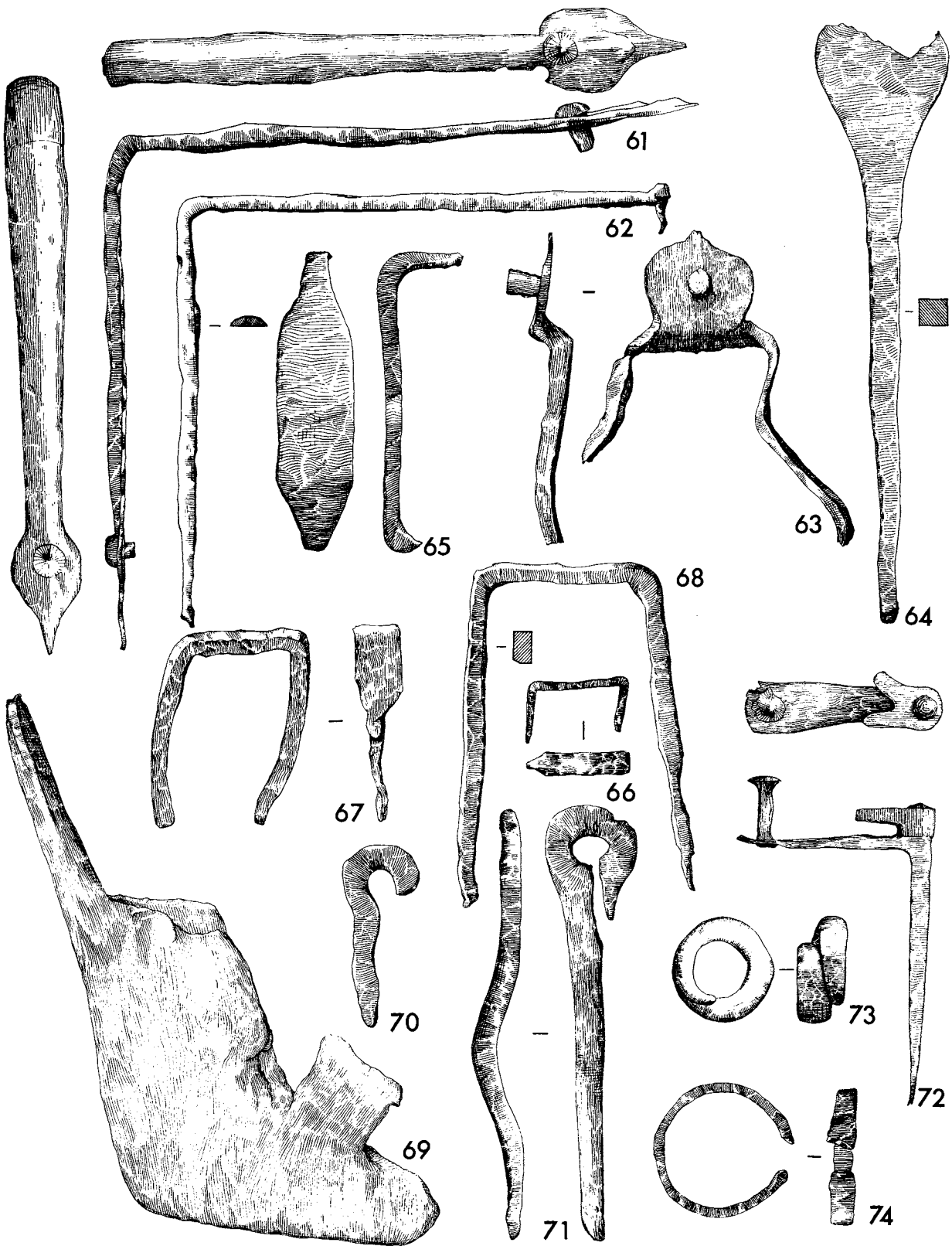


FIG. 62. Iron objects: scale $\frac{2}{3}$ (pp. 134, 139)



FIG. 63. Iron objects: scale $\frac{1}{2}$ (p. 139)

64. Iron fitting with beaten-out end.
From late rubble layers in room N 7.
65. Large iron cleat.
From destruction levels in the west end of the Entrance Hall.
66. Small cleat.
From Second-Period make-up layers north of the North Wing.
- 67-8. U-clamps of different sizes.
No. 67 from period make-up layers for courtyard 2 in the North Wing; no. 68 from late destruction layers in room N 12.
69. Spade iron. Part of the sheathing of a wooden spade.
From the top of the destruction rubble in the east end of the Aisled Hall.
- 70-1. Iron hooks. A large number of fragments of hooked iron have been recovered from all periods.
Two are illustrated.
No. 70 from a Period 1 level beneath the Entrance Hall and no. 71 from Period 2 construction levels.
72. L-shaped iron fitting with a separate lead attachment riveted on. The function of the object is uncertain but it was clearly attached to a wooden surface by means of the rivet at the opposite end to the lead.
Found lying on the floor of room N 12 beneath the destruction rubble.
- 73-4. Iron rings. A number of iron rings of different sizes have been recovered from all levels. Two are illustrated: no. 73 from a destruction level immediately north of room N 9; no. 74 from a destruction level in the Aisled Hall. From pre-A.D. 75 levels, three completely circular rings have been recovered, 7.0 cm., 5.0 cm., and 3.6 cm. in diameter.
75. Bar of iron with a bent-over top.
Found on the floor of room N 12 below the destruction rubble.
76. Spindle with a grooved semi-circular cross-section and a pointed end, probably a bit from a mason's drill.
Found in destruction rubble on the floor of room N 4.
77. Iron object of uncertain use.
Found on the floor of room N 12, below the destruction rubble.
78. Short iron rod with bent-over flattened head.
Found on the floor of room N 12 below the destruction rubble.
79. Iron link showing attempts at cutting across one of its short sides.
Third-Period occupation level immediately west of the North Wing.
80. Iron object, much corroded, of uncertain use.
From Third-Period occupation level immediately west of the North Wing.
81. Iron object, much corroded. Probably a chisel-like tool tanged at one end. The iron rings may once have strengthened the handle.
Found on the floor of room N 12 below the destruction rubble.
82. Remains of a much-corroded barrel padlock (the illustration is a reconstruction).
Found on the floor of room N 12 below the destruction rubble.
83. Length of chain composed of twenty links, O-shaped alternating with 8-shaped except at one end (illustrated) where two O-shaped links are adjacent. Found on the floor of room N 12 below the destruction rubble with the padlock, no. 84.

IRON PADLOCK

By DR W. H. MANNING

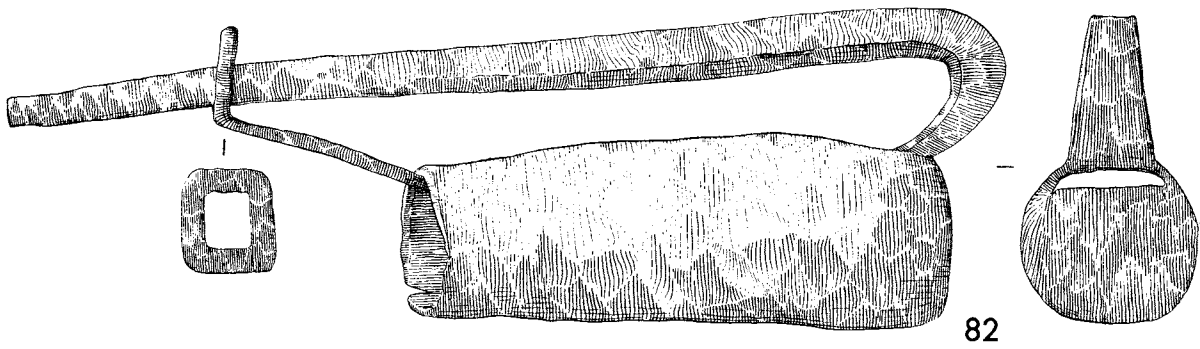
Department of Archaeology, University College of South Wales and Monmouthshire

84. Padlock found on the floor of room N 12 below the destruction rubble (figs. 64-5 and pls. xx, xxi).

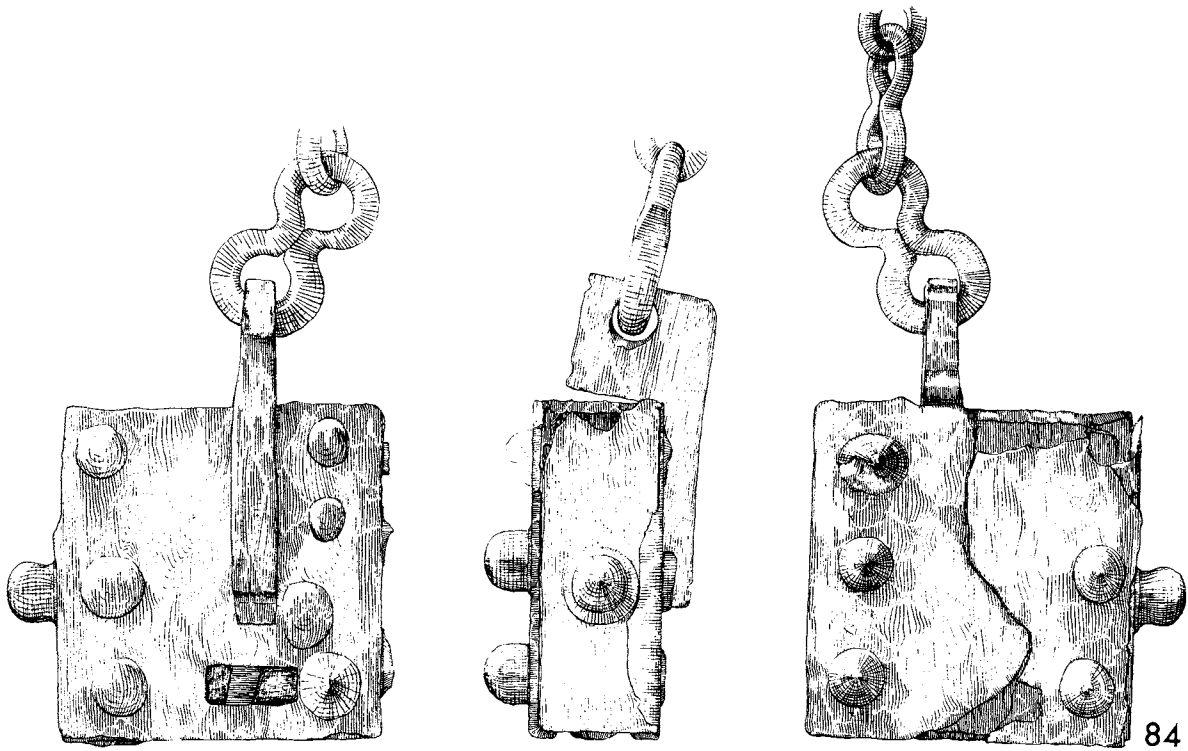
The padlock consists of a rectangular case with a lug to which is attached a length of chain. The top and bottom of the case are formed of square plates of iron with their edges turned over to lap the sides, which appear to be made from a single strip bent into shape. At the back, placed to one side of the centre line, is a large square lug which continues as a narrow strip across the top of the case for some two-thirds of its width. This strip, but not the lug itself, is welded to the case, as is revealed by the fact that the lug has been bent slightly upwards leaving a gap between it and the back of the case. This bend may be the result of an attempt to force the lock at some time. The first link of the chain, which consists of eleven figure-of-eight links of normal Roman type, runs through a hole in the lug. The final link of the chain is now forced open, but it must originally have ended with an oval loop which could be pushed through a rectangular slot in the top of the case, opposite to the lug, to be held in place by the bolt when the lock was closed. Along the top of the case, running parallel with the lug, are the flat tails of six rivets, three on each edge. The large, almost spherical heads of the rivets appear in corresponding positions on the underside of the case. The front face appears to have had three similar rivet heads, although these are now broken off, the centre one having taken part of the casing with it. One of the sides has a massive centrally-placed rivet head; the other apparently the remains of three heads. The back, where the lug is, seems never to have borne rivets. There is no sign of a keyhole, the hole at the front, which might at first be taken for one, being accidental. The whole lock is in a state of mineralized corrosion, and is cracked and fissured with small pieces of the casing missing.

The mechanism of the lock presents a number of problems, most of which cannot be answered with certainty. A series of X-ray photographs have revealed some of the internal details, but suggest that the precise mechanism of the lock differs from others which have been examined. In the absence of a complete dissection of the piece one can only draw certain generalized conclusions. It must be emphasized, also, that the condition of the lock, the fact that it contains hollow spaces adjacent to damaged areas of casing, and the evidence of the X-rays all indicate that parts of the mechanism have been destroyed by corrosion. Indeed in an object as complex and frail as a lever lock this is only to be expected.

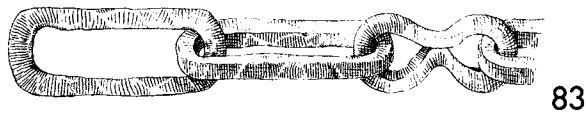
The lock is clearly a form of lever lock, related to the padlocks from Lullingstone, Caerleon and other sites (Manning, 1968). A certain amount of the external design would seem to be ornamental; indeed if all the rivets were genuine the interior would be so criss-crossed by them that there would be little room for the mechanism. Careful examination of the X-rays suggests that the rivets in the four corners of the case are genuine, and that the central ones between them may be. But the X-rays are obscure at this point, and it may be noted that the head and tail of one of these central rivets are not set vertically above one another. The rest appear to be ornamental or possibly, in the case of the central one of the three side rivets, to have supported part of the mechanism and not to have extended beyond



82



84



83

FIG. 64. Iron objects: scale $\frac{2}{3}$ (pp. 139, 140-3)

the centre of the case. The absence of a keyhole is an obvious problem, but a careful examination of the X-rays and of the lock itself suggests that the side which carries a single rivet head is formed of a double thickness of metal, the outer plate being a cover which slid along grooves formed by the down-turned edges of the two faces, with the rivet head serving as a handle. It is quite clear from the X-rays that this 'rivet' has no shank. The only function for

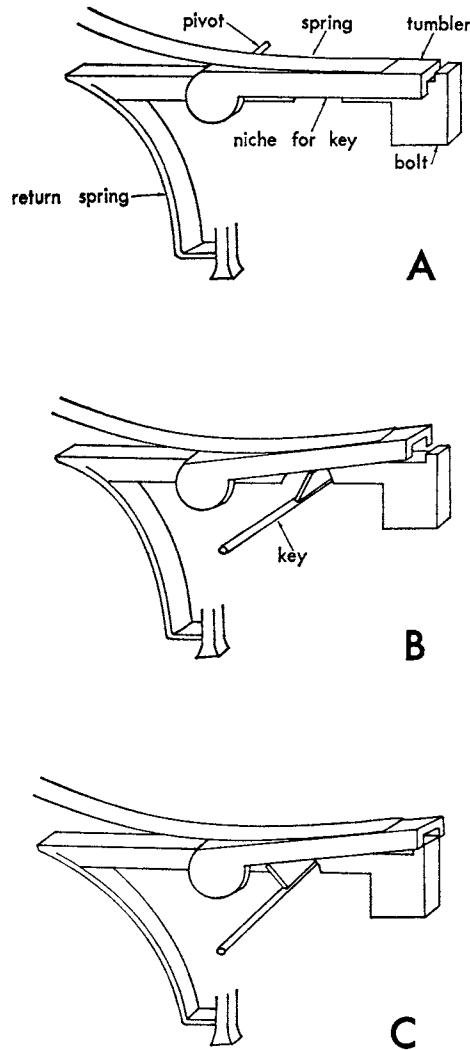


FIG. 65. Tentative reconstruction of the padlock mechanism. The niche for the key and the spring above the tumbler are suggested on the analogy of other lever locks. The form of the bolt, of the tumbler and of the return spring are deduced from the X-ray photographs.

- A. The lock closed.
- B. The key inserted and partially turned raising the tumbler and freeing the bolt.
- C. The turning of the key continues to push back the bolt and open the lock.

such a cover is to conceal the keyhole; unfortunately the great thickness of metal, and the rivet head itself mask this on the X-rays.

In some of the X-rays taken from the side of the lock it is possible to see the bolt itself. Unfortunately it lies directly below the extension of the lug across the top of the case and this masks most of it in the vertical X-rays. It appears as an L-shaped bar with its widest end lying below the slit which received the end of the chain; it can, in fact, be seen quite clearly through this slit. The tail of the bolt has a concave hollow on its lower side from which a thin spring appears to run down to join a support rising from the floor of the case. If this is a spring it will have served to push the bolt forward to close the lock when the key was turned. The vertical X-rays show a slight swelling of the case in front of the bolt, probably a stop plate. Unfortunately, none of the X-rays shows at all clearly the details of the mechanism which controlled the bolt. If it follows the general design of other known lever locks there would seem to be two possibilities. The commonest form of lever lock had a pivoted tumbler held down by a spring, which was raised, thus freeing the bolt, by the turning of the key. As the key continued to turn it caught on the bolt and slid it back to open the lock. Alternatively it could be a variant of the form seen in the padlocks from Lullingstone and Caerleon. Here the bolt is shaped like a tent peg, with a notch just below the head and with a large central slot in which the key catches. In this type the pivoted tumbler is replaced by a spring which lodges in the notch below the head of the bolt. As the key is turned it lifts the bolt, thus freeing it from the spring, and then catching in the slot in the bolt forces it back. Both types are likely to have a return spring behind the bolt to push it forward when the key is turned back again. Of these two types the former is the more probable in this case. Had the bolt been pierced by the slot which is characteristic of the latter type, it would almost certainly have shown on the X-rays. Nor is our bolt of the right shape, being distinctly L-shaped and in no way like a tent peg. Although the Lullingstone and Caerleon locks differed considerably in the details of design the bolt was almost identical in both. A pivoted tumbler would of course lie over the bolt, which is at present in the closed position, and would be inextricably mixed with the image of the bolt on the X-ray photographs. There does indeed, appear to be something with a slightly-rounded tail lying near the end of the bolt, but one cannot identify it with certainty as the tumbler. The vertical X-ray photographs show a double line on either side of the head of the bolt where it emerges beyond the lug, with another line on one side at right angles to the line of the bolt near its tail. This would certainly fit the theory of a tumbler fitting over the bolt, and pivoted at its tail. Such a pivot could not of course go through the bolt for it would prevent its free movement, hence its appearing only on one side. But again one must emphasize that other explanations are possible. Exactly how the key caught in the bolt is masked in the X-ray photographs by the shadow of the massive 'rivet head' on the sliding cover. Other details faintly visible in the X-ray photographs may be wards, which must exist, supports for the bolt and tumbler, or a pivot for the key. The precise details of the mechanism will vary in almost all Roman locks with this degree of sophistication.

One of the most interesting features of this lock is the shallowness of the case into which it is fitted. It must be for this reason that the bolt is L-shaped; had it continued at the same width as its head there would have been no room for the key to have passed under it. As it is, the key must have had an unusually small bit.

LEAD FITTINGS

1. (pl. xix). Lead junction box found in the south-east corner of the Aisled Hall where it had once been attached to a Third-Period water pipe. Made from a sheet of lead, 0.5 cm. thick, measuring 16.0 cm. by 17.0 cm. In the centre the lead had been cut and beaten out to form a circular opening about 8.0 cm. in diameter. It had once been attached to a wooden water-pipe by means of a ring of iron nails encircling the central opening. The nails were of the large-headed variety (heads 1.7 cm. diameter) to stop them being pulled through the lead sheet. Their length is unknown since the shanks have corroded.
2. (not illustrated). Lead junction box found in the garden area between the northern end of the West Wing and the west end of the North Wing (Vol. I, p. 136). Made from a sheet of lead, c. 0.6 cm. thick, with a circular hole cut in the centre. A vertical collar of lead has been soldered around the hole to form a point of attachment for an up-pipe. The lead sheet had been attached to the wooden water-pipe by large-headed nails of the type described above.
3. (Vol. I, pl. LVIIIa). Wooden box or tank strengthened with lead bands. Found in the area east of the east wall of the reconstituted North Wing. Its base measured about 45.0 cm. square. The inner angles had been lined with lead strips, 6.5 cm. wide, bent to form angle strengtheners. The strips were attached to the wooden sides of the box by large-headed iron tacks, 2.0 cm. long, with heads of a similar diameter; they were hammered in in two parallel rows, 4.0-4.5 cm. apart. The basal and vertical angles of the container were treated in this way. Lying loose in the soil close to the box was a flat strip of lead of identical proportions to the above, with nails similarly placed. It had presumably been used to strengthen the flat sides of the lid of the container.

SMALL OBJECTS OF LEAD

(Fig. 66)

4. Spoon-shaped object, cut and beaten from a sheet. Period 1.
5. 'Votive' axe. Fairly common in Britain. First-Period occupation.
6. Cast sickle-shaped object. Period 2 construction.
7. Weight with a dished centre. Period 2 construction.
- 8-11. Perforated weights. 8, Period 3 destruction; 9, Period 2 construction; 10, robber; 11, plough-soil. Not illustrated. Two discs cut from lead sheet and one cast domed counter.

OBJECTS OF BONE

(Fig. 67-8)

- 1-4. Bone counters with one surface decorated with concentric grooves. All from late robbing layers.
- 5-7. Plain bone counters with bevelled edges. A total of eight have been found, of which three are illustrated. 5, late robbing; 6, Period 3 construction; 7, First-Period occupation.
8. Bone ?whistle. Period 1 occupation.

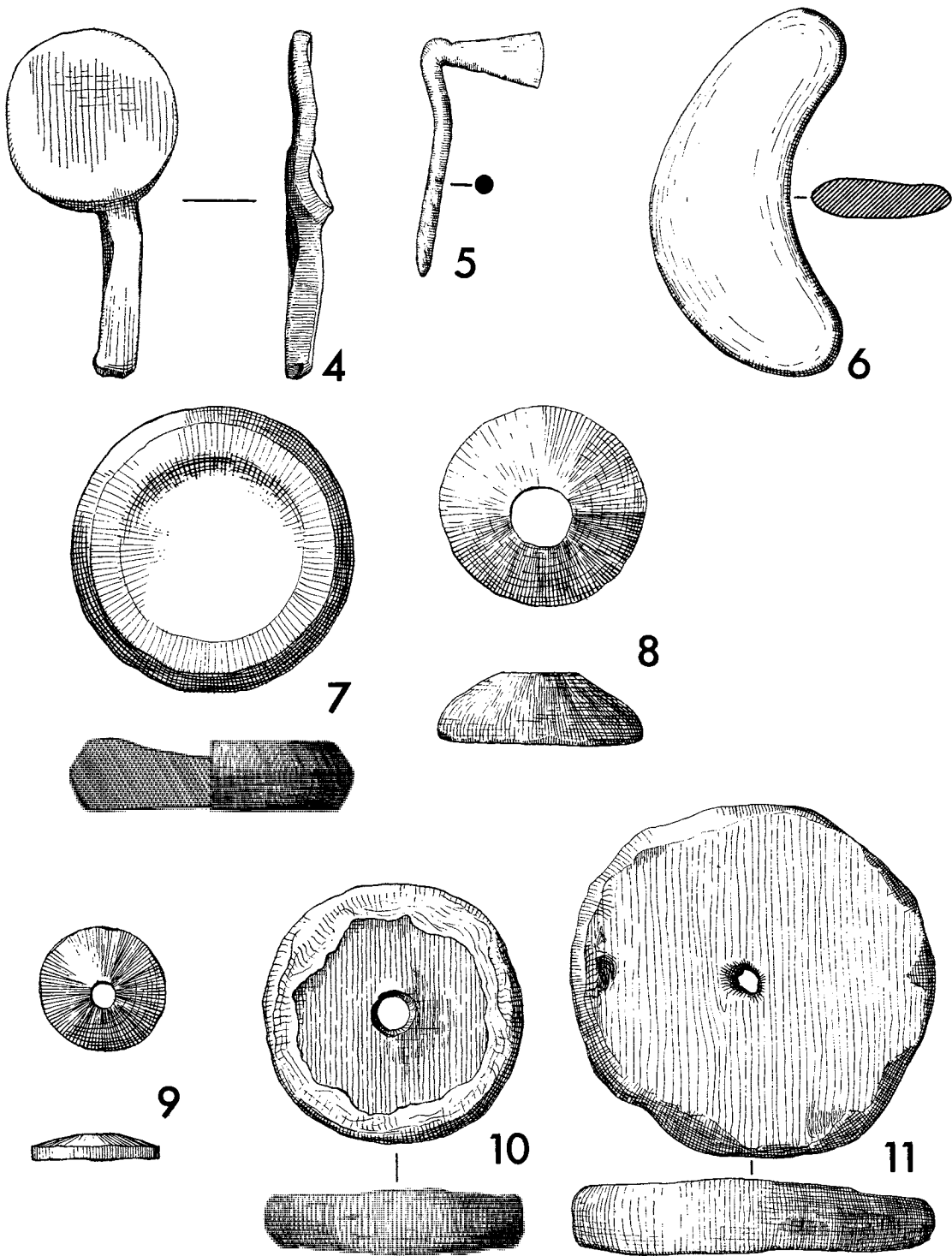


FIG. 66. Objects of lead: scale $\frac{1}{4}$ (p. 144)

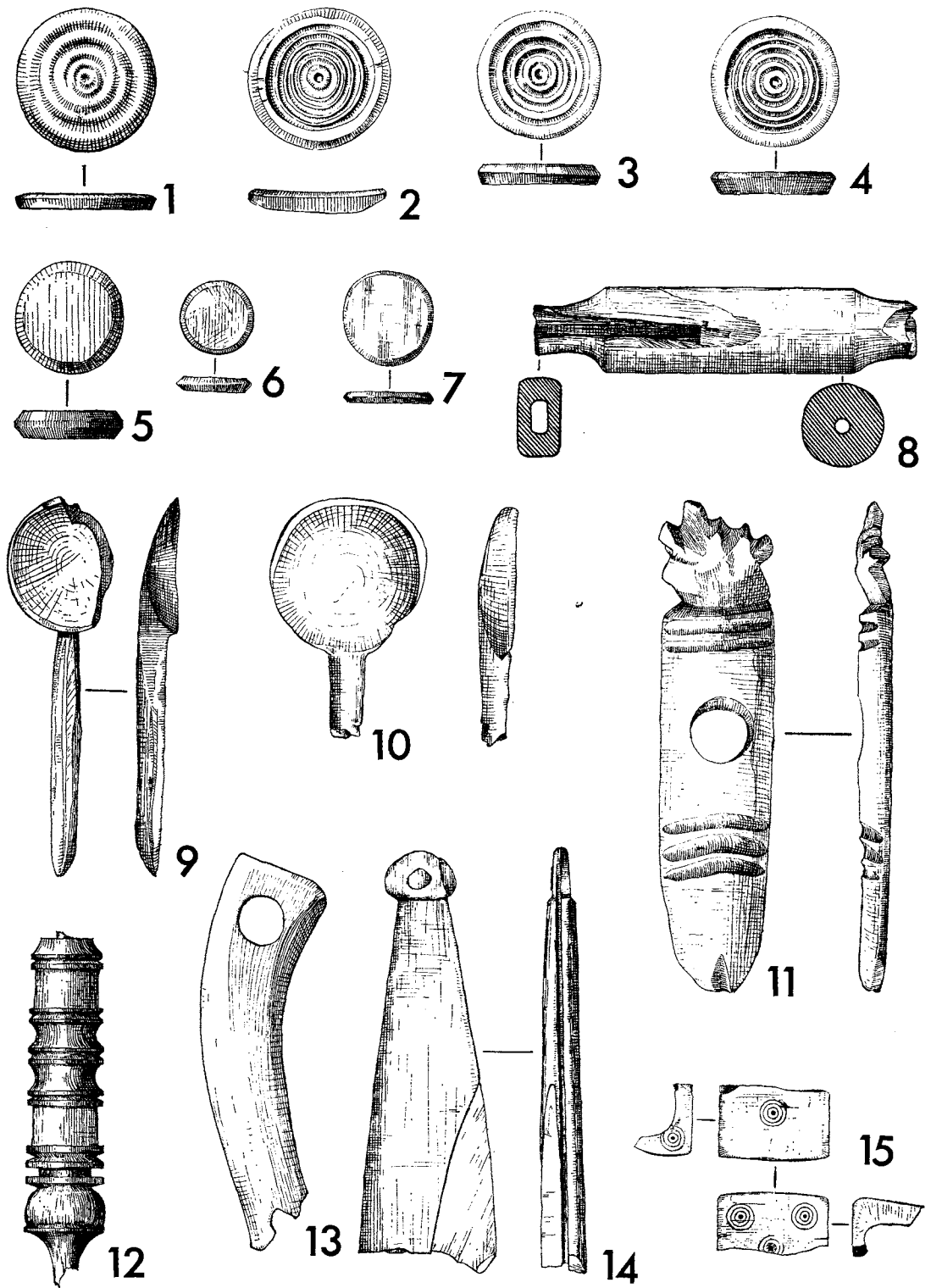


FIG. 67. Objects of bone: scale $\frac{1}{4}$ (p. 144, 148)

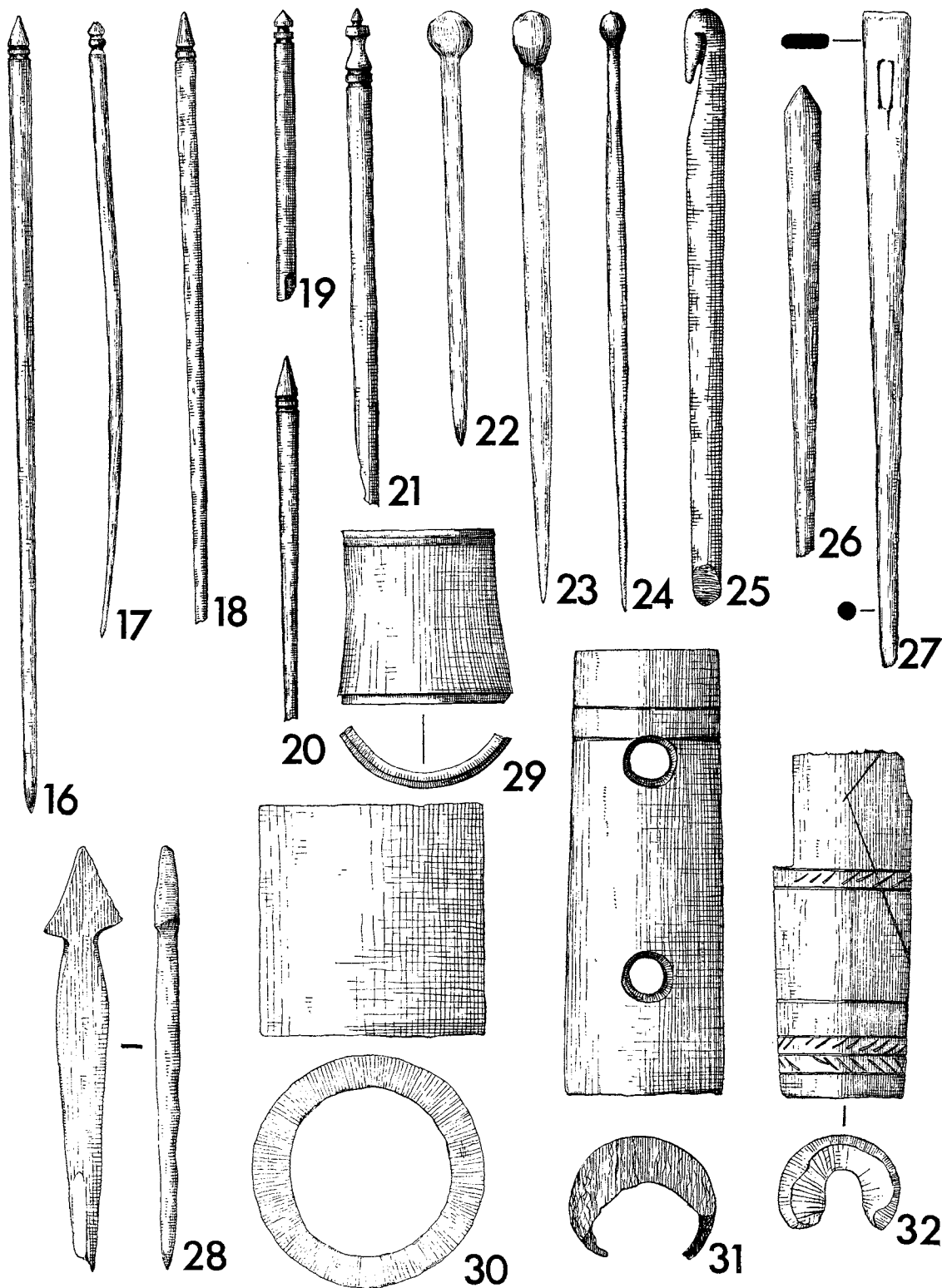


FIG. 68. Objects of bone: scale $\frac{1}{4}$ (p. 148)

- 9-10. Bone spoons. 9, Period 3 occupation; 10, late robbing. A similar fragment, not illustrated, comes from a late destruction level.
11. Amulet with central hole for suspension. One end is carved to represent a fist with the thumb between the fore and index fingers, the other represents a phallus. Similar objects have been found at Verulamium (Wheeler and Wheeler, 1936, pl. LXIII A) and Wroxeter (Bushe-Fox, 1913, pl. x, 7). Period 2 construction.
12. Lathe-turned handle. Late robbing.
13. Pendant. Destruction level.
14. Handle for a folding clasp knife. Period 3 occupation.
15. Fragment of dice. Period 2 construction.
- 16-24. Bone pins. The bone pins are of two major varieties, those with lathe-turned heads usually ending in a conical projection, and those with hand-cut ovoid or globular heads. Nine examples of the first type are known (six are illustrated); nine also of the second type are recorded, of which three are illustrated.
16, plough-soil; 17, late robbing; 18, Period 3 occupation; 19, Period 3 destruction; 20, Period 2 occupation; 21, Period 3 occupation; 22, plough-soil; 23, robbing; 24, Period 3 occupation. In addition, large numbers of fragments without heads survive.
25. Bone netting hook. Period 2 construction.
26. Pin or point with simple conical head. Period 3 destruction. Several others have been found.
27. Bone needles. Three complete with eye are known, together with a number of fragments of shafts and points. 27, late robbing.
28. Spear-shaped objects. Four were found together in Period 2 construction levels.
29. Bone ring, possibly a pommel. Period 2 construction.
30. Bone ring. Period 2 construction.
31. Bone handle. Late rubble.
32. Bone handle. Period 3 occupation.

SMALL OBJECTS OF GLASS,¹ PASTE, SHALE, STONE, ETC.

(Fig. 69)

Glass beads

1. Fragment of bead in clear, transparent glass. Period 2 construction.
2. Annular bead in pale greenish glass. Period 2 construction.
3. Small bead in greenish glass. Period 1. Fragments of two similar beads have been recovered from Period 1 levels.

Melon beads

- 4-5. Some 15 melon beads have been recovered, of which two are illustrated. Both are from First-Period occupation levels. One bead, not illustrated, is coated with a glassy bright blue finish, the others are of a greyish-white paste with a bright blue, usually non-glassy, finish. Sizes vary from 0.8 cm. to 1.8 cm. Four are from First-Period levels, four from the Second-Period construction, one from Second-Period occupation, three from Third-Period occupation and three from destruction and robbing levels.

¹ For glass bracelets see pp. 366-7.

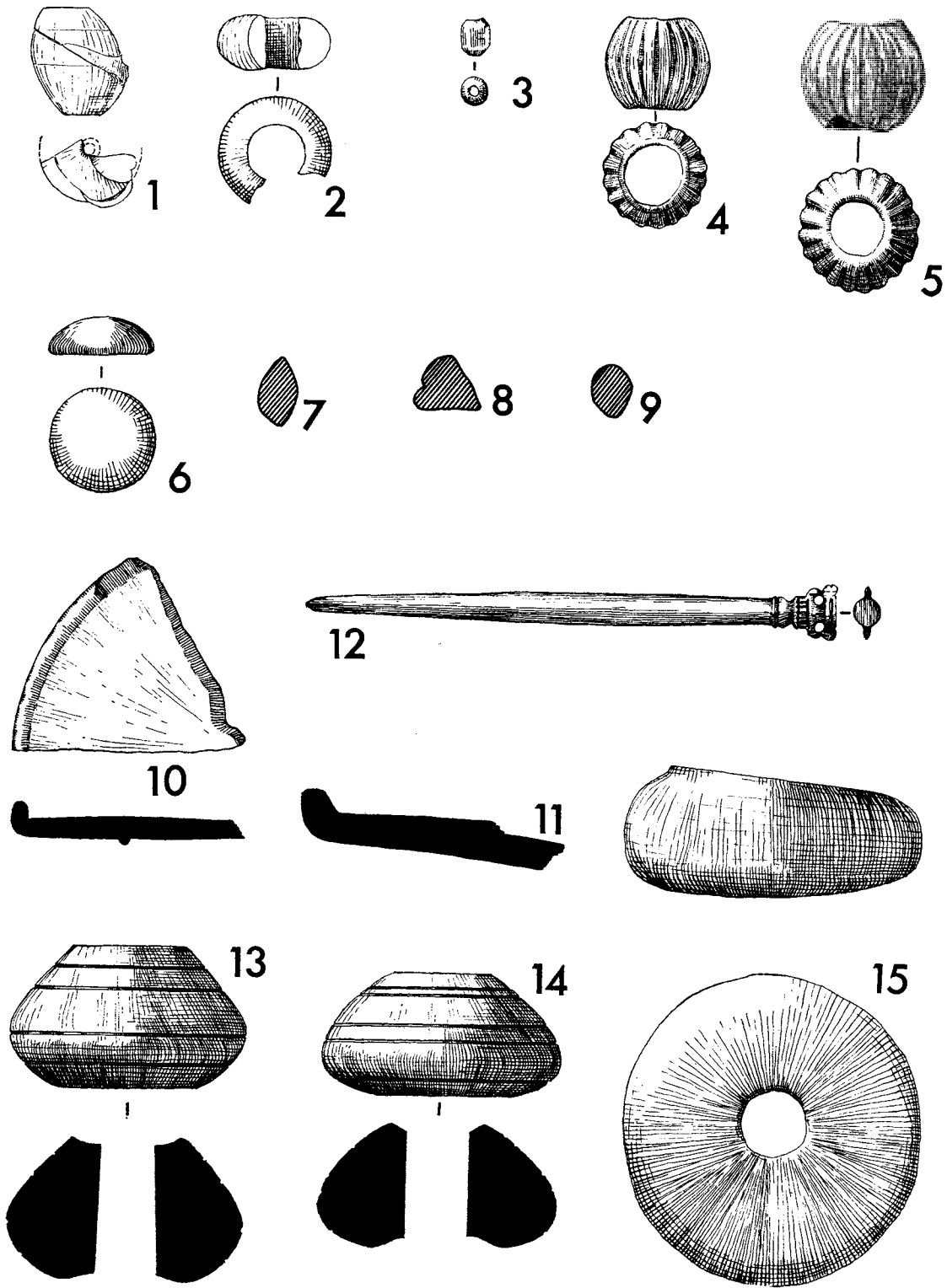


FIG. 69. Miscellaneous objects: scale $\frac{1}{2}$ (pp. 148, 150)

Glass counters

6. Twenty-eight counters or gaming pieces of glass have been recovered, almost invariably from First-Period levels, commonly associated with the earliest occupation. Of these, 20 are in a dark brown/black glass, six are opaque white, one is blue and one is yellow. Size varies from 1.4 cm. to 2.1 cm.

An elongated counter composed of two fused blobs of glass, one clear, the other brown with white streaks, was found in a First-Period level. It appears to have been deliberately manufactured.

Kimmeridge shale bracelets

- 7-9. Nine fragments of shale bracelets are known (three are illustrated). The sections are simple: the fragments are usually too small or warped to give any accurate idea of diameter but they might well have been used as anklets, armlets or bracelets. Those illustrated are all from robber or destruction levels. Of those not illustrated, one is Period 1 in date, one is from Period 2 construction, one is from Period 3 construction and three are from late robbing or rubble levels.

Kimmeridge shale vessels

- 10-11. Two fragments of shallow plates, both from late rubble layers.

Jet pin

12. The head is carved with great skill into the form of a two-handled vase with a vertically-fluted body. Probably made in York (R.C.H.M., *Eburacum, Roman York* (1962), 141-4 for a general discussion of the industry). Cantharus-headed pins identical to the Fishbourne example were found in the York burials, particularly grave group H.105 (*ibid.*, pl. 69). From a late robbing level.

Miscellaneous

- 13-15. Stone spindle whorls: 13 and 14, both from late rubble layers; 15, ?spindle whorl of baked clay. Period 1. One other, not illustrated.

Not illustrated: five spindle whorls made from potsherds with a central perforation. All are from First-Period levels.

Not illustrated: 11 counters made from potsherds, five of which were samian. All from First-Period levels.

Pigments (not illustrated)

1. Blue frit. Seven lumps of blue frit have been found, four in Period 1 levels and three from Period 3 layers.
2. A potsherd with blue pigment adhering was found in make-up levels for the palace south of the Entrance Hall.
3. A fragment of ochre pigment was found close to no. 2.
4. A lump of limestone with a thick layer of red pigment adhering to one face was found in the rubble over the veranda in front of the North Wing.

MISCELLANEOUS OBJECTS OF BAKED CLAY

(pls. xvii**b**, xviii, xxii and fig. 70)

1. (pl. xxii**a**). Part of a pipeclay 'Venus' figurine. For general discussion of this class of object see Jenkins, 1958.
Found in a late rubble layer of late third- to early fourth-century date.

LOOSE FINDS

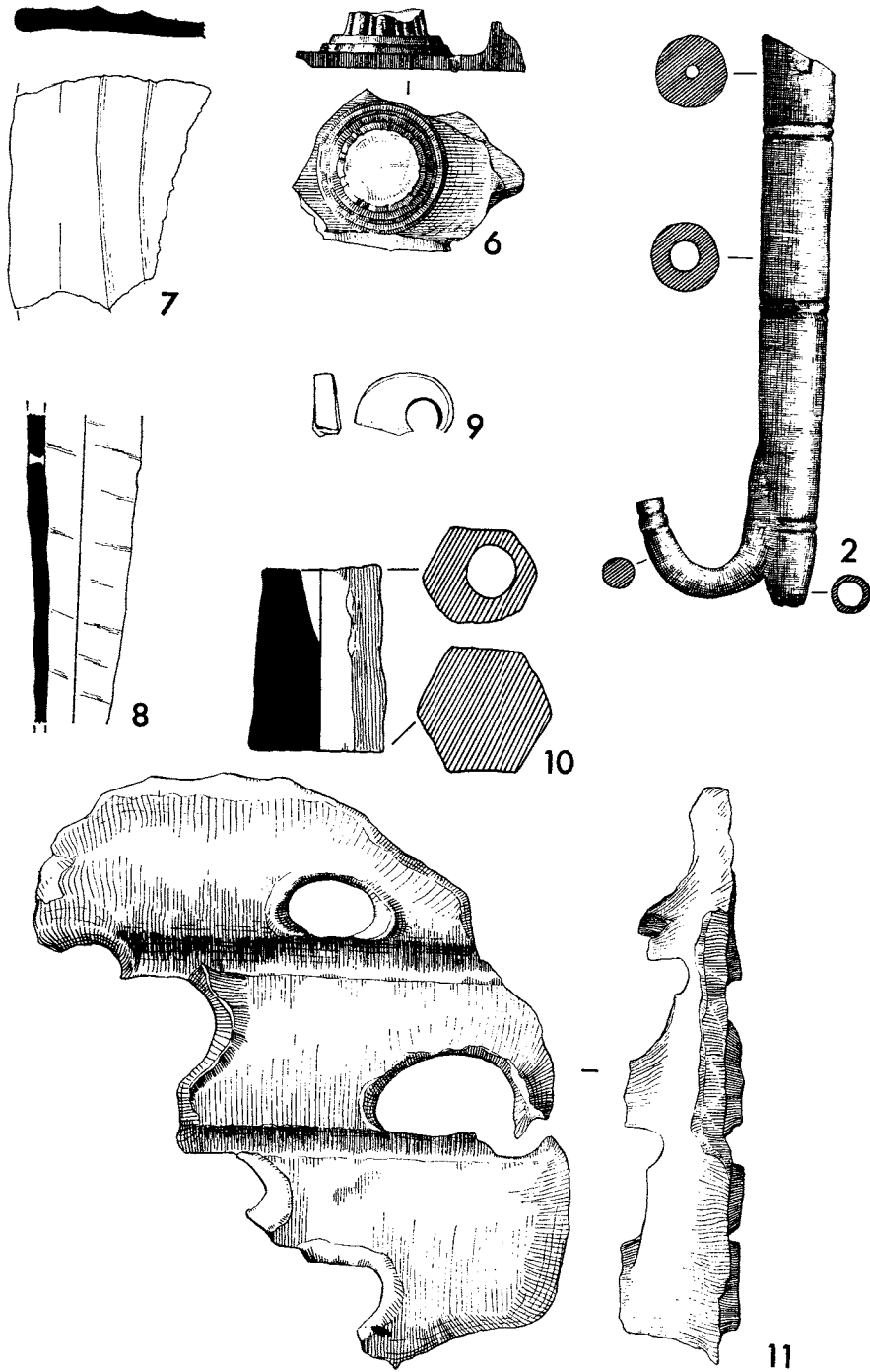


FIG. 70. Objects of baked clay: scale $\frac{1}{3}$ (pp. 150, 152)

2. Several fragments belonging to a hook-shaped object made in a fine red fabric. The illustration is a reconstruction. Function is far from clear.
Second-Period construction level.
3. (pl. xviii*d*). Theatrical mask made in fine, hard, red fabric. The features have been carefully moulded to give a fierce expression; the mouth is cut out. The piece had presumably been attached to the side of a pot, probably one of Déchelette's 'vases à reliefs d'applique'. Similar applied masks are illustrated on a wall-sided bowl from France (Déchelette, 1904, vol. 2, pl. 11, 75) but the parallel is not close.
Third-Period occupation level.
4. (pl. xxii*b*). Moulded circular plaque in a fine buff clay depicting a gladiatorial combat. Plaques of this kind are well known in France, particularly in the region of Vienne, Lyons and Orange, where they are usually found applied to the bodies of globular but narrow-mouthed vessels with two large side handles. The main production centre for the type was the Rhône Valley. Many different subjects are known to have been depicted; gladiatorial combats, though fairly popular, were by no means common. No exact match for the Fishbourne example can be found. For a general discussion of the type see Déchelette, 1904, vol. 2, 235-44. For gladiatorial plaques in particular, *ibid.*, 294-9.
Third-Period occupation level.
5. (pl. xvii*b*). A single sherd belonging to a pottery mural crown. The sherd, in a fine pinkish-buff fabric, shows a section of a wall pierced by two arched openings and surmounted by a cornice moulded in relief. The individual blocks of which the wall is constructed are each delineated by inscribed lines. Between the two openings is a scar left after the loss of an applied bastion.
Fragments of an almost exactly similar vessel were discovered on the site of the Roman villa at Rapsley, Surrey, in the same year as the Fishbourne example came to light (1964); here a bastion was preserved showing it to have had regularly-spaced windows surmounted by a high conical roof. Below the wall are shown locks of hair, implying that the wall served as a mural crown, presumably around the top of a vessel moulded as a human face. No other examples are known, but a somewhat similar arrangement occurs on the Ribchester mask.
Found in the filling of a robber trench in the North Wing.
6. Small model in a fine, hard, red ware, apparently representing the base of a fluted column.
First-Period level beneath the Entrance Hall.
7. Flat slab of baked clay roughly smoothed with the fingers on the upper surface.
Second-Period construction level.
8. ? Nozzle in reddish sandy fabric. A hole, possibly for attachment, was bored through the side after firing.
Third-Period occupation level in courtyard 2 of the East Wing.
9. Baked clay object of unknown function. A pointed oval in shape with a circular hole cut at one end. In a smooth pinkish sandy ware.
Third-Period occupation level.
10. Hexagonal candle-holder made in a rough sandy ware fired to red.
First-Period occupation.
11. Oven daub. Smooth, greyish fabric, fired red on the surface. The daub is strengthened with ribs and was perforated at intervals before firing.
First-Period occupation levels below the Entrance Hall.

QUERNS

The quernstones fall into two groups: (a) the small hand-querns of normal Romano-British type, and (b) larger stones from mechanically-worked mills.

(a) *Small hand-querns* (fig. 71)

This type was invariably made from a somewhat soft glauconitic sandstone probably of Wealden origin.

1. Bottom stone. From a Third-Period occupation layer in the south-east corner of the northern courtyard in the East Wing.
2. Bottom stone. From a First-Period layer beneath the East Wing of the palace.
3. Bottom stone. Found unstratified in a trench dug for an electricity cable along the south verge of the A27.
4. Top stone. Found unstratified during building work.
5. Top stone. Found in the First-Period level below the East Wing.
6. Top stone. Found in the First-Period level below the East Wing.
7. Top stone. Found in the First-Period well, north of the North Wing.

(b) *Large mill-stones* (fig. 71)

8. Large flat quernstone of Neidermendig lava. Unstratified from a builders' construction trench north of the North Wing.
9. Large, almost flat quernstone made from a hard glauconitic sandstone. The grinding surface has been cut into by, originally, four slots adjacent to the large central perforation. These would presumably have provided keying for the teeth attached to the top of an iron spindle of the type found in the Great Chesterford hoard. Alternatively the stone may have been a fly wheel. By what means the traction was originally provided is uncertain. It seems hardly likely that a sufficient head of water could be provided locally for a water-mill. Found in a robber trench on the north side of the northern courtyard in the East Wing.

WHETSTONES

By DR D. P. S. PEACOCK

Department of Archaeology, University of Southampton

The whetstones recovered from Fishbourne were examined in thin section under the petrological microscope, with the exception of two samples (nos. 1 and 9 in the following list) which, in my opinion, are unlikely to be artifacts.

1. Pebble of compact sandstone (85 × 85 mm.). The wear on this stone appears to be the result of natural water transport. From Second-Period construction level (*c.* A.D. 75).
2. Shaped whetstone (15 × 19 × 85 mm.), originally rectangular in cross section but now partly rounded from use. The rock from which it is made is a buff-grey sandy limestone. It consists of a

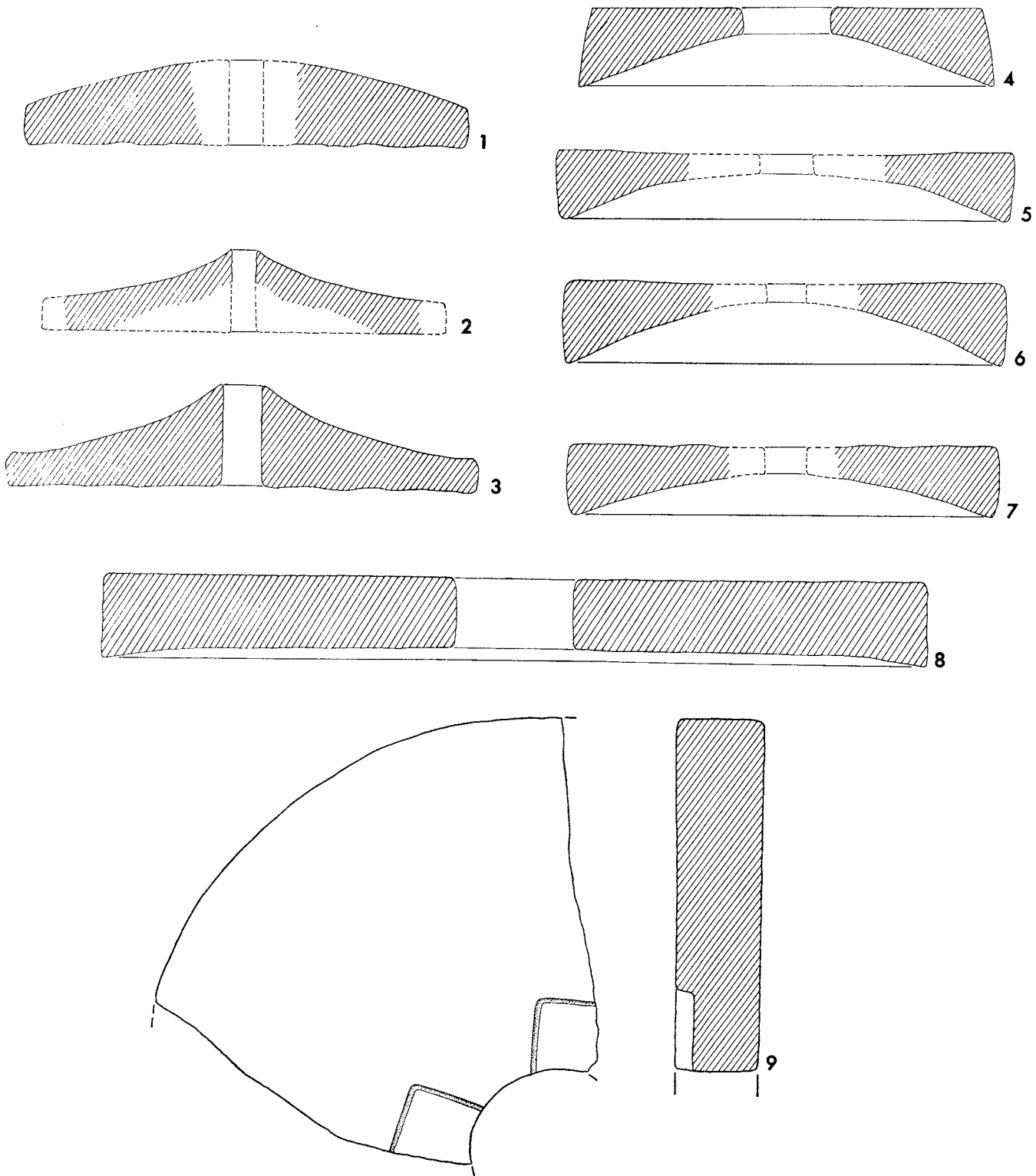


FIG. 71. Quern stones: scale $\frac{1}{2}$ (p. 153)

matrix of platy calcite crystals containing abundant angular quartz grains, 0.1–0.2 mm. across, many brachiopod fragments about 0.5 mm. long with roughly parallel orientation, and occasional rounded grains of green glauconite. From Third-Period destruction (*c.* A.D. 280–90).

3. Shaped whetstone (20 × 17 × 50 mm.) with rectangular cross section, petrologically identical with no. 2. From Third-Period occupation (A.D. 100–280).
4. Shaped whetstone (15 × 20 × 25 mm.) similar to nos. 2 and 3 but surface slightly browner. It is similar in thin section but the glauconite has oxidized brown. From Third-Period occupation (A.D. 100–280).
5. Shaped whetstone (15 × 25 × 60 mm.) made of well-bedded calcareous sandstone, grey in colour but containing some purplish bands. It is composed of angular or subangular quartz grains set in a matrix of platy calcite. From Second-Period construction (*c.* A.D. 75).
6. Pebble whetstone (125 mm. long) in a compact grey siltstone weathering purplish brown. It is composed of angular quartz grains and flecks of white mica roughly orientated. From Third-Period destruction (*c.* A.D. 280–90).
7. Flat, ? shaped, whetstone (12 × 50 × 55 mm.) in grey calcareous sandstone consisting of abundant subangular-angular quartz grains set in a matrix of platy calcite with some limonite. From Second-Period construction (*c.* A.D. 75).
8. Shaped whetstone (9 × 20 × 60 mm.) with a rectangular cross section, in an indurated greenish-grey mudstone consisting of an argillaceous matrix with many angular quartz grains up to 0.05 mm. across and occasional larger ones up to 0.1 mm. From Third-Period occupation (A.D. 100–280).
9. Pebble of compact micaceous sandstone (100 mm. long). The wear on this stone appears to be entirely natural.

Discussion

The characteristics outlined above do not permit determination of the source of raw materials in every case. Nevertheless, the pebble hone (no. 6) and nos. 1 and 9, if they are accepted, are likely to be of very local origin. No. 8 on the other hand is probably a Palaeozoic rock and may have been imported from Wales or the Welsh borderland.

The whetstones, in sandy, glauconitic limestone (nos. 2–4), are distinctive. They appear to be related to hones from York and Canterbury described by Morey and Dunham (1953, 146) and ascribed to the Hythe beds of the Greensand of Kent. The writer has examined identical hones from Normangate Field (near Peterborough) (2), Tallington, Lincolnshire (1), Alcester, Warwickshire (2), and the Barnsley Park villa near Cirencester (2).

The present distribution thus points to a whetstone industry with a considerable distribution, based upon the Kentish Greensand. The Fishbourne evidence demonstrates that this was active during the third century A.D., but earlier and later working cannot be excluded.

Although the medieval whetstone trade has received some attention (e.g. Dunning, 1948, Morey and Dunham, 1953) that of the Roman period has been sadly neglected. Cantrill (1931) studied the late second-century hones from the Forum at Wroxeter and suggested importation from the Stony Stratford–Towcester area of Northamptonshire but, despite distinctive petrology, hones from this source have not been recognized on other sites. There are thus many gaps in our knowledge of even the more important centres, but it is now clear that we are considering an industry, the products of which were distributed on a country-wide scale.

THE MARBLE HEAD (pl. XXIII)

By PROFESSOR J. M. C. TOYNBEE

This fragmentary marble head,¹ measuring 6.5 cm. from the tip of the chin to where the tip of the nose should be and 5.8 cm. from the centre of nose to the side, nearest the face, of the right ear, would be life-size if the subject is, as seems most probable, a child or quite young boy. The find-spot, the filling of a robber trench in the North Wing of the palace, gives no indication of its date or of the position that the statue or bust, to which it belonged, once occupied on the site.

Surviving are the right ear, the right cheek, a small portion of the right temple with some hair above it, the right-hand corner and most of the lower lid of the right eye, the lower part of the nose, which has lost its tip, the whole of the mouth, the whole of the chin, apart from an abrasure at the tip, a small portion of the left cheek, and a small part of the neck. Behind the right ear there juts out a small triangular excrescence of marble. The top of the head has been sliced flat on a slanting plane; and in the centre of the sloping surface there is a dowel-hole, 5 cm. long, 1-2 cm. wide at the top, and 1 cm. wide at the bottom, with traces of iron in it. This suggests that the missing crown of the head was carved in a separate piece of marble and clamped on to the rest, the excrescence behind the right ear being all that remains of the now vanished back of the crown. That a metal helmet or head-dress concealed the sliced surface would seem to be unlikely, in view of the fact that Roman children, both in Italy and in the provinces, are normally shown bare-headed in works of art.

The treatment of what remains of the hair and the probability, to judge from what is left of the right eyeball, that irises and pupils were not plastically rendered, appear to indicate a date in the late first century A.D. for the piece. The rounded cheeks, the full, curving lips, and the unformed features, especially as seen in profile, are definitely suggestive of early youth. The full-face view is decidedly attractive, the three-quarter view less so, while the side view, emphasizing the projecting lips and thick, rather snub nose, coming down low above the upper lip, is unprepossessing. The carved frieze on the southern precinct wall of the Ara Pacis Augustae in Rome, contains the profile portrait of a rather similarly ugly little boy walking in Augustus' family party in the procession that took place on the day in 13 B.C. on which the altar was founded.² This child, who wears a torc round his neck and is bareheaded save for a narrow circlet round his curly hair, is either Gaius Caesar, Augustus' elder grandson, who was seven at that time, or, more probably, Lucius Caesar, the younger grandson, who was then four, shown clinging to the cloak of his father, Agrippa, and looking back for encouragement to his mother, Julia, while a relative or nurse in the background lays her hand upon his head. The Fishbourne boy could, then, be Roman in the narrow sense and even of imperial stock. On the other hand, it is unlikely that the owner (whether Italian or British) of the building, would have wished to adorn it with the portrait of a child who was still at so undeveloped a physiognomic stage, unless he were his own offspring; and if the owner were not a high-ranking Roman official resident in Britain, but King Cogidubnus himself, then the head could be that of a prince of the local royal house. The marked coarseness of the features might be partly explained by the subject's provincial

¹ *Antiq. Journ.*, XLV, 1965, 11, pl. Ixb.

² G. Moretti, *Ara Pacis Augustae*, 1948, fig. 4 and pl. H.

British birth. In that event the head would have been carved in Britain in imported marble and in any case by an artist, well trained in the sensitive and realistic modelling of natural forms, from the Mediterranean world, since three-dimensional sculpture in stone or marble on a monumental scale was an art completely unknown to pre-Roman-conquest Celtic Britain.

A second fragment of a marble statue was discovered in the same robber trench as the head, a few feet further north. It consists of a flake, measuring 12 cm. by 8 cm., from a torso. The fragment is too small for certain identification but may possibly be a piece of a buttock.

Few marble sculptures of certainly Romano-British civil provenance have so far come to light in Britain outside the towns. The Fishbourne head is therefore an important addition to the group of marbles from rural find-spots, hitherto represented by the Woodchester Diana-Luna and Cupid-and-Psyche,¹ by the Spoonley Wood Bacchus,² and by the two Lullingstone portrait-busts.³ The Fishbourne head is, apparently, the earliest in the series.

¹ S. Lysons, *An Account of the Roman Antiquities Discovered at Woodchester in the County of Gloucester*, 1797, pls. 36-40.

² *Guide to the Antiquities of Roman Britain*, 1958, 55, no. 10, pl. 20.

³ *Arch. Cant.*, LXIII, 1950, 33-43, pls. 2-4; Toynbee, *Art in Roman Britain*, 1963, 126-8, no. 10, pl. 6.

The enigmatic male head from Tweedsmuir would appear to have come from some military monument: *ibid.*, p. 126, no. 9, pl. 11.

The Coarse Pottery

INTRODUCTION

IT is a major problem for those who excavate Roman and later sites on a large scale to concentrate the mass of pottery evidence into a simple account both relevant to the site itself and usable for those who require general works on ceramics. A pottery report has to serve several functions: it must provide supporting evidence (and sometimes the only evidence) for the dating sequence, it should list and illustrate all major types, their quantities and their chronological range, and it must analyse wherever possible the economic, cultural and social implications of the assemblage. In an attempt to cover these points, the present pottery report has here been divided into three sections. The first deals with selected key deposits which contribute to dating evidence, the second is a type series, and the third is a simple quantitative analysis and summary. Something must be said of the scope and limitations of each. The key deposits have been selected from a large quantity of material which could have been published, but since the dating evidence was already tied down closely by relative sequence, samian pottery (considered separately) and coins, it has been thought unnecessary to publish more than a small selection of the available material in its stratified groups when so much of it appears again in the type series. The selection offered here, however, brings together some of the more significant types from well-defined stratigraphical contexts representing short periods of time, rather than rubbish deposits accumulating throughout several generations. The type series, on the other hand, illustrates and describes all the well-defined types found during the excavation. The material is presented in three chronological groups. The first includes pottery sealed beneath the make-up layers for the Flavian palace, the second from occupation layers contemporary with the use of the palace, and the third from post-destruction layers belonging to the period of robbing. The significance of these groupings is further discussed below, pp. 249–55.

In the final section some general comments are offered on the changing composition of the ceramic assemblage and upon the production centres supplying Fishbourne. Generally throughout the report references have been kept to a minimum, and only used where the quoted context has something definite to add to our knowledge of the Fishbourne pottery. Exhaustive reference quoting is time-wasting for the reader and is an unnecessary financial burden on the publisher.

PRE-ROMAN POTTERY

(Fig. 72)

The sherds of pre-Roman Iron Age pottery amount to a total of twenty of which half are rims or bases, illustrated in fig. 72. With the exception of no. 8, which was recovered from the packing around a post of the Claudian building, Timber Building 2, all were found in

occupation layers of Period 1 and make-up layers of Period 2 but there is nothing to suggest that they were more than a rubbish survival of scattered sherds churned up from the original ground-surface during the early years of intensive Roman activity. There is a total absence of pre-Roman features on the site, and bearing in mind the enormous area excavated to the natural subsoil the quantity of pre-Roman Iron Age pottery is very small. The scatter may derive from a settlement beyond the excavation, but it may be nothing more than an accidental accumulation of sherds dropped from time to time by people using the harbour.

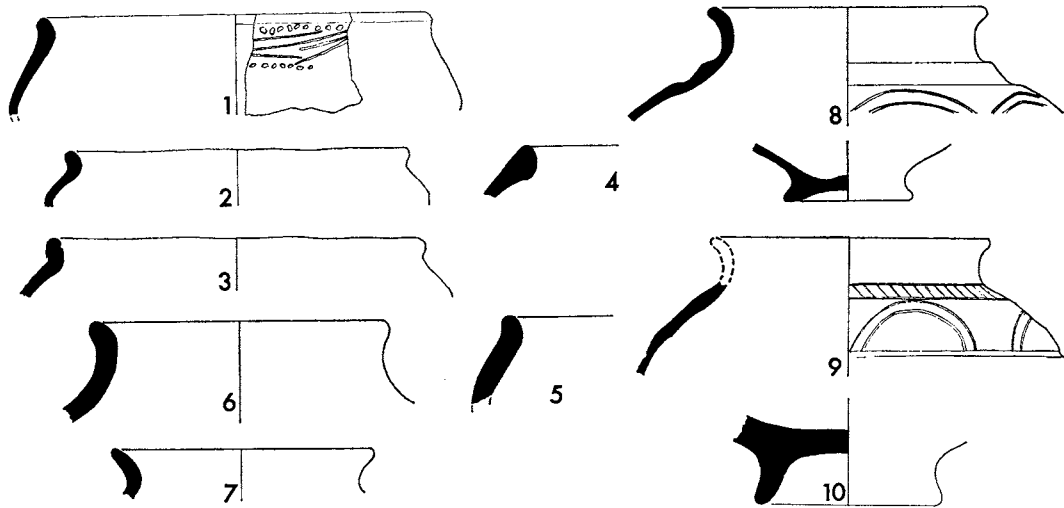


FIG. 72. Iron Age pottery: scale $\frac{1}{4}$ (pp. 158-60)

The pottery can be divided into two groups:

Group A, nos. 1-5, belongs to a ceramic continuum common in South England and datable broadly to the second and first centuries B.C. The types can be paralleled on a number of local sites, of which the best known are the Trundle, Torberry and St Catherine's Hill. Besides the inland hillforts the coastal region was densely occupied at this time, but most of the sites between Southampton and Chichester are as yet unpublished. Nevertheless, the impression given is that small communities, many of them producing salt, clung to the shoreline around the harbours. The Fishbourne sherds may derive from such a context. Individual parallels are not quoted here; suffice it to say that the forms, and the shallow-tooled decoration of no. 1, can be paralleled on most of the contemporary sites between the Test and the Arun.

1. Black ware with flint grits, burnished surface shallow-tooled.
2. Black ware with flint grits, lightly burnished surface.
3. Blackish-brown ware with flint grits, lightly burnished surface.
4. Grey ware with large flint grits, fired black on the surface.
5. Black ware with flint grits.

Group B, nos. 6-10, belongs to a later ceramic tradition of the first century A.D. current in the area at the time of the invasion. The only type represented here is the large globular jar with everted rim, decorated with 'eye-brow' pattern. Such types occur widely in Sussex east of the Adur, and more sporadically to the west. Fishbourne is on the western fringes of the distribution.

6. Coarse, grey, shell-tempered ware.
7. Grey ware with flint grits, burnished surface.
8. Rim and base of the same vessel is soft, grey gritty ware with a black burnished surface.
9. Smooth, grey ware with dark-grey burnished surface.
10. Grey, sandy ware with large flint grits.

KEY GROUPS

In the following section seven groups of pottery have been selected for separate publication as key groups, that is groups which represent closed deposits directly related to the main stages in the life of the site. Many hundreds of such groups could have been published. Even within these few groups selected scores of pots have been omitted and only the diagnostic or typical vessels illustrated to give some idea of the assemblages in use at Fishbourne. The reason for such rigorous selection is that dating at Fishbourne depends little on the coarse ware, there being a sufficient number of coins and quantity of samian ware to provide the frame-work. Nevertheless, there is some value in bringing together, albeit in a summary form, the principal ceramic assemblages.

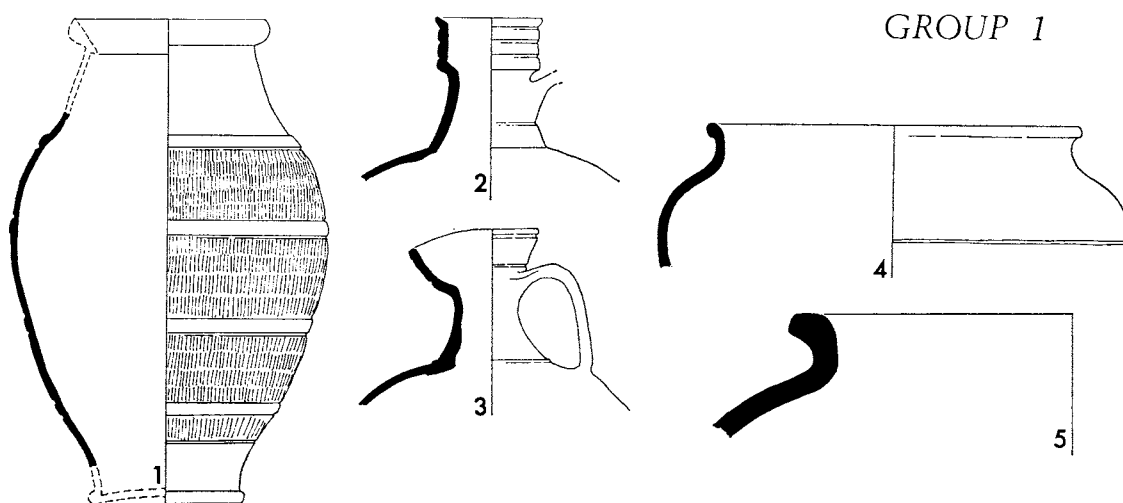


FIG. 73. Coarse pottery key group; scale $\frac{1}{4}$ (p. 161)

Group 1. Pottery stratified beneath the floors of Period 1 B Timber Building 4 and in other Period 1 A contexts (fig. 73)

Very little pottery is stratified in closed Period 1 A contexts but the sherds illustrated here are a representative selection. They are consistent with a date within the bracket A.D. 43–50.

- | | |
|---------------|---------------|
| 1. Type 59.1 | 4. Type 151.6 |
| 2. Type 110.2 | 5. Type 162 |
| 3. Type 115.2 | |

Group 2. Pottery stratified below the floor levels of the Flavian palace

No separate illustrations are required here since all the vessels listed in the type series from types 1 to 198 were found in the pre-palace contexts. Strictly therefore, the first 198 types can be regarded as a single large stratified group with a terminal date of *c.* A.D. 75–80. General comments on the group (pp. 175–6) need not be repeated here. An assessment of the samian evidence will be found on pp. 272 ff.

Group 3. Pottery stratified in a rubbish deposit which accumulated in the north-west corner of the garden (fig. 74)

The group came from a thick occupation level lying above garden features of the Second Period and below the rubble of the final destruction, providing a maximum date bracket of *c.* 75–280. Since the rubbish choked the garden paths and spread out over the bedding trenches it is most unlikely that tipping began until after the palace had suffered the change of status which marks the beginning of the Third Period, *c.* A.D. 100. The pottery is consistent with this view. A few types in the Flavian tradition occur (nos. 6–8) but in no great quantity. Most of the types that can be dated fit best in second-century contexts, but could go on in use until the early third century. There is a notable absence of distinctive third-century and later types, such as the New Forest or Oxford kiln products, a fact which suggests a cessation of rubbish tipping before the mid third century at the latest. It may be that the alterations of the early third century (Period 3 C) required that a stop be put to rubbish disposal near the building. If so, the date range of the group would be *c.* A.D. 100–200. Very little decorated samian occurs here after the middle of the second century.

- | | |
|--------------------|----------------|
| 1. Type 313 | 13. Type 266 |
| 2. Type 219 | 14. Type 306.3 |
| 3. Type 219 | 15. Type 250 |
| 4. Type 217 | 16. Type 234 |
| 5. Type 209 or 214 | 17. Type 252 |
| 6. Type 210 | 18. Type 267.3 |
| 7. Type 210 | 19. Type 283 |
| 8. Type 89 | 20. Type 292 |
| 9. Type 162 | 21. Type 280 |
| 10. Type 166 | 22. Type 203 |
| 11. Type 267 | 23. Type 203 |
| 12. Type 268.1 | |

Group 4. Pottery stratified in a rubbish deposit sealing the destroyed east end of the North Wing (fig. 75)

The group was recovered from occupation levels sealing the stumps of the demolished walls of the east end of the North Wing, and in turn sealed by the destruction of the building in the late third century. Stratigraphically it is contemporary with Periods 3 B–D dated to *c.* A.D. 150–280. The group is, however, very similar in content to group 3, with predominantly second-century types and very little

GROUP 3

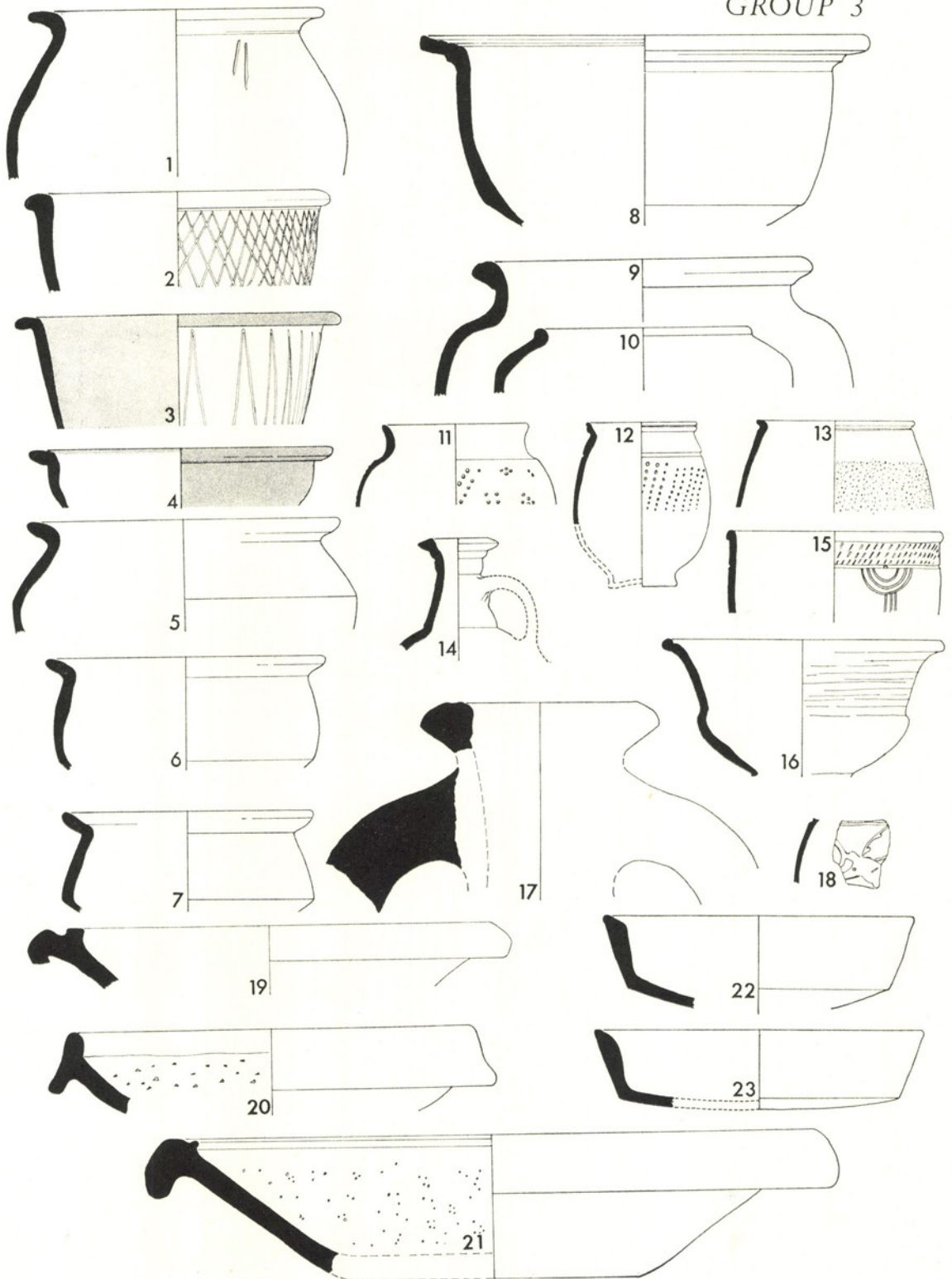


FIG. 74. Coarse pottery key group: scale $\frac{1}{4}$ (p. 161)



FIG. 75. Coarse pottery key group: scale $\frac{1}{4}$ (pp. 161, 164)

that definitely dates to the third century. Like group 3 it could be argued that rubbish tipping close to the building had ceased by the early third century. One notable difference between the two is that group 4 contains very little pottery that could be said to be in the Flavian tradition. This, however, is only to be expected since group 4 could not have begun to accumulate until about the middle of the second century, by which time first-century traditions were eclipsed and few early types could have survived unbroken this long.

- | | |
|----------------|----------------|
| 1. Type 220 | 12. Type 266 |
| 2. Type 218 | 13. Type 202 |
| 3. Type 219 | 14. Type 203 |
| 4. Type 210.2 | 15. Type 313 |
| 5. Type 291 | 16. Type 210.3 |
| 6. Type 284.1 | 17. Type 210.3 |
| 7. Type 328 | 18. Type 313.4 |
| 8. Type 267 | 19. Type 164 |
| 9. Type 148 | 20. Type 221 |
| 10. Type 300.1 | 21. Type 186 |
| 11. Type 297 | |

Group 5. Pottery from the late occupation layer in the East Wing courtyard immediately north of the Entrance Hall (fig. 76)

The latest occupation layer to form in the south-east corner of the courtyard contained a group of pottery of predominantly third-century type, including the everted rim cooking pot (no. 5), the straight-sided dish (nos. 3, 4) and a few sherds of colour-coated wares from the New Forest kilns (nos. 7, 8). The layer is sealed by the collapse of the adjacent building and is therefore dated to before c. A.D. 280. Several of the beaker types, however, began to be produced in the late second century but there are none of the characteristic early second-century dish and bowl types. The samian ware is predominantly Hadrianic to late Antonine. Two identifiable coins, one of Claudius II, the other of Tetricus II show that the layer continued to form after A.D. 270.

- | | |
|-------------|--------------|
| 1. Type 219 | 9. Type 311 |
| 2. Type 218 | 10. Type 331 |
| 3. Type 360 | 11. Type 286 |
| 4. Type 360 | 12. Type 266 |
| 5. Type 328 | 13. Type 263 |
| 6. Type 166 | 14. Type 269 |
| 7. Type 350 | 15. Type 267 |
| 8. Type 367 | |

Group 6. Pottery on the floors of the North Wing sealed beneath the collapsed roof (fig. 77)

This group from room N 12 lay together on the floor, having been broken at the time of the late third-century fire. Some of the individual sherds were refired by the burning rafters. The assemblage must therefore represent pots in use at the time of the destruction which, it is argued elsewhere (Vol. I, p. 220), dates to the period 280-90. The pottery is consistent with this dating. In addition to the illustrated vessels one small sherd of a New Forest colour-coated beaker was recovered. It is interesting to

note the appearance of New Forest products as well as the Oxford region mortarium (no. 4) at this comparatively early date.

- | | |
|---------------|---------------|
| 1. Type 323 | 5. Type 330.1 |
| 2. Type 220.2 | 6. Type 316.2 |
| 3. Type 216.3 | 7. Type 315 |
| 4. Type 285 | 8. Type 329 |

Group 7. Pottery from the occupation layers sealing the demolition of part of the East Wing bath suite in room E 3 (fig. 78)

The stratigraphical position of this group leaves little doubt that it must date to the period following the destruction and robbing of the baths in the late third century. The types are those which would

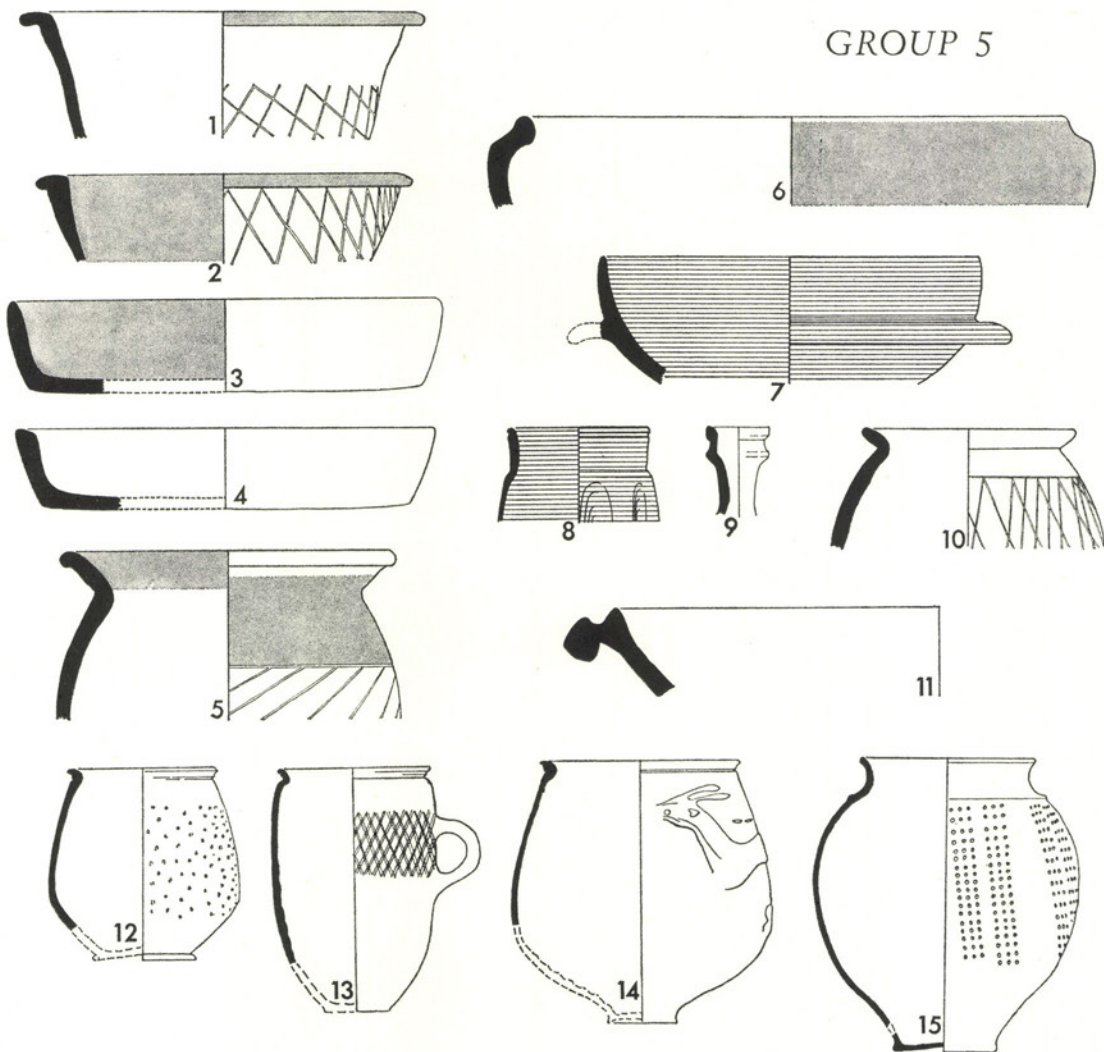


FIG. 76. Coarse pottery key group: scale $\frac{1}{4}$ (p. 164)

normally be expected in late third- or early fourth-century levels with flanged 'pie-dishes', narrow-bodied everted rimmed jars and numerous New Forest and Oxford kiln products (nos. 4, 5, 9, 10, 11) predominating. The virtual absence of fourth-century coins from the site would argue for a general abandonment at the beginning of the fourth century. For this reason the group might be thought of as belonging to the last quarter of the third century. There is reason to believe that the layer resulted from 'squatter' occupation by those engaged in robbing the building.

- | | |
|-------------|--------------|
| 1. Type 329 | 7. Type 356 |
| 2. Type 354 | 8. Type 360 |
| 3. Type 329 | 9. Type 345 |
| 4. Type 347 | 10. Type 351 |
| 5. Type 350 | 11. Type 367 |
| 6. Type 356 | |

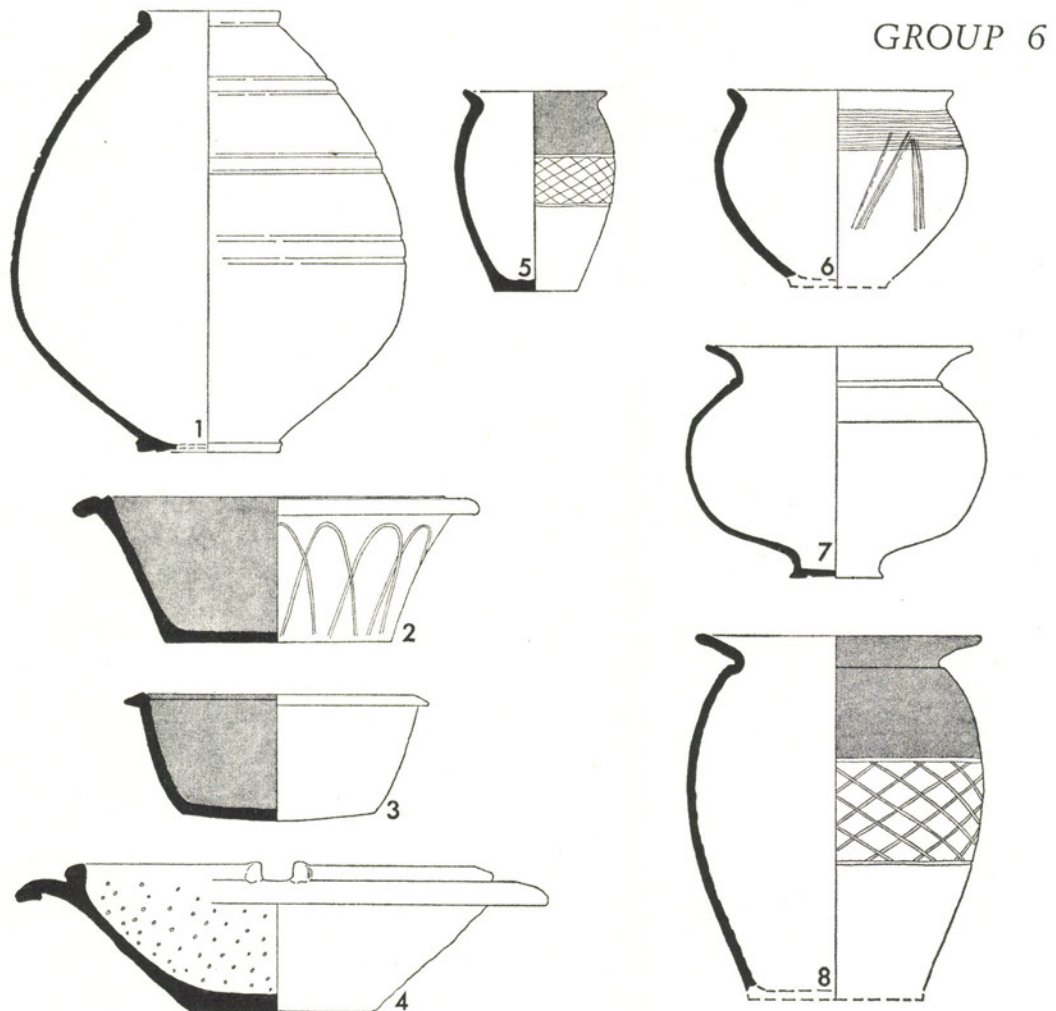


FIG. 77. Coarse pottery key group: scale $\frac{1}{4}$ (pp. 164-5)

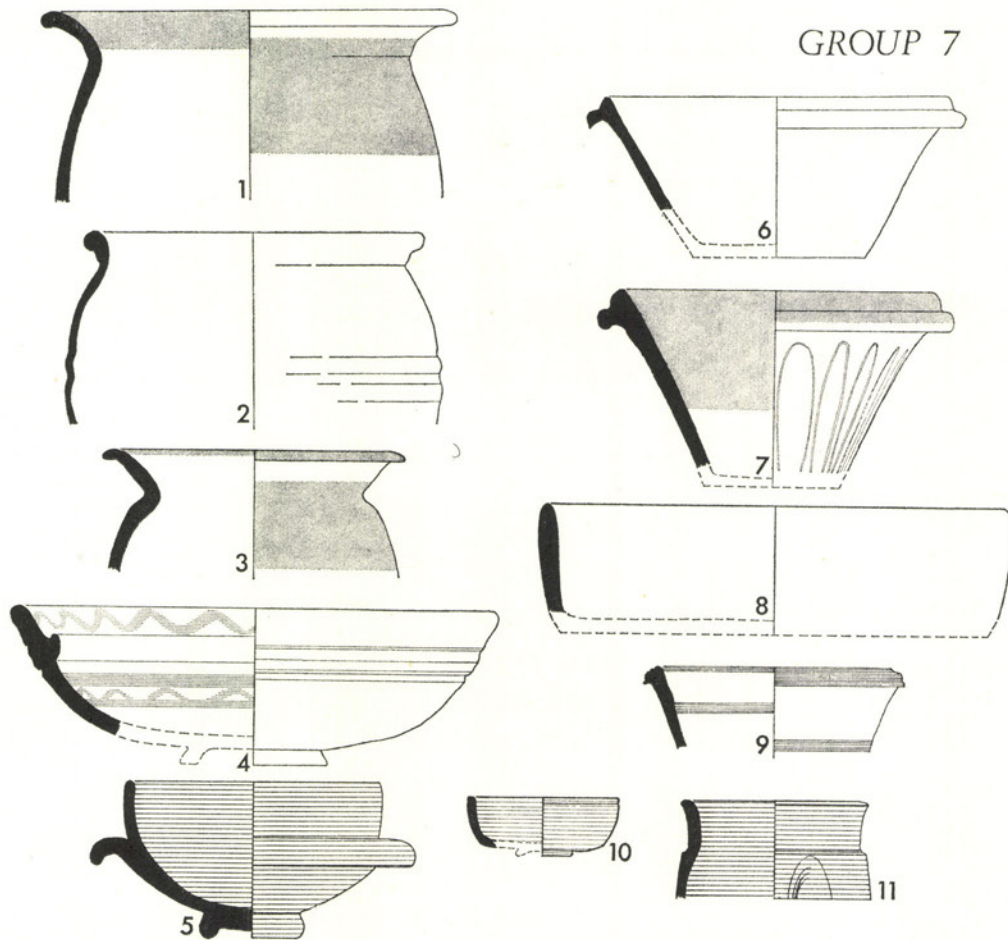


FIG. 78. Coarse pottery key group: scale $\frac{1}{4}$ (pp. 165-6)

LAMPS

(Fig. 79)

Lamps were not common. In addition to the 12 illustrated in fig. 79 less than another dozen fragments were found.

1. Wheeler's type IV with a simple rounded nozzle. The *discus* is plain with a central vent. The flange is ornamented with a simple ovolo. Smooth cream ware. First-Period occupation.
2. Probably Wheeler's type III, but the nozzle is missing. The *discus* is decorated with a running or walking figure of human appearance. Smooth cream ware with thick black external varnish. Found in a late destruction level — probably a stray.
3. Wheeler's type II with voluted nozzle, and eccentric vent, implying a decorated *discus*. Smooth cream ware. First-Period occupation.
4. Lamp of uncertain type with central vent surrounded by a simple petal design. Smooth cream ware with traces of black varnish. Period 2 construction level.

5. Lamp of unknown type with the *discus* decorated by a bird standing on a leafy branch and pecking a fruit. Cream ware with traces of varnish. An exact parallel was found at Richborough (Bushe-Fox, 1949, LXVI, 358). First-Period occupation.
- 6-9. Fragments of lamps, probably all of Wheeler's type II. All in whitish-cream ware. No. 6 came from a late destruction level, no. 7 from Period 1 B contexts, no. 8 from Period 2 occupation levels and no. 9 from a Period 3 occupation level.
10. Lamp of Wheeler's type III with a single handle. Probably locally made in a hard grey sandy fabric. Period 3.
11. Lamp of Wheeler's type IIIa without a handle. The base is broken but retains two concentric rings which may have enclosed a stamped maker's name. Fine orange-red fabric. Period 3.
12. Open lamp with nozzle formed by pinching out the side wall. Probably with one handle, now missing. Dark grey sandy fabric. Period 3.

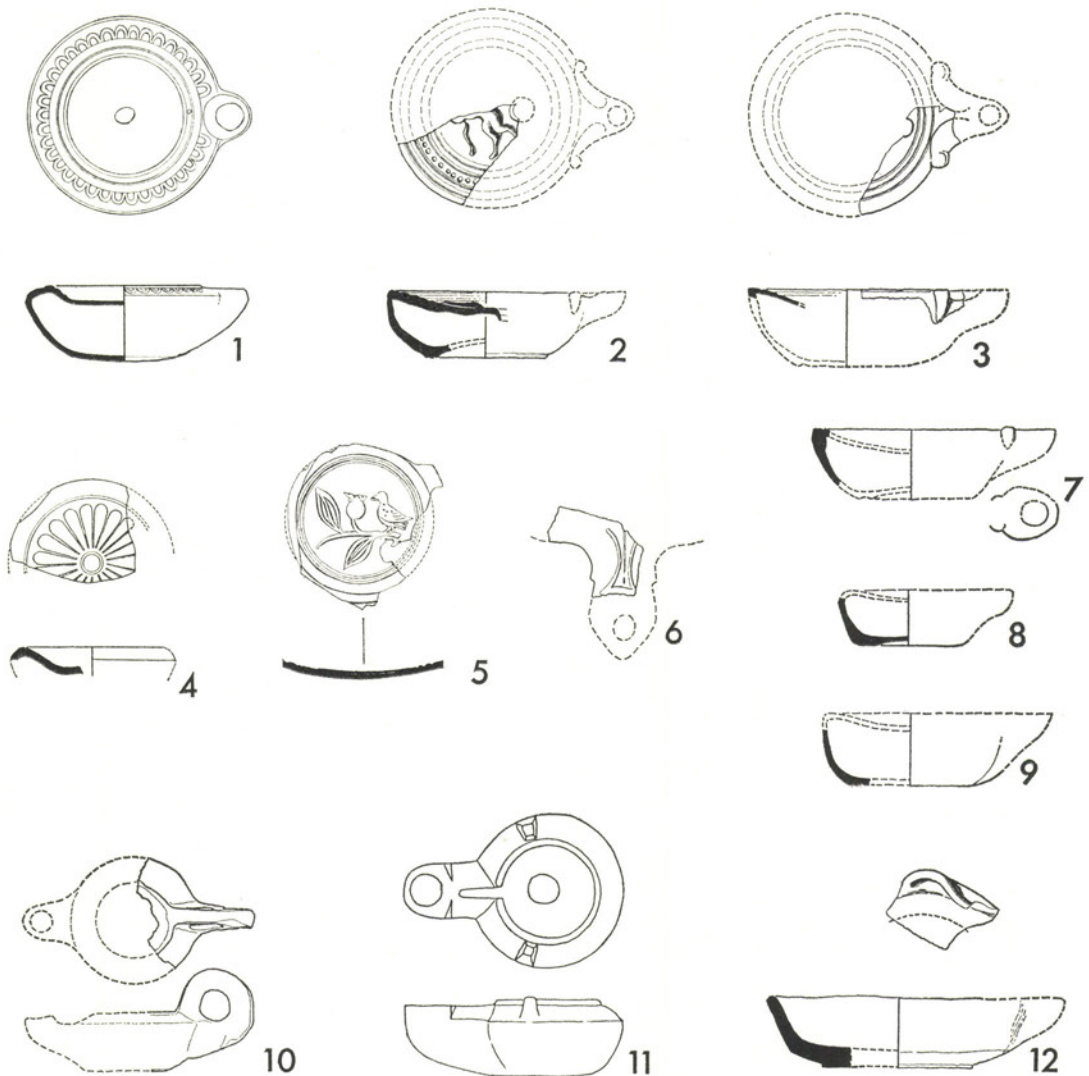


FIG. 79. Lamps: scale $\frac{1}{2}$ (pp. 167-8)

STAMPS ON GALLO-BELGIC AND OTHER POTTERY

(Fig. 80)

1. **ATTISSV.** Attissus. Stamped radially on the inside of a *terra rubra* platter above the foot-ring. Period 1. Late Augustan–Tiberian at Camulodunum (Hawkes and Hull 1947, p. 209, nos. 41–2).
2. **DANN.** Dannomarus. Stamped radially on the inside of a *terra rubra* platter above the foot-ring. Period 1. Probably Tiberio–Claudian.

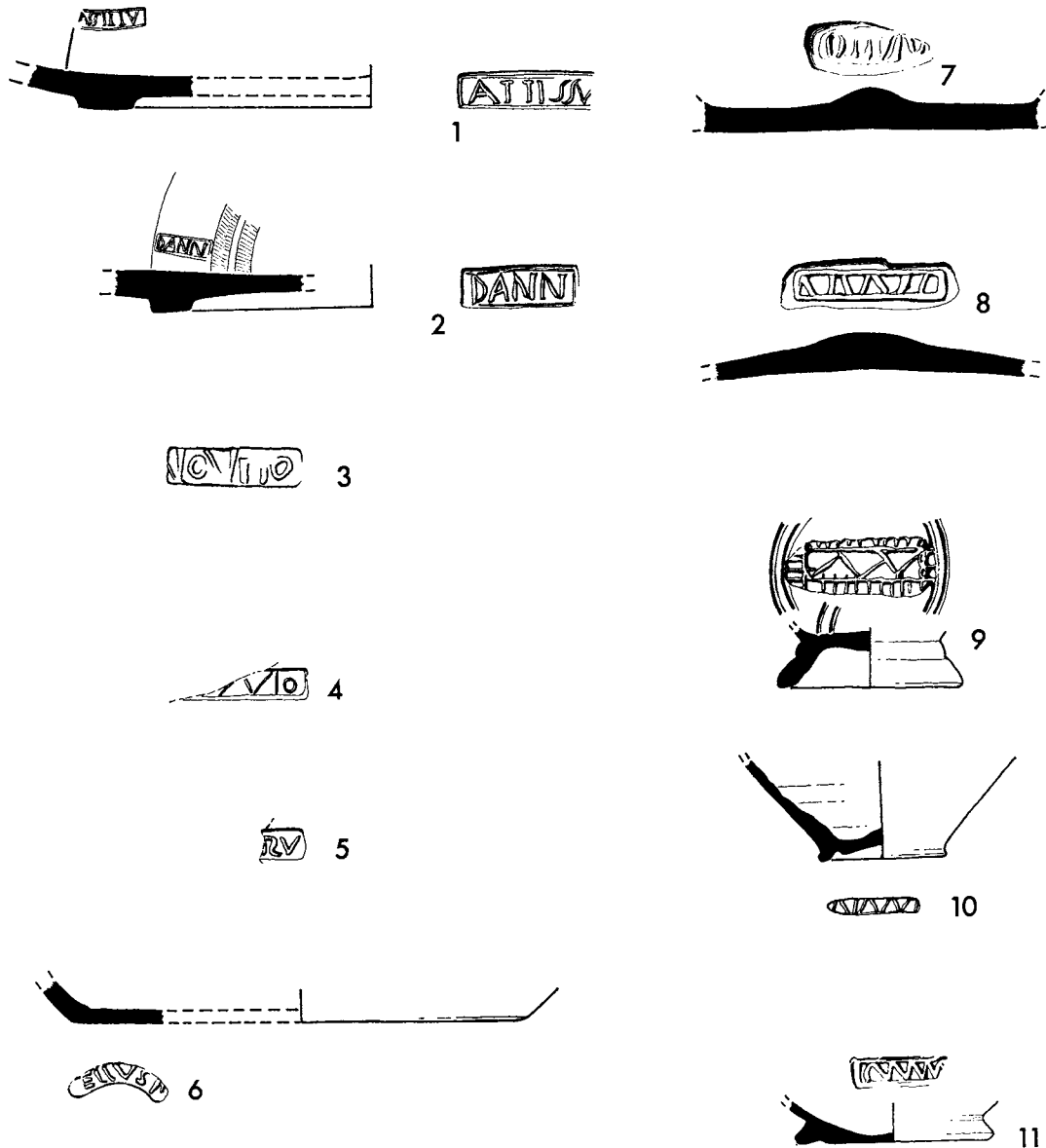


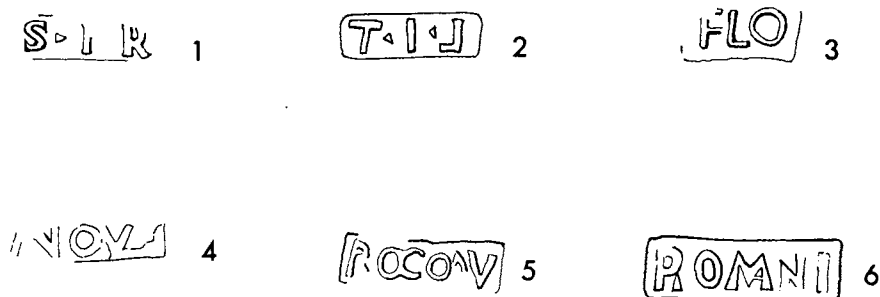
FIG. 80. Stamps on Gallo-Belgic and other coarse wares: scale pots $\frac{1}{2}$, stamps $\frac{1}{4}$ (pp. 169–70)

3. NOVIO. Stamped centrally on a *terra nigra* base. Period 1. ? Claudian.
4.]VIO. (Uncertain.) Stamped centrally on *terra nigra* base. Period 1. ? Claudian.
5.]ISV or possibly]ASV. If the latter, probably Atiasus. Stamped centrally on *terra nigra* base. Period 1. ? Tiberio-Claudian (*Cam.*, p. 208, no. 32).
6. EIVS? Stamped against the outer edge of the underside of a platter in a brownish micaceous ware, coated inside with a thick red colour-coat.
7. (Unintelligible.) Stamped centrally inside a platter in a reddish sandy ware. Period 1.
8. (Unintelligible.) Stamped centrally inside a platter in a reddish sandy ware. Period 1.
9. (Senseless.) Stamped centrally inside the base of a beaker. Buff ware. Period 1.
10. (Senseless.) Stamped laterally on underside of base of a beaker in light grey sandy ware. Period 1.
11. (Senseless.) Stamped centrally inside the base of a beaker in a smooth soft grey ware.

STAMPS ON AMPHORAE

(Fig. 81)

1. S.N.R. Stamped on a handle in a smooth pinkish-buff micaceous fabric. Callender, 1965, cat. no. 1641, where a late second-century date is proposed.
From a Period 2 construction level, *c.* A.D. 75 or earlier.
2. T.I.J. Stamped on the handle of type 252, in pinkish sandy ware. Callender, 1965, cat. no. 878, where a date in the second half of the second century is proposed.
From a second-century rubbish deposit.
3. FLO. Stamped on a handle in whitish sandy ware. Probably a variant of Callender, 1965 cat. no. 650.
From a Period 2 construction level, *c.* A.D. 75 or earlier.
4. (?) NON. Stamped on a handle in pinkish-buff sandy ware. Callender, 1965, cat. no. 1231.
From a Period 2 construction level, *c.* A.D. 75 or earlier.

FIG. 81. Stamps on amphorae: scale $\frac{1}{2}$ (pp. 170-1)

5. ? ROCONV. Stamped on a handle in a brownish buff micaceous ware. Probably a variant of Callender, 1965, cat. no. 1538 (ROCCA) or 1534 (RIOCL). From a Period 1 occupation level, A.D. 43-75.
6. ROMANI. Stamped on a handle in a hard grey-buff ware. Callender, 1965, cat. no. 1541. From a Period 2 construction level, c. A.D. 75 or earlier.

STAMPS ON MORTARIA

(Fig. 82)

By K. F. HARTLEY

1. *Period 1 occupation layer, pre-A.D. 75*

The fabric, essentially sandy in texture, is a light brown at the surface with a sandwich core of redder brown enclosing drab cream; the clay has been tempered with some red-brown grit but fine sandy particles may be indigenous to the clay. The small fragment suggests abundant trituration grit of mixed type (translucent pinkish and red-brown with opaque white and grey). The stamp reads SEX.VAL.CV̄ (S reversed); no surviving stamp preserves the last letter but it seems likely to be E, F or R. This man was one of at least five potters named Sextus Valerius, but with differing *cognomina*, who were clearly linked by stamp-types, forms, and fabric. The distribution and the primary fabric show their major activity to have been at Colchester where a waster of one has also been found. Two of them, including this man, used a second fabric as here, which appears to be identical with that made at Verulamium, Radlett and Brockley Hill; Sextus Valerius C- used yet another fabric whose likeliest origin is in Kent. The markets of all were primarily in East Anglia and the south-east generally, though a few mortaria got further afield.

All the forms known for this potter are clearly Flavian or even Neronian — perhaps A.D. 60-90; This is true for the group generally though one might have been active in the late Flavian or the Trajanic period.

The Sexti Valerii were among the few mortarium makers in Britain with Roman citizenship, but this might be explained by the connexion with Colchester; and these potters may have been a group of freedmen.

2. and 3. *Period 1 occupation layer, pre-A.D. 75 and period 2 construction, A.D. 75-80*

Two flange fragments in rather sandy cream fabric with pink core, the fabric containing much fine translucent red-brown and some white grit. No. 3 has been heavily burnt. Both fragments preserve part of the spout, making it clear that they are from different vessels, for they are otherwise identical. Each has a stamp permitting the full reading, c. IVL. ATTIC.I, presumably for C. Julius Atticus. No other stamps from the same die are known, and although a few Romano-British potters have stamps beginning in ATTI— the forms and fabric are unrelated to these. It is just possible that stamps from Lezoux and Vichy read as Atticino, might belong to this man but only close examination of the mortaria could determine this.

The rim-form and spouts, however, are readily recognizable as those pre-eminently used by three potters, C. Atisius Sabinus, C. Atisius Gratus and L. Atisius Secundus (Gillam, 236), who are said to have worked at Lyons (A. Allmer and P. Dissard, *Trion — antiquités découvertes en 1885, 1886 et antérieurement au quartier de Lyon dit de Trion*, p. 319). The form was restricted both in

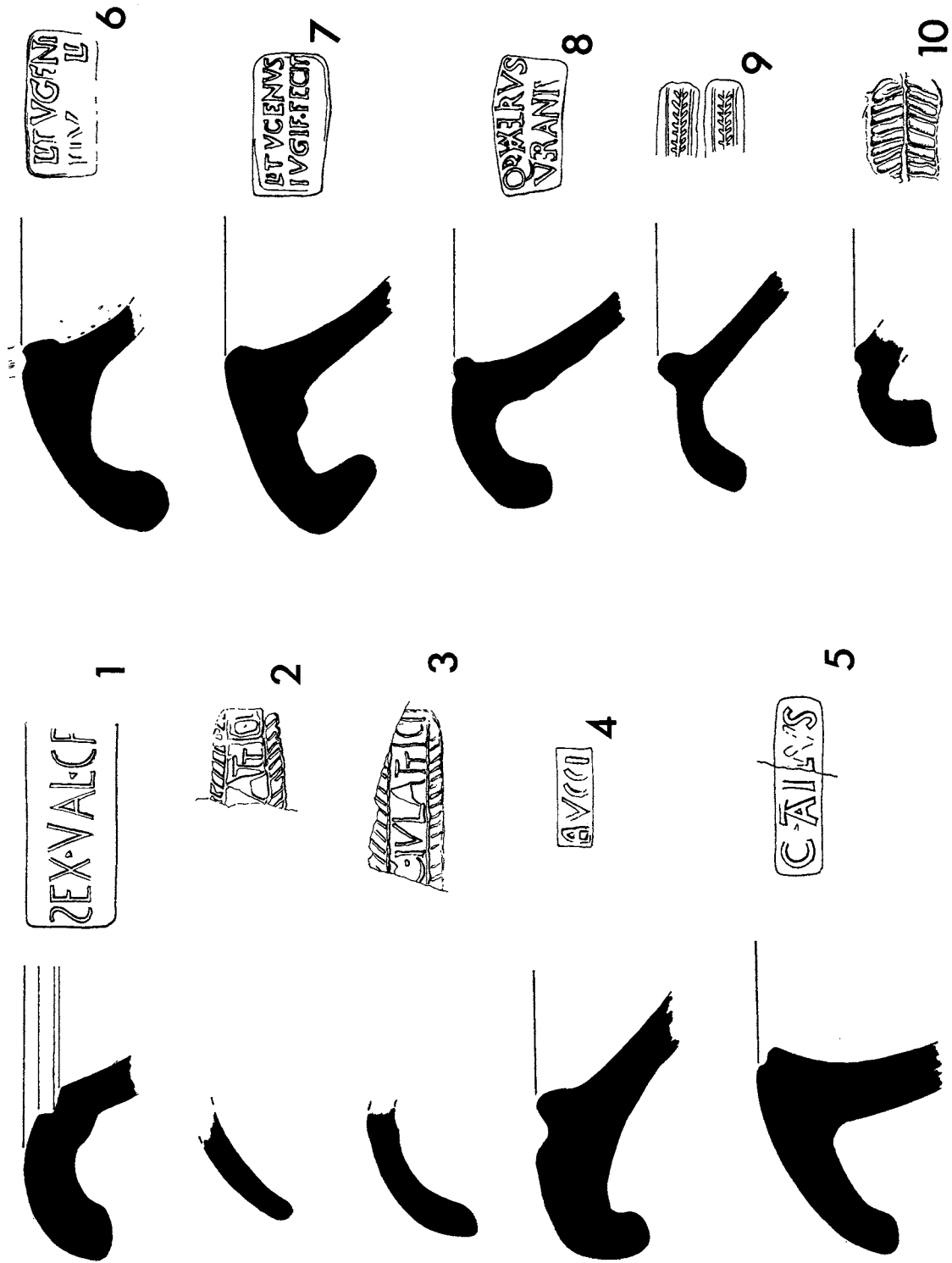


FIG. 82. Stamps on mortaria: scale $\frac{1}{2}$ (pp. 171-5)

period of use and in the number of potters using it and variants of it. A stamp of Atisius Sabinus was found at Herculaneum, and others from Corbridge and Caerleon must be Flavian. The form was occasionally used, probably in imitation, by Q. Valerius Se— and some of the Sexti Valerii (see no. 1). In view of these connexions, *c.* A.D. 55–85 seems likely for this potter.

The fabric does not coincide with any known at major potteries in Britain or for that matter with that used by the Atisii, and the possibilities are that it is of Gaulish origin, or perhaps even a local potter. No. 2 is from a Period 1 occupation level, no. 3 came from the soil of the palace garden; both are therefore A.D. 80 or earlier.

4. *Period 1 occupation level, pre-A.D. 75*

A mortarium in fine-textured, slightly drab cream fabric with salmon pink core. There is abundant white, red-brown and grey grit on top of the flange; almost all of the similar trituration grit has been worn away by use.

The stamp which is impressed along the flange is rather smooth but appears to read BVCCI (B reversed). No other stamp from the same die is recorded, but BVCVS.F retrograde is known on closely similar mortaria and is almost certainly the same potter — examples of potters doubling a consonant like this could readily be supplied.

Stamps reading BVCVS.F are known from Caerleon, Richborough and Springhead. The Springhead example is dated to the first century (*Antiq. Journ.*, VIII (1929), 341). Bucus' work is so close to that of Fronto, Paullus, Summacus and others and to a lesser degree to Q. Valerius Se— that close proximity in date and place of manufacture may reasonably be assured. Q. Valerius Se— was already at work by A.D. 61 and Fronto may well have been (*Arch. Journ.*, CXXXIII (1966), 48, nos. 22–5 and p. 47, no. 19; *Procs. Devon Arch. Expl. Soc.*, 24 (1966), 24). All the potters in this group are likely to have been active in the period A.D. 55–75. None is recorded on the Continent and, if they worked in Britain, may reasonably be attributed to Kent or the neighbourhood of Colchester on account of fabric, grit and distribution.

5. *Period 1 occupation level, pre-A.D. 75*

In fine textured pink-buff sandy ware: quartz grits. This is probably the work of C. ATISIVS GRATVS or C. ATISIVS SABINVS. See nos. 2 and 3, above.

6. *Period 2 construction level, c. A.D. 75–80*

In fine-textured, slightly brownish cream fabric with pink core in flange; a few grey flint grits survive. The worn stamp is from a die which gives LITVGENI/IVGI.FILI.

7. *Period 2 and 3 occupation level, A.D. 80+*

In fine-textured, very porous, yellowish cream fabric; concentric scoring is used in conjunction with the grey and white flint grit. The stamp reads LITVGENVS/IVGIF.FECIT.

These stamps are from two of the four dies of Litugenus. There are not many examples of the filiation being given on mortarium stamps, and there is, incidentally, no evidence that Jugus made mortaria.

Other stamps of Litugenus known are: *Scotland*, Bochastle; *England*, Colchester; Doncaster; London; Richborough (6); and Silchester (2). (He should be considered separately from a Litugenus who used a very different type of die, rim-form and fabrics.) Litugenus always made mortaria in the well-attested Flavian form Gillam Type 238, and the stamp from Bochastle is to be dated *c.* A.D. 83–7. A date of A.D. 70–100 is likely for his work. Like all the mortaria in these forms and fabric production seems likely to be centred in Kent, or even near Colchester (see no. 8).

8. *Period 2-3 occupation level, A.D. 80+*

In soft, fine-textured, yellowish cream fabric with concentric internal scoring combined with the grey, probably flint, grit.

The stamp is from one of ten dies of Q. Valerius Veranius, one of the small number of mortarium potters to have Roman citizenship. Although this example carries little suggestion of it, deep impressions from the same die give DOG (or C) AERIA FAC, in clear but tiny letters between the two main lines. This is probably to be interpreted as 'made at Dogaeria', though the name is not otherwise recorded.

Veranius is of especial interest because his work occurs in Gallia Belgica as well as Britain — twelve stamps are known from Gallia Belgica (seven of these from Bavai), and seventy-seven from Britain. There is sufficient evidence to show that he had worked near Bavai, and while it cannot be proved beyond doubt there is much to suggest migration to south-east Britain, either to Kent or even the other side of the Thames Estuary — or at least the establishment of a branch in Britain.

His date is not in doubt; he made forms (including Gillam Type 238) which were common only in the Flavian period. Stamps from Camelton, Caerleon and Richborough can be dated to the Flavian period, while one from Exeter was found in a pit containing much pre-Flavian material (*Procs. Devon Arch. Expl. Soc.*, 4, Pt. 4 (1951), 106-7).

9. *Period 2-3 occupation level, A.D. 80+*

Fine-textured pale buff fabric with slightly browner core sandwiching in the flange an inner, thin pink core; the surface is well-smoothed. There is a moderate amount of mixed trituration grit (grey flint, brown and translucent red-brown). The mortarium has been stamped twice close together on each side of the spout with a small neat herringbone trademark.

One other stamp from the same die has been recorded, from Wiggonholt, Sussex. Stamps from a very similar die come from the Chiddingfold villa and an unknown provenance (British Museum). The stamps stand out as different from normal herringbone ones and the forms and fabrics used with them are so similar that they must be products of the same workshop.

These mortaria are very close to unstamped ones from Rapsley, Ewhurst (*Surrey A.C.*, LXV (1968), fig. 20, nos. 61 and 62). As the stamps, the precise forms and fabrics are unknown in other parts of the country, it is highly probable that a local pottery is involved.

No independent dating evidence is available but the heyday of herringbone stamps was certainly in the Antonine period, and these rim-forms are likely to belong within the period A.D. 130-80.

10. *Late robbing levels*

Hard buff-brown sandy fabric. Herringbone stamp. Probably of second-century date and made in the south or south-east of England.

Discussion

Only thirty-seven mortaria from Fishbourne have been examined but this is probably a sufficiently large number to allow some tentative points to be put.

The relatively large number of pre-Flavian and early Flavian mortaria is to be expected on a site of such importance in this period. Some of these perhaps had a military origin and some could perhaps have been made locally (types 140, 141.2, 142). It is unfortunate that so little is known about manufacture in Britain in this period, since ignorance increases the difficulties of dating. Publication of more from closely dated contexts and the discovery of kilns will improve the situation.

In the Flavian period the major potteries represented are those probably in south-east Britain (Litugenus and Q. Valerius Veranius, probably also Buccus and type 136). The virtual absence of mortaria from potteries at or near Verulamium (including Brockley Hill and Radlett) is marked. One, stamped by Sextus Valerius C — could have been made there, but even he was primarily a south-eastern potter, this piece being exceptional in his known output. Here Fishbourne follows a general pattern of distribution for these two major sets of Flavian potteries — sites readily accessible to coastal traffic have a higher proportion of Gillam Type 238 than inland areas which always have large numbers from the Verulamium potteries.

The most striking feature of the later Fishbourne mortaria as a whole is the very small proportion from major potteries. While a few could just possibly have been made at Colchester it is very surprising that the most typical forms are not represented and that the fabric of some is distinctly abnormal. In addition there is a considerable number which stand out as having features in common with each other (287, 289, 290, 291, 292, 293.1, 294.1, 294.2) though more than one clay may perhaps be involved. They do not come from any one of the large known potteries. It is amongst these that one should look for local manufactures.

It is clear that a relatively large proportion of the mortaria at Fishbourne and the neighbouring area have some unusual features in forms and fabrics. Unfortunately there are few stamps (no. 9 is probably one), and no named potters are involved. The discovery of kilns and of mortaria in closely dated contexts is needed to solve the problems involved.

COARSE WARE TYPE SERIES

(Figs. 83–119)

Pottery from First-Period contexts

This section, which lists 198 major types together with a number of varieties, includes all pottery found in levels pre-dating the construction of the Flavian palace, dated on the evidence of the coins and samian ware to about A.D. 75. Since occupation began at the time of the invasion of A.D. 43 and continued uninterrupted, the material covers the first thirty years of the Roman occupation.

The military occupation appears to have been both clean and short and, with one exception, no sealed occupation deposit of any size can be assigned to it. The bulk of the rubbish must, at this time, have been disposed of in pits which lie outside the present limit of excavation. The extreme cleanliness of the military base is shown by the barren siltings of the drainage ditches assignable to this early period. Even so, a small amount of refuse was collected in thin layers of the original ground-surface around the buildings, but since these areas were constantly churned up by feet and vehicles throughout the rest of Period 1, giving rise to a general occupation deposit on average 4 in. (10 cm.) thick, it is impossible to distinguish the earlier material except by typology.

The rubbish deposits of Period 1 B, in contrast, seem to have been allowed to accumulate close to the buildings and in particular in the drainage ditches, which on some occasions had to be cleaned out, the rubbish being spread around nearby. The whole of the site of the dismantled building, Timber Building 2, was also thickly spread with discontinuous lenses of rubbish. In fact so much material was recovered from the excavated areas from levels of this kind that systematic rubbish removal cannot have been practised on a large scale, if at all, during this period.

The Period 1 C building was erected on a previously unoccupied area and by virtue of the fact that its upper levels have been mutilated by recent building activity, no rubbish deposits can be directly related to its construction levels. Nevertheless, it is certain that the rubbish tips to the north continued to accumulate during its life.

In summary, it may be said that the Period 1 pottery, described below, belongs to the first thirty years of the Roman occupation. There is no possibility of the pre-43 imports contaminating the group nor can any of the pottery post-date A.D. 75.

THE POTTERY OF PERIOD 1 GALLO-BELGIC AND RELATED PLATTERS

Type 1. Terra rubra platters with overhanging rim (Cam. 3-5)

Four variants are illustrated from a total of twelve. The type is thus rare. They can be broadly correlated with the Camulodunum series (Hawkes and Hull, 1947): 1.1 = *Cam.* 3, 1.2-3 approximate to *Cam.* 5 A, and 1.4 = *Cam.* 4 B. The forms are widely found in Tiberio-Claudian contexts in this country, and on the continent. At Fishbourne they post-date the conquest. Only one sherd was found in a Period 2 context (i.e. post A.D. 75); it must be a rubbish survival.

All the Fishbourne examples are of good workmanship. The fabric is fine pale-mid red and very slightly sandy. Stamps of *Attissus* and *Dannomarus* are recorded (fig. 80).

Type 2. Large curved-wall platters with flat bases (Cam. 17)

Profiles vary, but are more commonly of type 2.2. No foot-rings are known but the interior of the base is usually scribed with concentric circles. The fabric is invariably a fine brown micaceous ware. Inside and over the lip of the rim is a coating of deep red pigment (the so-called 'Pompeian red' ware). The platters frequently show signs of external blackening caused by heating over a smoky fire, probably during cooking.

It occurs on the continent and less commonly in Britain in post-conquest Claudian contexts, usually on military sites, e.g. Camulodunum (*Cam.* 17), Richborough and Cirencester. At Fishbourne it is by far the commonest imported platter type; ninety-three are recorded, all but eight in pre-A.D. 75 layers, but the type evidently continued in use into the beginning of the Flavian period.

Type 3. Small curved-wall platters with flat bases (Cam. 17)

Closely similar to type 2 in form and ware but always less than 20 cm. in diameter. Twenty are known, all but two from First-Period layers.

Type 4. Platter with curved-wall and foot-ring in terra nigra ware (Cam. 16)

The fabric is usually fine, hard and white and is coated with a polished black colour-coat varying in quality. Generally Tiberio-Claudian, though some may be later in this country. Nineteen were found at Fishbourne, all but one in Period 1 contexts. The type can therefore hardly continue to have been imported after the end of the Neronian period.

Type 5. Platter with thick, short straight wall in terra nigra ware (Cam. 2 B)

White fabric with polished black colour-coat. Rare at Fishbourne (four only), probably because the type had gone out of manufacture by early Claudian times. In Britain it normally occurs in pre-conquest contexts.

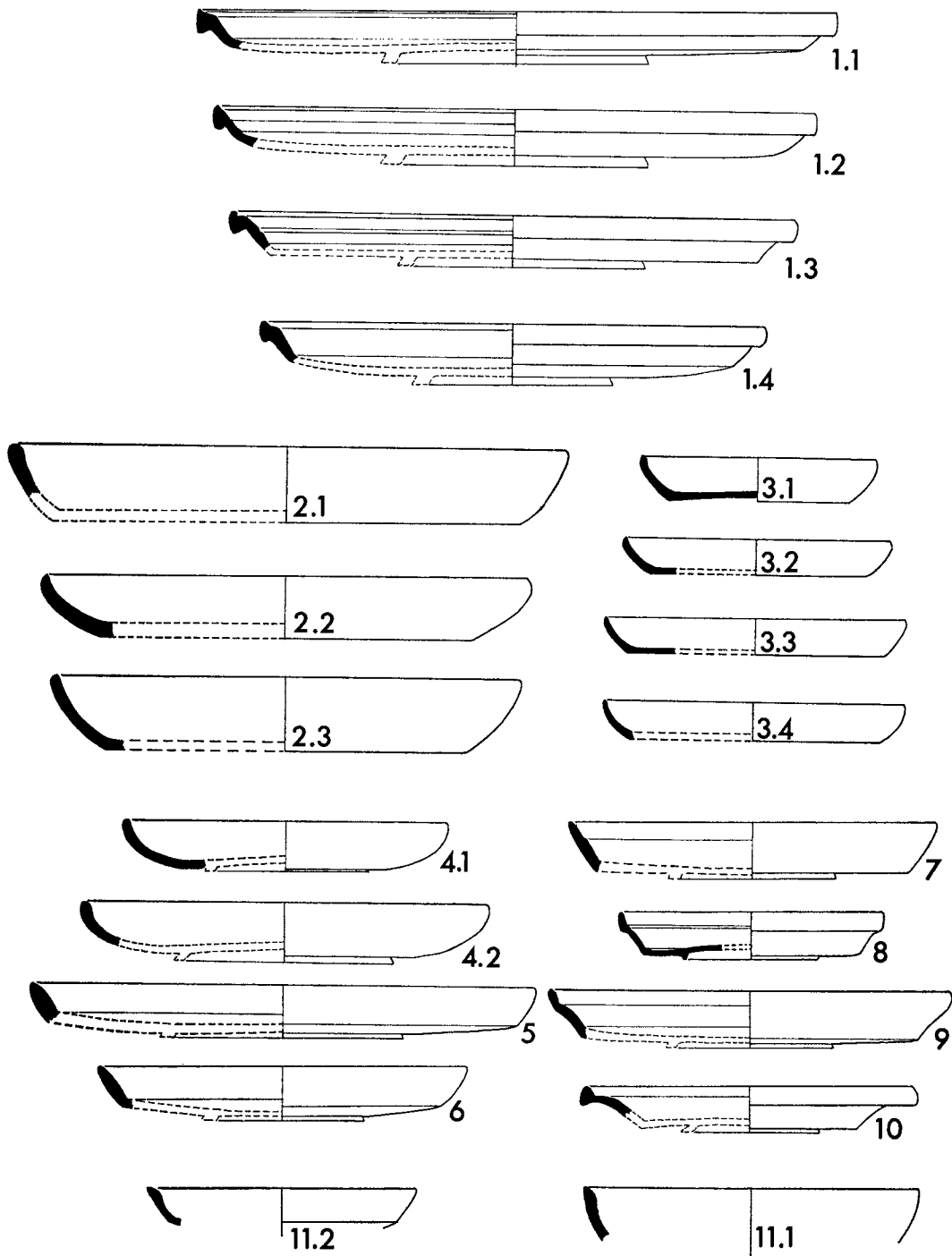


FIG. 83. Pottery types: scale $\frac{1}{4}$ (pp. 176-8)

Type 6. Platter with thin straight wall in terra nigra ware (Cam. 2 C)

White fabric with polished black colour-coat. Only three known at Fishbourne. Normally pre-conquest.

Type 7. Platter with straight wall internally stepped in terra nigra ware (Cam. 3)

An unusual type between *Cam.* 11 and 12 in normal *terra nigra* ware. Five vessels are known closer to this than to type 9, but the dividing line is not obvious. Probably Claudian.

Type 8. Platter with offset rim in terra nigra ware (Cam. 8)

White-grey fabric with polished black colour-coat. Only five vessels were found, all in Period 1 layers. Elsewhere in the country they are usually Claudian.

Type 9. Platter with concave wall and internal step in terra nigra ware (Cam. 14)

White-grey fabric with thin black polished surface. The illustrated vessel is close to *Cam.* 14, but fragments of two others are rather closer to *Cam.* 13. A total of three from Fishbourne contrasts strongly with the very large numbers found at Camulodunum but there, it was suggested, the type may have been produced locally. Generally Claudian.

Type 10. Platter with concave wall and overhanging lip in terra nigra ware

White ware with black polished surface. The type is between *Cam.* 7 and 9. A total of six were found at Fishbourne. Claudian here as elsewhere in this country and abroad.

Type 11. Straight-sided platter

Hard, white sandy ware. They may be locally made, but the fabric is unusual and suggests importation from another centre — in this country or abroad. 11.2 has a pale red internal colour-coat. Only two are known.

LOCAL COPIES OF GALLO-BELGIC PLATTERS

Copies of imported platters by local potters vary enormously in form and fabric, some being close to the originals, others widely divergent from them. Here the platters have been divided roughly into two classes: the obvious copies (types 12-20), described in this section and those which appear to derive more from local pre-Roman traditions (types 21-8).

Type 12. Platter, copy of Cam. 16 Ac.

Grey sandy ware with a black polished surface. Only one is known. Close in form and fabric to the original.

Type 13. Platter, copy of type 4

Hard, grey sandy ware with a darker grey surface. One only.

Type 14. Platters copying type 9

Many variants occur, but the main range is illustrated here. The linking characteristics are a curved side with internal step. Altogether fifty-three are known, of which only five occur in late first-century contexts, showing that the type continued sporadically in use into the Flavian period.

Fabrics vary: 14.1, grey sandy; 14.2, dark grey sandy; 14.3, fine micaceous grey ware with black polished surface; 14.4 grey sandy; 14.5, grey sandy; 14.6, smooth grey ware with a black micaceous surface; 14.7, hard black sandy ware.

THE COARSE POTTERY

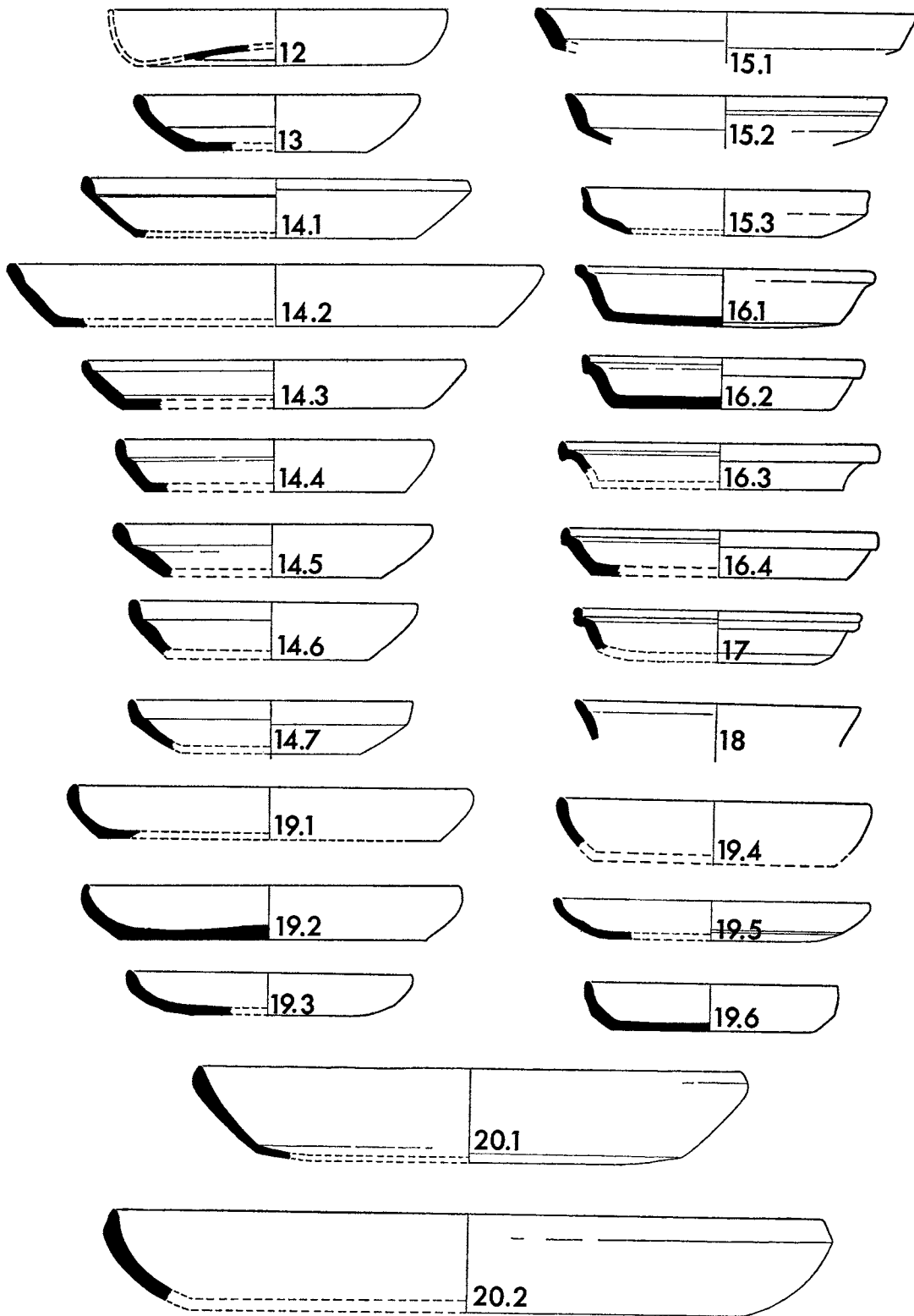


FIG. 84. Pottery types: scale $\frac{1}{4}$ (pp. 178-80)

Type 15. Platters copying types 5 and 6

The sloping walls may be of varying thicknesses but generally it is thick and squat. Twenty-one were found, of which three were found in Period 2 levels.

All three of the illustrated vessels were made in a hard grey sandy fabric.

Type 16. Platters copying types 8 and 10

Characteristically the rim is plain and overhangs a curving side, but considerable variation is apparent. Forty-eight are recorded, all but five from Period 1 levels. Of the five, two occur in late first- and early second-century contexts and three were found stray in later rubble deposits. Apart from 16.3, which has a darker grey exterior, all are in an evenly fired grey sandy ware.

Type 17. Platter copying types 8 and 10

This type differs from 16 in that its rim is reeded externally. Two, both in grey sandy ware, are known.

Type 18. Platter copying type 7

Only one is known, in a light grey ware with a darker grey surface.

Type 19. Platters copying type 3

A fairly common type occurring twenty-three + times. Of these, six were found in levels post-dating the construction of the palace in *c.* 75, showing that the type continues into the late first and early second centuries.

The fabrics vary: 19.1, grey ware; 19.2, grey ware fired to red on the surface, tempered with grog; 19.3, hard grey ware fired black; 19.4, grey ware fired red with a mica-dusted surface; 19.5, light grey micaceous ware with a darker grey surface; 19.6, smooth grey ware fired red on the surfaces.

Type 20. Platters copying type 2

Late platters of this kind are not common, but fragments of about twelve are known, a few spreading into Period 2. Both in a red sandy ware.

PLATTERS AND SHALLOW BOWLS OF VARIOUS TYPES

This group seems to owe little to imported Gallo-Belgic types. Some, however, particularly the foot-ring dishes (type 28) and the bead-rimmed vessels (type 21), appear to derive from local Southern Atrebatian forms in use before the conquest.

Type 21. Platter with beaded rim

Only one, in smooth pink ware with dull red external slip.

Types 22-7. Dishes and platters of varying forms

22. Grey sandy ware. One in Period 1, two from Periods 2-3.
23. Coarse, grey sandy ware, one from Period 1, one from Period 2.
24. Black sandy ware, one only.

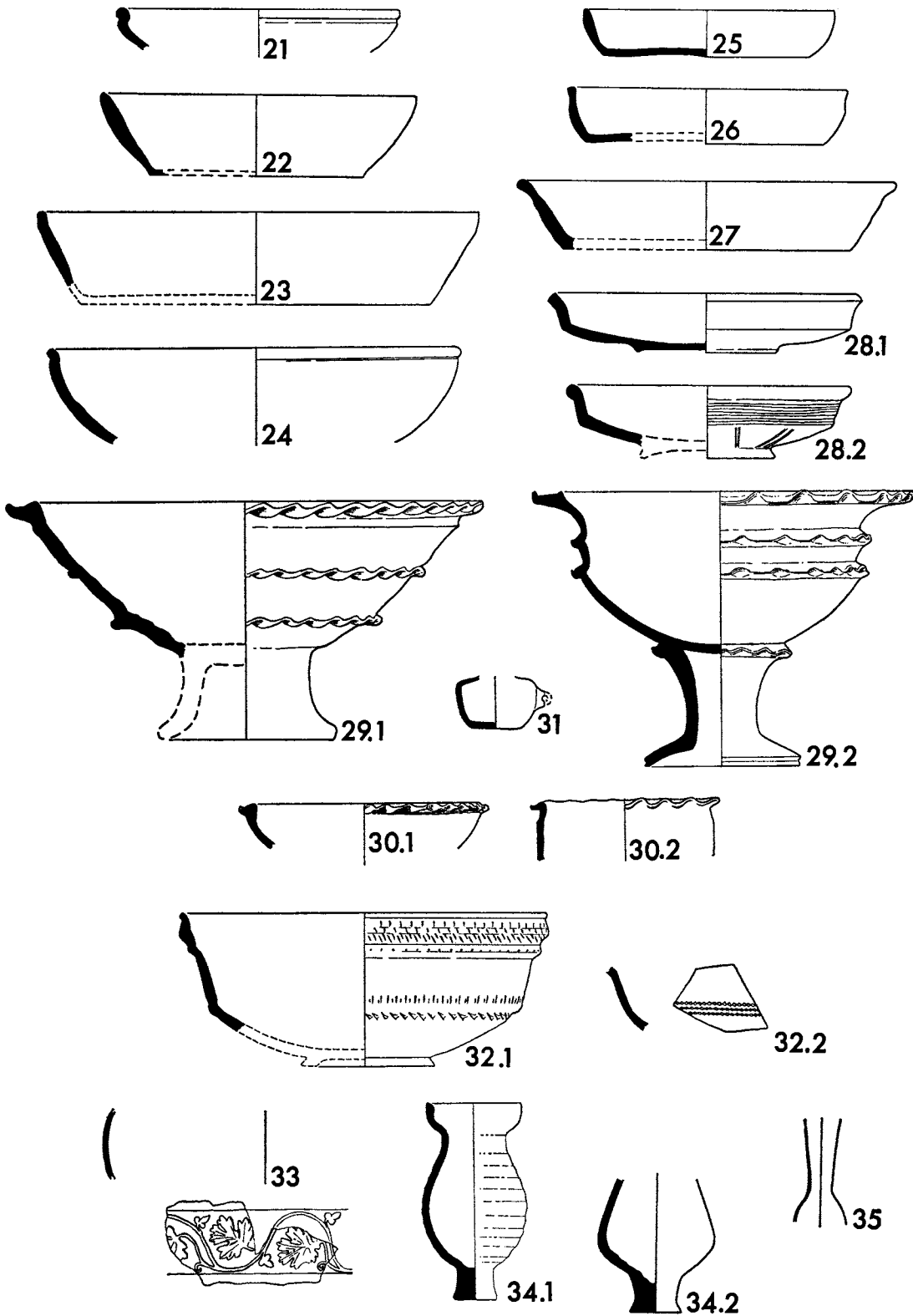


FIG. 85. Pottery types: scale $\frac{1}{4}$ (pp. 180-2)

25. Dark grey ware with black surfaces. Four + are known.
26. Reddish-buff ware with traces of red colour-coat inside. One only.
27. Black sandy ware with burnished surfaces. Six from Period 1.

Type 28. Shallow platter with a foot-ring base

This type is wide-spread in southern England and seems to be a Romanized version of platters appearing first in the late pre-Roman Iron Age. The fabric is grey or black and sandy, occasionally with burnished decoration outside (28.2). The lip may be simply out-turned (28.1) or beaded (28.2). Six are known from Period 1, three from Periods 2-3, suggesting a persistence into the early second century.

MISCELLANEOUS VESSELS IN NON-LOCAL FABRICS

Type 29. Tazzas with frilled carination, rim and body cordon

The general type is widespread in Britain from the first century (Richborough, 30 and 44) into the early second century, e.g. Verulamium (Wheeler and Wheeler, 1936, fig. 32, 44) and Jewry Wall (Kenyon, 1948, fig. 41, 31 and 32). They are described variously as incense cups and tazzas. Six are recorded at Fishbourne; no. 29.1, in a hard red sandy ware, belongs to Period 1, the others, including no. 29.2 in a buff sandy ware, came from late first- and early second-century contexts.

Type 30. Tazzas with a frilled rim

Similar to type 29 but smaller and often without body and shoulder frillings. Both of the illustrated examples belong to Period 1, but elsewhere the type is known to extend into the early second century, e.g. Verulamium (Wheeler and Wheeler, 1936, fig. 32, 46). Only two are known from Fishbourne, both in buff sandy ware.

Type 31. Inkpot

With a simple handle — the rim is broken. Light grey-buff sandy ware. One only is known.

Type 32. Bowls copying Drag. 29

One largely complete vessel and one fragment, both in a fine red ware with a red colour-coat, were discovered at Fishbourne in First-Period levels. The type, in a variety of wares, is well known in Sussex, e.g. Chichester (Pilmer, 1955, fig. 11, 5, fig. 14, nos. 1, 2, 5, 6), and Hardham (Winbolt, 1927, pl. 11).

Type 33. Bowl or cup with relief decoration

The illustrated fragments belong to a single vessel in a soft red ware, the form of which is uncertain. The decoration of running tendrils was formed by a mould in the same ware as the decoration on *terra sigillata*. The vessel is clearly not local and is best compared with certain Gaulish examples illustrated by Déchelette (Déchelette, 1904, Vol. II, pl. II, 4), though direct parallels are elusive.

Type 34. Bottle with cupped mouth and narrow base

Four bottles of this type are known, all in a pinkish-buff fabric. One is from a Period 1 level, the others were found in Period 2-3 contexts suggesting a late first-century date for the general occurrence of the vessel.

Type 35. Bottle with a long, narrow neck

Only one, in a smooth cream fabric, is known.

HEMISPHERICAL CUPS

Hemispherical cups in a smooth cream-coloured fabric coated with a shiny brown 'varnish' occur on a number of sites in Britain, usually in Claudio-Neronian contexts. At Fishbourne they are invariably restricted to Period 1 levels. Most of them are decorated with some kind of applied ornamentation, which is used here as a means of distinguishing different types.

Type 36. Hemispherical cup with finely rusticated surface

Two varieties are apparent: one (36.1) with a simple beaded rim, the other (36.2) with a rim composed of multiple beadings. A total of six are known.

Type 37. Hemispherical cup with a boldly rusticated surface

Three vessels are known from Fishbourne.

Type 38. Hemispherical cup with scale decoration

A considerable variety can exist within this broad category. The two extremes (the only two of this type from Fishbourne) are illustrated here.

Type 39. Hemispherical cup with pruned decoration

The only two surviving vessels are illustrated.

Type 40. Hemispherical cups with tripod feet

These differ from the others described above in that they are usually undecorated (some, however, may be rusticated), the rims are everted and the bases are supported on three squat feet. The fabric also varies from the typical smooth cream ware to a more sandy buff colour. Four are known.

GALLO-BELGIC CUPS IN *TERRA RUBRA* AND *TERRA NIGRA**Type 41. Bell cup imitating Loeschcke 7 and 8 in terra rubra*

Only five examples are known from Fishbourne. All are in a fine hard red ware with a red surface slip. Common on the continent from Augustan times but hardly known after the Claudian period. Typologically nos. 41.1 and 41.3 are Tiberian but 41.2 with its high rim is Claudian. Nevertheless they cannot have reached Fishbourne before A.D. 43.

Type 42. Bell cup imitating Loeschcke 7 and 8 in terra nigra

Similar in form to 41 but in fine white ware with a black polished surface. Rare at Fishbourne (two only).

Type 43. Flanged cup imitating Drag. 24-5 in terra nigra

Fragments of nine vessels are known, all in *terra nigra* ware. The two illustrated here show two variations in the form of the flange. Generally the type occurs in Tiberio-Claudian contexts, but they probably continue to be imported up to the time of Nero.

LEAD-GLAZED BEAKERS

Altogether some 22 fragments of lead-glazed beakers have been recovered from First-Period levels. The ware varies from hard white to a red, sandy fabric, and the glaze differs in colour from light green to a greenish brown. This type is by no means common in Britain, but several beakers of this kind were recovered from the Colchester pottery shop which dated to the Claudio-Neronian period. The vessels were presumably imported.

Type 44. Lead-glazed beakers with horizontal rows of raised dots

The pellets are applied in four or five widely-spaced horizontal rows covering the whole body of the beaker. Parts of four different vessels survive, all in a hard white ware with greenish glaze.

Type 45. Lead-glazed beaker decorated with applied scales

Only one vessel of this type is known. Its fabric is a pinkish-white and the glaze, though present, has been largely worn off.

Type 46. Lead-glazed beaker decorated with groups of applied pellets

Sherds of three different vessels, each decorated in a different way with applied pellets, are illustrated here. 46.1 and 46.2 are both made in a buff sandy fabric covered with a greenish-brown glaze. 46.3 is in a red sandy fabric with a light green glaze. The two bases, 46.4 and 46.5, could belong to any of the lead-glazed beakers: 46.4 is in a fine buff fabric with a patchy green glaze; 46.5 is in a smooth red ware with a thick green glaze.

LOCAL COPIES OF GALLO-BELGIC AND SAMIAN CUPS

Type 47. Copy of types 41 and 42

Well-made bell cups in a variety of local wares. Of the eight known, all but one are from First-Period levels. Nos. 47.1 and 47.2 are both in a fine grey ware with a black micaceous surface; 47.3 is in a red sandy ware. Presumably they were made in imitation of both *terra nigra* and *terra rubra* forms.

Type 48. Carinated cup with straight rim

This, too, is a copy of the Gallo-Belgic bell cups, but is far less close to the original both in form and ware, which is a grey sandy fabric. Six are recorded, four from Period 1 and two from Periods 2-3.

Type 49. Carinated cup with outbent rim

This type, though inspired by Gallo-Belgic forms, is far from the original. The illustrated vessel, in a dark grey sandy ware, is the sole example from Period 1 but the form occurs more frequently in the Second and Third Periods.

Type 50. Cup copying Drag. 27

A total of twenty-six vessels of this form are recorded, of which only three post-date A.D. 75, thus showing that the copies do not outlive their Samian prototype. The ware varies but is usually buff and sandy. 50.2, buff micaceous; 50.3, smooth grey; 50.4, hard buff; 50.5, smooth grey; 50.6, smooth grey-brown with a red micaceous colour-coat; 50.7, smooth pinkish buff.

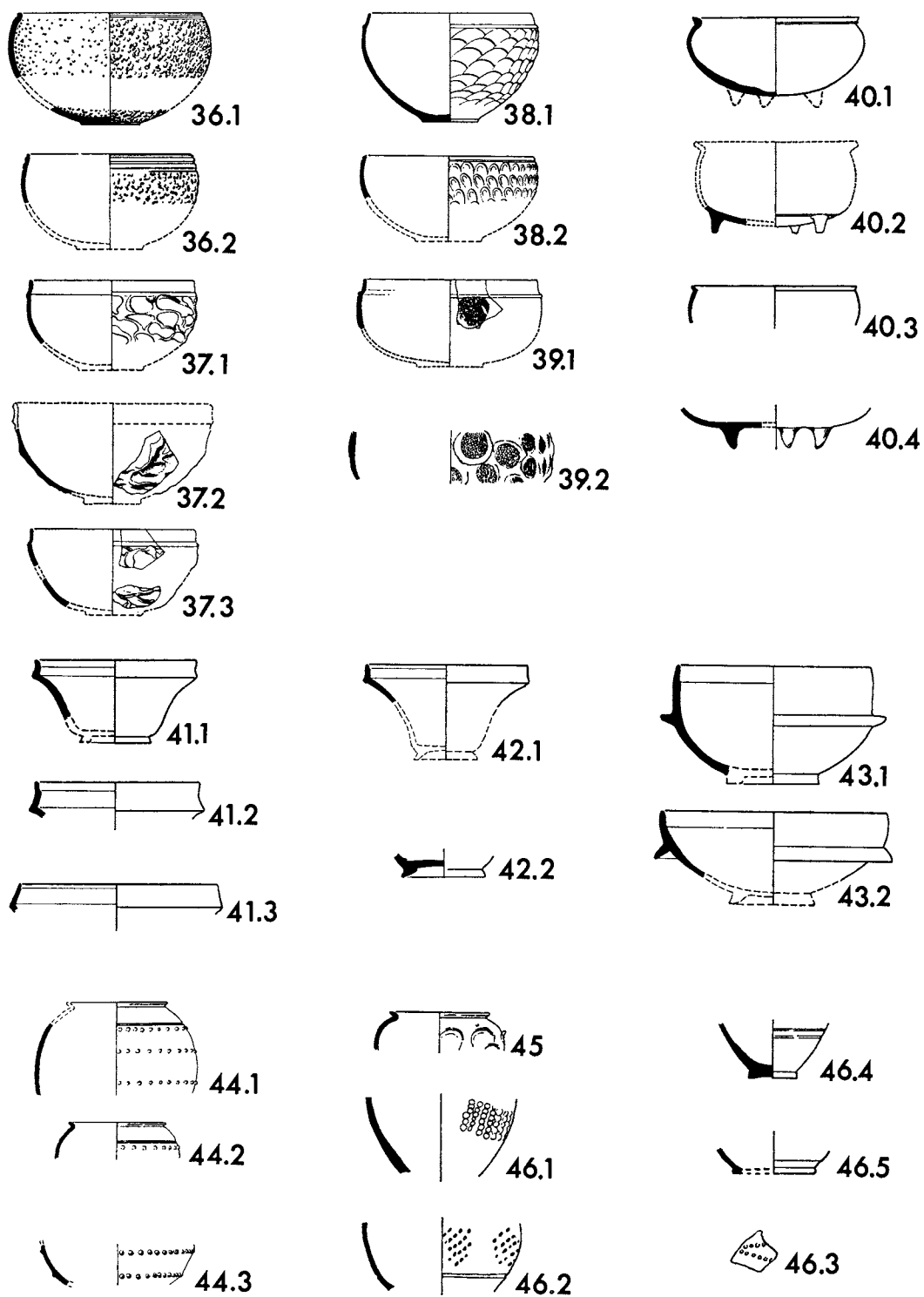


FIG. 86. Pottery types: scale $\frac{1}{4}$ (pp. 183-4)

Type 51. Cup copying the Gallo-Belgic type 43

Five are recorded in various qualities, all from First-Period layers. 51.1 is in a black sandy ware fired on the surface to a black-brown colour; 51.2 and 51.3 are both made in a local grey gritted ware.

Type 52. Carinated cup

Only one example is known, in a pinkish-buff ware. It is similar to *Cam.* 67, but is otherwise difficult to parallel.

Type 53. Carinated cup with almost vertical wall.

One example, in a pinkish-brown ware, is known. The type falls into the same broad category as *Cam.* 68 and 69, but is undecorated.

Type 54. Cup with simple outbent lip

Only one vessel of this type is known, in red sandy ware.

Type 55. Cup with outbent reeded rim

One example in pinkish-buff sandy ware.

Type 56. Cup of simple hemispherical form

Two examples, both in a hard white ware, were recovered from Period 1 levels.

Type 57. Miscellaneous pedestal bases

Pedestal bases of various kinds were found, belonging to a wide range of different vessels. The three illustrated here are representative of the whole. 57.1, hard black sandy ware; 57.2, buff-brown sandy ware; 57.3, red sandy ware with grey core.

Type 58. St Rémy vessel jug

Fine white ware with traces of a thick green glaze. The vessel was probably a small jug with a sharply biconical body made in two separately-moulded parts, the join forming the girth. In this example the lower end of the handle seems to have been slotted into a prepared opening on the girth. The general type, Déchelette's 60 and 61 (Déchelette, 1904, Vol. 1, pl. 11) is known from Colchester (*B.M.C.*, pl. v) and London (Wheeler, 1930, fig. 54). The Fishbourne vessel is probably a variant of this general class.

First-Period occupation level.

'GALLO-BELGIC' BUTT AND GIRTH BEAKERS

Type 59. Butt beaker with thickened lip internally stepped (Cam. 113)

The body curves out evenly and is decorated with bands of rouletting between horizontal cordons. The ware is invariably hard-fired cream or white. Enormous quantities of this type found at Camulodunum led the excavators to suggest that it was made there from Tiberian to Neronian times. At Fishbourne twenty-four examples are known, all but two from Period 1.

Type 60. Butt beaker decorated with differently ornamented zones

Only one example of this type occurs, in a brownish-buff fabric. The decoration is similar to that of *Cam.* 116, but with the absence of the upper part of the vessel close identification is impossible. The ware, however, is different from types 59 and 61.

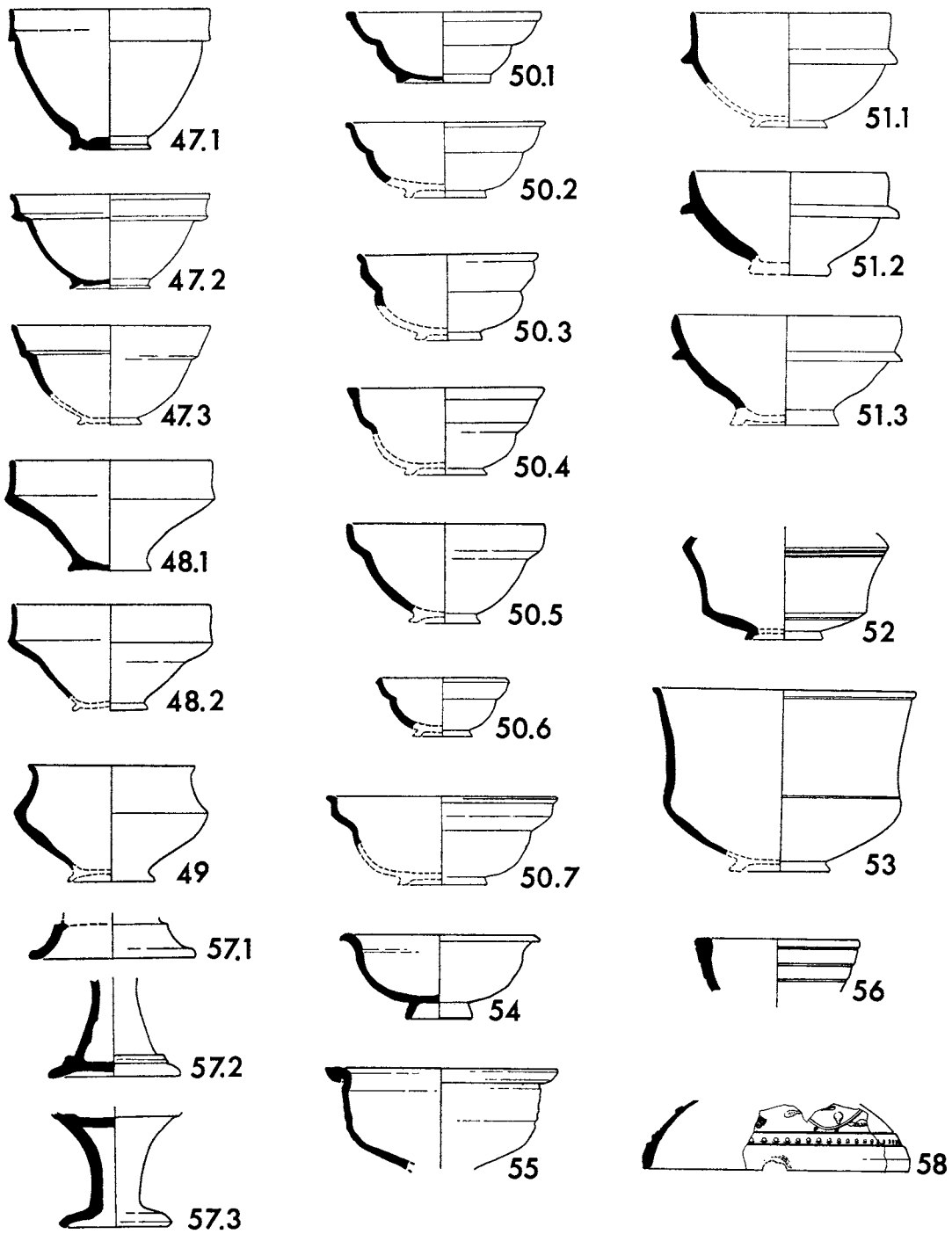


FIG. 87. Pottery types: scale $\frac{1}{4}$ (pp. 184-6)

Type 61. Butt beaker with sharply everted rim (Cam. 112)

Fragments of five vessels survive; all are in a fine *terra rubra* ware. Since only rim sherds remain, it is impossible to restore the form of the vessels but on analogy with those from other sites the body is usually decorated with two differently ornamented horizontal bands divided from each other by grooves and/or cordons.

Type 62. Girth beakers (Cam. 82-4)

Girth beakers are represented at Fishbourne by only six sherds, all in a fine *terra rubra* fabric. The sherds are far too small to give any indication of the precise forms of the vessels from which they come.

COPIES OF BUTT BEAKERS AND GIRTH BEAKERS IN NATIVE WARE

Type 63. Local copies of girth beakers

Native renderings of girth beakers are by no means common. Only three have been definitely identified, but it is probable that body sherds and small rim sherds have escaped recognition. All three are carinated low down on the body, while above is a decorated zone defined either by cordons or grooves. 63.1, fine grey ware with a darker grey surface; 63.2, grey gritted ware; 63.3, hard grey ware.

Type 64. Local copies of butt beakers with body divided by grooves or cordons

Five vessels of this type have been recorded, all differing slightly in form and ware. They were clearly intended to copy butt beakers of type 59. 64.1, hard grey ware; 64.2, grey gritty ware; 64.3, hard grey ware with a dark outer surface; 64.4 buff sandy ware; 64.5, pinkish-buff ware. All Period 1.

Type 65. Simplified local copy of butt beaker

Ovoid beaker with the zone of decoration reduced to a simple scribbled line. Hard, red sandy ware fired grey on the surfaces. One only.

OVOID AND CARINATED BEAKERS IN A DARK GREY MICACEOUS WARE

Fig. 89 illustrates a collection of beakers all made in the same fine grey micaceous ware, fired black on the surface and carefully burnished. Occasionally the fabric fires to a reddish tone. The black surface may also, on occasions, take a reddish colour, but this is accident rather than design. Decoration is restricted to a zone above the shoulder — the illustrations show the major variations. Normally it is carried out by impressing or scoring the vessel before firing, but occasionally raised cordons were employed. The fabric is so distinctive that there can be little doubt that the vessels were produced at a single centre. Other types, including nos. 47 and 229, were made in similar ware, presumably from the same kiln.

Altogether forty-five vessels of the general type are recorded, of which ten come from Period 2-3 contexts, showing clearly that production spanned A.D. 75. Since copies of Gallo-Belgic bell cups were made in the same fabric it is likely that production began perhaps as early as the Neronian period. Bowls of type 229 found in late first-century contexts, were also made in the ware. For these reasons the brackets A.D. 64-85+ would seem to cover the main occurrence of the types in this fabric at Fishbourne. What little is known of the dated groups from Chichester would support the view.

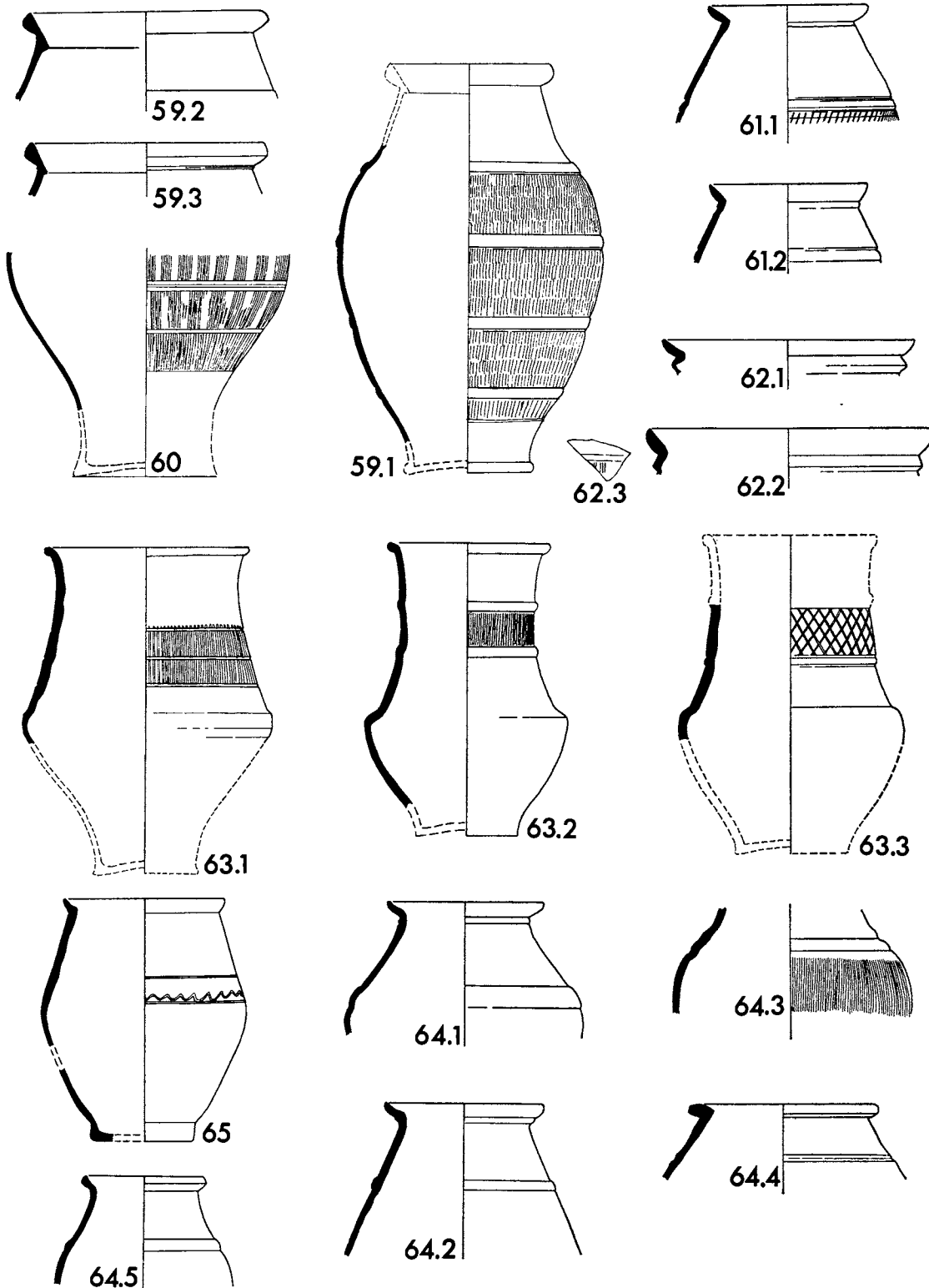


FIG. 88. Pottery types: scale $\frac{1}{4}$ (pp. 186-8)

Type 66. Beaker in micaceous ware with simple outbent rim

Beakers of this type have a wide mouth and fairly well-defined shoulder. Some are higher than they are wide, whilst in others the width is greater; the range is not great. Decoration varies, as the illustration will show. This broad category includes the majority of the micaceous beakers.

Type 67. Small beakers in a micaceous ware with simple beaded rim

These vessels seldom exceed 8 cm. in diameter at the rim, in contrast to those of type 66 which are always larger. Decoration is restricted to a band of horizontal grooves or a simple narrow cross-hatched zone.

Type 68. Larger beakers in micaceous ware with a neck surmounted by a beaded rim

This type is larger than type 67, the neck is higher and the beading of the rim is rather more pronounced. Frequently the zone of decoration is on a raised cordon.

Type 69. Carinated beaker in micaceous ware

The rim is thin and everted, and the shoulder sharply angled.

Ten beakers of this type are known, of which half belong to Period 1, the other half to Periods 2-3.

Type 70. Weakly carinated beaker in micaceous ware

Only one vessel of this type is known. The shoulder and carination are decorated with rouletting.

Type 71. Narrow-mouthed beaker in micaceous ware

Only one is known — its exact form is uncertain but it may have been carinated.

Type 72. Ovoid beaker in micaceous ware with applied decoration

The ware is identical to that of types 66-71, but the form evidently copies types in normal Romanized fabrics. The surface is ornamented with clusters of small pellets. Only one is known.

GLOBULAR AND OVOID BEAKERS IN VARIOUS NON-LOCAL WARES

Type 73. Beakers decorated with applied pellets and/or circles

The vessels included under this general type-heading are all globular or ovoid in form with simple bases and small everted rims. Ware varies from buff to grey but is usually fine. Decoration consists either of clumps of dots (73.2) or areas of regimented dots in isolation or in combination with applied circles. Fabrics: 73.1, hard buff; 73.2, pink sandy; 73.3, smooth grey; 73.4, fine whitish-buff; 73.5, fine grey with a pinkish-buff surface. Sixteen different vessels are recorded, of which half are in post-A.D. 75 contexts. The type does not appear to outlive the first century A.D.

Type 74. Beakers with lightly rusticated surfaces

To this category belong beakers in smooth or sandy grey ware with isolated blobs of clay applied to the surface either regularly (74.3 and 74.4), or less evenly (74.1 and 74.2). The type first appears in the Neronian period and continues to the end of the first century. Seven are known.

Type 75. Beakers with an all-over rusticated surface

In contrast to type 74 the entire surface of these vessels is brought up into roughened raised ridges. Only five sherds, all in grey ware, are known from Fishbourne, all from pre-A.D. 75 contexts. For the general form of the vessel, see *Cam.* 99.

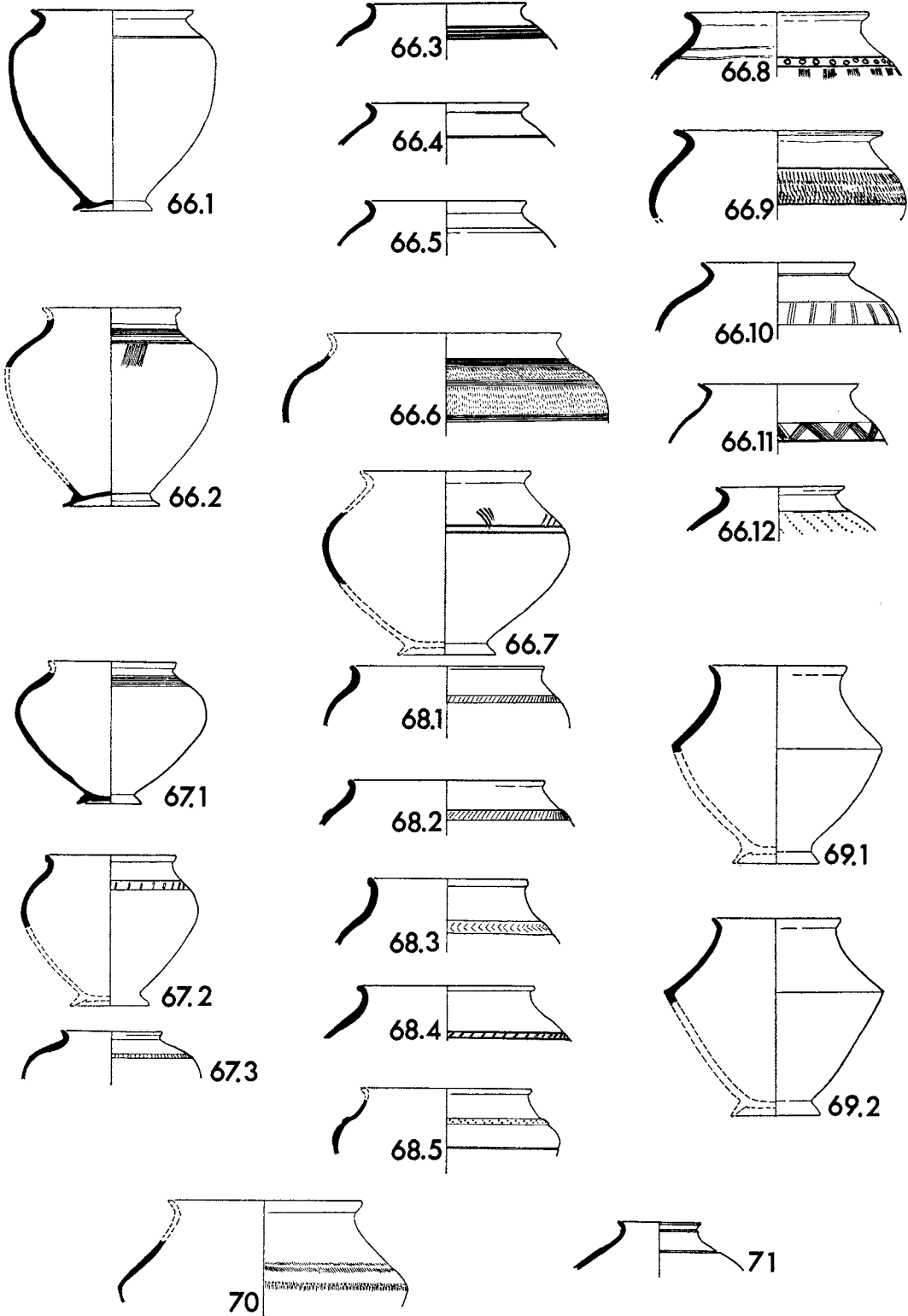


FIG. 89. Pottery types: scale $\frac{1}{4}$ (pp. 188-90)

Type 76. Beakers decorated with patterns of applied dots and strips

The decoration appears to be a deliberate attempt at patterning the surface. Only two sherds were found, both in grey ware and both from the First-Period levels.

Type 77. Globular beaker with finely roughcast surface; colour-coated

Finely-made globular beakers with simple everted rims. The ware is usually white or cream, but grey and red fabrics are known. The surface is invariably coated with a red or ochre colour wash. Seven examples occur, all from Period 1 (*Cam.* 94). Most are continental imports but several sherds are from vessels which could have been made at the Camulodunum kiln.

Type 78. Ovoid beaker with high neck

Two sizes are illustrated here. Of the larger type, fragments of four are known in smooth grey wares. The smaller vessels occur eight times, all but one in Period 1 contexts. Generally the ware is sandier than that used for the larger ones. It is apparently a local type, occurring in Flavian levels in Chichester and Clausentum (Cotton and Gathercole, 1954, fig. 19, 14).

Type 79. Plain globular and ovoid beakers in various local wares

Large numbers of fragmentary beakers were found in Period 1 levels belonging to a simple and rather generalized category typified by the four vessels illustrated here. They seem to represent the reaction of local production centres to the demand for small beakers. Wares vary considerably but are predominantly buff or red. Fabric: 79.1, pink sandy; 79.2, red sandy; 79.3, pinkish-buff; 79.4, hard buff.

Type 80. Bag-shaped cordoned beaker

A single example in buff sandy ware was recovered from Period 1 levels. It is possible that some of the fragments classed as type 79 belonged to similar vessels, but small pieces are difficult to type.

CARINATED BOWLS IN LOCAL FABRICS

One of the commonest classes of bowl in the pre-Flavian and Flavian period was the wide-mouthed carinated vessel with various types of rim moulding, made in grey or black sandy ware. Most of them are essentially local in character, occurring at the nearby sites of Chichester and Angmering, but totally absent from contemporary levels at Clausentum and Winchester. It is tempting to see them as the products of a vigorous production centre (see p. 252).

Type 81. Carinated bowl with double beaded rim

The illustrations show the main variations in the moulding of the everted rim. Two basic sizes occur: vessels up to 20 cm. in diameter and those about 30 cm. The ware is invariably fired to a hard grey; it may be gritty or sandy. The type is very common, occurring more than two hundred times in both Period 1 and 2 layers in approximately equal quantities but does not survive long into the second century.

Type 82. Carinated bowls with simple rims

The rims in this case are simply out-turned a short way and flattened. Five examples in grey sandy ware occur in Period 1.

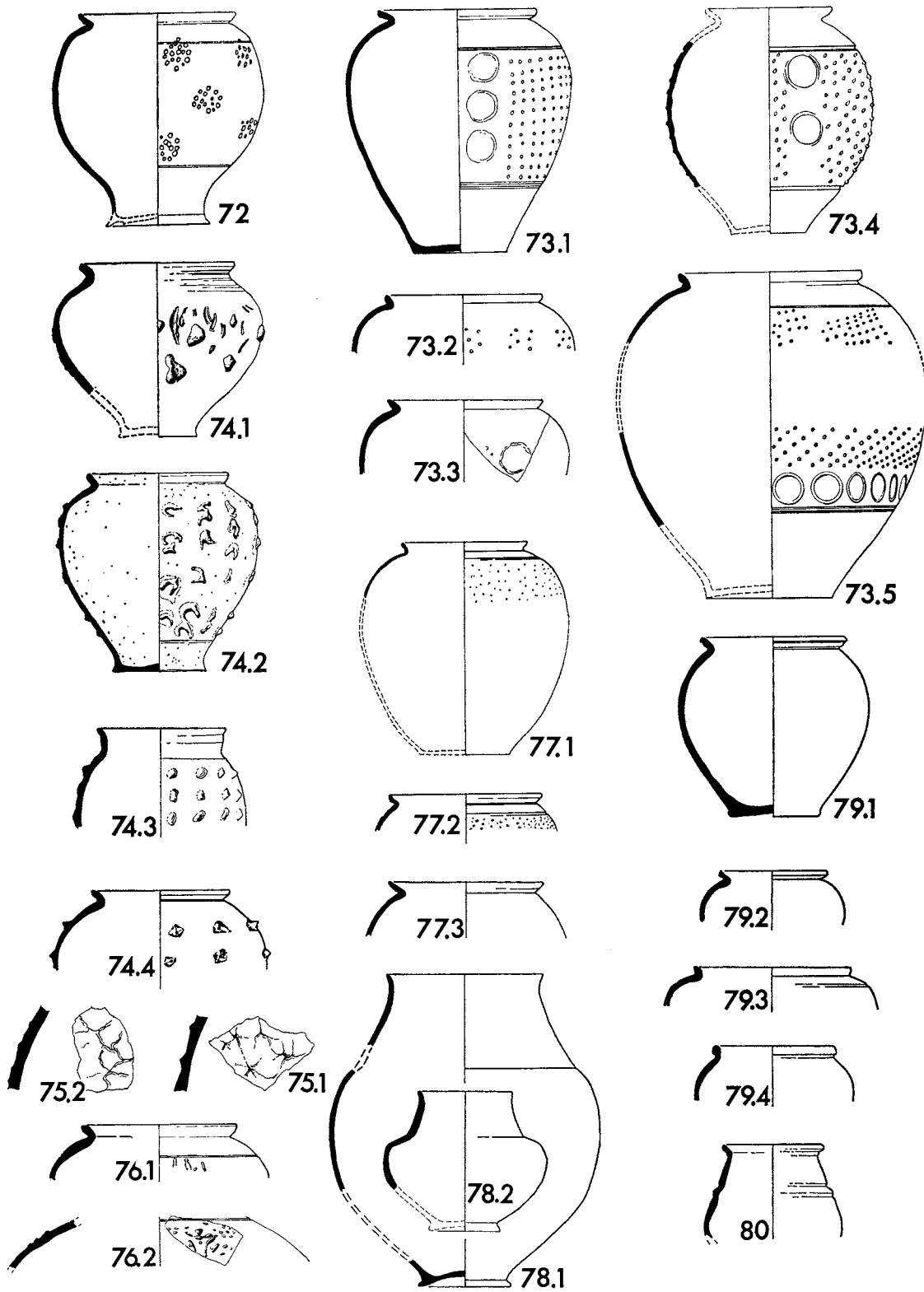


FIG. 90. Pottery types: scale $\frac{1}{4}$ (pp. 190-2)

Type 83. Carinated bowls with everted rims

Some variations exist: the rims may be hollowed on top (83.3) or slightly beaded (83.1), while occasionally the surface is closely rilled (83.2). Sixteen occur in a grey, gritty ware, more common later in the first century after 75 than before.

Type 84. Weakly carinated bowls with simple rims

Generally plain but one (84.3) is decorated with a burnished lattice. In hard grey fabric, sometimes fired to a black on the surface. Six occur in Period 1 levels only.

Type 85. Carinated bowls with straight sides

Nine known in grey sandy and gritty wares, all but one from Period 1 levels.

HEMISPHERICAL BOWLS WITH ALMOST HORIZONTAL REEDED RIMS

Hemispherical bowls were moderately common at Fishbourne from the Neronian period to well into Flavian times. Unlike the carinated bowls described above, they were usually made in buff to reddish-brown sandy ware, presumably at some non-local production centre. Bowls of this kind were used for everyday cooking, since many of them bear evidence of soot marks and discolorations on the undersides. This, too, contrasts with the carinated bowls, which seldom appear to have been heated. Functionally they are well designed for cooking, for not only does the horizontal rim provide a useful finger-hold, cooler than the body of the pot, but also serves to support a lid. No elaborate typologies or development sequences can be built up from the Fishbourne vessels. They occur in quantity in both Neronian and Flavian times, but thereafter cease to be imported. Altogether more than 300 were found.

Type 86. Hemispherical bowls with thick horizontal flanges

The bowls have evenly curved bodies. Their flanges are not closely reeded but simply grooved. Fabric: 86.1 and 86.2 in a smooth, buff sandy ware; 86.3, pinkish sandy ware.

Type 87. Hemispherical bowls with drooping reeded flanges

The flanges are thinner and the reedings are closer than type 86. Fabric: 87.1, pale grey ware with a darker grey wash on the surface; 87.2, grey sandy ware.

Type 88. Hemispherical bowl with horizontal reeded flange

No. 88.1 is unique in that it possesses an internal flange, perhaps to allow a second vessel to be supported inside during cooking. If so, the two vessels could have been separated by water so as to impart an even temperature to the contents of the inner vessel. Normally the type is flangeless. Fabric: 88.1, orange-buff sandy ware; 88.2, smooth, buff sandy ware.

Type 89. Hemispherical bowl with inward-sloping flange

Usually this type is of smaller diameter than types 86-8. Fabric: 89.1, pink gritty ware; 89.2, buff sandy ware; 89.3, smooth grey ware.

Type 90. Hemispherical bowls with unreeded flanges

The flange may be plain or upturned at the end. One vessel (90.2) possessed an attached handle but this was unique. Fabric: 90.1, white gritty ware; 90.2, pinkish-buff sandy ware.

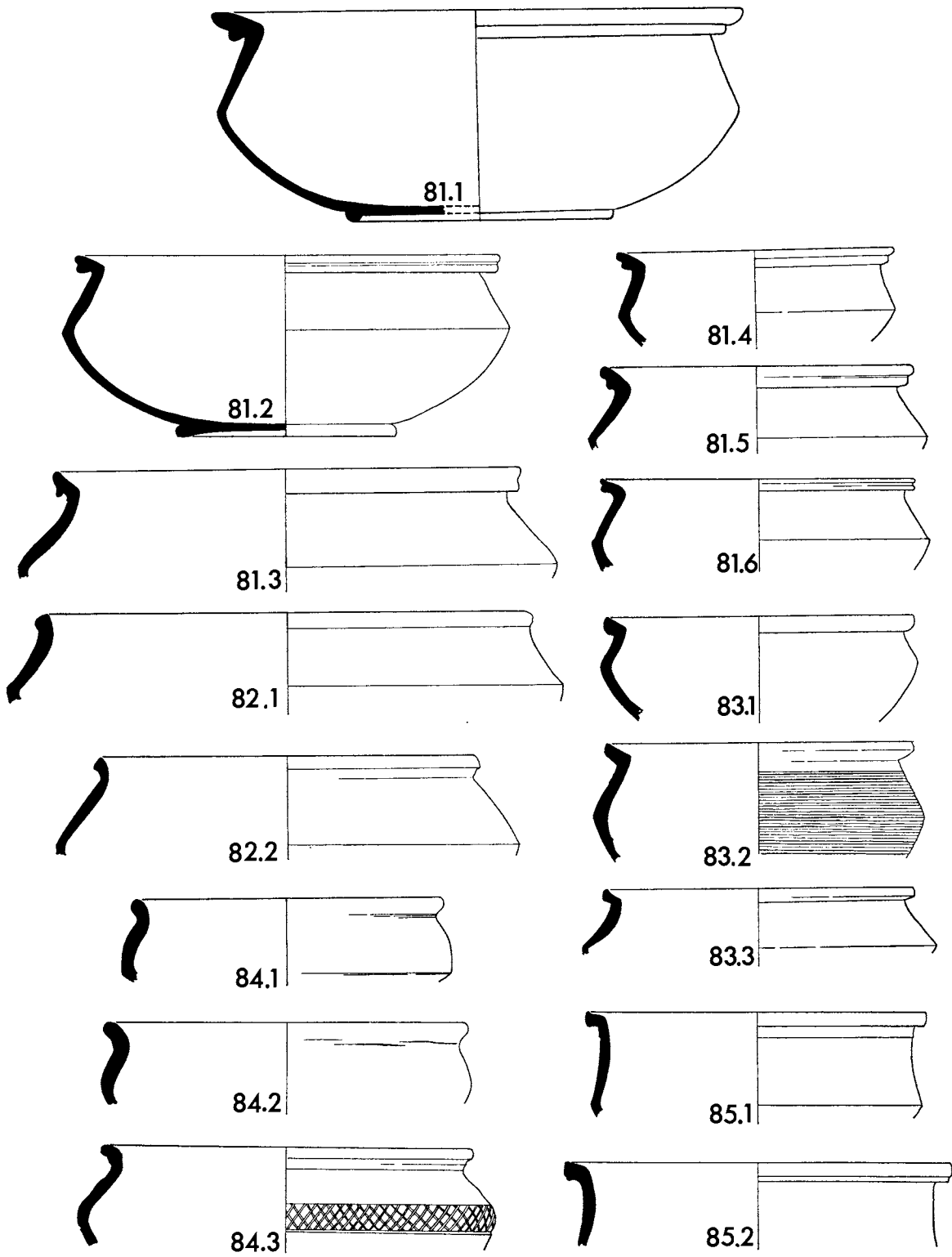


FIG. 91. Pottery types: scale $\frac{1}{4}$ (pp. 192-4)

Type 91. Small hemispherical bowls with squat reeded flanges

A considerable variation occurs — three only are illustrated. Fabric: 91.1, grey sandy ware; 91.2, smooth, grey sandy ware; 91.3, hard, grey sandy ware.

Type 92. Large bowl with heavy hooked-down flange

At least four vessels of this kind occur, all in an orange-buff sandy fabric.

Type 93. Miscellaneous hemispherical bowls with plain rims

A number of vessels are too generalized and occur too sporadically to allow rigid classification. A selection of these are shown here as type 93. Fabric: 93.1, brick-red sandy; 93.2, buff sandy; 93.3, smooth pink; 93.4, smooth buff; 93.5, fine, buff sandy ware.

SHALLOW HEMISPHERICAL BOWLS WITH HOOKED-DOWN FLANGES

The vessels in this broad category are generally not common, nor do they divide easily into well-defined types. In many cases single examples only are known.

Type 94. Bowl with simple hooked flange

Fabric: soft buff ware with grog tempering. About six others occur, in various wares.

Type 95. Bowl with long hooked flange and bead

One only, in smooth buff ware.

Type 96. Bowl with short flange and bead

One only in dark grey sandy ware.

Type 97. Bowl with horizontal flange and bead

At least four. Fabric: 97.1, buff sandy; 97.2, pinkish-buff; 97.3, red sandy.

Type 98. Bowl with thick hooked-down flange and bead

Only two are known, both in a fine grey ware fired reddish-buff on the surfaces.

Type 99. Bowl with wall-sided 'flange' and bead

A development from type 98. This type was often provided with a simple pouring lip. Eleven are known, all in the same brick-red sandy ware. Five pre-date A.D. 75, the rest occur in late first- to early second-century levels.

STRAIGHT-SIDED DISHES

Type 100. Dish with thickened rim

Uncommon, about three known. In a black sandy ware.

Type 101. Dish with projecting rim

One only, in soft grey sandy ware.

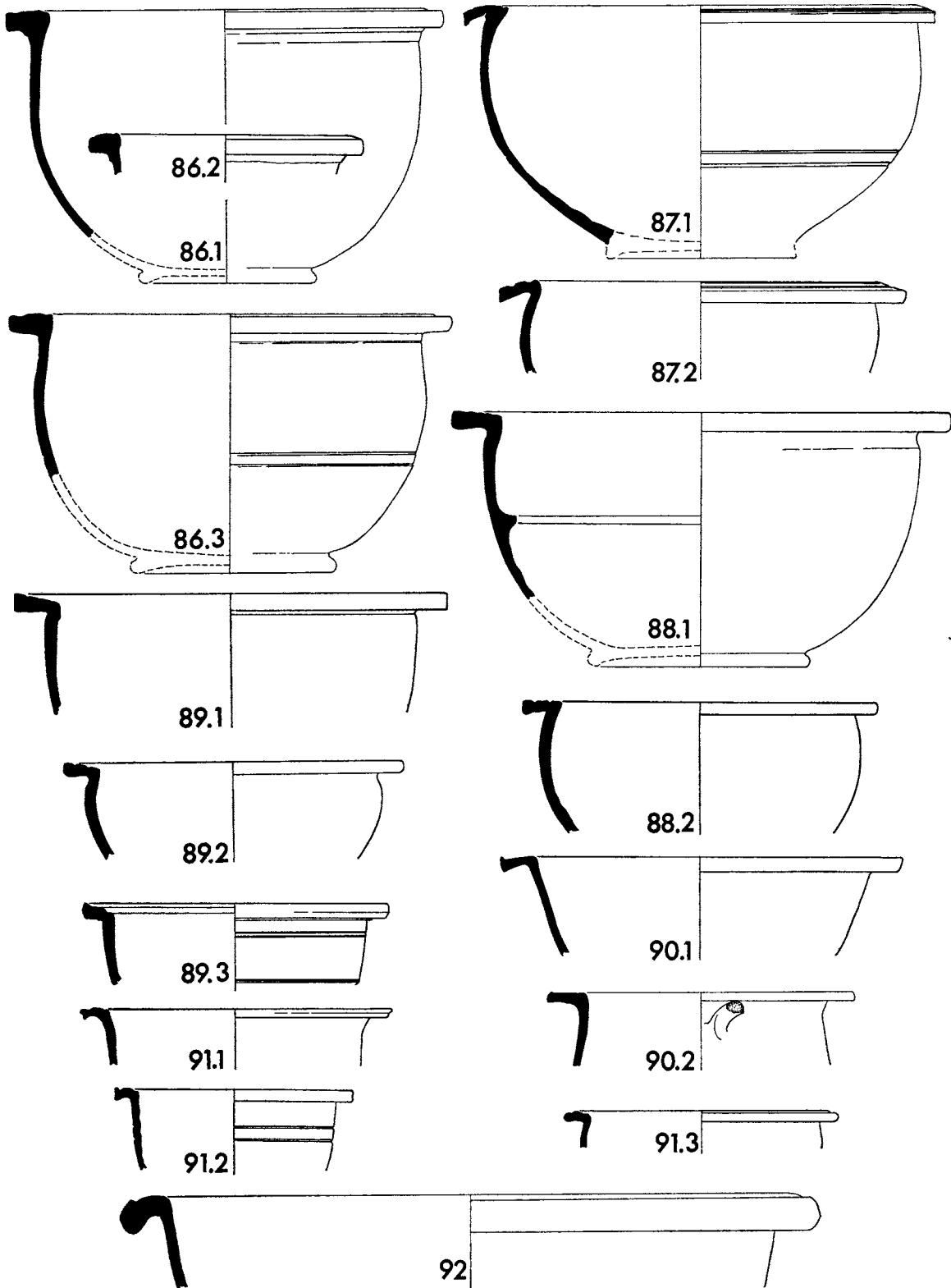


FIG. 92. Pottery types: scale $\frac{1}{4}$ (pp. 194-6)

Type 102. Dish with flattened rim-top

About six, all in a dark grey sandy ware.

Type 103. Dish with stubby horizontal flange

This is the earliest version of a series including types 218 and 219 which became common throughout the second and third centuries. This early type is usually in a grey gritty or sandy ware and is never decorated or burnished, as are the later types. About twelve are known from Period 1 levels.

Type 104. Dish with simple straight side and ?foot-ring

Only one, in grey sandy ware.

Type 105. Dish with horizontal hollowed flange

Only one, in a buff-brown sandy ware.

Type 106. Dish with a recessed flange

Three are recorded, all in a grey sandy ware.

FLAGONS

Type 107. Flagons with internally cupped lips

The type is in a distinctive red sandy ware coated with a creamy-white slip. Ten examples, all Period 1. It is probable that this is a local type made in imitation of the more normal cream wares.

Type 108. Flagons with out-turned, vertically flattened lips

The ware is hard, white and brittle. Twenty are known from Period 1. The form, though not the ware, is comparable to *Cam.* 136 B.

Type 109. Flagons with multiple-ringed necks

The type is common and the variations many. A range of the more commonly occurring variants is illustrated, but many others occur. A total of seventy-four is recorded, of which only sixteen come from contexts dating to after A.D. 75. Within this later group, excluding those found as rubbish survival in rubble and demolition layers, all were found in late first- and very early second-century contexts. The type as illustrated here does not, therefore, outlive the Trajanic period. Fabrics: 109.1, red sandy; 109.2, red sandy; 109.3, dull red; 109.4, hard buff-brown; 109.5, pinkish-buff; 109.6, smooth buff, slightly sandy; 109.7, red sandy; 109.8, hard white sandy.

Type 110. Flagons with multiple-ringed necks, internally cupped

A total of eight are recorded, all in First-Period levels. All are in a red sandy ware, usually retaining traces of its original white slip.

Type 111. Flagons with ring-neck, tightly moulded with unequal rings

?Local copy. Only one is known in a grey sandy ware.

Type 112. Flagon with a double-ringed neck

Only one, in hard buff-brown ware.

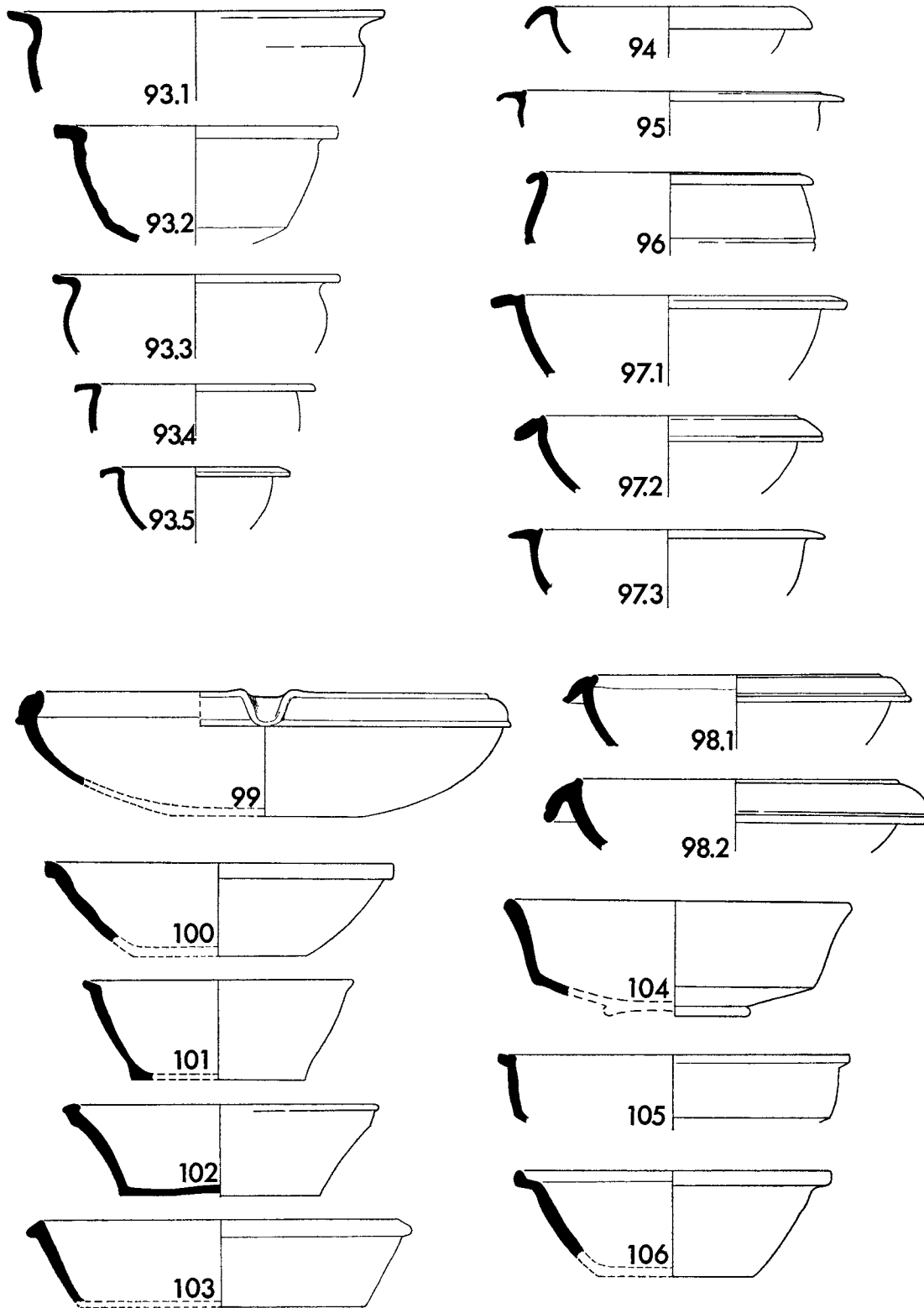


FIG. 93. Pottery types: scale $\frac{1}{4}$ (pp. 196-8)

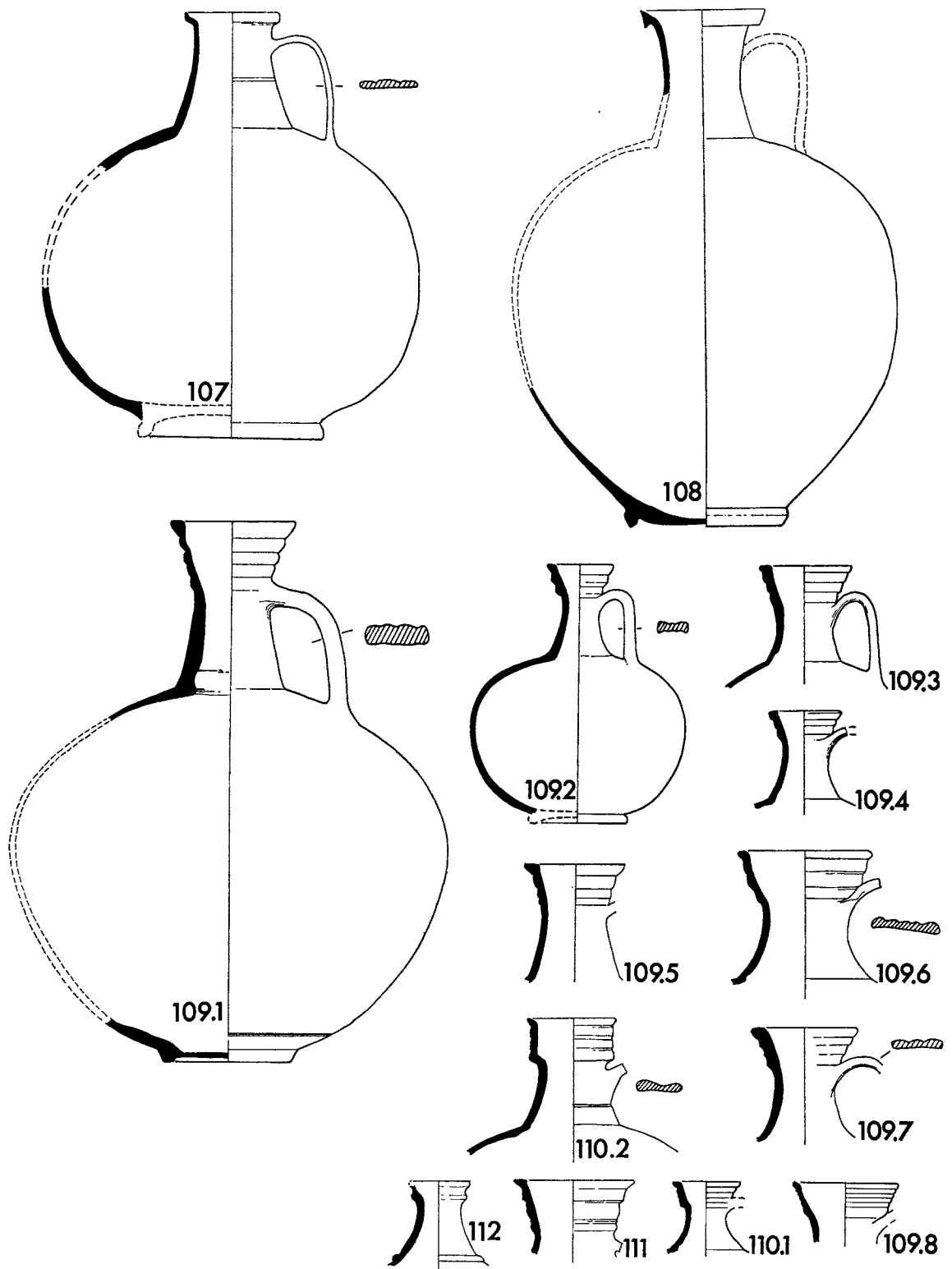


FIG. 94. Pottery types: scale $\frac{1}{4}$ (p. 198)

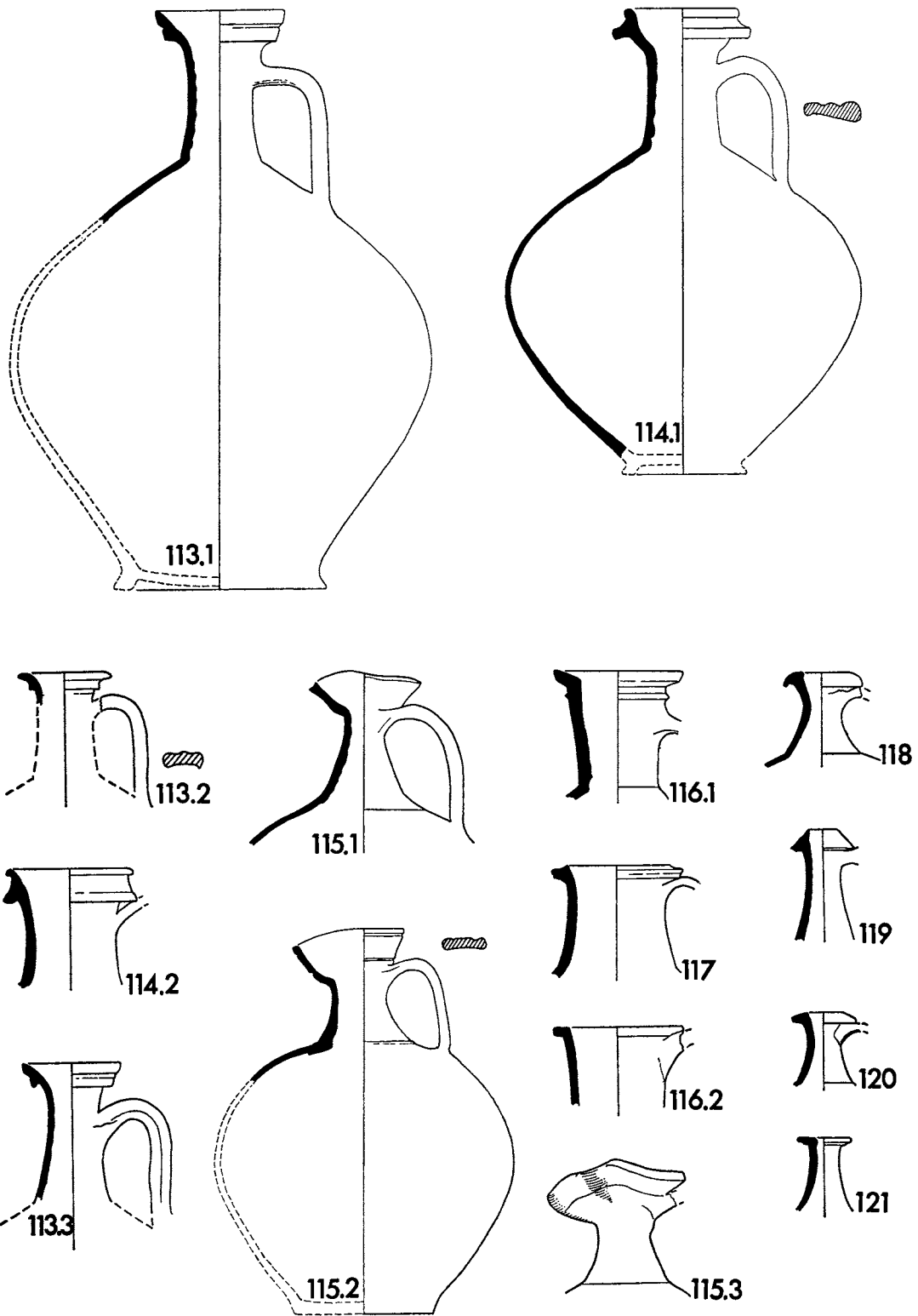


FIG. 95. Pottery types: scale $\frac{1}{4}$ (p. 202)

Type 113. Flagons with double-beaded out-sloping rims

To this category belong only those vessels the beaded rims of which are so arranged that the upper bead projects slightly over the lower. Seventeen vessels of this type are known, of which ten belong to Period 1 and seven to Periods 2-3. The type therefore continues in use until at least the end of the first century. The fabrics are almost always soft and buff; very occasionally they fire to pinkish-red but this is unusual and probably accidental.

Type 114. Flagons with beaded and flanged rims

The type, while beginning before A.D. 75, is largely found in late first- and early second-century contexts. Of a total of eighteen only five belong to Period 1. The two illustrated are both early. Fabrics: 114.1, red sandy; 114.2, buff sandy.

Type 115. Flagons with a pinched lip

Eight are known in various wares, of which two occur as rubbish survival in later levels, the rest belonging to Period 1. Fabrics: 115.1, buff sandy ware; 115.2, red sandy ware; 115.3, hard buff ware fired reddish outside.

Types 116-17. Flagons with flat-topped rims

The type occurs about six times in Period 1 levels, each one with minor differences from the others. Fabrics vary: 116.1, hard red; 116.2, pinkish buff; 117, pinkish buff sandy.

Types 118-21. Flagons with narrow necks and horizontal or sloping rims

Each illustrated type occurs only once. Fabrics: 118, fine red; 119, fine buff; 120, pale buff; 121, fine dark grey.

TWO-HANDLED JUGS

Type 122. Jugs with two handles springing directly from below ring-necks

Two only are known: 122.1 in a pinkish-buff sandy fabric and 122.2 in a buff sandy ware. The type is not closely represented among the Camulodunum series.

Type 123. Jug with two handles springing from well below ringed lip

Only one of this type is recorded, in a pinkish sandy ware fired buff on the surfaces.

Type 124. Jugs with undercut reeded lip

Represented frequently at Camulodunum (*Cam.* 163 B). It occurs three times at Fishbourne in Period 1 levels, usually in a hard, white sandy ware.

Type 125. Jug with flat-topped rim

A single example was found in a pinkish-buff sandy ware.

Type 126. Jug with cupped rim

Similar to *Cam.* 168-9, but only the rims survive at Fishbourne making any comparison of body form impossible. Uncommon; only two certain examples known. Fabrics: 126.1, grey sandy; 126.2, hard brick-red ware fired with an external grey sheen.

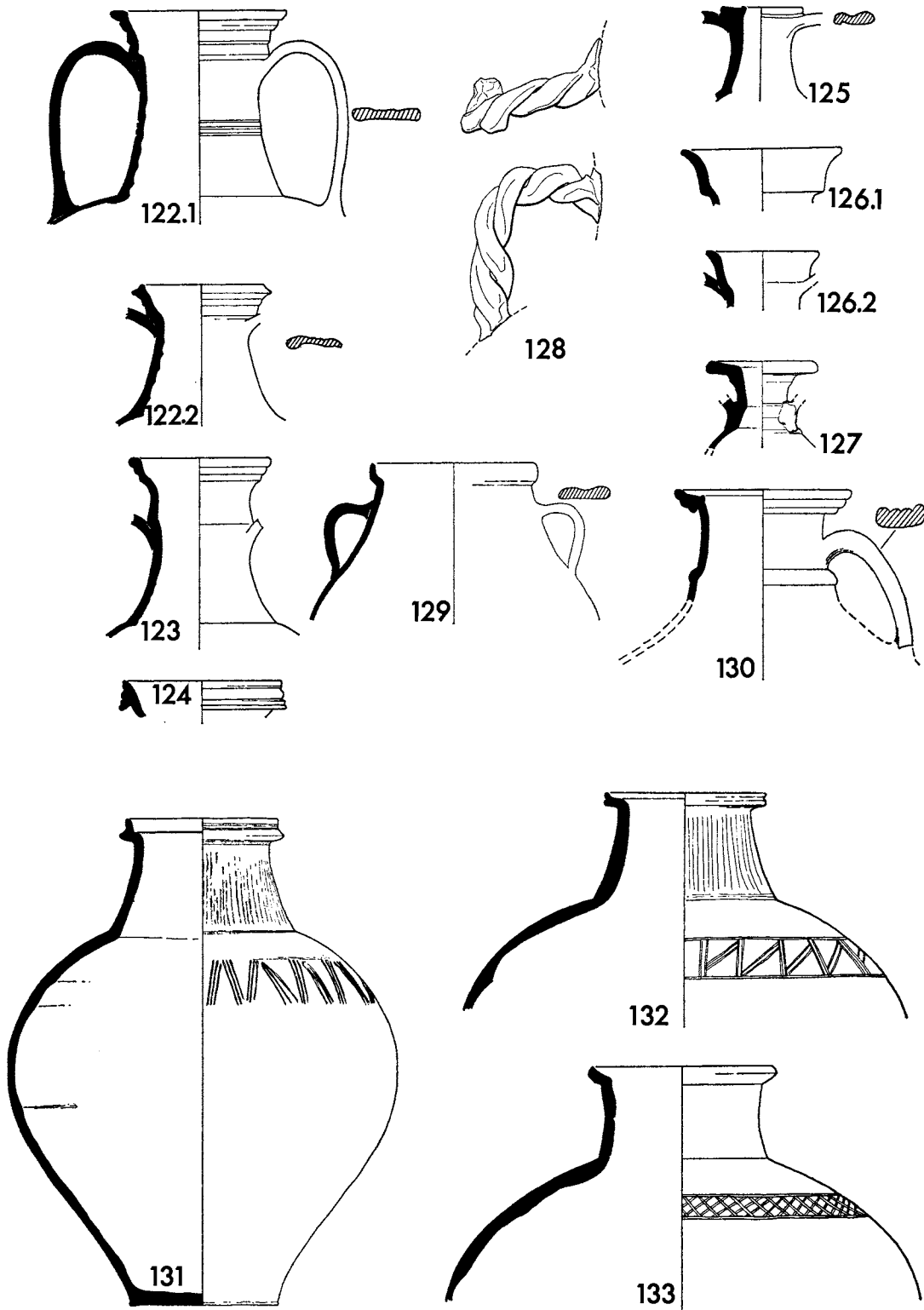


FIG. 96. Pottery types: scale $\frac{1}{4}$ (pp. 202-4)

Type 127. Jug with wide flat rim

An unusual type, occurring only once. Pinkish sandy ware.

Type 128. Jugs with twisted handles

The handles are made from two strips of clay twisted together, unlike the more complex braided handles from the jugs at Camulodunum (*Cam.* 166). At least three different vessels are known.

Type 129. Handled vessel

A wide-bodied vessel with no clearly differentiated neck. The handles are small and opposed, and the lip is cupped. Only one in a buff-brown sandy ware.

Type 130. Jug with complex beaded lip

Characteristically the lip is flattened horizontally and often provided with an internal bead, as if to form a seating for a lid. The type is local to this part of southern England and is evidently made in imitation of the imported jug types described above. Five are known, all in Period 1 levels and all made in a grey sandy fabric.

Types 131-3. Jugs in local fabrics

The jugs of these types were all made in a grey sandy ware, occasionally with traces of a very thin external red slip. The necks are usually burnished vertically while the shoulder frequently bears a burnished decoration of some kind. The only variation lies in the form of the lip mouldings, of which three separate types have been defined. Altogether twenty-nine separate vessels have been found, of which only eight are from Period 1 levels (the three illustrated are all Period 1). Clearly production spanned A.D. 75 and continued well into the second century, by the end of which the type was being replaced by other locally-made varieties.

MORTARIA

Type 134. Mortaria with high beads and hooked-down flanges

The lip is short and the pouring space narrow. The fabric is a light, smooth buff ware, the grits are crushed angular quartz. Two examples.

Types 135-7. Mortaria with level beads and drooping flanges

A common type which in the general analysis were all grouped together. Forty-one are recorded, a few of which came from post-A.D. 75 layers, but probably as rubbish survival after the end of the first century. They are divided here into three types based on the degree of drooping of the flange — a factor of dubious significance. The wares show a considerable variation, implying that several different production centres were involved. Fabrics: 135 (K.H.)¹ Fine pale brown fabrics with abundant tiny mixed grits mostly white and grey. This form is typical of the Neronian-mid Flavian period: the date is likely to be c. A.D. 55-80. The form was made by potters such as Paullus and Q. Valerius Se- among others. If British, Kent or near Colchester are possible sources but it might be an import. 136, pinkish-buff ware with fine quartz grits; 137, coarse brick-red ware without grits. One (no. 135) is stamped AVGGI (see p. 173).

¹ Mrs K. Hartley kindly examined a large number of the mortars and has contributed notes on them. Her comments are preceded by her initials (K.H.).

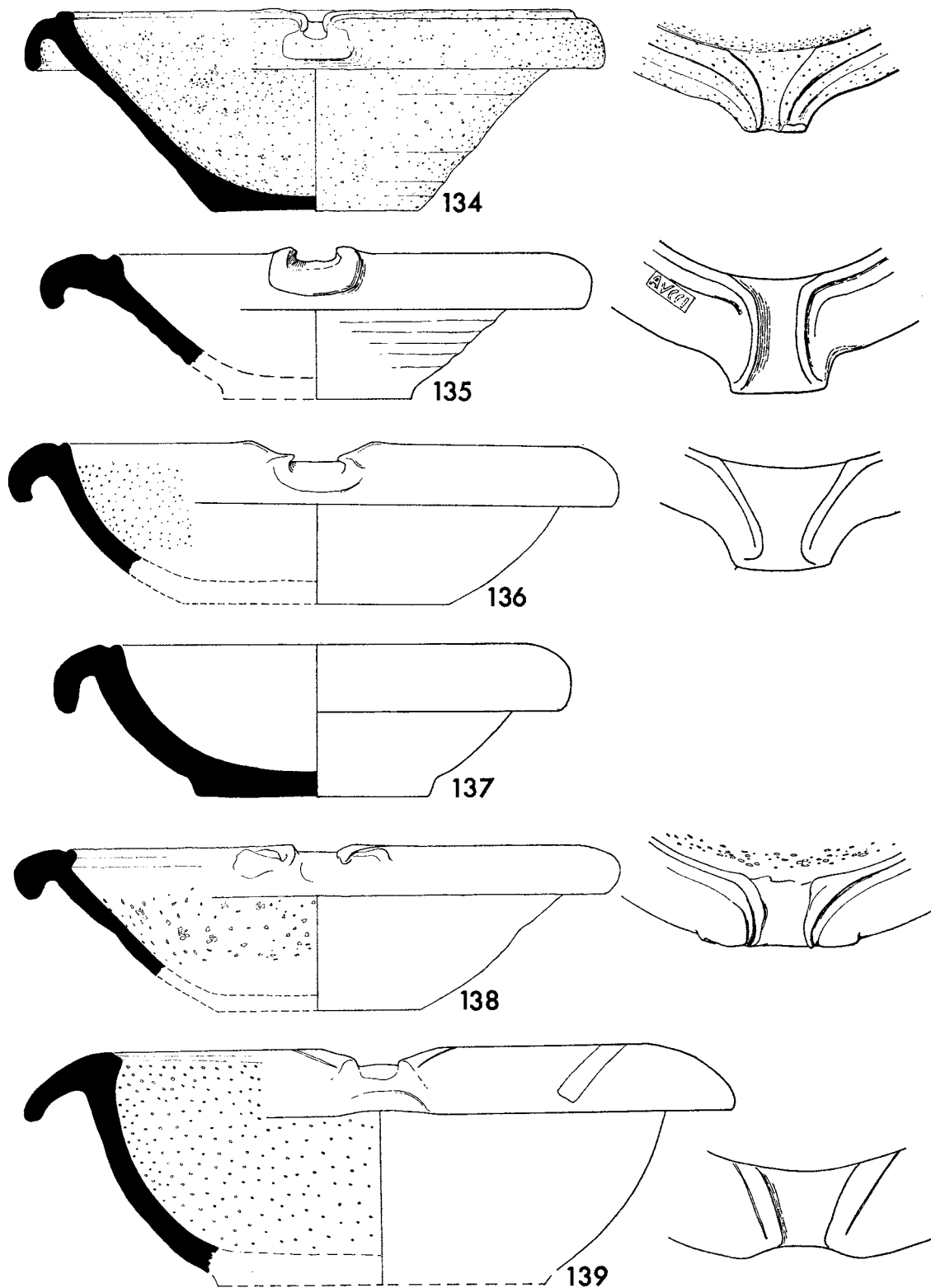


FIG. 97. Pottery types: scale $\frac{1}{4}$ (pp. 205-6)

Type 138. Mortarium with level bead and squat flange

Only one, in a hard whitish-buff ware with large grits derived from a crushed coarse sandstone.

Type 139. Mortaria with internally stepped rims and curved-down flanges

The type is apparently absent from Camulodunum, but it occurs at Richborough (Cunliffe, 1968, pl. LXXXVII, 95). Five are known at Fishbourne, always in a pinkish-buff or pinkish-brown sandy ware with quartz grits. Two different stamps are recorded: SEX.VAL.CF and C.ATILVS (see pp. 171-3).

Types 140-1. Mortaria with small high beads and wide flanges

Fairly common before A.D. 75; sixteen known compared with only three in Period 2-3 contexts. The general category has been divided into two types, based on the length of the flange, but this criterion may well be insignificant. The fabrics are always pinkish-buff or pinkish-red, and hard fired. The gritting is of a fine sandy texture. The vessels are sufficiently similar to have been made in the same factory. 140 + 141.2 (K.H.): Fine cream fabric with pink core containing much fine grit: much tiny trituration grit including translucent pink and brown particles. At Camulodunum the form is dated to the Claudian-Neronian period (*Cam.* fig. 53, no. 23).

Type 142. Mortarium with ill-defined squat flange

One recorded in a buff sandy fabric with sand gritting; (K.H.) cf. *Cam.* fig. 53, no. 21 though the fabric is different.

Type 143. Very large mortaria of uncertain diameter

Two are known, both in a coarse red sandy ware. The one from Period 1, illustrated here, is gritted with quartz. The other, from Period 2-3 levels, is tempered with crushed brick.

Type 144. Wall-sided mortaria

Two varieties of the same type are illustrated here from the four known. This is a surprisingly small percentage of the total when compared with Camulodunum. Fabric: 144.1, brownish-cream sandy fabric; 144.2, fine textured cream fabric. (K.H.) Both are of the wall-sided form which seems to have been ubiquitous from Augustan to Claudian times. In Britain the type is almost confined to Claudian groups. At Camulodunum they were thought to continue down to 61-5 but their distribution, and the wide range of other forms which are known to have been in use in the Neronian period, make this seem unlikely.

AMPHORAE

Type 145. Amphora with internally undercut lip

This type is common in Period 1; forty-two examples are known in all. All except a few stray sherds are from pre-A.D. 75 contexts. The fabric is always brownish and sandy with quartz and mica grits. One handle bore an illegible stamp. A similar form, but in a pinkish sandy ware, was stamped T.I.L. (see p. 170).

Type 146. Amphora with out-flaring neck and rim

Three examples in a buff gritty ware.

Type 147. Amphora with short cylindrical neck and projecting rim

One example in pinkish-buff sandy ware.

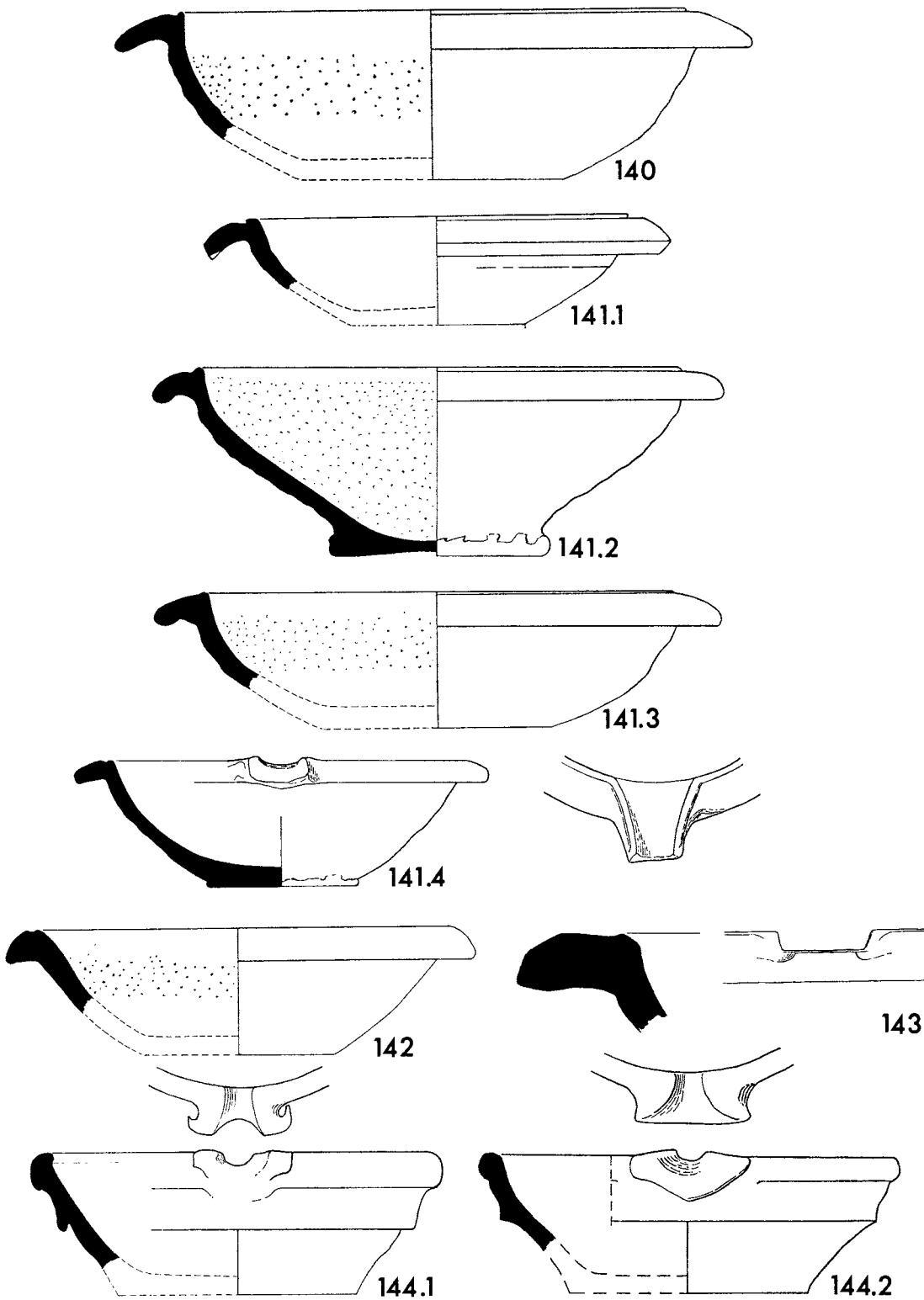


FIG. 98. Pottery types: scale $\frac{1}{4}$ (p. 206)

Type 148. Amphora with tall cylindrical neck and sharp shoulder

This general type occurs in a range of fabrics and with a certain degree of variation. It is common in Period 1, occurring thirty-four times, but persists into the late first and early second centuries, from which levels a further twenty-one are known. For complete profiles see *Cam.* types 182-3.

Type 149. Amphora with peaked handles

Only one, in hard grey sandy ware (*Cam.* 184).

Type 150. Amphora with semi-peaked handles

Two only in pinkish-buff sandy ware. It is probable that other examples of this type, from which the handles have been broken, are listed under type 148.

Type 151. Amphora with internally thickened rim

Six are recorded, three from Period 1 levels and three from Period 2. The illustrated example is in a buff sandy ware.

Type 152. Carrot-shaped amphora

The rims vary in detail but all are tightly moulded; the body is always rilled. This type always occurs in a red sandy fabric. Thirty-eight were found in Period 1 contexts and twenty-four in Period 2-3 contexts. It is therefore one of the most common amphora forms on the site. The Fishbourne evidence shows clearly that the type continues in use, in quantity, after A.D. 75. This is at variance with the Camulodunum series, which there led to the conclusion that any Flavian survival was unusual. Supplies to the south coast must have been continued long after those to the east coast had ceased.

Type 153. Globular amphora with hour-glass shaped neck

Only one example of this type is known (in three separate sections, which do not fit together). The fabric is pinkish-buff and gritty. 153.2 is a similar base which may be part of a vessel of this type.

Type 154. Amphora with rilled neck

Three are recorded in a pinkish-buff sandy ware.

Type 155. Amphora with collared neck and overhanging rim

The two illustrated are in a buff sandy ware. Seven are known, all but one from Period 1 levels. For a complete example see *Cam.* 186.

Type 156. Amphora with cupped rim

Since only rim fragments survive, it is difficult to be sure of the form of these vessels, but they may be storage jars similar to *Cam.* 172. Only three are known, of which one comes from a Period 2 layer. 156.1 is in a pinkish sandy fabric with an external white colour-coat; 156.2 is in a buff sandy ware.

Types 157-60. Amphorae with miscellaneous neck and rim profiles

The principal remaining types are summarized here. 157, in a buff sandy fabric, occurs three times; 158 is the sole example in a smooth grey sandy ware; 159 occurs once in pinkish-buff ware; 160, two examples are known in fine buff fabric.

In addition to the types illustrated here, a large number of handles and base fragments are known. The handles are all of a kind already illustrated and were not separately counted. With the exception of the two unusual bases, nos. 153.1 and 153.2, the others are not illustrated, but they are of the kinds which the main amphora series is known to have possessed.

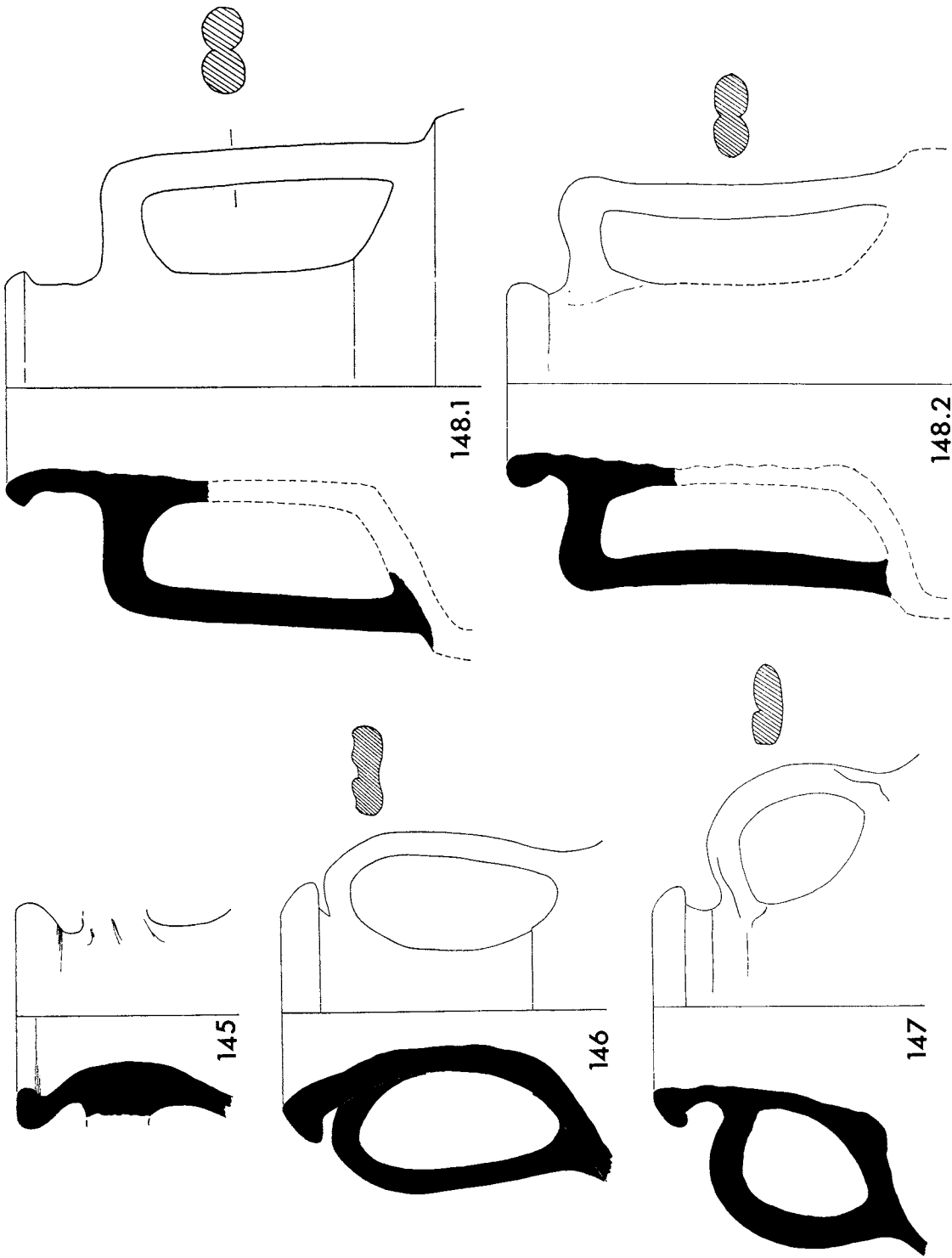


Fig. 99. Pottery types: scale $\frac{1}{4}$ (pp. 206-8)

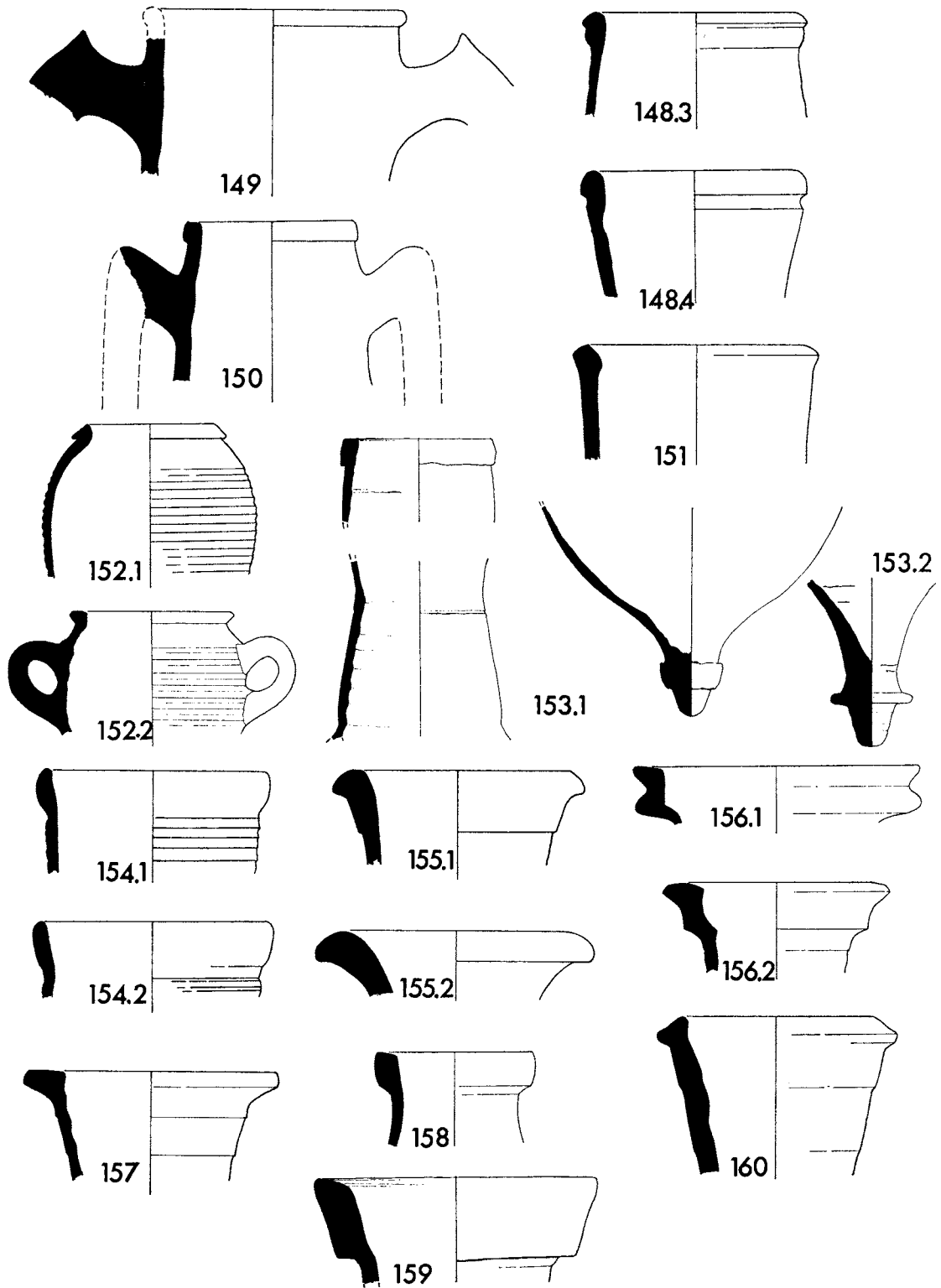


FIG. 100. Pottery types: scale $\frac{1}{4}$ (p. 208)

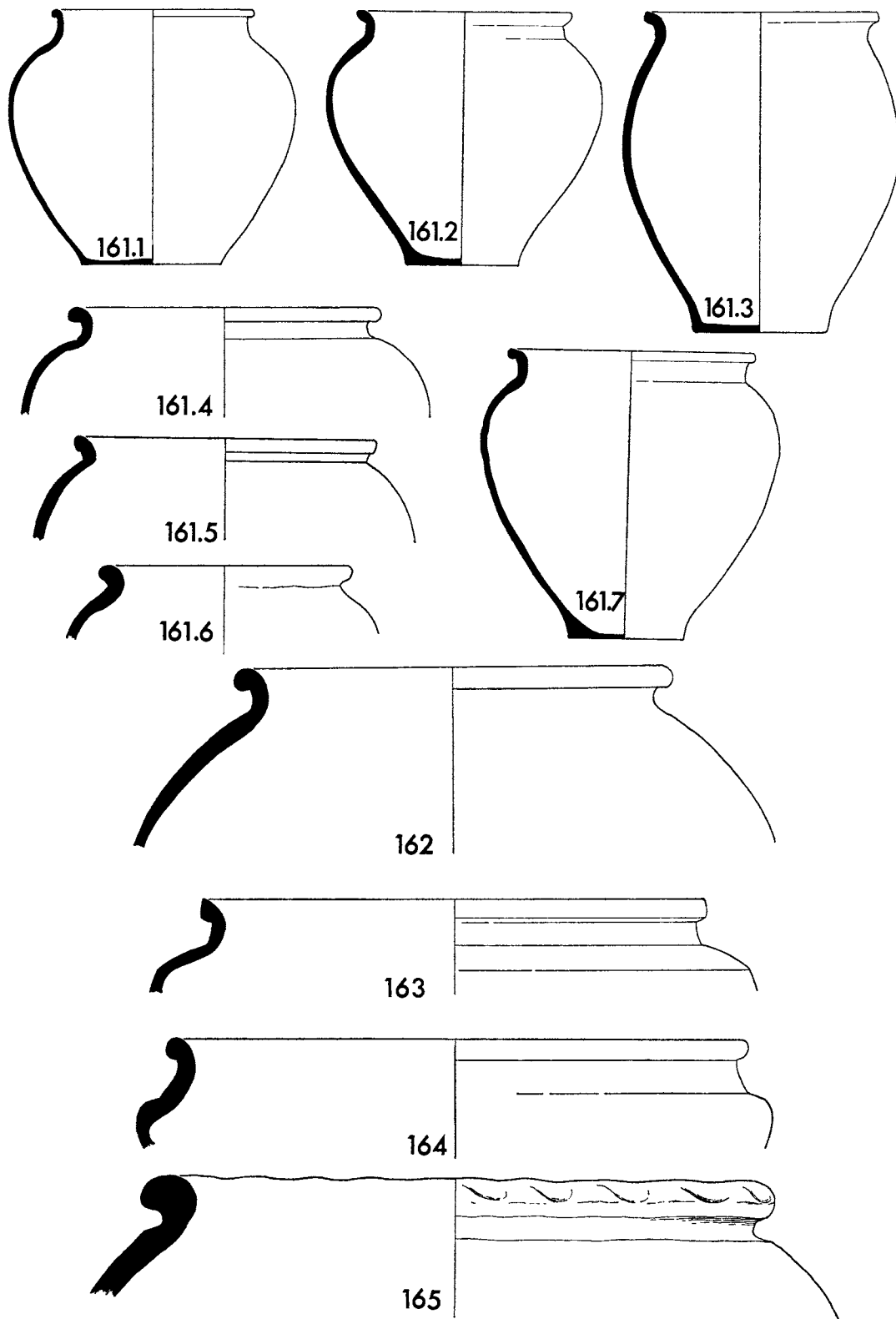


FIG. 101. Pottery types: scale $\frac{1}{4}$ (p. 212)

JARS AND BOWLS

An enormous quantity of jars and bowls in coarse grey local fabrics exist in a bewildering variety of forms. Indeed, the variety is so great that it would have been quite unrealistic to have attempted to divide them into different types based on minutiae of rim-form and body-shape. The classification adopted here is broad but a sufficient number of vessels is illustrated to show the range of tolerance within each of the defined types.

Type 161. Jar with simple outcurved rim

This type is the commonest of the jar forms. The jars are always deeper than they are wide, with their widest part high towards the rim. The rims are outcurved and sometimes slightly beaded, but otherwise undifferentiated. Sometimes a distinct neck is created but more often the rim springs directly from the body. The ware is always grey and sandy, differing only in tone and degree of hardness. From Period 1 levels 490 different vessels were recorded; the type continues in use well into the second century, some 370 being noted. Typological differences do not seem to be important except that in the later period the vessels with a well-defined neck become more rare.

Type 162. Storage jars with ovoid body

Similar to type 161, but considerably larger. Fifty-two in Period 1, thirty-three in Periods 2-3, all in a grey sandy ware.

Type 163. Storage jar with angled shoulder

Four in grey sandy ware.

Type 164. ?Storage jar with sharply-angled shoulder

Six were found, of which one belonged to Periods 2-3. All were in a grey gritty or sandy ware.

Type 165. Storage jar with a coarse 'roped' rim

This type, unlike type 391, was without internal finger-pullings. Eight were found in Period 1 levels, 16 in Periods 2-3 contexts. The ware was always grey and sandy and usually tempered with crushed flint grit.

Type 166. Jars with simple beaded rims

As the illustrations will show, the range of varieties within this general type heading is considerable as indeed is the size of the constituent vessels, but all have in common a simple beaded rim and all are made in grey sandy fabric. 205 are known, all but a few rubbish survival sherds from Period 1 levels.

Type 167. Jars with an internally grooved bead rim

The grooved lip implies that jars of this kind may have been provided with a lid — a fact which suggests that they may have been used for cooking. Most examples were decorated with a shoulder cordon, but shoulder grooves and plain grooves are not uncommon. 153 are recorded, all but a few sherds from Period 1 levels. The ware is always grey and sandy.

Type 168. Jar with a flattened bead rim

A single example in grey sandy ware.

Type 169. Jar with a bead rim and deeply-rilled shoulder

One example only in dark grey sandy ware.

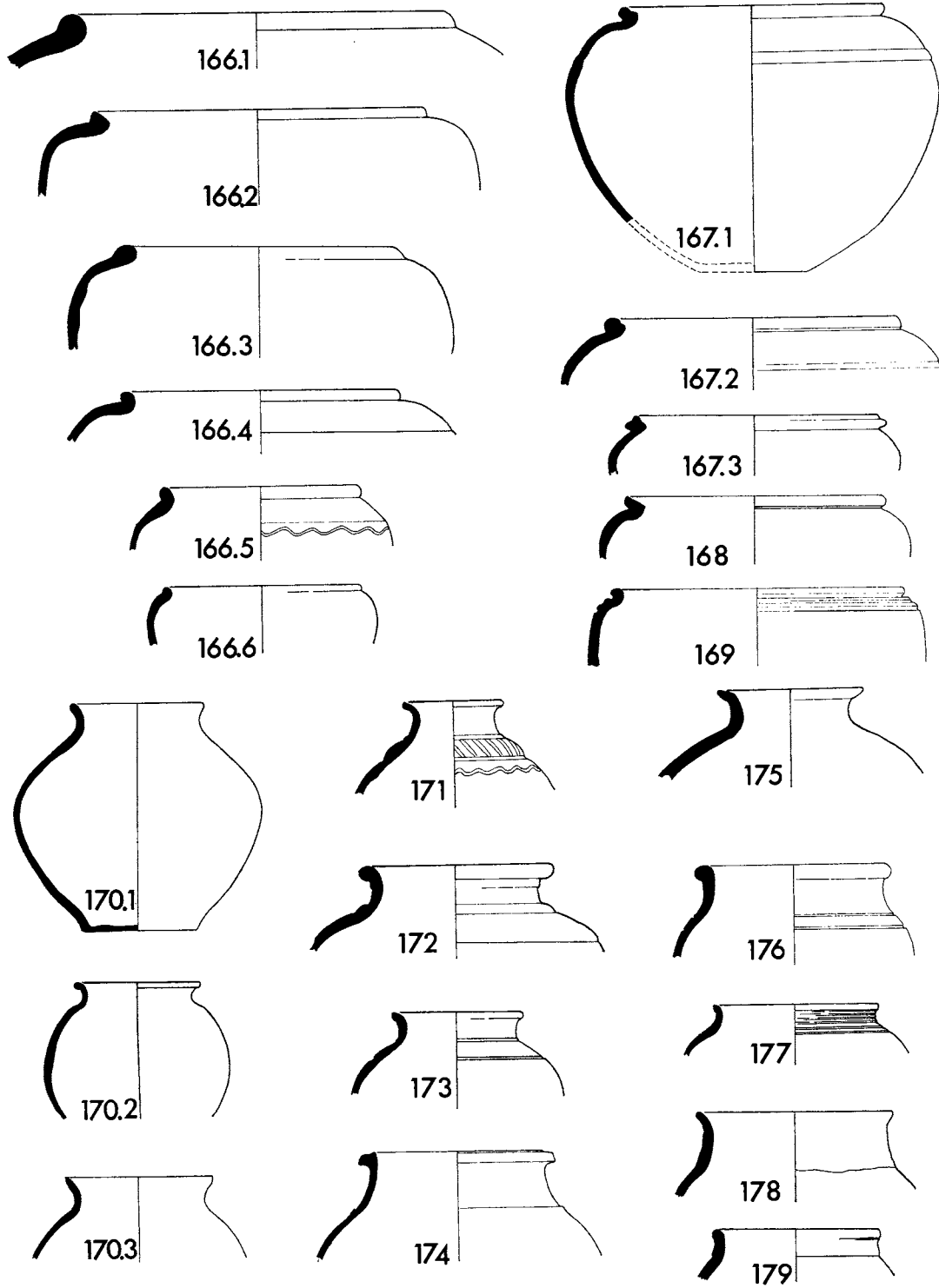


FIG. 102. Pottery types: scale $\frac{1}{4}$ (pp. 212-14)

Type 170. Small globular jars with simple rims

A rather generalized type which occurs throughout Periods 1-3, without much change. Seven are known from Period 1, six from Periods 2-3. All in grey sandy fabric.

Types 171-9. Jars with narrow necks

A range of types exists which do not seem to occur individually in any considerable number. As a general category only about fifteen are known, of which nine are illustrated here as a representative selection. All are in grey sandy fabrics of different kinds.

Type 180. Necked jar with shoulder defined by one or more cordons

Cordons are always placed at the junction of the neck and shoulder, and usually another cordon occurs below the shoulder but not invariably. Sometimes the zone between the two cordons is decorated by shallow tooling. Vessels of this type are always carefully made in grey sandy or gritted fabrics. The type was in common use until the beginning of the second century. Fifty-four were found in Period 1 contexts, nineteen in Periods 2-3 levels.

Type 181. Necked jars with rounded but well-defined shoulders

The vessels belonging to this category range in size from 11-20 cm. in diameter. Their shoulders may be completely plain or defined on the lower side by a cordon or groove. The ware varies within the grey sandy range from light to dark and hard to soft. Thirty-five occur in Period 1 contexts, eight in Periods 2-3 layers, but not outlasting the first century A.D.

Type 182. Shouldered bowl with outturned lip

Usually the body is ornamented with grooves or steps below the rim or on the shoulder. The fabric is always grey sandy ware. Six are known from Period 1 levels.

Type 183. Bowls with well-defined shoulder and flaring rim

A common type recurring in a modified form in Periods 2-3 (see type 221). In Period 1 contexts it occurs fifty-one times, always in a grey sandy ware.

Type 184. Bowl with stepped shoulder

Only one in hard, black sandy ware.

Type 185. Bowl with ill-defined neck and shoulder

Similar to types 181-2 but with a less clearly defined shoulder. Nine in Period 1, five in Period 2. The fabric is a grey sandy ware.

LIDS

Type 186. Large lid with vertically moulded lip

One only of this size, in grey sandy ware.

Type 187. Lid with simple undifferentiated lip

This is an extremely common type throughout most of the life of the site. 510 examples were found in Period 1 levels and 360 from layers of Period 2-3 date. The exact form, size and ware of the individual examples vary considerably but the single illustrated example summarizes the main characteristics. The fabrics are nearly always grey and sandy.

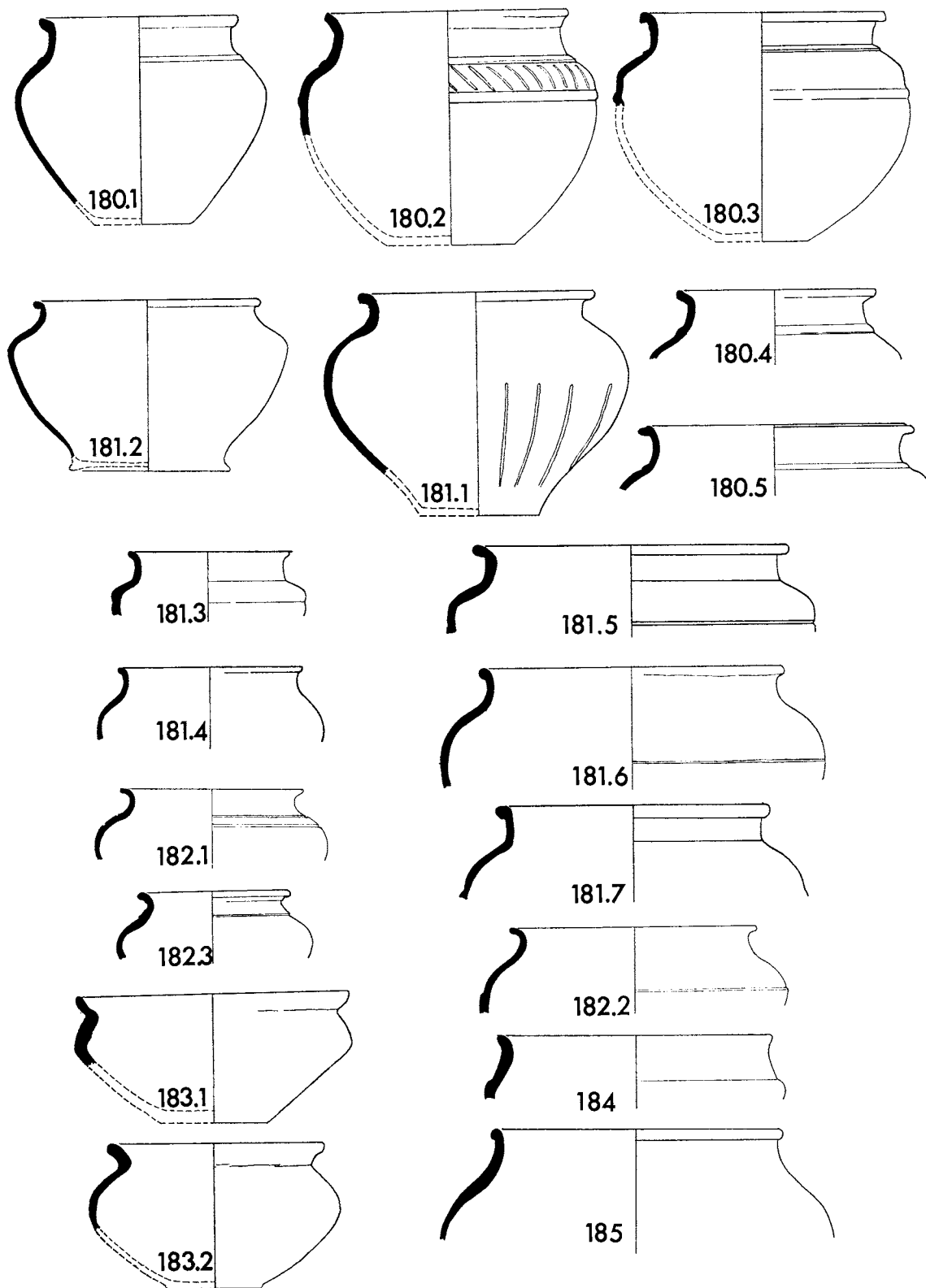


FIG. 103. Pottery types: scale $\frac{1}{4}$ (p. 214)

Type 188. Lids with shaped lips

As the illustration will show, the exact form and size vary within a defined range. The type is fairly common. Sixty-six examples are known from Period 1 contexts, twenty-four from Period 2-3. The ware is usually grey and sandy but buff sandy fabrics are not uncommon.

Type 189. Lids with double beaded lips

Well represented by twenty-seven examples in Period 1 contexts; only four, possibly rubbish survivals, found in Periods 2-3 layers. The fabric is always hard and sandy and is usually fired black or grey. The illustrated example is in a grey ware with a deliberately fired darker grey surface.

Type 190. Small domed lids with corrugated surfaces

A distinctive type in a red-brown or reddish-pink sandy ware. In use it spans the Neronian-Flavian period but does not outlive the first century. Seven are known from Period 1, five from Periods 2-3.

Type 191. Shallow-domed lid with no base knob

Only one in pinkish-buff sandy ware.

Types 192-5. Lids with flat bases

This category of lid, provided with a flat base, was evidently intended to serve both as a lid or dish; indeed it is often impossible to be sure how to classify them. A range of the more likely lid types is shown here, divided into separate types depending on the treatment of the lip.

Type 192 is an isolated example in grey sandy ware; type 193 occurs twenty-three times, all but four in Period 1 levels. Wares vary, but normally, as with the illustrated example, they are in a hard grey sandy ware. Type 194 is known from twenty-two examples restricted to Period 1 levels. The ware is almost invariably red and micaceous, and occasionally a thick red internal colour-coat is provided. Type 195 occurs fifteen times in Period 1 levels, always in a red micaceous ware with an external red colour-coat. These would presumably have served as lids for the platter (types 2 and 3).

Type 196. Lids with upturned lips

This, in effect, is a large and various group conflated here somewhat arbitrarily into one type category. Altogether 139 are recorded from Period 1 levels, and 26 from Periods 2-3. The wares vary considerably from grey to buff-red. Fabrics: 196.1, buff sandy ware; 196.2, fine buff-red ware with a red micaceous surface; 196.3, buff sandy ware.

Type 197. Vertical-sided lid

A single example of a lid in fine, smooth grey ware with a black micaceous surface decorated on the upper surface.

Type 198. ?Flat lid

A single example of a flat lid with up-turned lip, now broken off, in a grey micaceous ware with a fine black surface. Alternatively it may be the base of a vessel but the decoration would be unusual.

POTTERY FROM PERIOD 2 AND 3 CONTEXTS

Immediately the palace was completed, about A.D. 75-80, rubbish tipping on the site stopped and, as might be expected, the entire area was kept scrupulously clean. Only in the north-west angle between the North and West Wings was kitchen refuse tipped over the

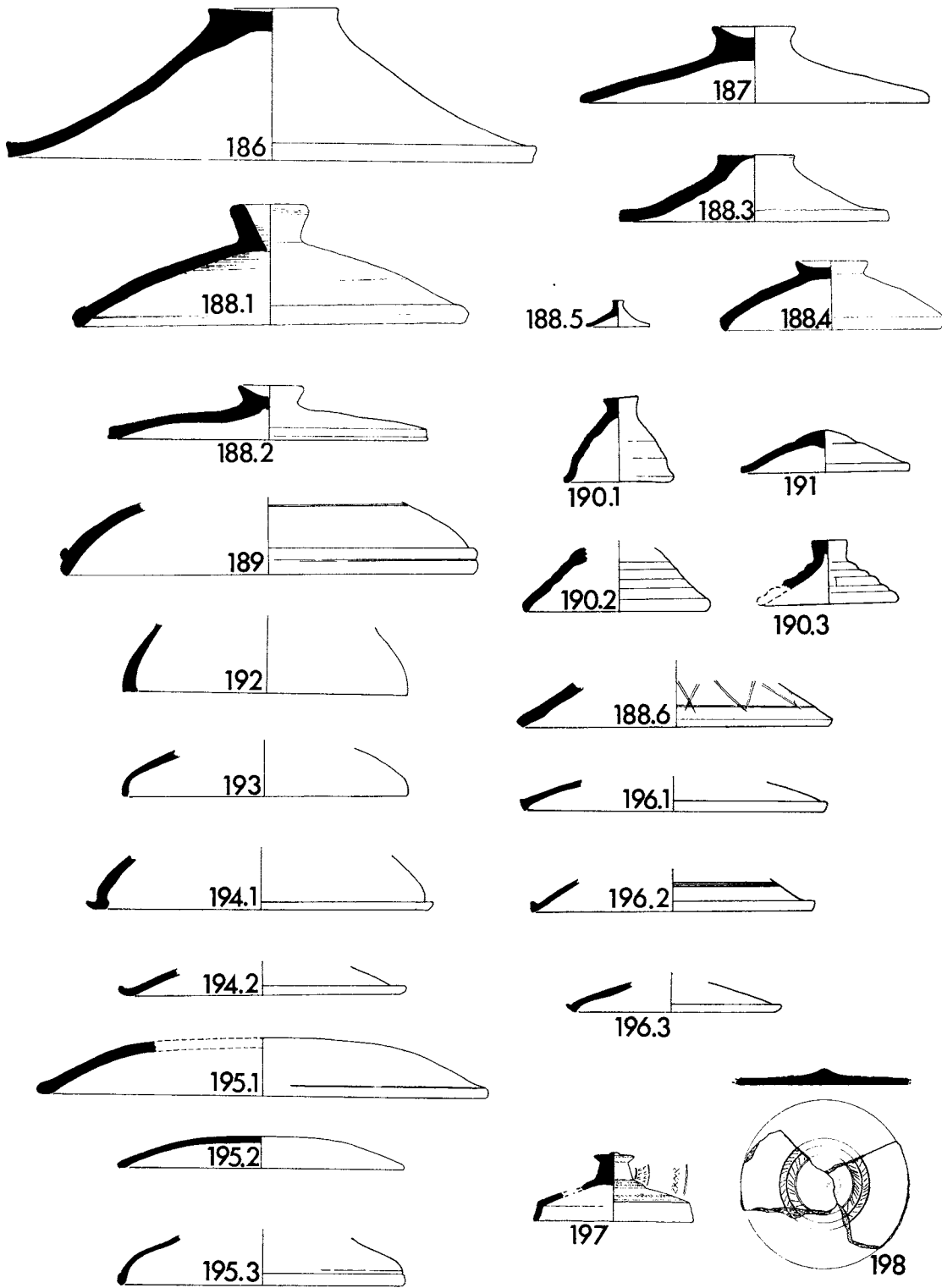


FIG. 104. Pottery types: scale $\frac{1}{4}$ (pp. 214-16)

area thought to be a kitchen garden, and since tipping continued well into the Third Period this cannot be regarded as a sealed deposit. The position of the late first-century tips is thus completely unknown, but it may be that disused parts of the harbour were filled at this time. In the Third Period the situation changed and refuse was allowed to accumulate gradually in several areas, over the demolished east end of the North Wing (p. 161), in the north-west corner of the garden (p. 161), in courtyard 1 in the East Wing around the bath suite, and in courtyard 2 immediately to the south (p. 164). The strong possibility remains that these areas were in fact gardens, turned over and remanured at regular intervals. The thickness of the soil, the somewhat abraded nature of some of the sherds and the total lack of internal stratigraphy, all point to this. Moreover, the areas were all close to occupied parts of the building. Though convenient for kitchen-gardens, they would have been most unpleasant if left simply as uncultivated rubbish heaps. Since the third-century building developed entirely within the shell of the earlier structure, the external rubbish tips were never sealed by buildings and therefore remained open throughout until buried beneath the destruction rubble. Within the building one small group of pottery was found lying on the floor of room N 12, crushed by the fallen rafters (p. 164). Since it must represent an assemblage in use at the moment of destruction, it is illustrated as a key group as well as in the main type series. This is the only tightly-phased group from the entire Second and Third Periods.

THE POTTERY OF PERIODS 2-3

SHALLOW DISHES

Type 199. Dish with gently incurved rim-top

A single example in a fine grey micaceous ware.

Type 200. Straight-sided dishes with plain rims

Some are ornamented with an internal shallow-tooled lattice, others are completely undecorated. Thirty-four are recorded, all in a dark grey sandy fabric, some (e.g. 200.2) with a black burnished surface. The type begins in the early part of the second century and continues into the fourth century.

Type 201. Straight-sided dishes with beaded rims

Occurs frequently in the latter half of the second century. Seventeen are recorded. The dishes may be plain or decorated with lattice or other shallow-tooled motifs. The ware is usually dark grey and sandy, fired to black on the surface and burnished.

Type 202. Plain straight-sided dishes

The form of these dishes is not unlike type 200, but the ware is always a lighter grey sandy texture, sometimes fired very hard. The walls of these dishes are generally thicker and less well constructed than those of types 200-1. Twelve were discovered, all within second-century contexts. This is probably a locally made variety.

Type 203. Straight-sided dishes with pulled-out rims

A distinctive local type in a hard grey ware, sometimes with an external pale grey slip. 155 examples are known, beginning at the very end of Period 1 and continuing in use to the end of the third century.

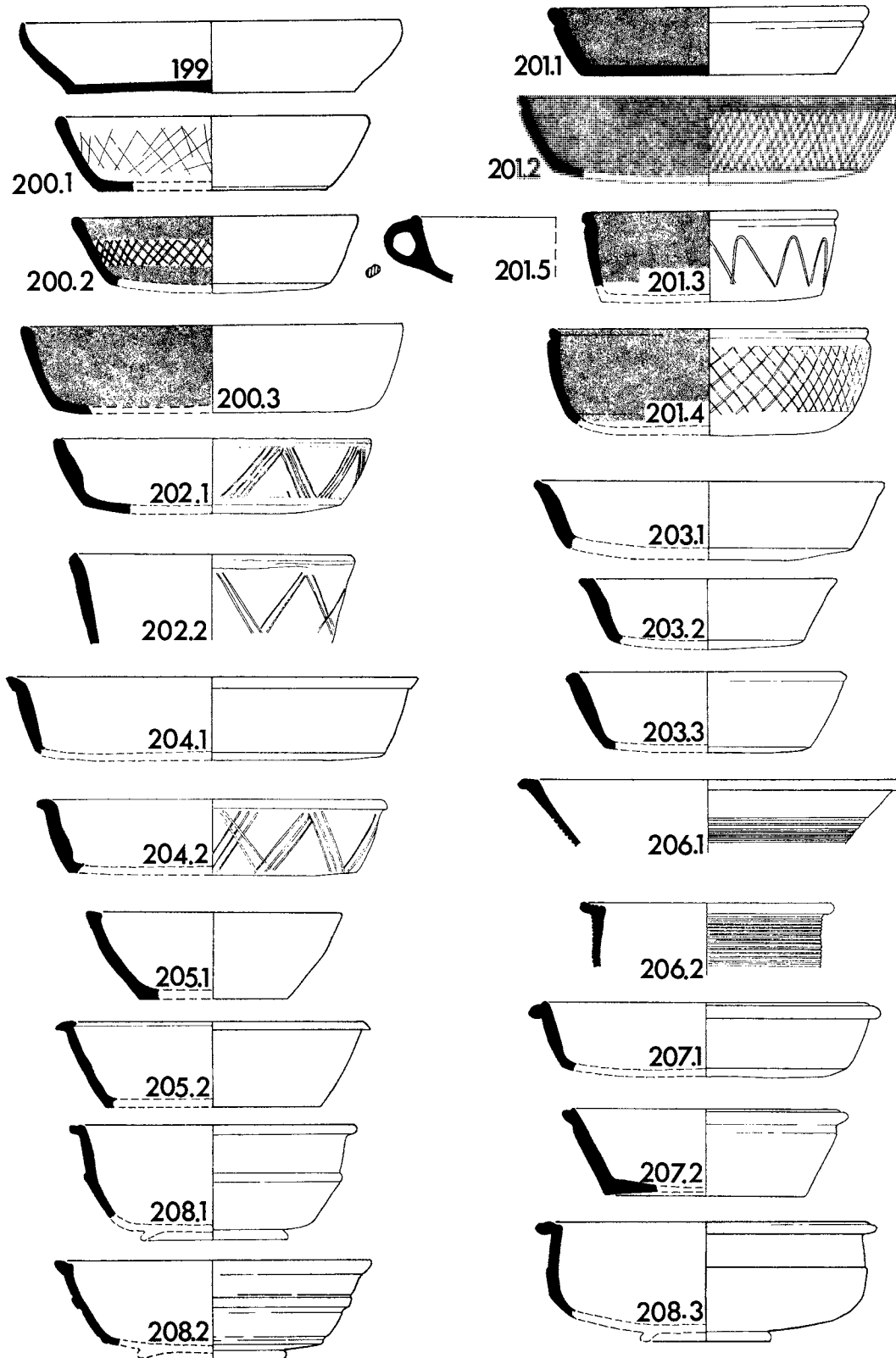


FIG. 105. Pottery types: scale $\frac{1}{4}$ (pp. 218-20)

Type 204. Straight-sided dishes with out-beaded rims

Eleven are known, found in early second-century levels. All are in a hard light grey sandy ware. Some are decorated with an external shallow-tooled design.

Type 205. Deep dishes with flattened rim-tops

This type is a development of the Period 1 type 102. Only five are known in the late first-early second centuries. All are in a soft dark grey sandy ware. As the two illustrations show, considerable variety is included within this type heading.

Type 206. Dishes with rilled outer surfaces

Only three are known, of which two are illustrated. Strictly, the forms of the vessels are widely different, but in fabric (a grey sandy ware) and decoration they are very similar. This type of decoration is extremely uncommon at Fishbourne.

Type 207. Dishes with squat flanges and beaded rims

This is really a version of types 217-20, but made in a local grey sandy ware. Only three are known, of mid second-century date.

Type 208. Dish with flanged rim and body cordon or offset

A distinctive local type in a grey sandy ware. Eight are recorded, beginning with no. 208.3, which comes from a context immediately pre-dating A.D. 75. The others are found sporadically in Period 2-3 levels. Late first- to early second-century type.

BOWLS

The range of the bowl type is very wide, but most can be regarded as belonging to three categories: (a) those made in a single local production centre, yet undefined (types 209-15); (b) non-local types distributed widely over this country (types 216-20); (c) miscellaneous bowls of mixed origins occurring in ones and twos (types 220-39).

Type 209. Carinated bowl with reeded rim

Vessels in this category are usually decorated with burnished lattice externally. The carination is usually the widest part of the vessel, but this is not invariably the case. The upper part of the side is either straight or noticeably convex. The ware is always hard and fired to a lightish grey tone. Fifty-eight examples are known from second-century contexts: although it still appears in use late in the Antonine period it is predominantly a Trajanic-Hadrianic type.

Type 210. Carinated bowl with internally hollowed rim

Often difficult to distinguish from type 209. Made in the same style and fabric as type 209, but the side is more vertical and even under-shot. Sixteen are known, mainly in the first half of the second century.

Type 211. Small carinated bowl

Similar to type 210, but smaller and with a simpler rim type. Two are known in a dark grey fabric. Early second century.

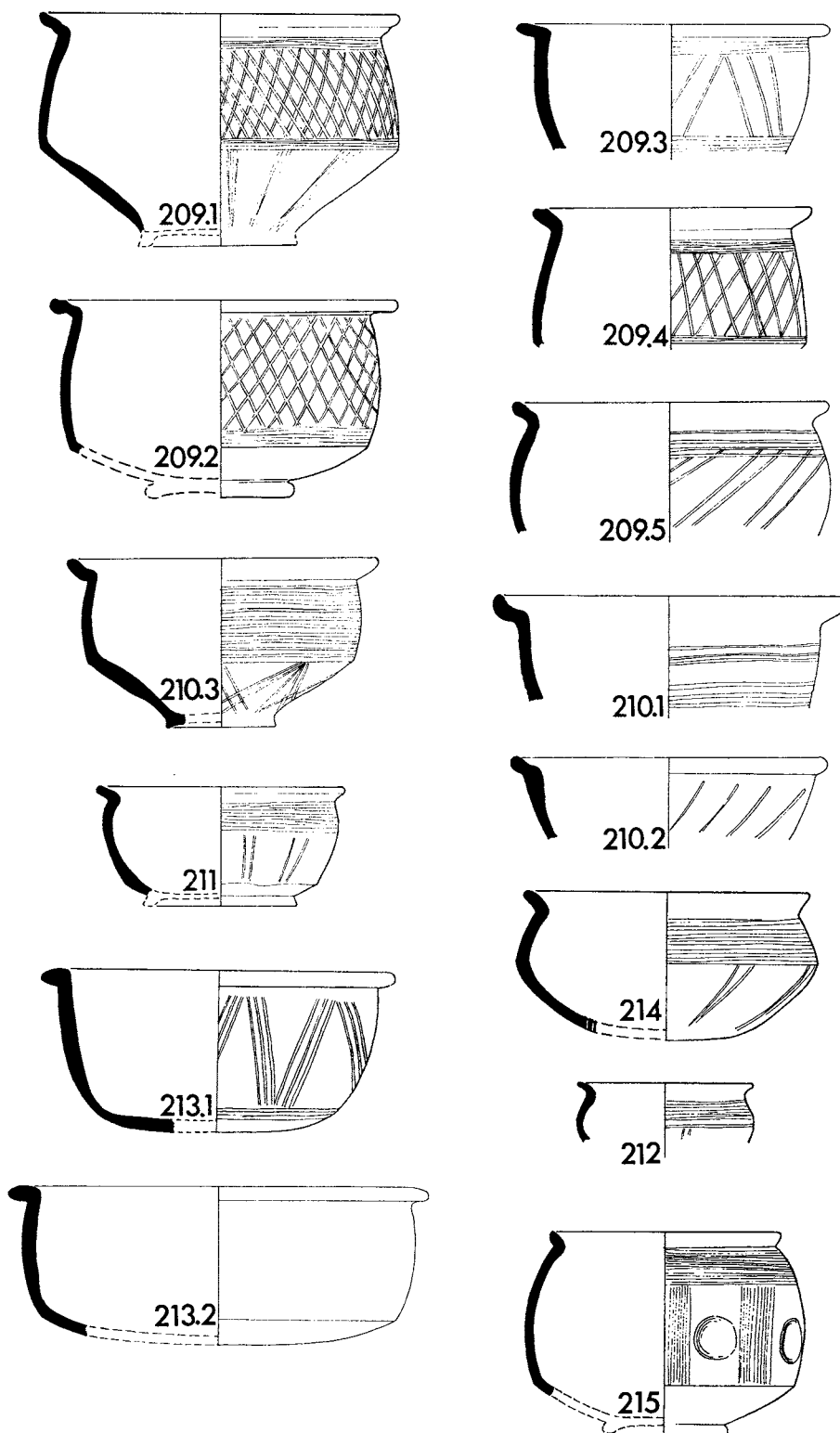


FIG. 106. Pottery types: scale $\frac{1}{2}$ (pp. 220-2)

Type 212. Small bowl

Very similar to type 211 but with a less sharply defined rim. One only in grey sandy fabric. Early second century.

Type 213. Straight-sided bowl with horizontal rim

Nine are known from early to mid second-century contexts, all in a black sandy fabric.

Type 214. Carinated bowl with perforated base

This type, really a colander, is very similar in style and fabric to types 209-11. Eight are known from second-century levels.

Types 215. Carinated bowls with indented side

Eight are recorded from second-century levels. All are in a hard light grey sandy ware.

Type 216. Shallow bowls with thin horizontal rims

This is a wide category including a number of variants. Fifteen are recorded in a range of grey sandy wares, all from late first- to early second-century levels.

Type 217. Shallow bowls with thick horizontal rims

Within this category are classed only undecorated bowls in a range of ware from soft grey sandy to hard black sandy. Some are evidently locally made, others must be imported from outside the immediate region. Fabrics: 217.1, hard light grey sandy; 217.2, grey sandy; 217.3, hard dark grey sandy; 217.4, black sandy; 217.5, grey sandy; 217.6, hard grey. The type occurs 173 times, predominantly within the Trajanic-Hadrianic period; thereafter it is rare.

Types 218-19. Shallow bowls with thick horizontal rims, decorated externally

Type 219 is deeper than 218, but in small fragments it is often impossible to tell them apart. All are in a black sandy ware burnished finely on the surface. The decoration, usually but not invariably a lattice, is executed in shallow burnished lines. 141 were found in contexts ranging from late Hadrianic to late Antonine. Some clearly continue in use well into the third century.

Type 220. Bowls with horizontal rims and a small beaded lip

Sometimes, as in the case of 220.3, the bead is vestigial. All the vessels within this range are in a black sandy ware with a burnished outer surface. Seventy-two are known from late second- and early third-century contexts.

Type 221. Carinated bowls with everted rims

The shoulder is defined by an outward kick. Three only in grey sandy ware. Late first century.

Types 222-8. Shouldered bowls of various kinds with out-bent rims

The illustrations offered here are representative of a wide range of bowls, occurring in small numbers in the late first and early second centuries. In form most of them can be traced back to types already in existence in pre-A.D. 75 levels. They are, in effect, the dying remnants of the pre-Flavian tradition. Type 222, grey sandy ware, two examples; 223, hard grey sandy ware, one only; 224, hard grey sandy ware, eleven examples; 225, dark grey sandy ware, three examples; 226, smooth pinkish-buff ware, three examples; 227, hard buff ware, one only; 228, smooth red ware, one only.

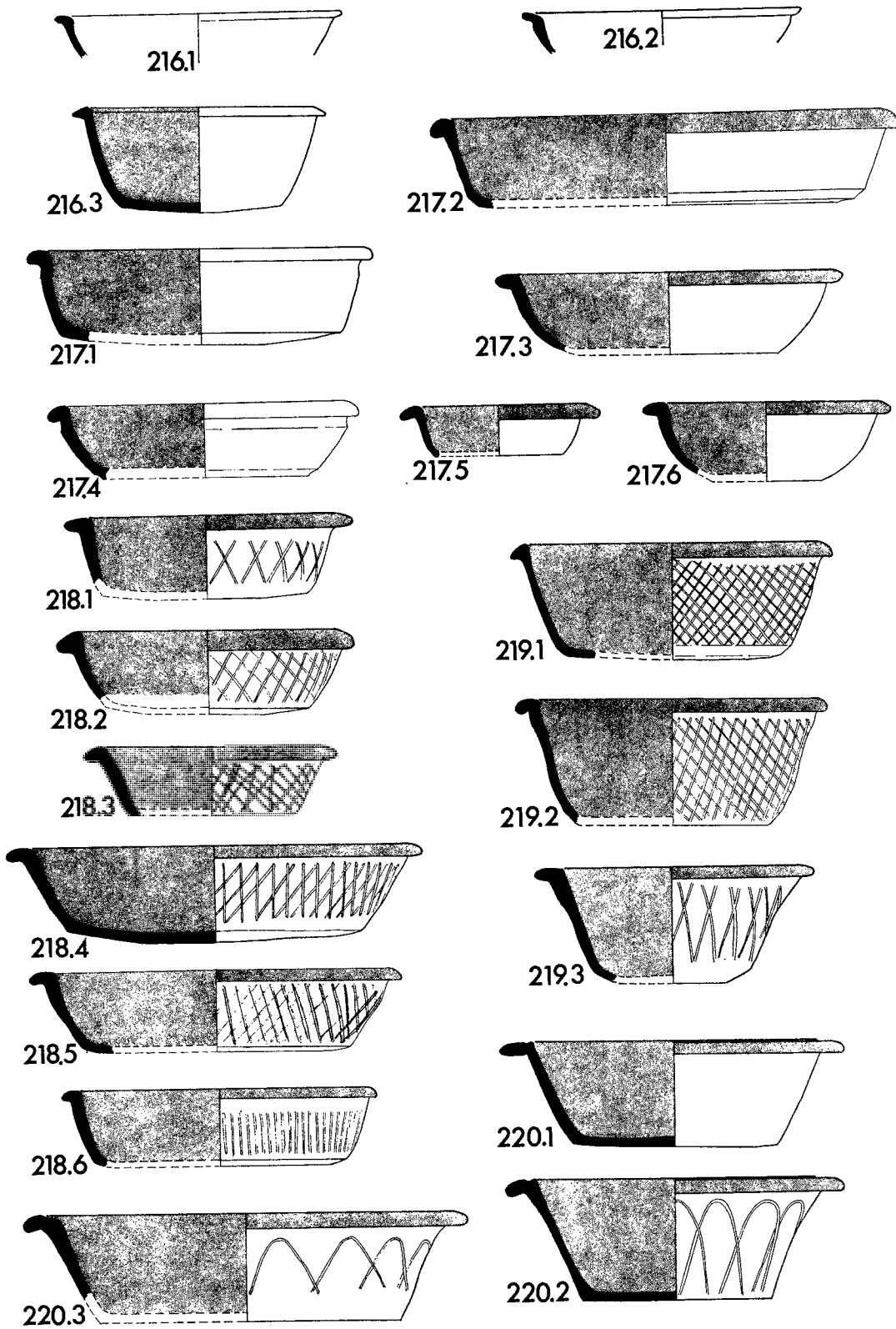


FIG. 107. Pottery types: scale $\frac{1}{4}$ (p. 222)

Type 229. Bowls imitating samian forms 29 and 37

The fabric is always a smooth brown or grey micaceous ware carefully smoothed on the outer surface and fired to a very dark grey. Decoration is either rouletted or scratched on with a multiple-pointed comb. Eight are known, beginning at the very end of Period 1 and continuing into the last quarter of the first century.

Type 230. Straight-sided bowl imitating Drag. 37

One vessel only in a fine light grey sandy ware. Early second century.

Type 231. Bowls with complex-moulded upper sections

Only two are known, no. 231.1 in a fine red ware with a red colour-coat, and 231.2 in a smooth buff ware.

Type 232. Large hemispherical bowls

Two recorded, both in pinkish-buff sandy ware.

Type 233. Bowls with raised ornamented cordons

The cordons are impressed with finger-nails. Two known, both in a hard red ware with traces of an external white colour-coat.

Type 234. Carinated bowl with flaring mouth

One only in light red ware with roughly-burnished horizontal bands on the neck. Third century.

Type 235. Hemispherical bowl with undifferentiated rim

One only in coarse grey ware. Late third century.

Type 236. Bowl with thickened reeded rim

One only in buff sandy ware.

Type 237. Bowls with cupped horizontal rims

Six are known in grey sandy ware. Late first to early second century.

Type 238. Bowl with inturned horizontal rim

One only in hard buff ware with a white slip.

Type 239. Bowl with inturned rim

One only in a fine hard white ware. Probably Flavian.

LIDS

A selection of lids have already been illustrated as types 186 to 195, many of which though beginning in Period 1 continue in use into Periods 2-3. Four additional types are illustrated here which have no direct Period 1 counterpart.

Type 240. Plain lid

Similar to form to type 187, but in a uniform hard grey sandy ware sometimes coated with a thin red colour-coat. Two bear 'batch numbers' inscribed on their outer edges. Three only, but many of type 187 may belong to this category.

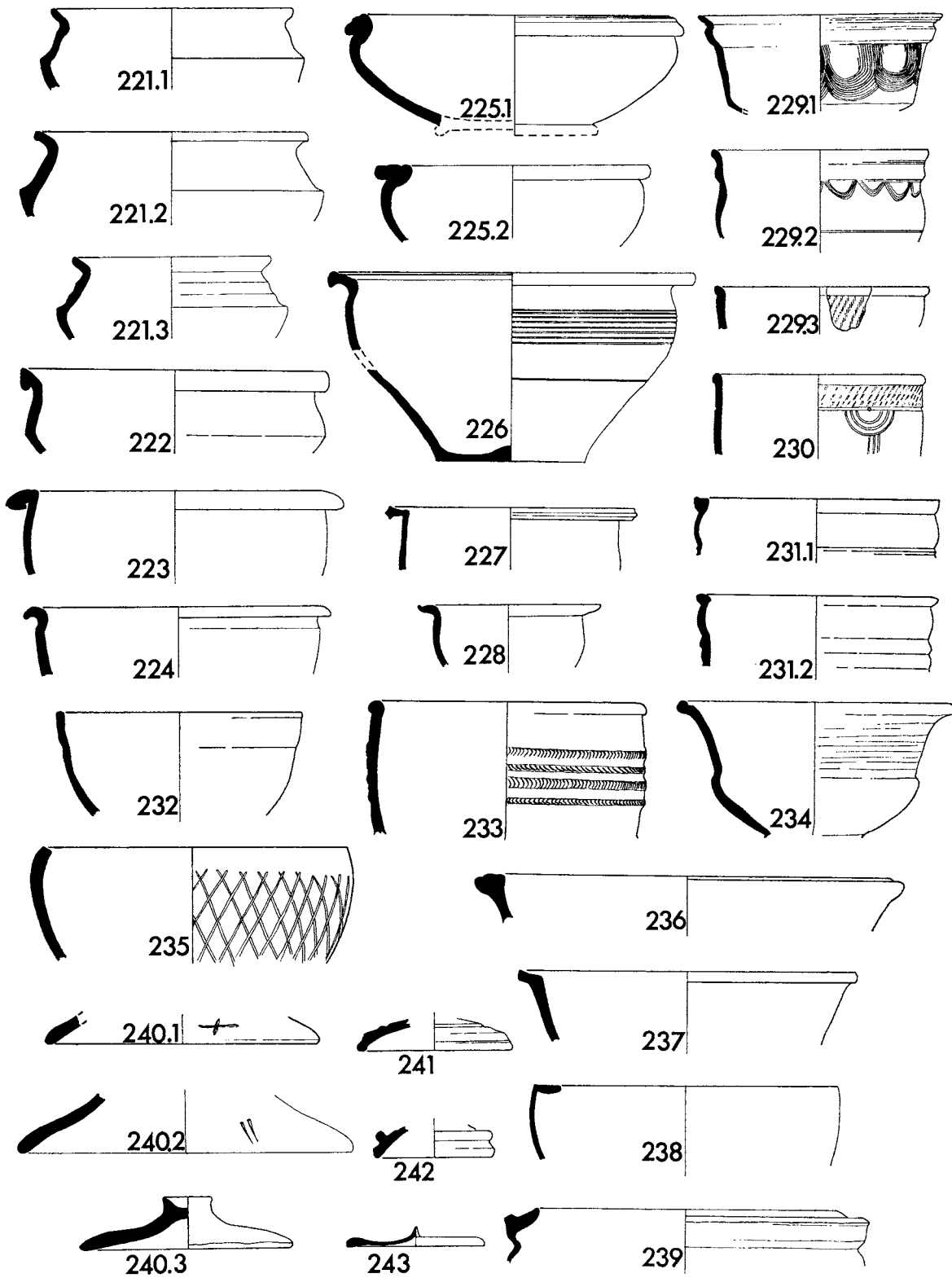


FIG. 108. Pottery types: scale $\frac{1}{4}$ (pp. 222-4)

Type 241. Small lid with vertical side

One only, in grey gritty ware.

Type 242. Small lid with double beaded lip

One only, in buff sandy fabric.

Type 243. Small flat lid

One only, in smooth buff ware.

FLANGED BOWLS

Type 244. Large bowl with low flange

One only in black burnished ware with traces of a reddish colour-coat. Early to mid third century.

Type 245. Large bowl with reeded flange

One only in a smooth buff ware. Late first to early second century.

Type 246. Bowls with cupped flanges

Two examples in pinkish-buff sandy ware. Mid to late third century.

Type 247. Bowls with flanged rims and beaded lips

This type with a low bead occurs in third-century contexts in small numbers (fourteen examples); by the late third century it has developed a higher bead and is separately classified as type 256. The fabric is black sandy and well burnished.

Type 248. Flanged bowls with beads and drooping flanges

The type is known in various wares throughout the second and early third centuries. About ten are known. Fabrics: 248.1, smooth grey ware with traces of an external white slip; 248.2, hard buff ware.

Type 249. Bowl with long drooping flange and no bead

One only in fine hard buff ware. Early second century.

Type 250. Bowl with short bent-down flange

One only in a hard light grey ware with a dark grey colour-coat.

AMPHORAE

Type 251. Amphora with rounded shoulders and tall cylindrical neck

Very similar to type 148, but with rounded shoulders and simpler handle. Only one of this general form is certainly known but a number of rim fragments may belong to amphorae of this type. The fabric is fine and pink and is tempered with crushed white grit. Late first century.

Type 252. Amphora with internally undercut rim

Similar to type 145, but in a pinkish sandy ware. Only one from a second-century context. Stamped T.I.J. on the handle.

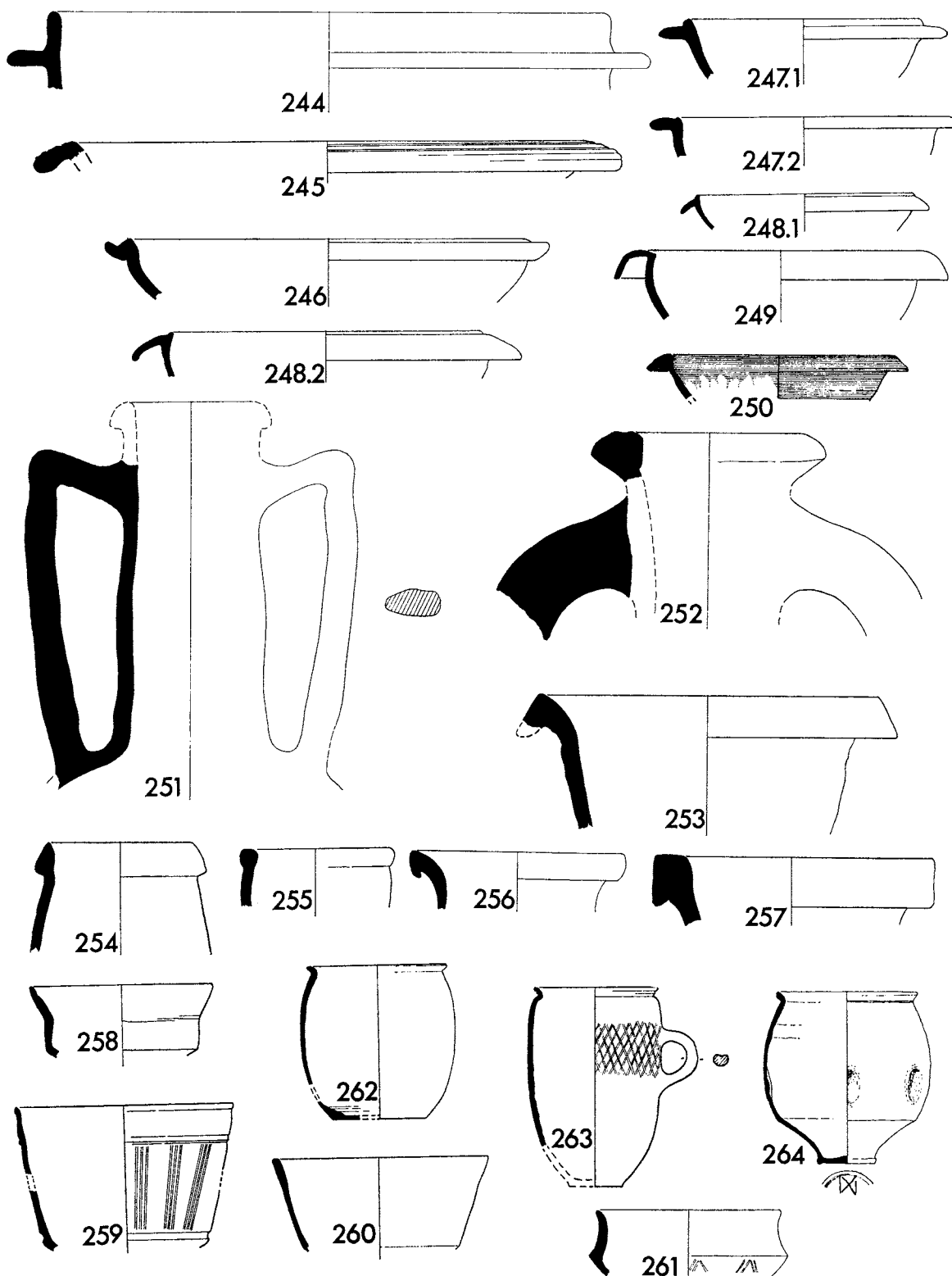


FIG. 109. Pottery types: scale $\frac{1}{4}$ (pp. 226-8)

Type 253. Amphorae with wide mouths and bent-down rims

Sixteen examples of this type are known, of which six come from post-A.D. 75 levels. The type is probably Neronian-Flavian. The fabric is usually a pink-buff ware.

Types 254-7. Amphorae necks

A selection of amphora necks of various types are shown here. Altogether they represent no more than six different vessels, all in buff or pinkish-buff ware. Most of them occur in late first-century levels.

CUPS

Type 258. Carinated cup with wide mouth

One example in grey sandy ware.

Type 259. Tall, straight-sided cup

One example in dark grey ware with a smooth black micaceous surface.

Type 260. Cup imitating Drag. 33

Two examples, both in smooth buff ware. Early second century.

Type 261. Carinated cup

One only in grey sandy ware. This vessel clearly belongs to the same category as types 48-9, which in turn developed out of the Gallo-Belgic bell-cup type. Late first century.

BEAKERS

Type 262. Plain barrel-shaped beaker

A large number of small rim sherds probably belong to this generalized type, but they are too small for a certain attribution to be made. The ware varies but is generally pale grey (as is the illustrated vessel) or red-buff. Generally spread over the second and early third centuries.

Type 263. Tall handled beaker

Two only in a fine light grey ware with a dark grey surface-wash. Early-mid third century.

Type 264. Local indented beaker

One only in a grey sandy ware. This type copies the indented colour-coated beakers of the third century.

Type 265. Ovoid rough-cast beaker

This type, evidently derived from the pre-Flavian beaker type 77, differs from 266 in that the greatest width is towards the centre of the pot. Chronologically the type fits within the last quarter of the first century, beginning before the construction of the palace *c.* 75 and continuing until it was superseded by type 266 early in the second century. Fabrics: 265.1, hard cream ware with a chocolate colour-coat; 265.2, hard red ware with a chocolate colour-coat.

Type 266. Bag-shaped rough-cast beakers

The widest part of the vessel occurs low down at a carination. The type succeeds type 265 and replaces it. At Fishbourne there is no close internal evidence for its dating, but elsewhere it is generally found in Hadrianic-early Antonine contexts. The ware is usually red-buff and the surface is invariably coated with a chocolate-brown colour-coat. Sherds of beakers of types 265 and 266 are frequently indistinguishable from each other. Altogether sixty-two are known from the late first to late second century.

Type 267. Poppyhead beaker with high lip

The body is evenly curved and the necks and rims vary, but are usually divided from the body by cordons. The ware is fine grey, usually with an external whitish slip. At Fishbourne one example occurs in a pre-A.D. 75 context. Forty-six are found in late first- and second-century contexts. Elsewhere the type is common, A.D. 80-140, but thereafter decreases in numbers.

Type 268. Globular beaker with barbotine decoration

Only one example in a dark grey sandy ware with a black micaceous surface. Early second century.

Type 269. Beakers decorated with running animals and plants en barbotine

A Nene Valley product. The ware is always white to buff and the surface is coated with a brown — deep blue-black colour-coat. Eighteen are known, mostly as body sherds, from second to early third-century contexts.

Type 270. Beaker with applied scales

A Nene Valley product, in hard white ware with a chocolate-brown colour-coat. One only, late second to mid third century.

Type 271. Beaker with applied barbotine decoration in white

A Nene Valley product, in red ware with blue-black slip over which is applied the white barbotine decoration. Three decorated sherds only, but a number of plain body sherds are known.

Type 272. Rhenish beakers

A number of different varieties are classified here as one type. All are in a fine hard red ware with a shiny black metallic slip. Some are rouletted, one is decorated with barbotine vines and another is a small part of a folded beaker (not illustrated). In all 10 individual vessels were represented from late second to mid third-century levels.

Type 273. Scale-decorated beaker

One only in a local smooth grey ware. Hadrianic-Antonine.

Type 274. Beaker with bossed decoration

The bosses were formed by pushing from inside when the fabric was leather-hard. The ware is fine and grey, but the surface has been fired to a red colour and coated with mica dust. One only was found in a late first-century context. Elsewhere it would seem to be a Flavian type.

Type 275. Beakers with a tightly moulded everted rim.

Usually decorated with barbotine dots. The ware is always fired to a hard grey texture and is coated with a light grey or bluish-grey slip. Six are known from third-century contexts.

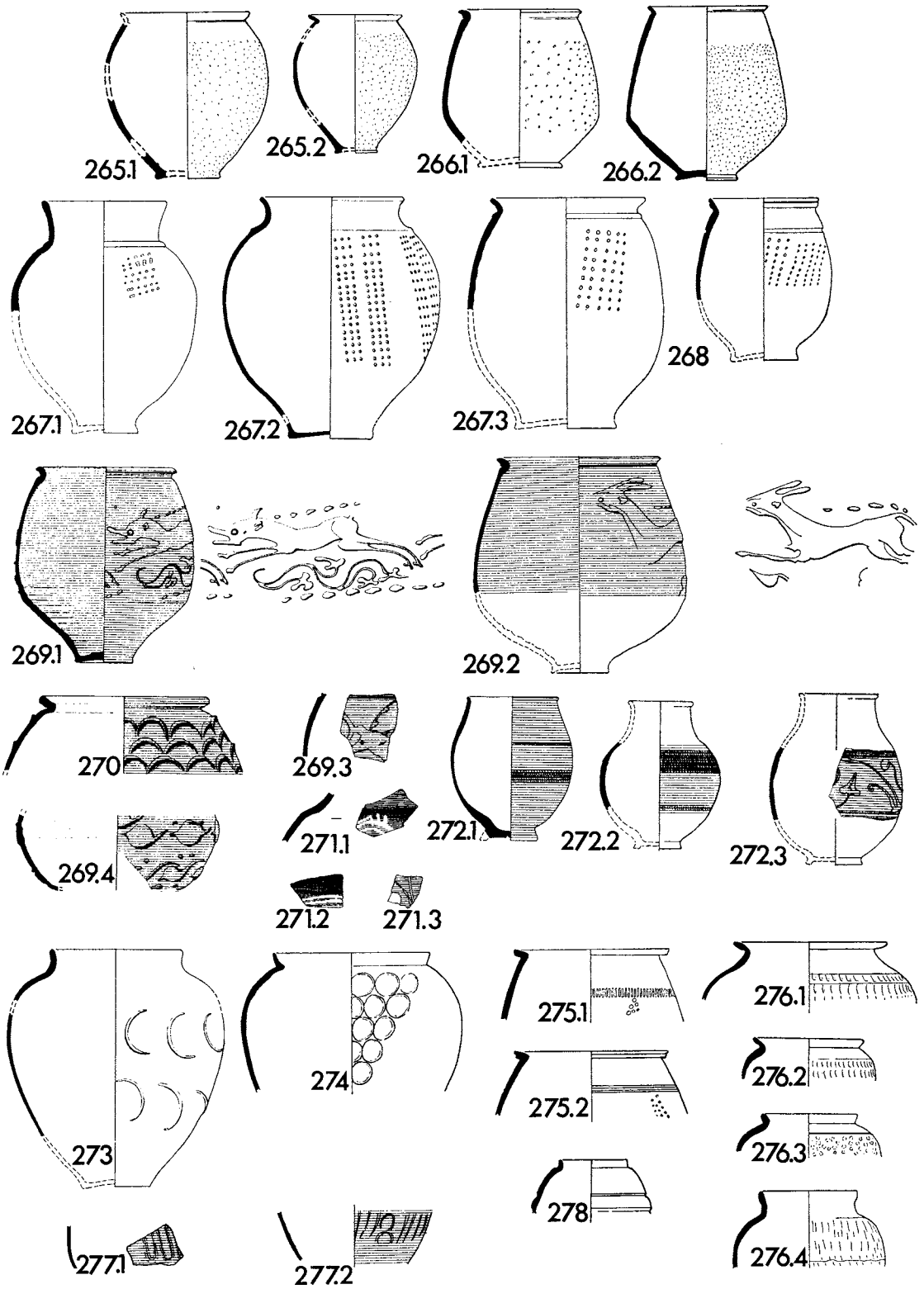


FIG. 110. Pottery types: scale $\frac{1}{4}$ (pp. 228-32)

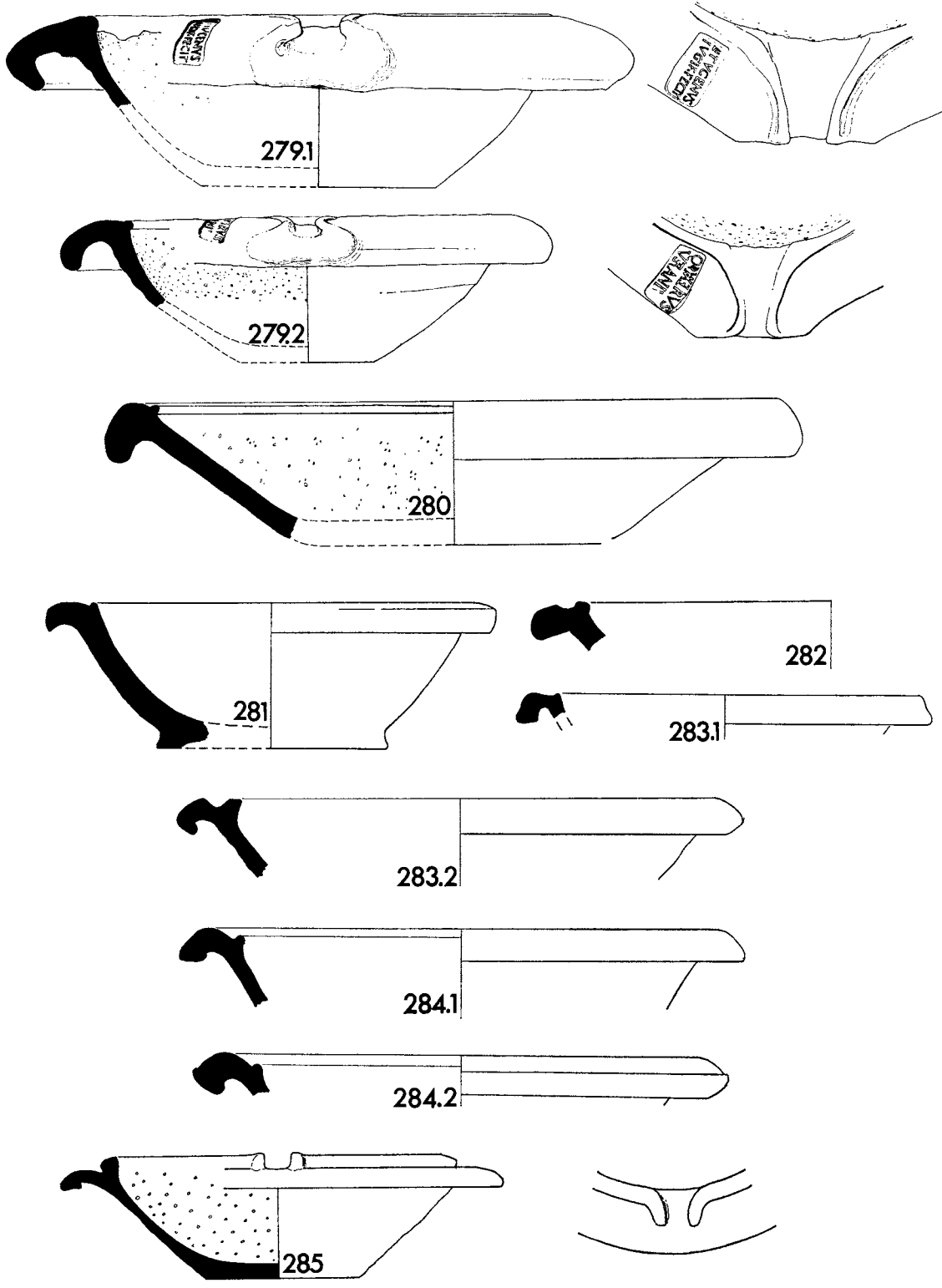


FIG. III. Pottery types: scale $\frac{1}{4}$ (pp. 232-3)

Type 276. Globular beakers with impressed decoration

As the illustrations show, the rim form varies but the unusual decoration and the standard smooth grey ware served to link the vessels to the same category. Nine are known of which five appear first at the end of Period 1, suggesting that the type is Flavian in date.

Type 277. Globular beakers with applied decoration

Since only two sherds of this kind are known, little can be said of the form of the vessels to which they belong. The ware is hard white or buff, and a blue colour-coat has been applied over the barbotine decoration. Loosely dated to somewhere within the second century.

Type 278. Small beaker with girth grooves

Eight are known, all in a smooth grey ware. Second to early third century.

MORTARIA

Type 279. Mortaria with level bead and long hooked-down flange

The general characteristics of this type originate in Period 1, but it is clear that certain production centres continued to make the form to at least the end of the first century. Fourteen are known from late first-century levels. The two illustrated, both stamped (see pp. 173-4) are in a buff sandy ware with crushed quartz grits.

Type 280. Mortarium with level bead and short hooked-down flange

(K.H.) Fine brownish-cream fabric with flint grit. The fabric is similar to one made at Colchester but the form is unusual. It could perhaps have been made there but manufacture elsewhere in the south is certainly possible. The date is uncertain but the third century is most likely.

Type 281. Mortaria with slightly drooping flanges

This is really a late first-century variant of type 141. Three are known, all in a red sandy ware.

(K.H.) This is one of the typical late Neronian-mid-Flavian forms. It could have been made in the south-west but it is crude and could perhaps have been the work of any potter using tile fabric.

Type 282. Mortaria with a straight flange and well-defined bead

Two only are known in buff. They were loosely stratified in third-century levels but may possibly be rubbish survivals. At Wroxeter dated A.D. 80-120 (Bushe-Fox, 1912, fig. 19, nos. 22-30).

Type 283. Mortaria with angled flanges and level beads

Four are known in buff sandy ware. Probably Hadrianic-Antonine. See type 286.

Type 284. Mortaria with angled flanges and low beads

Probably only a variant of type 283. Two are known, both in a soft buff sandy ware. Probably Antonine. (K.H.) 284.1 is a form sometimes used at Colchester. On balance more likely to be a local product but the fabric is close to Colchester ones. The same applies to 284.2 except that the fabric is more likely to be local.

Type 285. Mortaria with high beads and drooping flanges

Characteristically the ware is red or pinkish and the surface is coated with a pale buff slip. The grits are invariably rounded quartz grains. Made in the Oxford kilns. Four are known, one from the late third-century destruction levels in the North Wing. The type is common elsewhere from the latter half of the third century.

Type 286. Mortaria with thickened flanges and high beads

Eleven are known in Third-Period levels, all in fine buff ware with some flint grits on the flange. Accurate dating is not possible on internal evidence. (K.H.) This type and 283.2 are distinctive of vessels found fairly widely, though never commonly in the south of England and the Midlands. The potter, Brariatus, probably working in the neighbourhood of Bavai in Gallia Belgica made related forms though in differing fabric. Fairly similar unstamped forms in fabric like the Fishbourne examples have also been found at Lezoux. It is therefore quite possible that these are imports though British potters may have imitated the form.

Types 287-9. Mortaria with high beads and drooping flanges

Three different types are recognized here, all verging on wall-sided characteristics. Type 287 is in a fine buff ware with large quartz grits. One example only. (K.H.) An unusual form made in potteries near Oxford and Verulamium in the late second and early third centuries. The fabric suggests an origin in the south of England. Type 288 is in a hard red sandy ware with an internal and external white colour-coat. One only in a late Flavian layer. (K.H.) A very unusual piece: the fabric is similar in appearance to those made in parts of south-west England, where red-brown fabrics were commonly used for mortaria. Type 289 is in a pinkish-buff ware tempered with crushed flint and grog. One only. (K.H.) Made in southern England, *c.* A.D. 190-250.

Type 290. Mortaria with curved wall-sides

Three are known, all in a buff sandy ware, with abundant tiny quartz crystals. (K.H.) Approximates to Gillam 272. Characteristic in form and fabric of a type found as far apart as Mumrills and Southampton. In the north it is not common but widely distributed, while probably much commoner in the south. Probably made in the south and exported from *c.* A.D. 180 into the third century.

Type 291. Mortarium with wall-side and beaded lip

One only in a whitish sandy ware with crushed quartz grits.

Type 292. Mortaria with plain sloping wall-sides

Seven are known from Third-Period contexts in a variety of wares. The illustrated vessel is in a hard pinkish-buff fabric with large flint grits. (K.H.) Gillam 280. A faithful imitation, perhaps local, of types made in the Hartshill-Mancetter potteries in Warwickshire where the form comes into use *c.* A.D. 270 and continued until *c.* A.D. 370. If the Midland typology applies, this is not a late example.

Type 293. Small simple wall-sided mortaria

Seven are known, largely from third-century contexts. All are in a pinkish-buff or buff sandy ware. No. 293.1 has crushed flint grits.

Type 294. Mortaria with vertical moulded walls

Generally in a hard buff ware, but occasionally with a pinkish tone. Three are known in second- to third-century contexts. Probably made in southern England.

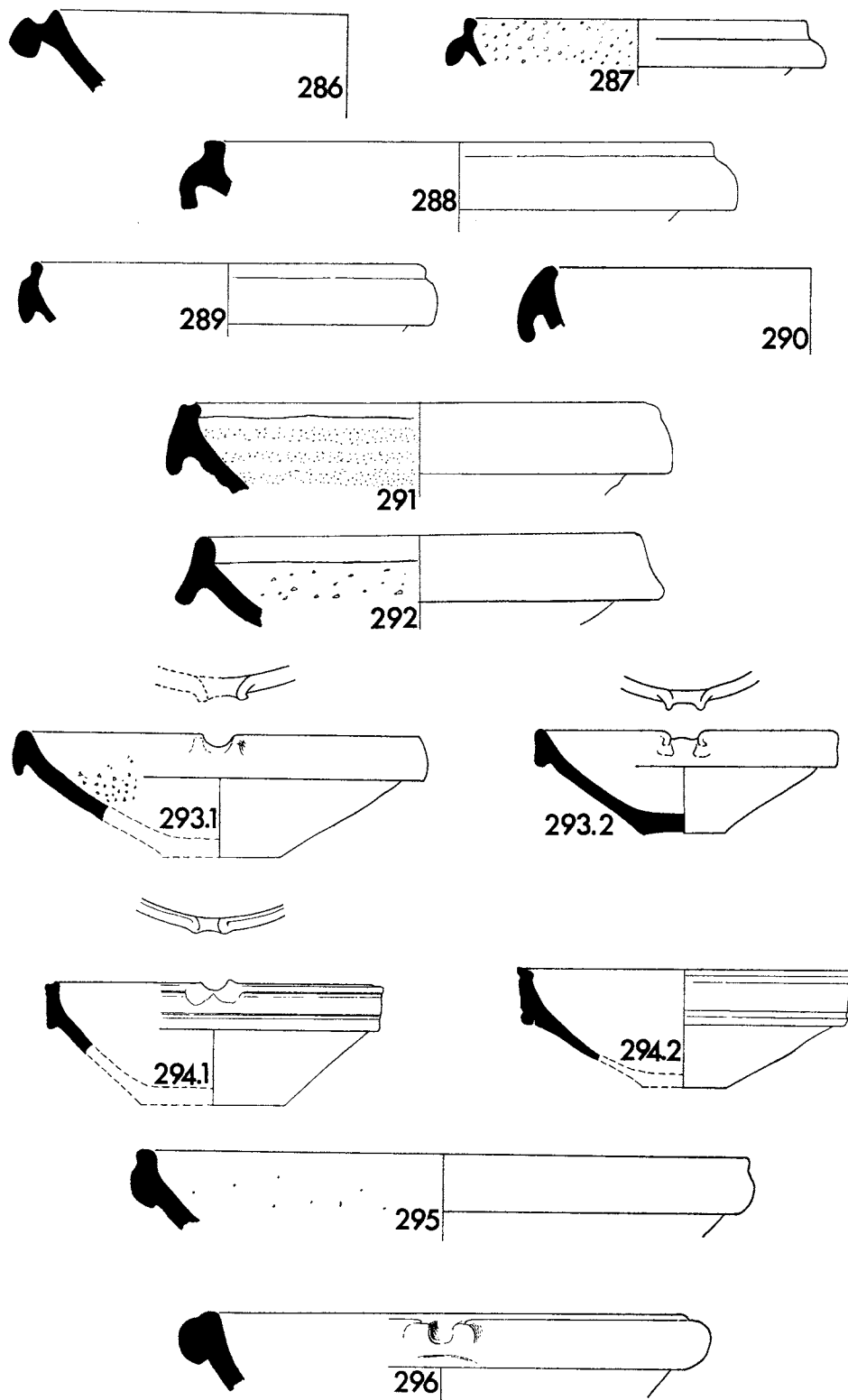


FIG. 112. Pottery types: scale $\frac{1}{4}$ (pp. 233-5)

Type 295. Large mortaria with low, very squat flanges

Four are known in second-century contexts in a pinkish-buff sandy ware. At least one has flint grits. (K.H.) The fabric could have been produced at the Colchester Kiln but there is no exact parallel in form from there. The form is commoner in the south of England than elsewhere: *c.* A.D. 170–230.

Type 296. Mortaria with thick, squat flanges

Five are known in late second- to early third-century levels, all in a buff sandy ware. One has quartz grits.

FLAGONS AND JUGS

Type 297. Flagon with undercut lip

The type originates in Period 1 (type 113) but becomes much more common in the late first and early second centuries, from which contexts ten have been recovered. The fabric is always a hard white or buff sandy ware.

Type 298. Flagon with flanged lip

This again is a form which originates in Period 1 (type 114). But it is more common in the early to mid second century. Thirteen are known. In general, type 298 tends to have a squatter neck and more ovoid body than type 297, but these factors may not be of great significance. The fabric is usually buff and sandy.

Type 299. Jug with outcurved lip

The handles are pegged into the body. One example only is known from a general second-century context. Fabric: coarse pale buff sandy.

Type 300. Small flagons with 'pulley wheel' lip

The type is not common, only three being known. It occurs exclusively in early second-century contexts. The fabric is hard, buff and sandy.

Type 301. Flagons with pinched mouths

The type originates in Period 1. Only two occur in Period 2–3 contexts, both of which could be regarded as rubbish survivals from Period 1. For the sake of completeness it is illustrated here. Fabric: red sandy.

Type 302. Jug with flat-topped rim

Occurs twice in late first- to early second-century contexts. In a greyish-buff ware.

Type 303. Flagons with cupped lips

The handle is pegged into the body. Reddish-grey sandy ware. The illustrated vessel was found incorporated in a clay patch to the floor in room N 20. Since this end of the building was demolished in the early years of the second century, the type cannot be later than about A.D. 120–30. Eleven others were found, in contexts of broadly similar dates.

Type 304. Large flagons with cupped lips

This is the late first- to early second-century version of types 131–3. Fourteen are known, all in a smooth, grey sandy ware, presumably made locally.

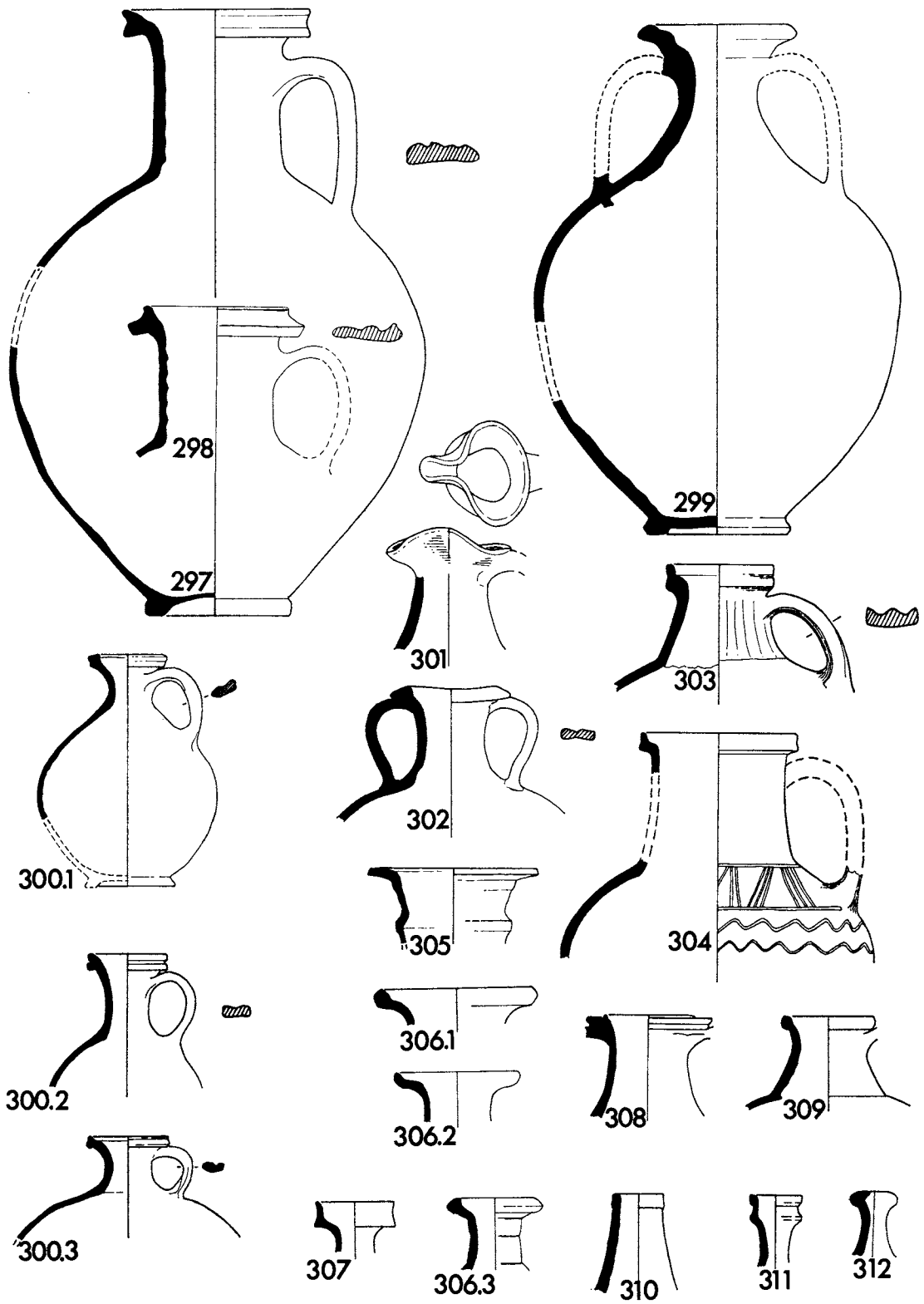


FIG. 113. Pottery types: scale $\frac{1}{4}$ (pp. 235-7)

Type 305. Flagon with horizontal rim-top

One example only, in reddish-grey sandy ware. Second century.

Type 306. Flagons with wide-cupped mouths

Three only, in buff sandy ware. Early second century.

Type 307. Flagon with vertical cupped mouth

One only in soft, buff sandy ware. Late first century.

Type 308. Jug with bead and flanged lip

One only in hard, buff sandy ware. Late first century.

Type 309. Flagon with beaded rim

One only in a pinkish-buff sandy ware. Possibly an early New Forest product. Early to mid third century.

Types 310-12. Bottles with long necks

Vessels of this category are not very common; each occurs only once. Fabrics: type 310 is in a hard white sandy ware; type 311, a hard pinkish-buff ware; type 312, a hard, grey sandy ware. They cannot be closely dated on internal evidence, but are generally second to early third century.

JARS

Types 313-14. Everted-rimmed jars with batch marks incised below the rim

This category of jars, in various sizes, is extremely common locally. In distribution it spreads from the neighbourhood of Portsmouth to a little to the east of Chichester. A group of kilns near Rowlands Castle are known to have produced the form, but this need not be the only source. Beside the 'batch marks' scratched below the rim before firing, other characteristics are the hard grey fabric which is often given a thin coating of a fine red wash. At Fishbourne 408 vessels certainly or probably of this type were recognized. Where firm dating evidence is available they are exclusively from third-century contexts but probably began earlier. One was found in the late third-century destruction of the North Wing. The type lasted until robbing began at the end of the century.

Type 315. Carinated jar with flaring rim.

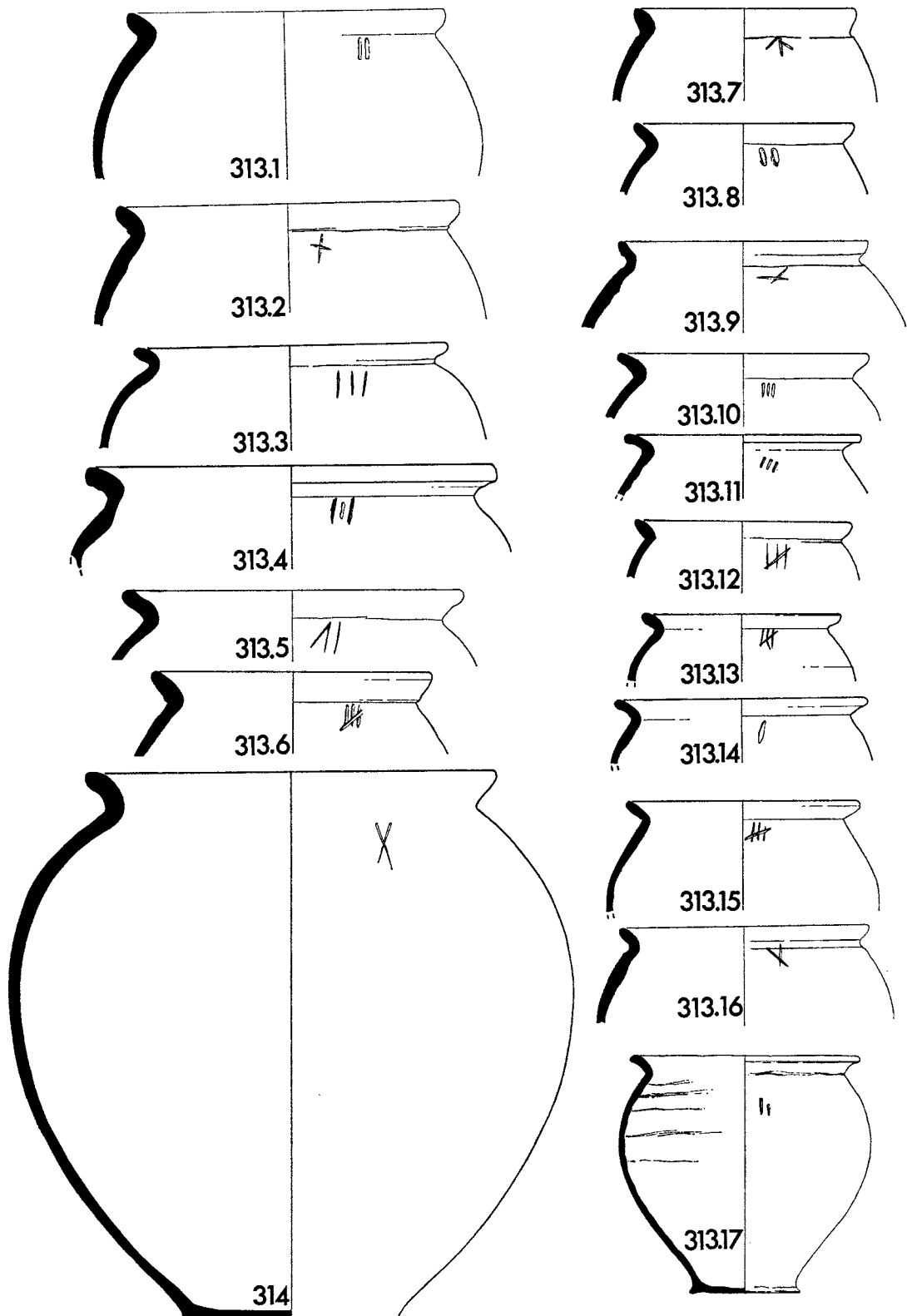
A well-made vessel in hard grey ware, well burnished. One only from the late third-century destruction of the North Wing.

Type 316. Carinated jars with undefined shoulders

The vessels may be plain or decorated with shallow-tooled vertical lines below the shoulders. Profiles vary. The ware is always grey and sandy and sometimes the outer surface is finished with a fine red wash. The type is generalized and continues throughout the second and third centuries without obvious typological change. 116 are recorded.

Types 317-19. Necked carinated jars

Various types of necked carinated jars have been found in late first to early second-century levels, continuing the pre-Flavian tradition typified by 180-1. The actual numbers of vessels involved have been summarized above under the earlier type descriptions. No significant typological distinctions can be recognized between vessels found before and after A.D. 75. The fabrics are all in grey sandy ware.

FIG. 114. Pottery types: scale $\frac{1}{4}$ (p. 237)

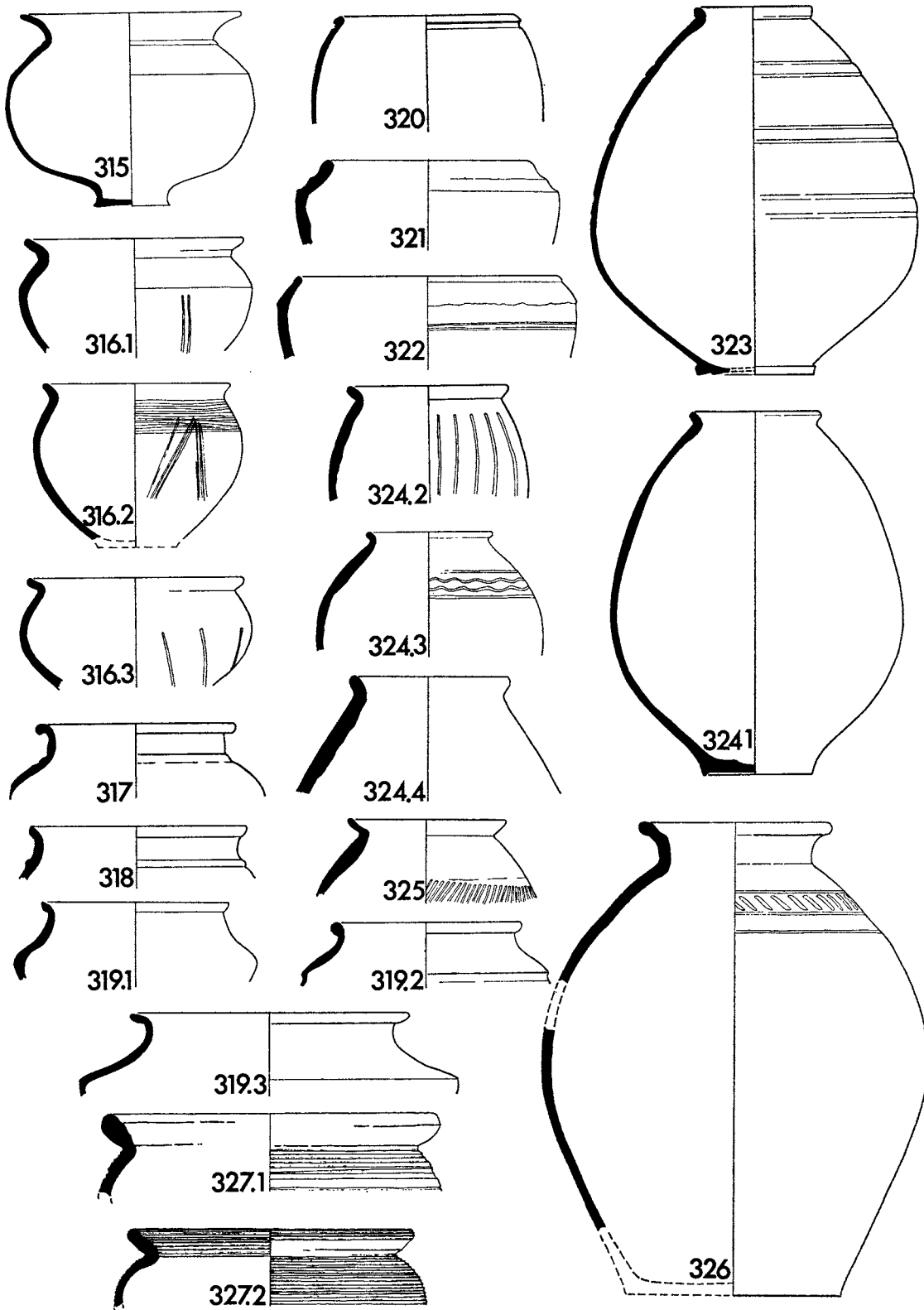


FIG. 115. Pottery types: scale $\frac{1}{4}$ (pp. 237-40)

Type 320. Jar with tightly moulded bead rim

One example only in a hard, fine red ware. Late first to early second century.

Types 321-2. Carinated jars with bead rims

The distinctions made here between the two types is based on the tightness of the profile and the quality of the ware. Five vessels of this general category were recovered from second- to third-century deposits.

Type 323. Pear-shaped jar with narrow beaded lip

Only one vessel of this type is known, in a hard finely-made grey fabric. The vessel was found in destruction levels in the North Wing and must therefore have been in use at the end of the third century.

Type 324. Wide-bodied jars with narrow mouths and simple lips

Normally the ware is grey and sandy and less well made than type 323. There is a variation in form. Sixteen are known from late second- to early third-century contexts.

Type 325. Narrow-mouthed jar with cupped rim

One only in hard grey ware with traces of lighter grey slip. Not closely dated but probably late first to early second century.

Type 326. Ovoid jars with narrow-necked mouths

Only four vessels certainly belong to this type but a large number of unclassified rim fragments may belong to similar forms; with small sherds it is impossible to be sure. The type is used throughout the second century. Fabric: hard, grey sandy ware.

Type 327. Everted-rim jars with rilled bodies

Sometimes, as in the case of 327.2, the rilling extends to the rim. Two are known, both in a grey sandy ware. Second century.

Types 328-32. Everted-rim jars

Five types of everted-rim jars are defined here. All are in a black or dark grey sandy ware with a finely burnished surface which is left roughened behind the zone of lattice decoration. The decoration is usually restricted to a narrow zone across the widest part of the body, but in the case of type 331 the whole body is ornamented. These types were all in use before the destruction of the building in the late third century, the latest vessels being nos. 329 and 330.1, which were both found within the destruction rubble of the North Wing. Type 328 occurs five times; type 329 occurs eighty-nine times before the late third-century destruction and continues afterwards (type 385); type 330 is known from only two examples; types 331-2 occur sixty-three times. Chronologically types 331-2 are the earliest, appearing first in the early part of the second century; types 328 and 330 do not appear before the early part of the century and continue apparently uninterrupted into the fourth century. Type 329, with its widely flaring rim, makes its appearance before the last quarter of the third century and continues into the fourth century, eventually replacing type 328.

Type 333. Large bead-rimmed storage jars

Two only in dark grey sandy ware. Late first to early second century.

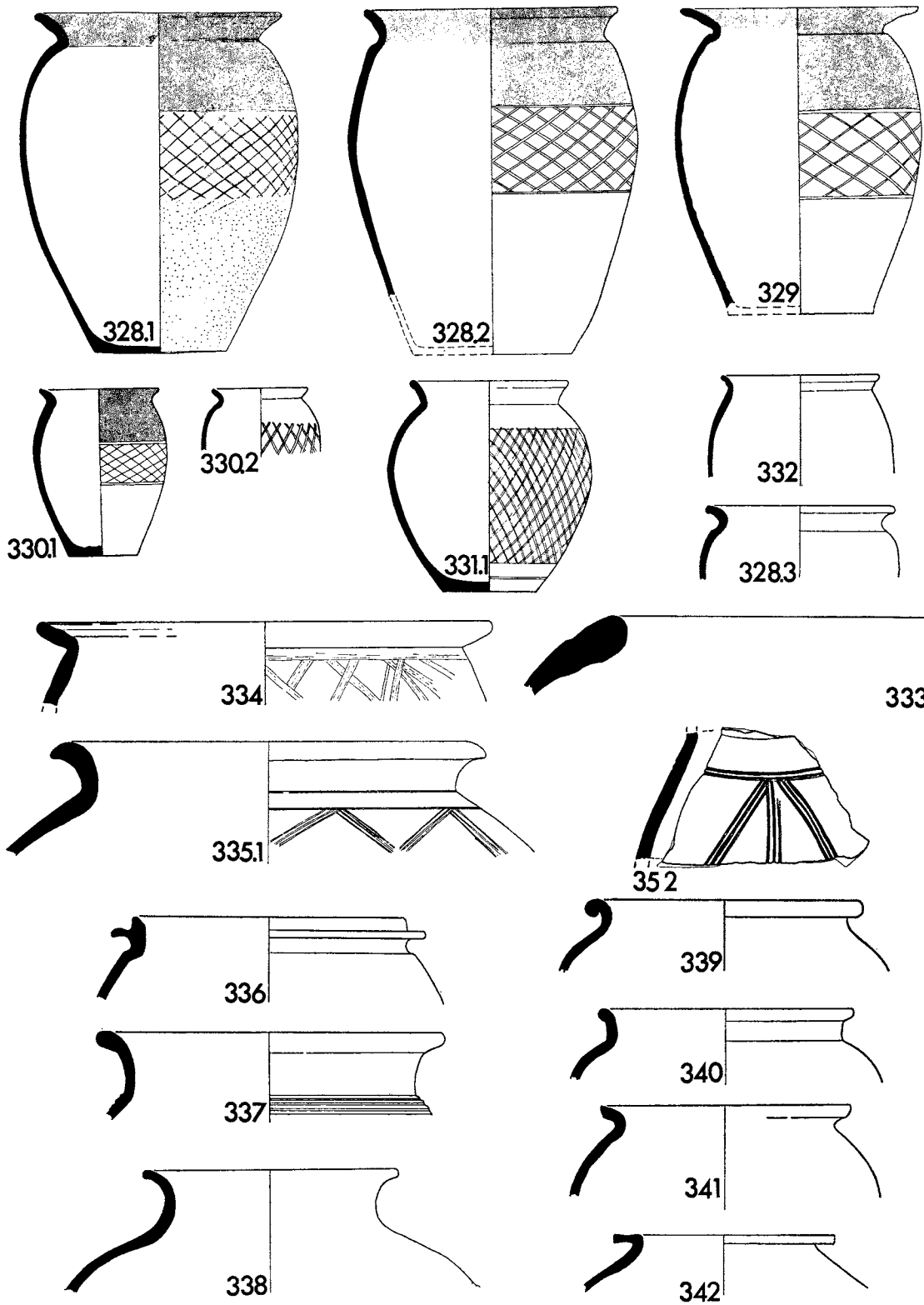


FIG. 116. Pottery types: scale $\frac{1}{4}$ (pp. 240-2)

Type 334. Large jar with reeded rim

One only in grey sandy ware. Late first century.

Type 335. Storage jars with everted rims

Four are known in grey sandy ware from late second- to third-century contexts.

Type 336. Jar with flanged rim

One only in a hard grey ware with a lighter grey surface slip. Uncertain date, but probably third century.

Type 337. Jar with high neck

One only in soft, grey sandy ware. Mid to late third century.

Type 338. Jars with high collared rims

About four from third-century contexts. Fabric is a grey sandy ware.

Types 339-42. Simple jars

This category includes simple jars of generalized characteristics, all of which originated in the pre-Flavian period and continued in use throughout the second and early third centuries. All are in grey sandy ware. Totals are difficult to estimate with precision, but altogether at least 390 are known in post-75 A.D. contexts.

POTTERY FROM THE PERIOD OF ROBBING, LATE THIRD TO EARLY FOURTH CENTURY

Soon after the destruction of the building the systematic robbing of its walls began, the workers apparently living in the north end of the East Wing where a considerable amount of rubbish accumulated, yielding the large part of the late material illustrated here. Elsewhere late pottery has been recovered from the robber trenches themselves, but in much smaller quantities. On the basis of the stratified coins the robbing was largely over by the end of the third century.

BOWLS AND DISHES

Type 343. Bowl with flat-topped rim

Develops from type 225. Known in dark grey sandy ware.

Type 344. Bowl with heavy flanged rim

A version of the earlier type 217. One only in grey sandy ware.

Type 345. Wide carinated bowls

Only two are known, both in a hard white fabric with horizontal bands of black slip painted inside and out. ? Oxford kiln product.

Type 346. Flanged hemispherical bowl

One only in a hard buff ware with dabs of brown paint on the flange. ? Oxford kiln product.

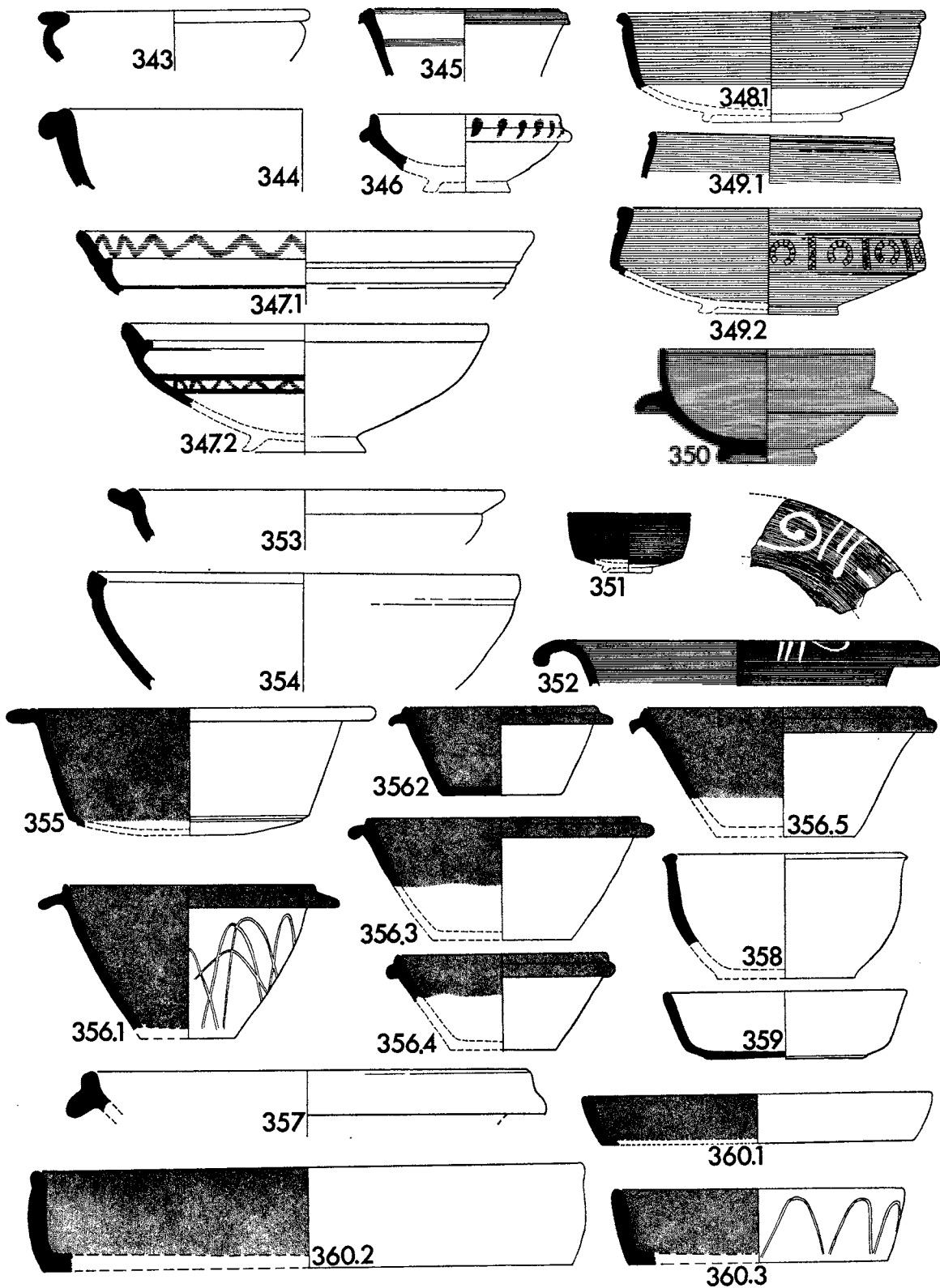


FIG. 117. Pottery types: scale $\frac{1}{4}$ (pp. 242-5)

Type 347. Hemispherical bowls with internal flange

Eight are known, all from late third- to early fourth-century contexts. The fabric is hard sandy and white, and the vessels are decorated inside with a reddish-brown paint. Produced in the New Forest kilns.

Type 348. Colour-coated bowls with simple beaded lips

A number of variants are known, but here they are classed together as one type. The ware is a fine pinkish colour and the surfaces are coated with a good red colour-coat. Nine are recorded. This particular fabric and form is probably a New Forest product.

Type 349. Colour-coated bowls with complex lips

Generally vessels in this category are stamped with various kinds of decoration. The ware is hard red and the surfaces are coated with a deep red or reddish-brown colour-coat. Seven are known. Probably from the Oxford kilns.

Type 350. Colour-coated hemispherical flanged bowls

Sixteen are known, all in a pinkish ware with an orange-red colour-coat. Probably a New Forest product.

Type 351. Colour-coated cups

Three are known. Hard metallic grey ware with a dark brown or purple-brown colour-coat. Made in the New Forest.

Type 352. Wide-mouthed colour-coated bowl

One only in a red ware with a grey core. The surfaces are coated with a red colour-coat and the flange is painted with a simple design in pinkish-white. A New Forest product.

Type 353. Wide-mouthed flanged bowl

Similar to type 246. One only in a pinkish sandy ware.

Type 354. Wide-mouthed hemispherical bowl

One only in hard grey ware.

Type 355. Flanged bowls with low beads

Similar to type 220. Fifteen are known in late contexts; all are in a black sandy fabric with smoothed outer surface.

Type 356. Flanged bowls with high beads

The type appears first at Fishbourne after the middle of the third century (type 247), but does not become common until the last quarter of the century. Seventy-six are recorded from contexts post-dating the destruction. All are in a dark grey or black sandy ware, often burnished internally and on the rim and flange.

Type 357. Large flanged bowl with high bead

In a hard white sandy ware. One only. Possibly a New Forest product.

Type 358. Bowl with a T-sectioned rim

One only in grey sandy ware.

Type 359. Dishes with simple foot-rings

Two examples, both in a dark grey sandy ware with a darker grey surface.

Type 360. Straight-sided dishes

A common type exhibiting certain variety of form and size but all in a dark grey or black sandy ware burnished inside. The type appears earlier in the third century but remains in common use after the destruction. 112 occur before the fire, seventy-seven are known after.

MORTARIA

Type 361. Mortaria with horizontal flanges and high beads

In hard, white sandy ware with crushed flint grits. Frequently the flange is scored with a wavy decoration. Six are known. Made in the New Forest kilns.

Type 362. Mortaria with a heavy squat flanges and high beads

In pinkish sandy ware with ? quartz grits. Five examples are recorded.

Type 363. Mortarium with drooping flange and high bead

This is similar in type to 285, but it is in a hard buff ware with flint grits. One only.

Type 364. Mortarium with hooked-down flange

Similar in type to 363, in a red ware with a pale buff slip. The grits are quartz. One only from post-destruction level. Oxford kiln type.

Type 365. Wall-sided mortaria

In grey or buff ware, often with flint grits. Three are known.

Type 366. Colour-coated wall-sided mortaria

The ware is fired to a hard red colour. The surface is coated with an even red colour-coat. Quartz grits. Two are known. Probably from the Oxford kilns.

BEAKERS AND BOTTLES

Type 367. Indented beakers

The type varies in detail but the general characteristics are the same. Two classes of ware are apparent: (a) a grey or buff fabric with a brown-black colour-coat; (b) a hard grey metallic ware with a glossy purple colour-coat. Both were made in the New Forest. Of class (a) thirty-two individual vessels are represented, of which fourteen came from layers pre-dating the destruction. Vessels in class (b) were occur thirty-nine times (twelve before the destruction). This type appears on the site first in the third quarter of the third century. There appears to be no chronological difference between the two different fabrics. Some are decorated with white-painted designs.

Type 368. Colour-coated beakers with incised decoration

Two fragments only of this type, in hard grey ware with glossy purple colour-coat. New Forest in origin.

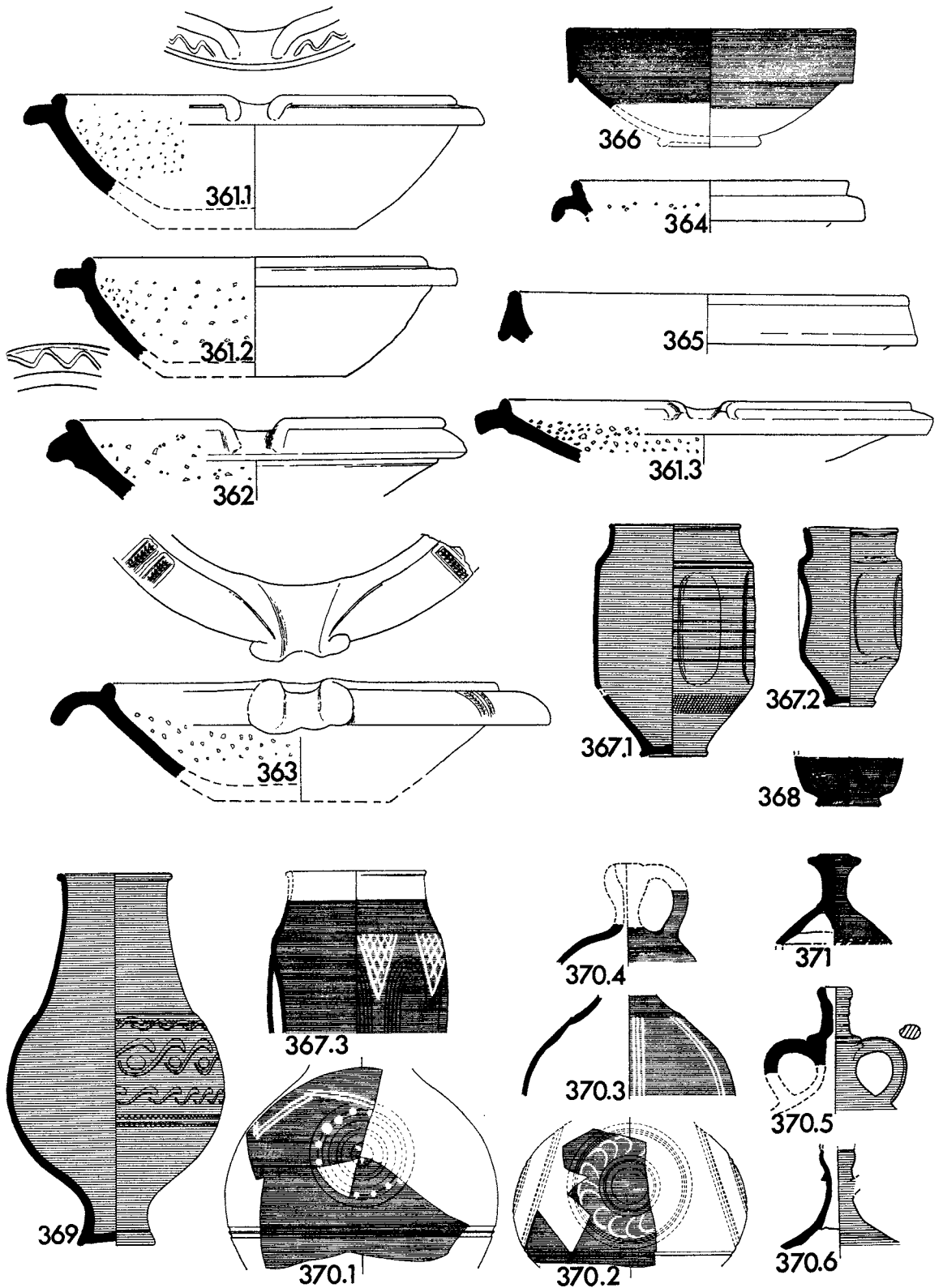


FIG. 118. Pottery types: scale $\frac{1}{4}$ (pp. 245-7)

Type 369. Colour-coated beakers with barbotine decoration

Two only in a hard red ware with a red-brown colour-coat. Probably made in the Oxford region.

Type 370. Bottles with nozzle mouths

Large globular bottles with narrow necks and nozzle-shaped mouths. There may be one, two or four handles below the nozzle. The bodies are usually decorated either with white painting or with a combination of white painting and excised roundels. The ware may be hard and grey with a purple colour-coat or grey-buff with a red-brown colour-coat (except 370.6, which is in a hard buff ware). Eight are known. All made in the New Forest.

Type 371. Straight-sided bottle

Only one example in hard grey ware with purple-brown colour-coat and white-painted design on the side. Made in the New Forest.

FLAGONS

Type 372. Flagon with fine ring-neck

One only in a fine, hard pinkish-white ware.

Type 373. Flagons with thickened rims

Five are known. 373.1 in a buff ware; 373.2 in a hard pinkish sandy.

Type 374. Flagon with flanged rim

One only in a dark grey sandy ware.

Type 375. Flagon with wall-sided rim

One only in hard pink sandy ware.

Type 376. Colour-coated flagon

One only in a fine red ware with a crimson-red colour-coat. A New Forest product.

Type 377. Flagon with beaded lip

Develops from type 309. One only in grey sandy ware, probably a New Forest type.

Type 378. Flagon with rolled lip

One only in hard grey ware. The neck is decorated with a shallow burnished zig-zag line.

JARS

Type 379. Bead-rim jar with two handles

One example of this type is known. In a hard grey ware with traces of a white external slip decorated with a burnished lattice which is now barely visible.

Type 380. Small jar or unguent pot

This is a New Forest product in a white sandy ware. Only one has been found.

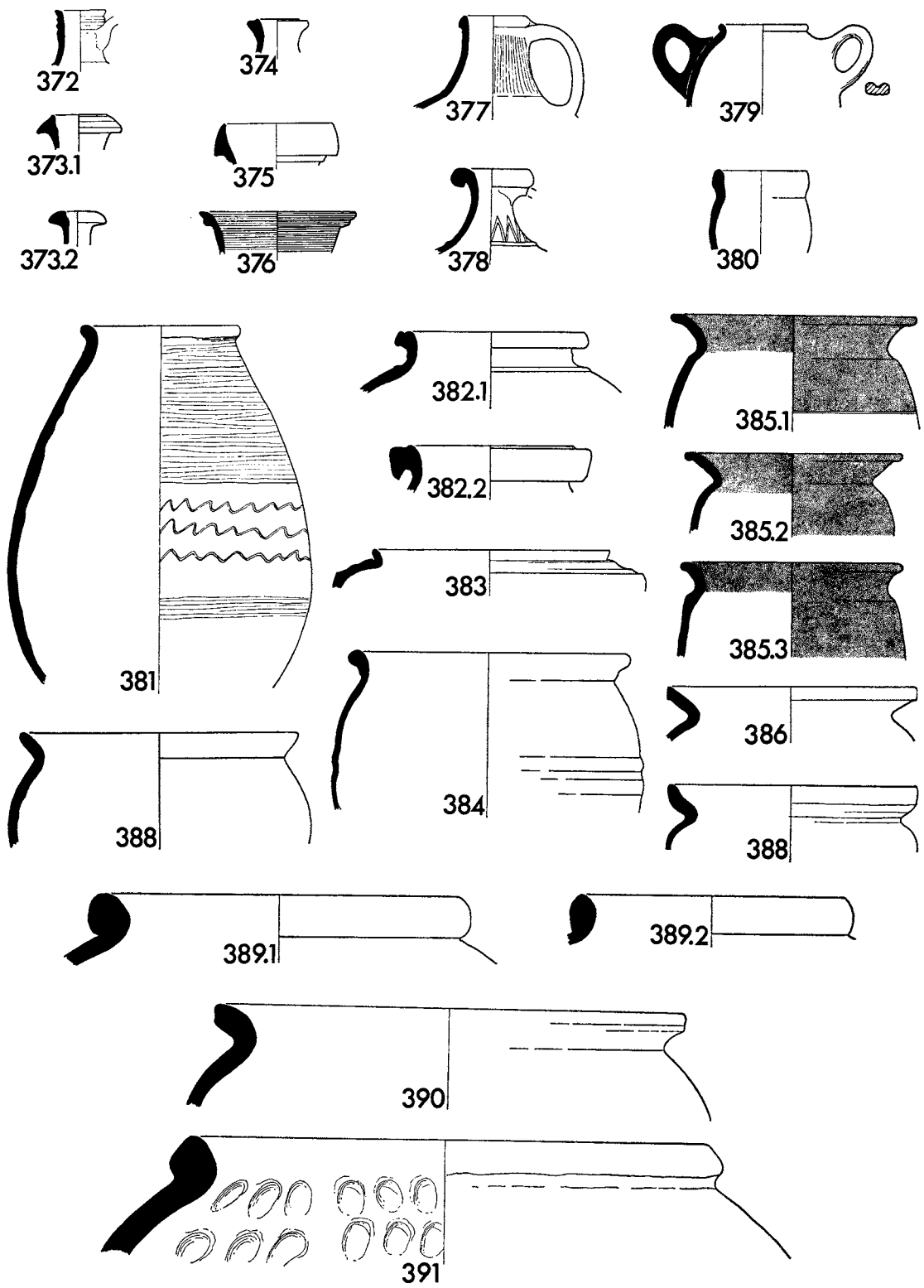


FIG. 119. Pottery types: scale $\frac{1}{4}$ (pp. 247-9)

Type 381. Pear-shaped jar

The type develops from types 323-4. The illustrated vessel, in a hard grey ware, is the only example from post-destruction levels.

Type 382. Necked jars with heavy lips

In a hard grey ware with a lighter grey surface. Three are known in post-destruction contexts.

Type 383. Carinated jars with beaded rims

In a hard grey ware with a pale grey surface slip. Five are known.

Type 384. Wide-mouthed jar with girth cordons

In grey ware with a darker grey surface slip. One only.

Type 385. Jars with everted rims

Strictly these are the same as types 328-9, continuing into the late third or early fourth century. The quantities have been given under that type description.

Type 386. Jars with vertically flattened everted rims

In a grey sandy ware. Eighteen are known from post-destruction levels.

Type 387. Jar with hollowed rim

One only in grey sandy ware.

Type 388. Jar with sharply everted rim

The jar is strictly a continuation of types 313 into the late third and early fourth centuries. For quantities see under that type description.

Type 389. Bead-rim storage jars

In grey sandy fabrics. Four are known from post-destruction levels.

Type 390. Everted-rim storage jars

In various grey sandy wares. Six are recorded in mid third-century contexts, and two in post-destruction levels.

Type 391. Large storage jars with internal finger-impressions

In grey sandy ware. Common throughout the second to fourth centuries. Fifteen known before destruction, two afterwards.

GENERAL SURVEY OF THE COARSE WARES

The simplified type series offered above together with the numerical assessment of each type provide primary data from which it is possible to derive certain generalizations relevant to the economy and social status of the site in particular and to the development of the ceramic industry in general. It should, however, be stressed that, while it is essential to attempt such an assessment on all sites producing a reasonable quantity of material, the figures themselves cannot always be relied upon to be highly accurate. In the case of Fishbourne all recognizable rims have been quantified but the rims of some types are more easily

recognized than others. Similarly while joining rim fragments from each group have been counted as one, thus reducing the figures more towards the actual number of vessels present, no attempt has been made to search systematically for joins between vessels found on different parts of the site in different years of the excavation. The rewards of such a task could hardly repay the immense effort required. Nevertheless, the figures can be used for comparison relative to each other for, in general, each vessel tends to break into an *approximately* equal number of rim sherds.

A more serious shortcoming is that the samples from each of the three major groupings did not necessarily accumulate under the same conditions nor are they of equal size. It should also be remembered that sealed occupation layers of A.D. 75-100 are few and there can be little doubt that during this time rubbish was being removed from the vicinity of the Palace to beyond the present limit of excavation. Similar factors were probably at work at the very beginning of the occupation, *c.* A.D. 43-5. Clearly therefore, the discussion cannot rely upon too close an assessment of each period, but if we consider the material in terms of the three broad groupings in which the type series is arranged, *i.e.* *c.* A.D. 43-75, *c.* A.D. 75-280, *c.* A.D. 280-300, most of the difficulties are overcome, minor irregularities recede and the broad pattern comes more sharply into focus.

Changes in the basic categories

The histogram (fig. 120) summarizes the relative number of the different classes of vessels present in different periods. Several interesting points emerge. In both Period 1 and 2-3 the platters, amphorae, beakers, flagons and mortars occur in approximately equal quantities and in the same relative proportions, but there are wide variations when the dish/bowl groups and the jar types are compared. Dishes, an insignificant type in the pre-65 period, became far more widely used in the second and third centuries when a wide variety of types are produced in practically every manufacturing centre. This must surely represent a change in table habits or in the methods of cooking (since the later dishes served both functions), which would appear to apply generally to the country and not just to Fishbourne. Similarly the bowl type, used primarily for cooking in the First Period, increases notably in the second and third centuries in both quantity and variety. Exactly what these raw figures imply cannot be known until much more comparative material is available from elsewhere in the country. The variations present in the jar types, mainly the absence of the bead-rim jar later and the greater variety among the second- and third-century jar forms, is probably due to the general decline in local pottery after the first century and the greater dependence on types brought to local markets from further afield. These points will be returned to below.

There is little to be said about the late third-century material. Quantities are not great but in general a higher preponderance of non-local wares is present.

The sources of the pottery

Period I

The native, pre-Roman, pottery of the region is now generally well known from sites such as Park Brow, Broadwater, and the various Chalton settlements (although much of the material is still unpublished). The basic types commonly in use consisted of the ovoid bead-

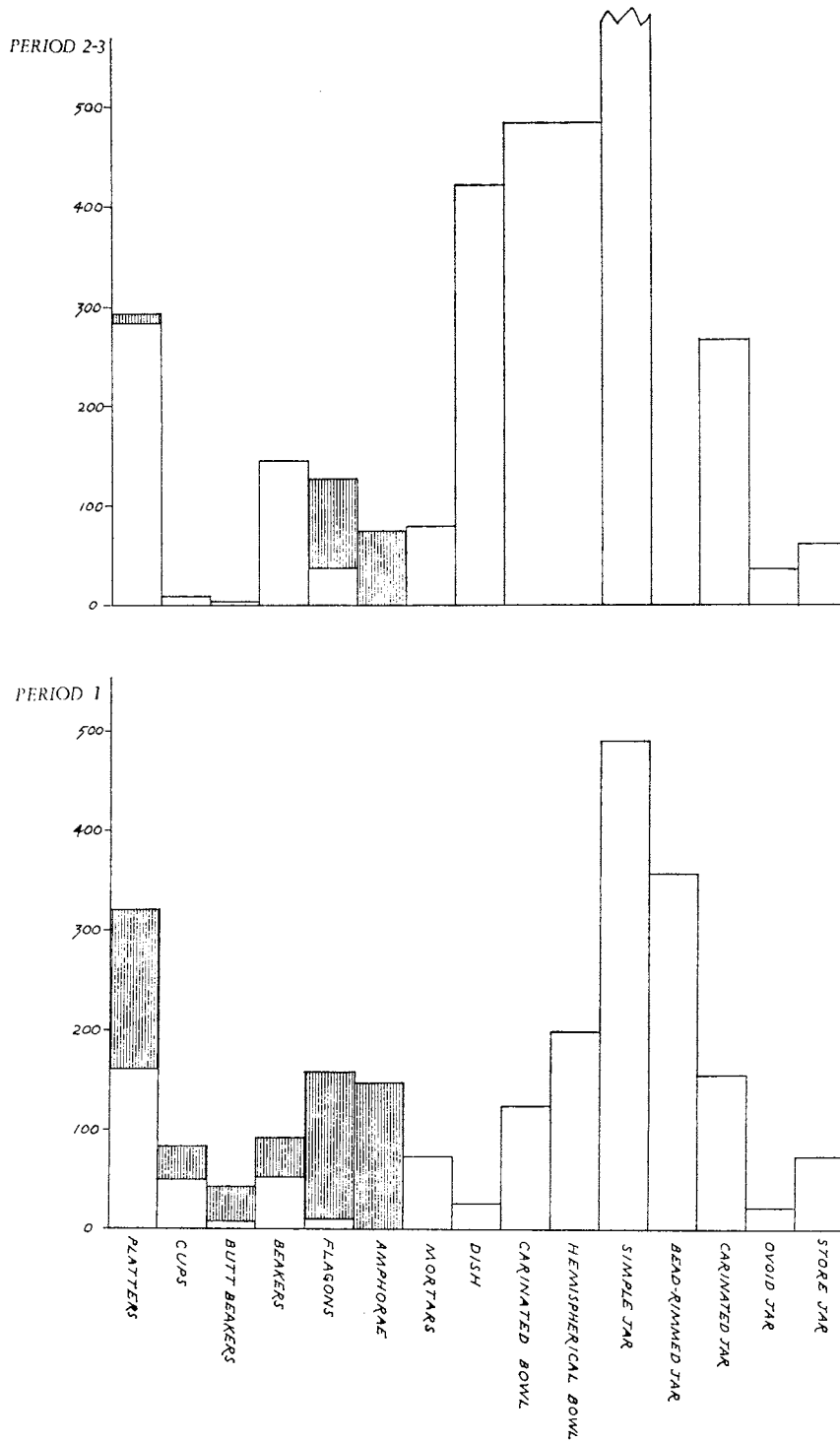


FIG. 120. Occurrence of various pottery types. The shaded areas represent imports (pp. 250 ff.)

rim jar, the simple jar with short neck and outbeaded rim and a variety of shouldered bowls often with carinations at the junctions of the neck and shoulder and on the angle of the shoulder itself. These types persist well into the first century and are represented at Fishbourne by types 166-9, 161 and 180-5. It will be seen that they constitute a high percentage of the Period 1 pottery and indeed the carinated and shouldered bowls continue in use well into the second century. The necked jars also continue, but in a series of modified forms, while the bead-rim jar dies out altogether.

The introduction of imported Roman types, whether from non-local British markets or from the continent, offered a number of new prototypes for the local potters to copy. Gallo-Belgic platters are widely imitated as are the *terra nigra* and *terra rubra* cups. The samian form 27 is copied in considerable numbers, and butt and girth beakers are also locally made. Distinctive forms of local flagons and jugs appear in the First Period and continue into the second century (types 130-3) and a simple mortarium of probable local manufacture also turns up (types 100-41). Thus it may be said that all the major imported types, except the amphora, are echoed by copies produced locally, probably for the Chichester/Fishbourne market.

The Roman way of life, and more particularly new culinary and eating habits, created new demands for vessels not already in the local repertoire and too coarse to warrant large-scale importation. The large hemispherical cooking bowls with reeded rims (types 86-92) are a good example of a response to such a need. The type is found widely in Britain in first-century contexts, but some of the Fishbourne examples are of distinctive local wares. A peculiarly local type of carinated bowl (types 81-5) also appears for the first time after the conquest in local fabrics, presumably to serve much the same function as the hemispherical vessels.

It is evident therefore, that three elements are interwoven among the First-Period pottery: the continuing native tradition, the copying of imported types and the production of new specialized types. Much of the Fishbourne pottery belonging to these categories is so similar in fabric that there can be little doubt of its local production. Unfortunately no kilns of the period are known within a 25-mile radius, with the exception of the kiln near Shedfield (Cunliffe, 1961), which does not seem to have been a major contributor to the Chichester region. Nevertheless, it is possible to recognize several distinctive categories which may be the output of individual manufacturing centres; these may be listed as follows:

Group A 1. A grey-fired, slightly sandy ware with inclusions, sometimes quite large, of iron oxide (see p. 256). In this fabric are made types 14, 15, 48, 49, 51, 63, 81, 130, 161, 166, 167, 180, 181 and several of the lids. Clearly the single centre was producing a wide range of vessels suitable for the general needs of the market. In date they are restricted to the pre-Flavian period, in distribution to the West Sussex coastal plain.

Group A 2. The fabric has many similarities to A 1, particularly in that it contains fragments of iron oxide, but the vessels were always fired in an oxidizing atmosphere, giving rise to a buff or sometimes red finish. The types include 20, 50, 79, 86-9, 98, 99 and 141. They were probably made in the same centre as group A 1. The date range and distribution are identical.

Group B 1. Hard-fired bluish-grey sandy ware, often with a very thin and discontinuous slip fired to a reddish colour. The types are restricted to 130-3, 161, 181 in Period 1 contexts,

but they evidently continued to be produced into Period 2-3. The group will be considered again below in Periods 2-3, when the products of the centre became more common.

Group C. A very fine grey-red micaceous ware with a polished black micaceous surface. The forms, restricted to bowls and beakers, include types 47 and 66-72, of which 22 per cent came from late first-century contexts after A.D. 75, and type 229 which is found mainly in contexts dating to A.D. 75-100. The ware is very distinctive and can be dated at Fishbourne to *c.* A.D. 65-100. Exactly where it was made is not certain, but a concentration in the West Sussex area is suggestive of a relatively local production centre.

In the section to follow (pp. 255-9) Dr Peacock has shown that groups A and B are petrographically indistinguishable, suggesting either that both groups were made in the same kiln centre or that two geographically distinct centres used the same clay band.

In addition to the above groups a wide range of grey sandy wares were found, sometimes in forms closely similar to those made in the fabrics just listed. The generalized nature of their fabrics makes a closer identification of grouping and source impossible at the present time.

The First Period was a time of pottery importation on a large scale, vessels coming both from abroad and from pottery producing centres set up elsewhere in this country. It is often difficult to distinguish between imports proper and competent British copies, but among the former may be listed the Gallo-Belgic platters (types 1, 4-10), bowls (types 32-3), hemispherical cups (types 36-7), Gallo-Belgic cups (types 41-3), lead-glazed beakers (types 44-6), butt and girth beakers (types 61-2), beakers (type 77), many of the flagons particularly type 108, all the amphorae and a large number of the mortars. Vessels probably produced in the east of Britain, probably under direct Roman control, include the Pompeian red platters (types 2, 3), the tazzas (types 29, 30), the 'Camulodunum' butt beakers (type 60), the various beakers with applied decoration (types 73-6) as well as many of the flagon and mortaria types.

The number of 'imports' at Fishbourne in the early period is considerable. It is a reflection both of the relative wealth of the community and of the primitive nature of the contemporary local production centres which at this time were incapable of supplying a luxury market.

Periods 2 and 3

The pottery from the occupation layers of the second and third centuries demonstrates the growth of the large factory centres whose pottery output was gradually stifling the local small-scale potters and at the same time was rendering the import industry (except for the products of the Gaulish samian kilns) largely superfluous. The growth of these centres was the direct result of improved technical competence, to suit the products to the luxury markets, and the better marketing of the output through the towns, which by now had become established, and through military contracts. These general trends are clearly reflected in the Fishbourne assemblage.

By the beginning of the second century practically all trace of native pre-Roman types had disappeared, except for the carinated bowls which continued to be made into the late second century or even later. The kilns making group A and C wares had also ceased to function. The group B fabrics, however, flourished and can be divided as follows:

Group B 1 (as above, p. 252). Hard-fired, bluish-grey ware, often with a very thin discontinuous slip fired to a reddish colour. Types 131-3, 161 continue to be made together with the flagon (type 304) and the jar (types 313-14), which usually bears a batch mark high on the shoulder, a very common and characteristic type occurring in large quantities throughout the second and third centuries. Marked lids in similar ware also occur (type 240).

Kilns in the Rowlands Castle valley, just south of the village, appear to be producing vessels of this kind. The distribution is essentially in south-east Hampshire and west Sussex, probably centred on the market of Chichester. Most of the peasant settlements in the region used the ware in quantity.

Group B 2. Hard, well-fired grey ware with a very thin white slip, usually discontinuous. Some of the jars (types 313-14) are made in this ware. Other types include dishes (types 203-4) and bowls (types 209-15). The ware and finish is very similar to group B 1 and in all probability was made in the same centre during the first part of the second century.

The pottery made in the Group B kilns supplied the bulk of the coarse ware throughout the second and third centuries. The remainder, which belongs neither to Group B nor to other known non-local centres, may possibly have been locally made but a general lack of homogeneity points to a variety of origins.

Imported vessels from the continent are by now few in number. Amphorae continue to arrive, but for their contents rather than their own usefulness; a few mortaria and flagons may also be of foreign origin. Other than these, and of course samian, the only certain imports are a few Rhenish beakers (type 272) and probably the two other exotic beakers (type 277).

From the British kilns the site was now receiving various 'black burnished' dishes (types 201, 217-20), jars (types 328-31), rusticated beakers of uncertain origin (types 265-6), poppy-head beakers probably from the Highgate kilns (types 267-8), Nene Valley beakers (types 269-71), a beaker possibly from the Gloucester kilns (type 274) and mortaria from Colchester, Kent, and possibly Verulamium. Towards the end of the period, beakers from the New Forest kilns made their first appearance.

By the third quarter of the third century it would seem that the number of production centres supplying the site were becoming fewer. While it would be unwise at this stage to generalize on so little evidence, the facts might seem to be the result of the growth of a few larger centres at the expense of the smaller rather than the result of economic factors peculiar to Fishbourne.

The robbing levels, late third to early fourth century

Whether or not the full range of the local group B wares continued to be made into the fourth century is uncertain, but there is no doubt that the jars at least continued to be supplied to the site up to the time of its final destruction.

By the time of the major robbing activity, just before A.D. 300, the site was being supplied from two main centres: the New Forest kilns and the kilns in the Oxford region. From the former came bowls in red colour-coated fabrics (types 348 and 350), the purple-coated cup (type 351), flagons and beakers in colour-coated wares (types 267-8, 270 and 376),

mortaria (types 361 and 366), coarse ware flagons (type 372), brown-painted bowls (types 346 and 347), unguent pots (type 380) and probably flanged dishes (type 356). The Oxford kilns provided red colour-coated bowls (types 348 and 349), brown-painted bowls (type 345), mortaria (types 363 and 364) and possibly beakers (type 369). Little seems to have reached the site from other sources but it must be admitted that the quantity of material from these late levels does not permit detailed analysis.

Summary

Some brief assessment of the Fishbourne pottery has now been given. In general it seems that the site tends to reflect national trends but a rather unusual quantity of exotic imports in the first century may be seen in terms of the high standard of living enjoyed at that time.

The first century saw a considerable reliance on vessels made locally either in the existing native tradition or as a response to Roman needs and imports. By A.D. 75 at least one new local centre had begun production and continued to produce generalized coarse ware types until the fourth century. Large quantities of pots in many varieties were imported from the continent before A.D. 75, but apart from amphorae and samian the continental trade dropped off sharply as British centres began to produce for the luxury markets. These centres, however, decreased in number until, by the fourth century, only two appear to be supplying the site in any quantity.

It would be possible to offer a much closer assessment of the Fishbourne assemblage but in our present state of knowledge, knowing little of stratified groups from Chichester and even less of local manufacturing centres, a more detailed analysis would be of doubtful value, and might indeed be misleading. We must await further advances both locally and nationally.

PETROGRAPHY OF CERTAIN COARSE POTTERY

By DR D. P. S. PEACOCK

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I. INTRODUCTION

Three classes of pottery were submitted for petrographical examination:

- (1) a group of grey sandy wares occurring in a variety of forms;
- (2) a group of fine mica dusted wares; and
- (3) the few sherds of glazed pottery recovered.

The object of this examination was firstly, to decide whether or not the sandy wares form a homogeneous group from a single production centre, secondly, to describe and characterize the different fabrics as precisely as possible to facilitate future comparisons with material from kilns and other sites, and thirdly to attempt an assessment of production areas.

2. MINERALOGY

Sandy wares (Groups A 1, A 2, B 1, B 2)

All the sherds submitted were carefully examined under the binocular microscope (nos. 133, 167.1, 209.1, 209.2, 210.3, 214, 313.3, 313.4, 313.5, 313.6, 313.14, 313.15, 313.16) and seven of these (nos. 167.1, 209.1, 209.2, 214, 313.5, 313.14, 313.16) were studied in more detail in thin section under the petrological microscope.

In the hand specimen the sherds show little variation in colour and they are usually light grey or buffish-grey throughout. In some cases, however, the surfaces are blackened, and in two cases (nos. 209.2, 313.4) the fracture revealed a thin red oxidized zone between the grey core and black surface. The surfaces are usually rough to the touch except where the pot has been burnished or smoothed.

Although the commonest inclusions are grains of quartz, the most characteristic feature of the sherds is lumps of iron ore (up to 3 millimetres across) which are scattered liberally throughout the fabric. These are rounded and very soft, consisting of weakly magnetic, amorphous material, black, dark-brown or rarely red in colour. They may have originally been grains of limonite present in the sand. In some cases they were partly disintegrated when the pot was thrown, leaving dark streaks on the surface.

Examination in thin section shows that the sand present in this pottery consists predominantly of discrete grains of quartz, with some polycrystalline quartz and occasional grains of plagioclase feldspar and chert. The clay matrix surrounding the sand is usually optically anisotropic, though in one instance (no. 209.1) it is isotropic. This suggests that the firing temperature rarely exceeded 850°C., since at this point clay minerals are believed to break down, producing new isotropic minerals.

Heavy mineral analyses (Peacock, 1967), were carried out on three sherds (nos. 133, 209.1, 313.5), but this approach was hindered by the iron ores which flooded the residues. To obtain a satisfactory concentration of non-opaque minerals, it would be necessary to crush an excessive amount of pottery and then carry out a separation process to remove the opaque minerals. However, although it was not possible to recover satisfactory quantitative data the presence of the following non-opaque minerals was recorded: zircon, rutile, kyanite, tourmaline, andalusite.

Mica dusted wares (group C)

The five vessels submitted (nos. 50.6, 66.2, 67.1, 67.3, 274) were examined under the binocular microscope and one of them (no. 66.2) was examined in thin section.

The vessels which appear to be similar are in a fine smooth reddish-buff fabric with a grey core and usually with black or sometimes reddened surfaces showing many minute flecks of mica. In thin section the pottery consists of optically anisotropic clay with a scatter of fine quartz grains and occasional small flecks of white mica. The ware was too fine for heavy mineral analysis.

Glazed ware

This pottery has a fine pale reddish-buff or off-white fabric with a yellowish-green glaze on the surfaces.

One sherd was examined in thin section and it consists of quartz grains in an optically anisotropic clay matrix.

The quantity of pottery available was insufficient to permit heavy mineral analysis.

3. TEXTURAL ANALYSIS

Although the prominence of iron ores in the sandy wares gives some grounds for believing that the vessels form a homogeneous group, the evidence is by no means conclusive since all the materials present in the pots are commonplace. Similarly, neither of the other two groups can be regarded as adequately characterized on the basis of mineralogy.

The wares from Fishbourne thus present a considerable problem, and one that is common to much of the Roman and medieval pottery in this country. One approach might be to attempt differentiation of the products of different centres, on the chemical composition of the clays (see e.g. Richards, 1960; Hartley and Richards, 1965), but an alternative might be to consider differences in *texture*: the percentage of inclusions in the clay, their roundness, sphericity and size distribution. This approach has been applied to the pottery under consideration here, but since it represents only the first steps in this virtually untouched field, the results are published with the proviso that future experience may necessitate revision of both methods and findings. Archaeologists have long observed and described the differences between fabrics from different kilns and production centres (often in terms of subjective qualities such as 'feel') and the present approach is merely an attempt to isolate and define the underlying properties and to express them in quantitative terms.

Since, geologically, a pot is essentially a modified sedimentary rock, it seems reasonable to apply the methods of textural analysis used by sedimentologists. However, there seems little point in determining textural parameters with great precision since there is bound to be considerable variance within any group of pots: no natural formation is entirely homogeneous and in addition we have to take into account the effects of differing manipulation of the raw materials. In view of this a series of 'rapid' though not particularly accurate methods have been applied to the pottery thin sections:

- (1) The percentage of inclusions has been estimated by reference to Shvetsov's charts (Terry and Chillingar, 1955);
- (2) Roundness and sphericity have been estimated by the visual methods of Krumbein (1941) and Rittenhouse (1943) respectively;
- (3) Size analysis has been conducted by measuring 50 randomly-selected grains. Pye (1943) has demonstrated that this number is satisfactory for most practical purposes in the study of sediments, and in the present case replicate analyses demonstrated this to be adequate.

The size measurements were grouped into classes based on Krumbein's phi scale (Krumbein, 1938) and their cumulative percentages were plotted on probability paper. The 5th, 16th, 25th, 50th, 75th, 84th and 95th percentiles were read off the graphs and the following parameters were calculated from them using the formulae of Folk and Ward (1957):

- M_z Mean size.
 σ_I Sorting. A measure of the 'spread' of the grains over the different size classes (i.e. standard deviation).
 Sk_I Skewness. A measure of the degree of symmetry of the distribution. A negative skewed curve will have a 'tail' of coarse grains while positive skewness will indicate a 'tail' of fine grains.
 K_G Kurtosis. Measure of the 'peakedness' of the distribution curve.

The results of the textural analysis are summarized in the following table:

Sherd no.	Percentage Inclusions	Roundness	Sphericity	Size Parameters			
				M_z	σ_I	Sk_I	K_G
<i>Sandy wares</i>							
209.2	7	0.4	0.80	2.18	0.67	0.21	0.96
209.1	7	0.5	0.80	2.46	0.85	0.15	1.17
214	10	0.5	0.80	2.08	0.67	0.34	1.11
167.1	10	0.4	0.73	2.44	0.68	-0.04	0.88
313.14	15	0.5	0.78	2.13	0.86	0.30	1.52
313.5	15	0.5	0.75	2.22	0.85	0.28	1.22
313.16	10	0.5	0.77	2.40	0.79	0.34	1.41
Mean value	10.6 ± 3.1	$0.47 \pm .05$	$0.78 \pm .03$	$2.27 \pm .14$	$0.77 \pm .09$	$0.23 \pm .13$	$1.18 \pm .21$
<i>Mica dusted</i>							
66.2	5	0.1	0.83	4.32	0.64	-0.56	0.90
<i>Glazed</i>							
FB 66 319(5)	5	0.3	0.85	3.78	0.73	0.06	0.93

The results of the size analysis may be described in the following verbal terms (mainly after Folk and Ward, 1957):

- M_z The sandy wares all contain fine-grained sand as does the glazed sherd. The mica dusted sherd contains silt-size grains.
- σ_1 All the pots contain moderately sorted inclusions.
- Sk_1 Many of the sandy wares show positive skewness, but no. 167.1 is nearly symmetrical and nos. 214 and 313.16 just fall in the very positive skewed range. The mica-dusted sherd is very negative skewed while the glazed sherd is nearly symmetrical.
- K_G The sandy wares are either meso- or leptokurtic (excessively peaked) but one sherd (no. 167.1) is platykurtic (deficiently peaked). The mica dusted and glazed wares are both platykurtic.

4. CONCLUSIONS

1. There can be little doubt that most of the sandy grey wares come from a single source despite the typological variation within this group. The presence of quantities of iron ores in all the sherds points this way while the broad homogeneity of the textural parameters provides useful confirmation. No. 167.1 might be an exception.
2. The use of textural parameters would seem to be a promising way of characterizing fine and sandy wares. The three groups studied show considerable differences and preliminary tests on various sandy wares from other sites suggest that the method is capable of distinguishing the products of different centres. In view of the results of this preliminary study further development and testing of the method is being carried out, and the results will be published in a forthcoming paper.
3. No evidence about the source of the wares was forthcoming from the present investigation. This was due mainly to the failure of the heavy mineral analysis to produce satisfactory results.

The Samian Pottery

By G. B. DANNELL¹

INTRODUCTION

IN the section to follow the various categories of samian ware are considered separately, with general comments appended to emphasize the chronological significance of the groups in relation to the development of the site. In all cases the stratigraphical positions of the significant sherds are listed, but no attempt has been made to include the great bulk of common types, since they have little to add to the general picture.

Abbreviations commonly used in the descriptive text to follow.

- H&H. C. F. C. Hawkes and M. R. Hull, *Camulodunum* (Oxford, 1947).
K19. R. Knorr, *Töpfer und Fabriken verzierter Terra-Sigillata des ersten Jahrhunderts* (Stuttgart, 1919).
K52. R. Knorr, *Terra-Sigillata-Gefässe des ersten Jahrhunderts mit Töpfernamen* (Stuttgart, 1952).
O. F. Oswald, *Index of Figure Types on Terra-Sigillata* (Liverpool, 1937).
O&P. F. Oswald and T. D. Pryce, *An Introduction to the Study of Terra Sigillata* (London, 1920).
S&S. J. A. Stanfield and G. Simpson, *Central Gaulish Potters* (London, 1958).

THE 'ARRETINE' ASSEMBLAGE

Illustrated in figs. 121–2 are 33 vessels, together with three stamps which may or may not belong, all of which have characteristics other than those of standard South Gaulish ware. Another stamp, which is uncertain, is not shown. The pottery appears to fall quite naturally into three groups:

- (a) Those pieces likely to be of Italianate origin. The criteria adopted are yellow/orange fabric and brown/orange slip, often thin and worn, matt.
- (b) The 'Ateius' fabric, being that common to three of the stamps and the pedestal (nos. 1 A, 1 C, 2 A, 3 A). Here the criteria are a fine pink fabric, a little soft, and an orange/brown slip, smooth and often glossy.
- (c) 'Proto-South Gaulish'. The criteria are a fine pink fabric, but the slip is light brown, very smooth and glossy. Sometimes the fabric comes out almost white, but the slip seems invariable.

Within the groups are variations: for example the ATEIVS plate, form 17 (no. 32) is quite unlike the mainstream, being uniquely dark slipped with a distinct purplish tinge; at the

¹ Mr B. Hartley, F.S.A., provided a detailed report on the samian stamps upon which the comments offered here are based. Thanks are due to him for use of the material which he has amassed for his new edition of Oswald's work.

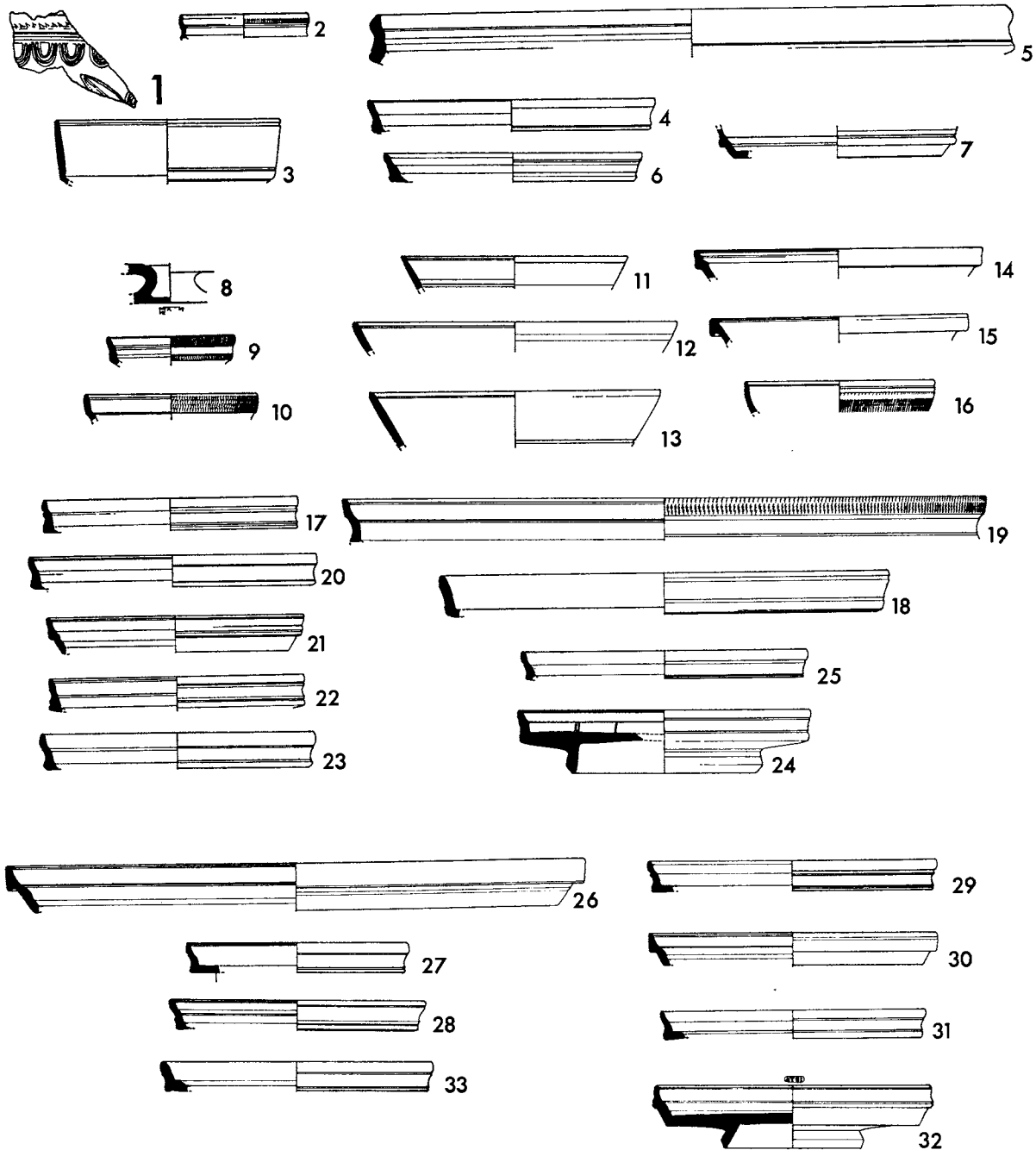


FIG. 121. Arretine ware: scale $\frac{1}{4}$ except no. 1, $\frac{1}{2}$ (pp. 260-4)

same time parts taken from various portions of different vessels tend to show a range of slip effects. All judgements in such circumstances are subjective, but in general the groupings seem to hold good. Fifteen of the pieces come from Period 1 contexts: one from 1 A, three from 1 B floor levels and the rest from 1 B occupation. The other 22 are assigned on that basis to a Period 1 origin.

A breakdown of the vessels into forms, according to the fabric group gives the following:

(a) Italianate. Seven vessels:

1. Drag. 11
2. Ritt. 5
3. Ritt. 9
- 4-7. Drag. 17 types.

(b) ATEIVS type. Nineteen vessels:

8. Pedestal base
- 9-10. Ritt. 5
- 11-13. Drag. 33
- 14-15. Loeschcke 1a/1b
16. Loeschcke 11
- 17-25. Drag. 17

Plus three stamps on Ritt. 5 (fig. 122, nos. 1 A, 1 C, 2 A).

(c) Proto-South Gaulish. Six vessels:

26. Loeschcke 1 A
- 27-30. Drag. 17
31. Drag. 15/17

(d) Miscellaneous. Two vessels:

32. Drag. 17 stamped ATEI
33. Drag. 15/17 (dull biscuit fabric, coarse, slip vermilion, matt).

An immediate comparison with the material from Camulodunum is revealing. There, the authors adopted the premise that pottery with the characteristics described above, and called by them 'Arretine' (H&H., p. 180), belonged almost exclusively to the pre-conquest period (*op. cit.*, pp. 189-91). However, they recognized the difficulties of the evidence, and suggested that Britain was a 'seller's market' for samian in the early years, and that the trickle of 'Arretine' products still coming on the market found a readier sale here than elsewhere, as civilian purchases. The Fishbourne material belies the assertion (cf. *op. cit.*, p. 190, note 3), and much of the 'Arretine' must surely have come with the army. The Camulodunum figure of 250 vessels over 35 years (*ibid.*), must be set against the Fishbourne statistic of 37 in the first year or two, and reference to the small quantity of typologically contemporary South Gaulish importation is made below. A further point worthy of comment is that if Period 1 at Valkenburg is correctly dated to the invasion period (Glasbergen, 1944),

one would expect to find the same sort of series there. However, so far as can be seen, none exists. Among the decorated pottery, there are some very close parallels, but all on early South Gaulish ware. So, if indeed Fishbourne forms a part of a complete strategic concept, which included Valkenburg, the quartermasters drew on differing suppliers for their samian.

Stamps on Arretine ware (fig. 122)

1. (a) > ATE <? Form Ritt. 5. Period 1.
- (b) ATEL. Form 17. Period 1.
- (c) IETA (not illustrated). Form Ritt. 5. Period 3 destruction.

The work of Ateius has received a great deal of attention in the past few years and one of the best reviews of the evidence for the stamps is by B. Hoffman (Hoffman, 1968, particularly pl. 55 and the text to it). It is quite clear that Ateius was working in Italy, and via a fairly extensive organization supplying Roman frontier positions during the first thirty years of the first century. After that the position becomes more obscure, and until recently it was thought that the workshops had ceased around A.D. 30, but evidence, such as that from Camulodunum, gave rise to doubts. At that time, it was thought, the slaves broke up the overall organization, and separated, Crestus for instance migrating to South Gaul. Fishbourne fits one more piece to the jigsaw. It would seem that the firm's connections lasted down to at least the mid-thirties of the first century, to enable their wares to find their way through the military supply channels, and into the invasion messes.

With this in mind, it is as well to look at Hoffman's maps for the Ateius group, and to note the large amount found in the area of the Lower Rhine, and the concentrations in Gaul. There are two ways of going along rivers, and if the basis of the Rhenish predominance is to weight the scales, then it is as well to speculate on the fact that the distribution at present would also serve for sea traffic, and that the various kiln sites proposed, as opposed to the ones now known in Italy, do not automatically follow the Rhenish deposits.

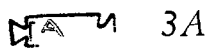


FIG. 122. Stamps on the Arretine ware: scale $\frac{1}{2}$ (p. 263)

The three dies are all in Hoffman (1968): (a) is his no. 42 from Vindonissa, (b) is no. 12 from Augst, and (c), probably his no. 15, again from Vindonissa. What looks like a similar die to (b) comes from Strasbourg (Forrer, 1927, 592 A). Date *c.* A.D. 30-40.

2. (a) CRETI. Ritt. 5. Unstratified.

This die of Crestus, one of the Ateius slaves, has been extremely hard to match exactly. Hoffman (1968) does not have it nor does it appear at Camulodunum, but it must belong to the Ateius group above and be of the same date.

3. (a) Excoriated stamp on pedestal base. Unstratified.

Decorated Arretine (fig. 121, no. 1)

Form Drag. 11

A small piece only of the rim, in fine yellow-orange slip, with light pale fabric. The slip is perhaps tinged more with brown than that of some of the plain ware from the Italianate group, but no one who has seen the piece has had any comment other than 'Italian'. The nearest parallel is the crater from Neuss (Oxé, 1933, Taf. XII, no. 45, attributed to Cn. Ateius. Taf. XX has a similar ovolo, this time on a vessel stamped by Xanthus. The leaf is on a vessel shown by Dragedorff-Watzinger, 1948, 459). Date c. A.D. 30-40.

Plain forms in 'Arretine' fabric (fig. 121)

An examination of the plain forms present at Fishbourne and Camulodunum shows that of the three form Ritt. 5s, two (2 and 9) are very close to H&H., fig. 43, no. 5; the third (10) has a very unusual rim of very simple shape. The Ritt. 9 (3) displays a straight unbeaded lip close to the very early vessel from Haltern (O&P., pl. XXXIX, no. 1). The three Drag. 33s (11-13) are all close in profile to H&H., fig. 43, no. 26. Fishbourne, no. 16, a Loeschcke 11, shows a slightly more decorated rim than H&H., fig. 43, no. 7, but is clearly in the same style.

There are three examples of Loeschcke 1A/1B (14, 15 and 26) which are near respectively to H&H., fig. 42, nos. 6 and 2, and pl. XXXIX, 2B. Of the Drag. 17s there is great variety: no. 30 is close to H&H., fig. 42, no. 6; no. 21 to H&H., fig. 42, no. 9. Nos. 4, 5, 17, 22, 23, 27 and 29 fall into the series H&H., fig. 42, nos. 10 and 12. Nos. 20, 24 and 25 fit with H&H., fig. 42, nos. 13 and 14; no. 6 is close to H&H., fig. 43, no. 11. Most interestingly, no. 19 is the double of the 'unique' vessel H&H., pl. XXXIX, s.3, while no. 28 is not shown in the Camulodunum material, approximating more closely to O&P., pl. XLII, nos. 4, 5 and 7. The stamped vessels, no. 32 and no. 7, both have unusually high external mouldings, half-way up the wall. Finally, no. 18 has an extremely plain rim, and must be counted an oddity. There are two Drag. 15/17s in the group, and no. 31 is shown between H&H., fig. 43, nos. 12 and 20, but no. 33, whose unique fabric was related above, is like O&P., pl. XLII, no. 22.

This close comparison of the forms extends to the fabrics, e.g. H&H., pl. XLI, no. 1, belongs to Fishbourne fabric group C, nos. 5, 7 and 8 to group B, and no. 40 to group A. Moreover, the Fishbourne stamps belong to the firm most widely represented in the Camulodunum material (H&H., p. 193 on ATEIVS, CRESTVS, EVHODVS, XANTHVS and ZOILVS; cf. the detail and references in Hoffman, 1968). The Fishbourne material must now be reconciled with the Camulodunum evidence, and with modern research.

In a recent note Mr Malcolm Todd (Todd, 1968), briefly pointed out that there was evidence from 'Arretine' decorated vessels to indicate that they were produced in the later Claudian period, and indeed have been excavated in Italy from contexts continuing at least into the reign of Nero. At the same time a wide range of Gaulish sites have begun to yield pottery, which in form is of Arretine tradition (e.g. Lezoux, Lyons and the early imitation sigillata from Augst) and additionally, we know but little of the earliest output from the main South Gaulish sites themselves. It is quite feasible that the next few years will unfold a production there of typologically early vessels at a period when comparable Italian production was on the wane (cf. O&P., p. 13), for the 'Proto-South Gaulish' group is as near to early Montans ware as is possible.

What is certain is that the factories of the ATEIVS group were supplying (through the quartermasters?) at a time when hitherto it has been thought that they should have long been in retirement, and this must bring into question the whole basis of the dating for the Camulodunum material. How much of the 'Arretine' material, classed there as residual, is, in fact, stratified *in situ* side by side with its South Gaulish counterpart? Moreover, since ATEIVS seems well established from Arezzo itself (Hoffman, 1968), it is quite possible that his workshops provided the 'Italianate' group too (see p. 67).

EARLY SOUTH GAULISH PLAIN FORMS

(Fig. 123)

Fourteen pieces of typologically early South Gaulish ware are chosen to show the parallel position of the forms, and the fact that there is a definite tendency for this pottery to show later features than the 'Arretine' above.

Of the pieces, one comes from Period 1 A, four from 1 B floors, two from 1 B occupation, four from Period 1 general, and the rest from later contexts as residual material.

34. Drag. 17, similar to H&H., fig. 42, no. 14.
35. Drag. 17, similar to H&H., fig. 42, no. 16.
- 36, 37. Drag. 16, both of the H&H., fig. 42, no. 25, variety.
38. Drag. 15/17, similar to O&P., pl. XLII, no. 8.
- 39, 40. Drag. 15/17, similar to H&H., fig 42, no. 21.
41. Drag. 15/17, similar to O&P., pl. XLII, no. 25.
42. Drag. 15/17, similar to O&P., pl. XLII, no. 20.
43. Drag. 15/17, similar to O&P., pl. XLII, no. 24.
44. Loeschcke 11, approximating to H&H., fig. 43, no. 7.
45. Ritt. 5, simplified, inturned rim, cf. O&P., pl. xxxviii, no. 2.
46. Drag. 24/5 with false spiral handles, cf. O&P., 171-2.
47. Ritt. 5, similar to H&H., fig. 43, no. 4.

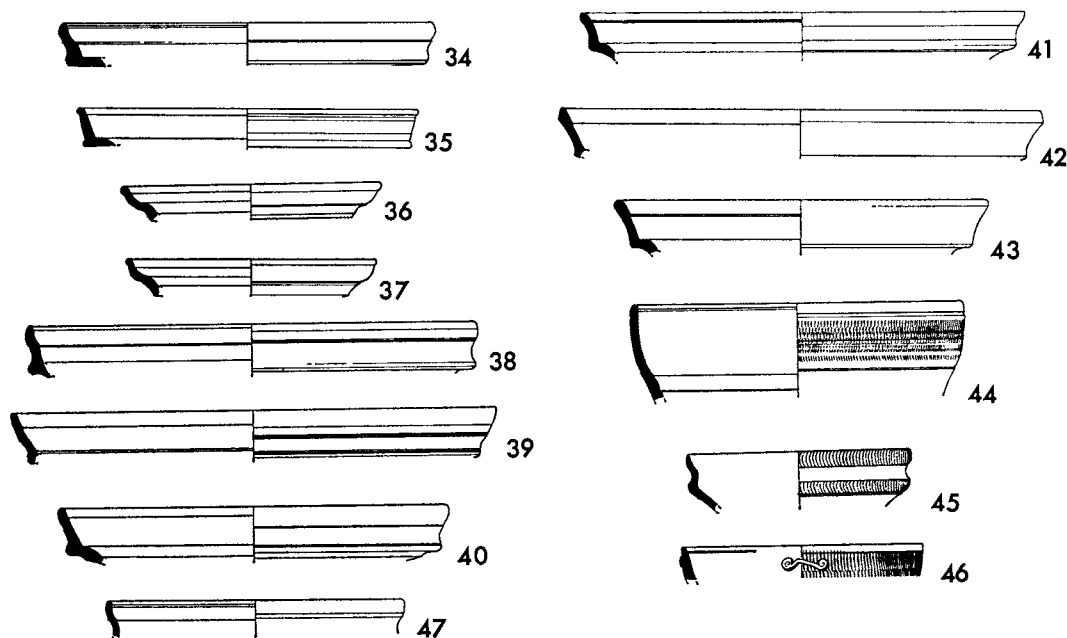


FIG. 123. Early South Gaulish ware: scale $\frac{1}{4}$ (pp. 265-6)

The comparison with the 'Arretine' ware is interesting, since by numbers, these early forms in standard South Gaulish fabric are overshadowed. The next series typologically are the completely regular Claudio-Neronian forms, which have much weakened connections with the 'Arretine', cf. among the stamped vessels, nos. 81 A (Ritt. 9), 73 B (Drag. 24/5) and 59 A and 85 C (Drag. 15/17).

It seems likely that the initial samian brought to the site contained a relatively smaller percentage of South Gaulish ware than might have been expected. These supplies consisting of a mixed bag from late Italian shops, from as yet unidentified factories working in the Italian tradition and from Montans (?), together with a little presumably from La Graufesenque, to judge from the fabric, sufficed for a critical short period. Almost immediately, and undetectably from the stratigraphical evidence at present the demand was taken up by regular La Graufesenque products. This story may well be true at Camulodunum too.

THE FIRST-CENTURY LEZOUX WARE

(Fig. 124)

For a relatively small collection of samian, Fishbourne provides a remarkable series of first-century Lezoux products, remarkable, one must quickly add, for its quantity, not quality.

In addition to the decorated vessels (below, this page), and the stamps of Atepomarus and Capanus (nos. 8 and 19, see pp. 301, 303), seventeen other plain forms are known as individual vessels. Of these (one form 15/17, eleven form 18s, four form 24/5s, and one form 27), some eleven were found in Period 2 construction deposits, and must derive from Period 1 occupation material, from which come nos. 55 and 56.

This group adds to the already certain knowledge that the Lezoux workshops found their outlets in Britain in the south and west, particularly to sites with good sea access, and the traffic must be connected with the Loire estuary. Finds in Britain are discussed by Boon (Boon, 1967, where a useful review of the literature can be found), but he concentrates on the decorated wares, and on the micaceous nature of the fabric. In fact, much of the Fishbourne pottery is not obnoxiously micaceous at all, but exhibits a fairly high gloss with a reasonably hard fabric. The decorated ware is, as usual, the exception, with very soft fabric and flaky slip. Attention is needed here to investigating the kiln types used and the effect of them on large-, as opposed to small-mass pots. There seems to be no basic difference in the preparation, or the clay, but the firing is not so effective.

If we may conclude that the high proportion found in Period 2 construction deposits means that the pottery was present in quantity immediately before, the dating of the majority must run *c.* A.D. 50-75.

Decorated ware

- (a) Form 29. Slip, orange-red, patchy, bright; fabric, orange, coarse.

Upper zone: Simple, open wreath of small palm leaves, with a fronded ornament.

Too little of the design remains to assign amongst the known patterns. The form of the surviving portion with its open spaces is comparable with South Gaulish design of the pre-Claudian period.

- (b) Form 29. Slip, orange-red, patchy, bright; fabric, orange, coarse.

Lower zone: Straight wreath of large leaves with large bifid tendril binding.

Possibly from the same bowl as (a). In the style recognized at present as that of Atepomarus (cf. Oswald, 1937, p. 211, nos. 1 and 3, for upper zone wreath, and 7 and 8, for straight wreaths. The leaves are rather different).

Date *c.* A.D. 45-60

(c) Form 29. Slip, orange-red, poor, thin and patchy; fabric, orange-brown, coarse, micaceous.

Lower zone: Part of a small leaf.

Date *c.* A.D. 50-70?

Plain forms

The forms are not exceptional, apart from the everted 27 (no. 64), and it is interesting to see that form 18, nos. 50, 51, 56 and 59, each have the external offset at the junction of wall and base which is not matched by the corresponding internal offset found on South Gaulish vessels.

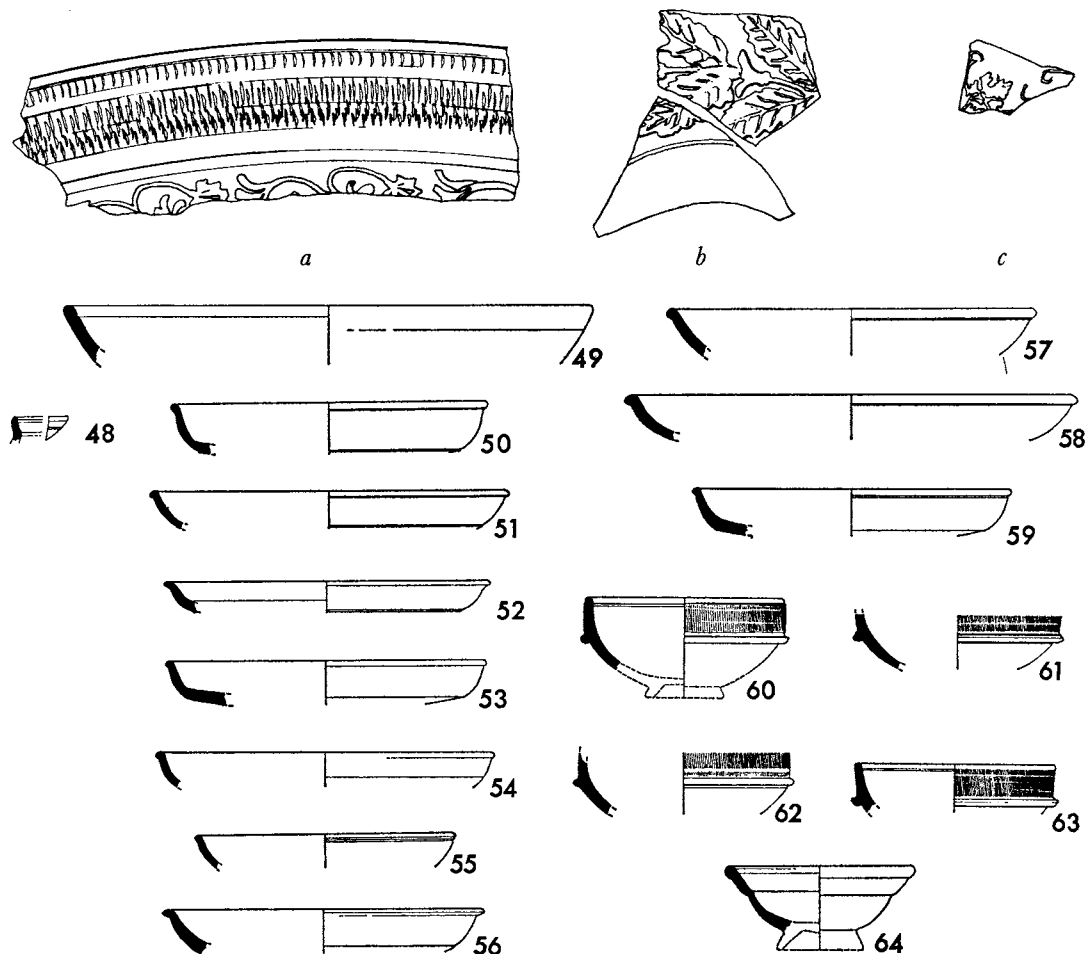


FIG. 124. First-century Lezoux ware: scale $\frac{1}{4}$ for profiles, $\frac{1}{2}$ for decorated sherds (pp. 266-7)

NOTABLE PLAIN FORMS

(Fig. 125)

Few of the plain forms from Fishbourne deserve special mention, with the exception of the following:

1. Platter, cf. O&P., pl. LXVI, no. 4, interestingly enough from Silchester. Probably late Antonine and central Gaulish.

2. Samian colander. A deep bowl, pierced as a colander at the factory. The form is generally like a small 31, the fabric is Central Gaulish and the date Antonine.
3. Form 37 in cut-glass technique. The fabric is so near to the first-century Lezoux that it is tempting to see this as a 'throw-back', some of which do occur there in the Hadrianic period. For the type cf. O&P., pl. LXXV.
4. Screw necked jar, probably from Lezoux, and Antonine in date.



FIG. 125. Plain samian forms: scale $\frac{1}{4}$ (pp. 267-8)

THE LATEST SAMIAN WARE FROM BENEATH THE FLAVIAN PALACE

Typologically, the latest decorated samian from Period 1 forms a homogeneous group with that from the construction levels of Period 2. The form 37s, nos. 19, 20 and 21, from Period 1 are part of the same series as nos. 39 to 43 from Period 2. All belong to the transitional period between the decline of form 29 and the establishment of form 37 with patterns of decoration suitable to its undivided surface. There are close parallels with the Pompeii hoard (cf. text for comparisons of individual vessels), and this must point to a date late in the 70s of the first century for the end of Period 1 and the average levels of construction, which must have been spread over a fairly long period, certainly more than our current precision in dating pottery can detect.

The stamps support this view. The early stamp of Carbonis (20), and stamps of Carillus (21), Felix and Severus (42), Patricius (75b), Pontus (78), Sabinus (84), and Vitalis (96), from Period 1, again compare with Calvus (17), Logirinus (56b), Patricius (75a), Primulus (79), and Severus (90a). Calvus, Felix and Severus, Logirinus, Patricius, Pontus, Severus, and Vitalis, are all among potters making late varieties of form 29, and were all equally probably engaged in marketing the newer, anonymous, form 37. Again, the point of balance represented by the Pompeii hoard comes out.

THE DECORATED SAMIAN WARE

INTRODUCTION

Apart from the Drag. 11 (fig. 121, no. 1), the pedestal base (no. 8) and the three first-century sherds from Lezoux (fig. 124), the rest of the first-century decorated ware forms a standard South Gaulish series, all from La Graufesenque unless otherwise stated.

The early series, connected with the site's military activities produces work assignable to Aquitanus (4 and 7), Daribitus (3), Murranus/Celadus (1, 5, 22 and 24) and the slightly later Labio (6 and 15), Niger (cf. stamp 70) and Primus (12). These compare with stamped vessels of Murranus and Niger from Richborough (Bushe-Fox, 1932), and Primus and Ardacus from the later excavations (Bushe-Fox, 1949), also with Valkenburg (Glasbergen, 1944), Daribitus, Afb. 55, Murranus and Primus, Afb. 57. At the same time there are connections between Fishbourne's nos. 2, 3, 4, 7 and 26 and Valkenburg Afb. 57, no. 3; Afb. 55, no. 1; Afb. 58, no. 2; Afb. 56, no. 10 and Afb. 56, no. 5, respectively. The connections with Camulodunum are noted in the text; suffice it to say that there is considerable evidence of the various establishments connected with the invasion drawing at least their South Gaulish decorated ware from similar sources, although a notable exception is Senicio, whose work cannot be surely seen among the vessels at present assembled from Fishbourne.

The next point of interest is the fairly wide selection of form 37s in the transitional style of decoration, using motifs which had been developed for form 29. Of these, there is no better example than that by Passienus, or at least the mould-maker from whom he purchased (no. 20), where virtually a complete design has been 'lifted'. Reference to the Pompeii hoard, the Welsh forts occupied under Vespasian together with the evidence from the Agricolan forts, tends to confirm that the period *c.* A.D. 75–85 saw the emergence of form 37 as the pre-eminent decorated vessel. This range of vessels must relate to the period just before the building, and during the construction of the Palace, since, as will be seen, the occupation saw such a degree of efficiency in the disposal of rubbish that very little survived on the site.

Compared to the Antonine material from Lezoux, there is a not inconsiderable quantity of vessels from Les Martres-de-Veyre. The contacts established with the Auvergne in the Nero-Vespasian period, if ever broken, were taken up under Trajan, when the Central Gaulish workshops were again exporting. The majority of the evidence is out of context, but S&S. potters X-3, X-4, the Potter of the Rosette, Ioenalis and Donnaucus, lead smoothly into the Libertus-Butrio and Sacer-Attianus groups of the Hadrianic period (cf. 74, 75, 76, 101 and 102 with 78, 80, 87).

This leaves a substantial gap. Where is the main body of the material which ought to span the two groups dealt with above? The number of decorated vessels from the later Flavian South Gaulish potters, e.g. nos. 56, 57 and 61, is comparatively slight (about 15 per cent of the total decorated vessels can be dated *c.* A.D. 75–100, or thereabouts), considering that this must have seen the major activity in the Palace. The only answer (cf. the evidence from the stamps) is that the hard surfaces of tiled, concreted and mosaic floors lent themselves to more efficient rubbish removal. The glaring nature of the effect on the dating evidence must throw up a warning signal for explanations of chronology on similar sites; and what of wooden-planked floors, a far more widely found phenomenon?

In the Antonine period it would seem that rubbish was once more beginning to accumulate *in situ*, but again the decorated pottery is scarce. This may be associated far more with a decline in fortunes and the result is startling: seven pieces for the period *c.* A.D. 165–200 (Doecus 2, Cinnamus 3, and Paternus 2). The cut-off must have come around A.D. 170 and thereafter there was little demand.

Nothing could highlight this fact better than the almost complete dearth from East Gaul; just the piece from the Chémery factory, which belongs to the Trajanic–Hadrianic period.

Sites in Southern England with continuous occupation usually show a fair proportion of products from Rheinzabern and similar shops; that there are none so far must weigh heavily in the scales against any normal demand pattern.

DESCRIPTION (figs. 126-136)

PERIOD I A (nos. 1-3)

1. Form 29. Slip, brown-red, matt; fabric, pink, fine. Rounded contour.

Upper zone: Small four-pronged ornament, used as a double wreath, each row separated by a wavy line.

Lower zone: Winding scroll with terminals above ending in asymmetric leaves and a small segmented bud. In the lower concavities are 'candelabra', of three poppy-heads with a large four-pronged motif used as a swag-end.

This design comes from the workshops associated with Murranus, and is very close to that on a bowl from Aachen (K52, Taf. 44A). There appear the typical leaves and the poppy-heads, while the four-pronged ornament from the upper zone is used as a tendril terminal on the London vessel (*ibid.*, Taf. 44B). Used on its side in panels, the motif also appears in the work of Celadus (K19, Taf. 21B). Both Celadus and Murranus shared designs (K52, Taf. 15C and D), and the segmented bud from the lower zone occurs on Celadus' work (K52, Taf. 16E). Date *c.* A.D. 40-55

2. Form 29. Very burnt.

Upper zone: Winding scroll with spirals terminating in rosettes and a fronded motif (broken). The tendrils are bound with five clear beads, a small spiral springing from the junction.

Lower zone: Another scroll, this time of large ivy leaves in the upper cavities, while remains of corded medallions to the sides indicate the rest of the design. An odd four-beaded rosette separates the leaves.

These leaves can be seen on form 29s from Cologne (K19, Taf. 91F), Hofheim (K52, Taf. 52E), from Colchester (H&H., pl. xxvi, no. 22) and La Graufesenque (Hermet, 1934, pl. 54, no. 27). The upper zone of the Hofheim bowl has a small leaf which was used by Bilicatus (K19, Taf. 14, detail 8); the Colchester vessel a trifold ornament also found in his work (*ibid.*, Taf. detail 30). The style and connections of the bowl are therefore early South Gaulish. Date *c.* A.D. 40-55

3. Form 29. Slip, brown-red, thin and bright; fabric, pink, fine.

Upper zone: Symmetrical scroll of cordate leaves with stipules, and a three-pronged motif. The tendril binding is a bold astragalus with spirals springing out on either side.

Lower zone: Scroll of lanceolate leaves, with above, a central cordate bud, replaced in the lower concavity by a diamond-shaped leaf. Here, the tendril bindings are large bifid leaf motifs, backed by four beads. The large leaf in the lower zone is very similar to that of Daribitus (*cf.* K19, Taf. 30, detail 15; *ibid.*, Taf. 31D and E), equally the cordate buds (*ibid.*, detail 16 and Taf. 30C). However, the cordate buds of the upper zone do not appear to be those of Daribitus as on the vessel from Bonn (*ibid.*, Taf. 31E) or the different set from Unterkirchberg (K52, Taf. 21A). Some related motifs appear on a form 29 from Colchester (H&H., pl. xxix, no. 2), where the upper zone has the three-pronged detail, the spiral spurs, and, in the lower zone, the diamond leaf. Date *c.* A.D. 40-55



FIG. 126. Decorated samian: scale $\frac{1}{2}$ (pp. 270-2)

PERIODS 1 B-C (nos. 4-21)

4. Form 29. Slip, thick brown-red, fabric, pink, fine.
Upper zone: Winding scroll with pairs of seven-lobed palm leaves above, and opposed birds, O.2246 and O.2288 below. The scroll has small spiral spurs carrying neat rosettes, which also appear loose in the background as do 'draught' roulettes.
Lower zone: This is divided into two bands, separated by a bead row. The upper consists of three overlapped lines of large leaf tips, with fused, swollen ends, the lower of repeated medallions containing the same birds as the upper zone. The corded medallions are separated by a beaded rod, terminating at both ends in a bifid leaf motif. The two birds appear in the work of Aquitanus (K19, Taf. 9, details 33 and 34), and also the same potter (K52, Taf. 3B). The leaf tips look very similar to his from London (*ibid.*, Taf. 5G), the palm leaves are on one of his bowls from Heerlen, together with the small rosettes, the roulettes on the Aislingen vessel (K52, Taf. 4E).
 Date *c.* A.D. 40-55
5. Form 29. Slip, brown-red smooth; fabric, pink and fine.
Upper zone: Winding scroll terminating in small lanceolate leaves and rosettes. A spiral spur, also terminating in the rosette springs from the five-beaded tendril binding.
Lower zone: Large medallions containing animals, a lion similar to O.1417, and a stag O.1734, survive, and it looks as if the lion is repeated at the extreme right, alternating with a candelabrum. This stands on a double spiral motif and supports a central branch of three poppy-heads flanked by arms carrying a six-lobed frond. Side tendrils end in a cordate leaf, and are bound to the main stem by a large rosette.
 The lion is used so widely, and the stag so infrequently, that neither give much clue to the potter directly. However, a direct bowl comparison with the lion used by Celadus (K52, Taf. 15), gives an exact parallel. Moreover, Celadus uses the double spiral as a foot on his candelabra (K19, Taf. 21, detail 8), while the six-lobed frond appears as a tendril end in the upper zone of a stamped form 29 in the London Museum. The other motifs are not known as yet from the work of Celadus, or indeed from that of his associate Murranus.
 Date *c.* A.D. 45-60
6. Form 29. Slip brown-red, fairly glossy; fabric, pink and a little rough.
Upper zone: Simple winding scroll terminating in triangular leaves and rosettes above, and covering 'arrow-head' panels below. The 'arrow-heads' have five clear barbs.
Lower zone: Probably panels of a St Andrew's cross motif, alternating with a large festoon of bifid leaves, containing an ornament composed of opposed bunches of three poppy heads, trailing leaves with serrated edges.
 Stamped OF. LABIONIS. (*cf.* K52, Taf. 32). His serrated leaf (*ibid.*, A, B and C), poppy heads and wreath (*ibid.*, D), 'arrow-heads' (*ibid.*, C) and the six beaded tendril binding (*ibid.*, A, B and C).
 Date *c.* A.D. 50-65
7. Form 29. Slip, thick brown-red, glossy; fabric, pink and fine.
Upper zone: Upright frieze of anthemion motifs.
Lower zone: Divided into two bands by a wavy line; the upper consists of leaf tips, with approximately triangular ends, the lower of a straight wreath of three poppy-heads, with rosettes in the background. This is an exact parallel to the bowl from London (K52, Taf. 5G), and must come from the same mould. The anthemion should be carefully noted; the lower left tip is *not* bifurcated as are the other three (*cf.* Hermet, 1930, pl. 13, no. 61). The motif is not easy to

relate to the work of other potters, although it is so striking. The size range is small: Hermet's scales cannot be relied on (his pl. 42, no. 45, is actually at $2/3$, not $1/2$), and the designs shown on Knorr's Taf. 5, are very close to one another. However, certain distinctions can be noticed. The anthemions of Aquitanus have ends which tend to turn right back on themselves, so that the 'horns' of the lower right can be seen to point to 'eight o'clock'. The anthemion of Niger (Hermet, 1930, *supra*, and unpub. from Rodez Museum), is less tightly wound, the same 'horns' pointing to 'five o'clock'. This difference should mean that Knorr's Taf. 5K and L probably belong to Niger (cf. the design of the central stem with Hermet's pl. 42, no. 45); the narrow leaves immediately below the ovolo are close to those on a stamped Niger bowl (K19, Taf. 61A). This leaves from Knorr's Taf. 5, design H, where the size of the anthemion is close to that of Aquitanus, but the general design approximates to that of Niger. However, recently, a very badly-moulded bowl stamped by the *Officina Liciniana* from Chichester (Down, 1968, no. 43), has been found with a very similar anthemion used on its side as a basal wreath. The three vessels from London (*Arch.*, LXXVIII, figs. 57-8 and *Antiq. Journ.*, x, no. 2D) have anthemion motifs whose size demands comparison with those from La Graufesenque (Hermet, 1934, pl. 13, no. 62), and the stamped vessel from Cambridge (K52, Taf. 41B), by Montanus.

Date *c.* A.D. 40-55

8. Form 29. Slip, brown-red, smooth and glossy; fabric, pink, fine.

Lower zone: Frieze of volute ornaments. The calyx is a small bifid leaf ornament on a 'stand'. The stem is a striated rod.

The classic discussion of the volute (Oswald, 1951) does not show an exact parallel, but one is known from London in a reconstruction (Stanfield, 1930). However, this is as unsatisfactory as the similar calyx only from Vechten (K19, Taf. 66F). A complete but unstamped version is known from London (Pryce and Oswald, 1928, no. 25).

Date *c.* A.D. 40-55

9. Form 29. Burnt, and a little smudged in removal from the mould.

Lower zone: Flowing scroll of frilled leaves with tendrils ending in a six-fingered sprig. Scrolls of this type tend to be early (cf. K19, Taf. 2 and 3), the compacting and tightening of the design on small bowls occurring in the Claudian-Neronian period (cf. the interesting bowl from Colchester, H&H., pl. xxx, no. 1). Many potters used a similar frilled leaf, but that of Montanus (K52, Taf. 41A) comes very close in size and shape.

Date *c.* A.D. 50-65

10. Form 29. Slip, brown-red smooth glossy; fabric, pink, fine.

Upper zone: Fifteen petalled rosettes, between upright wavy lines, presumably in panels.

Lower zone: Separated from upper by large, well-spaced bead row, repeated gadroons.

The rosette appears on a form 29 from Mainz (K19, Taf. 85) ascribed there to OF.GABA.ΑΡ+, i.e. G. Salaris Artus, who shared part of his production with Luceius (cf. Hermet, 1934, pl. 106, no. 17).

Date *c.* A.D. 55-75

11. Form 29. Slip, brown-red glossy; fabric, pink and fine, small bowl.

Upper zone: Repeated birds, similar to O.2271A, separated from one another by an upright bifid leaf ornament, with small rosettes in the background.

Lower zone: Below a very narrow central moulding, a straight wreath of a leaf ornament above intersecting corded medallions.

Perhaps the work of Bassus and Coelus. They use the leaf wreath motif, which they shared with the potters stamping Senicio and Seno (K52, Taf. 10). There can be seen the medallions and designs with liberal use of small rosettes.

Date *c.* A.D. 50-65

12. Form 29. Slip, red-brown, glossy; fabric, pink and fine. Mould cracked before use.
Lower zone: Winding scroll, covering candelabra. The arms are composed of a trifold leaf ornament, with striated outer leaves, and the tendrils trail swags of small cordate buds. A small bird, similar to O.2227A, is perched amongst the foliage of imbricated leaves. Both the bud and the trifold ornament appear in the work of Primus (K19, Taf. 65, details 5 and 19). He also used the column base as on his bowl from Richborough (Bushe-Fox, 1949, pl. LXXVI, no. 23).
 Date *c.* A.D. 45-60
13. Form 29. Slip, red-brown, bright; fabric, pink, fine.
Lower zone: Winding scroll terminating in seven-lobed leaves and striated rods. The tendril bindings appear to be four small beads, and to the right there may be the remains of a corded medallion. Similar to a design by Firmus (K19, Taf. 32 from Mainz).
 Date *c.* A.D. 50-65
14. Form 29. Slip, brown-red, thin, smooth; fabric, pink, fine.
Lower zone: What looks like a foot, possibly of a gladiator, to the left, remains of a St Andrew's cross motif, to the right.
 Date *c.* A.D. 60-80
15. Form 29. Slip, brown-red, dull; fabric, pink.
Lower zone: Probably the bottom band of a lower zone divided into two or three; the wavy line demarcating the bands is just present. A winding scroll terminating in lanceolate buds covers a four-petalled rosette. Between the petals are striated rods terminating themselves in a small rosette.
 Hermet does not record an exact parallel (Hermet, 1934, pl. 15), his no. 99 being the closest rosette, and this was used by Labio (K52, Taf. 32C and D) and Mommo (Atkinson, 1914, pl. III, no. 10). An exact parallel however, comes from Colchester (H&H., pl. xxxvii, no. 3).
 Date *c.* A.D. 50-65
16. Form 29. Slip, red-brown, smooth, but thick; fabric, pink, coarse.
Lower zone: Kneeling stag, O.1746. Probably an example of the type by Secundus (cf. K19, Taf. 73, detail 9).
 Date *c.* A.D. 70-85
17. Form 30. Slip, brown-red, rough; fabric, pink, coarse.
 Three sherds probably all from the same vessel. Double bordered ovolo with tongue centrally placed, terminating in small rosette, which tends to be a little oval, the axis being vertical. There is no division between the ovolo and the decoration, and below are the remains of a large leaf ornament, with out-turned striated sides, and a segmented centre-piece. A small leaf with serrated edge hangs from side tendrils, and a small goose, O.2244, is repeated amongst the foliage.
 The ovolo is in the style of Calvus (cf. Knorr, 1942, p. 184), and a closely related vessel comes from Mainz (K52, Taf. 67A), with a large leaf ornament and the goose.
 Date *c.* A.D. 55-75
18. Form 30. Slip, red-brown, smooth; fabric, pink, hard and fine.
 Single bordered ovolo, with straight tongue attached to left-hand side, ending in hollow circle. Below, to the left, an upright leaf wreath, to the right, a St Andrew's cross motif. One of the free tendrils ends in a three-fingered ornament, the central arm is composed of three poppy heads. Common South Gaulish design (cf. Hermet, 1934, pl. 72, no. 1).
 Date *c.* A.D. 50-70

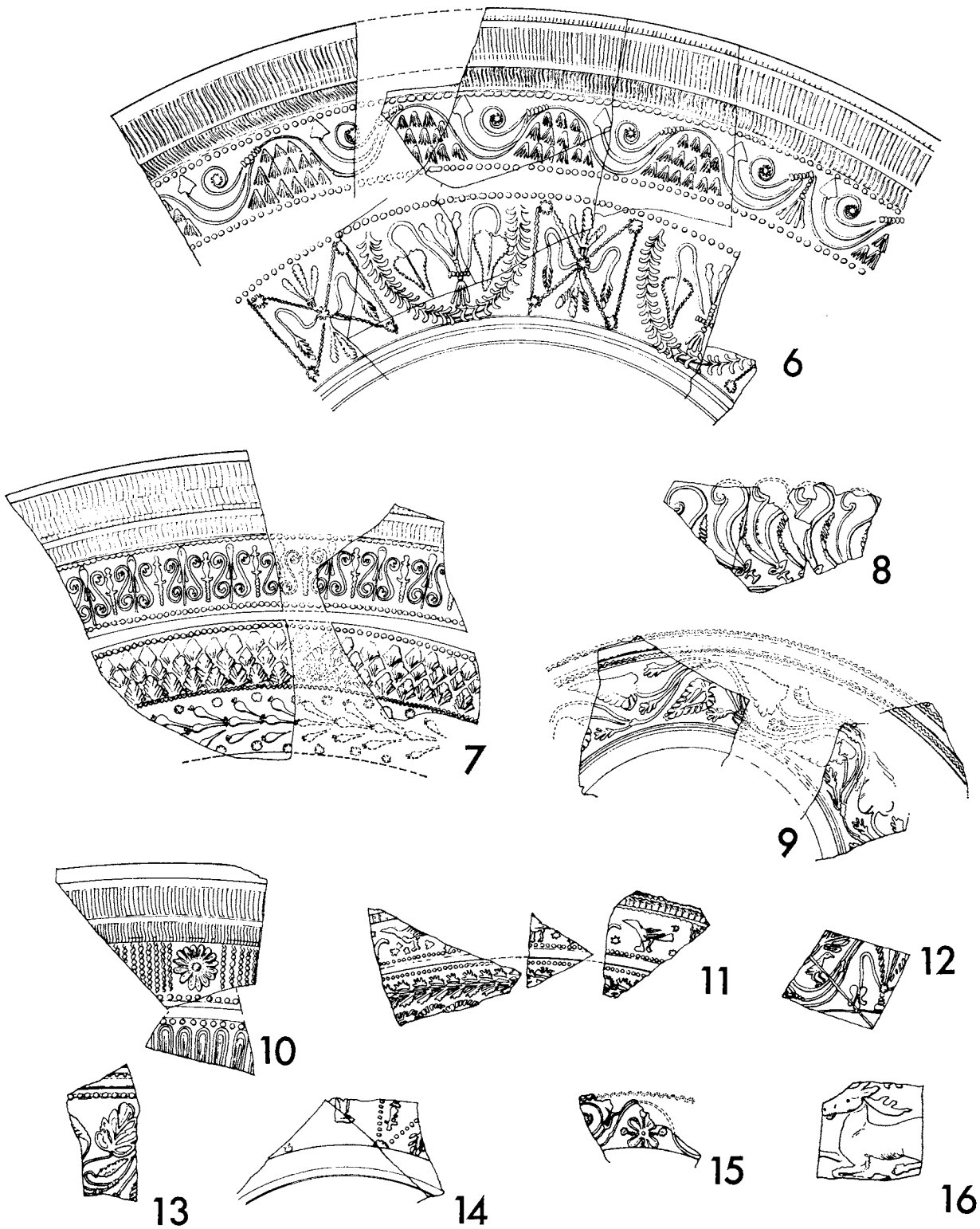


FIG. 127. Decorated samian ware: scale $\frac{1}{2}$ (pp. 272-4)

19. Form 37. Slip, brown-red, smooth, thin; fabric, pink, fine.
Single bordered ovolo, well spaced, with tongue to right, straight and ending in bold rosette, which is unfortunately blurred. A bead row separates a trifold leaf wreath, which runs above the next band of decoration, a small dog chasing a plump hare to the left. Each scene is separated by a number of striated rods. Another bead row separates the basal wreath of bifid leaves. A form 29 from Brecon (Wheeler, 1926, fig. 69, S.39), has the same animals and the trifold wreath. The animal described there as a deer is in fact a hare and bears no relation to the beast in the Pompeii hoard (Atkinson, 1914, no. 15), even allowing for scale variations. The dog appears at La Graufesenque on a form 78 (Hermet, 1934, pl. 92, no. 23), but neither animal is really portrayed by Oswald in the *Index of Figure Types*.
Date c. A.D. 65-80
20. Form 37. Slip, brown-red, flaky; fabric, pink, rough.
Double-bordered ovolo, with centrally-placed straight tongue, ending in small rosette. Immediately below, and separated by a wavy line, a straight wreath of V-shaped leaves. Another wavy line then limits the main decoration, a winding scroll ending in frilled leaves, striated rods, and lanceolate buds. In the lower concavities are divided medallions, the top portion having a plain border, containing animals; a griffin, O.882, and the legs of a bear, O.1586, are present, while the remainder enclosed by a tufted wreath contains 'arrow-heads'. A basal wreath of short gadroons completes the design.
This design is composed of various elements belonging to Passienus. The scroll appears on a form 29 at Rodez stamped OF. PASSIEN, which is shown without the stamp in Hermet's compendium (Hermet, 1934, pl. 55, no. 46). The hissing geese, O.2244 and 2286 from the present vessel, are replaced by rosettes (K19, Taf. 62, detail no. 57), and the striated rod by a trifold leaf ornament (ibid., detail no. 12). Other motifs appearing on stamped bowls shown by Knorr are the demi-wreath (ibid., detail 61), geese (ibid., details 38 and 39), 'arrow-head' (ibid., detail 65), and the gadroon (K52, Taf. 49E). The griffin appears on a piece attributed to Passienus by Knorr (ibid., Taf. 48 from Mainz). The ovolo is very close to that of Calvus (cf. Knorr, 1942). Passienus as a producer of form 37, while not surprising, is not well known, simply because of the difficulty of assigning the complicated interchangeable South Gaulish motifs, when they appear on unstamped bowls. The general design leans heavily on the form 29, and this can be seen clearly in the Pompeii hoard (Atkinson, 1914). The cavalier treatment of his material by Hermet should be noted.
Date c. A.D. 70-85
21. Form 37. Slip, red-brown, thick, smooth and glossy; fabric, pink, fine.
Stamped GE[. Double-bordered ovolo with straight tongue ending in blurred rosette. The tongue is corded and placed slightly to the left. Immediately below, without division, there is a forest scene with a lioness, O.1544, facing a leaping? dog (K19, Taf. 35, detail 30). The ovolo can be seen from La Graufesenque (Hermet, 1934, pl. 100, nos. 11 and 16). This work of Germanus appears as his earlier production of form 30, if indeed the same workshop was involved for the vast range of decorated products using his name.
Date c. A.D. 65-80

PERIOD 2 CONSTRUCTION (nos. 22-46)

22. Form 29. Slip, red-brown, bright; fabric, pink, fine.
Upper zone: Winding scroll, with symmetrical seven-fingered frond motifs as tendril ends, together with spirals ending in neat rosettes. From the six-beaded tendril binding spring spiral spurs.

Lower zone: Gadroons, below large beaded border.

Similar to the style of Murranus (cf. K52, Taf. 44A, with tendril ending as design 1C).

Date *c.* A.D. 50-65

23. Form 29. Slip, brown-red, glossy; fabric, pink, fine.

Upper zone: Simple scroll with tendrils ending in a pronged ornament and rosette spirals. A bold five-beaded binding has spiral spurs. In the lower concavity, a four-petalled rosette, with striated rods between the petals, flanked by two small rosettes.

Lower zone: Below a wide central moulding, another scroll, again with tendrils uppermost, this time ending in a frilled leaf, and a blurred pronged ornament, probably as in the upper zone. The lower concavity has a markedly corded medallion enclosing an eagle, O.2175, flanked by 'draught' roulettes.

The rosette from the upper zone is known from the work of Labionis (K52, Taf. 32C). The eagle may also be his (cf. *ibid.*, B). The roulette can be seen on the bowl from Bregenz (K19, Taf. 44C). However, the other details are not known from his work, and the tendril binding is not the large six-beaded one he usually used. A somewhat similar scroll to that of the lower zone appears on a bowl by Rufinus from Vechten (K19, Taf. 69C).

Date *c.* A.D. 50-65

24. Form 29. Slip, brown-red, matt; fabric, pink, fine.

Lower zone: Alternating 'tree' ornaments with corded medallions and animals, the survivor being a griffin, O.878. Small bunches of grapes hang from the 'trees'.

Date *c.* A.D. 50-65

25. Form 29. Slip, brown-red, smooth; fabric, pink, fine.

Upper zone: Panels of upright wavy lines, with perhaps a vegetable motif on either side.

Lower zone: Panel decoration; to the left, a serrated festoon containing a pair of narrow leaves, with serrated edges; a small bird, O.2227A rests between them. To the right, a St Andrew's cross motif, with a central branch of three poppy heads.

The serrated festoon appears in the work of Bassus and Coelus (K19, Taf. 13, detail 24). They were producers of small bowls with packed designs similar to this vessel.

Date *c.* A.D. 55-70

26. Form 29. Slip, brown-red, smooth; fabric, pink, fine.

Upper zone: Winding scroll, terminating symmetrically in cordate leaves and rosette spirals. A small, clear bifid tendril binding backed with two beads is used.

For similar leaves, cf. K19, Textbild 9.

Date *c.* A.D. 45-65

27. Form 29. Slip, brown-red, matt; fabric, pink, fine.

Upper zone: Scroll with asymmetric cordate leaf.

A similar leaf is on bowls from Colchester (H&H., pl. xxv, no. 9, and xxxv, no. 17).

Date *c.* A.D. 45-60

28. Form 29. Slip, brown-red, matt; fabric, pink, fine.

Upper zone: Winding scroll ending in stipuled cordate leaves, with a double, bifid tendril binding.

Lower zone: Another scroll, this time with seven-lobed palm leaves between which a separate tendril carries a small bird, which looks like a miniature cockerel. In the lower concavity, a

'tree' ornament, with a central branch of three poppy heads, flanked by small birds, O.2227 and 2263.

The two birds appear in the work of Silvanus (Hermet, 1934, pl. 119, no. 2), and also in the work of Patricius (K52, Taf. 50).

Date *c.* A.D. 70-85

29. Form 29. Slip, brown-red, bright; fabric, pink, fine.

Upper zone: Winding scroll ending in lanceolate buds and cordate stipuled buds, covering corded medallion containing, perhaps O.2295, the position of the head being crucial. Two rosettes flank the medallion. The medallion is very small, and about the size used by Montanus among others (cf. K52, Taf. 41A).

Date *c.* A.D. 50-65

30. Form 29. Slip, brown-red, bright; fabric, pink, fine.

Upper zone: 'Arrow-heads' flanking festoon containing a bird which is nearest to O.2266, but it is not the same.

The bird occurs in the work of Niger, and his partner Andecarus (Hermet, 1934, pl. 106, no. 14). The designs from that mould also appear on a bowl from London (Pryce and Oswald, 1928, no. 38), stamped by Potitus, who is little known as a maker of decorated bowls.

Date *c.* A.D. 50-70

31. Form 29. Slip, red-brown, bright; fabric, pink, fine.

Lower zone: Immediately below central moulding, upright blades over lower band of upright wavy lines. The blades are stumpy and broad, similar to those used by Passienus (K52, Taf. 48C).

Date *c.* A.D. 60-75

32. Form 29. Slip, brown-red, dull; fabric, pink, fine.

Lower zone: Between upright wavy lines with rosettes, a small lion of O.1417 type, facing a boar, O.1695A, over a grass tuft. The remains of a tufted wreath can be seen above.

None of the potters covered by O.1417 has, in fact, a lion quite so small.

Date *c.* A.D. 60-80?

33. Form 29. Slip, brown-red, matt, smooth; fabric, pink, fine.

Lower zone: 'Tree' ornament, standing on an astragalus, alternating with tufted wreath festoon. The branches end in a small, trifid leaf ornament, and the central stem carries a large lanceolate leaf. The wreath presumably contained an opposed pair of leaves or buds, and below the tendrils there is a very clear ten-pointed rosette.

Date *c.* A.D. 45-60

34. Form 29. Slip, brown-red, thin, glossy; fabric, pink, fine.

Lower zone: Remains of base, showing small leaf tips filling the lower concavities of a winding scroll, which has small bifid tendril bindings.

Stamped OF • M(. . . , a bowl of Murranus, and similar to the one from Bregenz (K52, Taf. 44C).

Date *c.* A.D. 50-65

35. Form 30. Slip, red-brown, smooth; fabric, pink, fine.

Double-bordered ovolo with tongue to left, ending in swollen tip bent to right. Below, without demarcation, a winding scroll with large palm leaves, spiral spurs and bifid tendril bindings. Exact comparisons are always difficult but cf. Hermet, 1934, pl. 69, nos. 2 and 3.

Date *c.* A.D. 50-65

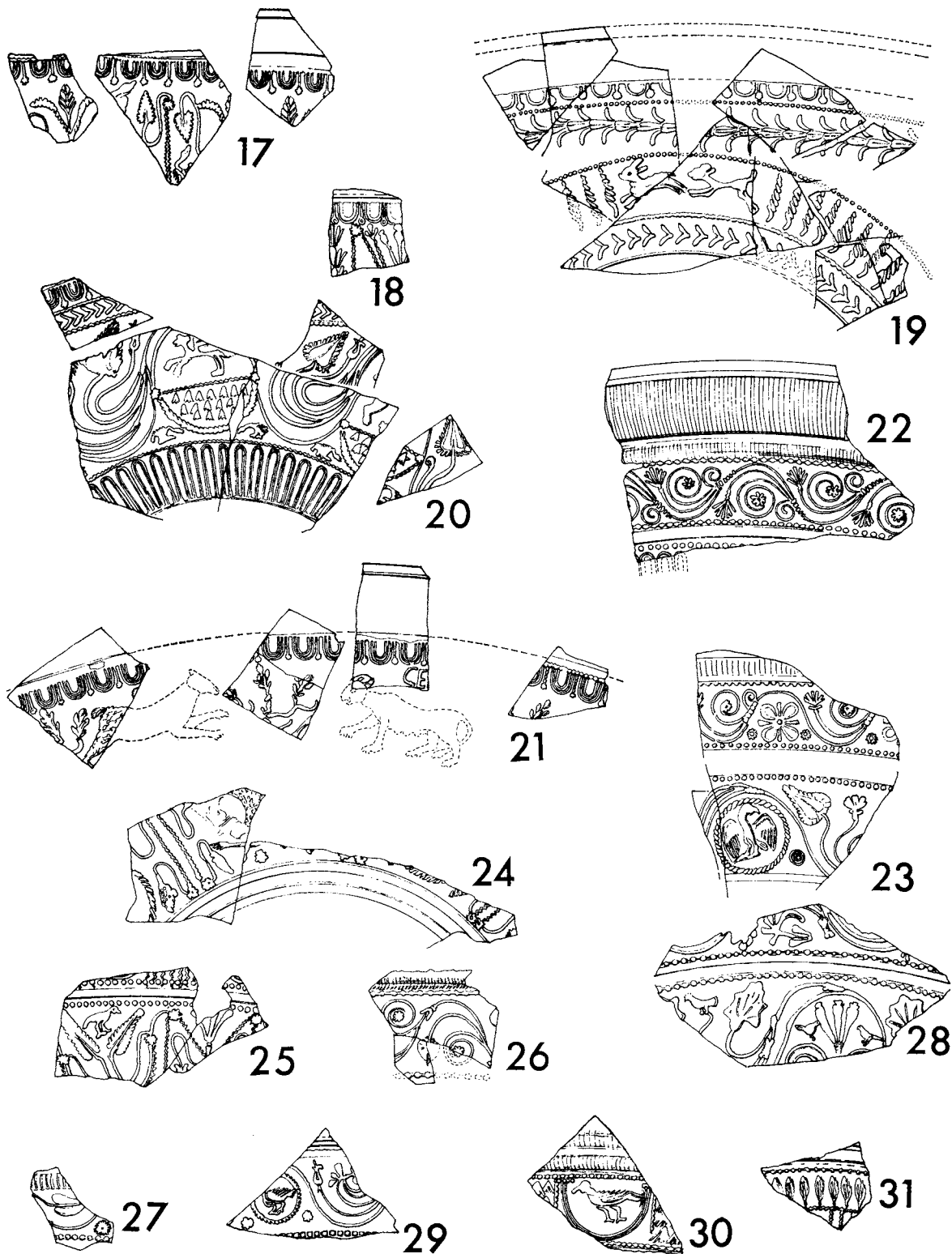


FIG. 128. Decorated samian ware: scale $\frac{1}{2}$ (pp. 274-8)

36. Form 30. Slip, red-brown, thin and smooth; fabric, pink, glossy.
Large single-bordered ovolo, closely packed, with straight tongue hard against the right, ending in a small rosette. Below, without any demarcation, the remains of a scroll with a large palm leaf and a striated rod.
Date *c.* A.D. 50-65
37. Form 30. Slip, red-pink, smooth; fabric, pink and a little coarse.
Winding scroll with large leaf, a blurred striated rod or leaf, and a six-lobed bud. The tendril bindings are blurred, but appear to be a tapered series of beads.
Similar large leaves appear in the work of Ardacus, together with the more common bud (K52, Taf. 2A), also in the work of Libertus and Melainus (K52, Taf. 77A and B).
However, both leaves from the present bowl occur in the work of Passienus (K19, Taf. 62, details 17 and 28), whose confused chronological record is in much need of clarification.
Date *c.* A.D. 50-65
38. Form 30. Slip, brown-red, smooth; fabric, pink with some chalky inclusions.
Panel decoration, with wavy line borders tied by small rosettes.
Above, a small arcade, with the legs of a bird facing right. Below, repeated panels of a draped figure, O.938A. From the corner trail swollen leaves or blades.
Date *c.* A.D. 65-80
39. Form 37. Slip, red-orange, smooth; fabric, pink, fine.
Panel decoration, spaced by central wreath, and basal wreath. In the upper band of decoration, to the left, bold 'arrow-heads', to the right, legs of a cupid. Lower band has a festoon design, with corded borders and a large trifid leaf ornament, used as a swag end. Both wreaths are composed of a fine V-shaped leaf ornament with turned-back tips.
Probably the work of one of the Vitalis group. The 'arrow-heads' (K52, Taf. 61), cupid (K19, Taf. 83, no. 1?), wreath (K19, Taf. 84), swag end (K19, Taf. 82, no. 3) and festoon (probably K19, Taf. 84G) all come from their work.
Date *c.* A.D. 70-85
40. Form 37. Slip, orange-red, patchy; fabric, pink, fine.
Single bordered ovolo, with straight tongue attached to left, ending in swollen tip. Below a large bead row, saw-edged sickle motif, then below another bead row, a winding scroll terminating in fronds, and enclosing 'arrow-heads'.
Date *c.* A.D. 70-85
41. Form 37. Slip, red-brown, smooth; fabric, pink, fine.
Large single-bordered ovolo with straight tongue centrally placed, terminating in a blurred rosette. Between fine bead rows a trifid leaf ornament, used as a straight wreath. Below, a winding scroll, terminating in cordate stipuled leaves, small birds O.2263, and bifid leaf motifs. To the right there appears to be a fronded leaf. Within the scroll are panels of 'arrow-heads'.
For the general design cf. Atkinson, 1914, pl. xv, no. 77 from Pompeii. The cordate leaves, wreath and 'arrow-heads' appear in the work of Meddilus (K19, Taf. 54, details 20, 21, 31 and 24), but a form 29 from Pompeii stamped by Secundus (Atkinson, 1914, pl. v, no. 24) has very close parallels in the cordate leaves and tendril ends. For birds used as tendril ends cf. Atkinson, 1914, pl. ix, no. 49.
Date *c.* A.D. 70-85

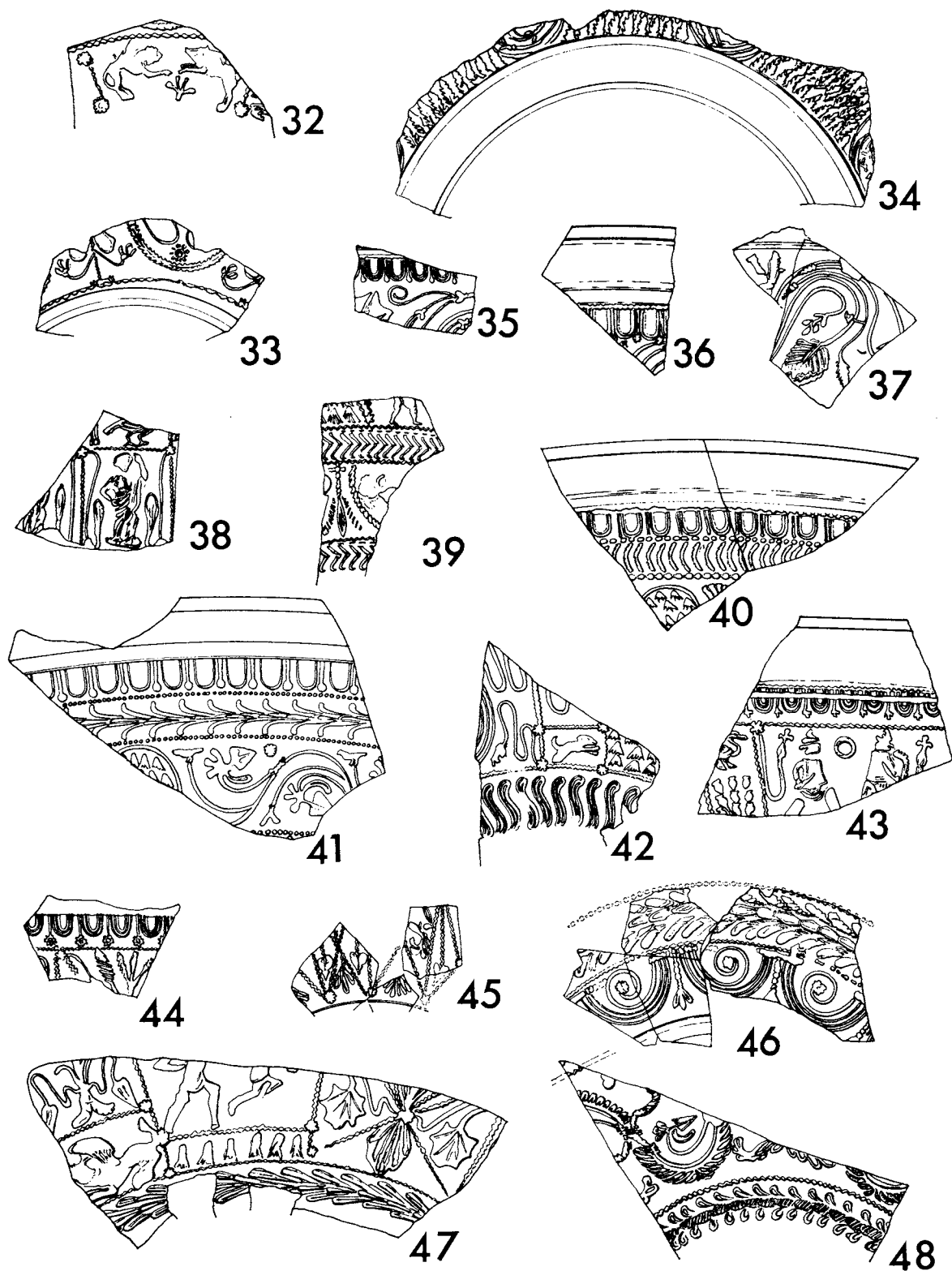


FIG. 129. Decorated samian ware: scale $\frac{1}{2}$ (pp. 278-83)

42. Form 37. Slip, brown-red, thick and glossy; fabric, pink with chalky inclusions.
Panel decoration with, to the left, a large triple-bordered medallion, with corner tendrils ending in a bottle-shaped bud. In the centre, a small dog, O.1932, runs to the right, and on the right, a panel of 'arrow-heads'. The dog appears on a form 29 at Pompeii, stamped by Rufinus (Atkinson, 1914, pl. vi), but the bottle-shaped bud there is far larger, and that on the bowl from Rottweil (K19, Taf. 68, detail 10) by the same potter is much closer. Rufinus made form 37 and part of a script signature remains on a bowl in the Guildhall Museum, London; however, it would be dangerous to push the parallels too closely, as the style is very common in the Flavian period.
Date *c.* A.D. 70-85
43. Form 37. Slip, red-brown, bright; fabric, pink, hard.
Double-bordered ovolo, deformed by the bowl finisher, with central straight tongue, ending in trifold claw, bent to right.
Below, panel decoration with wavy line borders; to the left, a goose or swan, O.2220 above superimposed bunches of three poppy heads, to the right, a pair of gladiators separated by a wreathed circle. Bottle-shaped buds trail from corner tendrils.
The gladiators are similar to O.1013A and 1015, but while the former is given as a South Gaulish design, 1015 is ascribed to Lezoux only. The bird appears in the work of Calvus, Cosius and Rufinus, Passienus, Sabinus, Vanderio and Vitalis, in fact a virtual roll-call of those potters most associated with the first occupation of Scotland.
Date *c.* A.D. 70-85
44. Form 37. Slip, red-brown, glossy; fabric, pink, good.
Bold double-bordered ovolo with straight tongue to left ending in seven-pointed rosette. Below a wavy line border, a St Andrew's cross motif, with central branch of trifold leaf ornament, with a side shoot carrying a large striated rod. The ovolo is the same as one on a form 37 stamped externally by Frontinus, which is now in the Guildhall Museum, London. A similar ovolo was used by 'The potter of the large rosette', at Pompeii (Atkinson, 1914).
Date *c.* A.D. 70-85
45. Form 67. Slip, red-brown, thin and rough; fabric, pink and rough.
Panel decoration with a St Andrew's cross motif trailing tendrils ending in lanceolate leaves, a trifold leaf ornament and a frond. Among the tendrils are geese, O.2286.
General layouts of this form can be seen from La Graufesenque (Hermet 1934, pl. 90). A similarly compressed St Andrew's cross appears on a form 29 by Vitalis (K52, Taf. 61), and his repertoire could provide the lanceolate leaf and the goose (cf. K19, Taf. 82, details 4 and 7), but with such common material ascription is very difficult.
Date *c.* A.D. 70-85
46. Form 29. Slip, red-brown, fairly smooth; fabric, pink, good.
Lower zone: Trifold leaf wreath, with striated outer. Below, a festoon with spirals ending in rosettes, and a swag ending in a trifold leaf motif. Common South Gaulish design (cf. K52, Taf. 49F), by Passienus.
Date *c.* A.D. 70-90

PERIOD 3 CONSTRUCTION (nos. 47-8)

47. Form 37. Slip, dark brown-red; fabric, pink, coarse.
Badly-moulded bowl in panel decoration. To the left, a sort of 'tree' ornament, trailing lanceolate leaves, above a griffin, O.878. A central panel of gladiators, O.1020 and 1021, above large

'arrow-heads', and to the right a St Andrew's cross with two sorts of palm leaf. The gladiators appear in the later Flavian work of M. Crestio (K52, Taf. 19D), and the arrow-heads are his also. The basal wreath, of three lobes, is similar to that of Crucuro (K19, Taf. 29, detail 12), but was widely used (cf. K19, Textbild 12).

Date *c.* A.D. 80-100

48. Form 37. Slip, brown-red, smooth and glossy; fabric, pink and fairly fine.
Lower band of arcades and festoons in the style of S&S's Potter of the rosette (pl. 24).

Date *c.* A.D. 100-20

PERIODS 2-3 OCCUPATION (nos. 49-89)

49. Form 37. S.H. Slip, brown-red, thick, rather smeary; fabric, pink, coarse.

Two strap handles and a spout, for use as a wine pourer and ?mixer. Double-bordered ovolo with tongue to left, ending in a rosette. Below, between two wavy lines, a straight wreath of V-shaped leaves. The main decoration consists of an unbroken frieze of figures, below which is another straight wreath, this time of trifid type, above another wreath of reversed S-shaped motifs. From the left, the figures are a seated Mars, with a shield leaning against his stool, a winged female, O.136A, a Diana, ?O.104, a female figure, possibly a variety of O.847, a lyre player, O.80, the 'Bacchic' figure, O.586, Bacchus, O.623, one of the erotica from O. group A, a small male figure, O.938A, and below the Mars, a small dog, O.1964, and a winged figure, O.406.

A number of the figures appear in the work of Sabinus (Stanfield, 1937, fig. 11, 177). From that plate come types 6, 17, 18 and 19 (O.136A, ?O.847, O.80, and ?O.104). The 'Bacchic' figure, O.565, appears on one of his forms 37 from Cannstatt (K19, Taf. 69, no. 2), and the S-motif is his (*ibid.*, detail 20). The bowl is pretty certainly the work of one of the Sabini, who, if it is the same man who was making Neronian form 30s (cf. Hermet, 1934, pl. 77, no. 11), must have had a very long, and not unfruitful existence, since he had connections with the Germanus school and the later Vitalis (cf. Knorr, 1913, Textbild 5 and 6) and was presumably the plain-ware potter who is thought to have been working as late as Trajan. As Stanfield points out (*op. cit.*) the connections of this man or, probably more correctly, series of men using the same name, are very widespread, and his article serves as a base from which much more can be done. See also the form 37, no. 69 *infra*.

Date *c.* A.D. 85-110?

50. Form 29. Slip, red-brown, good and glossy; fabric, pink, fine.

Upper zone: Panels containing animals alternating with 'arrow-heads'. Each panel is bordered by a double wavy line tied by a rosette, and the animals are a lion, O.1417, and boar, O.1690.

Lower zone: Immediately below central moulding, a wreath of cordate ?buds, and below that, a winding scroll, symmetrically designed, with lanceolate leaves and cordate buds.

It is very difficult to assign designs which have motifs quite so widely used. Two bowls (K19, Taf. 68A, by Rufinus, and Taf. 85C, ascribed tentatively to Cotoius) show similarities. Of the two, the lion on the Rufinus bowl is closer in size to that necessary, and the curious disposition of the scroll, with its odd loose tendril, is very reminiscent of the present vessel. Two further parallels can be drawn, the double wavy lines from the upper zone, and the small cordate bud.

Date *c.* A.D. 65-80

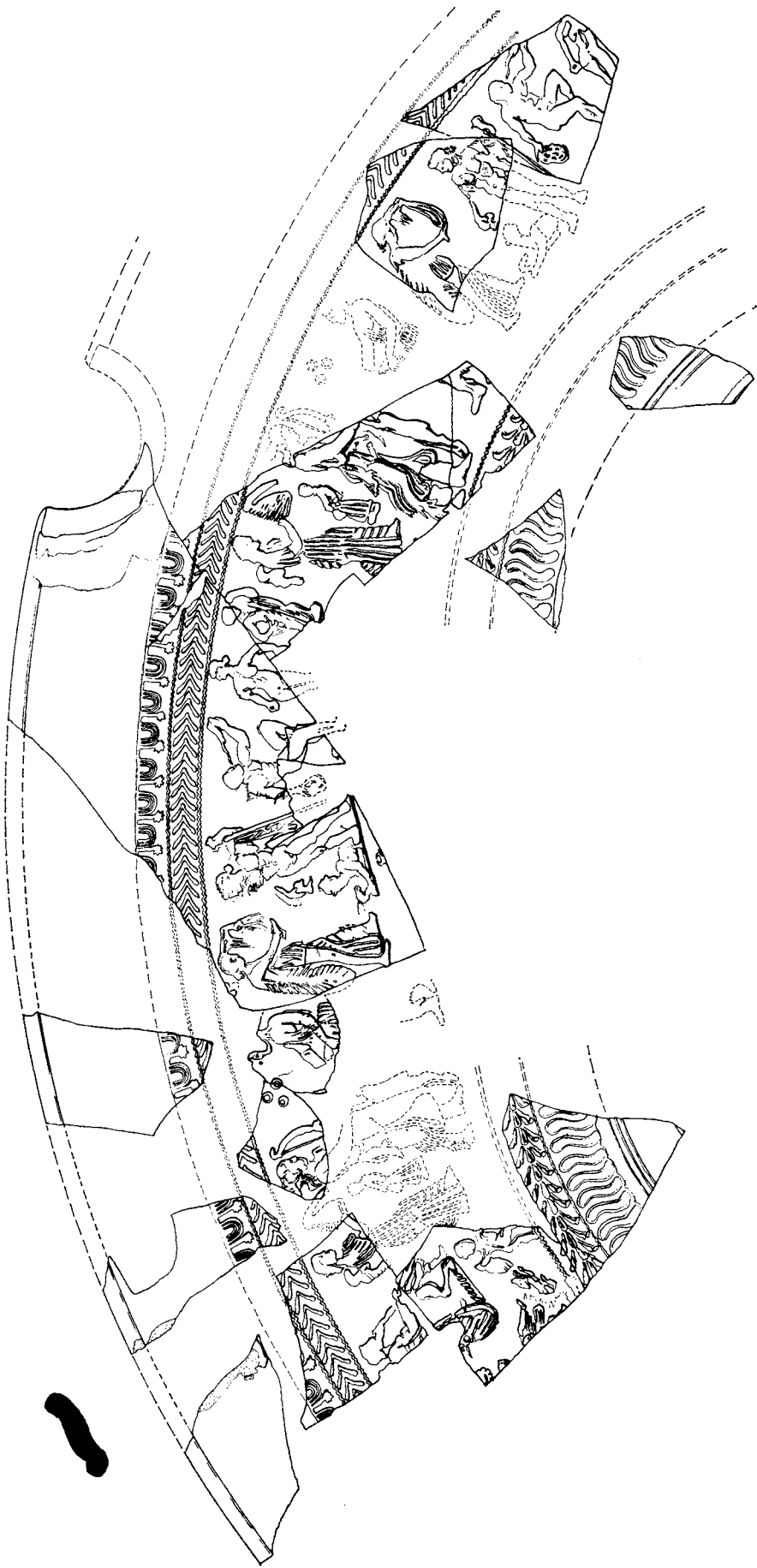


FIG. 130. Decorated samian ware: scale $\frac{1}{2}$ (p. 283)

51. Form 29. Slip, brown-red, thin; fabric, pink and rough.
Upper zone: Panels of diagonal wavy lines enclosing 'arrow-heads', and it would seem also some sort of vegetable motif.
Lower zone: Divided into two bands, the upper containing a trifold leaf motif, the lower, a festoon design of opposed geese, O.2220 and 2257, in plain festoons, hung from astragali. All the motifs can be found in the work of Passienus (K19, Taf. 62, Wreath 12, Geese 36 and 37 and long 'arrow-heads' 65).
 Date *c.* A.D. 70-85
52. Form 29. Slip, red-brown, bright; fabric, pink, fine.
Lower zone: Three bands of decoration; the upper, a straight wreath of overlapped leaf motifs, the centre, a cogged festoon containing a bird, and the lower, another straight wreath, this time of a small trifold leaf motif.
 The bird in the festoon appears on a form 29 by Meddilus (Hermet, 1934, pl. 108, no. 6), and the basal wreath is also his (K19, Taf. 54, detail 37).
 Date *c.* A.D. 65-80
53. Form 30. Slip, brown-red, thin, dark; fabric, pink, hard.
 Double-bordered ovolo with tongue slanting to left, ending in neat trifold tip bent to left. Below, with no border to limit the decoration, arcades alternating with St Andrew's cross motifs. Above the arcade are two geese, O.2244 and 2286, and in it a figure of Minerva, O.133. The formation of the arcade with the astragali-topped columns should be noted. Similar figures of Minerva appear on Neronian vessels (K52, Taf. 69C and Hermet, 1934, pl. 75, no. 4). The ovolo with the trifold tip came into vogue in the Vespasianic period, although very few have a tip bent to the left (cf. Hermet, 1934, pl. 74, no. 8).
 Date *c.* A.D. 60-75
54. Form 30. Slip, brown-purplish-red, well fired; fabric, dark pink, hard.
 Panel decoration in the style of Cinnamus. The ovolo is S&S., fig. 47, detail 2, and the standard, detail 28. The elaborate compound ornament is made up from various small motifs, e.g. parts of S&S., fig. 47, details 19, 35 and 39, and the face supports on pl. 161, no. 47.
 Date *c.* A.D. 150-80
55. Form 30. Slip, brown-red, irregular; fabric, pink, hard but a little coarse.
 Winding scroll with two different leaves and the feet of a bird, all the work of Cinnamus (S&S., pl. 161, no. 53).
 Date *c.* A.D. 150-80
56. Form 37. Slip, red-brown, smooth; fabric, pink, fine, although there are certain inclusions.
 Double-bordered ovolo, with tongue attached to right, ending in trifold tip bent to the right. There are three bands of decoration. In the upper, festoons of tufted wreaths alternate with an ornament made up from two columns and two leaf motifs. Fuller versions of the columns are used as swag ends. The centre band has two opposed hares separated by a bush, the basal wreath is a trifold leaf motif. For the style, cf. Knorr, 1912, Taf. xxii, no. 3, where will be found one of the hares, O.2074, the bush, and the column used as a swag end. A similar bowl from Rottweil, no. 4, shows the basal wreath used as a swag end. The design has wide connections (cf. Knorr, 1912, Taf. xix, nos. 1 and 2), and belongs to the end of the first century. Knorr read

the stamp on the Rottweil bowl, no. 3, as OF COS VIRILIS, and this would suit since the large wreath in the festoon is on a stamped bowl from Stockstadt (K19, Taf. 27, detail 9). Comparisons with the work of Biragillus, M. Crestio, Crucuro and Mercator show the extent of the interchange between workshops, or in fact the possibility of shared workshops in the later Flavian period.

Date *c.* A.D. 80-100

57. Form 37. Slip, red-brown, thick; fabric, pink, rough.
Double-bordered ovolo with tongue attached to right, ending in trifid tip turned to the right. From the irregular positioning, and the clear impression at the top, it is evidently a single poinçon and not a wheel. Below, panel decoration with wavy-line borders. To the left a *bestiarius*, O.1102, confronting a lion, too deformed for identification, to the right, a narrow-striped leaf.
Style of Biragillus, his ovolo and *bestiarius* (K19, Taf. 16, details 3 and 16).
Date *c.* A.D. 80-100
58. Form 37. Slip, dark brown-red, rough; fabric, pink, hard.
Winding scroll over 'tree' ornaments, supporting small frilled leaf and trailing bottle-shaped buds. The scroll has rosette-tipped spirals, and spur spirals springing from the tendril bindings. Below a wavy line a V-shaped wreath.
The closest design to the leaf in the 'tree' ornament is that of Cotoius (K19, Taf. 27, detail 6), but similar ornaments were used by others (cf. K52, Taf. 16), and Iustus must be considered another strong candidate (cf. K19, Taf. 44, detail 10).
Date *c.* A.D. 80-95
59. Form 37. Slip, red-brown, dull; fabric, pink and a little rough.
Single-bordered ovolo, with straight tongue ending in very slightly swollen tip, bending just to right. Below, the decoration is in horizontal bands, of which part of the upper survives, showing a stag, O.1738, a common Flavian type.
Date *c.* A.D. 75-90
60. Form 37. Slip, dark brown-red, pitted; fabric, pink with chalky inclusions.
Panel decoration above 'arrow-head' basal wreath. To the left and right a panel showing the erotic group O. type A, separated by a type of St Andrew's cross, with a fronded leaf. Cornutus style (cf. Jacobs, 1913, nos. 8, 11 and 27). ? Banassac ware.
Date *c.* A.D. 90-115 or even later
61. Form 37. Slip, brown-red, dull; fabric, pink, coarse.
Double-bordered ovolo with trifid tongue attached to right. Between two wavy line borders, a heavy leaf wreath, with striated outer lobes. The main decoration is of three-ringed medallions containing opposed hares, separated by a large leaf ornament, with basal tendrils trailing a small segmented leaf.
The style of the vessel belongs to the late South Gaulish group which includes M. Crestio, Mercator, Crucuro and Biragillus. The ovolo is similar to one used by Mercator (K19, Taf. 57H); the wreath is most widely shared by M. Crestio and Crucuro (K19, Taf. 28, detail 5 and Taf. 29, detail 13), and, if anything, tends towards that of M. Crestio. The hares are without tails, and the nearest types are O.2056 and 2113. A similar hare, if correctly drawn, is on a bowl from Brecon (Wheeler, 1926, fig. 80, S.149), but comparisons there with the hares of L. Cosius Virilis, Germanus and Biragillus, all of which have tails, are confusing. However, the rear ends of both animals exactly follow the contours of the pair used by Germanus (cf. Hermet, 1934,

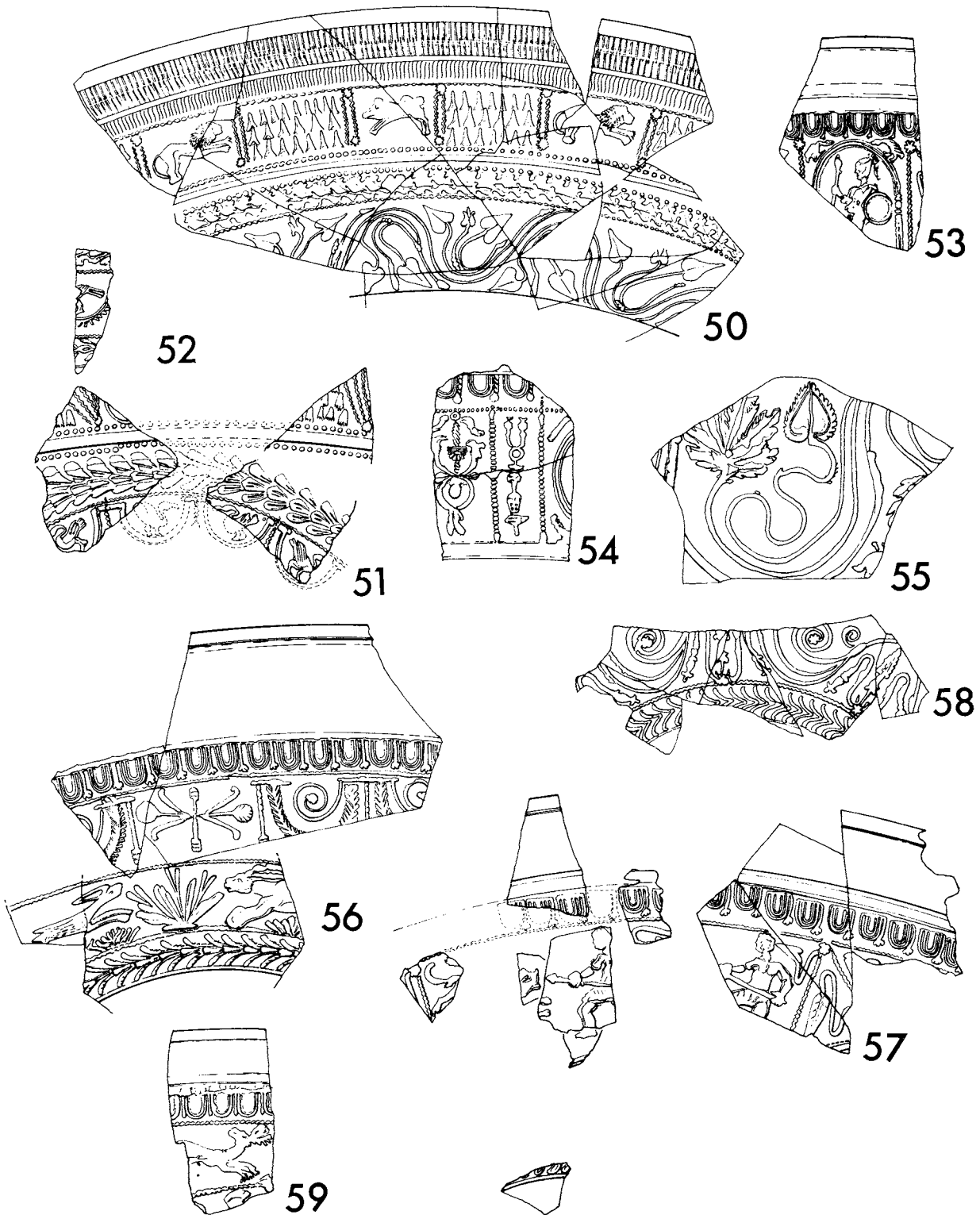


FIG. 131. Decorated samian ware: scale $\frac{1}{2}$ (pp. 283-6)

pl. 100, no. 16), and it may be that these poinçons were cut down. The large leaf ornament is shown from La Graufesenque (Hermet, 1934, pl. 7, no. 55), while the small leaves are again used by M. Crestio (K19, Taf. 28, detail 26). The general design and technique is more of La Graufesenque than Banassac, and the fabric confirms this.

Date *c.* A.D. 80-110

62. Form 37. Slip, dark brown-red; fabric, pink, coarse.

Triple-bordered ovolo, with straight tongue attached to left, ending in fork. Between wavy lines below, a straight wreath of a bifid leaf motif, with out-turned arms. Below, again between wavy lines, a festoon design of tufted wreaths, spirals ending in rosettes, and a swag, the end of which is the bifid leaf motif. The third band of decoration consists of panels of 'arrow-heads', turned on their sides, diagonal wavy lines enclosing triangular areas of small circles, and animals, the foot of one can be seen at the extreme right. A basal wreath, similar to the uppermost, completes the pattern. The wreath motif is very like that used extensively by the *Natalis* group (cf. K19, Taf. 61, and the discussion at p. 65). In this case the ovolo tongue, to the left, is somewhat atypical (cf. Knorr, Taf. 2, 3 and 8), but this may be the effect of spacing a single poinçon (cf. Karnitsch, 1955, Taf. 3, nos. 3 and 5). The small circles are known from La Graufesenque (Hermet, 1934, pl. 35, no. 16), and the fabric is more like the late products from that site than from Banassac.

Date *c.* A.D. 80-100

63. Form 37. Slip, red-brown, rough; fabric, pink with some chalky inclusions.

A full description of this vessel is given in Atkinson, 1914, pl. XI, no. 55, and the ascription to Mommo is fairly certain.

Date *c.* A.D. 70-85

64. Form 37. Slip, red-brown, rough; fabric, pink, coarse.

Lion devouring man, a typical Flavian scene, O.1493. The branch, grass tuft and S-shaped basal wreath probably indicate the Biragillus-Mercator group, rather than the still later South Gaulish potters using the lion.

Date *c.* A.D. 75-95

65. Form 37. Two sherds probably from the same vessel. Both have a red-brown slip, coarse; fabric, pink, poor.

The ovolo is double-bordered, with a straight tongue ending in a trifid tip. On either side of an upright wreath of V-shaped leaves are panels presumably containing figures, with corner tendrils of lanceolate leaves. A bird, O.2232A, stands on the wavy line border above the three-lobed basal wreath.

A mixed Flavian group (cf. K19, Taf. 16, details 10, 22 and 33 by Calvus, and Taf. 57, details 12, 15 and 19 by Mercator).

Date *c.* A.D. 80-100

66. Form 37. Slip, red-brown, patchy, but with reasonable gloss; fabric, pink, hard.

Double-bordered ovolo, with blurred tongue to left, ending in rosette, or round knob. Panel decoration with coarse wavy line borders, containing a three-ringed medallion, with a kneeling archer, O.268, but smaller, and to the right a palm leaf, probably from St Andrew's cross motif. Below, a basal band of festoons, with a thick striated rod as the swag end.

The archer in this size is known from the work of C. Valerius Albanus (cf. Bushe-Fox, 1949, 173-4, for a discussion of this potter's activities), and the form 37 at the Guildhall Museum also has a basal festoon design, although the swag end is different.

Date *c.* A.D. 75-90

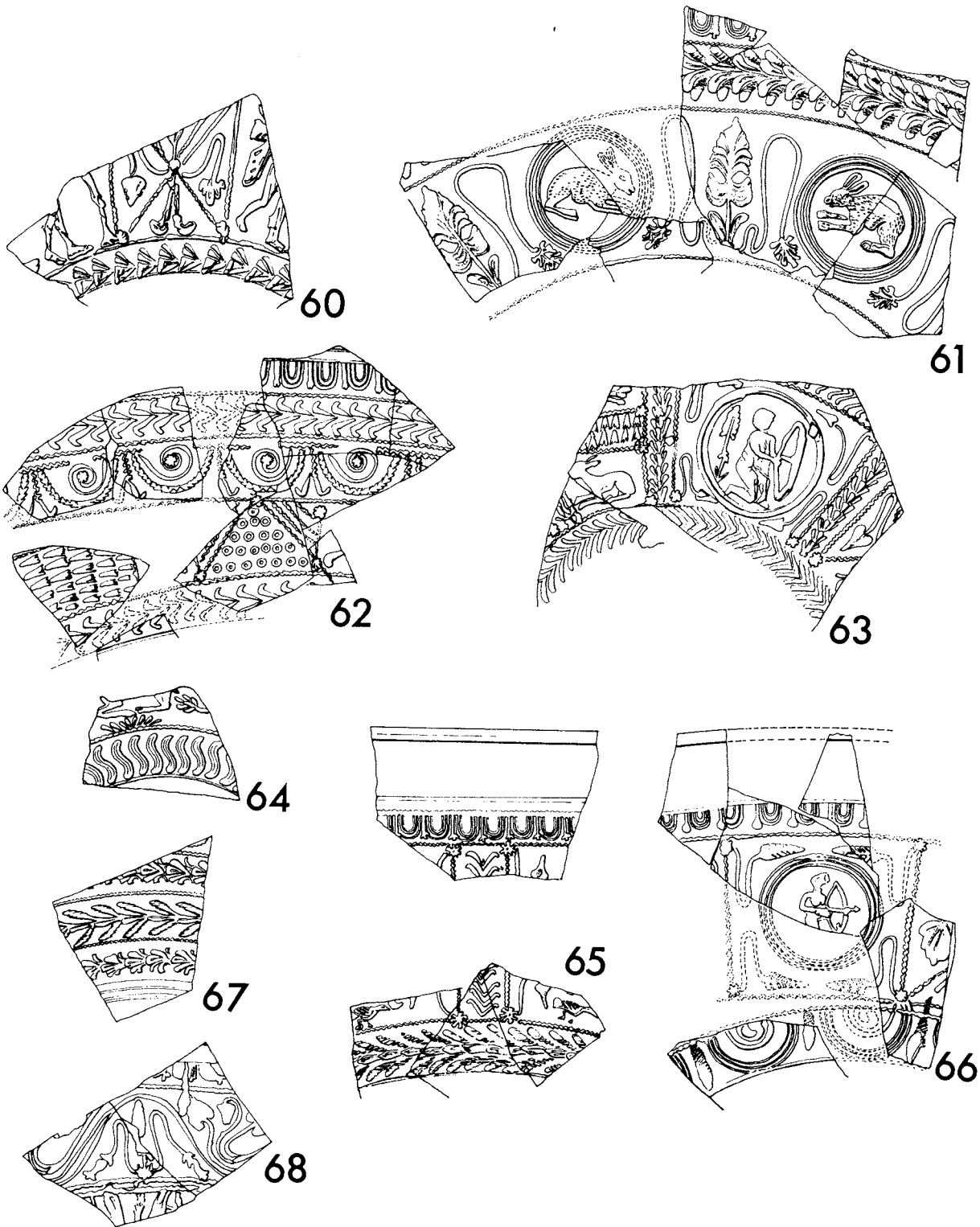


FIG. 132. Decorated samian ware: scale $\frac{1}{2}$ (pp. 286-90)

67. Form 37. Slip, red-brown, smooth; fabric, pink, fine.

Lower part of bowl, apparently decorated by a series of straight, horizontal wreaths. The upper and lower have the same compound leaf motif, while the centre band has a trifold leaf motif, with striated outer lobes and a blade shaped centre. Similar designs from La Graufesenque appear on transitional bowls, when form 37 was replacing form 29, but the repertoires tended still to be in the form 29 tradition (cf. Hermet, 1934, pl. 47, nos. 10 and 43).

Date *c.* A.D. 70-85

68. Form 37. Slip, brown-red, thick, smudgy and dull; fabric, pink, coarse.

The ovolo is so blurred that nothing positive can be said. The decoration is divided into at least two bands. The upper has a winding scroll ending in two sizes of lanceolate leaves, and covering a 'tree ornament' with a narrow central leaf, and side tendrils with bottle-shaped buds. The lower band is confused, but probably represents a compound tree ornament or bush.

Date probably *c.* A.D. 85-100

69. Form 37. Slip, dark brown-red, thick; fabric, pink, hard with some chalky inclusions.

Double-bordered ovolo with tongue slanting to right and swollen tip bent to right. A large bead row separates the panel decoration. To the left, and repeated at the extreme right, a St Andrew's cross motif. The central branch is of three poppy heads and these are flanked by large bottle-shaped buds. The side tendrils trail lanceolate leaves. To the right a figure of Diana (?O.105), then two half panels, the upper with diagonal wavy lines enclosing 'arrow-heads' with five barbs, the lower, a lion similar to O.1472. The series is completed by a seated figure of Mars, above more 'arrow-heads'. A basal wreath of trifold leaf motifs closes off the decoration, without a border.

Unfortunately, the Mars, who should be the most easily distinguished part of the decoration, has not yet been closely ascribed. Equally, the Diana, although a known type, is too blurred at the distinctive points to bear positive identification. The lion was used by Coelus, Passienus and Rufinus. Of these, Passienus can certainly provide many of the smaller details from his vast repertoire. The poppy heads, bottle-shaped bud, trifold wreath and lanceolate leaf could be his, (cf. K19, Taf. 62, details 11, 47, 49 and 66). The five barbed arrow-heads are also his (K52, Taf. 49E). For further comments see under the spouted form 37, no. 49 supra.

Date *c.* A.D. 75-90

70. Form 37. Slip, brown-red, thick; fabric, pink, coarse.

St Andrew's cross trailing bottle-shaped buds, above basal wreath of V-shaped leaves. Very common Flavian design (cf. K52, Taf. 19A and E) both by M. Crestio.

Date *c.* A.D. 80-100

71. Form 37. Slip, red-brown, fairly smooth; fabric, pink, rough.

Double-bordered ovolo, with tongue to right, ending in tip tucked back under the ovolo. Festoons, with stipuled cordate buds, and swags of a four-lobed frond. Below a wavy line, 'arrow-heads', another transitional design (cf. Knorr, 1912, Taf. xx, no. 4).

Date *c.* A.D. 75-90

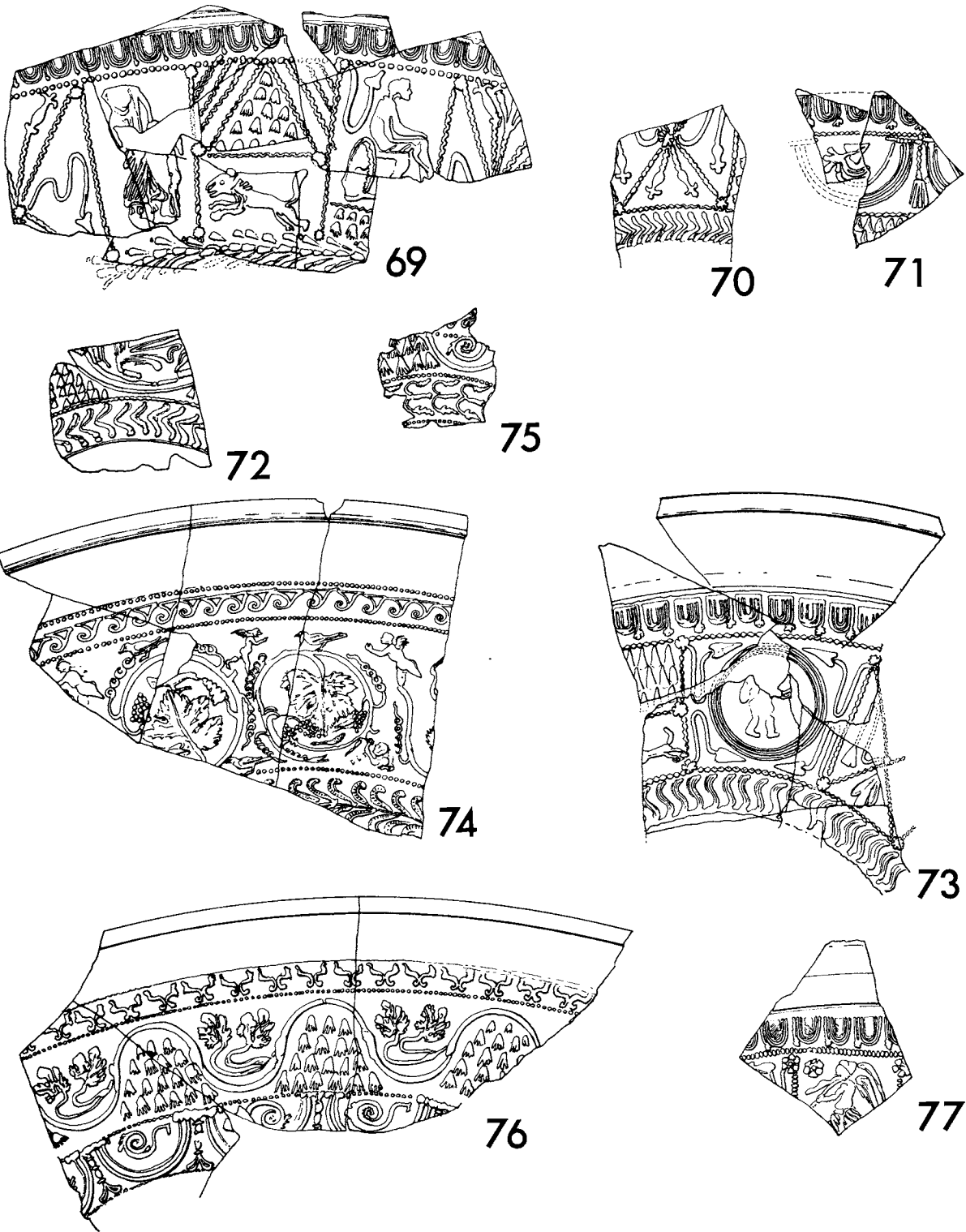


FIG. 133. Decorated samian ware: scale $\frac{1}{2}$ (pp. 290-2)

72. Form 37. Slip, brown-red and dull; fabric, red-pink, coarse.
 Scroll containing large palm leaf, with tendril bindings of small astragali. 'Arrow-head' panels fill the lower concavities, and the design is completed by striated V-shaped leaves to the right. Perhaps the work of the Flavian Iucundus. He uses the astragali (K19, Taf. 43, detail 16). A related bowl comes from Rottweil (Knorr, 1912, Taf. xx, no. 5).
 Date *c.* A.D. 75-90
73. Form 37. Slip, red-brown, thick and a little rough; fabric, pink, hard.
 Double-bordered ovolo, with tongue attached to right, ending in rosette, which is tucked to the left, under the ovolo. A single impression tool was clearly used, and as can be seen the tip is a little blurred. It is just possible that it is of the trifold form. Panel decoration; to the left, a half panel of long 'arrow-heads' above a small dog running to the right, O.2035A, in the centre a cupid in a medallion with corner tendrils, and to the right a St Andrew's cross motif. A basal wreath of S-shaped motifs completes the design. Style of Vitalis, his cupid and S ornament (K19, Taf. 83, detail 2 and 5 and Taf. 84F), and 'arrow-heads' and St Andrew's cross (K52, Taf. 61).
 Date *c.* A.D. 75-90
74. Form 37. Slip, brown-red, smooth and very glossy; fabric, pink, fine.
 Ovolo replaced by continuous scroll motif. Below, a 'vintage' scroll with large vine leaves, bunches of grapes, putti and birds amongst the foliage. A bead row marks off the 'ram's horn' basal wreath. A bowl in the same style comes from Carlisle (S&S., pl. 46, no. 45), attributed to Donnaucus. It has the ovolo replacement, the small putti, O.405 and 458A, and the miniature Bacchic bust drinking from the tendrils. The London vessel (S&S., pl. 49, no. 577) also has similarities, the ovolo there being of the regular type. A further close parallel from Corbridge (S&S., pl. 73, no. 47), has a fragmentary signature. At Brecon (Wheeler, 1926, pl. 83, S.168 and 169), the vine scroll appears with the 'ram's horn' wreath, bead row borders, large rosettes and a round-tongued ovolo, and also on a vessel with rosette-tongued ovolo, cordate winding scroll, large astragali and seven-pointed rosette (cf. S&S., fig. 11, details 13, 23 and 29) attributable to Donnaucus. A further related piece from Wroxeter (Bushe-Fox, 1913, pl. xv, no. 14), is attributable by the acanthus replacement of the ovolo to Donnaucus (S&S., fig. 11, no. 15). Whether or not these vessels are all the work of that potter must remain a matter of doubt. Their beautiful execution rivals anything produced in South Gaul, and the detail on the figures is freer than most of the Italian work. Martres ware.
 Date *c.* A.D. 100-20
75. Form 37. Slip, brown-red, smooth and glossy; fabric, pink, soft.
 Base and a little decoration in the style S&S., potter X-3 (cf. pl. 14, no. 170); all the motifs are his. Martres fabric.
 Date *c.* A.D. 100-20
76. Form 37. Slip, brown-red, thick and glossy, but flaking; fabric, pink, soft.
 Style of S&S., potter X-3; cf. pls. 14, no. 170 and pl. 16, no. 196 for general design and the leaves together with the ovolo replacement. The plain bifid leaf used as a swag end, is shown as a basal wreath on the form 37 from York (S&S., pl. 14, no. 178). Martres ware.
 Date *c.* A.D. 105-20
77. Form 37. Slip, dark brown-red; fabric, red-orange
 The only East Gaulish sherd which is recognizable. A double-bordered ovolo with tongue to left, ending in a blurred rosette tip bent to the right. Panel decoration, with the winged flautist, O.860. The borders are heavy bead rows, and are tied by the very distinctive six-beaded rosette, with triangular beads.
 Style of the Chemery potters (cf. Delort, 1953, pl. 46, Tesson 6615).
 Date *c.* A.D. 110-40

78. Form 37. Slip, brown-red, thick and glossy; fabric, pink, soft.
 Style of Libertus (cf. S&S., pls. 51–5); the ovolo replacement of circles and dot with straight tongue, oblique bead rows, Venus, O.277, portrait bust, O.1209, and mask, O.1231A, all appear in his work. The great depth of relief which marks the portrait bust required different artistic treatment to do it justice, and it is a pointer of distinction and character.
 Date *c.* A.D. 120–40
79. Form 37. Slip, brown-red, thick and lustrous; fabric, pink, soft.
 Wreath of cornucopiae, above basal wreath of nine-petalled rosettes, between wavy lines. Style of Ioenalis, his decorative details (S&S., fig. 10, p. 37, nos. 2 and 34). Martres ware.
 Date *c.* A.D. 100–20
80. Form 37. Slip, brown-yellow, matt; fabric, pink-orange, regular.
 An interesting bowl in the style called by S&S. 'Butrio–Attianus' (cf. S&S., p. 165). The ovolo is S&S., fig. 23, no. 2, where it is linked with the name of Austrus (S&S., fig. 25, no. 2), although the two drawings differ considerably. However, in terms of decoration, the bowl is clearly in a shared style. The opposed hares separated by the upright leaf can be seen on S&S., pl. 61, nos. 689–90, while the goose, O.2313, appears in the work of Docilis (S&S., pl. 92, no. 12). The winged figure, O.403, appears on the work of Austrus (S&S., pl. 94, nos. 5 and 7). The danseuse, O.354, is rarely used by the Hadrianic group, and is similar to that used by Servus (S&S., pl. 124, no. 1). Exactly who was responsible for the design cannot be determined; the style is Hadrianic, and the answer is probably in the unravelling of the output of the Sacer–Attianus workshop and its multifarious activities.
 Date *c.* A.D. 120–40
81. Form 37. Slip, orange-brown, 'orange-peel' finish; fabric, orange-pink.
 Stamped ATTIAN·O ret. A bowl in the style of S&S., pl. 86, no. 12, where both lions can be seen; the leaping warrior, O.684A, is also his.
 Date *c.* A.D. 125–45
82. Form 37. Slip, light brown-red, matt and thin; fabric, a little yellowish.
 Style of Docilis; his boar, O.1666, large S-motif and fern (S&S., pl. 92, nos. 1 and 12). Note the part panel (cf. S&S., pl. 92, no. 16).
 Date *c.* A.D. 130–50
83. Form 37. Slip, light brown, thin, matt; fabric, yellowish-pink.
 A complete bowl, with a double-bordered ovolo with straight tongue ending in trifid tip. This can just be seen on the extreme left and right. Mr Hartley has suggested the work of the Aunus–Cerialis–early Cinnamus–Paullus group of potters, which he points out can account for all the individual motifs, e.g. the eagle, O.2167 (S&S., p. 292). Against this, the ovolo looks very like that of the so-called Servus III (S&S., pl. 138, and particularly note the erratic spacing of ovolo and tongue). Cintusmus finished a bowl with this ovolo (S&S., pl. 164, no. 7), and he also finished bowls using Cinnamus ovolos (cf. Steer, 1961, p. 109, in comments by Hartley). Obviously not a straightforward identification and the answers must be sought in the workshops of late Hadrianic and early Antonine periods, when those potters who can be clearly recognized in the Antonine period were getting their experience and forming their business connections.
 Date *c.* A.D. 140–60

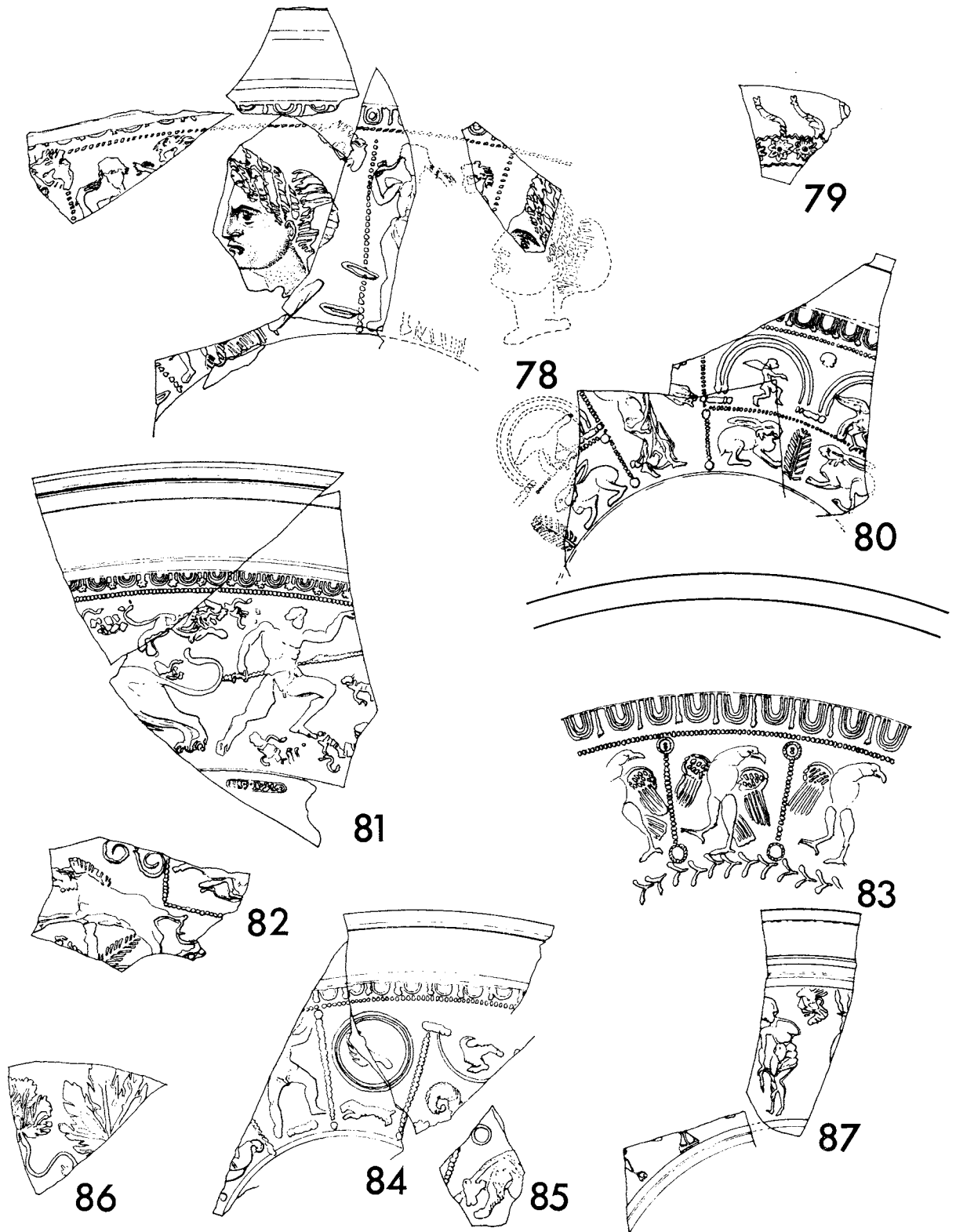


FIG. 134. Decorated samian ware: scale $\frac{1}{2}$ (pp. 293-5)

84. Form 37. Slip, red-brown, poor and underfired; fabric, pink, coarse.
Panel decoration, to the left, and repeated on the right, a large double ram's horn motif, with a festoon above containing a pigeon. To the right the legs of nude figure above an astragalus, and to the right again, a small medallion containing a ?leaf, below which is a small animal running towards the left. The whole bowl is ill finished, and badly blurred.
Style of Casurius; his ovolo (S&S., fig. 40, no. 3), ram's horns (S&S., pl. 134, no. 30) and the use of the small medallion which, with vegetable motif inside it, is characteristic (cf. S&S., pl. 132, nos. 6 and 12, and pl. 136, nos. 52 and 53).
Date *c.* A.D. 140-65
85. Form 37. Slip, red-brown, well fired, thick; fabric, pink, hard.
Panel decoration, with part of a bear, O.1609, below a ring. Probably the work of Cinnamus.
Date *c.* A.D. 150-80
86. Form 37. Slip, brown-red, pitted; fabric, pink, hard.
Two leaves in the style of Cinnamus (cf. S&S., pl. 161, nos. 51 and 58).
Date *c.* A.D. 150-80
87. Form 64. Slip, orange-red, smooth, thin; fabric, orange.
All that remains of the decoration is the female figure, O.290, and a mask, O.1218. Probably from the Libertus workshop; cf. S&S., pl. 53, no. 622.
Date *c.* A.D. 120-40
88. Form 78. Slip, brown-red, thin, smooth; fabric, pink, hard and fine.
To the left an upright panel of rosettes bounded by wavy lines. To the right a lion, O.1417. Similar designs can be seen from La Graufesenque (Hermet, 1934, pl. 91, no. 34 and pl. 92, no. 23).
Date *c.* A.D. 65-80
89. Form 78. Slip, red-brown, smooth; fabric, pink, hard.
A crude rendering of the gladiator, O.1016, but smaller, over long 'arrow-heads'. A small bottle-shaped bud trails from a corner tendril.
Date *c.* A.D. 70-85

PERIOD 3 DESTRUCTION (nos. 90-6)

90. Form 37. Slip, brown-red, thin and rough; fabric, pink, hard.
Single-bordered ovolo; the tongue appears irregularly placed and ends in a small rosette. Below a row of small beads, small medallions enclosing birds, O.2249 and 2294, with small rosettes. Between the medallions are upright striated rods.
A number of potters, including Censor, Medillus and Passienus, used the birds, although the similarity between birds of like design make for difficulties in distinguishing potters from drawings (cf. K19, Taf. 22C, particularly, also Tafs. 54A and 64G, all on form 29).
Date *c.* A.D. 70-85
91. Form 37. Slip, brown-red, rough; fabric, pink, hard.
Double-bordered ovolo with straight tongue ending in large rosette. Below a wavy line border, a straight wreath of three blade-shaped leaves, and below another wavy line, large 'arrow-heads'.

A number of potters used the wreath (cf. K19, Textbild 12, giving Passienus, Rufinus and Secundus). Each of these was working in the transitional period when form 29 was giving way to form 37, and the rosette-tipped ovolo tends to be earlier than the trifid-tipped type, although the potters Mercator and M. Crestio used a rosette-tipped ovolo on their earlier work (cf. Oswald, 1948, pl. xxii, nos. 3 and 8).

Date *c.* A.D. 75-90

92. Form 37. Slip, brown-red, rough; fabric, pink, coarse.

Feet of running hare to right of compound 'tree' ornament above trifid leaf wreath. A related group of vessels comes from Rottweil (Knorr, 1912, Taf. xxi), all linked by a large leaf, which is seen in the work of Biragillus (K19, Taf. 16, detail 20). A fairly exact parallel to the current vessel is the lower band of a form 29 from Windisch (K19, Taf. 83E).

Date *c.* A.D. 80-100

93. Form 37. Slip, red-orange, thin and patchy; fabric, orange-pink, soft.

Neat, single-bordered ovolo with straight tongue ending in clear small ring. Between wavy line borders, a neat bifid leaf wreath above a frieze of animals. To the left, a wolf suckling Romulus and Remus, O.849, separated by upright wavy lines from a hound (O.1929 is the closest), confronting a small boar, O.1691. Below, another bifid wreath above a series of festoons, hung from astragali. The wolf appears in the work of Martialis and Marinus, as well as a number of unstamped sherds. Unfortunately, neither the present, nor the Martialis type from London, is complete, although both pieces joined make a tolerably complete and compatible type. The ovolo belongs to a mainly Neronian group (cf. Hermet, 1934, pl. 72, nos. 3, 4, 8 and 9), and the bowl probably belongs to the latter end of that period.

Date *c.* A.D. 65-80

94. Form 37. Slip, red-brown, with an orange cast; fabric, pink-orange.

Small sherd with tail of lion, tree and grass. These all appear in the work of Attianus (S&S., pl. 85, no. 9 and pl. 86, no. 12).

Date *c.* A.D. 125-50

95. Form 37. Slip, brown-red, coarse; fabric, pink, coarse, hard.

Panel decoration with beaded borders and beaded rosettes. To the left, the legs of a robed figure, to the right a mask?

Date after *c.* A.D. 150?

96. Form 37. Slip, red-brown, thick, rough; fabric, reddish, coarse.

Panel decoration with two dolphins, O.2384 and 2394?

Perhaps the style of Doecus (cf. S&S., pl. 147, for very similar dolphins).

Date *c.* A.D. 160-90

ROBBER TRENCHES AND LATER (nos. 97-108)

97. Form 37. Slip, brown-red, thick, smudgy; fabric, pink, soft with chalky inclusions.

Ovolo with single border, straight tongue and trifid tip. In the surviving panel a Diana, O.104, to the right part of a medallion. Style of Crucuro (K19, Taf. 29, details 18 and 1, for the ovolo and Diana).

Date *c.* A.D. 80-100

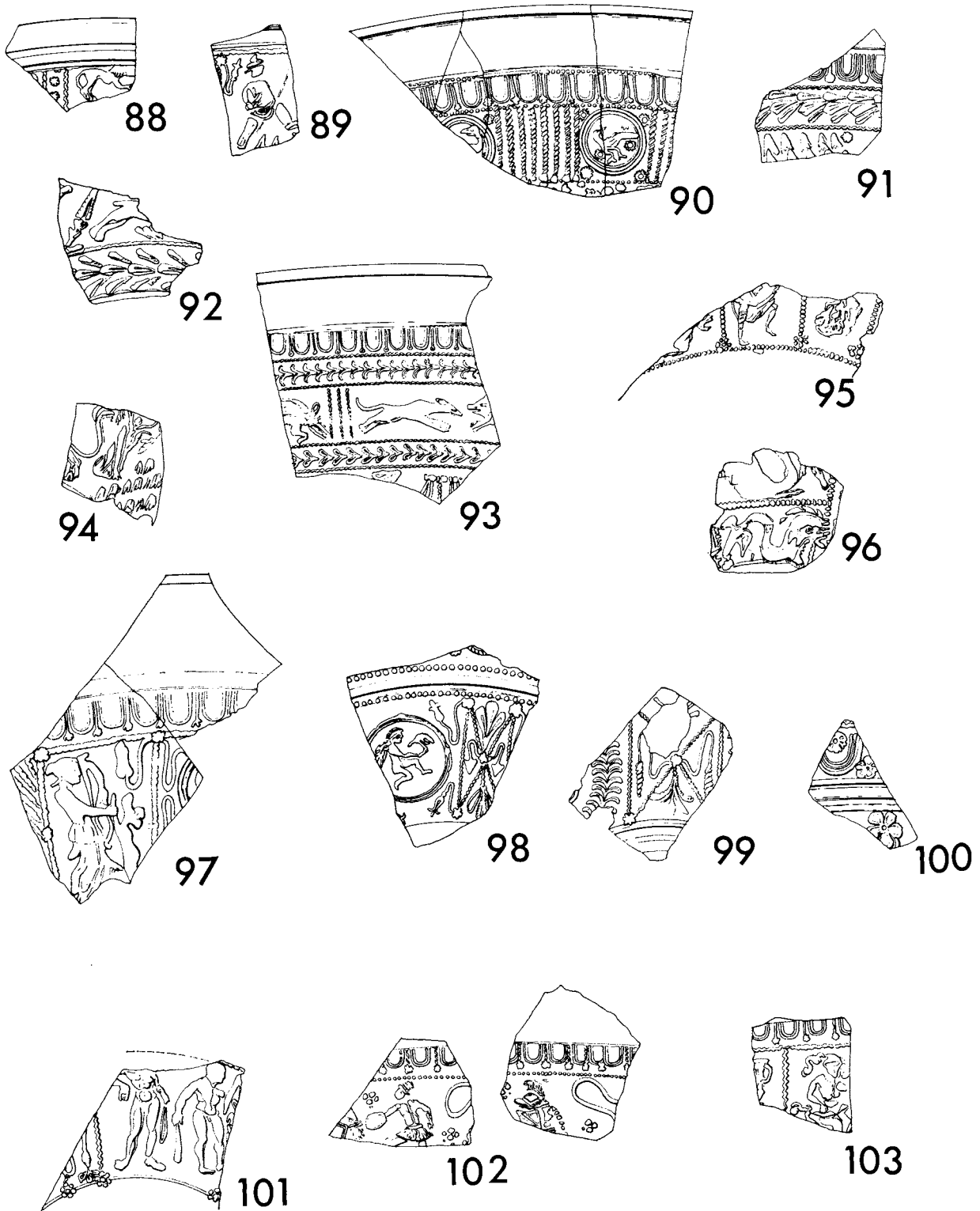


FIG. 135. Decorated samian ware: scale $\frac{1}{2}$ (pp. 295-8)

98. Form 29. Slip, brown-red; fabric, pink. Clean work with very sharp decoration.
Upper zone: Remnants of a corded medallion with rosettes.
Lower zone: Medallion containing a variant of O.502, with bottle-shaped buds from the corner tendrils. To the right, a compressed St Andrew's cross motif, with a three-lobed leaf motif and lanceolate leaves. The whole design is exactly on a form 29 from Moulins, stamped by Passienus. A most interesting comparison is the form 30 from Bregenz (K19, Taf. 97A).
 Date *c.* A.D. 70-85
99. Form 29. Slip, very brown-orange, matt; fabric, pink-orange, fine.
Lower zone: Festoon of bifid leaves to left, St Andrew's cross in centre, with compound leaf frond, and striated rods. The festoon, together with the fabric suggest the work of Labionis (cf. K19, Taf. 44C and K52, Taf. 32D).
 Date *c.* A.D. 50-65
100. Form 29. Slip, purple; fabric, red.
 The odd rosettes and distinctive central moulding cannot be easily placed in the mainstream of South Gaulish design. Perhaps one of the intermediate pieces in the series which end with Southern pottery on the Antonine Wall.
 Date, second century
101. Form 37. Slip, brown, thick; fabric, pink, thick and soft. Martres ware.
 Style of S&Ss., Potter X-4 (Ivocatus?). His figures, O.233 and O.153, and cf. S&S., pl. 18, no. 233, for the vegetable ornament.
 Date *c.* A.D. 100-20
102. Form 37.
 Two sherds from the same vessel in the style of S&S's potter X-3 (Detsicas, 1963).
 Date *c.* A.D. 100-20
103. Form 30.
 In the style of Quintilianus (S&S., pl. 72, no. 35 and fig. 17, no. 1).
 Date *c.* A.D. 125-50
104. Form 37.
 In the style of Advocisus with his standing figure, O.159A.
 Date *c.* A.D. 150-80
105. Form 37.
 In the style of Advocisus in the figure types S&S., pl. 113, nos. 15, 16 and 19.
 Date *c.* A.D. 150-80
106. Form 37.
 In the style of Paternus with his lion, O.1533, and ovolo (S&S., fig. 30, no. 4).
 Date *c.* A.D. 180-90
107. Form 30.
 In the style of Doeccus with a faun, O.1752A and standing figure in remarkable detail, O.238.
 Date *c.* A.D. 160-90
108. Form 30. Slip, purplish-red, even but thick; fabric, red-pink, hard.
 Style of Doeccus, his bead rosette, fern, leaf with frills, and small leaf (S&S., fig. 44, nos. 1, 31, 32 and 37). The small stag is also recorded as his, O.1732 from Lezoux.
 Date *c.* A.D. 160-90

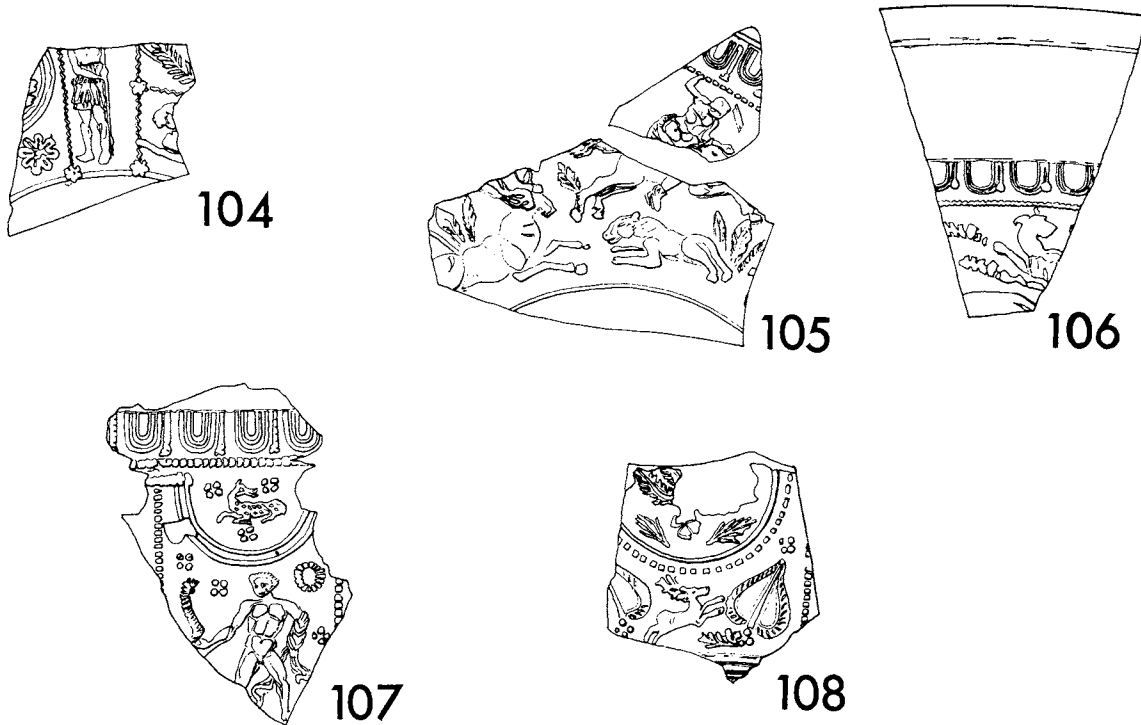


FIG. 136. Decorated samian ware: scale $\frac{1}{2}$ (p. 298)

THE STAMPS ON THE SAMIAN WARE

GENERAL COMMENTS

There are too few stamps from Fishbourne (about 130) to be a reliable guide to the detailed vicissitudes of the site itself. Nevertheless, one or two points should be put tentatively.

First and most obvious is the comparative rarity of stamps of the later Flavian and Flavian-Trajanic potters of South Gaul, of the Trajanic-Hadrianic ones of Les Martres-de-Veyre, as opposed to Hadrianic-Antonine ones of Lezoux. In the first-century occupation of Scotland the commonest potters in order of frequency are: Logirrus, Vitalis, Frontinus, Sabinus, Calvus, Cosius Rufinus, Iucundus, Iullinus and Patricius. At Fishbourne only Patricius (3 stamps) and Logirrus (2) have more than one stamp, and only one stamp of Vitalis is relevant; Frontinus, Sabinus and Calvus occur once each. The other potters are lacking. Similarly for the Trajanic-Hadrianic potters of Les Martres-de-Veyre, only Donnaucus, Draucus, Ioenalis, Latinus and Lentiscus appear, and only with a stamp apiece. At first sight this might mean lessening of the intensity of occupation in the range A.D. 80-130. Equally probable, however, would be an explanation in terms of a more efficient system of rubbish collection at that period. The evidence of the samian stamps cannot, therefore, be used usefully. However, there clearly was a change in the situation in the middle of the second century, indicating either intenser occupation or less care of the site.

Trade connections in the first century were obviously mainly with South Gaul. Even there curious gaps appear. Where are Aquitanus and Bassus? Why is Licinus so rare in comparison, say, with Niger and Passenus/Passienus? Again the answer may lie, but not necessarily so, in the small total number of stamps, less than one a year for the first- and second-century occupation (cf. Cunliffe, 1968, 146 ff.).



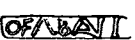
First-century Lezoux potters include only Atepomarus and Capanus, but this is not really surprising.

The second-century connections are obviously with Lezoux after A.D. 125. Indeed the absence of any East Gaulish ware is striking. Only the doubtful stamp of Dessius is noted.

DESCRIPTION (stamps are illustrated full size)

1.  L·ADN·A[DGENI] Form 33. Plough-soil


Oswald takes the potter as L. Adnadenus, assigns him to South Gaul, and dates him 'Nero-Vespasian' (?). More probably it is a matter of the *tria nomina* of citizenship, and L. Adn . . . Adgenus is more acceptable (cf. Holder, 1891-1913, *Altceltischen Sprachschatz*, col. 39, 43, and *Nachtrag*, col. 506, 508 ff.). As for the date, Oswald is misled by the Poitiers stamp, which is on form 79, not as recorded by him on Ritt. 8. All other records are on Antonine, and late Antonine forms too. A date *c.* A.D. 160-90 seems certain, and Adgenus probably worked at Lezoux.

2.  O]F AL BANI (a) Form 27. Period 3 destruction
 OF AL B[ANI] (b) Form 27. Period 2 garden
 OF AL BANI (c) Form 27. Period 1 B



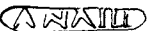
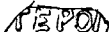


Three stamps from the same die, for which over fifty examples have now been recorded, all on form 27. There was no doubt more than one South Gaulish Albanvs, but the site record for this stamp, including Carlisle, Chester, York (2), Nijmegen fortress (3) and Nijmegen (Ulpia Cemetery) shows that it was in use in the 70s. A date *c.* A.D. 65-80 serves the likely range.

3.  OF ALBINI Form 27. Period 1 B

An uncommon stamp of Albinus only otherwise noted from La Graufesenque, the Eccles villa (on form 15/17) and Shefford. Many of this potter's stamps are on definitely pre-Flavian forms, and when allowance is made for the fact that Oswald (p. 10) includes some Lezoux stamps under the South Gaulish potter, there is no evidence of Flavian activities. Close dating is not yet possible, however.


4.  ALBVCIANI Form 31 R. Period 3 destruction

Albucianus of Lezoux, whose late Antonine date is demonstrated by many stamps from Pudding Pan Rock, including examples from the same die as this. Date A.D. 160-200.

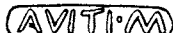
5.  AL B[VCI.OF] Form 33. Plough-soil
A stamp of the well-known potter Albucius of Lezoux, evidently not before A.D. 160 on the evidence of the stamp from the Hambleton villa on form 27. Date *c.* A.D. 150-80.
6.  OF AMAN Form 27. Period 2 construction
Usually on form 27, this stamp of Amandus of La Graufesenque occurs at Camulodunum, and in the ditch of the fort at Cirencester in a group of unused samian of *c.* A.D. 55-65, and in a pit at London, almost certainly earlier than the Boudiccan burning (*T.L. & M.A.S.*, N.S. XI, 257, no. 49). Date *c.* A.D. 50-65.
7.  ANAILI Form 27. Period 3
Anaiillus certainly worked at Lezoux, where one of his stamps has recently been found on a waster in a pit filled *c.* A.D. 125-35. His work is fairly common in Holland, and this again strongly suggests Hadrianic activity, since after A.D. 140 Lezoux products are rare there. His forms, mainly 27, 18/31 and 18/31 R, agree with this date, *c.* A.D. 120-40.
8.  ATEPOA Form 18. Period 1 B
Atepomarus, as is well known, was the only first-century potter of Lezoux whose work reached Britain in quantity, and this particular stamp, probably from a broken die originally giving ATEPOM, has only been found in this country so far on a form 18 from Silchester, and a form 29 from London (G.H.). Oswald, p. 25, includes some South Gaulish stamps under the Lezoux potter, and OF.ATEPO (Emporion, Paris, Sels, Vechten and Nijmegen) must be removed. Probably the stamps OF.ATEP and ATEPOF should go too, and perhaps ATEP as well. Independent dating-evidence is hard to find, though it should be noted that the British distribution is now considerably greater in quantity than when Oswald wrote, and his decorated ware occurs at Baginton, where occupation before A.D. 60 is perhaps unlikely.
9.  ATR[I] Form 27. Period 3 occupation
This stamp is usually assigned to a rather dubious potter, Ater of South Gaul (Oswald, p. 25). It is, however, almost certainly from a broken die, originally giving PATRI, and assignable either to Pater or, more probably, Patricius of La Graufesenque. However that may be, it is always on typologically Flavian examples of form 27 and records from Caerleon, Chester and York add confirmation. Date *c.* A.D. 75-100.
10.  ATTIAN.O (ret.) Form 37. Period 3 occupation
See p. 293. This stamp of Attianus seems to have been in use at the same time as the commoner large OF.ATT (ret.) stamp. It has only once been noted from a definitely Antonine context, at Newstead (Curle, 1911, p. 231, no. 3). Curiously enough, although it is a plain ware stamp used in moulds for decorated bowls, it has never been noted on plain forms. Date *c.* A.D. 125-45.

11.  ATTILLI·MĀ Form 31. Period 3 occupation

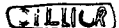
More than one potter is involved in Oswald (p. 28), under Attilus of Lezoux. This stamp is certainly Antonine, since it appears on form 80 at Clermont-Ferrand (Coll. Suchon) and the British records for it seem consistently Antonine.

12.  AVNVSF (*in ansis*) Form 33. Period 3 occupation


Aunus worked at Lezoux in the Antonine period and, unless there was another potter of this name, Oswald's record on form Ritt. 8 at Rouen (p. 35) must be wrong. His decorated ware is entirely Antonine in style, and this stamp is known on form 38 at Colchester (Sheepen), and others on form 27 at Lezoux and Wroxeter. A date *c.* A.D. 140-70 is likely.

13.  AVITI·M Form 18/31. Plough-soil

Avitus of Lezoux, a Hadrianic, and early Antonine potter to judge by his occurrences there. The same stamp is on a form 27 at Lezoux. Date *c.* A.D. 125-55.

14.  BILICUR Form 27. Period 3 occupation


The final letters seem clear and are close in style to those of other stamps of Billicuro, having the same reading (forms 27 and 33 at La Graufesenque). Forms 18 and 29 were also stamped by Billicuro. Nijmegen offers these stamps from the fortress and the *colonia*, suggesting the probability of Flavian activity. Date *c.* A.D. 60-85?

15.  CAIVS Form 27. Period 1


This stamp could either belong to the potter Caius who normally stamped OF CAL, or, since it is not very clear, perhaps to Calvus. Both possibilities would suggest a Neronian or early Flavian date.

16.  KAL·ENDIO Form 33. Robber trenches

Calendio, who stamps impartially with initial C or K, was probably a Hadrianic-Antonine potter, as this stamp occurs almost as commonly on form 27 as on form 33. Only one stamp from a certain Antonine context is known, from Balmuildy. Date *c.* A.D. 130-60.

17.  OF CALV[I] Form 33. Period 2 construction

See Cunliffe, 1968, p. 129, for general comments on the potter Calvus. Date *c.* A.D. 65-90.

18.  [CAMP]ANIM Form 33. Period 3 occupation

There seem to have been three Campani producing Samian: a South Gaulish potter with stamps beginning OF...; a first-century potter of Lezoux stamping CAMPANIO, with the I inside the o, and an Antonine potter of Lezoux, whose work is known from Pudding Pan Rock. The Fishbourne stamp is on form 38 at Lezoux and is therefore likely to belong to the last potter and be late Antonine.

19.  CAPANI Form 27. Period 3 occupation


A stamp of a first-century potter Capanus of Lezoux, the only other example from this die being from Poitiers (?form 18). At Lezoux itself a similar stamp, reading CAP.ANIO was found on a waster of form 18, and a London (G.H.) stamp CĀMPANIO (with I inside the o, see no. 18, above) on a first-century form 27, from Lezoux, is probably relevant too, since assimilation of the name to the Roman gentilicium Campanius or the cognomen Campanus is not unlikely. Second-century Lezoux stamps offer both Campanus and Canpanus, probably only one man. Dating is difficult, because the ware rarely reached military sites, but it seems to have been reaching Britain mainly in the period A.D. 55-75.

20.  CAR[BONISMA] Form 18 R. Period 1 B


Carbo worked at La Graufesenque (Hermet, 1934, pl. 110, no. 25), and this stamp was usually used on dishes of forms 18 and 18 R. The single occurrence on form 27 has only the two ends of the die impressed, giving rise to the reading CAIS (form 27, Exeter, hence Oswald's record under CAIVS, p. 53). There seems no doubt of Flavian or even Flavian-Trajanic date, in view of the records from Corbridge, Wilderspool, the Nijmegen fortress (3), and the Hees cemetery at Nijmegen and Rottweil. This stamp from Period 1 B gives an initial date for Carbo of *c.* A.D. 70-5.

21.  CARILLI Form 33. Period 1 B

This stamp of Carillus, which is uncommon, has only otherwise been noted on form 18 at Vechten and Courthezon (Vaucluse). Presumably it belongs to the potter who worked at La Graufesenque and stamped form 29. A discussion of the name is covered in Ellis Evans, 1967, with full references to the earlier work, particularly in relation to La Graufesenque. Finds from Flavian sites (including Caersws, the Nijmegen fortress and Rottweil) are extended by the stamp, probably of the same man from Camulodunum, and some of his decorated ware could well be late Neronian, but only just. Date *c.* A.D. 65-80?

22.  [C]ELEROS (ret.) Form 18. Period 1 B


Although this stamp is so far unique, there is no doubt that it belongs to the potter who stamped CELEROS at La Graufesenque (form 15/17, Millau Museum), as the lettering is almost identical. A stamp from the Second Pottery Shop at Colchester (Hull, 1958, fig. 99, no. 4) offers the best evidence of date and *c.* A.D. 50-65 is suggested.


23.  C·EISI· or C·ELÆI (ret.) Form 24-5. Period 1 B-C

Celsus of La Graufesenque (and? Rozier, cf. Hermet, 1934, p. 286). The same stamp occurs on form Ritt. 9 and should definitely be pre-Flavian. Date *c.* A.D. 45-65.


24.  CELSIOM Form 33. Robber trenches

The stamp is on forms 79 and 38 at Lezoux, and appears to be mid to late Antonine, from contexts in Britain (Bainbridge and Stanwix). Indeed, all the Celsus stamps in CELSIM or -MA noted by Oswald (pp. 71, 370) are Antonine. Date *c.* A.D. 150-90.

25.  [CIN]TVS MF (a) Form 33. Period 3 occupation

 CINT[VSMIM (b) Form 33. Period 3 occupation

Of the various Cintusmi, Central Gaul may claim a Lezoux potter and evidently one of St Bonnet (Oswald, pp. 78-9). The Lezoux potter, in question here, seems to have had a long and active life in the Antonine period. The first stamp occurs more commonly on form 27 than 33, and is likely to be early Antonine. The second stamp occurs in late Antonine forms, such as 31 R and 79 R. Their date should be *c.* A.D. 145-70 and 155-90, respectively.

26.  [CIN]T·VSS·A Form 31. Period 3


This stamp of Cintussa is only paralleled at Vechten on form 18/31 R, but two closely similar ones have a high proportion of records on form 27. Oswald, pp. 79 and 373, suggests origin at Lezoux and 'Trajan-Hadrian' for the date. There is in fact no proof for Lezoux as yet, and Les Martres-de-Veyre is not impossible. As for date, the forms best fit the Hadrianic-Antonine period. Atkinson, 1942, p. 266, offers an example from the forum drain; Ludowici records a stamp from a grave with late Antonine pieces (Ludowici, 1912, p. 149), but the contents are so mixed that it is evident that either more than one grave is involved or that pieces robbed from an earlier grave are included. Date *c.* A.D. 130-60.

27.  [CL]EMENTS Form 38. Robber trenches


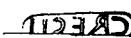
Oswald (pp. 80, 374), did not recognize a Central Gaulish Clemens. The evidence is unassailable, however, since large dumps of wasters stamped by this potter recently came from a kiln at Lezoux. Most of the entries in Oswald under Clemens (ii) belong to this man. The Fishbourne stamp appears on form 79 at Dorchester-on-Thames, at Chesters Museum, at Catterick and at Benwell in the late Antonine construction *c.* A.D. 160-200, and it was also used in the mould of a late Antonine form 37 from Banon (*Gallia* 16, p. 396).

28.  C·]RACISM Form 44. Plough-soil


Oswald (pp. 93, 378) dates Cracissa rather early ('Trajan-Hadrian') and assigns all stamps to Lezoux whereas the stamps reading CRACISAF (three dies) are all East Gaulish. This CRACISM is definitely Central Gaulish and it appears on a curious mixture of forms, including 27 (6), 33 (8), 31 (9), 38, 42 and now 44. This strongly suggests a Hadrian-Antonine date, and the evidence for the Central Gaulish stamps is consistent. Date *c.* A.D. 130-50.

29.  CREST[I] Form 18. Period 2 construction

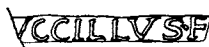
Crestus of La Graufesenque, possibly the man who also used the name Crestio. This stamp is always on dishes, but the only dated sites are Hofheim and Malton, the latter perhaps suggesting one of the potter's latest dies. Date *c.* A.D. 60-80.

30.  CRESTIO (a) Form 24/5. Period 1 B-C
 CRESLI (ret.) (b) Form 24/5. Period 2 construction

Both are pre-Flavian stamps, presumably of the same potter. The first has several examples of form 24-5 and one of Ritt. 8, but no site-evidence. The second has several records on forms Ritt. 8 and 9, including a record from Valkenburg, Period II. *c.* A.D. 45-65 covers the likely range for both.

31.  CRI[SPINIM] Form 38. Plough-soil

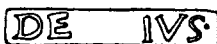
Crispinus of Central Gaul, almost certainly of Lezoux, in view of the presence of his work at Pudding Pan Rock, which also gives the basic dating evidence, *c.* A.D. 160-200.

32.  c]VCCILLVS·F Form 33. Period 3 occupation


This stamp seems to have been confined to cups, both forms 27 and 33 being represented. Cucillus of Central Gaul, probably Lezoux, seems to be entirely Antonine, and some records show that his work was current after A.D. 160. Since this particular stamp occurs on form 27 (Caerleon) it should be an early one, and *c.* A.D. 150-70 may be suggested.

33.  D]ARRAF Form 27. Period 1

Darra's work is entirely pre-Flavian. This stamp is from a damaged die, which originally gave DARRAFE, and was always used on cups, including forms Ritt. 8, 24/5 and 27. It is attested from La Graufesenque (Millau Museum). A date of *c.* A.D. 45-60 fits the evidence for his small production but cf. his decorated wares (K19, Taf. 32 and K52, Taf. 22).

34.  DE ≡ IVS· Form 38? (burnt). Robber trenches

Unfortunately no other stamp, which is certainly from this die, is known. Dessius, whose stamp DESSIVS is noted by Oswald from Trier (Oswald, p. 381) is perhaps the likeliest candidate, and the fabric and lettering certainly suggest East Gaulish origin. Late second or third century?

35.  DIVICIM Form 33. Period 2-3 occupation

Divicus is assigned to Lezoux by Oswald (p. 106), and probably correctly, in view of the fabrics. A curiously high proportion of his work comes from the Rhineland, however. Most of his output was cups; stamps in the genitive with *m(anu)* from three dies have been noted eleven times on form 27 and twelve times on form 33. Assuming origin at Lezoux, the distribution and the frequency of form 27 should point to a date in the range, A.D. 125-60.

36.  DOCCALI Form 27. Period 3 destruction


Doccalus was a Lezoux potter (impressions of his stamps are on kiln-pads there in Hadrianic-Antonine groups). This stamp is especially common on form 27 and a date *c.* A.D. 130-55 seems indicated.

37.  DONNAVC Form 27. Period 3 occupation


One of the commonest stamps of Donnaucus of Les Martres-de-Veyre, always on form 27. There is one example from the Second London Fire group (Dunning, 1945, 75) with two burnt cups from London without precise provenance. The connexion of Donnaucus with Sacer of Lezoux, suggests the range *c.* A.D. 105-30.

38.  DONTIOHICI Form 33. Period 3 occupation


Dontio has given much trouble (Oswald, pp. 110, 383 — Trajan-Antonine, ?Lezoux; Cunliffe, 1968, p. 132, no. 47 q.v.). The matter is now clearer. First the evidence of the stamp DONTIOF: this occurs on a marbled form 24/5 from London and also at La Graufesenque, though it is assigned to Pontus by Oswald and Hermet. It is omitted from Oxé's list of potters making marbled ware. The Fishbourne stamp is much commoner: over a hundred examples have now been recorded, and many of these are definitely on vessels in South Gaulish fabric, including one on form 29 (London G.H. Museum, from the Bank of England, reading ONICI). This explains satisfactorily the heavy distribution in the Rhineland, where Vechten alone has twenty-one stamps. But a few pieces have fabrics matching closely ones known to have been made at Les Martres-de-Veyre. The provisional solution may now be stated. Dontio began work at La Graufesenque in the early Flavian period: he had a long activity and perhaps migrated to Les Martres-de-Veyre soon after A.D. 100, but if so, he died or retired quite soon. The Fishbourne piece is South Gaulish, and may therefore be dated *c.* A.D. 70-100.

39.  [D]RAVCV[S F] Form 18/31. Period 3 occupation


Oswald, pp. 111, 383, has Draucus as a potter of Montans and later ?Lezoux. The stamps listed by him are all, or almost all, Central Gaulish, but belong to at least two potters, one at Lezoux in the Antonine period, the other, in question here, most probably at Les Martres-de-Veyre in the early second century. A stamp recorded from the Second London Fire (Dunning op. cit.) has unfortunately not been found, but it should belong to the same die as the Fishbourne one, or a closely related one. A Trajanic-Hadrianic date is probable.

40.  FELICION Form 15/17 or 18. Period 1

Oswald, pp. 119, 385, recognizes a single South Gaulish Felicio, of Montans. By a careless oversight this estimate was followed in discussing the stamp FELICIONS from Richborough (Cunliffe, 1968, p. 133). In fact, it should have already been evident that the stamps FELICIONIS, FELICIONS and FELICIO are always on vessels in the fabric of La Graufesenque, and that they are considerably earlier than the work of Felicio of Montans, since form 29 of standard type is included. There is no external evidence of date, and Neronian and/or early Flavian activity is likely, but not yet proved.

41.  OFFEICE Form 18. Top-soil

There are only three records for this stamp of Felix, but as form Ritt. 8 is included (Exeter), it clearly belongs to the Claudio-Neronian potter of La Graufesenque and may be dated *c.* A.D. 40-65.

42.  [FEL]IX·SEV Form 27. Period 1 B-C

This stamp seems certainly to name two potters, since nomen and cognomen can scarcely be involved. The two known varieties are FELIX · SEV and FELIC · SEV (FEL SEV recorded in Oswald, p. 121, is a poorly-stamped example of the first). The probable expansion of the latter (Hermet, 1934, pl. 111, no. 52, and on form 18 at Autun) will be Felic(is) · Sev(erus), thus suggesting Severus as a foreman or other workman in the *officina Felicis*. Most records of this stamp are on form 27, but four or five instances on form 24 are known, and taking this with stamps from Caerleon and Valkenburg, Period 4, the probable date is *c.* A.D. 60-80.

43.  OF·FL·GER Form 18. Period 2 occupation

This particular stamp is unique, but Flavius Germanus had some twenty others in this form, almost all attested from Flavian or Flavian-Trajanic foundations (such as Holt or Heronbridge). If the old record from Stanwix is correct (Oswald, p. 124), he could have worked down to A.D. 115. A date of *c.* A.D. 85-115 is likely.

44. ]ALICAN̄ or]ALLICAN̄ Form 27. Period 1 B-C

The only other similar stamp is on form Ritt. 9 from Vechten, also with the beginning cut away by the circle around the stamp. There is no doubt that it belongs to Gallicanus, who sometimes spelt his name with one L.

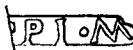
The general record for him is pre-Flavian, though stamps from York and the Ulpia Noviomagus site at Nijmegen may indicate that he was working at least down to A.D. 70. But the Fishbourne/Vechten stamp may be one of his earliest in view of the form Ritt. 9. A date *c.* A.D. 40-65 is likely.

45.  GEMINVS Form 79. Plough-soil


The various Gemini are complicated and rather muddled in Oswald (p. 132). Stamps GEMINV and some in GIMINV (ret.) are definitely South Gaulish. The current one on form 79 must be Antonine.

46.  GERMANI Form 18. Period 2 construction

Germanus of La Graufesenque. This stamp appears also at Newton Kyme, the Nijmegen fortress and at Valkenberg in Period 3 or 4. Date *c.* A.D. 65-80.

47.  [GI]PPI·M Form 33. Period 3 occupation

The general record of Gippus is Antonine and carries some hints of late Antonine date. If the record of a single stamp from Pudding Pan Rock may be accepted (and its present whereabouts is unknown), then the late Antonine date is confirmed, as well as origin at Lezoux.

48.  IANV̄ARIS Form 38. Period 3 destruction


Records of Ianvaris at Newstead, and on forms 31 R and 38 clinch an Antonine date. No doubt the Lezoux potter, who uses the ligature of v and a in other stamps found there. If this is the man who stamped moulds for decorated ware IANVARISO, in association with a Paternaus, when the latter was using a small plain ware stamp in the mould (Walke, *Limesforschungen* 3, Taf. 144), then c. A.D. 140-70; otherwise the dating must be left.

49.  IOENAL[IS] Form 27. Period 3 destruction


Ioenalis of Les Martres-de-Veyre, whose activity was mainly under Trajan. Date c. A.D. 100-125.

50.  OF LABIONIS Form 29. see fig. 126, no. 6, Period 1

Labio of La Graufesenque. The latest sites involved for this die are the Chester *canabae* and the Nijmegen fortress, both with the slight possibility of pre-Flavian material. A Neronian date is likely and while the decorated ware, presuming the same man is involved, looks pre-Flavian, c. A.D. 50-75 covers the possibilities.

51.  OF.L[A·BE] or OF.L[A·B] Form 18? Period 2 construction

The original die was broken and trimmed; the new version gives the shorter reading. These stamps are usually, and probably rightly, assigned to Labio of La Graufesenque. If so this is one of his latest dies, since it occurs in the burnt layer of A.D. 69-70 at Hufingen, at York, and six times in the fortress at Nijmegen. Date c. A.D. 60-75.

52.  LATINVS Form 33. Period 2-3 occupation.

Latinus of Les Martres-de-Veyre, not recognized by Oswald, but attested there (*Germania* (1954), 172, no. 52) and also stamping LATNVSF, LATINVS and probably LĀTINI. This stamp is always on the early variety of form 33, close to the South Gaulish form, with the internal mouldings at the junction of base and wall, internally and externally. There is no record from a closely dated site, but c. A.D. 100-130 should cover the possible range.

53.  LENTISCVS Form 27. Period 2 construction

Neither of Lezoux nor Flavian (Oswald, p. 161), Lentiscus worked at Les Martres-de-Veyre (*Germania* (1954), 172, no. 53).



This stamp is normally on forms 18/31 and 18/31 R, but is on form 27 at Moulins Museum, Cirencester and London (L.M.), and on form 33 at Heerlen and Vechten. Two burnt examples come from the Second London Fire (Dunning, 1945). Date c. A.D. 105-130. The archaeological context in this case appears to be in conflict with the external evidence; here at Fishbourne it appears in a make-up layer of Palace Period date.

54.  LIBERTVS Form 27. Period 2 construction

Libertus of La Graufesenque. Records at Chester (2), Nijmegen fortress (3), Ulpia Noviomagus (1) and the Hofheim Kastell suggest a Flavian date in the main; *c.* A.D. 65–85 is likely.

55.  ICINIANA Form 27. Period 1

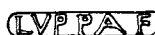
One of the *officina Liciniana* stamps (for which see *Latomus*, xxvii, 610 ff.). Most of the evidence (with the usual exception of a stamp from Period 2 from Valkenburg) requires Neronian dating, *c.* A.D. 50–65, but some of the decorated ware looks even earlier.

56.  L]OGIRNM (a) Form 18. Plough-soil
 LOGIRNI (b) Form 18. Period 2 construction


Logirinus of South Gaul, who seems to have worked both at La Graufesenque and Montans. These stamps have respectively six and eighteen records from sites not occupied before the Flavian period, and the second has four examples from the Inchtuthil stores abandoned *c.* A.D. 87–8. Fragments of decorated bowls from Rodez (three from 29s) all belong to the Flavian period too. Date *c.* A.D. 75–95.

57.  OFLVC[CEI] Form 18. Period 1


Oswald, pp. 168–9, 397, gives Luceius as ‘Flavian’ emended to ‘Claudius–Vespasian’. Much pre-Flavian activity seems certain (H&H., 200, under 114–16, missing Oswald’s emendment, propose a Claudian start independently). If OFLVCCI (form Ritt. 5, Tarraco) belongs, the Claudian start is certain, otherwise the evidence is less strong. Certainly, the decorated ware, surely the same man, must have started later than Claudius. Date *c.* A.D. ?40–75.

58.  LVPPAF Form 33. Period 2–3 occupation


Lezoux has yet to produce evidence of Luppa, and external dating evidence is curiously slight for such a common potter. A stamp from Carzield offers a clue, and the presence of his stamps fairly commonly in Lower Germany, plus the fair proportion of form 27 will combine to suggest the period *c.* A.D. 130–60.

59.  LVPIM Forms 15/17 and 18. Period 1 B occupation and Period 2 construction


Oswald, pp. 171, 398, mixes South and Central Gaulish potters. All other recorded stamps in LVPIM are indeed Central Gaulish, but this one is always on forms 15/17 or 18 and is undoubtedly South Gaulish, though there is no good dating for it. Judging by the other records for the South Gaulish Lupus, a pre-Flavian date is likely. The South Gaulish Lupus who made form 30, certainly produced a Neronian-looking design (Hermet, 1934, pl. 72, no. 4).

60.  [MA?]CRI Form 24/5. Period 2 construction

No other stamp from this die is known, but attribution to Macer of La Graufesenque seems secure. If this is the decorated bowl maker, his style (Hermet, 1934, pl. 106, no. 15, shared with Melainus, and thus to one of the Albi) is Neronian. Pre-Flavian until further notice.

61.  MARCELLI[S] Form 18/31 — 31. Period 3 occupation


Only the bottoms of most of the letters survive, but the identification of Marcellius is certain. A Lezoux potter, with forms (mainly 27 and 18/31) and sites suggesting a date *c.* A.D. 130-60 for this die.

62.  [OF]MASV Form 15/17 or 18. Period 1 B


Mansuetus of La Graufesenque stamped both OFMANSV and OFMASV. This particular stamp has only been recorded otherwise from Richborough (Bushe-Fox, 1949, 208, where the dating evidence is discussed), Vechten and Hofheim. Pre-Flavian.

63.  MARCI MA Form 31. Robber trenches


Marcus of Lezoux. This stamp occurred in the Wroxeter Gutter (Atkinson, 1942, 142) and has also been recorded from Bainbridge and Ilkley. A date *c.* A.D. 160-90 therefore seems certain.

64.  MASCVLVS Form 18. Period 1 B occupation

A stamp of the well-known potter of La Graufesenque, whose activity seems to have been primarily Neronian, but continued into the 70s of the first century, as stamps from this die at Caerleon, Chester (2) and the Nijmegen fortress suggest. Date *c.* A.D. 55-75.


65.  MICCIVSF Form 31 R. Period 3 destruction

Miccius of Central Gaul (Oswald suggested Lubié, but there was probably a Lezoux potter too). The forms are mid second-century and an example from Chesterholm presumably reached the site after A.D. 163. Date *c.* A.D. 145-80.

66.  [OF]MOD (a) Form 27. Period 1


 OFMOD (b) Dish. Period 1

Both stamps of Modestus of La Graufesenque. The first was probably in use only before A.D. 60, since what is almost certainly an example from the same die after it had been broken was found in the Colchester Pottery Shops (Hull, 1958, p. 198, no. 23). The second is not otherwise known, but is presumably pre-Flavian. Again the decorated ware conforms (e.g. the delightful form 29 from Vechten, K19, Taf. 58A).


67.  [OF M]ONT·CR Form 18. Period 1

Stamps of Monticus and the joint stamp Montic- Cr- all occur commonly at sites first occupied under Vespasian, but only one at an Agricolan site. A date of *c.* A.D. 60-80 is therefore certain. Whether the double stamp represents a partnership, or master and foreman, is not clear.

68.  OF·MVRRÂN (a) Dish. Period 1 B


-  OF·MVRRÂN (b) Form 27. Period 1 B


Curiously enough neither of these (different) stamps has been recorded elsewhere. There seems no doubt that they will eventually fall into place among the earlier ones of Murranus, and a date *c.* A.D. 45-65 covers the likely range.


69.  [NEQVRES Form 27. Period 2 occupation

This potter, Neques, of South Gaul, has been very troublesome in the past. It now seems clear that an original die giving NEQVRES was damaged, used in damaged state for a time, and finally re-cut with swallow-tail ends, giving stamps reading EQVRI. The best-dated examples are those in the Flavian grave at Winchester (Biddle, 1967, 236 under no. 9). The presence of four examples in the Nijmegen fortress lends weight to some Flavian activity, and the stamp recorded from Period 1 at Valkenburg must now be firmly rejected as intrusive.

70.  [OF NI]GRI (a) Form 29. Period 1


-  OFNIG[RI] (b) Dish. Rubble

-  [OF NI]GRI (c) Form 27. Period 1

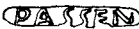

-  FNIG (d) Form 18 R. Period 1

The first three stamps are all from the same die of Niger of La Graufesenque, which was always used on form 29 and dishes. Although one of his commonest stamps, there is no record from a closely dated site and a general date *c.* A.D. 45-70 must be suggested.

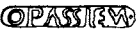


The other stamp is from a broken die, originally with initial O. The full version is only known from Utrecht Museum on form 24/5 (probably from Vechten) and the reduced style only otherwise at the Nijmegen fortress. Date *c.* A.D. 50-70.

71.  OF NIC ≡ Form 27. Period 3 destruction


The identification of Niger is not quite certain. This die had a long life and gives some very blurred impressions. Early records include examples in Valkenburg, Period II and the Cirencester fort ditch, but stamps from it also occur at Caerleon. Date *c.* A.D. 50-70.

72. (Very blurred) PASSEN (a) Form 18. Period 1
 PASSEN (b) Form 18. Period 2 construction
 PASSEN (c) Dish. Period 3 occupation




All these stamps come from the same die of Passenus of La Graufesenque, evidently one of his later ones, since stamps from it are known from Chester, York and Aldborough, though also from Ubbergen, so it was in use before A.D. 70. A date of *c.* A.D. 60-75 may be suggested.

73.  OPASSIEN (a) Period 1 B
 PASSIE (b) Period 1 B
 P]ASSIE (c) Period 1 B

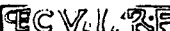
Passienus and Passenus were probably identical, but it is convenient to treat the stamps separately. The first stamp occurs in the ditch of the fort at Cirencester and may be dated *c.* A.D. 50-65. The other two are badly blurred, but should probably be equated with the one which was always used on cups, sometimes forms Ritt. 8 and 9, and which probably belongs to the early part of the potter's career. Date *c.* A.D. 45-60.

74.  PATERNI·M Form 27. Period 3 occupation


Although known from Lezoux, this stamp is nothing to do with the well-known late Antonine maker of decorated ware, though it might be connected with the Paternus who stamped moulds with a plain ware stamp, at least once in conjunction with Ianuaris II. This stamp is often on form 27 and several records in Lower Germany, where Lezoux ware was rarely sent after A.D. 150, suggest a date *c.* A.D. 125-50.

75.  OF PATR[ICI (a) Form 27. Period 2 construction
 [OF PA]TRICI (b) Form 15/17 or 18. Period 1 B/C
 OF PATRIC (c) Form 27. Plough-soil




Stamps of Patricius of La Graufesenque, the first two from the same die, and both versions attested from Flavian foundations. The Period 1 B/C stamp provides confirmation of the start, *c.* A.D. 70. Date *c.* A.D. 70-95.

76.  PECVLIAR·F (a) Form 27. Period 3 destruction


Peculiaris of Central Gaul (Lezoux is normally assumed, but without direct evidence and many stamps of an East Gaulish potter are included by Oswald, p. 237) worked in the Antonine period as the many records from Scotland attest. But this die was used with much the same frequency on forms 27 and 33, and should therefore be relatively early in the Antonine period. Date *c.* A.D. 140-70.

77.  POLLIONIS (a) Form 33. Robber trenches

The stamp of Pollionis is completed on the analogy of a complete one on form 33 from Corbridge, which is certainly Antonine, and almost certainly from the same die. No other stamps attributable to the Central Gaulish potter are known. Second half of the second century?

78.  OF.PONTI (a) Dish. Period 1
 PONTI (b) Form 27. Period 2-3
 PONTI (c) Form 27. Period 2 garden




All stamps of Pontus of La Graufesenque, from different dies. The reasons for Oswald's relatively late dating of Pontus (p. 243, 'Vespasian-Trajan') is possibly the presence of a stamp in the Bregenz cellar group. None of his work is suggestive of Trajanic date however, and his forms include a few rather rare examples of Ritt. 8, as well as a marbled sherd (form 18R OF PONTI? but not 24/5 London, which is assignable to Dontio). The Bregenz piece must have been residual, and a general date *c.* A.D. 60-90 is more likely. All the Fishbourne stamps are known from sites first held under Vespasian *c.* A.D. 60-80.

79.  PRIMVLI Form 15/17 or 18. Period 2 construction

This particular stamp has not been recorded from a dated site, though many similar ones of Primulus of La Graufesenque are known both on pre-Flavian forms and from sites first occupied under Vespasian. Date *c.* A.D. 55-80 may be suggested.

80.  PRIMVLI or PRIMVLI Form 31. Period 3 occupation

This stamp cannot be satisfactorily transcribed in print, and both the true reading and the potter are in doubt. The date, however, is clear, since five examples are known from Pudding Pan Rock on form 79/80, and there are many other records from the late Antonine period. Date *c.* A.D. 165-95.


81.  OFPRIM (a) Form Ritt. 9. Period 1 B occupation
 OFPRIM (b) Form 27. Period 3 occupation
 OFPRI? (ret.) (c) Form 24/5. Period 1

The first two are stamps from the same die. The same stamp occurs on five examples of form 24/25 from one of the Colchester Pottery Shops (Hull, 1958, fig. 76, no. 15), and so a date *c.* A.D. 50-65 is certain.


The third is probably a stamp of Primus of La Graufesenque, though the reading is not quite certain, and no other stamp from this die is known. However, there are other stamps giving OFPRI., and this is perhaps Neronian.

82.  PRISCINIM Form 33. Period 2-3





An uncommon stamp of Priscinus of Lezoux, only otherwise known from Caistor-by-Norwich, also on form 33. Recent records for the potter from Lezoux itself are from Hadrianic-Antonine and Antonine groups. A date *c.* A.D. 130-65 is therefore likely.

83.  OF RVF[Form 27. Plough-soil



Two attempts have been made at impressing this stamp of Rufus which is probably from one of the dies giving OFRVFI in full. The site-evidence demands a date of *c.* A.D. 75-100.

84.  OI: SABIN (ret.) Form 27. Period 1


The correct reading of this stamp of Sabinus (cf. Cunliffe, 1968, 144, no. 141) has at last been secured, since an example from Vechten on form 18, instead of the usual form 27, has a clear ending in N. Date *c.* A.D. 75-105.

85.  ·SCO[TNS̄] (a) Dish. Period 1 B
 ·SCOTNVS̄ (b) Dish. Period 1 B occupation
 ·SCOTNVS̄ (c) Form 15-17. Period 1 B occupation
 ·s]COTNVS̄ (d) Dish. Period 2 construction

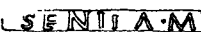
All four stamps are from the commonest die of Scotnus of La Graufesenque. The same stamp occurs in the fort at Waddon Hill, Dorset and at Colchester in the Boudiccan burning (Hull, 1958, fig. 99, no. 17). Date *c.* A.D. 45-65.

86.  OFI SCO (a) Form 27. Period 2 occupation
 OFI SCO (b) Form 27. Period 2 occupation


Two stamps from the same die. The impression of the more complete one is tolerably clear and OFI SCO seems to have been indented. Presumably, then, Scottius of La Graufesenque, though the cups do not have particularly early characteristics. Neronian rather than earlier.

87.  SENI[CIO] Form 18. Period 1



Of some forty recorded examples of this stamp of the La Graufesenque potter, Senicio, this is the only one on a dish. The stamp occurred in the Cirencester fort ditch (*c.* A.D. 55-65). Against that is to be set what appears to be the same die in Period 1 A at Valkenburg. If the excavator's date is right, the stamp was in use by A.D. 42. A high proportion of the stamps (31 examples) comes from Britain, but many of them are from a worn and reduced version of the die giving the reading ENICI. The probable range for the full version is *c.* A.D. 40-55, and the reduced version was in use before A.D. 61, since an example occurs in a pre-Boudiccan level at Verulamium.

88.  SENILA·M Form 33. Period 3 occupation


This stamp of Senila is almost always on form 33, but three examples are on form 31, and one on form 38. The only dated site involved is Newstead. Probably early to mid Antonine, and from Lezoux.

89.  [SE]NTRVS·FE Form 18. Period 3 occupation

Oswald (p. 294), suggested the range 'Claudio-Vespasian' for Sentrus of La Graufesenque. There is, however, nothing in his record to suggest Flavian activity, and the period A.D. 45-65 seems likely. There are definite pre-Flavian contexts at Colchester (Sheepen), Verulamium and Ubbergen.

90.  [SE]VERI (a) Dish. Period 2 construction
 OF SEVERI (b) Form 27. Period 3 occupation

Both are stamps of Severus of La Graufesenque, the second being much the commoner and almost invariably on form 27. Neither stamp occurs definitely on pre-Flavian forms, and the site records suggest a primarily Flavian date, *c.* A.D. 65-85.

91.  TETIF Form 24/5. Period 1 B occupation


This stamp has recently been found at La Graufesenque on form 27 (Millau Museum); otherwise it is only known from Holland (Vechten and Utrecht Museum), but the forms for this, and other La Graufesenque dies, seem consistently pre-Flavian.

92.  TITVRONIS Form 33. Period 3 occupation



Tituro of Lezoux; this stamp is always on form 33 and is relatively uncommon. The general record for Tituro demands a mid to late Antonine date, *c.* A.D. 155-90.

93.  VAGIR[V] Form 18/31 or 31. Period 3 destruction


Vagiuro of Central Gaul (probably, but not quite certainly Lezoux). The best dating evidence for this particular stamp is its use on form 80 at Périgueux. Probably mid Antonine (*c.* A.D. 150-70), since other dies of Vagiuro are on form 27. He is one of the very few Gaulish potters occasionally stamping in Greek characters.

94.  OF VIRTV Form 18. Period 3 occupation

The stamp is OF.VIRTV, here impressed twice. It is only otherwise known on form 18 at Carlisle, itself sufficient to suggest a Flavian date. Indeed, much of this potter's work is Neronian-Flavian and the Claudian records are confined virtually to one die (V.I.R.T.V.S), which may belong to a different man. Date *c.* A.D. 65-80 is likely for this die.








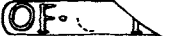

95.  OF VĪTA (a) Form 24/5. Period 1 B
 OF VĪTA (b) Form 24/5. Period 2 construction

Both stamps are pre-Flavian, and South Gaulish, the former being confined to forms Ritt. 8 and 24/5. It is doubtful whether they belong to the well-known Flavian potter Vitalis. A date *c.* A.D. 50-65 would be consistent with all the evidence.

96.  VITA Form 27. Period 1

Always on form 27, this stamp certainly belongs to the Flavian potter Vitalis of La Graufesenque, and appears at Caerleon, Chester and at Nijmegen, both in the fortress and at Ulpia Noviomagus. Date *c.* A.D. 75-100.

FRAGMENTARY STAMPS

A		form 27		S.G.
B		form 24/5	? Albus	S.G.
C		dish		S.G.
D		form 27		S.G.
E		form 33		S.G.
F		form 27	? Rufinus	S.G.
G		form 27		C.G.
H		form 29		C.G.
I		form 27		S.G.

The Glass

By DR D. B. HARDEN and JENNIFER PRICE

CONSIDERABLE quantities of glass occurred in all levels at Fishbourne, but it was all very fragmentary: not one piece was completely restorable on paper, much less reconstructible. This fragmentation of the glass conforms with that of most of the other finds at the palace, and it is clear that during the main occupation the inhabitants must have kept the site clean, so that only small fragments were trodden into floors, lost in crannies, or buried when reconstruction was in progress.

Despite its fragmentary condition, however, this glass is of great interest, not only in revealing the variety of ware, some fine, some ordinary, which was available at Fishbourne at all periods, but also in providing fresh information about Roman glass in general, particularly in the second half of the first century, and confirming and supplementing, on a good stratigraphical basis, the evidence already available from other sites, notably Camulodunum (Harden, 1947) and Vindonissa (Berger, 1960), for later first-century developments in glass styles and decoration.

In preparing the catalogue we have aimed at providing a representative selection of fragments which reveal at least some evidence of the form and/or the decoration of the vessel they belonged to, and which, taken together, give a conspectus of the various styles of glass that were in use at Fishbourne during the period of its occupation. For some of the rarer kinds, such as mosaic and gold-band glass, patterned mould-blown vessels, and colourless glass with wheel-cut designs, every fragment is catalogued. For others, e.g. translucent coloured vessels and pillar-moulded bowls, every fragment is either catalogued or listed. But elsewhere, especially among the undecorated glasses, particularly the common green bottles, no more than a typical selection seemed to be called for. Nor have we felt it necessary to provide a count by number, or by weight, of all the fragments found; though in this we have made an exception for the bottles (Table II, p. 363) and the window-glass (pp. 367-8).

The growth and development of the palace and the dating of its three structural Periods are discussed in full elsewhere (Vol. 1, pp. 38-192). Briefly, the first (wooden) phase, Period 1, began soon after the Claudian conquest and lasted down to *c.* 75. For our purposes here the First Period can be divided into two: 1A, a military phase dating to *c.* A.D. 43-5, and 1 B-C which represents occupation becoming particularly intense after *c.* A.D. 55. The first stone palace, Period 2, which replaced the earlier stone and wooden palace *c.* 75, lasted without change until *c.* 100, when it, in turn, began to be drastically redesigned and enlarged, to become the modified palace, Period 3. The Third-Period building remained in use until *c.* 270. During that long period it underwent a number of modifications, but these did not produce any firm stratigraphical deposits, so that the finds from this Period can be dated no more closely than *c.* 100-270. After 270 this palace was destroyed and, for the most part, robbed, and though the site continued to be occupied for a few years, such occupation was mainly of the 'squatter' type, so that these later deposits yielded little of interest except a number of items redeposited from one or other of the palace Periods.

The number and types of catalogued and listed glasses which came from each level on the site may be seen in Table I opposite. We omit window-glass, which we deal with in a merely summary fashion (pp. 367-8), without listing individual pieces. Nor are beads and game-pieces included, since they were not submitted to us, and are catalogued and discussed elsewhere (pp. 148-50).

As shown at the head of the Table, we can divide our glasses into the following four chronological groups, based on the accepted dating of the various levels in which they were found:

- a.* A.D. 43-75 (Period 1 and the construction-level of Period 2)
- b.* A.D. 75-100 (Period 2 and the construction-level of Period 3)
- c.* A.D. 100-270 (Period 3)
- d.* After A.D. 270 (Destruction-levels of Period 3)

This dating is not, of course absolute; it does not tell us when each piece was made, but reveals only the period during which any particular fragment was deposited in the place in which it was found. It is more useful for groups *a* and *b*, which have short ranges of date, than for groups *c* and *d*, where the range is much longer. These last two groups must also contain a number of fragments lost at an earlier date and redeposited in these later layers. Cases in point are the three fragments of first-century pillar-moulded bowls and the colourless dish (no. 34) with wheel-cut ovolo rim-band, all found in group *d* surroundings. It is particularly disappointing, too, that group *c*, which covers the Period 3 occupation, cannot be subdivided stratigraphically, since it contains a range of glassware which runs from the early second to the later third century, and it would have been helpful to have some closer dating for the various types. Among its earlier glasses we may note the cast colourless wheel-cut fragments (nos. 31-3, 35, p. 336) and the blown colourless fragments with wheel-cut facets (nos. 41 and 44, pp. 342, 344). Among its late types there are the mould-blown fragment (no. 38, p. 339) and the fragment of a facet-cut oil-flask (no. 45, p. 344). Other types which it yielded, especially some of the undecorated pieces (pp. 351-66) are not so closely datable, and stratigraphical help from Fishbourne would have been useful.

There is a further comment we must make about Period 1. Though that Period, in its two phases, lasted for over 30 years, it will be seen from our Table that among the catalogued and listed fragments only one (no. 54) is firmly ascribed to Period 1 A. There are, however, many fragments in our lists which are ascribed to Period 1 without any closer phasing. Some of them no doubt belong to phase 'A'. The fact remains, however, that of the Period 1 catalogued or listed glass over one half is firmly ascribed to Period 1 B-C and more than three-quarters of it would belong there if we divided the unallocated glass evenly between the two phases, as we should be well justified in doing. Thus, though this Period 1 glass as a whole covers a span of 30 years or more, the bulk of it was probably broken during, at most, the last 20 years (55-75) of the Period.

It is worth emphasizing also that only 25 years separates the closing stages of group *a* and the initial years of group *c*. Furthermore, bearing in mind what we have said about the Period 1 glass, we can postulate that the bulk of the glass in groups *a* and *b* and the earliest part of group *c* spans no more than about 50-55 years. Now the glass found at Camulodunum spans the period from the Claudian conquest, or a little before, up to A.D. 65, so that this

TABLE I: ANALYSIS OF CATALOGUED AND LISTED FRAGMENTS

	43-75			75-100		100-270		270 and later		Date?
	Period 1 <i>A and undivided</i> (43-75)	Period 1 <i>B-C</i> (50/55-75)	Period 2 <i>con-</i> <i>struction</i>	Period 2 <i>occupa-</i> <i>tion and</i> <i>garden</i>	Period 3 <i>con-</i> <i>struction</i>	Period 3 <i>occupa-</i> <i>tion</i>	Period 3 <i>destruc-</i> <i>tion</i>	<i>Robber</i>	<i>Rubble</i>	<i>Plough-soil</i> <i>and</i> <i>Top-soil</i>
CAST, polychrome: A. Mosaic glass B. Gold-band glass		2		1		1		2		3
CAST, monochrome: A. Translucent, coloured B. Clear, coloured: i. plain ii. pillar-moulded C. Colourless: i. plain ii. wheel-cut	4 1 6 1 1	4 7	3 6	 2 1	 2 1	 1 1 5	 1 1	 1 1	2	
MOULD-BLOWN	1	1		1		1				
BLOWN, decorated: A. Facet-cut, colourless B. Linear-cut, coloured C. Linear-cut, colourless D. Ribbed, coloured and colourless E. Marvered trails, coloured	6 1*	6 3	2 3 3	2 1 1 2	1 1 1	3 2 16 3 1	6	1 1	1 1	3 1
BLOWN, undecorated: A. Bowls and cups B. Jars C. Oil-flasks D. Unguent-bottles and flasks E. Jugs F. Bottles	2 1 1 1 1	1 1 2 3 1	1 1 1	1 2 2	1 1	6 1 1 4 7 5	1 3 1 1 2	1 1 1 1	2	2 1 1 2
OBJECTS OTHER THAN VESSELS: A. Stirring-rods B. Bangles C. Tesseræ for mosaic		1 1		1		1 2	1			
TOTALS	27	32	26	17	5	59	19	9	7	13

* This example (no. 54, p. 347) is the only piece in the lists which is firmly ascribed to Period 1A

site overlaps Fishbourne by no more than 10 or 15 years. To compare and contrast the varieties found on these two sites can be most illuminating, as showing what kinds of glass were being brought to this country by and for the Roman troops and civilians during the third and fourth quarters of the first century. Moreover, since the Vindonissa glass covers virtually the whole of the first century, we can readily check how far the combined Camulodunum and early Fishbourne sequence co-ordinates with the very rich collection of first-century glassware which Berger (1960) published from that Roman fortress site in Switzerland. These Vindonissa finds, indeed, have a further interest in this connexion, since many changes took place in the glassware current on the site round about A.D. 65-70 (Berger, 1960, 87 f., and chart), the very time when Camulodunum finishes and Period 1 B at Fishbourne was at the height of its activity. Let us consider the facts of this situation a little more closely.

In what follows we leave out of account the undecorated vessels, which are mostly of common green glass. Such glass was used for household purposes and for container-vessels throughout the life of the Fishbourne buildings. There were, of course, certain changes of form as the centuries proceeded, but the fabric and composition remained unchanged, and such glass is notoriously difficult to date with accuracy, since many types continued with little or no variation for one or even two centuries.

Common greens apart then, there are, in the first place, a number of well-known first-century varieties of glassware prominent at Camulodunum and in the earlier levels at Vindonissa, which are, somewhat surprisingly, totally unrepresented at Fishbourne. These include laced and striped mosaic (Berger, 1960, 9 ff.), ribbed bowls with marvered trails (Berger, 1960, 30 f., 'Fadenbandschälchen'), vessels with marvered blobs (Berger, 1960, 33 f., 'Gläser mit buntgefleckter Oberfläche'), cased glasses (Berger, 1960, 37 f., 'Überfangglas'), and opaque monochrome glass (Berger, 1960, 24 f., 'opake keramikähnliche Gläser'). Each of these varieties fades out at Vindonissa (Berger, 1960, chart on p. 87) sometime between the years 50 and 75. They are perhaps early to mid first-century types which had mostly, if not wholly, disappeared from the market when Fishbourne began to flourish in the 50s.

Other types prominent at Camulodunum and in the earlier levels at Vindonissa do occur at Fishbourne, though not in great number. Amongst these are the sports-cups and other first-century mould-blown varieties (5 at Camulodunum (nos. 48 ff.), 83 at Vindonissa,¹ and only 3 (nos. 36-7, 37 A, p. 339) at Fishbourne); translucent fine monochrome wares — Berger's 'durchscheinende keramikähnliche Gläser' (12 at Camulodunum (nos. 53 ff.), 26 at Vindonissa — fading out there after 80, and 11 (nos. 11-15, 15 *a-f*, p. 328) at Fishbourne, all in levels of before 75); and floral, marbled and mottled mosaic vessels (17 at Camulodunum (nos. 3-19), including many pillar-moulded bowls, 56 plain and 194 pillar-moulded at Vindonissa — fading out between 50 and 70, and 6 at Fishbourne, of which only three, at most, are of first-century types (nos. 1, 3, 5, pp. 324-6), the others being recognizably later (see p. 324)).

Two other types are in place in this discussion. The first is the pillar-moulded bowl, the second the bowl of 'Hofheim' type with wheel-cut lines or incisions. Pillar-moulded bowls

¹ Note that Berger places these varieties mainly in the last third of the first century, a dating which does not conform with the evidence from elsewhere (1960, chart on p. 87; see our remarks below, pp. 337-8).

were the commonest glass type at Camulodunum; 123 were recorded, of which 83 were common green, 13 dark blue, eight brown or yellow, 17 mosaic ware, and two opaque monochrome.¹ They were also the commonest type at Vindonissa, amounting to 194 in mosaic ware, 458 common green, and 47 other monochrome (Berger, 1960, 12 ff., 23); they are fading out there at 70, but occur up to the end of the century (*ibid.*, chart on p. 87). At Fishbourne they are not so common. There were only 23 examples (nos. 3, 17-21, 21 *a-r*, pp. 326, 329 f.), one of mosaic ware, two golden brown and the rest common green. Eighteen of these were in levels of before 75, one in the occupation-level of Period 3, and the other three in destruction-levels of after 270, undoubtedly redeposited. This evidence proves that the pillar-moulded bowl, though still in production during Fishbourne's first Period, was already past its peak: probably few, if any, even of the common green variety, were made after A.D. 75.

The 'Hofheim' bowl with linear wheel-decoration is discussed below (pp. 344-6). It takes its name from its frequency in the Claudian fort at Hofheim. There were 14 at Camulodunum (*s.nn* 68-73, 75), and over 100 at Vindonissa, fading out there after 70. At Fishbourne there were 21, of which 19 are coloured (nos. 46-8, 48 *a-o*, pp. 344-5) and two are colourless (nos. 50-51, pp. 345 f.); all but four of these were found in levels of A.D. 75 or earlier. Once more the evidence is clear: the quantity of Fishbourne examples suggests that the type was still in production up to the early 70s, though its decline thereafter was rapid enough.

We have now reviewed all the main varieties of glass found at Camulodunum, other than plain wares, and have established that all of them had faded out, or were fading out, by c. 75. We turn, therefore, to the contrary picture: the varieties of glass found in Flavian levels, or earlier, at Vindonissa and Fishbourne which do not occur at Camulodunum.

The most important of these — indeed the only ones which need to be considered here — are the colourless fragments. As we point out below (p. 330), only 11 fragments of colourless occurred at Camulodunum in a total count of 616, and only one of these was worth cataloguing, a bowl of 'Hofheim' type.² At Vindonissa, on the other hand, Berger (1960, pp. 67-74) counted 75 examples of colourless glass with faceted and other wheel-made decoration, all, in his view, belonging to the period 70-100, and he lists a few other colourless pieces also, e.g. part of a 'Hofheim' bowl (*ibid.*, p. 45, no. 103) and some fragments of beakers with raised U-shaped ribs (*ibid.*, p. 47 f., nos. 110, 114-16), the 'Hofheim' bowl fragment being undated, the remainder all Flavian.

This conforms well with the evidence from Fishbourne, where we have catalogued 14 colourless pieces from levels up to 75 and six from levels of 75-100. These include eight cast fragments (plain or wheel-cut) and 12 blown fragments (with facet or linear cutting). Having regard to the far greater quantity of glass found at Vindonissa, this ratio of 75 Vindonissa : 20 Fishbourne is significant. It shows that at some time during Period 1 at Fishbourne colourless glass began to appear there in some quantity, a fact which is confirmed by the many finds of colourless ware on other Flavian sites in Britain (pp. 330-1).

¹ Harden, 1947, pp. 288 (table of numbers found), 294 (mosaic), 301 f. (monochrome).

² It is possible, indeed, that some of the Camulodunum pieces were not as truly colourless as those called colourless

in the present catalogue, being, rather, very pale greenish or yellowish. If so, that would reduce the number of colourless finds at Camulodunum to an even lower figure.

We may, indeed, accept the evidence we have cited from these three key sites as clear proof that round about A.D. 65-70 a rapid change took place in the fashionable varieties of fine glassware. Before then colourless was the exception, and the dining-tables were arrayed with mosaic glass, and with fine cast or blown coloured wares, some monochrome, some with added trails or blobs of one or more other colours. After that date these fine coloured glasses became the exception and colourless took greater and greater hold of the fine-glass market.

Only 22 fragments are catalogued or listed from levels belonging to the last quarter of the first century. These include: one gold-band fragment (out of context as late as this and, being very tiny, probably redeposited), the six colourless pieces already discussed, including the fine cast piece with raised ivy-leaf pattern (no. 30) and two blown fragments decorated with curving facets (nos. 39-40), a fragment of the base of a mould-blown vessel (no. 37 A), part of a pale green unguent-bottle with opaque white marvered trails (no. 65), and 13 other pieces, mostly from plain vessels. This group, small as it is, confirms, by the absence of fine early coloured wares and the inclusion of six colourless pieces, the conclusion we have already drawn that the change from coloured to colourless fine glasses began in Flavian times.

By Period 3 (100-270) the change is absolute. Out of 59 catalogued or listed pieces there is just one fragment of early fine coloured ware, part of a mosaic bowl with millefiori pattern (no. 1, p. 324); of colourless there are no less than 26 pieces, including eight with wheel-cut patterns and 17 with linear wheel-cuts or incisions; and the rest are mainly from plain vessels, many of common green glass. This ratio of 26 colourless: 33 coloured (including common green) tells its own tale and the truth of our argument needs no further emphasis, except to say that this predilection for colourless glass on the table is a feature of the second and third centuries throughout the empire. Common green glass continued to be used for containers and other such utilitarian purposes; but there is no doubt that the better-class households everywhere during all this long period — and even into the fourth century — preferred colourless to coloured glass for their dining rooms.

One further point arises: where did the Fishbourne glass originate? It is pretty certain that little, if any, of it was made in Britain. The earliest evidence for glass-making in Roman Britain is the probable glass-furnace site at Colchester, which, to judge from the wasters it produced, cannot have been in operation before the later second or early third century.¹ All the fine wares, coloured or colourless, at Fishbourne must have been imported, and so, too, must all the earlier common green glass, even if some of the later common green was made in Britain. Doppelfeld and Fremersdorf have recently published evidence that glass, and perhaps even colourless glass, was in production at Cologne by c. A.D. 50,² and since glass-making had spread that far, it probably also existed by then in southern and eastern Gaul, if not in the western and northern parts of the Gallic provinces. Even in the first century probably much of the common green ware and other cheaper and undecorated glass will have come from these nearer glasshouses. Some of it, however, will have originated in Italy or even farther afield, imported, no doubt, because of its wine, oil, or other contents.

¹ Harden, 1947, p. 287; and *Arch. Journ.*, cxxvi (1969), 51, note 39, where it is pointed out that more excavation is necessary before the significance of this site can be fully assessed.

² F. Fremersdorf, 'Die Anfänge der römischen Glashütten Kölns', *Kölner Jahrbuch für Vor- und Frühgeschichte*, 8 (1965-6), 24-43; O. Doppelfeld, *Römisches und frankisches Glas in Köln* (Köln, 1966), 11-16.

The fine wares, coloured and colourless, in the first century must have come mainly, if not solely, from Italy, where much fine glass was produced from early imperial times onwards, both in the middle and in the north of the peninsula. During the second century, perhaps even in its earlier years, manufacture of colourless glass had been fully developed in France and the Rhineland, and thenceforward our Fishbourne colourless, as well as the contemporary common green ware, will mostly have come from those centres.

In the present state of our knowledge — indeed rather of our ignorance — of what glass was made where and when during Roman times, further speculation on this topic would not only be unprofitable, but positively misleading.

INDEX TO CATALOGUED AND LISTED GLASS BY PERIODS

<i>Period</i>	<i>Catalogue nos.</i>	<i>Total</i>
Period 1 (undivided)	15 <i>a-d</i> , 16, 17, 18, 21 <i>b-e</i> , 22, 29, 36, 47, 48, 48 <i>a-d</i> , 54, 66, 67, 79, 83, 94, 108	27
Period 1B-C	8, 9, 11, 12, 13, 15 <i>e</i> , 21 <i>a</i> , 21 <i>f-k</i> , 37, 46, 48 <i>e-i</i> , 50, 51, 52, 68, 80 <i>a</i> , 84, 85, 90, 90 <i>a</i> , 91, 96, 109	32
Period 2 construction	14, 15, 15 <i>f</i> , 19, 20, 21, 21 <i>l-n</i> , 23, 24, 35 <i>a</i> , 42, 43, 48 <i>j-l</i> , 53, 59 <i>a-b</i> , 61 <i>a-c</i> , 69, 80, 83 <i>a</i>	26
Period 2 occupation and garden	10, 25, 26, 30, 37 <i>A</i> , 39, 40, 48 <i>m</i> , 54 <i>A</i> , 61 <i>d-e</i> , 66 <i>a</i> , 90 <i>b-c</i> , 100, 101, 110 <i>A</i>	17
Period 3 construction	48 <i>n</i> , 61 <i>f</i> , 65, 76 <i>a</i> , 83 <i>b</i>	5
Period 3 occupation	1, 21 <i>p</i> , 27, 31, 32, 33, 35, 35 <i>b</i> , 38, 41, 44, 45, 48 <i>o</i> , 49, 54 <i>Aa</i> , 55, 56, 56 <i>A</i> , 57, 58, 59, 59 <i>c-j</i> , 60, 61 <i>g-h</i> , 62, 64, 70, 71, 74, 75, 76 <i>b-c</i> , 81 <i>a</i> , 82 <i>a</i> , 83 <i>c-d</i> , 86, 88, 89, 89 <i>a-b</i> , 90 <i>d-e</i> , 92, 93, 95, 97, 102, 103, 104, 107	59
Period 3 destruction	21 <i>q</i> , 23 <i>A</i> , 34, 59 <i>k-p</i> , 72, 80 <i>b</i> , 81, 81 <i>b</i> , 83 <i>e</i> , 98, 99, 106, 110 <i>B</i> , 110 <i>C</i>	19
Robber	2, 3, 28, 35 <i>c</i> , 59 <i>q</i> , 73, 78, 87, 89 <i>c</i>	9
Rubble	21 <i>o</i> , 21 <i>r</i> , 59 <i>r</i> , 61, 74 <i>a</i> , 76 <i>d</i> , 105	7
Plough-soil and top-soil	4, 5, 6/7, 59 <i>s-u</i> , 63, 76, 77, 82, 83 <i>f</i> , 89 <i>d-e</i>	13
	TOTAL	214

VESSELS

CAST

Polychrome

A. Mosaic glass

The amount of mosaic glass found — only seven fragments representing six vessels — is disappointing: but it is probably significant, when compared with the far more numerous

and varied assemblages at Camulodunum (Harden, 1947, 292-4) and Vindonissa (Berger, 1960, 9-18). The Fishbourne pieces, all much weathered and pitted so that their colours and patterns are difficult to decipher, comprise two floral (millefiori) pieces (nos. 1-2), two mottled (nos. 3 and 5) and two marbled (nos. 4 and 6-7). All are from cast vessels except the base fragment (no. 6-7), which must be blown, as it has a pushed-in, tubular base-ring. Blown mosaic vessels are much rarer than cast ones, and begin later. A little jug was found in a grave of *c.* 100 at Brugg (Vindonissa) and an unguent-bottle in the Ray W. Smith collection is also first century (Berger, 1960, 14, no. 14, pl. i; and Smith, 1957, 85, no. 141). Jugs of *c.* A.D. 300 occur at Cologne (Fremersdorf, 1958a, 51, pls. 110-11).

It is noteworthy that two early varieties, laced and striped mosaic, both of which occurred at Camulodunum and at Vindonissa, are absent, and that there is only one example of a pillar-moulded bowl. Indeed three of the examples, nos. 2 and 4, with their outplayed, flattened lips, and no. 6-7, which is blown, are certainly later than the first century. The lips of nos. 2 and 4 are normal on colourless vessels of the late first and second centuries and no. 4 is comparable both in shape and mosaic pattern with a bowl from Cologne which Fremersdorf dates as late as 300 (Fremersdorf, 1958a, 51, no. 643, pl. 109), equating it with a bowl from a grave at Sackrau (Fremersdorf, 1939, 85 ff., pls. 11-12; Kisa, 1908, 254, 528, fig. 197; and H. J. Eggers, *Der römische Import im freien Germanien*, 1951, 109, find 768, and 181, glass-type 240) which is to be dated similarly. The blown base, no. 6-7, if, as we believe, it comes from a jug, may be equally late, since it is in parallel with one of *c.* 300 from the Severinskloster, Cologne (Fremersdorf, 1958a, 51, no. N5916, pl. 111). It is to be noted that none of these six mosaic fragments comes from an early level: no. 1 is from Period 3 occupation; nos. 2 and 3 are from the late robbing layer; the other three are unstratified.

It seems clear, therefore, that the mosaic wares of the first half of the first century, comparatively commonly found in levels of the mid first century at Camulodunum and Vindonissa, were already losing their dominant position on the market when the early occupants at Fishbourne were needing fine glassware in the later 50s.

1. Pl. xxv. Period 3 occupation

Two fragments of base and side of bowl, floral (millefiori) pattern; dark green ground with (a) opaque yellow spiral with opaque red centre, and flecks of the same two colours; (b) part of flower, opaque light green petals and centre outlined in opaque yellow and with flecks of opaque yellow and red. Weathered and pitted. Shape uncertain. Cast from sections of canes and wheel-polished.

2. Pl. xxv, fig. 137. Late robbing

Fragment of rim and body of bowl, built of floral and other cane patterns; dark green ground with cane-sections of various colours, including purple, opaque yellow, opaque white and opaque red and perhaps others. Much weathered and pitted and pattern difficult to identify. Outplayed, flattened lip, inverted conical body. Cast from sections of canes and wheel-polished; one wheel-cut on upper side of rim. D. at rim 12.7 cm.

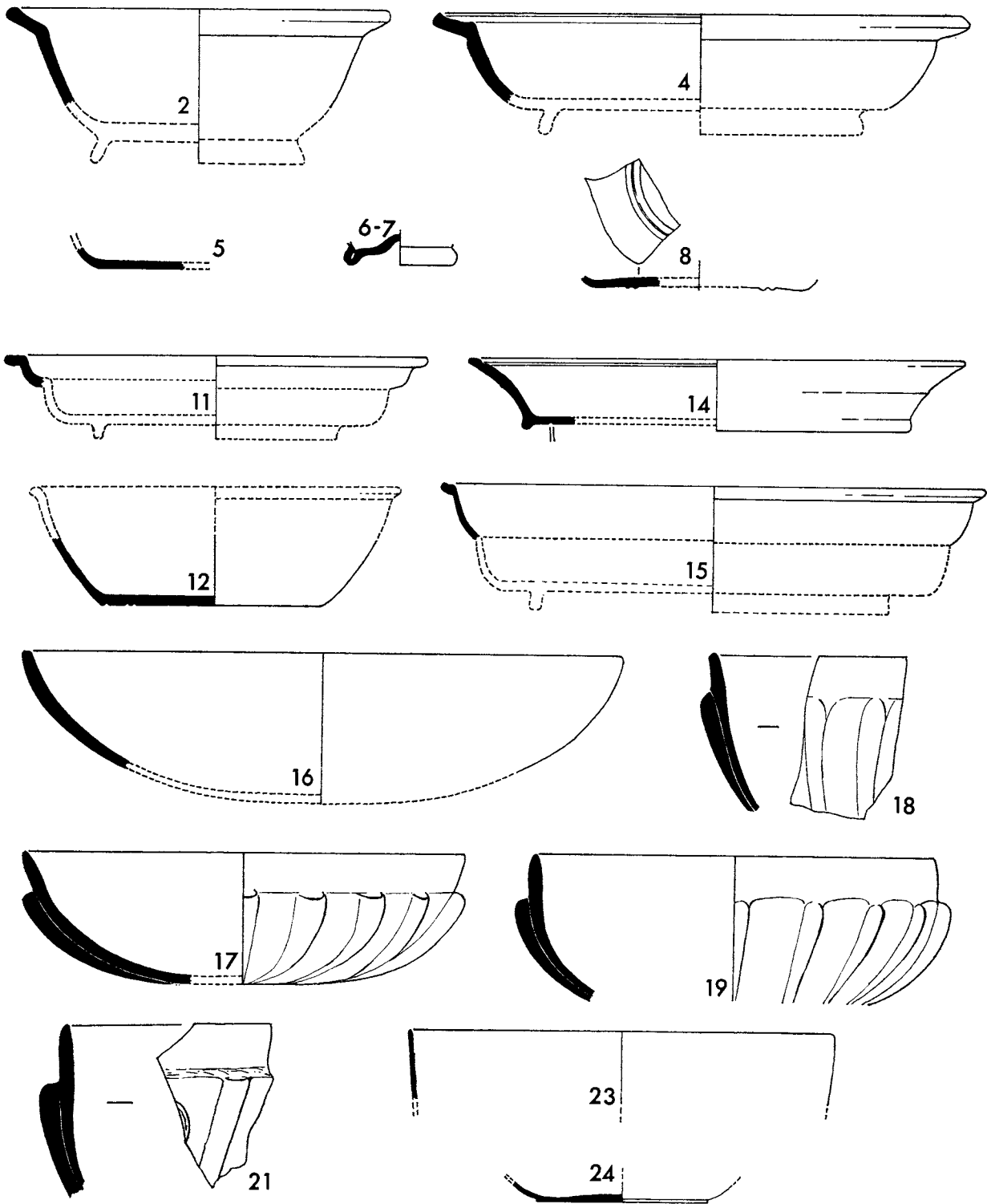


FIG. 137. Glass vessels: scale $\frac{1}{2}$. See pp. 324-32

3. Pl. xxv. Late robbing
Fragment of body of pillar-moulded bowl, mottled pattern; opaque yellow and opaque red streaks in a dark green ground. Some weathering and pitting of surface. Fragment shows junction of side and base of shallow bowl, where ribs fade out into low relief. Cast and wheel- and fire-polished.
4. Pl. xxv, fig. 137. Unstratified
Fragment of rim and side of bowl, marbled pattern; dark brown ground with opaque yellow streaks. Weathered and pitted. Outplayed, flattened lip, convex sides, tapering downwards. Cast and wheel-polished; broad, shallow wheel-cut on top of lip and another wheel-cut on under side at junction of lip and side. D. at rim 17.8 cm.
5. Pl. xxv, fig. 137. Plough-soil
Fragment of base of bowl, mottled pattern; light green with opaque yellow and (rarely) opaque red mottling. Weathered and pitted. Part of outplayed side and flat base, with curved angle at junction. Cast and wheel-polished. D. base *c.* 9.0 cm.
- 6-7. Pl. xxv, fig. 137. Plough-soil
Two fragments of base-ring and base, marbled pattern; wine-coloured ground with opaque green, opaque yellow, opaque light blue and opaque white streaks. Surface weathered and dulled. Tubular, pushed-in base-ring with kick but no trace of pontil-mark. Blown. D. base-ring 3.8 cm.

B. Gold-band glass

The three fragments of gold-band glass which Fishbourne has yielded are, so far as we know, the first examples of this rich and complicated fabric that have turned up in Britain. All are from cylindrical lidded pyxides of a type of which a number are extant (cf. e.g. Smith, 1957, 87, nos. 143-4; Calvi, 1968, 95, no. 241, pl. 10, no. 2). For gold-band glasses in general see Fremersdorf, 1932, 278-96, who suggests that they were cast on a core, and Oliver, 1967, 20-33, who provides an up-to-date list of known examples, classifying them as alabastra, bottles (i.e. unguent-bottles), pyxides, and — so far in only one example — a skyphos. Oliver believes that the skyphos belongs to the first half of the first century B.C., but that the other types are later, perhaps early first century A.D. A fragmentary unguent-bottle in Cologne (Fremersdorf, 1958a, 23, no. 29.1895, pl. 8) came from a Claudian burial and one from Samothrace was in an Augustan context. If this dating is correct, these three Fishbourne pieces were probably brought over as treasured possessions and not as new purchases in the market. Two come from Period 1 contexts, the other (tiny) fragment from the occupation level of Period 2.

8. Pl. xxv, fig. 137. Period 1 B-C
Fragment of base of cylindrical pyxis; dark blue ground with colourless band enclosing a shattered gold strip, and with wine-coloured and opaque white streaks besides. Flat base with two concentric wheel-cut raised circles. Cast, wheel-cut and polished. D. base 6.8 cm.

9. Pl. xxv. Period 1 B-C

Fragment of body of cylindrical pyxis; colours and technique as no. 8. D. *c.* 12.0 cm.

10. Pl. xxv. Period 2 occupation

Tiny fragment of cylindrical pyxis; band of colourless enclosing shattered gold strip, and wine-coloured, green and opaque white besides. Flat, and so from lid or base of pyxis. Cast, wheel-cut and polished.

Monochrome

A. Translucent, coloured

The five examples catalogued under this heading are all emerald or dark olive green, though of the six other fragments, which are only listed, four are deep blue. All eleven pieces come from contexts belonging to Period 1 or Period 2 construction, and all must, therefore, have reached the site before A.D. 75. This dating agrees with what we know of this ware from elsewhere. A number of examples, mainly emerald green, but one or two of dark blue, came from Claudian and Neronian levels at Camulodunum (Harden, 1947, 300 f., nos. 53-60, pl. lxxxviii). Vindonissa, a larger and more prolific site, has yielded even more, again in the same two colours (Berger, 1960, 24-30, nos. 32-3, 35-9, 47, pl. 3). For examples from elsewhere see Harden and Berger, *loc. cit.*; Fremersdorf, 1958a, 30, 35, 44, pls. 30, 46, 78; and Vanderhoeven, 1962, 18, fig. 2.

Many opaque vessels of the same forms also existed and both varieties are discussed together by Berger, *loc. cit.* He believes that the opaque examples are Tiberian or early Claudian, and that many of the translucent ones are equally early, though some have come from Flavian contexts. Thus here again we are dealing with a type which was on the way out by Flavian times.

The shapes of these glasses occur in Arretine and samian red-gloss pottery and both groups are probably imitations of metal originals, for the shapes are essentially ones that a metal-worker rather than a potter or a glass-worker would invent. Nos. 11 and 15 might be thought to come from the pottery shape Dragendorff 27, of which glass examples in this ware, both green and blue, occurred at Camulodunum (Harden, 1947, 301, no. 57), Vindonissa (Berger, 1960, 28, no. 38), Cologne (Fremersdorf, 1958a, 30, no. 53.1497) and Conimbriga (Alarcão, 1965, 39, no. 39). If, however, their estimated diameters are correct, they are somewhat large for that form, which rarely exceeds a diameter of *c.* 12 cm., and they probably belong (as drawn, fig. 137) to shallow dishes with double-curved sides like those illustrated by Berger (1960, 26, nos. 30-31, pl. 3), both of which, however, are of opaque, not translucent glass. No. 12 has a convex side and flat bottom, with no evidence for its rim, which may have resembled that of Camulodunum, no. 59; indeed it could be that the reconstruction of that piece as a bowl with base-ring is incorrect and that it was flat-bottomed, like our no. 12, for the dimensions are not dissimilar. A flat bottom of such a bowl of emerald-green glass with wheel-cut concentric circles on the under side exists in

Aquileia Museum.¹ No. 14, with its concave sides and flat base, is closely paralleled by a dark green example in Liège from Avernas-le-Baudouin (Vanderhoeven, 1961, 22, no. 18, pl. iv); the shape resembles the Dragendorff form 23 (F. Oswald and T. D. Pryce, *An Introduction to the Study of Terra Sigillata* (London, 1920), p. 188 f., pl. L), though the side is more splayed than it is on the examples there illustrated.

11. Pl. xxv, fig. 137. Period 1 B-C
Fragment of rim and side of bowl; emerald green. Outsplayed flattened horizontal lip, short, convex-curving side (probably the upper of two convex curves). Cast and wheel-polished. D. rim 14.0 cm.
12. Pl. xxv, fig. 137. Periods 1 B-C and 2 construction
Three joined fragments of body and base of bowl, and a fourth, loose fragment from the base; emerald green. Convex side, flat base. Cast, wheel-cut and polished. Three concentric wheel-cuts on under side of base, near its edge. D. base 7.5 cm.
13. Not illustrated. Period 1 B-C
Fragment of flat base of bowl(?); dark olive green. Featureless. Cast and wheel-polished.
14. Pl. xxv, fig. 137. Period 2 construction
Two joined fragments of dish; emerald green. Rounded rim, outsplayed concave side, flat base, with low base-ring at junction of side and base. Cast, wheel-cut and polished. Three horizontal wheel-cuts, one inside, at rim, two others outside, one 8 mm. below rim, the other 8 mm. inside base-ring. H. 2.3 cm. D. rim 16.5 cm. D. base-ring 12.8 cm.
15. Pl. xxv, fig. 137. Period 2 construction
Two fragments of rim and side of bowl; dark olive green. Some iridescence in places. Outsplayed lip, short, convex-curving side (probably the upper of two convex curves). Cast, wheel-cut and polished. Wheel-cut groove on upper surface of lip. D. c. 18.0 cm.

The following six fragments of bodies of similar vessels were found:

- | | | |
|--------------|------------------------|--|
| <i>a, b.</i> | Period 1. | Both deep blue, the latter with horizontal raised rib. |
| <i>c.</i> | Period 1. | Emerald green. |
| <i>d.</i> | Period 1. | Emerald green. |
| <i>e.</i> | Period 1 B-C. | Deep blue, with horizontal raised rib. |
| <i>f.</i> | Period 2 construction. | Deep blue, with horizontal raised rib. |

B. Clear, coloured

Of the six examples catalogued one is plain, the other five are pillar-moulded; all the 18 fragments that are only listed are also from pillar-moulded bowls.² Two pillar-moulded

¹ Calvi, 1968, 175, no. 351, pl. 28, where it is listed as a late Roman (fourth-fifth century) window-pane. If it was ever such it must have been an old piece re-used, for there is no doubt that it is in origin the bottom of a first-century bowl of the type here discussed. Re-use much later as a pane is unlikely, but just possible, since the edges have been

grozed all round and it must, therefore, have had some kind of secondary use.

² For pillar-moulded bowls in general see Harden, 1947, 293 f., 301 f.; Isings, 1957, 17-20, form 3, and Berger, 1960, 9-23, together with further references cited ad locc.; and Alarcão, 1965, 33-8.

bowls are golden brown; the rest, and the plain piece, are bluish-green. Since only one fragment of a polychrome pillar-moulded bowl occurred (no. 3 above), it is abundantly clear that by the time Fishbourne had developed in the 50s few such bowls except the bluish-green variety were being made. It is also noteworthy that 14 of these pieces came from Period 1 contexts, six from the construction level of Period 2, and only four from all the later layers. These Fishbourne finds, therefore, are of importance for the chronology of the pillar-moulded bowl in general, especially when considered in relation to the finds at Camulodunum and at Vindonissa. At Camulodunum (Harden, 1947, table on p. 288) out of 123 pieces, 17 were marbled or mottled mosaic glass, two opaque monochrome, 21 clear dark blue, brown, or yellow, and 83 common green; and any examples that were securely stratified mostly came from Period 4 (closing date 61) or earlier. At Vindonissa (Berger, 1960, 12 and 23) there were 194 marbled or mottled mosaic pieces and 505 monochrome, of which 47 were of colours other than common green. Berger shows (*ibid.*, 10 f., 18 f.) that the mosaic pieces and the non-green monochrome are predominantly pre-Flavian, some being from contexts as early as Tiberian, and that bowls with concentric wheel-cuts on the inside of the base (cf. our no. 17) are early in the series. The comparative rarity of all varieties except the common green at Fishbourne co-ordinates well with Berger's analysis of the Vindonissa assemblage.

The plain bluish-green piece, no. 16, which resembles the pillar-moulded in shape and in being wheel-polished inside and fire-polished outside, is a rarity for which we can cite no parallel. It is just possible that it should be set the other way up and interpreted as a lid, perhaps with a central knob; but for this, too, parallels are lacking.

i. Plain

16. Pl. xxv, fig. 137. Period 1

Fragment of rim and body of bowl (or lid?); bluish-green. Incipient iridescence on inside. Shallow vessel with plain rim and convex sides. Cast, fire-polished on outside, wheel-polished on inside. D. rim 20.0 cm.

ii. Pillar-moulded

17. Fig. 137. Period 1

Fragment of rim and side of bowl; bluish-green. Incipient iridescence on inside. Shallow pillar-moulded bowl with prominent and well-shaped ribs running down to centre of base. Cast, wheel-polished on inside and on outside of rim, rest of exterior fire-polished. Three concentric wheel-cuts on inside at junction of side and base. H. 4.2 cm., D. 14.6 cm.

18. Pl. xxv, fig. 137. Period 1

Fragment of rim and side of bowl; bluish-green. Tall pillar-moulded bowl with flattish ribs. Fabric and finish as no. 17. D. rim *c.* 18.0 cm.

19. Pl. xxv, fig. 137. Period 2 construction

Fragment of rim and side of bowl; bluish-green. Shallow pillar-moulded bowl with prominent, widely-spaced ribs. Fabric and finish as no. 17. D. rim 13.2 cm.

20. Pl. xxv. Period 2 construction

Fragment of rim and side of bowl; bluish-green. Tall pillar-moulded bowl with broad, widely-spaced ribs. Fabric and finish as no. 17. D. rim 16.5 cm.

21. Pl. xxv, fig. 137. Period 2 construction

Fragment of rim and side of bowl; golden brown. Incipient iridescence on inside. Tall pillar-moulded bowl with slanting, sharply-defined rib(s). Fabric and finish as no. 17. D. rim *c.* 16.5 cm.

The following other fragments of pillar-moulded bowls were found:

<i>a.</i>	Period 1 B-C.	Golden brown.
<i>b-e.</i>	Period 1.	Bluish-green.
<i>f-k.</i>	Period 1 B-C.	Bluish-green.
<i>l-n.</i>	Period 2 construction.	Bluish-green.
<i>o.</i>	Late rubble.	Bluish-green.
<i>p.</i>	Period 3 occupation.	Bluish-green.
<i>q.</i>	Period 3 destruction.	Bluish-green.
<i>r.</i>	Late rubble.	Bluish-green.

C. Colourless

We pass now from coloured to colourless glass, and before discussing this cast group and the other colourless groups individually, some general remarks on the incidence of colourless glass at Fishbourne and of our method of grouping and cataloguing it may be helpful. In the first place it will be found to occur from Period 1 onwards, in all layers, but as we proceed certain noteworthy differences in types and decoration will be manifest between the glass from Periods 1 and 2 (i.e. up to A.D. 100) and that from Period 3 and later. Some glass, of course, belonging pretty clearly to the earlier of these two divisions (e.g. nos. 27, 32 and 44) has been found in the occupation-levels of Period 3, but since there was no significant break in time between Periods 2 and 3, this was to be expected, and this first-century material need not have endured in use long after the turn of the century. On the whole, however, the colourless ware in first-century layers is readily distinguishable from colourless ware found in layers of the second century and later.

The appearance of colourless glass in the earliest level at Fishbourne is in itself significant. At Camulodunum (Harden, 1947, 288), the occupation of which ended *c.* 65, only 11 pieces of colourless occurred in a total count of well over 616 fragments of glass, and of these 11 only one (*ibid.*, 303, no. 73) was significant enough to be catalogued. Yet at Fishbourne, in a period which ended no more than ten years later, not only just colourless, but really first-class wheel-cut colourless, such as nos. 29, 42-3, and 50-52, was in use before the close of the construction period of the Second-Period palace in the mid 70s. This date for the rise of colourless on western sites is corroborated by Berger's analysis of the evidence at Vindonissa (Berger, 1960, 67-74), which suggests that it began to be in use there by about the year 70. It is also confirmed by finds in London, where a number of good colourless glasses have turned up in Flavian contexts, notably four specimens amongst a group of six glasses which came from a refuse-pit of *c.* 60-80 on the site of St Swithin's House, Walbrook in 1950. This group included a fine wing-handled cup cut from a cast blank, a rim-fragment of a

beaker with relief-cut decoration and two other notable pieces (R. Merrifield, *The Roman City of London*, 1965, 185, pls. 121–2; London Museum, *Glass in London*, 1970, 8, nos. 12–17). Finds on other sites fit into the same picture: we may note particularly the fine — though regrettably fragmentary — facet-cut beaker recently found by Dr Anne Robertson in the Flavian fort at Cardean, Angus, Scotland (*J.R.S.*, LIX (1969), 202, pl. xiv, 1).

This early colourless glass is sometimes cast and sometimes blown. It is not always easy to decide between these two processes in individual instances, particularly when dealing with fragments. Moreover, whether cast or blown, they may either have been finished on the wheel after being cast or blown directly into their final form, or they may have been worked into their final form by grinding and cutting from a cast or blown blank. In each instance here catalogued we state which process we believe was used. Such decisions are sometimes arguable, but we hope that, at least in most instances, we have chosen the right one. The most helpful criterion is the condition of the inside surface. If it still retains the gloss characteristic of a blown glass, we may be sure that the vessel or its blank was blown; but if both surfaces have been polished it is likely, though not of course certain, that the vessel or its blank was cast.

We call all this glass simply ‘colourless’, partly because that is no doubt what its makers intended it to be and partly because any attempt to indicate differences in tone (i.e. ‘colourless with greenish tinge’, ‘buff colourless’, ‘greyish colourless’, and the like) is fraught with many difficulties and uncertainties. Working of the surface, weathering effects, and even the very age of the glass have sometimes altered its aspect and rendered its original tint hard to assess. And since some pieces, e.g. nos. 33, 43, and 44, still retain their original crystal clarity virtually untarnished, we have felt it reasonable to regard them all as having originally been as truly colourless as good modern table-glass.

i. Plain

The following eight fragments are all cast and wheel-polished, and all come from cups or bowls. Nos. 22, 23, 24, and 25 belong to Periods 1 and 2. The rest are from Period 3 or later levels, but it is unlikely that any one of them is later, in origin, than the first half of the second century. Nos. 23 and 23A are so alike that they must be close together in date; no. 27 is from a bowl with a neat low base-ring very like that on the wing-handled cup from the Flavian group from Walbrook, London (see above); and nos. 26 and 28 are from shallow bowls of the Karanis type with a broad rim with overhang discussed in Harden, 1936, 64 f., 83, nos. 166–8, pl. xii (with other references ad loc.). Overhanging-rim bowls also occur in the next group (nos. 33 and 34, p. 336), where other parallels are cited; see also Vanderhoeven, 1962, 70, fig. 194 (from Tongeren, Belgium), and Alarcão, 1968, 19, no. 24, fig. 1.

22. Pl. xxvi. Period 1

Fragment of side of bowl; colourless. Incipient strain-cracking. Convex side, low, rounded base-ring. Complete shape and dimensions not determinable. Cast and wheel-polished.

23. Pl. xxvi, fig. 137. Period 2 construction

Fragment of rim and side of cup(?); colourless. Rounded rim, straight side, tapering downward. Complete shape not determinable. Cast and wheel-polished. D. rim *c.* 14.0 cm.

- 23A. Pl. xxvi. Period 3 destruction
Fragment of rim and side of cup(?); colourless. Some pitting. Shape and technique as 23, but from a different vessel. D. rim *c.* 15.0 cm.
24. Fig. 137. Period 2 construction
Fragment of part of side and base of shallow bowl(?); colourless. Incipient iridescence and some internal strain-cracks. Side tapers inward to join offset edge of base; base convex inside, flat outside. Cast and wheel-polished. D. base 5.7 cm.
25. Pl. xxvi, fig. 138. Period 2 occupation
Fragment of rim of shallow bowl; colourless. Broad, outplayed rim with rounded edge, obtuse-angled junction of rim and side. Cast and wheel-polished. D. rim 28.0 cm.
26. Pl. xxvi, fig. 138. Period 2 occupation
Fragment of rim of shallow bowl; colourless. Strain-cracked, with patches of devitrification. Broad, outplayed rim with overhang at edge, obtuse-angled junction of rim and side. Cast and wheel-polished. D. rim 28.0 cm.
27. Fig. 138. Period 3 occupation
Fragment of body and base-ring of cup(?); colourless. Incipient iridescence. Part of lower part of side, sloping gently to a low base-ring. Cast and wheel-polished. D. base-ring *c.* 6.5 cm.
28. Not illustrated. Late robbing
Fragment of base-ring of shallow bowl; colourless. Some iridescence. Flat base, tall, vertical base-ring. Cast and wheel-polished. D. base-ring 7.6 cm.

ii. Wheel-cut

Fishbourne has produced ten examples of glasses with cut decoration which appear to have been made from a cast blank. Nos. 29, 30, and 35A belong to Periods 1 and 2, the others all come from Period 3 or later; but here, too, as with the plain cast colourless, it is unlikely that any one of them is later in origin than the first half of the second century. All the seven catalogued pieces are important and interesting and deserve individual comment; the three others are listed only.

No. 29 bears resemblances to a number of first-century vessels. For its shape and handle cf. a fragmentary colourless handled bowl from Vindonissa (Berger, 1960, 83, no. 214, pl. 14, and pl. 22, form 98), though that piece has convex sides; a fragment of a colourless bowl from Park Street villa, St Albans, bearing papyrus leaves cut in relief (Harden, *Arch. Journ.*, cii (1945), 70, fig. 11, no. 2, from pit III, closed *c.* 150); a rock-crystal cup in Cologne (Fremersdorf, 1952, pl. xvii, 1 and id., 1967, pl. 1); and three colourless shallow two-handled cups from Pompeii with lotus-leaves in relief (Fremersdorf, 1952, fig. 3 after *Not. Scavi*, 1908, 276 f., fig. 4 and 4a; Eisen, 1927, pl. 62, fig. 128). For its relief decoration cf. the same three Pompeian cups; two fragments of colourless beakers from Vindonissa (Berger, 1960, 74, nos. 180-81); a complete colourless goblet in Cologne with raised ovals, lotus-leaves, etc., in four horizontal rows (Niessen collection no. 153, Loeschcke, 1911, 18, pl. xxv; Fremersdorf, 1967, 67 f., pl. 30); a similar goblet in the Guildhall Museum, found in Ironmonger Lane,

London, in a rubbish-pit containing late first- and early second-century pottery (London Museum, *Glass in London*, 1970, 8, no. 18) and a rim-fragment from Leadenhall Street, London (London Museum Catalogues, no. 3, *London in Roman Times*, 1930, 122, fig. 42, no. 7, but mis-dated third-fourth century). Thus the fragment belongs to a closely-knit group of relief-cut ware with geometric and formalized-leaf patterns found on many sites in Italy and the west: indeed one example even reached Begram in Afghanistan, as a fragment illustrated by Hamelin (1953, pl. vi, d) testifies. Some of these pieces, by stratification, must be first century and there is no reason why they should not all be; the St Albans bowl could have been in use for many years before the fragment of it reached the mid second-century pit in which it was found.

No. 30 exhibits a different variety of relief decoration, consisting of free-ranging plant-scrolls. Its ivy-leaf, fragmentary though it is, is beautifully designed and executed, quite in contrast with the stiffness of the lotus-leaves, etc., on the previous group, and the vessel from which it came must have been a masterpiece. The nearest western parallel for its decoration is the four-sided cup, which has ivy scrolls in relief ranging freely over its surface and bears two 'chain' handles cut in open-work from the vessel-blank (see, most recently, Haberey, 1962, 406, pl. 37, and Fremersdorf, 1967, 68, pl. 31). This cup, however, cannot be earlier than the third century since, apart from any other considerations, the grave in which it was found contained one of the well-known tall flasks of the mid third century with bodies blown in four separate tubes (Haberey, loc. cit.; Kisa, 1908, 350, 479, 766, fig. 79). Another glass with relief-cut scrolls, but vine not ivy, was recently found in a late third-century grave at Brühl, near Cologne (Haberey, 1962, 399 f., fig. 2a). The great difference in date makes it difficult to suggest a direct connexion between these two vessels and no. 30. Better parallels, from the point of view of date, are some cups and goblets from Begram with vine and ivy(?) scrolls in relief, since their shapes clearly belong to the late first or early second century (Hamelin, 1953, pl. vi, b and c, and id., 1954, 173-5). These show that our piece is not unique at such an early date.

The main interest of no. 31 is that it is part of the bowl of a spoon of the rare type with facet decoration. No complete example of such a spoon, revealing the length of the handle, is known to us, but there are three bowls, two complete and one fragmentary, in the British Museum, from Melos, Rome and London respectively (Harden, 1936, 287, fig. 4, m-o), one of which retains part of its cylindrical handle, a fourth example is in the Sangiorgi collection (G. Sangiorgi, *Collezione di vetri antichi*, 1914, pl. xxx, no. 151) and there is a fifth in the museum at Merida, Spain, the bowl of which is cut with diamond facets and on which a small portion of the handle is preserved. The Merida piece was found in a first-century grave¹ and the faceting on all of them is suggestive of the first- or early second-century style; there is indeed no doubt that that is where they all belong.

No. 32 comes from what must have been a very fine handled bowl. We know of no parallel in glass for the split lower arm of the handle, but something similar occurs on the rock-crystal cup in the Treasury of St Mark, Venice (Fremersdorf, 1952, 79, pl. xvii, 2). A different kind of handle, but, like ours, cut from the vessel-blank, occurs on the first-century wheel-engraved, two-handled bowl from a Flavian grave on Siphnos (J. K. Brock and

¹ *Archivo Español de Arqueología*, xiv (1940-41), 426, fig. iv, 15.

G. Mackworth-Young in *Ann. British School, Athens*, XLIV (1949), 90 f., pls. 33-4), the shape of which also is closely parallel to no. 32. For the design of faintly waved grooves we may compare, first, two cast and ground ovoid beakers from Cologne, each with a frieze of such grooves round the body (Fremersdorf, 1967, 117, pl. 126, one in Cologne — L 928 — and one in Corning — *J. Glass Studies*, VI (1964), 157, no. 7); and secondly a bowl and a skillet from Begram with the same frieze-design (Hamelin, 1953, pl. VI, a, and id., 1954, 174).

The next two pieces, nos. 33 and 34, may be discussed together. Their chief interest lies in their broad rims each with overhang at the edge bearing a relief-cut ovolo band. We have already seen this shape of rim on nos. 26 and 28 above (p. 332). For the ovolo decoration the best known parallel is the fine early second-century colourless shallow bowl found recently along with two plain colourless saucers of the same general shape and rim-form in the Bar Kokhba cave on the western coast of the Dead Sea, which has the same kind of ovolo band (Yadin, 1963, 106-10, no. 12, fig. 40, pl. 29). This piece is, however, about twice the size of no. 33, being 33.8 cm. in diameter. Yadin, *ibid.*, 107, fig. 40a, publishes a fragment of rim of a similar bowl, equally large, from Richborough, Kent. Four other fragmentary examples occurred at Conimbriga in Portugal (Alarcão, 1965, 59-61, nos. 71-4, pls. iii, xiv), three of which have a band of circular facets divided by linear cuts on the under side of the rim, such as occur also on the Bar Kokhba example. Three highly decorated dishes with similar rims have come from the north Adriatic area; at Zara a large oval dish with splayed handle-plates is decorated all over the outside with facet-cutting (R. Valenti, *Il Museo nazionale di Zara* (Itinerari dei Musei e Monumenti d'Italia, no. 22, 1932), pl. on p. 27; P. Marconi in *Bollettino d'Arte*, xxvi (1932), 33 ff., fig. 2; Mariacher, 1966, 6, no. 14, fig. 9); Zara also possesses a circular dish of similar type (Mariacher, loc. cit., 6, no. 15, fig. 10) and in Adria Museum there is an equally fine, but somewhat fragmentary, circular dish which is similarly covered with facet designs, some inside and some outside.

The last piece in this group, no. 35, is one for which we have found no exact parallel; nor is it clear what the shape of the upper part of the vessel was, though, since it bears polishing marks inside as well as outside, it must have been an open bowl or jar and not a narrow-necked vessel. The horizontal ribs and the treatment of the under side of the base resemble similar features on the first-century faceted beaker types to which nos. 39-44 below belong. This piece, therefore, though it comes from the occupation-level of Period 3, is unlikely to have been made later than the early second century, and could well be late first century.

There can be no doubt, indeed, on the evidence of the parallels cited, that we are justified in claiming a first- or early second-century date for all these ten pieces, even though most of them come from later contexts on the site.

29. Pl. xxvi, fig. 138. Period 1

Two fragments of rim and body of cup; colourless. Totally unweathered. Rounded rim, straight side, tapering down to a curved basal angle; outside, at rim, the upper end of a vertical 'ribbon' handle. Cut and ground, including the handle, from a cast blank; wheel-polished inside, and probably also outside, though that surface may have been fire-polished. Horizontal wheel-cut line inside, near rim; relief-cut design outside, of which parts of three tapering godroons extant, their edges rising perpendicularly from wall of cup and their inner surface being concave. D. rim 15.2 cm.

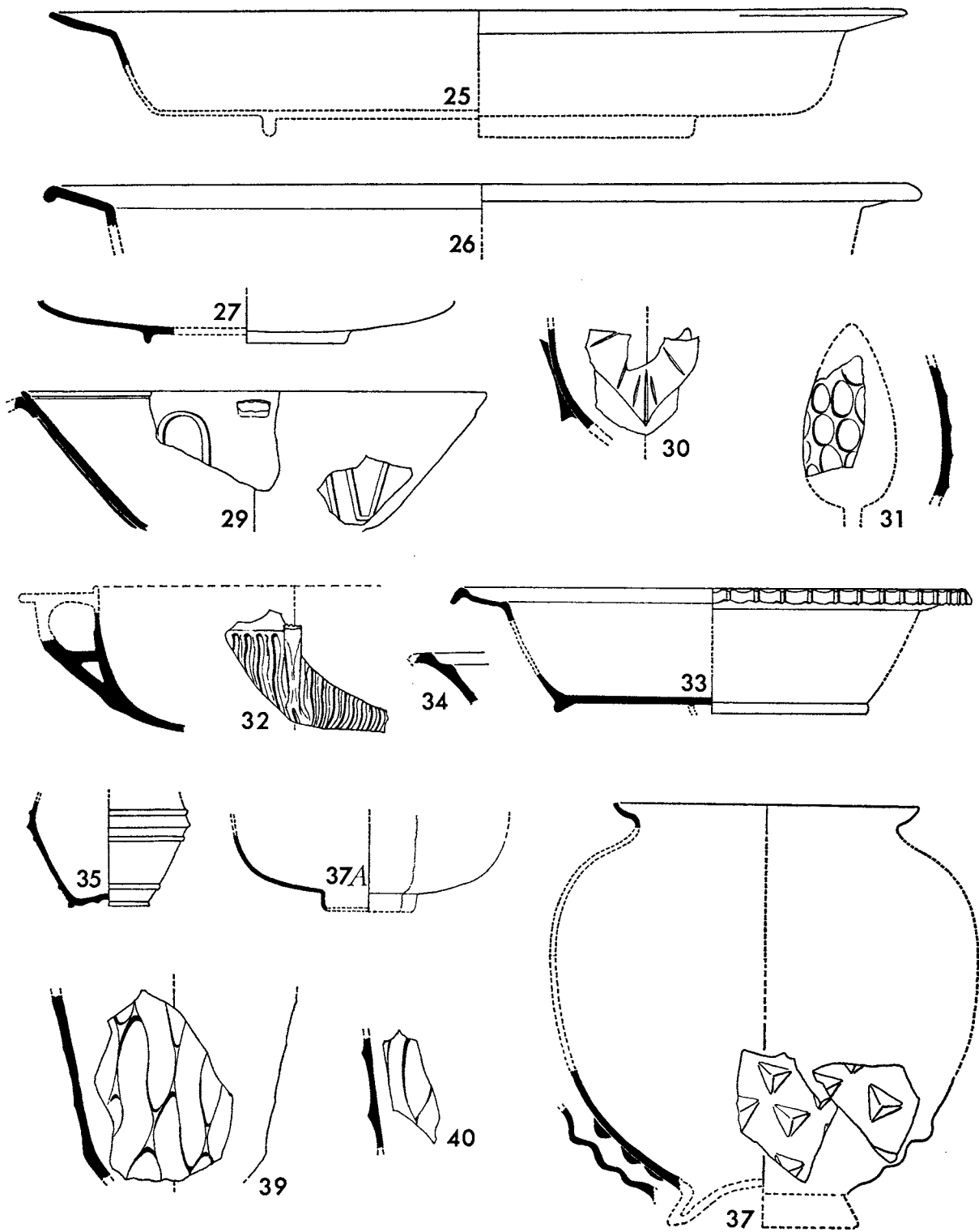


FIG. 138. Glass vessels, and spoon (no. 31): scale $\frac{1}{2}$. See pp. 332-42

30. Pl. xxvi, fig. 138. Period 2 occupation
Fragment of body of beaker; colourless. Side convex, curving in toward base. Relief-cut and ground from a cast blank; both surfaces wheel-polished. Part of an ivy-leaf, with internal grooves to represent veins, cut in high relief, with undercut edges, on exterior, point downward. D. bowl *c.* 6.0 cm.?
31. Pl. xxvi, fig. 138. Period 3 occupation
Fragment of bowl of spoon; colourless. Surface pitted. Ovoid, concave bowl with rounded edge. Cast, wheel-cut and polished. Closely-set oval facets in quincunx on under side. W. *c.* 3.0 cm. L. uncertain.
32. Pl. xxvi, fig. 138. Period 3 occupation
Fragment of handled cup; colourless. Some pitting on outside. Side convex, with part of a widely-swung vertical handle, which probably had a thumb-piece at the top. Inside, the curve of the bowl is unbroken; outside, at the foot of the handle, a thickening of the wall to strengthen the handle gives a false impression of a carination. The handle has a split lower arm, joining the body in two places, but doubtless there was only one upper point of contact. Wheel-cut and ground (including the handle) from a blank which must have been cast, even though the inside wall is glossy and shows no trace of wheel-polishing. Neck hollow-ground to a lower plane than that of body; outside of body covered (perhaps to centre of base?) with closely-set narrow wheel-cut grooves, lying vertically and waved in a faint S-curve. D. body *c.* 13.0 cm.?
33. Pl. xxvi, fig. 138. Period 3 occupation
Six fragments (two of which join) of rim, side and base of shallow bowl; colourless. Totally unweathered. Broad, outsplayed rim with overhang at edge, straight side tapering to base-ring at junction of side and base, base flat and of even thickness. Cast, wheel-cut and polished. A fine relief-cut ovolo band runs round the outside of the overhanging edge of rim and there is a small circle at the centre of the base. D. rim 16.5 cm. D. base 10.2 cm. H. *c.* 4.0 cm.
34. Fig. 138.¹ Period 3 destruction
Fragment of rim and side of dish; colourless. Dulled. Outsplayed rim with overhang at edge, straight side tapering sharply down to base-ring. Cast, wheel-cut and polished. A broad, shallow wheel-cut groove runs round upper side of rim, and an ovolo band round the outside of the overhanging edge of rim. Dimensions uncertain.
35. Pl. xxvi, fig. 138. Period 3 occupation
Fragment of side and base of bowl or jar; colourless. Side expands downward to carination and thence tapers in to base-ring at junction of side and base. Cast, wheel-cut and polished. Two wheel-cut horizontal ribs, one above and one below an angular ridge at carination; a third wheel-cut rib 7 mm. above base-ring; base-ring low and rounded; on underside of base an angular ridge, 9 mm. diameter, outside of which the surface is convex, while inside it is concave, forming a circular facet. D. carination 5.2 cm. D. base-ring 2.5 cm.
- Three other fragments of colourless cast vessels with wheel-cut horizontal ribs were found:
- a. Period 2 construction. Side of beaker(?) with two ribs.
 - b. Period 3 occupation. Bottom of bowl with band of four ribs.
 - c. Robbing. Bottom of bowl with two ribs.

¹ This fragment is pitched wrongly on the drawing: the horizontal rim-lines should be rotated clockwise about 20° to obtain the correct pitch.

MOULD-BLOWN

Clear, coloured and colourless

Only four examples of mould-blown glass occurred in this Fishbourne assemblage, three of which (nos. 36–37, 37 A) came from Periods 1 and 2, while the fourth (no. 38), which is completely different in style, belongs to the occupation-level of Period 3 and is much later in date, being not earlier than the third century. The first three were blown into moulds which gave them their final form: the third was ‘pre-moulded’ in a ribbed mould and its pattern of ribs was then twirled and expanded during further inflation.

That Fishbourne has produced so little mould-blown glass is surprising, having regard to its frequency elsewhere during the years covered by the three palace periods. Camulodunum, it is true, yielded only five examples, three of which were gladiator-cups; but there are a number of first-century mould-blown pieces from London and other British sites, and there were considerable quantities of fragmentary specimens, both sports-cups and bossed beakers and other varieties at Vindonissa (Berger, 1960, 49–67). All these are of types blown into moulds which gave them their final form. The ‘pre-moulded’ ribbed types seem not to have become popular until much later, perhaps during the third century, and they are particularly prevalent in the fourth century and later, both in the east and in the west.

Turning to individual pieces, the rim-fragment of a chariot-cup (no. 36; briefly noted in *J.R.S.*, LV (1965), 224) bears enough of its design to show that it belongs to the well-known first-century group of sports-cups which depict gladiatorial combats and/or chariot races, or athletic contests. Berger (1960, 60 ff.) catalogues 21 fragmentary pieces from Vindonissa and lists 47 more which he knew of from other sites in the western Roman empire. There are, in fact, over 100 of these pieces now known, not all of them published.¹

The chariot-cups all have the charioteers’ names in a narrow band at the rim, below which some have one frieze only, showing four racing quadrigae, each separated from the next by a triple *meta* (turning-post) or one of the obelisks or aedicules on the *spina*; others have two friezes, the upper depicting the *spina* and its obelisks, aedicules, etc., and the lower four racing quadrigae; in the two-frieze design the *metae* extend across both, tying the design together. No. 36 belongs to the two-frieze group.

The extant sports-cups provide a number of mould-parallels. Among the two-frieze chariot-cups there are at least two: (a) fragments in Nîmes (from Orange), Leiden (from Tunis region) and Taunton (from Ham Hill, Somerset);² and (b) the fine Colchester cup inscribed HIERAXVA OLYMPAEVA | ANTILOCEVA CRESCESAV (pl. XXVII; B.M. Dept. Prehistoric and Romano-British Antiquities 70.2–24.3: Harden *et al.*, 1968, 53, no. 61), Vindonissa 1952.508 (Berger, no. 155) and a fragment from Neuss (Novaesium) in Neuss Museum, no. 8537. The design on our fragment very closely resembles that on the Colchester cup. As the illustration shows, the same *spina* objects, an obelisk and a lion (the lion of Cybele)

¹ Previous accounts of the group are given by H. Schuermans, ‘Verres à courses de chars’, *Annales Soc. archéol. Namur*, xx (1898), 145 ff., and Kisa, 1908, 726 ff. It is my hope, shortly, to publish a full account of the series, with distribution-maps. D.B.H.

² See D. B. Harden in *Proc. Somerset Archaeol. and Nat. Hist. Soc.*, xcii (1946), 93 ff., for the Ham Hill and Leiden

parallel and J. H. C. Kern in *Rev. archéol.*, XLIV (1954), ii, 129 ff., for all three. In 1946 I suggested a third mould-group made up of Autun (Sèvres Museum 4800), Vindonissa, 1923.1043 (Berger, no. 154), and Slade collection 198 in the British Museum, but I do not now think this can be upheld. D.B.H.

on a pedestal, occur below SCES on each: but (a) the Colchester letters are taller (1 cm. against 0.8 cm.), closer together (the width across CES being 1.4 cm. on Colchester as against 1.8 cm. on ours), and more sloping and less even in height; and (b) the lion's tail on Colchester has a C-curve and on no. 36 an S-curve. It seems, too, that the complete Fishbourne cup was not so tall as the Colchester one. We must, therefore, ascribe Fishbourne to a different, though closely-allied mould. None of the other two-frieze chariot-cups seems to bear a sufficiently close resemblance to Fishbourne to be thought of as a possible mould-parallel, and we must, therefore, at least at present, accept it as standing alone.¹

These sports-cups are now securely ascribed to the first century A.D. Three of the gladiator-cups came from Neronian levels at Camulodunum (Harden, 1947, 299 f., nos. 50-52), a fragment of a similar cup from Vetera was found in the legate's house of the Claudio-Neronian fortress, and of the two two-frieze chariot-cups from Vindonissa, no. 1952.508 was found in a Flavian level in the Schutthügel (rubbish-tip) and no. 1923.1043 came from a Schutthügel layer dating from before 65. Other examples, too, have first-century contexts² and the only piece which is ascribed to anything like a firm second-century milieu is one from Jacobsknopp near Schönecken. This evidence is overwhelming for a mid, rather than late, first-century date for the group, a dating which fits well with the Period 1 context of our fragment.

No. 37 belongs to a group of mould-blown first-century beakers decorated with bosses of almond and other shapes. The commonest type has straight sides, tapering down, with almond bosses set in quincunx, either free or divided from each other by a diamond trellis-pattern. These occurred in some quantity at Vindonissa in Flavian contexts (Berger, 1960, 52-4, pl. 8), and they are also known from Pompeii (Eisen, 1927, 289 f., fig. 131) and Syria (e.g. Harden *et al.*, 1968, 54, no. 62). There are, however, other shapes of vessel and other shapes of boss also. Vessels with the everted rim and ovoid body of no. 37 were absent at Vindonissa, but one such, which has as well the same triangular bosses as no. 37, comes from Lillebonne, near Rouen (Rouen Museum; J. Barrelet, *La Verrerie en France*, Paris, 1953, 11, pl. vi, c and Morin-Jean, 1913, fig. 252). A more globular example with triangular bosses is published in a schematic drawing by Eisen (1927, 290, fig. 132, e) in a discussion of first-century mould-blown types from Pompeii and elsewhere, but he does not give its find-spot or its present location. We may note also a first-century cup of ovoid form with the body covered with closely-set diamond bosses, which bears some resemblance, though not a close one, to our piece (Kisa, 1908, 775, fig. 329; Fremersdorf, 1961, 50, pl. 98). It seems, therefore, that this piece, though rare, is not unparalleled as a first-century type.

Since its decoration is missing, no. 37 A, which from its context must be of the later first century, admits of no special comment. It would not have been catalogued had mould-blown fragments not been so rare at Fishbourne.

It is not possible to tell the exact form to which no. 38 belongs, or to give it a firm date: it is, however (as we have said above), not earlier than the third century. For third- and

¹ The nearest parallel to the Colchester group, and thus to Fishbourne, is a fragment in Cologne, Niessen 6175 (Fremersdorf, 1961, 52 ff., pl. 103, top left), but it is certainly not a mould-parallel for either.

² Cf. in particular the combined chariot-gladiator mould-group of two pieces from Topsham (Devon), one from Hartlip (Kent) and one from Southwark (London), of which the Topsham and Hartlip examples have probable first-century contexts (Harden in *Devon Archaeol. Exploration Soc.*, III (1937), 10, 18 f.).

fourth-century examples of corrugated ribbing on beakers and flasks see Fremersdorf, 1961, 62-4, pls. 122-8, and (for flasks only) Harden, 1936, 186, 191, 205 (nos. 579 ff.), 210 (nos. 608 ff.).

36. Not illustrated.¹ Period 1

Fragment of rim and top of side of cup depicting a chariot-race in the circus; bluish-green. Slightly dulled surface. Knocked-off rim, bevelled and ground smooth on inside, vertical side. Blown in a two-piece patterned mould. Below rim part of inscribed band, with letters 1 cm. high, . . .]s c e s[. . .; below this, separated by horizontal rib, is part of upper frieze showing tip of obelisk on left and hind-part of lion with erect, S-curved tail on right; no part of the lower frieze, with the racing chariots, is preserved. H. as extant 2.8 cm. D. *c.* 7.5 cm. T. wall 2 mm.

37. Pl. xxviii, fig. 138.² Period 1 B-C

Fragment of rim and two fragments from bottom of body of jar; bluish-green. Rim outplayed from neck-constriction, knocked off and ground smooth; ovoid body. Blown in a two-piece(?) patterned mould. On body triangular bosses equidistantly scattered. D. body *c.* 14.0 cm.?

37A. Fig. 138. Period 2 occupation

Fragment of lower body and base of flask; bluish-green. Globular body, hollow, vertical-sided base. Blown in a two-piece(?) mould. One vertical mould-mark on extant part of body and base. Decoration (which surely existed) must have been on upper part of body. D. body *c.* 9.0 cm.

38. Pl. xxvii. Period 3 occupation

Fragment of body of flask or jug; colourless. Probably from top of triangular body, where it joins the neck, as a thickening of the glass at one corner indicates. Blown in cylindrical mould and afterwards expanded by further inflation. On body faintly S-curved corrugations sloping from left to right. Dimensions uncertain.

BLOWN

Decorated

A. Facet-cut, colourless

That the seven examples which we place in this group come from blown, not cast, vessels is shown — apart from any other considerations — by the characteristic gloss of a blown glass which they all still retain on their inside surface (p. 331, above). They are in this respect wholly distinguishable from the cast wheel-cut pieces already discussed (nos. 29-35). Having been separated by this criterion, it becomes clear that the two groups differ also in their patterns. All the present group are facet-cut, whereas the only example in the cast group which exhibits such cutting is the spoon (no. 31), and that, being a spoon and not a vessel, is exceptional, since such a shape must be cast and cannot be blown.

Four examples (nos. 39-40, 42-3) come from Period 2 contexts, i.e. before 100; the remaining three (nos. 41, 44-5) belong to the occupation-level of Period 3 and could,

¹ This fragment has been mislaid in transit and cannot be illustrated, but see pl. xxvii for a similar vessel from Colchester.

² The lower fragment on pl. xxviii is upside down.

therefore, be of any date between 100 and 270. In fact, as we shall see, all except no. 45 can be shown to be of first-century types, both in shape and decoration; and no. 45 can equally clearly be shown to be of the later second or earlier third century.

Three of the first-century pieces (nos. 39-41) are distinguishable by a peculiar kind of faceting. Instead of normal facet-shapes, such as diamonds, hexagons, ovals, or circles, these bear an interlocking design made up mainly of long, wide curving facets, interspersed (on no. 41, at least) with large oval facets. The design is complicated and has the appearance of 'free-hand' work, being quite unlike the very orderly quincunx formations on nos. 42-4: but having only fragments to work from, it is not possible to decipher the complete pattern, even on no. 41, the largest piece. We can cite two examples of this kind of faceting from elsewhere in Britain: one is a much-weathered fragment of the body of a beaker in Gloucester City Museum (no. 51/1966) found in an early second-century layer on the site of the new Market Hall in the area of the *colonia* at Gloucester; the other is a small fragment recently found by Lady Fox in a Roman fort at Nanstallon, Cornwall, occupied from A.D. 55-80. The only parallels from other countries which we know of are three fragments from Vindonissa (Berger, 1960, 71, nos. 165-7, pls. 10-11) one of which (his no. 167) he labels Form II, and all of which seem, from his photographic illustrations, to have decoration at least similar to, if not the same as, our long curving facets.¹ There is resemblance also, but not a close one, between the faceting on our pieces and that on the beaker from Pompeii which Berger (1960, 68, pl. 11) calls Form I and to which he suggests his nos. 165-6 may be related. This is the beaker first published by Ekholm, 1936a, 64, fig. 1, as the 'prototype' of the faceted series of beakers (see also *id.*, 1936b, fig. 7; *id.*, 1956a, 48, no *illus.*). Its faceting has the same 'free-hand' aspect as that on our pieces, but its pattern differs, being remarkably reminiscent of a modern jigsaw-puzzle design.²

The other three first-century examples (nos. 42-4) have faceting in quincunx or honeycomb pattern — diamond-shaped on nos. 42 and 44, hexagonal on no. 43. These belong to a widespread series of first-century faceted beakers which may be tall or squat (Berger, 1960, 69, pl. 11, Forms III and IV). Berger lists six fragments from Vindonissa and says that 45 more fragments of rims or sides were found (*ibid.*, 71 f.). The type specimens for the tall form are a pair from Juellinge, Laaland, and one from Sojvide, Gotland (Juellinge-Ekholm, 1936a, 61, fig. 2, *id.*, 1956a, 47, fig. 6a, and Berger, 1960, pl. 11, Form III: Sojvide-Ekholm, 1956b, fig. 6a). Those for the squat form are an unusually low variety from Trier (Ekholm, 1936a, 63, fig. 3, Berger, 1960, pl. 11, Form IV) and a higher one, exemplified by vessels from Ptuj (Pettau, anc. Poetovio, Yugoslavia) illustrated by Ekholm (1936b, fig. 6), and from Curium; Cyprus (Harden, 1936, 139, fig. 3 a, and Harden *et al.*, 1968, 80, no. 102). The chief distinguishing characteristics of these two types are: (a) hollow-ground bands above and below the zone of facet-decoration, which is divided from them by a sharp offset or rabbet; (b) mouldings of raised horizontal ribs — usually two at the rim and one or more on each of the hollow-ground bands; (c) a splayed base-ring carved from the vessel-blank and having,

¹ It must be admitted that Berger describes the design on no. 167 as lozenge-shaped facets and so restores it in his type-drawing, pl. 19, no. 59; yet his photographs of the piece do not seem to confirm this.

² Since writing the above we have come across an article by the late Hans Norling-Christensen in *Provincialia: Festschrift für R. Laur-Belart*, 1968, pp. 410-27, in which he describes and illustrates (fig. 10) a complete tall-necked flask from Pompeii, which bears closely-set hexagonal facets on the neck and an all-over design of curving facets on the body, exactly like those on nos. 39-41. This further confirms the date of this kind of faceting.

usually, a small central facet on the under side. All these characteristics except the horizontal ribs on the hollow-ground bands belong also to the Pompeian 'prototype' and to Berger's Form II, already discussed. They appear partially on two of our fragments (nos. 41 and 42). The other three show parts of the zone of facet-decoration only.

Berger (1960, 72 f.) cites many continental examples of these types and we need not recapitulate them here.¹ He only mentions one British find, however, the fine beaker with hexagonal facets from Barnwell, Cambridge (Harden *et al.*, 1968, 79, no. 101), which he lists, inexplicably, under the heading 'unzuweisbare Scherben'. There are, however, a number of others, indicating how prevalent this type must have been on Flavian and Trajanic sites in Britain. Dorothy Charlesworth (1959, 42, fig. 4) cites and maps many examples from Scottish, English and Welsh sites and illustrates (*ibid.*, fig. 3, no. 8) a fragment from Corbridge of this general type, but with circular facets. A fine rim-and-side fragment was found in Jenkins's Field at Caerleon under the rampart of the Trajanic fortress (*Arch. Camb.*, 84 (1929), 257, fig. 18, no. 2) and two smaller fragments in the amphitheatre there in a context of *c.* 100 (*Arch.*, LXXVIII (1928), 170, pl. 34, nos. 5 and 6). For other British examples see Harden, 1962, 136, fig. 88, no. HG 205.3 from York (which resembles our no. 41); the fragmentary tall beaker with diamond facets from Cardean, Angus (p. 331 and ref. ad loc.); and four examples from London in the Roach Smith collection in the British Museum (nos. 56.7-1.616, 617, 618, 622, of which 618, with hexagonal facets, is half-extant, while the rest are smaller fragments). But the most interesting and extensive find of such vessels — not mentioned by Berger — comes from Begram in Afghanistan, where up to 40 vessels, mostly fragmentary, with zones of closely-set facets in quincunx were found; many belonged to the tall and short forms of beaker we have been discussing (Hamelin, 1953, 128, pls. VII-VIII; *id.* 1954, 175-8, types A, E and G); others (*ibid.* types B-D, F, H) are one-handled jugs, a bowl, a jar and a rhyton. This closely-knit class was, indeed, widespread throughout the empire, and may have been made both in the east (Alexandria?) and in Italy.

No. 45, as has been said, bears cutting of quite different character. It belongs to a thick-walled globular-bodied oil-flask with deeply-cut facets and circles of a type found frequently in Egypt and the Sudan, and also, though perhaps less frequently, in the west.² For five fragmentary pieces from Karanis see Harden, 1936, 252, 260 f., nos. 774-8, pl. xx, and for references to many complete examples from Egyptian sites and from Karanòg, Faras and elsewhere in Nubia, see *ibid.*, 252 f., and footnotes ad loc., and Harden *et al.*, 1968, 81, no. 104. A number of these pieces, including Karanis no. 774, bear cutting of very similar design to that on our fragment, and since its colourless metal has the same aspect and the same greenish tinge as that of the Egyptian ones, it is possible that it was a direct import from Egypt. There is an example from Bonn, in Rouen Museum, which shows a similar design of facets and circles and may (Harden, 1936, 254, note 7; Morin-Jean, 1913, p. 87, fig. 95) also be such an import. On the other hand there are a number of colourless examples

¹ The continental examples are also discussed by Fremersdorf, 1967, 115 f., pls. 122-3. Note, however, that the Karanis piece, Harden, 1936, 149, no. 409, pls. IV-XV, which F. cites, is not parallel, since it has a blown pad-base; the correct Karanis parallel is no. 410, a rim and side fragment (*ibid.*, 150, pl. xv).

² It should be emphasized that here and in what follows we refer only to oil-flasks of this one form, metal and design. Oil-flasks in general were widespread throughout the empire from the first to the third century, at least, if not the fourth century (see Harden, 1936, 252 ff., and numerous references there cited). See also no. 82 below, p. 357.

of the shape from Cologne and elsewhere in the west bearing western patterns of faceting (Fremersdorf, 1967, 113 f., pls. 119-20 and further refs. ad loc.) which must be Cologne work.¹ It is possible, therefore, that the eastern facet pattern was adopted at Cologne along with this eastern shape, and our piece and the one from Bonn may, after all, have been made in the west. The Karanis examples all came from some of the earliest houses on the site, houses which were occupied during the second and earlier third centuries. The cut design, however, has more resemblance to patterns of the late second and early third centuries than to those of the early second century, and the same is true of the patterns on western examples of this shape (Fremersdorf, loc. cit.). Therefore, although stratigraphically no. 45 could belong anywhere within the period 100-270, we must, on the basis of these arguments, ascribe it to the later second or the earlier third century.

39. Pl. xxvi, fig. 138. Period 2 occupation

Fragment of body of beaker; colourless. Dulled on outside. Part of lower body, straight-sided, tapering slightly downward until it curves in more sharply at bottom. Blown; wheel-cut and polished on outside. Closely-set long and wide curving facets (*c.* 9 mm. wide, but none complete, so length unknown) covering whole extant surface. H. frag. 6.3 cm.

40. Fig. 138. Period 2 occupation

Fragment of body of beaker; colourless. Straight side tapering downwards. Blown; wheel-cut and polished on outside. Parts of three long and wide curving facets extant. H. frag. 3.8 cm.

41. Pl. xxvii, fig. 139. Period 3 occupation

Two-thirds of rim and part of body of beaker; colourless. Some pitting, and incipient iridescence and strain-cracking. Vertical rim, cylindrical body with very slight upward taper. Blown; wheel-cut and polished on outside. Rim ground and polished with two raised horizontal wheel-cut ribs on outside; plain hollow-ground neck-band, with bevelled rabbet, 1.5 mm. high, between it and the zone of decoration below it, which covers remainder of extant fragment. Decoration of long and wide curving facets, enclosing occasional oval facets; complete pattern not decipherable, but perhaps as indicated in the unrolling. D. rim 7.1 cm. H. as extant 5.4 cm. T. at neck-band 1.5 mm. T. at top of zone of decoration 3 mm.

42. Pl. xxvi, fig. 139. Period 2 construction

Fragment of body of beaker; colourless. Advanced milky, flaking weathering. Side convex, curving in toward base. Blown; wheel-cut and polished on outside. Parts of three rows of contiguous diamond facets in quincunx, those in the lowest row being rounded at bottom; below this pattern a slightly hollow-ground band with a raised horizontal wheel-cut rib. D. at top of fragment *c.* 4.0 cm.

43. Pl. xxvi, fig. 139. Period 2 construction

Fragment of body of beaker; colourless. Nearly cylindrical with a very slight downward taper. Blown; wheel-cut and polished on outside. Parts of eight rows of contiguous hexagonal facets in quincunx covering the whole extant surface. H. frag. 6.3 cm.

¹ In 1936 I suggested (Harden, 1936, 254, note 7) that Cologne 968 may have been an eastern import. I no longer think so. Its pattern of cutting is distinctly western. D.B.H.

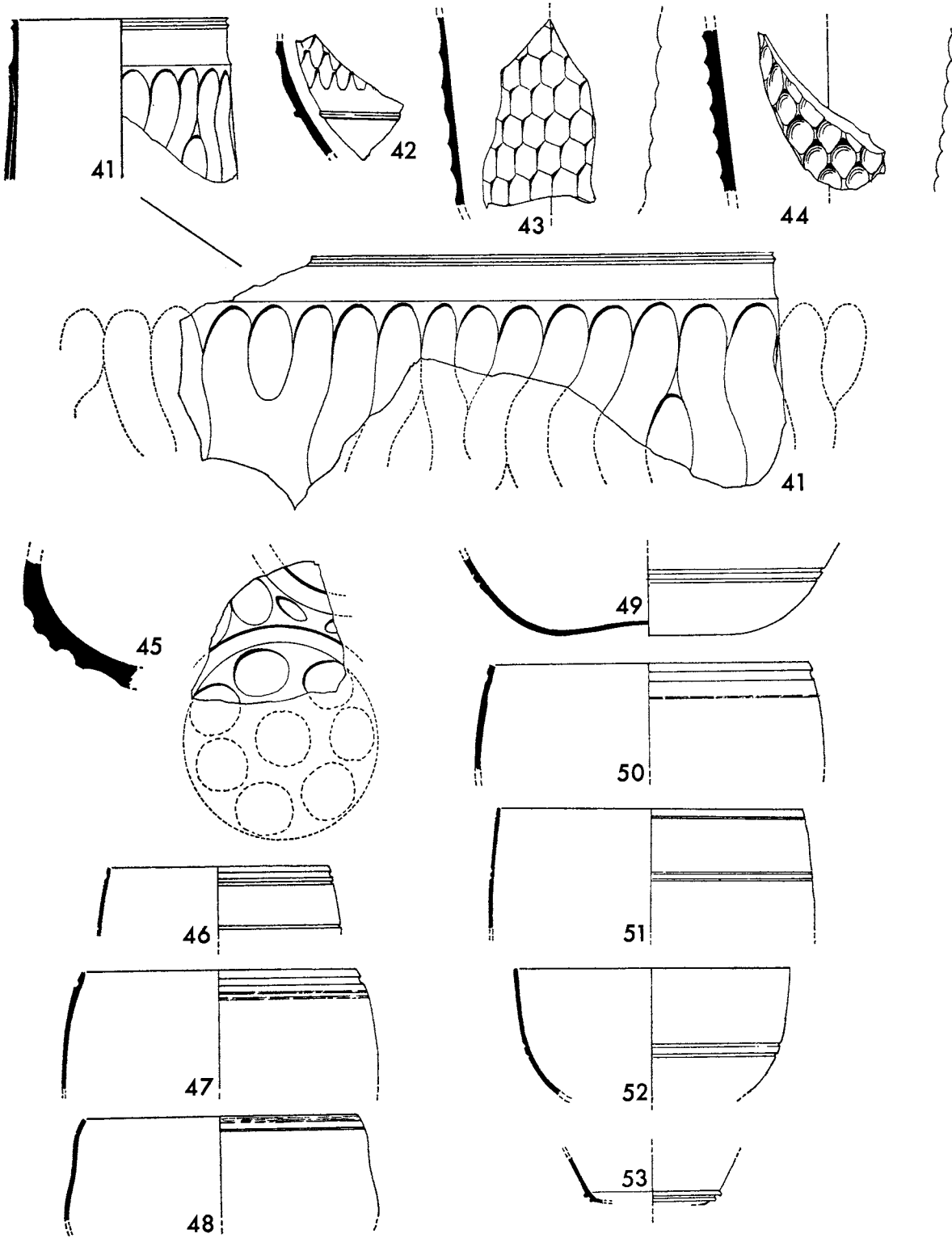


FIG. 139. Glass vessels: scale $\frac{1}{2}$ (except unrolling of no. 41 : $\frac{2}{3}$). See pp. 342-7

44. Pl. xxvi, fig. 139.¹ Period 3 occupation
 Fragment of body of beaker; colourless. Totally unweathered. Nearly cylindrical, slight downward taper. Blown; wheel-cut and polished on outside; faceting very deep and even. Parts of seven rows of contiguous diamond facets in quincunx covering the whole extant surface. H. frag. 5.0 cm.
45. Pl. xxvi, fig. 139. Period 3 occupation
 Fragment of body of oil-flask; colourless. Some pitting of outside surface, except within the facets, and some strain-cracks. Globular body with flattened base. Blown; wheel-cut and polished on outside. Round the body a band of vertically-set large wheel-cut circles, each surrounding a circular facet and with broad and narrow oval facets in the angles between; on bottom another large wheel-cut circle surrounding a band of seven(?) broad oval facets, which probably encircled a central circular facet. D. base circle 6.3 cm. T. varies from 6.0 to 7.0 mm.

B. Linear-cut, coloured

Of the four catalogued pieces in this section (nos. 46-9) the first three belong to Period 1 and the fourth to the occupation-level of Period 3. Their types and affinities conform well with this dating. Nos. 46-8 all belong to bowls of what has come to be known as the 'Hofheim' type, since some 30 examples were found in the Claudian fort there (Ritterling, 1912, 365 f., fig. 93, nos. 2 and 4, pl. xxxviii). Many fragments were also found at Camulodunum in Claudian and Neronian levels (Harden, 1947, 302 f., nos. 68 ff., pl. lxxxviii) and even larger quantities at Vindonissa (Berger, 1960, 43-5, nos. 98 ff., pl. 7), mainly in the pre-Flavian levels. They are normally of green or greenish glass, like nos. 46-7, but other colours, e.g. dark-blue, golden-brown (no. 48) and wine-coloured, and some colourless pieces (cf. 50-51, below) also occur. Their chief characteristics are a slightly incurving rim, a carination in the side and a deep pointed kick in the bottom, though these last two features are not always present. The decoration is confined to wheel-cut or incised lines at the rim, and/or round the body. The type is frequent in the western provinces and Italy, and not uncommon in the east (e.g. Cyprus and Syria). That it belongs to the mid first century rather than later is clear from the evidence from Hofheim, Camulodunum and Vindonissa.

The fourth example (no. 49) is a base, probably of a bowl. It is tempting to equate it with Isings form 18 (Isings, 1957, 36), but the examples of that type are mainly, if not entirely first-century vessels (cf. no. 52, below, and Berger, 1960, 13, pl. 1, no. 6, and 17, no. 10 — a mosaic bowl) and the metal and general aspect of no. 49 look more like a second- or even a third-century product. The piece could, indeed, be the base of a jar or flask with a cut design on the body, the bottom border of which is represented by the two horizontal wheel-cut lines.

46. Pl. xxviii, fig. 139. Period 1 B-C
 Fragment of rim and side of bowl; pale bluish-green. Plain rim, knocked off and ground smooth; sides expand downward to carination near bottom. Blown; wheel-cut and polished on outside. One broad and one narrow horizontal wheel-cut line near rim, and a second narrow one 1.5 cm. farther down the side. D. rim 7.2 cm.

¹ The fragment is upside down on pl. xxvi.

47. Pl. xxviii, fig. 139. Period 1
Fragment of rim and side of bowl; pale bluish-green. Outside pitted. Shape as no. 46. Blown; wheel-cut. One broad horizontal wheel-cut line near rim, flanked below by a band of wheel-incisions. D. rim 9.0 cm.
48. Fig. 139. Period 1
Fragment of rim and side of bowl; golden-brown. Outside pitted. Incurved rim, knocked off and ground smooth; sides faintly concave, expanding downward to carination. Blown; wheel-cut. Broad wheel-abraded horizontal band at rim, with group of incised horizontal lines 2 mm. below. D. rim 9.0 cm.
- The following 16 fragments of similar bowls were found:
- | | | |
|----|------------------------|---|
| a. | Period 1. | Bluish-green, fragment of rim and side. |
| b. | Period 1. | Bluish-green, four fragments of side. |
| c. | Period 1. | Bluish-green, two fragments of side. |
| d. | Period 1. | Bluish-green, two fragments of side. |
| e. | Period 1 B. | Pale bluish-green, six fragments of rim and side. |
| f. | Period 1 B. | Dark blue, two fragments of side. |
| g. | Period 1 B. | Pale bluish-green, fragment of side. |
| h. | Period 1 B. | Pale bluish-green, fragment of rim and side. |
| i. | Period 1 B. | Bluish-green, fragment of side. |
| j. | Period 2 construction. | Bluish-green, two fragments of side. |
| k. | Period 2 construction. | Bluish-green, fragment of rim and side. |
| l. | Period 2 construction. | Pale green, fragment of side. |
| m. | Period 2 garden. | Pale bluish-green, fragment of side. |
| n. | Period 3 construction. | Pale bluish-green, fragment of side. |
| o. | Period 3 occupation. | Pale green, two fragments of side. |
49. Fig. 139. Period 3 occupation
Fragment of bottom of bowl (jar, flask?); pale greenish-yellow. Convex side tapering to rounded basal angle; concave base. Blown; wheel-cut. Pair of horizontal wheel-cut lines round body, 2.0 cm. from bottom. D. base 6.0 cm.

C. Linear-cut, colourless

This group includes thirteen catalogued fragments, the first five of which (nos. 50–54) come from Period 1 or the construction level of Period 2, i.e. none is later than A.D. 75, one (54 A) is from Period 2 occupation (75–100), and the remaining seven all belong to the occupation-level of Period 3, so that they were not in use until after 100. This dating co-ordinates well with what we know of the dating of these types elsewhere.

Nos. 50–51 are bowls of the 'Hofheim' type already discussed (nos. 46–8, p. 344). Colourless examples are much rarer than coloured ones; cf. e.g. Camulodunum, no. 73 (Harden, 1947, 303, pl. lxxxviii) which is called 'colourless with greenish tinge', a description that could well apply to nos. 50–51. These two pieces should, therefore, be pre-Flavian, and are well placed in Period 1 at Fishbourne. No. 52, with its plain rim and wheel-cut lines, somewhat resembles Isings form 18 (Isings, 1957, 36), though that shape is shallower and wider; we have found no closer parallel. No. 53, which comes from the basal angle of a bowl or

beaker, is equally difficult to place. Both, however, in metal and aspect are fully at home in the later first-century milieu in which they were found. The fifth example (no. 54), which came from Period 1, is one of the earliest known examples of its type, which is far more common in the second century.

Indeed with nos. 54-9 (eight in all, including 54 A and 56 A), we encounter a new variety of colourless ware. With the exception of the flask (54 A) all are from tall bowls, or beakers, with outspayed rims, cylindrical or tapering bodies and either (as on no. 59) a flat base, or some variety of base-ring. This general type of colourless cup, of which there are many variants, some with indents in the body (e.g. no. 54), some without, some with raised trails, some with wheel-cut lines round the body, and some quite plain, originated in Flavian times (as nos. 54, 54 A show, and as the evidence at Vindonissa confirms¹) and then becomes widespread on second- and early third-century sites throughout the empire. A few examples will suffice. At Karanis (Harden, 1936, 145 f., nos. 376-90) there were a number, with or without body-indents, and all with horizontal wheel-cuts or incisions at and near the rim; some came from early houses, some from later ones; their general date should be second or third century. At Conimbriga (Alarcão, 1965, 81 f., no. 123) a rim-fragment, with wheel-cuts, was found. Examples from Cyprus, all with body-indents, are published by O. Vessberg (*Swedish Cyprus Expedition*, IV, pt. 3, 142 f., 198 f., fig. 44, nos. 25-30). Fragments of the type are also far more common on British sites than published specimens would indicate: cf., however, *Oxon.*, I, 1936, 62 ff., fig. 12, no. 2, from Ditchley, Oxfordshire; Charlesworth, 1959, 49, fig. 7, no. 6, from Castlecary, Stirlingshire, and no. 11 (with pad base-ring) from Corbridge; and *ibid.*, pl. II, 2 (also with pad base-ring) from Crundale, Kent. These eight Fishbourne examples are good, clear colourless glass, blown very thin, and their wheel-cutting is neat and fine. All must belong to the later first or the second century.

The last piece in this group, no. 60, is a different type with two wheel-cut horizontal ribs round the rim: parallels for it have eluded us. Its texture and decoration resemble no. 53 above and it, too, like that piece is probably of late first-century date and belongs, therefore, to the initial stages of the Period 3 occupation.

50. Pl. xxvii, fig. 139. Period 1 B-C

Fragment of rim and side of bowl; colourless. Shape as nos. 46-7. Blown; wheel-cut. One broad horizontal wheel-cut line near rim, with incised line 4 mm. lower down. D. rim 10.4 cm.

51. Pl. xxvii, fig. 139. Period 1 B-C

Fragment of rim and side of bowl; colourless. Shape as nos. 46-7, 50. Blown; wheel-cut and polished on outside. Narrow horizontal wheel-cut line near rim; two others 2.0 cm. lower down; two wheel-abraded bands at carination. D. rim 10.0 cm.

52. Fig. 139. Period 1 B-C

Fragment of rim and side of bowl; colourless. Plain rounded rim, ground smooth; convex side, curving inward towards bottom. Blown; wheel-cut and polished on outside. Two horizontal wheel-cut lines on body 2.5 cm. below rim. D. rim 9.0 cm.

¹ Berger, 1960, 46, nos. 107-9, all being indented examples.

53. Pl. xxvii, fig. 139.¹ Period 2 construction
Fragment of side of beaker; colourless. Surface weathered to a buff tint, and some strain-cracks. Straight side tapering downward to carination, whence bottom slopes inward (to a base-ring?). Blown; wheel-cut and polished on outside. Pair of wheel-cut horizontal ribs round vessel at carination. D. at carination *c.* 4.5 cm.
54. Pl. xxvii, fig. 140. Period 1 A
Fragments of body of beaker; colourless. Vertical side, with many tall, narrow indents (probably twelve or more). Blown; indents tooled. D. uncertain.
- 54A. Fig. 140. Period 2 occupation
Two fragments of body and basal angle of flask; colourless. Vertical side, with four broad indents, rounded basal angle. Blown; indents tooled. D. body 4.4 cm.
The following fragment of a colourless indented vessel similar to no. 54A was found:
a. Period 3 occupation.
55. Pl. xxvii, fig. 140. Period 3 occupation
Two fragments of rim and side of beaker; colourless. Incipient iridescence. Slightly out-splayed rim, knocked off and ground smooth; straight, tapering side. Blown; wheel-cut. Faint horizontal wheel-incised lines below rim; pair of fine wheel-cuts, 2.0 cm. lower down. D. rim 10.2 cm.
56. Pl. xxvii, fig. 140. Period 3 occupation
Fragment of rim and side of beaker; colourless. Some pitting and strain-cracking. Rim sharply out-splayed from constriction at neck, knocked off and ground smooth; cylindrical side, expanding slightly in the middle. Blown; wheel-cut. Fine horizontal wheel-cut line at rim; two incised lines and one broader wheel-cut *c.* 1.0 cm. lower down. D. rim 7.5 cm.
- 56A. Pl. xxvii, fig. 140. Period 3 occupation
Two fragments of rim and side of beaker; colourless. Some pitting near rim. Rim as no. 56, but not so sharply out-splayed; straight, vertical side. Blown; wheel-cut. Fine horizontal wheel-cut line at rim; two others set closely together at neck-constriction, with a sharp ridge between them. D. rim 8.6 cm.
57. Pl. xxvii, fig. 140. Period 3 occupation
Fragment of side of beaker; colourless. Some strain-cracking. Top of side splays out towards rim, remainder straight and vertical. Blown; wheel-cut and polished on outside. Finely cut, sharp-angled horizontal rib near rim. D. body 7.5 cm.
58. Pl. xxvii, fig. 140. Period 3 occupation
Two fragments of rim and side of beaker; colourless. Some pitting. Out-splayed rim, knocked off and ground smooth; straight side, tapering downward. Blown; wheel-cut. Pair of broad horizontal wheel-cut lines just below rim. D. rim 10.4 cm.

¹ The fragment is upside down on pl. xxvii.

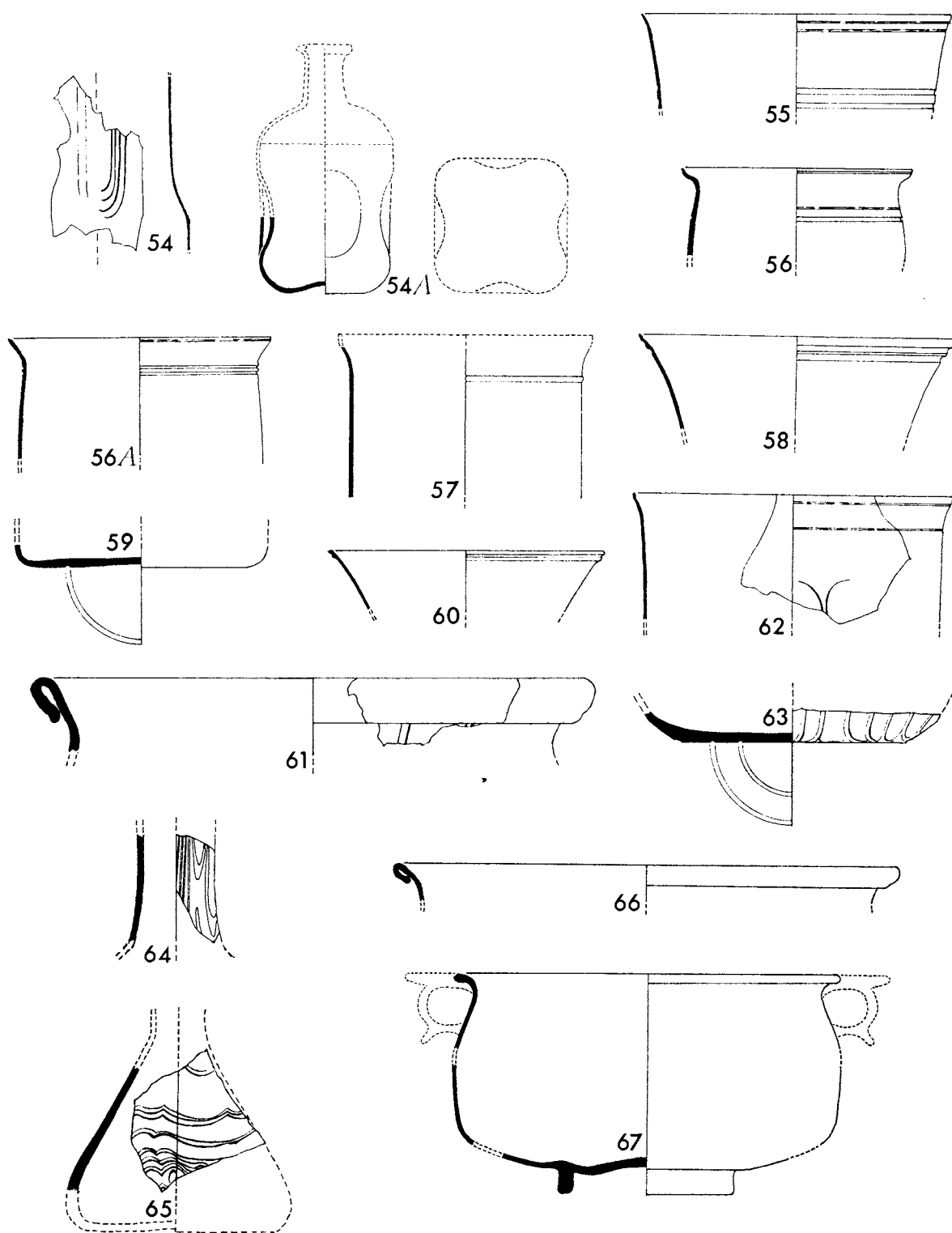


FIG. 140. Glass vessels: scale $\frac{1}{2}$. See pp. 347-53

59. Fig. 140. Period 3 occupation

Fragment of side and base of beaker; colourless. Strain-cracks, and some pitting on outside. Vertical(?) side joining base in right-angled curve; base flattened. Blown; wheel-cut. Narrow, circular wheel-cut line on bottom, 1.2 cm. from edge. D. base 7.5 cm.

The following fragments of colourless beakers similar to nos. 55-9 were found:

- a-b.* Period 2 construction.
- c-j.* Period 3 occupation.
- k-p.* Period 3 destruction.
- q-u.* Robbing or later.

60. Pl. xxvii, fig. 140. Period 3 occupation

Fragment of rim and side of beaker; colourless. Pitted and some strain-cracks. Outplayed rim, straight side tapering downwards. Blown; wheel-cut and polished on outside. At lip and just below it a pair of horizontal wheel-cut ribs. D. rim 9.0 cm.

D. Ribbed, coloured or colourless

None of the three catalogued fragments comes from an earlier level than Period 3, and this is what we should expect, for all are probably later than the first century. The fragments of jugs or jars, however, listed under no. 61, are in a different case, for they belong to recognized first-century types (cf. nos. 79-80, 88-90 below) and their contexts confirm this dating. No. 61 is a large shallow bowl with a late variety of folded rim and with 'optic blown' ribbing. For the type, without neck-concavity, compare a bowl in the British Museum from Faversham (Harden *et al.*, 1968, 84, no. 110, where it is ascribed to the third century). A fragment of a similar bowl was found at Dorchester, Oxon. (*Arch. Journ.*, cxix (1962), 146, fig. 20, no. 1), and a bowl with shape and rim-form of this type but without ribbing, from Torwoodlee Broch, Selkirkshire, is illustrated by Charlesworth (1959, 49, fig. 7, no. 4), who suggests that the type ranges from the mid first to at least the end of the second century. Isings, form 44 b (Isings, 1957, 60) probably represents this type, though she describes it as mould-blown and the examples (all first century) which she cites may not be exact parallels for no. 61, which we are inclined to place in the late second or the third century. No. 62 is from a bowl with vertical sides and widely-spaced tooled ribs, which is certainly later than the first century, and it, too, most probably belongs to the late second or the third century. Published parallels elude us, though they certainly exist. No. 63, again, is perhaps of the same date. The nearest parallel we have found is a shallow bowl from Karanis (Harden, 1936, 92, no. 215, pl. xiii), which came from a third-century house. It is colourless, like our piece, and has the same flat base and the same closely-set tooled ribbing, joined together at the bottom into a U-form; it has, however, bands of wheel-incisions at rim and on bottom instead of wheel-cuts.

61. Pl. xxviii, fig. 140. Late rubble

Fragment of rim and side of bowl; green. Hollow rim, folded outward and downward; neck concave. Blown in a ribbed mould and afterwards in a plain one causing the ribs to expand on

both sides of the wall of the vessel.¹ Part of one slanting rib and trace of tip of another 2.3 cm. to right, under folded rim. D. rim 17.8 cm.

Eight fragments of coloured jugs or jars with ribbed bodies were found, but none was sufficiently well preserved to enable the shape of the vessel to be determined:

- | | | |
|-----------|------------------------|---|
| <i>a.</i> | Period 2 construction. | Yellowish-brown, from body of jug. |
| <i>b.</i> | Period 2 construction. | Golden-brown, from body of jug. |
| <i>c.</i> | Period 2 construction. | Light-green, three fragments of body of jar. |
| <i>d.</i> | Period 2 garden. | Bluish-green, from body of jug. |
| <i>e.</i> | Period 2 garden. | Yellowish-brown, three fragments of body of jug. |
| <i>f.</i> | Period 3 construction. | Light-green, from body of thin-walled jug or jar. |
| <i>g.</i> | Period 3 occupation. | Golden-brown, from body of jug. |
| <i>h.</i> | Period 3 occupation. | Light-green, from body of jug. |

62. Pl. xxvii, fig. 140. Period 3 occupation

Fragment of rim and side of beaker; colourless. Iridescent and pitted on both surfaces; strain-cracks at one corner. Rim bent slightly outward, knocked off and ground smooth; straight, vertical side. Blown; wheel-cut and tooled. Group of horizontal wheel-incisions beneath rim and another 7 mm. below; top of one vertical tooled rib on side. D. rim 10.4 cm.

The following fragment of the basal angle of a similar vessel was found:

- a.* Plough-soil.

63. Pl. xxvii, fig. 140. Plough-soil

Fragment of side and base of bowl; colourless. Some pitting and strain-cracks. Convex side making wide obtuse-angled junction with flat base. Blown; wheel-cut and tooled. Round the side is a band of closely-set, well-made, vertical tooled ribs, mostly joining together at the bottom into a U-form; on base two concentric wheel-cut circles. D. base 7.4 cm.

E. With marvered trails, coloured

These two pieces (nos. 64-5) come from Period 3 occupation, and Period 3 construction level, respectively. Both are parts of tall-necked unguent-bottles with cylindrical necks and narrow, conical bodies, of the Karanis type XIII B (Harden, 1936, 265-7, 273 f., nos. 806, 808-12, pl. xx), which came from early houses and belong, therefore, to the second or early third century. Similar marvered-trail vessels of other shapes also occurred at Karanis (*ibid.*, 166, nos. 474-6, from conical vessels, and 202, nos. 559-60, from flasks). Of these the flask fragments came from early houses, but the fragments of conical vessels were all from top-layer houses of the fourth century. Indeed marvered trailing is never in itself a sure dating criterion, since it occurs at many periods. Similar unguent-bottles with marvered trails are not infrequent elsewhere. A good example, unfortunately not securely dated, from Old Broad Street, is in the London Museum (London Museum Catalogues, no. 3, *London in Roman Times*, 1930, 121, pl. liii). References to other examples, some unpublished, are given by Isings (1957, 42, *s.n.* type 28a). The type perhaps began in the first century and continued throughout the second, if not into the third century A.D.

¹ The process is known as 'optic blowing'; for an explanation of the term cf. C. J. Lamm, *Glass from Iran in the National Museum, Stockholm* (1935), 10.

64. Pl. xxviii, fig. 140. Period 3 occupation

Fragment of neck of unguent-bottle; yellow with opaque-white trails. Pitted on both surfaces. Part of the lower portion of cylindrical neck, showing slight expansion downward, to where it meets the shoulder. Blown; trails applied to gob and marvered flush before final inflation of vessel. Pattern of vertical festoons, which probably extended over the whole neck and body. D. neck 2.5 cm.

65. Pl. xxviii, fig. 140. Period 3 construction

Fragment of body of unguent-bottle; pale green with opaque-white trails. Much pitting on outside, especially on trails, which have wholly weathered away in parts. From a vessel with tall neck and conical body. Technique of manufacture as no. 64. Pattern of spiral trails, waved horizontally, on body, and probably extending on to neck as well. D. at base of fragment 7.2 cm.

Undecorated

We group the undecorated glasses by shape: first bowls and cups, then jars, oil-flasks, unguent-bottles and flasks, jugs, and bottles. It is not, of course, always easy, or even possible, to be sure what the complete shape of any given fragment would be, but we believe that, on the whole, and however much we may have had to guess in individual instances, our identifications will be found to be reasonably correct. In the introductory notes on each group we do not attempt to comment on every piece, but confine our remarks to those items that seem to be the most important and interesting.

A. Bowls and cups

The first four examples (nos. 66–9) come from levels of A.D. 75 or earlier; the other eight (nos. 70–77) are all from Period 3 or later. With the exception of no. 69 this stratification conforms well with what we should expect from the types that are represented.

No. 66 is a simple rim-form that could be of any Roman date; no. 67 belongs to a well-known first-century form of two-handled cup; and the shape and metal of no. 68 render it, also, a typical first-century piece. For parallels to no. 67 we may cite a fine golden-brown example from Cologne (Fremersdorf, 1958a, 32, pl. 37, N 785), which Fremersdorf considers to be Italian make of the first century. He equates it, rightly, with the cylindrical handled cups signed by Artas, Philippos, etc., on their handle thumb-pieces, which are generally thought to have been made in Italy (perhaps in Rome) by Artas and other Sidonians (Harden, 1958, 50, fig. 4). An uninscribed example, dark blue with opaque-white handles, from Xanten, near Cologne, is in the British Museum (Dept. Greek and Roman Antiquities, no. S 210, Slade collection). Another uninscribed cup and a handle inscribed Ariston were found at Corinth (Davidson, 1952, 103, nos. 649–50, figs. 9–10). The form is Isings no. 39 (Isings, 1957, 55; though many of the examples there discussed are by no means comparable with ours).

No. 69, on the other hand, is somewhat surprising in a Flavian context, since its blown pad-foot is characteristic of second- and third-century beakers and goblets. Examples occurred at Karanis (Harden, 1936, 136 ff., nos. 408-9, 419-25, pls. xv-xvi) and there are many from western sites also, e.g. Nervi, near Bordighera (B.M. Dept. of Greek and Roman Antiquities, 87.6-13.10) and Cologne (Fremersdorf, 1961, 30, pl. 28, and id., 1967, 116, pl. 124; Loeschcke, 1911, no. 106, pl. xxvi). However one example of a conical beaker with facets and this variety of pad-foot was found in a grave at Locarno, Switzerland, which Berger ascribes to *c.* 100 (Simonett, 1941, 83 f., fig. 68, pl. 12, no. 3, from grave 17, Villa Liverpool, unten; Berger, 1960, 73, and table opposite p. 92), thus proving that blown pad-feet do sometimes occur on colourless beakers in the late first century, although the majority of colourless beakers of that date have their footstands ground and polished from the cast or blown vessel blank (pp. 340-1).

Of the examples from Period 3 nos. 71-3 look like early forms lost soon after A.D. 100. The colour of no. 71 and the simple, unfolded rim-forms of nos. 72 and 73 indicate this and none of the three vessels reveals any later features. We cannot, however, cite a parallel for any one of them. No. 70 is a simple rim-form that could be of any date. The remaining four (nos. 74-7) are all colourless pieces. No. 76 is perhaps the earliest and could be late first or early second century: for the base-form (but in coloured glass) we may compare three fragments from Corinth (Davidson, 1952, 101-3, nos. 645-7, fig. 9) and two fragmentary colourless ribbed cups from Vindonissa (Berger, 1960, 47, nos. 110-11, pl. 7). The other three are typical late second- or third-century pieces. Nos. 74-5, though they belong to separate cups of quite different sizes, together represent the well-known form of cylindrical cup on low base-ring which occurs so frequently on Roman sites of that period, especially in the west. The form is Isings 85b (Isings, 1957, 102 f.): she cites many dated examples and notes that the type occurs both plain and with decoration. Most of the decorated pieces are painted (Kisa, 1908, 821-33, figs. 347-53, and other refs., cited by Isings, loc. cit.), but some are engraved, e.g. a complete one in Trier bearing contests of gladiators, etc., in the arena, and many fragments with inscriptions and other motifs (Fremersdorf, 1967, 141-3, pls. 178-9, 308*a, b*, figs. 29-30), and others bear facet-cutting, e.g. one in Cambridge from Curium, Cyprus, and some fragments from Karanis (Harden, 1936, 103, 124, nos. 337-42, and — for the Curium cup — fig. 2, *a*). This is known to British archaeologists as the Airlie type from the fine complete example found at Airlie, Angus (no. EQ 150 in the National Museum of Antiquities of Scotland: Charlesworth, 1959, 44-6, pl. i, 4) and fragments are frequently found in this country (e.g. Charlesworth, loc. cit., and Harden, 1962, 137, fig. 88, no. HG 202.6, from York). The adaptation of the base, no. 77, for secondary use by grozing round the fractured edge is of interest. Such re-use of broken vessels is frequent in Roman times; cf. no. 83 (p. 357) and some examples from Karanis (Harden, 1936, 85, nos. 176-7 and 202, no. 554).

66. Fig. 140. Period 1

Fragment of rim and side of bowl; bluish-green. Outbent, flattened tubular rim, folded outward and downward; vertical(?) side. Blown. D. rim 16.5 cm.

The following similar rim-fragment was found:

a. Period 2 occupation.

67. Pl. xxviii, fig. 140. Fragments from Period 1 and Period 2 construction
Fragments of rim, side, and bottom of handled cup; dark-blue. Sharply outbent rim, thickened and fire-rounded at lip; convex side, expanding downward to carination, whence it slopes gently toward base; low, vertical ring-foot with some rough fractures on under side indicating the use of the post-technique for holding the vessel on the pontil.¹ A slight excrescence on the lip, at the edge of a fracture, is the only — but quite sufficient — evidence that the vessel had a handle. Blown; section of cylinder applied to form ring-foot; handle drawn on. D. rim 12.7 cm. D base 5.8 cm.
68. Fig. 141. Period 1 B-C
Fragment of side and base of cup; bluish-green. Convex side curving in toward base; low, splayed base-ring with marks of post-technique, as on no. 67. Blown; base-ring applied as a pad from another paraison. D. base-ring 4.5 cm.
69. Pl. xxvii, fig. 141. Period 2 construction
Fragment of bottom of side and base of beaker; colourless. Convex side, tapering downward to junction with base. Tall pad-foot made by applying a second paraison and knocking off at edge. Blown. D. at base-junction 1.5 cm.
70. Fig. 141. Period 3 occupation
Fragment of rim and side of bowl; bluish-green. Outbent, flattened tubular rim, folded outward and downward; concave side, tapering downward. Blown. D. rim 23.0 cm.
71. Fig. 141. Period 3 occupation
Fragment of rim and side of bowl; translucent ultramarine-blue. Outbent, flattened tubular rim, folded inward and downward; concave side, tapering downward. Blown. D. rim 7.5 cm.
72. Pl. xxviii, fig. 141. Period 3 destruction
Fragment of rim and side of bowl; bluish-green. Sharply outbent, downward-sloping rim, thickened and fire-rounded at lip; concave side, tapering downward to a sharp curve at junction of side and bottom. Faint horizontal ridge on exterior below rim. Blown. D. rim 16.5 cm.
73. Fig. 141. Robber trench
Fragment of rim and side of bowl; bluish-green. Outbent rim, thickened and fire-rounded at lip; concave neck, whence side expands slightly downward. Blown. D. rim 12.0 cm.
74. Pl. xxvii, fig. 141. Period 3 occupation
Fragment of rim and side of cup; colourless. Slightly incurved rim, thickened and fire-rounded; vertical side. Blown. D. rim 11.5 cm.
The following similar fragment of rim and side was found:
a. Rubble.

¹ For explanation of this see Harden, 1936, 18.

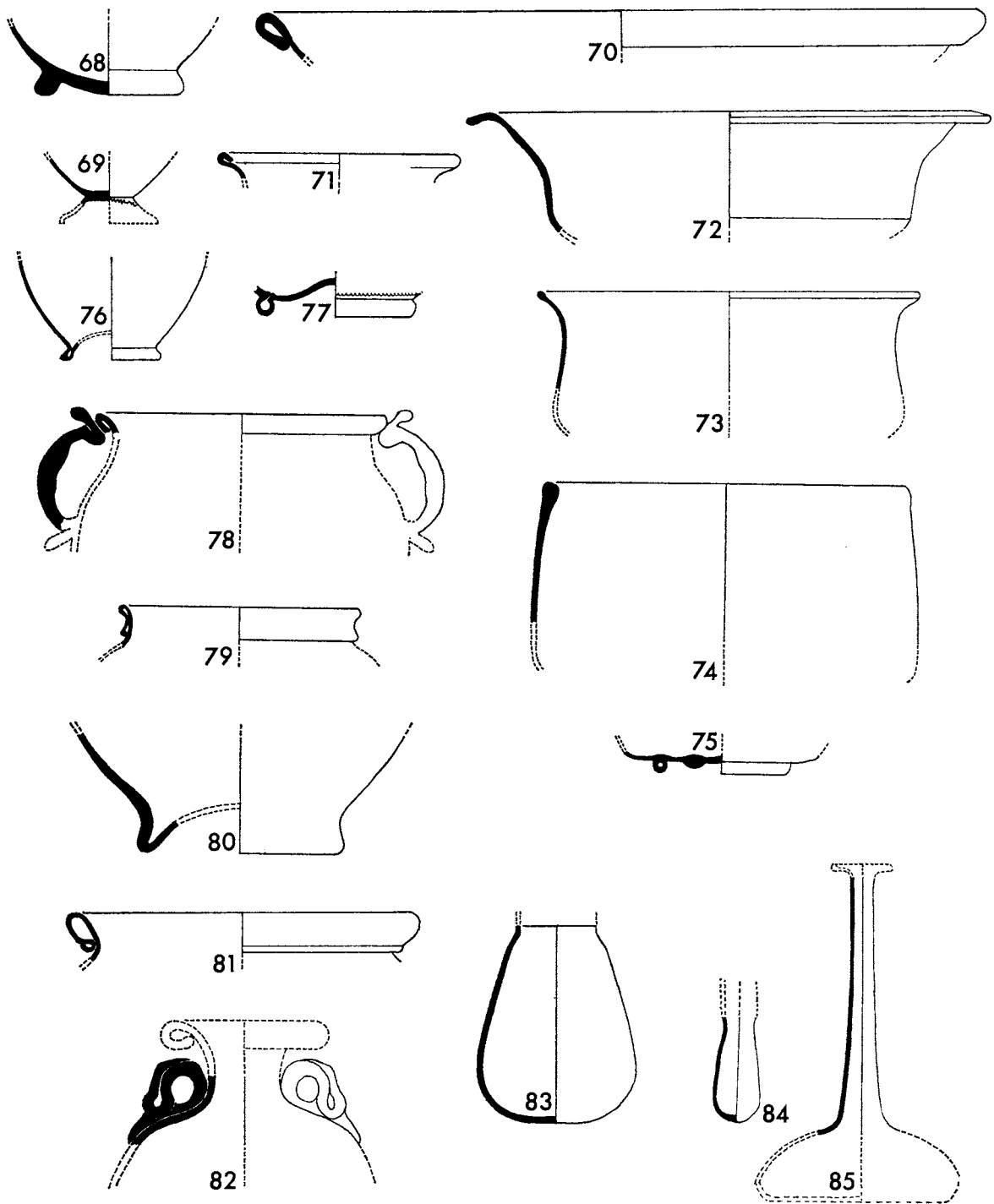


FIG. 141. Glass vessels: scale $\frac{1}{2}$. See pp. 353-8

75. Pl. xxvii, fig. 141. Period 3 occupation

Fragment of base of cup; colourless. Surfaces dulled, except ring-coil, which is clear, but has incipient iridescence and may have been derived from a different batch. Body (shape as no. 74) missing, but trace of curved junction of side and base extant at one point; flat bottom with tubular pushed-in base-ring and, inside it, an applied ring-coil. Blown; pontil-mark on ring-coil. D. cup *c.* 6.5 cm. D. base-ring 4.0 cm.

76. Fig. 141. Plough-soil

Fragment of side and base of cup; colourless. Stained, but no weathering. Convex sides curving in toward base; pushed-in tubular base-ring, splayed outward; deeply concave base. D. base-ring 3.2 cm.

Four fragments of similar bases were found:

- a.* Period 3 construction.
- b, c.* Period 3 occupation.
- d.* Rubble.

77. Fig. 141. Plough-soil

Fragment of base-ring of bowl or cup; colourless. Tubular, pushed-in base-ring; bottom concave with pointed kick. The whole body is broken off and the fractured edge immediately outside the base-ring has been neatly grozed all round to adapt the base for some secondary use. Blown; pontil-mark on under side. D. base-ring 4.8 cm.

B. Jars

Only four fragments are catalogued. No. 78 belongs to a handled vessel with outspread rim, constricted neck, and globular body; for parallels with similar curved handle with thumb-pieces we may cite two from Cologne, which Fremersdorf (1958b, 25, pls. 14 and 17) ascribes to the late first or early second century, and examples from Tongeren, Belgium (Vanderhoeven, 1962, 28, fig. 34), Pompeii (Eisen, 1927, 190, fig. 128) and Syria (*ibid.*, pl. 94, top right). Similar handles with sloping thumb-pieces also occur on colourless vessels of the second or early third century (Fremersdorf, 1961, 30, pl. 28), but no. 78 is not likely to be as late as that.

The dark blue rim, no. 79, comes from an ovoid jar of a type very frequent on later first- and early second-century sites; we may compare examples from Camulodunum (Harden, 1947, 305, no. 89, pl. lxxxviii, where refs. are cited to other parallels from Britain and Germany); Cologne (Fremersdorf, 1958b, 25, 48, pls. 16, 106, with many other references); Avennes, Belgium (Vanderhoeven, 1961, 92, no. 102); and Frizet tumulus, Belgium (Faider-Feytmans, 1952, 74 ff., fig. 2). For the form in general see Isings, 1957, 88, form 67*c*. As its occurrence at Camulodunum and Hofheim shows, the form existed from the mid first century; its main period of currency, however, was Flavian and Hadrianic.

The bases catalogued under no. 80 might equally well belong to jars of the form just discussed, or to jugs like nos. 89–91 (section E, pp. 358–60). This shape of cut-out open base is specially common in the first and early second centuries, not only on these two forms, but on beakers and bowls as well. For such bases on jars see the references already cited; for examples on jugs see *s.nn.* 89–91 (pp. 358–60).

No. 81 and the two similar rim-fragments listed with it could, from their stratification, belong to the third century. All three fragments probably come from jars with square horizontal section (Isings, 1957, 81, form 62); but this is a type which lasted throughout the Roman period, as the examples cited by Isings show. One from a first-century context at Corinth (Davidson, 1952, 103, no. 656, fig. 9) has the same double-tubular rim as no. 81; so has a second-century example from Mainz (*Mainzer Zeitschrift*, xx-xxi (1925-6), 67, fig. 8), and it is probable that this shape of rim-fold was normal on this type. For other parallels, apart from those given by Isings (*loc. cit.*), see Fremersdorf, 1958b, 53, pl. 122, and refs. *ad loc.*, and Alarcão, 1965, 49 f., nos. 59-60, pl. ii.

78. Pl. xxviii, fig. 141. Robber trench

Fragment of rim and handle of jar; green. Outbent, flattened tubular rim, folded outward and downward; concave neck; vertical handle, D-shaped in section, attached to under side of rim and curving thence to a lower attachment at the shoulder; short, sloping thumb-piece bent out from top of handle underneath rim. Blown; handle drawn on; thumb-piece pincerd. D. rim 9.0 cm.

79. Fig. 141. Period 1

Fragment of rim of jar; dark blue. Vertical, flattened tubular rim, folded outward and downward; side expands to sloping shoulder. Blown. D. rim 7.5 cm.

80. Fig. 141. Period 2 construction

Fragment of side and base of thick-walled jar (or jug?); golden-brown. Side tapers downward to base; cut-out open base-ring; concave base. D. base-ring 6.0 cm.

The following fragments of similar bases were found:

- a. Period 1 B-C. Lime-green.
- b. Period 3 destruction. Lime-green.

81. Fig. 141. Period 3 destruction

Fragment of rim of jar; pale green. Outbent, double-tubular rim. The lip was first folded inward to make a small tube; a larger fold, outward and downward, was then made, starting lower down, to complete the rim. Side expands to sloping shoulder. Blown. D. rim 11.0 cm.

The following rims of similar jars, bluish-green, were found:

- a. Period 3 occupation.
- b. Period 3 destruction.

C. Oil-flasks

This is the shape to which the colourless cut fragment, no. 45, belongs, and we have already discussed that particular example and its parallels (pp. 341-2). For the globular oil-flask in general see Isings, 1957, 79 f., form 61, citing examples of all dates from the first to the fourth century; Harden, 1936, 253 f.; and Fremersdorf, 1958b, 28-31, pls. 30-31, 36-9, 41. Despite its absence at Hofheim and Camulodunum, this shape begins to occur (e.g. at Nijmegen; Isings, *loc. cit.*) in Neronian times and continues thereafter without a break. These flasks normally have two handles, but three (e.g. Vindonissa, no. 198, Berger, 1960, 77, pl. 13) or even four are known. There are also other shapes besides the globular

(Harden, loc. cit. and refs. ad loc.; Fremersdorf, 1958b, 30 f., pl. 40). It is not surprising that these little vessels were common and widespread. They were used for carrying oil on visits to the public baths, and many extant examples still retain their metal carrying chains or handles.

82. Pl. xxviii, fig. 141. Plough-soil

Handle, with part of body attached, of oil-flask; bluish-green. From shoulder and base of neck of globular vessel; handle dropped on at its lower end, drawn up shoulder and on to neck, and then backwards to form circular opening, and tailed off upwards. L. handle 3.3 cm.

The following similar handle was found:

a. Period 3 occupation.

D. Unguent-bottles and flasks

The first three fragments belong to unguent-bottles of normal early Roman types and require no comment, except to draw attention to the secondary use of the body of no. 83 after the neck had been broken off. The frequent re-use of broken vessels in Roman times has been noted in discussing no. 77 (p. 352).

The complete vessel to which the base-fragment, no. 86, belonged probably had a tall neck and a low, straight- or convex-sided body (Kisa, 1908, form A 13; Morin-Jean, 1913, forms 24-5; Isings, 1957, form 28*b*). Three examples are illustrated by Fremersdorf, 1958b, 42, pl. 88, the middle one of which has an inscribed design on the base. For other examples, some inscribed, see Fremersdorf, loc. cit., and id., 1961, 49, pl. 97 (with parallels), and Vanderhoeven, 1961, 101, nos. 112-13, pl. xxvi. The more usual inscriptions on these glasses are listed by Kisa, 1908, 924-6, 929, 939-40. His lists do not include the inscription G A S and, so far, we have found no parallel for it. These inscribed unguent-bottles seem mainly to have been found in second-century milieux and such a date accords well with the stratification of no. 86.

No. 87 is an example of the easily-recognizable type long known by the name Mercury flasks, because so many of them bear, *inter alia*, a figure of Mercury on the bottom. These flasks are normally made in what is intended to be colourless glass; they have long necks and a four-sided body, blown into a mould with an inscription and (often) a design as well on the bottom, and sometimes designs on the sides also. For the type and its inscriptions see Kisa, 1908, 780 ff., 926 ff., 940 ff., and Isings, 1957, 100 f., form 84. It belongs to the second and third centuries, a dating well in keeping with the stratification of this Fishbourne piece.

We have found no parallel for no. 88. Its neat base-ring looks early. The piece might well belong to the late first, and is unlikely to have been made after the middle of the second century.

83. Pl. xxviii, fig. 141. Period 1

Part of bottom of neck and half of body and base of unguent-bottle; bluish-green. Neck broken off about 3 mm. above junction with body, edge of fracture ground smooth for re-use; tool-mark at junction of neck and body; tall, conical body with rounded basal angle; flattened base. Blown. H. body 6.0 cm. D. body 5.0 cm.

Six fragments of bases of similar unguent-bottles were found:

- | | | |
|--------------|------------------------|--------------------|
| <i>a.</i> | Period 2 construction. | Bluish-green. |
| <i>b.</i> | Period 3 construction. | Bluish-green. |
| <i>c, d.</i> | Period 3 occupation. | Green. |
| <i>e.</i> | Period 3 destruction. | Pale bluish-green. |
| <i>f.</i> | Plough-soil. | Lime-green. |

84. Fig. 141. Period 1 B-C
Body and base of neck of unguent-bottle; bluish-green. Neck missing; tool-mark at junction of neck and body; drop-shaped body, rounded base with faint flattening on under side. Blown. H. body 2.8 cm. D. body 1.5 cm.
85. Fig. 141. Period 1 B-C
Fragment of neck and body of unguent-bottle; bluish-green. Rim missing; tubular neck, expanding downward to curved angle with body; shape of body uncertain, but probably squat conical. Blown. H. as extant 8.0 cm.
86. Pl. xxviii, fig. 142. Period 3 occupation
Fragment of base and basal angle of large unguent-bottle; green. Outside surface dulled; incipient iridescence on both surfaces. Very bubbly metal. Rounded basal angle, flattened base, with the letters G A S retrograde in relief on under side and correspondingly hollowed on inside.¹ Blown; the hollowing of the letters on the inside suggests that the vessel was blown on to an inscribed mould and not merely impressed upon it. D. base 7.5 cm. H. letters 2.4 cm. L. inscription 6.0 cm.
87. Fig. 142. Robber trench
Rim and neck of flask; greenish-colourless. Surfaces iridescent and pitted. Rim outplayed and folded upward and inward; tubular neck with slightly concave sides. Rim and neck free-blown; body (missing) blown into a mould. H. as extant 10.2 cm. D. rim 4.5 cm.
88. Fig. 142. Period 3 occupation
Fragment of bottom of side and base of flask; greenish-colourless. Surfaces iridescent and pitted. Side tapers downward to base-ring; flat base with very slight central kick; coiled base-ring at junction of side and base. Blown; base-ring drawn on. D. base-ring 4.0 cm.

E. Jugs

The items catalogued or listed under nos. 89-91 belong to a widespread class of jugs of several variant body-profiles, which mainly occur in contexts of the second half of the first century, though some have been found in fairly early second-century levels. For general discussions of the group, with citations of dated examples, see Isings, 1957, 69-71, form 52 *a-c*, and 72-4, form 55 *a-b*; and Harden in *Antiq. Journ.*, XLVII (1967), 238-40, fig. 7, pl. xliii (publishing a fine blue example from a Flavian burial at Winchester and relating it to parallels in Britain and abroad). See also Harden, 1947, 305 f., nos. 94-6 (from Camulodunum) and Fremersdorf, 1958b, 23 f., 33, pls. 8-13, 48-9, and id., 1961, 42-4, pls. 68,

¹ We are grateful to Mr R. P. Wright, editor of the corpus of Roman inscriptions of Britain, to whom this fragment was submitted, for providing and commenting upon this reading.

72-5 (citing many such jugs from Cologne and other Rhineland sites). It will be noted that fragments occurred at Fishbourne in all three periods of occupation; on the evidence from elsewhere, those found in Period 3 levels must belong to its initial stages.

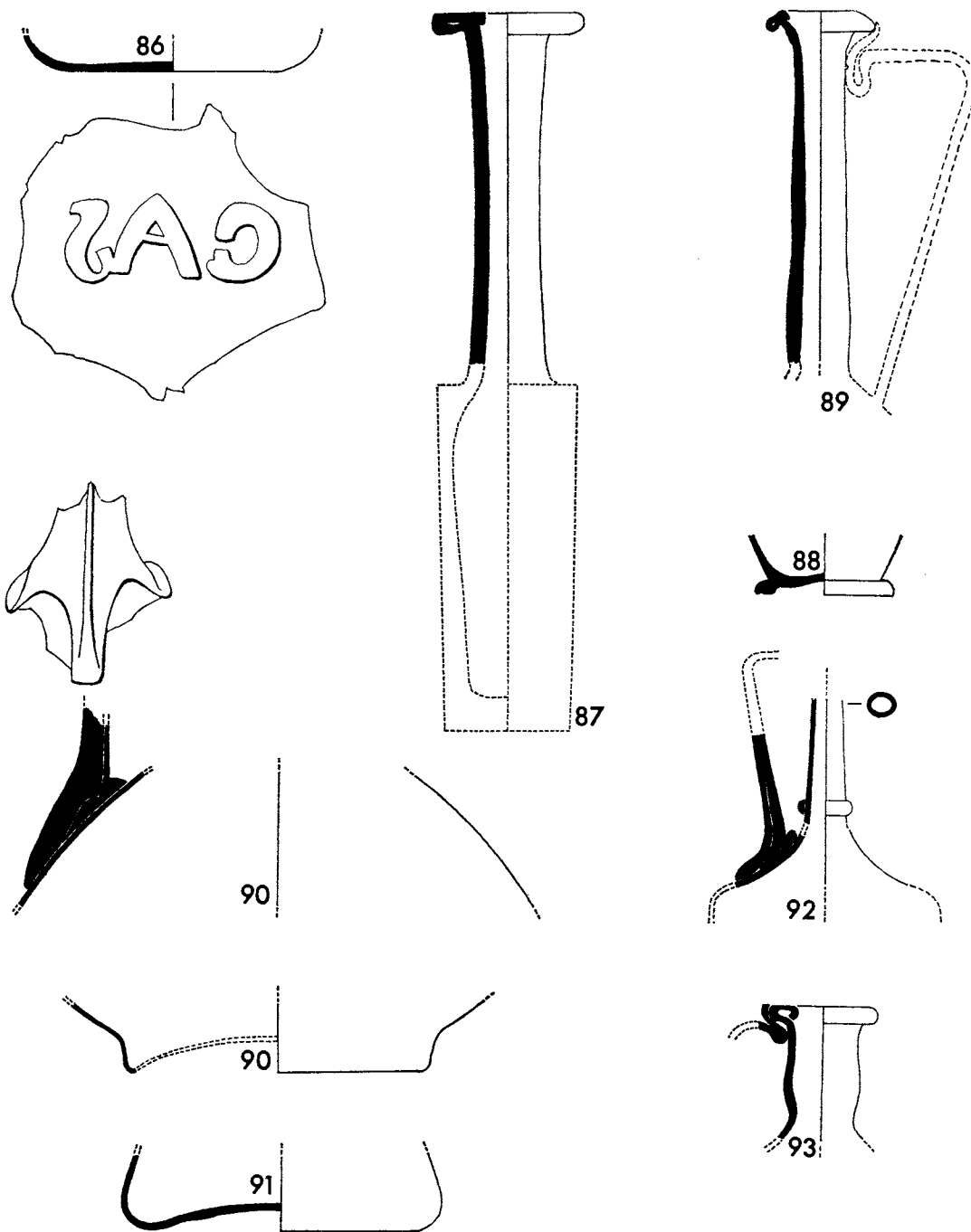


FIG. 142. Glass vessels: scale $\frac{1}{2}$. See pp. 358-61

If no. 92 was, as we suggest, elliptical in horizontal section throughout its height, it is in our experience unique. There are many Roman glasses with elliptical bodies, but we have never seen another elliptical neck. It is probably not earlier than the third century, a dating which conforms well with its stratification among the occupation-debris of Period 3.

No. 93 is difficult to place, since we cannot be sure what shape its body was; for that reason we place it in this group rather than among the bottles (group F below). It was, in any case, a small vessel with a narrow, simple handle, quite unlike the heavier types of later first- and earlier second-century bottles there listed (nos. 94-104). It perhaps belongs to the second half of the second century.

89. Fig. 142. Period 3 occupation

Rim and neck of jug; golden-brown. Rim outplayed, folded upward and inward, and pressed down very unevenly; cylindrical neck, bulging in a slight curve above a constriction where it joins the body; tiny remnant of upper attachment of handle, *c.* 1.0 cm. below rim. Blown. H. as extant 10.4 cm. D rim 3.2 cm.

Five fragments of similar necks of jugs were found:

- | | | |
|-----------|----------------------|---------------|
| <i>a.</i> | Period 3 occupation. | Dark brown. |
| <i>b.</i> | Period 3 occupation. | Lime-green. |
| <i>c.</i> | Robbing. | Bluish-green. |
| <i>d.</i> | Plough-soil. | Bluish-green. |
| <i>e.</i> | Top-soil. | Green. |

90. Pl. xxviii, fig. 142. Period 1 B-C

Fragment of body with lower handle-attachment and fragment of base of jug; bluish-green. Conical, slightly convex-sided body; cut-out open base-ring; concave base. Flat handle with sharp-contoured vertical medial rib, the sides and rib of handle splaying into three prongs at the bottom to grip the body. Blown; handle drawn and tooled. D. base *c.* 9.0 cm.

Five fragments of similar handles of jugs, all bluish-green, were found:

- | | |
|-----------|---|
| <i>a.</i> | Period 1 B-C. |
| <i>b.</i> | Period 2 occupation. |
| <i>c.</i> | Period 2 occupation (with fragment of ribbed body). |
| <i>d.</i> | Period 3 occupation. |
| <i>e.</i> | Period 3 occupation (with fragment of basal angle). |

91. Fig. 142. Period 1 B-C

Fragment of basal angle and base of jug; bluish-green. Conical body, rounded basal angle; concave base. Blown. D. base *c.* 8.4 cm.

92. Fig. 142. Period 3 occupation

Fragment of neck and fragment of body and lower part of handle of jug; pale yellow with pale bluish-green handle and neck-coil. Tubular neck, elliptical in horizontal section and expanding downward, with single coil *c.* 1.0 cm.(?) from bottom; concave junction of neck and body; bulbous body, also apparently elliptical in horizontal section; vertical handle with thickened edges, each splaying at bottom to grip body. Blown; handle and coil drawn on. D. body *c.* 6.8 cm.

93. Fig. 142. Period 3 occupation

Rim and neck and part of shoulder of jug; bluish-green. Rim outplayed and folded upward and inward; cylindrical neck with tool-mark at junction with body; sloping shoulder; shape of body uncertain. Part of upper attachment of narrow strap-handle adheres to rim. H. neck 3.4 cm. D. rim 3.2 cm.

F. Bottles

As will be seen from Table II (p. 363) 253 fragments of common green bottles were found. It is probable that this total gives a somewhat inflated view of the number of bottles involved, since fragments belonging to the same bottle may not always have been recognized as such. Even so the number of bottles represented is considerable. It is disappointing that none is well enough preserved for reconstruction, and the majority of the fragments are so small and indeterminate that, as the Table indicates, we cannot say whether they belonged to prismatic or cylindrical vessels. For this reason it has not seemed worth while to catalogue more than eleven typical examples, including the most important of the bases bearing relief patterns. One handle of a colourless bottle is also catalogued.

Of the common green examples 72 came from Period 1 or the construction level of Period 2 and belong to the years before A.D. 75; 31 belonged to the next 25 years (Period 2 occupation and Period 3 construction); and the remainder, i.e. about three-fifths of the total, were found in surroundings of the second century or later, or were unstratified.

This chronological distribution is more or less what we should expect. Isings (1957, 63-9, forms 50 'prismatic' and 51 'cylindrical') and Charlesworth (1966, 26 ff. 'prismatic', and 1970, 6 f. 'cylindrical') show by the dated examples which they cite that the bulk, at least, of the western common green examples belong to the period 70-130, though the types begin in the Claudian period and may have continued to be made up to the middle or late second century. Fremersdorf (1958b, pls. 42-6 'cylindrical', and 111-19 and 125-9 'prismatic'; 1961, pls. 78-82 and 86-96 'prismatic') gives many good illustrations of the various common green types and adopts the same range of date for them as Isings and Charlesworth do. Such a date corresponds well with the Fishbourne evidence, since it is reasonable to assume that many of the Period 3 finds belong to the earlier years of that Period.

94. Fig. 143. Period 1

Fragment of rim, neck and shoulder of cylindrical bottle; deep bluish-green. Usage scratches on outside. Outplayed rim, folded upward and inward, with top bevelled outward; slightly convex-sided, cylindrical neck, expanding at bottom to right-angled, tooled junction with horizontal shoulder. The angular handle from below rim to shoulder is missing, but position of upper attachment is marked by a small piece of it adhering to under side of rim and a fractured hollow in neck just below this. Blown into a cylindrical body-mould. H. neck 6.0 cm. D. rim 5.7 cm.

95. Fig. 143. Period 3 occupation

Fragment of rim and neck of cylindrical bottle; deep bluish-green. Usage scratches on outside. Shape as no. 94, but with shorter neck. Trace of shoulder-junction with tooling-mark. Part of upper attachment of a two-ribbed handle adhering to neck, just below rim. Blown into a cylindrical body-mould. H. neck 5.0 cm. D. rim 5.0 cm.

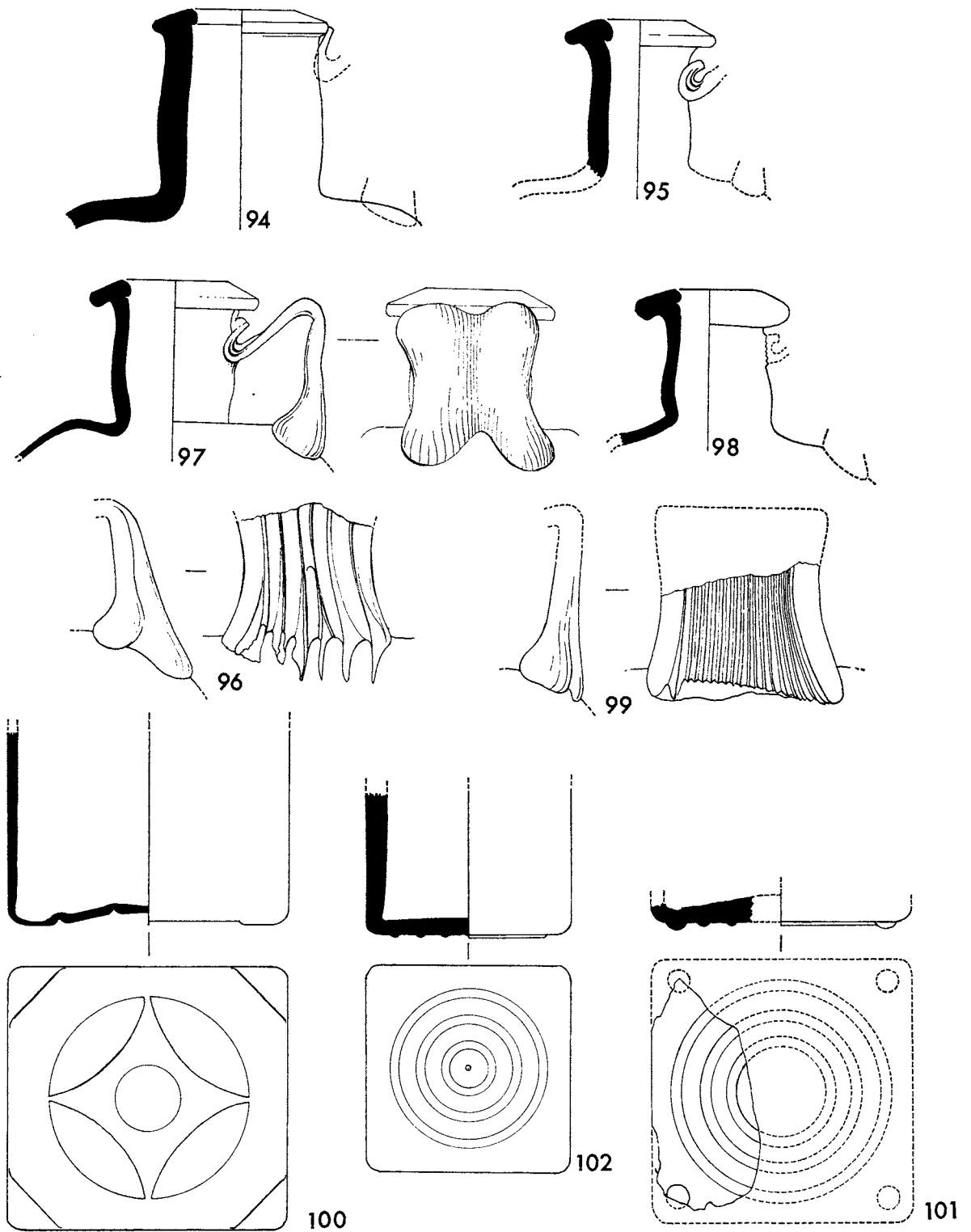


FIG. 143. Glass vessels: scale $\frac{1}{2}$. See pp. 361-4

TABLE II
CHRONOLOGICAL DISTRIBUTION OF COMMON GREEN BOTTLES

<i>Stratification</i>	<i>Prismatic</i>	<i>Cylindrical</i>	<i>Indeterminate</i>	<i>Totals</i>
Period 1	10	5	9	24
Period 2 construction	22	12	14	48
Period 2 occupation	12	3	5	20
Period 2 garden	2	4	2	8
Period 3 construction	2	1	—	3
Period 3 occupation	36	9	27	72
Period 3 destruction	13	2	7	22
Robber	7	2	14	23
Rubble	5	2	5	12
Plough-soil	9	—	12	21
	118	40	95	253

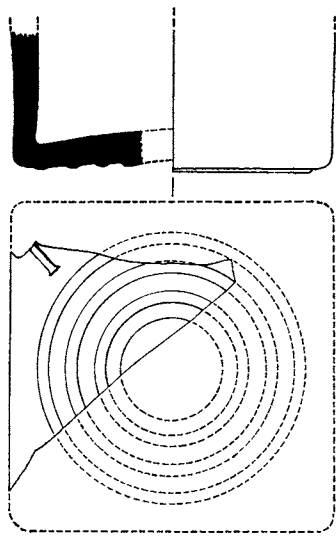
96. Fig. 143. Period 1 B-C

Lower part of handle of cylindrical bottle; pale bluish-green. Six-ribbed handle broken away at top, where it bent at right angles to join neck; extant lower half drops vertically to curved junction of shoulder and body of bottle, the six ribs splaying out into long, sharp-edged claws which grip the body. Blown into a cylindrical body-mould; handle drawn on; ribs and claws tooled. H. handle 4.0 cm. W. 4.5 cm.

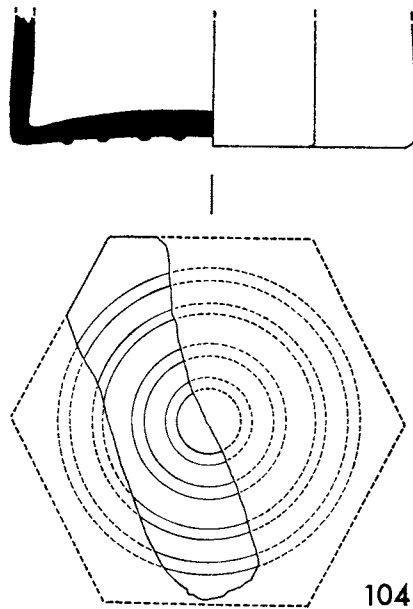
97. Fig. 143. Period 3 occupation

Rim, neck and handle and part of shoulder of prismatic bottle; pale bluish-green. Streaky metal with impurities. Dulled on outside. Outsplayed rim, folded upward and inward, with top bevelled outward; cylindrical neck, slightly constricted at right-angled, tooled junction with shoulder; shoulder horizontal and S-curved in section. Two-ribbed angular handle from below rim to junction of shoulder and body. Body (missing) square in horizontal section. Blown into a four-sided body-mould; handle drawn on. H. neck 4.5 cm. D. rim 5.5 cm. W. of each side of body *c.* 9.0 cm.

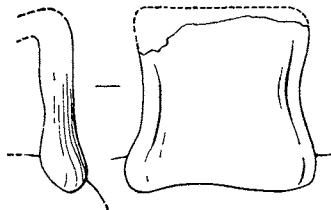
98. Fig. 143. Period 3 destruction
Rim, neck and part of shoulder of prismatic bottle; green. Streaky metal. Incipient iridescence on outside. Shape as no. 97, but neck expands slightly downward and shoulder is narrower, with outward slope. Handle missing, but mark of upper attachment just below rim. Body missing, but probably square in horizontal section. Blown into a four-sided body-mould. H. neck 4.2 cm. D. rim 5.0 cm.
99. Fig. 143. Period 3 destruction
Lower part of handle of prismatic bottle; pale bluish-green. Multi-ribbed angular handle broken away below bend; extant portion drops vertically to curved junction of shoulder and body of bottle, the ribbing splaying out into short claws which grip the body. Blown into a four-sided body-mould; handle drawn on; ribs and claws tooled. H. as extant 4.5 cm. W. 5.5 cm.
100. Fig. 143. Period 2 occupation
Fragment of lower part of body and base of prismatic bottle; pale bluish-green. Dulled on outside. Body nearly square in horizontal section, base flattened and slightly concave. On under-side, a relief design: in the centre, a circular disc; outside this four pointed ovals set tip to tip, their outer curves forming segments of a circle; in each angle of base, a triangle. The disc, the ovals and the triangles are all solid. Blown into a four-sided body-mould. H. as extant 6.0 cm. W. of sides 8.5 and 9.0 cm.
101. Fig. 143. Period 2 occupation
Fragment of base of prismatic bottle; pale bluish-green. Body square in horizontal section, base flat. On under side, a relief design: three concentric circles probably surrounding a central dot (now missing) and with a large dot in each angle of the base, outside them. Blown into a four-sided body-mould. W. of sides *c.* 8.6 cm.
102. Fig. 143. Period 3 occupation
Fragment of lower part of body and base of prismatic bottle; pale bluish-green. Dulled on outside. Body square in horizontal section, base flat. On under side, a relief design: three concentric circles surrounding a central dot. Blown into a four-sided body-mould. H. as extant 4.5 cm. W. of sides 6.7 cm.
103. Fig. 144. Period 3 occupation
Fragment of lower part of body and base of prismatic bottle; dark bluish-green. Body square in horizontal section, base flattened and slightly concave. On under side, a relief design: four concentric circles, perhaps surrounding a central dot (now missing); in the outer angles, letters, of which one only is partially extant, perhaps an *N* or *M* facing inward, or an *L* facing outward and reversed. Blown into a four-sided body-mould. H. as extant 3.5 cm. W. of sides *c.* 8.6 cm.
104. Fig. 144. Period 3 occupation
Fragment of lower part of body and base of prismatic bottle; bluish-green. Body hexagonal in horizontal section, base flattened and slightly concave. On under side, a relief design: four concentric circles, perhaps surrounding a central dot (now missing). Blown into a hexagonal body-mould. H. as extant 3.2 cm. W. of sides *c.* 5.5 cm.



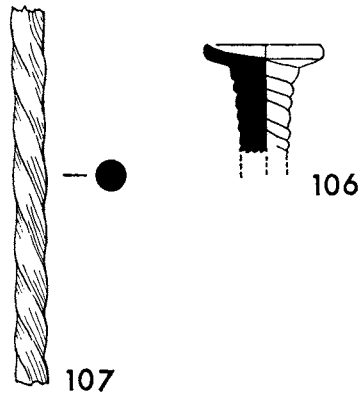
103



104



105



106

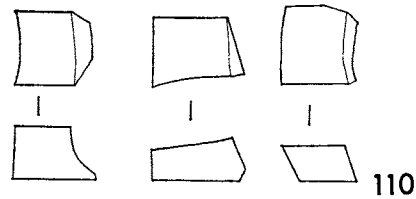
107



108



109



110

FIG. 144. Nos. 103-5, glass vessels; scale $\frac{1}{2}$. Nos. 106-7, glass stirring rods; scale $\frac{1}{4}$. Nos. 108-9, glass bangles; scale $\frac{1}{2}$. No. 110, glass tesserae; scale $\frac{1}{4}$. See pp. 364-7

105. Fig. 144. Rubble

Lower part of handle of cylindrical bottle; colourless. Plain, angular handle broken away below bend; extant portion drops vertically to curved junction of shoulder and body of bottle. From a one- or two-handled vessel, perhaps with wheel-cut decoration. Blown into a cylindrical body-mould. H. of handle (as extant) 4.5 cm. W. 4.5 cm.

OBJECTS OTHER THAN VESSELS

STIRRING-RODS

Two fragments of stirring-rods were found, both in Period 3 levels. Such rods occur on Roman sites of all periods and cannot be closely dated. They were frequently used with toilet-preparations, but may have had other uses as well (Harden, 1936, 285 f., nos. 862-4; Isings, 1957, 94 f., form 79).

106. Fig. 144. Period 3 destruction

Bottom of a stirring-rod; pale green. Drawn rod, twisted clockwise and ending in a splayed disc, the outside surface of which is broken away. L. as extant 1.4 cm. D. disc 1.6 cm. D. rod 0.7 cm.

107. Fig. 144. Period 3 occupation

Part of shaft of stirring-rod; light golden-brown. Drawn rod, twisted clockwise. L. as extant, 4.8 cm. D. 0.4 cm.

BANGLES

There were two fragmentary bangles, both in Period 1 contexts and thus dating before A.D. 75. They belong to the second of the three groups of British bangles discussed by H. E. Kilbride-Jones ('Glass armlets in Britain', *Proc. Soc. Antiq. Scotland*, LXXII (1938), 366-95), all three of which he believed to have a basically north British distribution, the first group being first-century in date, the second late first and first half of the second, and the third mainly second century A.D. More recently R. B. K. Stevenson ('Native bangles and Roman glass', *Proc. Soc. Antiq. Scotland*, LXXXVIII (1956), 208-21) supplemented the information provided by Kilbride-Jones. He was able to show that bangles of groups 2 and 3 are more commonly found on sites in England than Kilbride-Jones realized, and fresh finds reported since 1956 have further increased the number of English examples. No bangle of any of these three types is yet recorded from the continent, as far as we are aware. Stevenson, in general, accepted Kilbride-Jones's dating, but some of the newer finds suggest that these bangles may have remained in production longer than Kilbride-Jones believed, since specimens have been found in contexts at York and elsewhere which may be as late as the fourth century. It is, however, always possible that such small items could have been redeposited, out of their original level.

The bangles of Kilbride-Jones's group 2 (Kilbride-Jones, *op. cit.*, 372 ff., fig. 3), to which our two Fishbourne examples belong, are made of cobalt-blue or common green glass (in

one case, only, colourless) and are decorated with twisted cord mouldings running longitudinally, which are either in relief or marvered flush, and usually of opaque blue and opaque white, but occasionally of red, white and blue, or other colours. The sections of the bangles are basically plano-convex. This description, it will be seen, fits exactly the two Fishbourne specimens, and these have, therefore, a double importance: first, as having been found on a Roman, and not native, site in southern Britain; and second, as having been broken and discarded before 75. Kilbride-Jones (op. cit., 390 f.) thought that bangles of group 1, with a distribution stretching from the area of Hadrian's Wall to the Moray Firth — a distribution-pattern which is still valid — were pre-Agricolan, while those of group 2, which he believed were mainly found between Hadrian's Wall and the Forth-Clyde isthmus, did not originate until after Agricola's campaigns in Scotland had begun in A.D. 79. On the Fishbourne (and other) evidence we can now no longer accept Kilbride-Jones's distribution-pattern for group 2, and the date of these two pieces at Fishbourne renders untenable his view that this type did not arise before Agricola's conquest of the Scottish lowlands. Nor is it at all likely that, if these bangles were all made in Scotland, examples would have reached this Roman palace at Fishbourne so soon after it was founded. This is not the place to discuss this new evidence and its consequences in greater detail, but it is proper to indicate the problems it poses and to emphasize the important place these Fishbourne pieces must occupy in any attempt at solving them.

108. Pl. xxv, fig. 144. Period 1

Fragment of circular bangle, plano-convex in cross-section; pale bluish-green, with three longitudinal twists of opaque dark blue and opaque white, in relief, one running round the middle of the bangle and another near each edge. D. 9.4 cm. W. 1.5 cm.

109. Pl. xxv, fig. 144. Period 1 B-C

Fragment of bangle, as no 108, but with one longitudinal twist only, running round the middle of the bangle. D. 9.4 cm. W. 1.3 cm.

TESSERAE (fig. 144)

110. A-C. Three small tesserae for mosaics, all of opaque light blue glass, were found, one (A) in the occupation level of Period 2, and two (B, C) in the destruction-level of Period 3. Dimensions *c.* 1.1 by 0.8 by 0.5 cm. How these pieces came to be on the site is not readily explicable: no mosaic work to which they could have belonged was discovered *in situ*. The three tesserae came from the area of the Aisled Hall.

WINDOW-GLASS

111. The excavations yielded approximately 40 lb. weight of window-glass, most of it in one deposit on the floor of room N 9 (vol. 1, p. 188) and much of it distorted by the heat of the conflagration. All is of the matt/glossy type of the first and second centuries and — as was of course to be expected — there was not a single piece of the later double-glossy

variety, which does not seem to have been made before the third century at earliest. The glass was mainly green or bluish-green, though there were some nearly colourless fragments. It was possible to make some joins, but not to the extent of building up enough of a pane to indicate what size these panes were.¹

¹ For recent discussions of Roman window-glass in general and divergent views on whether the earlier matt/glossy variety was cylinder-blown or cast see D. B. Harden, 'New light on Roman and early medieval window-glass', *Glastechnische Berichte*, 32 K (1959), Heft VIII, 8-16; id., 'Domestic

window glass: Roman, Saxon and medieval' in E. M. Jope (ed.), *Studies in Building History: essays in recognition of the work of B. H. St J. O'Neil* (London, 1961), 39-63; and G. C. Boon, 'Roman window glass from Wales', *J. Glass Studies*, VIII (1966), 41-7.

Graffiti

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Graffiti on pottery (fig. 145)

1. Part of the base of a Drag. 15/17 or 18 stamped PASSEN. Two graffiti were scratched on the underside: (a) $\widehat{\text{I}}\text{A}\text{P}\text{I}$ and (b) $\text{P}\text{R}\text{I}\text{M}\text{I}\text{C}\text{I}$ [in thicker letters. *J.R.S.*, LV (1965), 227.
First-Period occupation layer.
2. Part of a base of a Drag. 31 stamped CERIAL·F in ansate panel. Scratched XIIN, *Xen*, on the underside. *J.R.S.*, LV (1965), 227.
Third-Period occupation layer.
3. Part of the base of a Drag. 15/17 or 18 stamped $\text{P}\text{R}\text{I}\text{M}\widehat{\text{V}}\text{L}\text{I}$. The graffito beneath the base reads]NPR, with two cuttings of the P and R.
Second-Period occupation layer. *J.R.S.*, LV (1965), 227.
4. Coarse ware dish scratched with a bisected triangle.
Occupation layer dating to the late third century.
5. Jar scratched with F. F.
First-Period occupation layer.
6. Jar scratched T L.
Late third-century destruction level.
7. Dish scratched] $\widehat{\text{V}}\text{P}$ [.
Second-Period occupation layer.

Graffito on stone (pl. xxivb)

8. Part of a column drum, *c.* 24 in. (0.61 m.) in diameter. The straight edge has been carefully dressed. The face carries a graffito lacking the initial letters and terminating before the straight edge; it reads: ...]MΛS IIS | ...]ΔMVA IIS. This seems to record two names, ...]*mas* and ...]*amua*, each followed by '2½', possibly as a temporary record scored in the mason's yard. *J.R.S.*, LVIII (1968), 206.
Late destruction level.

Graffito on plaster (pl. xxiva)

9. On top of a grid pattern the following legend has been incised:

...]S DABAM[...
...]XVM
]s *dabam* [... | ...] *xum* '... I was giving ...'

In *dabam* the second A, which has no cross-bar, was a later insertion and as lightly cut as the letters in line 2. *J.R.S.*, LIX (1969), 241.

GRAFFITI

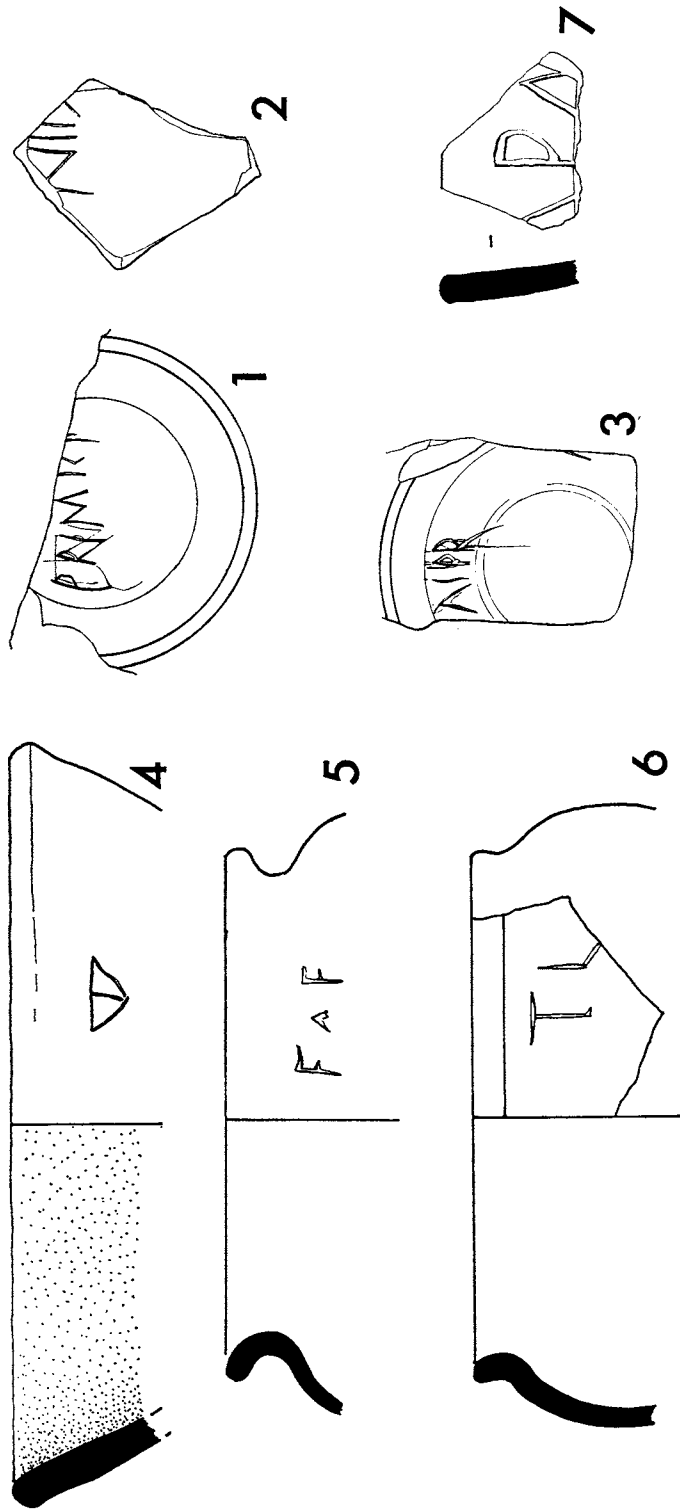


FIG. 145. *Graffiti* on pottery: scale $\frac{1}{2}$ (p. 369)

Analyses of Samples

ANALYSIS OF SLAGS AND METALS

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SAMPLES of slags and other metallic residues are published here under general headings, together with provenances for each sample. Insignificant samples have been omitted.

NON-FERROUS MATERIAL

From the working areas in front of the Period 1 B timber building (Vol. 1, p. 48)

1. Cupriferous pellets. Two samples: (a) a highly-cored cast bronze with lead and minute amounts of delta. Hardness, 86, suggests that the tin content does not exceed 8%. The specimen contains some shrinkage cavities. (b) Similar to (a). There is some recrystallization which means that it was heated somewhat after casting. Very little, if any, delta, which would put the tin content at about 8%. Hardness, 98 HV. It has been rapidly cooled and the grain boundaries are outlined by rows of small lead globules.
2. Lump of much-corroded copper-base alloy and highly cupriferous dross. An equiaxed and twinned structure containing very little lead and much slag. No delta was present and the copper colour of the specimen suggests very little tin, if any. The hardness was 75HV₅. This specimen has been worked after casting.
3. A piece of furnace lining with cupriferous slag adhering.
4. Three pieces of light porous slag which appear at first sight to be of non-ferrous origin and have wood or charcoal in their interstices.
5. Small pieces of cupriferous dross or slag.

From the First-Period occupation levels north of the North Wing of the Palace

6. A heavy lump of copper base alloy dross with wood and charcoal entrapment. It has a level bottom and would appear to have been derived from the contents of a crucible that broke or spilt. It has an equiaxed grain structure with corroded grain boundaries. It contains some lead but no obvious delta. There are some light blue rounded patches that are probably slag. Hardness, HV₅, 123, suggests a low tin bronze containing 6–8% tin.

From the garden surface in the north-east corner

7. A number of pieces of lightish slag which appear to be of non-ferrous origin.

From the garden surface in the north-west corner

8. Non-ferrous crucible slag.

From a Third-Period occupation level in the south-east corner of courtyard 2 in the East Wing

9. A piece of crucible with thick externally adhering green and red slag. Also a second piece of crucible with a drip of copper base material adhering.

Lead from the destruction level on the floor of room N 5

10. Lead fragment. The silver content, 0.67 oz./ton lead, suggests either that it was smelted from a low silver ore, or that it had been efficiently desilverized.

FERROUS MATERIAL

From First-Period levels immediately west of gully 10 (Vol. 1, p. 61)

11. A small iron smelting, or iron smithing, furnace bottom.
12. Burnt clay with some slag entrapped which would appear to be of ferrous origin. Large quantities were recovered.

From Second-Period construction layers beneath the east end of the North Wing

13. Iron smelting slag which does not seem to have been tapped from the furnace.
14. Black slag with chalk or limestone inclusions similar to iron smelting slag.

From Third-Period occupation layer immediately north of the North Wing

15. Irregular iron slag with wood or charcoal entrapment adhering to a thin layer of furnace lining.

From Third-Period occupation layer in the north-west corner of the garden

16. A piece of burnt clay and iron smelting slag with carbonized wood and part of an ironstone nodule adhering.

This evidence points to general metallurgical activities in the area. Straight tin and leaded bronzes have been cast, but as we have no pieces of mould we do not know what sort of artifacts were made. There is no evidence that lead has been smelted, and the fragment may be a drip from some lead-melting operation.

It would seem that iron has definitely been smelted and smithed in view of the furnace bottoms and the ironstone nodule.

POLLEN ANALYSIS OF THE GARDEN SOIL

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INTRODUCTION

The details of the Roman garden, discovered in 1965 and excavated in 1966-7, have already been described (Vol. 1, pp. 123-31). In 1967 the present writer spent three weeks on the site sampling the Roman turf-line and bedding trench fillings, in order to carry out a pollen analysis on any likely material.

Pollen analysis has not been undertaken on Roman sites to any great extent and the actual site presented difficulties which were apparent from the start because the soil there is unfavourable for this method. The natural subsoil consists of gravel and clay, but the turf had been marled, giving alkaline soils with an abundant microflora, so that pollen in the soil tends to become decayed, and thin-walled grains may disappear altogether. A further difficulty is in the plants themselves. Frescoes at Pompeii show gardens with what appear to be lilies and roses growing along small hedges. These and other plants which are thought to have been planted in gardens in classical times are insect pollinated, which means that they shed little pollen. The showy blooms and scent which make them attractive to both men and insects allows them to avoid the waste of wind pollination. Nevertheless pollen may fall with the dead flowers on to the ground and remain there.

METHOD

The methods of sampling and pollen analysis employed are briefly as follows: and are derived from those used at the Institute of Archaeology at University College, London:

Thirty-two samples of about 25 gm. soil each were taken from various parts of the site, in particular from the garden. Vertical surfaces in the sides of the trenches were cleaned back with a sharp knife, and the sample taken from a particular layer and sealed in a 2 oz. glass vial. These were dried at about 100°C. In the laboratory they were powdered, sifted, and a small measured amount treated chemically to extract the pollen from the other soil components.

All samples were treated identically, and the chemical treatment was carried out with twelve samples at a time, which was the full capacity of the equipment. The powdered material was treated with hot alkali to break up any humic material, and then with acid to remove any carbonates such as chalk particles. The next treatment, with hydrofluoric acid, dissolved silicates like sand and clay mineral. The samples were boiled in a 40 per cent solution of the acid for one hour, and special precautions were taken, since the acid is extremely dangerous in any form. The fluorides formed by this treatment were washed away with hot hydrochloric acid, and the samples were then acetolized to remove cellulose. The residues were washed and made slightly alkaline for staining, and made up to a small known volume with Safranin stain and glycerol.

In order to count the pollen, a small measured quantity was mounted, and scanned with a high-power binocular microscope so that every grain could be counted and identified.

SAMPLING

Samples were taken from all parts of the site, and in the areas which appeared to be the most likely for pollen collecting was concentrated. Fifteen samples were taken from trench 347 which was the most waterlogged, and also the one deepest down from the present land surface. Sections of each of the bedding trenches were carefully excavated and samples taken from the top, middle, and lowest parts of the infill, and also from the area between them. During this work a bronze lion's head (fig. 48, no. 125) was found, and in the hope that the corrosion products of the copper might have inhibited the various microflora, particular care was taken to make a sample of the earth surrounding the artifact. Apart from

the darker soil with the lion's head, the samples were almost all a light grey clay that did not appear to have an especially organic origin. In this clay there were small fragments of chalk, probably due to the practise of marling the land with chalk to lighten the clay.

Other samples were taken from many parts of the site, from the infill surrounding a column base sunk into the clay surface of the garden (Vol. 1, p. 185), from bedding trenches along the eastern end of the garden, which were less distinct than those at the western end, and from post-holes that could have supported a trellis at the eastern end. There were fewer water-borne sediments (such as wells) than expected, but a sample was taken from the occupation layer beside a drain, and from the marine silt beyond the southernmost limit of the buildings. In addition, one sample was made of the soil from under a *Buxus* tree growing in a garden next to the site, by way of comparison.

Of a total of 32 samples taken from the site, not all were counted. Samples were counted from all parts of the garden and samples which were taken from nearby others of a similar nature were carefully examined, but only one or so from each group was counted for pollen.

RESULTS. (The pH of every sample was measured and found to be around 8.0.)

The results are expressed as the total number of grains per gram of soil in the sample, multiplied up from the actual amount counted on one slide. The actual number of pollen grains counted per sample was in the order of 150-200. Sixteen samples were counted, to give a representation of the pollen densities of the various parts of the site.

		<i>pollen grains per gram soil</i>
<i>Trench 347</i>	(Bedding trenches in front of the West Wing)	
layer 9	lowest filling of grey clay	620
layer 10	top filling of grey clay	894
	lowest filling of grey clay with pockets of blue colouration	2555
layer 11	top level	766
	middle level, dark material around bronze object	5666
	lowest level	1891
<i>Trench 348</i>	(Pit in front of West Wing)	
	infill of pit 10 cm. from the bottom	920
<i>Trench 354</i>	(Bedding trench, the front of East Wing)	
	top level; the presence of aluminosilicate made counting only an approximation	650
	middle level; dark soil with pottery and charcoal fragments. Also an approximation	280
<i>Trench 353</i>	(West end of North Wing of building)	
	occupation layer beside drain	1584
<i>Trench 345</i>	(North-east corner of the garden)	
	Soil from underneath a stone in a post-hole	1081

<i>Trench 346</i>	(North-east corner of the garden — bedding trench) middle level; an approximate count lower level	715 2504
<i>Trench H 10</i>	(South of the South Wing) possibly marine silt. The sample contained sulphides	13180
<i>No number</i>	Soil from the surface of the present-day garden near the excavation	5264

The various plant types which were identified are listed together below with the number of samples in which each one occurred. An asterisk indicates a pollen type found in the modern garden soil.

Gramineae	15*	Tilia	1
Compositae (T)	14*	Calluna	1
Compositae (L)	13*	Fraxinus	1
Pteridium	13*	Hedera	1
Polypodiales	8*	Salix	1
Ranunculus	2*	Dryopteris	1
Pinus	2	Musci	1
Ilex	2	Caryophyllaceae	—*
Plantago	1	Ulmus	—*

CONCLUSIONS

The pollen types from the Roman soil are those which have thick exines which are relatively resistant to the effects of the action of the soil microflora. Grasses are wind pollinated, and therefore they provide a likely pollen type to be found ubiquitously due to the ready distribution of their pollen. The Composites have a very tough pollen, as do the ferns, which are not easily destroyed. This assemblage of pollen types is found in samples analysed in peat and lake deposits of a similar age.

There is no pollen record for any plant types which were exclusively or even predominantly cultivated, or garden species, although it is a matter of conjecture exactly what plants were grown in Roman gardens apart from some particular ones which have been mentioned by classical authors.

Pliny has given an account of his garden in Italy in which he describes the *Buxus* hedges that lined it. The discovery at Fishbourne of the system of slots which appear to correspond to his description, gave rise to the hope that it would be possible to confirm this hypothesis. The pollen of *Buxus* is distinctive, and it is produced in fair quantities from tiny flowers in early April.

The site at Fishbourne has a waterlogged clay soil, which is a very different habitat from the well-drained chalk land where *Buxus* grows wild, and so the shrub might not have been able to survive at Fishbourne, even in a garden with no competition from other plants. The bedding trenches show clean sides cut into the clay, and this might be taken to suggest

that plant roots did not penetrate this, and that if *Buxus* shrubs were ever planted there, they failed to survive. As boxwood is extremely hard, and has been recovered from other Roman sites in Britain, it is probable that if *Buxus* had grown in the bedding trenches there would be some trace left there, if only wood stains.

Pollen analysis gives only positive results, in that the finding of a certain pollen type indicates the probable existence of plants of that type. However, the opposite is not true, and a pollen type can be absent from the count even though the plant producing it was abundant, either because the plant did not flower, or because the pollen was not preserved. Box, like many shrubs, flowers on the new wood, and if it is clipped it may not flower at all, or only sparsely. It has been shown that the use of *Ulmus* boughs for fodder stops the tree from flowering, and it is thought that this is the reason for certain features of its pollen record for Neolithic times. So it is possible that the pollen record for *Buxus* could have been affected in this way, if the plant had been clipped. *Buxus* is entomophilous, which, as pointed out previously, means that the pollen production is small when compared with an anemophilous shrub such as *Corylus*. These two factors might explain why there was no *Buxus* pollen found in the sample.

To conclude, one can say that the pollen analysis shows the expected pollen types for Roman times with nothing about them to suggest anything out of the ordinary. This does not necessarily mean that there were no plants grown in the garden, because there are cases when pollen is not preserved: the reasons for this have been discussed.

ACKNOWLEDGEMENTS

My many thanks are due to Professor G. W. Dimbleby and Mr P. Porter for allowing me to use the equipment and facilities of the Institute of Archaeology, and also for their help and advice which were invaluable; also to Dr B. E. Juniper, who secured the grant necessary for me to undertake this project.

CHARCOAL

By J. R. A. GREIG

A number of samples of charcoal were collected by the author from various contexts during the 1967 excavations. All of these were identified as *Quercus* (oak).

SEEDS

By J. R. A. GREIG

During the 1963 excavation, a jar containing carbonized seeds was found in the destruction level on the floor of room N 12. These could not be exactly identified, but they closely resembled those of *Lathyrus* species, which might either be from a wild plant, or quite possibly from one grown for food.

ORGANIC MATERIAL FROM THE STREAM

A thick layer of organic material was recovered from the bed of the stream (Vol. 1, fig. 52 section 8, trench 81 layer 11). Samples of twigs were removed and sent to the Royal Botanic Gardens at Kew, who kindly identified them as follows.

Hazel	3 specimens
Willow (sp.)	4
Ash	2
Fir	2
Oak	1
Blackberry	1

The list shows that the local vegetation cover at the beginning of the Roman period was much the same as that which still grows in the wilder parts of the adjacent coastal strip, especially along the streams which flow into the upper reaches of the creeks.

THE ANIMAL BONES

By ANN GRANT, B.A.

INTRODUCTION

The animal bones from Fishbourne were examined and identified and 4,802 were used as the basis of the following study. This number does not represent the total number of bones recovered during the excavations. Shaft fragments of small animals are much more easily identified than shaft fragments of large animals, and the bones of large animals are generally broken or chopped into more pieces than the bones of smaller animals. In order to try to avoid the distortion in calculating percentages that these facts inevitably lead to, no fragment of bone without at least part of its epiphysis, or in the case of unfused bones without the facet for articulation with the epiphysis, was counted. This excluded shaft fragments of long-bones, fragments of scapulae without the glenoid cavity, fragments of pelvis without the acetabulum, jaw fragments without teeth and loose teeth. All rib, vertebrae and skull fragments were counted but treated separately.

The bones of birds are the subject of a separate report (pp. 388-93).

The bones were divided into three groups or periods. The first includes the bones from the early occupation of the site, up to and including the construction of the palace. The second includes the bones from the primary and secondary occupation of the palace. The third group includes the bones from the destruction and robbing of the site. These will be referred to respectively as Period 1, Period 2-3, and Destruction.

THE ANIMALS REPRESENTED

In calculating the various percentages of the animals represented in each period, skull, vertebrae and rib fragments were not included. Fibulae were not included because only

horse and pig have this bone. The number of pig metapodials was divided by two, since pigs have twice as many per leg as any other domestic animal, and the abaxial and axial metapodials were not counted at all. The percentages of the bones from each animal are shown in Table I.

TABLE I

	<i>Period 1</i>		<i>Period 2/3</i>		<i>Destruction</i>		<i>Total</i>	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
Ox	316	25.9	295	32.8	145	38.8	756	30.3
Sheep*	334	27.4	198	21.6	89	23.8	621	24.8
Pig	486	39.9	344	37.8	110	29.4	940	37.6
Horse	6	0.5	25	2.8	16	4.3	47	1.8
Dog	9	0.8	15	1.7	3	0.8	27	1.1
Red deer	28	2.3	19	2.1	7	1.9	54	2.2
Roe deer	39	3.2	11	1.2	4	1.0	54	2.2
TOTAL	1218		907		374		2499	

* There was not enough evidence available to differentiate between sheep and goat, if in fact both were present. For the sake of convenience this group has been called sheep, but it must be remembered that goat may have been present.

Table I shows that the proportions of animals remain fairly constant throughout the three periods, except for the increase in importance of cattle throughout the time span represented, and the slight increase in the amount of horse. Ox, pig and sheep obviously form the main source of food. The proportion of horse is much too small for this animal to be regarded as a source of food. Horse bones must represent animals kept for transport.

Dog bones would probably represent animals kept as household pets or guards. Two-thirds of the dog bones from Period 2-3 belonged to a single animal of a small, long-nosed breed.

Red and roe deer bones also occur in such small quantities that they cannot be a regular food source either. Their presence can be explained as an occasional food source, or perhaps as the spoils of a day's hunting. The antler fragments found had in the majority of cases been sawn off, though in one case the antler had been shed. The tines were generally sawn from the beam too, and this might imply that the antlers were used as a source of raw material for making tools, etc. It is unlikely that deer would have been killed in order to obtain the antlers, as these can be gathered after they have been shed.

The lack of fish bones is perhaps surprising since the site is so close to the sea. However, fish bones are very fragile and do not survive well.

Although pig bones are the most numerous in Periods 1 and 2-3, it must be remembered that the meat yield per animal is much greater for ox than for pig or sheep. Other authors (D. Phillipson, *et al.*, 1965) have used as carcass weights for the domestic animals the following figures:

Ox — 900 lb. per animal
 Sheep — 125 lb. per animal
 Pig — 200 lb. per animal

If the proportions of domestic animals are corrected by this factor, the following results are obtained.

TABLE II

	No.	%	% after figures adjusted for meat yield	
PERIOD 1	316	27.8	67.2	Ox
	334	29.4	9.8	Sheep
	486	42.8	23.0	Pig
PERIOD 2-3	295	35.2	74.0	Ox
	198	23.7	6.9	Sheep
	344	41.1	19.1	Pig
DESTRUCTION	145	42.2	79.8	Ox
	89	25.9	6.8	Sheep
	110	31.9	13.4	Pig

From this it is evident that in all periods, ox provides the bulk of the meat, though in Periods 1 and 2-3 more pig than ox carcasses must have passed through the kitchens.

BUTCHERY

The percentages of each type of bone, excluding ribs, vertebrae and skull fragments, were calculated for each of the main species, ox, sheep and pig, in each of the periods. The results are shown in fig. 146. The proportions of bones in each animal are fairly similar and constant throughout the three periods. Notable is the small number of ox jaws in each period compared to the large number of sheep and pig jaws. The rib to vertebra ratio in the three periods is as follows:

Period 1 7.5 : 1 Period 2-3 9.6 : 1 Destruction 5.6 : 1

The normal rib to vertebra ratio (excluding sacral and coccygeal vertebrae) is approximately 1 : 1. Ribs are obviously easily broken and many were seen to have been chopped into pieces, but the vertebrae too were very fragmented and also showed some evidence of

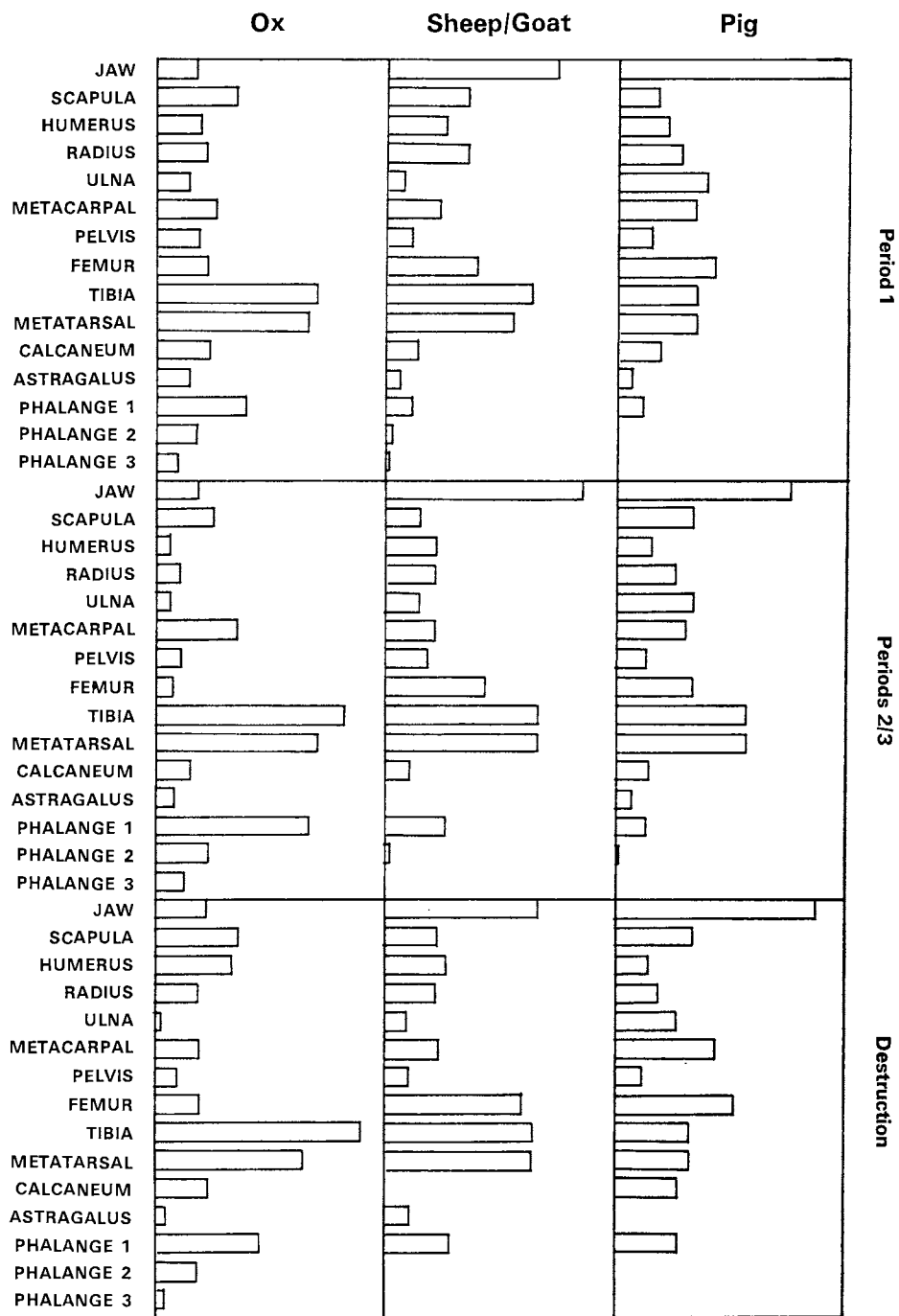


FIG. 146. Percentages of bones represented

having been chopped. Thus some significance must be attached to the ratios calculated above. A similar phenomenon was found among the animal bones from Eldon's Seat, Dorset, where Phillipson (1968) suggested that the flanks were removed from the carcass leaving the vertebrae on the butchering site. This might explain the small number of vertebrae at Fishbourne, and also the small number of ox jaws. Even today, pigs and sheep arrive at the butchers' shops with their heads, while ox's heads are usually cut from the body at the slaughter house. However, this is merely a possibility and there are other anomalies revealed by the analysis of the bone proportions.

Table III is a more detailed analysis of the leg bones of the animals. What is most strikingly revealed both by this table and by fig. 146 is the large number of metapodials from all animals and in all periods, and the large number of sheep and pig jaws. There is no meat content in the jaw, and the meat yield from the metapodials is very low. It could be postulated that the animal bones excavated represent the parts of the body not used for cooking, perhaps representing the results of a secondary butchering on the site. This explanation is most feasible in Period 2-3 and the Destruction Period, where other non-meat bones, such as the distal end of the tibia, are also very numerous while the main meat-yielding bones, such as the femora and the proximal ends of the tibiae, are comparatively rare. The scapula, which yields a large amount of meat, is, however, fairly common. Unfortunately the palace kitchens have not been extensively excavated, and a large proportion of the domestic refuse from the palace must now lie at the bottom of Fishbourne Creek.

In Period 1 the meat bones are better represented, but even so there are discrepancies, such as the small percentage of humeri proximal ends. It may be that the modern economy of meat joint cutting was not as stringently practised then.

However, the sample is not so large that differential survival of the bones could not have produced considerable distortion of the true situation. It is difficult to explain the large number of jaws and the small number of skull fragments — a mere 129 small fragments for all animals in all periods — except in terms of the poor survival of the relatively thin bone of the skull.

Chop marks were commonly found on ribs, vertebrae, pelves (across the back of or below the acetabulum) and scapulae (above the neck). There was very little evidence to show that the bones had been split for their marrow, and in fact it would seem that this was not a common practice.

DISEASE

Although most of the bones came from apparently healthy animals, a few of the bones from all periods showed evidence of disease.

An ox scapula had a crater-like lesion on the medial side of the glenoid border. An ox astragalus showed severe destruction of the trochlea by some form of bone disease. The heads of three metatarsals were swollen with arthritis.

The shaft of a pig axial metapodial was very swollen, perhaps due to a tumour.

One sheep rib had been broken and had healed. Several sheep jaws showed evidence of overcrowding of the teeth. Teeth had worn into each other in order to fit into a space obviously too small for them. The teeth most commonly affected were the deciduous 4th molar, the 4th premolar, the 1st molar and the 2nd molar.

TABLE III

	Ox		Sheep		Pig		Ox		Sheep		Pig		Ox		Sheep		Pig	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Scapula D	27	96	28	93	20	50	18	53	7	30	28	80	13	68	5	42	9	75
Humerus P	1	4	7	23	4	10	2	6	6	26	2	6	—	—	1	8	—	—
D	14	50	26	87	19	48	2	6	4	17	11	31	12	63	4	33	4	33
Radius P	8	29	14	47	27	68	4	12	4	17	13	37	3	16	2	17	4	33
D	8	29	13	43	7	18	3	9	6	26	6	17	4	21	3	25	—	—
Metacarpal P	28	100	28	93	10	25	34	100	16	68	5	14	19	100	9	75	3	25
D	18		64		11		37		8		20		25		74		12	
Pelvis P	20	71	18	60	40	100	26	77	10	43	25	71	7	37	5	42	12	100
Femur P	2	7	5	17	4	4	1	3	6	26	5	14	—	—	—	—	—	—
D	12	43	4	13	14	35	7	21	2		9	5	14	3	16	2	17	3
Tibia P	8	29	3	10	4	10	—	—	5	22	5	14	—	—	1	8	3	25
D	10	36	28	93	40	100	7	21	15	64	23	66	7	37	12	100	11	92
Metatarsal P	26	93	30	100	10	25	32	94	23	100	5	14	14	74	11	92	3	25
D	18		44		9		30		8		20		19		57		5	
	PERIOD 1						PERIOD 2-3						DESTRUCTION					

(% = % of the greatest number)
 Brackets indicate complete bones

P = proximal
 D = distal

EVIDENCE OF AGE

The bones and teeth were examined for evidence of the age of the animal at death. The jaws give the most specific information and fortunately in the cases of sheep and pig formed one of the most numerous types of bone found. Table IV shows the result of the analysis of

TABLE IV

<i>Pig Jaws</i>	<i>Period 1</i>			<i>Period 2-3</i>			<i>Destruction</i>		
			<i>Cum.</i>			<i>Cum.</i>			<i>Cum.</i>
<i>Age in years</i>	<i>No.</i>	<i>%</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>%</i>
0-1	3	4.2		6	16.2		2	14.2	
1-2	18	25.4	4.2	7	19.0	16.2	4	28.6	14.3
2-3	16	22.5	29.6	8	21.6	35.1	2	14.3	42.9
3+	34	47.9	52.1	16	43.2	56.7	6	42.9	57.2

METAPODIALS (Distal epiphysis)

Unfused	86	72		136	86.6		17	81	
Fused	34	28		21	13.4		4	19	

pig jaws. The ages of tooth eruption that are the basis of the above table are in accordance with the ages given by Silver (1963) for the eruption of the teeth of nineteenth-century pigs. The sometimes quite considerable degree of wear on the first and second molars before the eruption of the third molar suggests that the eruption ages of the teeth of these pigs are closer to the nineteenth century than to the modern figures.

The table shows that in all periods slightly over half the animals were killed before they were very much above three years old. However, in Period 2-3, almost four times as many pigs of up to one year old were killed as in Period 1. This might be accounted for by the Roman fondness for piglets (Zeuner, 1963) and would certainly be one of the luxuries that the owner of the villa could well afford.

An attempt was made to correlate the date of fusion of the distal end of the metapodial with the eruption ages of the teeth. Unfortunately this was not possible with any other bone because of the small numbers of most bones apart from the metapodials. The results are given in Table IV. Silver gives as the age for fusion of the distal end of this bone as between 2 and 2½ years. Since in all periods 72-86 per cent of the metapodials were unfused, the date of fusion of this bone must be some time after that for the eruption of the third molar. Many

of the third molars showed only a small amount of wear and therefore it would seem that the metapodial fused when the pig was between three and four years old.

Sheep teeth were also examined for evidence of age and the results are given in Table V. There were too few jaws from the Destruction period for analysis to be valid.

TABLE V

<i>Sheep Jaws</i>	<i>Period 1</i>			<i>Period 2-3</i>		
			<i>Cum.</i>			<i>Cum.</i>
	<i>Age in years</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>%</i>
0-1	10	24.4	24.4	2	9.1	9.1
1-2	14	34.1		5	22.7	
2+	17	41.5	58.5	15	68.2	31.8

METAPODIALS (Distal epiphysis)						
	<i>No.</i>	<i>%</i>		<i>No.</i>	<i>%</i>	
Unfused	10	27.8		12	44.4	
Fused	26	72.2		15	55.6	

The ages of tooth eruption used are those given by Silver for modern sheep. This is in accordance with the findings of Ewebank, *et al.* (1964) for the early Iron Age sheep at Barley. The eruption sequence of the Fishbourne sheep seemed like that of the Barley sheep, but it must be stressed that there were very few jaws in the critical stages for determining the sequence and intervals of eruption. The results shown above indicate that in Period 1 the sheep were generally killed at an earlier age than in Period 2-3. Whether this reflects a change in taste or a change in the supply of meat, or even a more efficient animal husbandry with better overwintering food supplies, from Period 1 to Period 2-3 is impossible to tell at this stage. An attempt was again made to correlate the fusion age of the distal epiphysis with the age of tooth eruption, and the results are given above in Table V. Silver gives as the age of fusion for this bone as between 2 and 3 years. The Period 2-3 results correlate well with Silver's data, but the results from Period 2-3 would suggest that the fusion age of the metapodial was between one and two years. The reason for this anomaly is not immediately apparent. It may reflect different sources of supply in Period 1 and Period 2-3. However, the example is very small and no conclusion will be drawn in the present state of knowledge.

Cattle jaws were far less numerous than those of either pig or sheep, and the same sort of analysis as was carried out with the jaws of the latter two animals was not possible. What was noted was the relatively large percentage of jaws where the second molar was just about to

erupt or was only partially erupted. These jaws were compared with jaws where the second molar was fully erupted, and the results are given in Table VI. The Destruction period bones were again not included because there were so few of them. The samples from Periods 1 and 2-3 are small but the results given above suggest a fairly large percentage of the animals were killed at the age of eruption of the second molar. Silver gives ages ranging from 15-18 months in modern breeds to 30 months in nineteenth-century animals, but there was not sufficient material to make any estimation as to where within this range the Fishbourne material might lie. The results from the metapodials cannot be correlated with those from the jaws for obvious reasons, and there is no way of knowing whether the age of fusion of two to three years given by Silver is likely to be correct for these animals. They do, however, suggest a consistency in the slaughtering habits of the two periods.

TABLE VI

<i>Ox Jaw</i>	<i>Period 1</i>		<i>Period 2-3</i>	
	<i>No.</i>		<i>No.</i>	
Second molar not fully erupted	3		4	
Second molar fully erupted	6		4	
METAPODIALS (Distal epiphysis)				
		%		%
Unfused	15	30	33	30
Fused	35	70	14	70

METRICAL ANALYSIS

Unfortunately the Fishbourne bones were in a fairly fragmentary state, and only a very few measurements could be usefully employed.

The lower third molars of pig were measured, in order to determine the proportions of wild and domestic animals represented. The measurements taken, the maximum length and the maximum breadth, are those given by Higham (1968). The results were plotted on a scatter diagram (fig. 147). What is immediately apparent is the comparative homogeneity of the group as a whole, with all measurements but one falling within the normal range for domestic animals. This means that except in one case, from the early part of Period 1, wild pigs were not hunted or caught at this site. Closer examination of the scatter diagram shows that although a few of the teeth from Period 1 (excluding those from the construction of the palace) are widely scattered, the majority are clustered together in a close group, falling between 31 and 33.0 in length and 13.5 and 16 mm. in breadth. The teeth from the other periods, including the later part of Period 1, the construction of the palace, are widely scattered over a wide range of measurements.

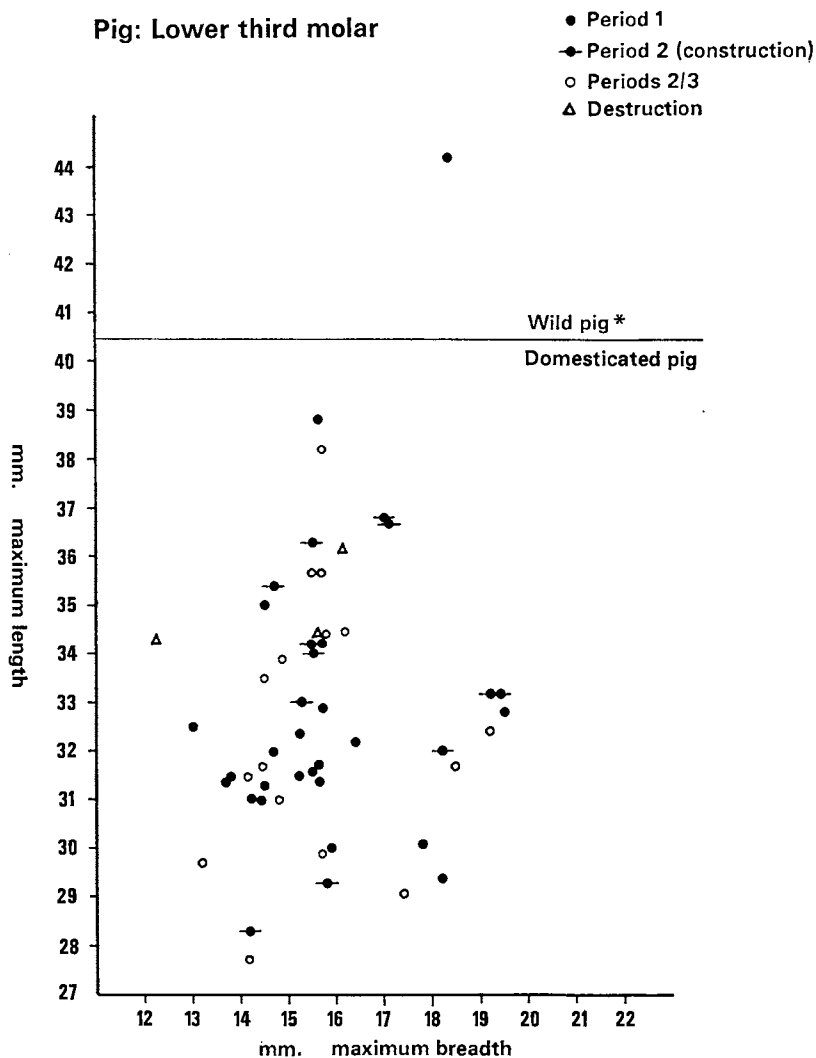


FIG. 147. Scatter diagram of pig lower third molar

The distal ends of ox metacarpals and metatarsals were also measured. The measurements were those used by Higham for determining sexual dimorphism. The results were again plotted on scatter diagrams (fig. 148). Visual examination shows clearly the differences between Period 1 and Periods 2-3 and Destruction. Once again the bones of Period 1 form a fairly homogeneous group, with a few more scattered outliers, while those from Period 2-3 and Destruction show a much increased range and scatter, almost all outside the area of the Period 1 group.

Thus the analysis of the ox metapodials and pig jaws show very similar results. The differences between the Periods can perhaps be explained by the differences in the food supply. In Period 1, the food could well have come from one source, one population of animals, with an occasional animal from elsewhere. In Periods 2-3 and Destruction and in

Period 2 construction in the case of pig the sources of food would seem to be much more diverse. This would reflect the increased importance of the site, and also the opening up of Chichester as a market, commanding food resources from a wide local area. Sexual dimorphism would not seem to be a logical explanation for the distribution of the metapodial measurements.

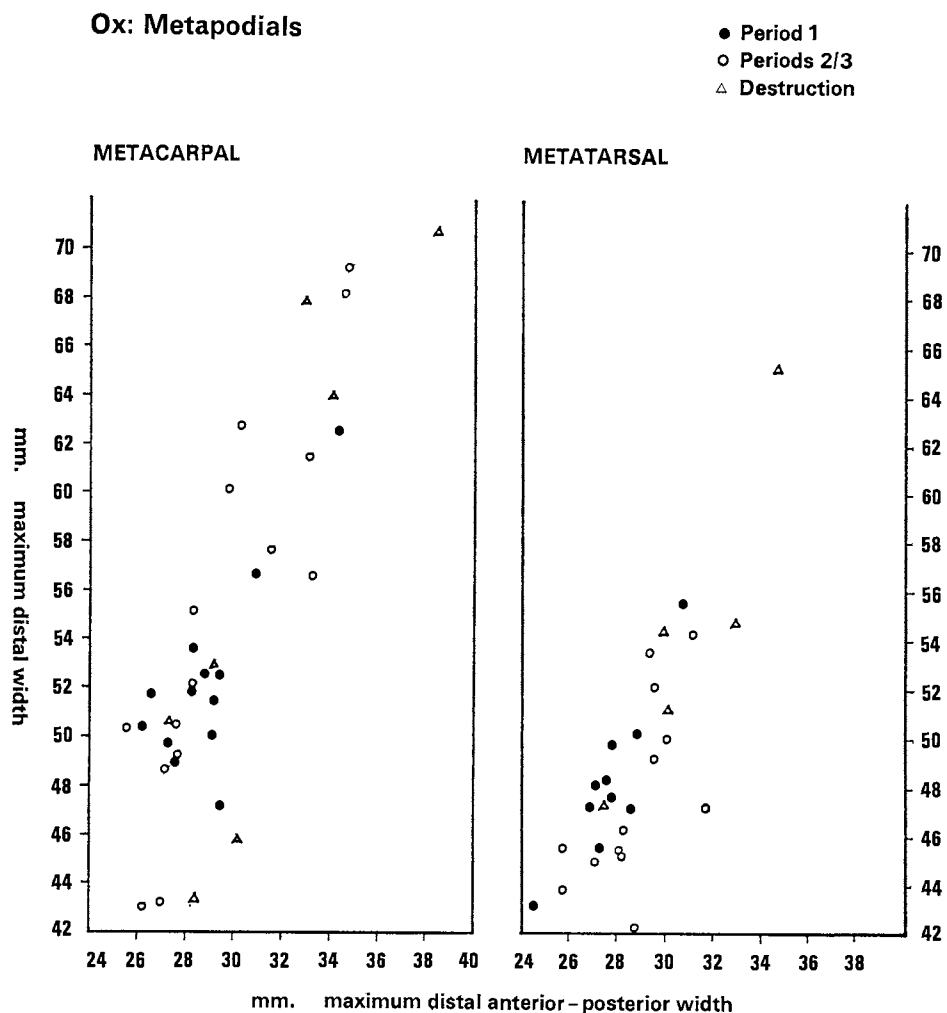


FIG. 148. Scatter diagram of Ox: Metapodials

CONCLUSIONS

The relative importance of the pig at this site contrasts strongly with its importance on early Iron Age sites. Professor Cunliffe has pointed out that the pig was an important ritual symbol in the late Pre-Roman Iron Age Belgic sites and the forested coastal plain is a very favourable region for pig rearing. However, what must be stressed is the contrast between this site, and the self-supporting agricultural communities of the Iron Age. The importance and resources of Fishbourne would mean that the type of food supplied to the palace at least

partially reflected the taste of the owners. It would not be simply a matter of eating only what was immediately available and most economical. We may also be seeing the effect of the Roman invasion on the agriculture of the area, although it is impossible to isolate or clearly define this factor in the present case.

What is evident is that these initial results suggest many lines for further study. Comparison with other sites of similar dates in the same area will perhaps be especially important, and may throw further light on some of the problems of the Fishbourne animal bones.

SMALL MAMMALS

The small mammal bones have not been included with those of the other mammals for two reasons. First, some of these animals may have burrowed into the archaeological layers in which they were found after the layers were deposited, without causing sufficient disturbance to be recognized in excavation. Secondly, there is no way of knowing whether the animals represented were kept as pets, used as food, or were wild animals that strayed into the palace or its grounds.

A total of 69 small mammal bones were identified, of which 14 came from the layers of Period 1, 33 from Period 2 and 22 from the Destruction layers. Hare bones formed the majority of these small mammal bones.

THE BIRD BONES

By ANNE EASTHAM

The bird remains from Fishbourne Roman Palace total some 807 complete and fragmentary bones from which thirteen different species have been identified. Bird bones were found in all archaeological levels but the largest numbers and the greatest variety were found in a small gully (gully 9) to the north of the building complex in Period 1, in the Period 2 construction and occupation periods and in Period 3.

The species include captive, probably domesticated, varieties of:

- Gallus gallus* (Common fowl)
- Anser anser* (Grey Lag goose)
- Anas platyrrhynchos* (Mallard)

The wild species were:

- Anas crecca* (Teal)
- Anas penelope* (Wigeon)
- Aythya ferina* (Pochard)
- Perdix perdix* (Common partridge)
- ? *Alectoris rufa* (Red-legged partridge)
- Otis tarda* (Great bustard)
- Columba oenas* (Stock dove)

Columba palumbus (Wood pigeon)*Corvus corax* (Raven)*Turdus merula* (Blackbird)

FISHBOURNE: AVIAN BONES SUMMARY	<i>Gallus gallus</i>	<i>Anser anser</i>	<i>Anas platyrhynchos</i>	<i>Anas crecca</i>	<i>Anas penelope</i>	<i>Aythya ferina</i>	<i>Perdix perdix</i>	? <i>Alectoris rufa</i>	<i>Otis tarda</i>	<i>Columba oenas</i>	<i>Columba palumbus</i>	<i>Corvus corax</i>	<i>Turdus merula</i>	
Period 1. Construction	2		1											3
Period 1. Gully 9	157	1	19	1	2				3	1		1	2	187
Period 2. Construction	125	11	37	2	2			2	2		2			183
Period 2. Occupation	93	9	35		1				1	1				140
Period 3. Construction	7	1												8
Period 3. Occupation	166	7	22	6	5	3	1		1	4	2			217
Period 3. Destruction	57	9												66
	607	38	114	9	10	3	1	2	7	6	4	1	2	804

The most significant features of this list of species are the importance of food birds, the scarcity of remains of common hedgerow birds, which might have died accidentally in the area, and the complete absence of any birds of the sea shore or estuarine waders, which, considering the proximity of the site to the water in Roman times, seems to be rather surprising. The blackbird in the small gully of Period 1 may be a minor exception but even so blackbirds are not uncommonly eaten in our own times. The raven from the same level, who, as a scavenger, may have been killed while feeding in the rubbish pit, thrown there as a corpse or kept till death as a pet, tends to be a far more common scavenger on Iron Age and Romano-British sites, even in towns, than it is anywhere in Britain today. A skull of a raven was found on the comparatively small villa site at Rockbourne near Fordingbridge.

It might be expected that the pigeons, wood pigeon and stock dove would both have been common species on the site but both may have been killed for the table. The same is true of the common partridge, which will have been resident on the open ground and cornfields of the surrounding land.

In the Period 2 construction phase were found two bones, probably of partridge, which are slightly problematical. One is an immature humerus, a great deal smaller than any of the immature *Gallus* humeri in the same level and marginally larger than *Perdix perdix*, believed to be our only native member of the partridge family until the introduction of *Alectoris rufa*. The second bone, a tibiotarsus, is incomplete but the characters are very much more strongly marked than in the same bone of *Gallus* and it is considerably smaller than *Gallus* and larger than any of the tibiotarsi of *Perdix* with which it was compared. Its closest resemblance is to *Alectoris rufa* in general character and because the nutrient canal at the base of the fibula crest is very much more strongly marked than in *Perdix*. Although it is thought that occasional birds of the species may have appeared in this country before their introduction by human agency, its appearance on this site would seem to be too coincidental to be likely. At the present-day *Alectoris rufa* occurs naturally as a SW. palaeartic species as far north as France, south of the Loire and Jura but its range is known to have extended further north in former times, including West Germany, North France, Brittany, and the Channel Islands. It is just possible that one or two red-legged partridge may have found their way into Britain at this time, but the ornithological evidence suggests that it is more likely to be a large form of the common partridge. *Alectoris rufa* has, however, very tentatively been noted as a possibility in the check list.

The most interesting of the game birds is the great bustard which was found in levels belonging to Periods 1, 2, and 3. These birds, although they are unfortunately no longer to be found in southern and eastern England, are still common in Spain and southern Europe. The normal habitat of the great bustard is open ground, chalk downs and cultivated fields, where it enjoys eating all the usual farm and garden crops and many of the small rodents, amphibia and insects which also inhabit and infest these areas. It is a shy bird, terrestrial in habit, normally walking with a rather stately gait, although it can run very fast and flies powerfully and low. Outside the breeding season they flock together in large droves, which make them easy prey for sportsmen. The great bustard used to breed in parts of England; the last record of a breeding pair was in Suffolk in 1832. Since then there have been records of numbers of winter migrants into southern and eastern counties until 1910 and in Ireland, Orkney and Shetland during the 1920s and 1930s. One peculiarity of the finds of great bustard on this site is that all seven bones from four separate levels are humeri or parts of humeri. This is possibly entirely coincidental; the bustard does have an extremely pneumatic skeleton which might decrease the chances of survival of many bones but it seems a point worth noting.

Considering the position of the site the numbers of wildfowl are very small at Fishbourne. The Teal and Wigeon in levels 1, 2 and 3 must have been common on the Chichester channel and its streams but the total number of individuals are unlikely to have numbered as many as six or eight of each species. It is equally unlikely that there were more than one or two Pochard brought on to the site. This does suggest that the inhabitants of Fishbourne had very little interest in sporting methods of varying their food and that they were far more dependent on the farmyard than on the marshes.

The species of goose normally understood to have been domesticated by the Romans is the Grey Lag. This species is easily tamed and readily adapts itself to captivity. All the goose bones in this collection are clearly related very closely to Grey Lag, though in one or two

humeri there were features which were not unlike those of *Anser fabalis*, the Bean goose. The two wild species are, however, very close and domesticated individuals seem to produce occasional slight variations in structure. The number of geese eaten or killed on the site does not seem to have been very large at any time during the history of Fishbourne, but most of the bones come from Periods 2 and 3.

The more common domesticated species of waterfowl is the duck. Morphologically the bones differ very little from the Mallard from which most domesticated species derive. It is indeed possible that some of the bones in this collection belong to wild specimens but it is noticeable that the relative size of the bones varies a good deal, many of them being larger than the wild Mallard. Mr Jean Delacour (Delacour, 1964) noted that the Romans were known to have built large aviaries, where Mallard were kept and bred in captivity and fattened for the table, but that no literary evidence for any distinct domesticated breed of duck is recorded before the twelfth century. The evidence of these bones does tend to suggest that many of the birds may have been at least reared in captivity.

Amongst all the bird bones found on the site by far the most heavily represented type is, as might be expected, some member of the family of *Gallus*. They number just over three-quarters of the total. The size of these bones is extremely variable, ranging from very large specimens comparable in size to a modern breed of large gamecock to very small bones corresponding to those of a small bantam or hen pheasant. In levels belonging to Period 3 at least four male tarso metatarsi were found with long spurs similar to those of a modern gamecock. A very high proportion of the bones are from immature specimens which tends to suggest some degree of captivity and in all levels many bones show signs of having been cut at the joints as they would be in carving.

The problems which arise out of this large collection of bones all stem from the great variation to be found in their size and consequently whether they all are in fact bones of members of the species *Gallus* or whether other species are also involved, and, if they can be identified solely as Common Fowl, whether it is possible to distinguish amongst the varied collection any distinct groupings according to size, which might lead to a possible suggestion of differential breeding.

The smaller bones of this group fall readily within the size range of modern pheasant, both male and female, and in view of the commonly-held belief that the Romans introduced the pheasant into Britain it was worth considering whether here at the palace of Fishbourne it were possible to discover any early evidence of such an introduction.

Dr P. R. Lowe (Lowe, 1933) studied a large number of tarso metatarsi from Roman and prehistoric sites previously referred to as pheasant. He demonstrated that in *Phasianus* there is a strongly ossified aponeurotic lamina running down the posterior internal border of the tarso metatarsus, which serves to support the gastrocnemius tendon. The lamina occurs in both male and female pheasants; in the female it is not interrupted at a spur but continues to the base of the hallux. This bony lamina is never found in *Gallus*. When the tarso metatarsi from Fishbourne were examined not one of them showed any signs of this characteristic aponeurotic lamina and none of them were therefore attributable to pheasant. Similarly other bones when compared with those of pheasant failed to show any of the distinguishing features usual in bones of *Phasianus*.

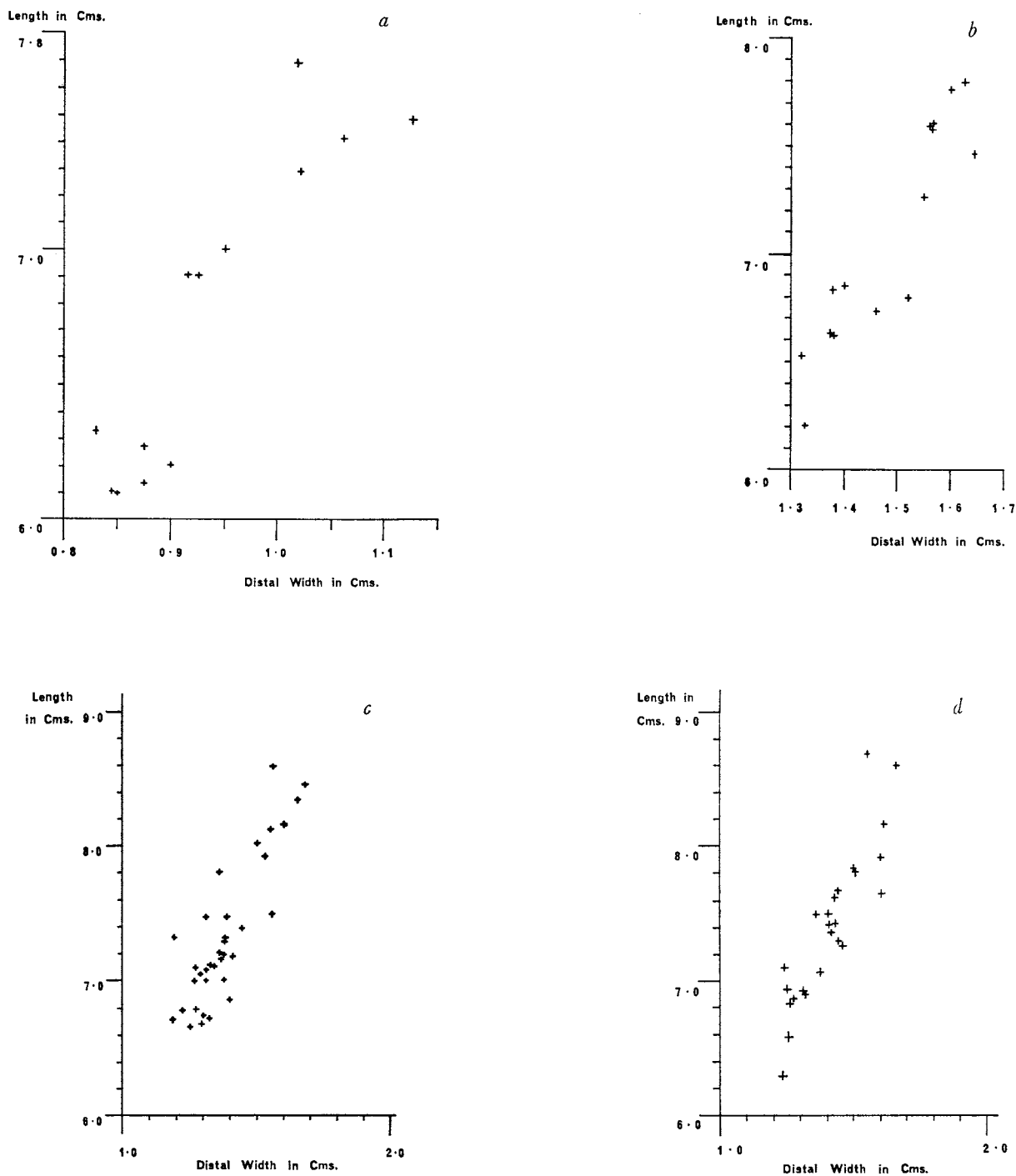


FIG. 149. Scatter diagrams showing sizes of *Gallus* bones

a Period 2 occupation: ulnae of *Gallus*
 b Period 2 construction: humeri of *Gallus*

c Period 1 gully: femora of *Gallus*
 d Period 2 construction: femora of *Gallus*

As regards the problem of explaining the great variation in the size of the birds, it might be possible to separate out the bones into groups which could be made to correspond more or less to modern specialized breeds of fowl but this does not seem a very satisfactory procedure and the results would probably be positively misleading. In an attempt to avoid direct comparisons with modern named breeds of fowl all the complete longbones have been measured and whenever the numbers of any one bone within any one level have been large enough these measurements have been plotted on a graph for that level. The complete bones available in sufficiently large numbers have been humeri, ulnae and femora. Unfortunately the tibio tarsus, which shows great variation in overall size, is almost invariably broken. The results are obviously not at all conclusive at this stage but there appears to be a clear division into at least two groups in the graphs of each long bone examined. There are smaller divisions but these are most easily explained as sex differences and differences in growth between individual specimens. The Period 1 gully (fig. 149c) and Period 2 construction phase (fig. 149d) each produced a large number of femora and in each graph there is to a greater or lesser extent a division into groups. These divisions, however, tend to disappear when the two graphs are superimposed. Whether this invalidates any possible hypothesis about different types of fowl on the site or whether it can be explained in terms of a period of interbreeding within a limited stock, I do not know. Graphs of other bones of the periods and a graph of the ulnae found in the occupation levels of Period 2 (fig. 149a) show further marked grouping of the bone measurements. It is interesting to note that the measurements plotted on any of the graphs deviate only a little from a line drawn from the origin of the graph. The most that can be concluded at present is that the Fishbourne *Gallus* bones are all *Gallus* bones and that it is possible that there may have been different breeds of domestic fowls on the site. As a possible line of approach it might be worth pursuing on other sites.

THE INSECT FAUNA FROM THE ROMAN HARBOUR

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In April 1969, trenches were cut through the layers of silt filling the Roman deep-water channel which fronted the southern garden (Vol. 1, p. 132). Although the detailed report on this work, still in progress, will be the subject of a separate volume, it has been thought desirable to publish here a brief account of the insect fauna to provide some idea of the potential of this class of evidence and to underline the importance of the harbour area for environmental research.

The sample from which this fauna was recovered was obtained from a layer of peaty soil representing the ground-level of Period 1 date before the construction of the Period 2 terrace and the flooding of the area to the south. The peat, which lay to the south of the terrace was sealed beneath a layer of estuarine silt deposited during Period 2. The collection of the samples was undertaken by Dr D. P. S. Peacock.

Only a small quantity of material (c. 5 lb.) was available for investigation and this could account for the rather meagre fauna recovered. After disaggregation in a solution of sodium

carbonate the material was washed through a 300 micron sieve to remove the fine mineral fraction and the organic part which was retained on the sieve, was subjected to paraffin flotation (see Coope and Osborne, 1967).

Identifications were made by detailed comparison with modern specimens and all the fragments which were sufficiently characteristic to be identifiable could be matched with modern British species.

In the following list the nomenclature follows Kloet and Hincks (1945) and the figure for the number of individuals present is a minimum one, being the number of any one diagnostic skeletal part.

<i>Faunal List</i>		
	<i>Species</i>	<i>No. of individuals</i>
HEMIPTERA		
	Aphidae (indet.)	7
MEGALOPTERA		
	Sialidae	
	<i>Sialis</i> sp.	1
COLEOPTERA		
	Carabidae	
	<i>Dyschirius globosus</i> (Hbst.)	3
	<i>Bembidion biguttatum</i> (F.)	1
	<i>Feronia strenua</i> (Pz.)	1
	Hydrophilidae	
	<i>Ochthebius bicolon</i> Germ.	2
	<i>Helophorus</i> sp. (spp?)	3
	<i>Coelostoma orbiculare</i> (F.)	1
	<i>Cercyon</i> sp. (spp?)	2
	<i>Megasternum obscurum</i> (Marsh.)	3
	<i>Chaetarthria seminulum</i> (Hbst.)	5
	Staphylinidae	
	<i>Lesteva punctata</i> Er.	2
	<i>Trogophloeus</i> sp. (spp?)	7
	<i>Oxytelus rugosus</i> (F.)	1
	<i>Platystethus cornutus</i> (Gr.)	2
	<i>Stenus</i> sp.	1
	<i>Rugilus</i> sp.	1
	<i>Lathrobium</i> sp.	3
	<i>Falagria</i> sp.	1
	Aleocharinae (indet.)	6
	Pselaphidae	
	<i>Amauronyx maerkeli</i> (Aube)	1
	<i>Bryaxis</i> sp.	1

Buprestidae		
	<i>Aphanisticus emarginatus</i> (Ol.)	1
Dryopidae		
	<i>Dryops</i> sp.	2
Cucujidae		
	<i>Laemophloeus</i> (<i>Cryptolestes</i>) ? <i>ferrugineus</i> (Steph.)	1
Scarabaeidae		
	<i>Onthophagus vacca</i> (L.)	1
	<i>Aphodius</i> sp. (spp?)	2
Chrysomelidae		
	<i>Donacia impressa</i> Payk.	1
	<i>Plateumaris discolor</i> (Pz.)	1
	<i>Longitarsus</i> sp.	1
	<i>Chaetocnema</i> sp.	1
Curculionidae		
	<i>Otiorrhynchus ligneus</i> (Ol.)	1
	<i>Barypithes araneiformis</i> (Schrank)	1
	<i>Notaris acridulus</i> (L.)	1
DIPTERA		
Bibionidae		
	<i>Dilophus</i> sp.	1

This fauna contains nothing that is not found in southern England today, most of the species being common and widespread. Two of the species recorded, *Amauronyx maerkeli* and *Aphanisticus emarginatus*, are regarded as rarities, however. Of these the Pselaphid *Amauronyx* has already been recorded from a Roman site, that at Barnsley Park, Glos. (Coope and Osborne, 1967). Today it is found in the south of England as far north as SE. Yorkshire and is myrmecophilous, usually being found with the ants *Lasius fuliginosus* and *L. flavus*, and less often with *Formica fusca*. The Buprestid *Aphanisticus emarginatus* is much more local, not having been recorded in Britain outside the Isle of Wight. It is a small inconspicuous beetle, however, which lives on rushes of the genus *Juncus*. As this species, like many of the Buprestidae, is probably very prone to release its hold and drop to the ground among the close-packed *Juncus* roots at the slightest disturbance, to catch it in the usual way with a sweep-net might well be a matter of extreme luck. Its apparent absence from the mainland of England may well be due to collection failure, rather than to some calamity having overtaken it since the first century.

The majority of the species recorded tend to live in the vicinity of water. The Alder-fly, *Sialis*, spends its larval life in the mud of ponds or slowly flowing water and the adult is usually found on plants at the water's edge. *Ochthebius* and *Helophorus* are both found in water and *Chaetarthria seminulum* lives in mud at the margins of ponds. The larvae of *Donacia*

live on the roots of plants standing in water such as *Scirpus*, *Sparganium* and *Carex*, and the adults on the leaves and stems which project above the surface. It is usually these leaves on which *Sialis* deposits its egg masses. The weevil, *Notaris acridulus*, lives on the reed-grass, *Glyceria aquatica*, which also grows in water. The three Carabid species recorded and also some of the Staphylinidae live on the banks of ponds and streams.

The presence of large herbivorous mammals, possibly cattle or sheep, is suggested by the occurrence of the dung-feeding Scarabaeidae, *Onthophagus* and *Aphodius*. *Oxytelus rugosus*, *Platystethus cornutus*, *Megasternum obscurum* and many species of *Cercyon* are also most often found in dung, although they are not restricted to this and may be found in other decaying vegetable matter.

Other than those mentioned above, specific food-plants are indicated only by the weevil *Barypithes araneiformis*. This species is occasionally a pest on strawberries today but, according to Hoffmann (1950), its usual food plant is *Trifolium procumbens*. *Otiorrhynchus ligneus* is also a plant feeder but is probably polyphagous, although Hoffmann (loc. cit.) says that in the adult state it is dependent on such plants as *Diplotaxis tenuifolia*, *Reseda luteola* and *Scorzoneura humilis*.

The most interesting member of the fauna was a joined head and pronotum of a *Laemophloeus* which was indistinguishable from *L. ferrugineus*. Although it is almost certainly this species it has not been possible to compare the specimen with the species added to the British List since 1945, so that the name is queried in the faunal list. *L. ferrugineus* is a world-wide pest of stored grain and flour, although Lefkovitch (1959) says it has been recorded '... under bark, in an aphid gall and in soil'. Pests of stored cereal products have been recorded from two other Roman sites, the fourth-century well at Barnsley Park, Glos. (Coope and Osborne, loc. cit.), and the first-century site at Alcester, Warwickshire (Osborne, unpublished). Though *Laemophloeus* was not recovered from either site another Cucujid grain pest, *Oryzaephilus surinamensis* was found at both in some numbers.

It can be concluded from this fauna that the site of deposition was most likely a eutrophic pond or slowly-flowing stream with aquatic plants growing in the shallow water near muddy banks. The bottom was covered with a layer of mud or vegetable detritus, not bare stones or gravel. It was probably used as a watering place for cattle or other livestock. The fauna contains no evidence of either marine influence or the presence of trees, but this might be because of the small size of the sample examined.

Only one species does not fit into the environment outlined above. This is *Plateumaris discolor*, an inhabitant of acid bogs where it is found on Cottongrass. Only a single fragment of this species was found, however, and it might well have come from a suitable habitat nearby.

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- Murray, Miss K. M. E., on Chichester Entrenchments, cited, i, 18, 22, 32.
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- Novis, W., mosaic consolidation supervised by, i, 201.
- Oliver, A., Jr, cited, ii, 326.
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- Sabatier, William, on Chichester Entrenchments, cited, i, 18, 20, 21, 22, 23, 24, 25, 26, 31.
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- Shaw, Rev. N., Roman material found in Rectory by, i, 2.
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- Strong, Prof. D. E., on Corinthian capitals, ii, 11-15.
- Stucco, i, 142, ii, 50-1.
- Sunter, N. J., reconstruction plans by, i, 90, 92, 109, 110, 114, 115.
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Wright, R. P., on graffiti, ii, 369-70.

PLATE I



a. Column capital found in the northern East Wing courtyard (p. 6, no. 7)

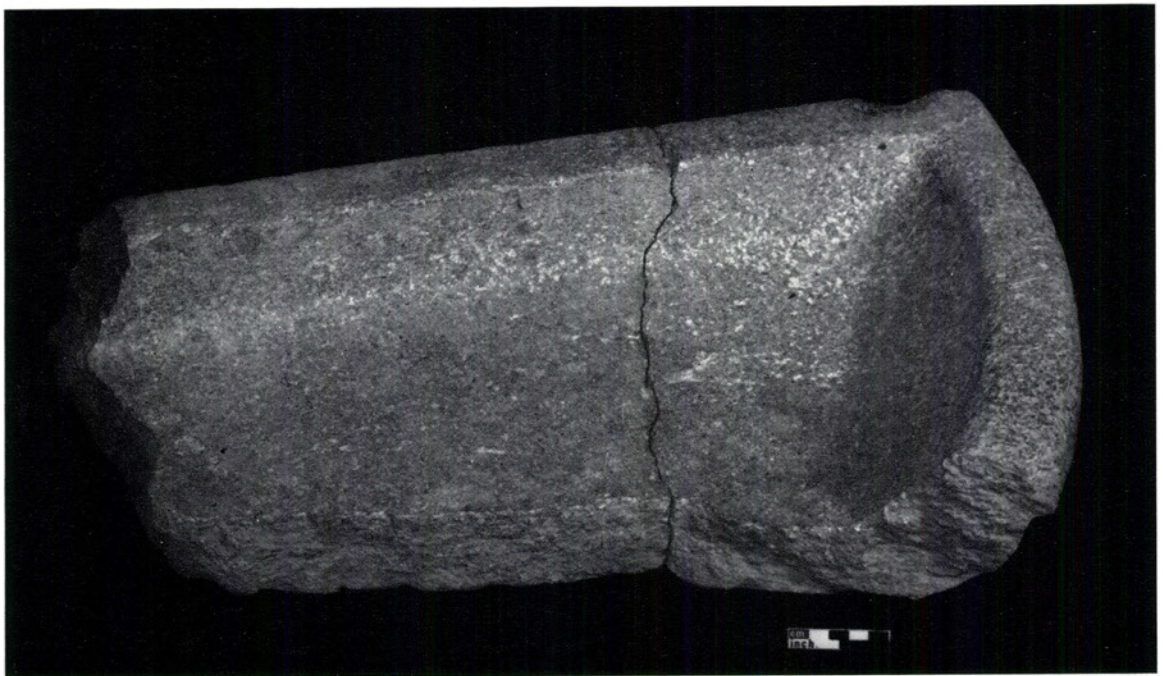


b. Column base from the well in the southern East Wing courtyard (p. 5, no. 2)

PLATE II

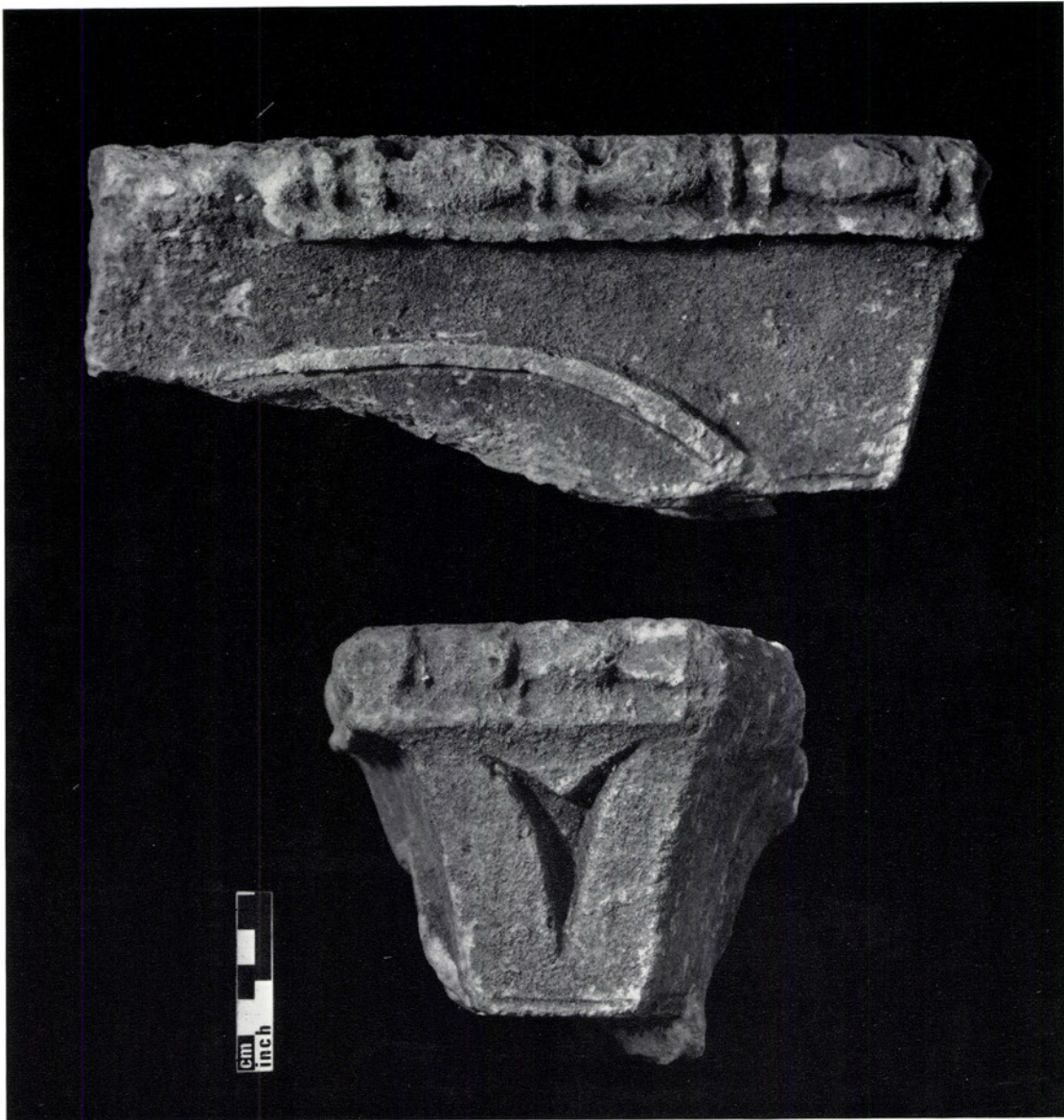


a. Column bases and capitals lying *in situ* on the stylobate in front of the North Wing (p. 3)



b. Marble basin found in the northern East Wing courtyard (p. 37 and fig. 21)

PLATE III



Fragment of the abacus of a Corinthian capital (p. 14)

PLATE IV



Reconstruction of a Corinthian capital using fragments of the original stonework set in a plaster backing (pp. 11-14)

PLATE V

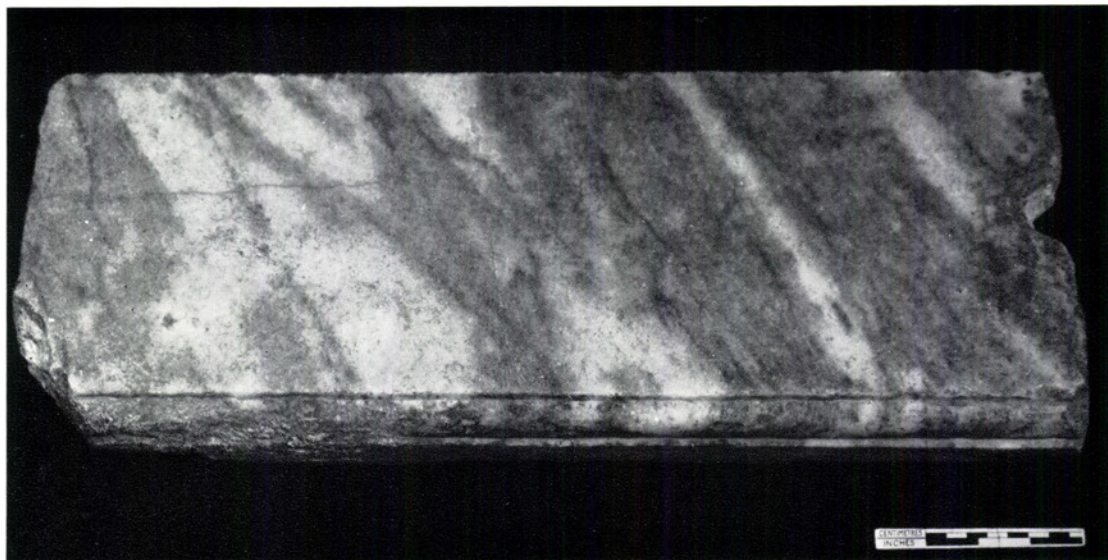


a. Composite capital in the church of S. Cosimato in Trastevere, Rome



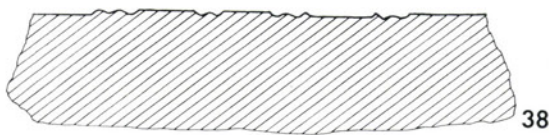
b. Capitals from the Casino of Hadrian's Villa, Tivoli

PLATE VI



39, 40

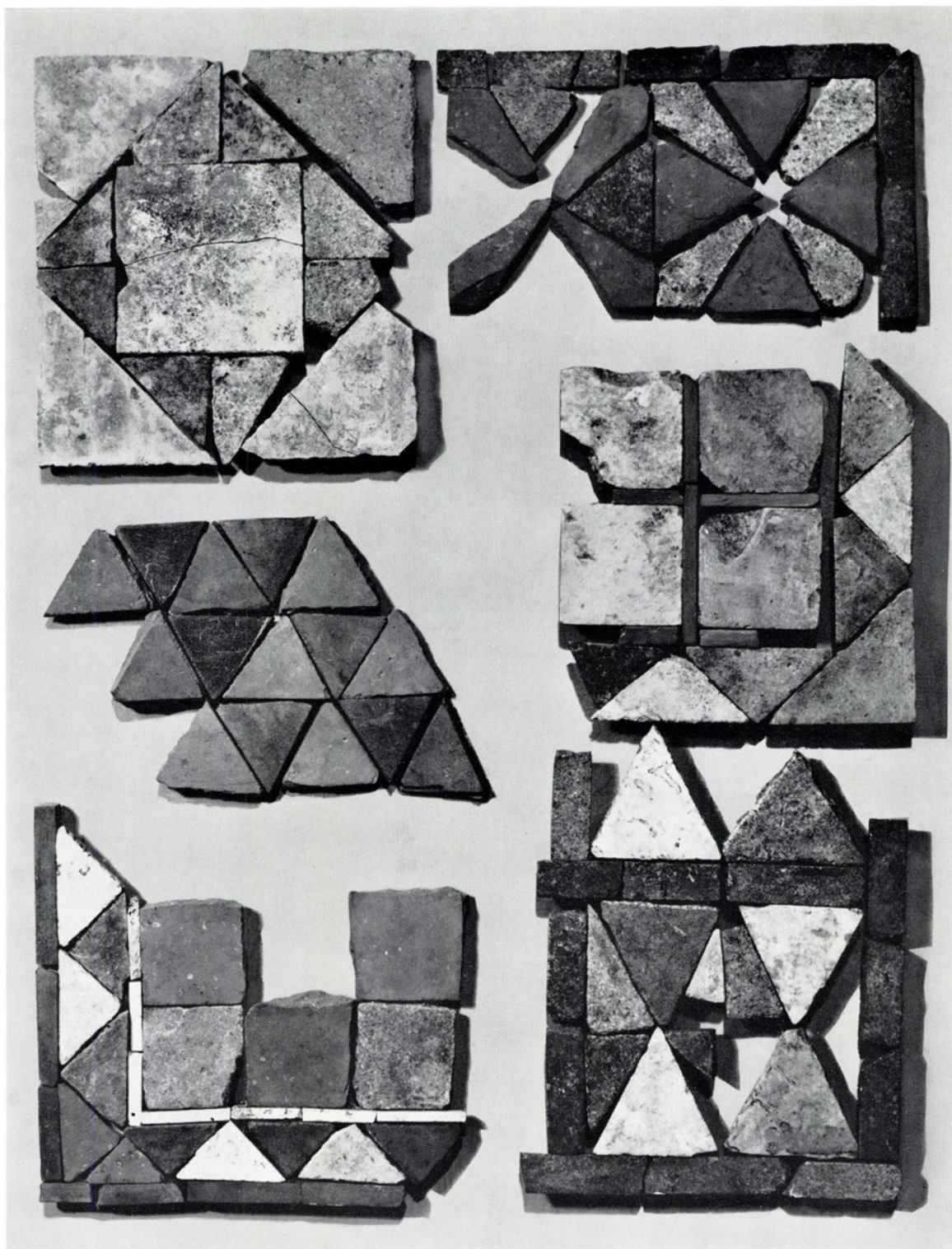
a. Slab of moulded marble reused in the cold bath of the East Wing bath suite, nos. 39-40 (p. 24), and section



38

b. Slab of moulded Purbeck marble, no. 38 (p. 24), and section

PLATE VII



Opus sectile elements showing a range of possible designs (pp. 33-5)

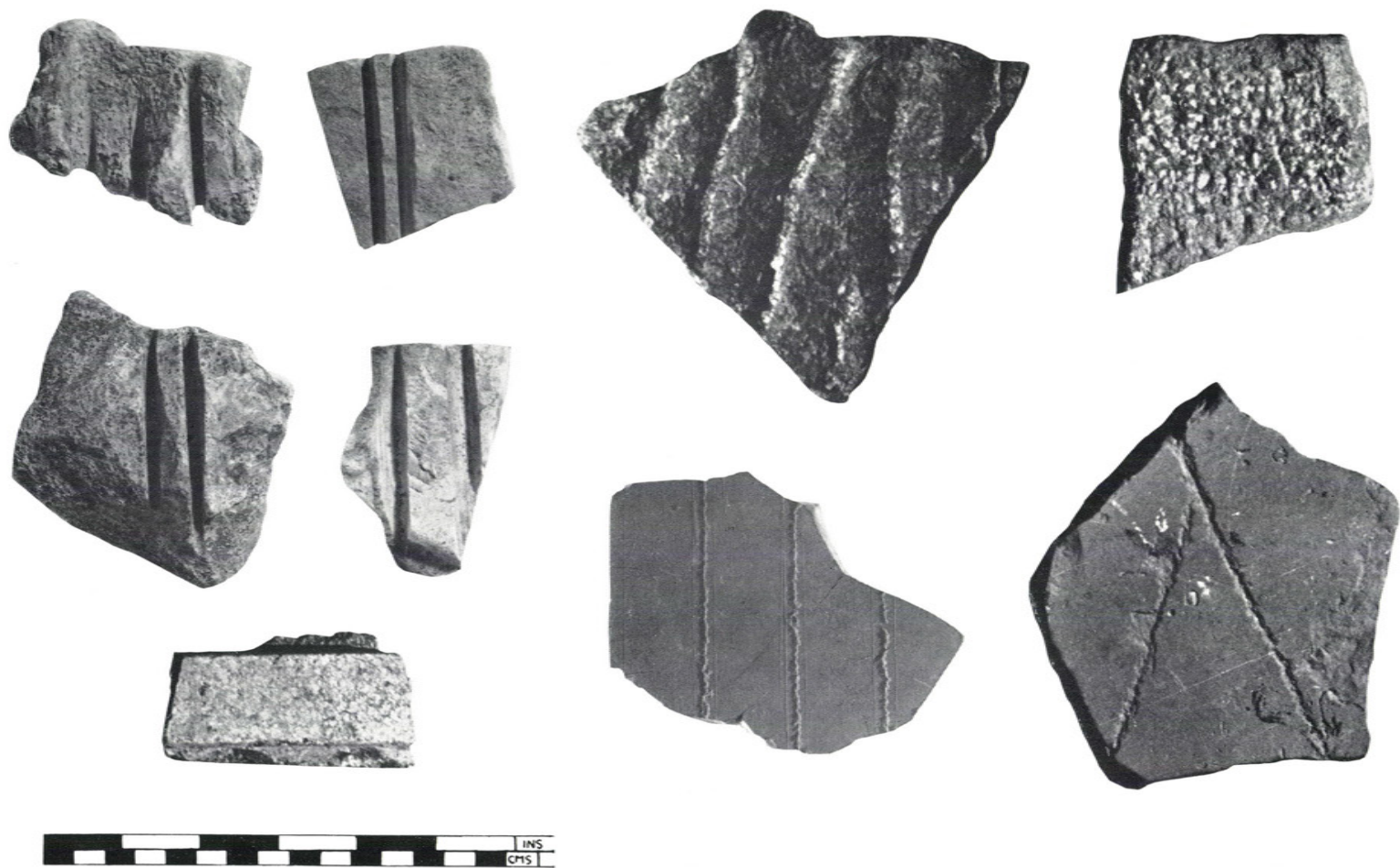


PLATE VIII

Fragments of stone and marble from the builders' working yard showing the different types of tooling

PLATE IX



6



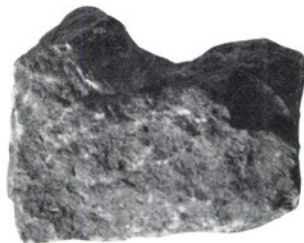
5



7



4



3



14



15

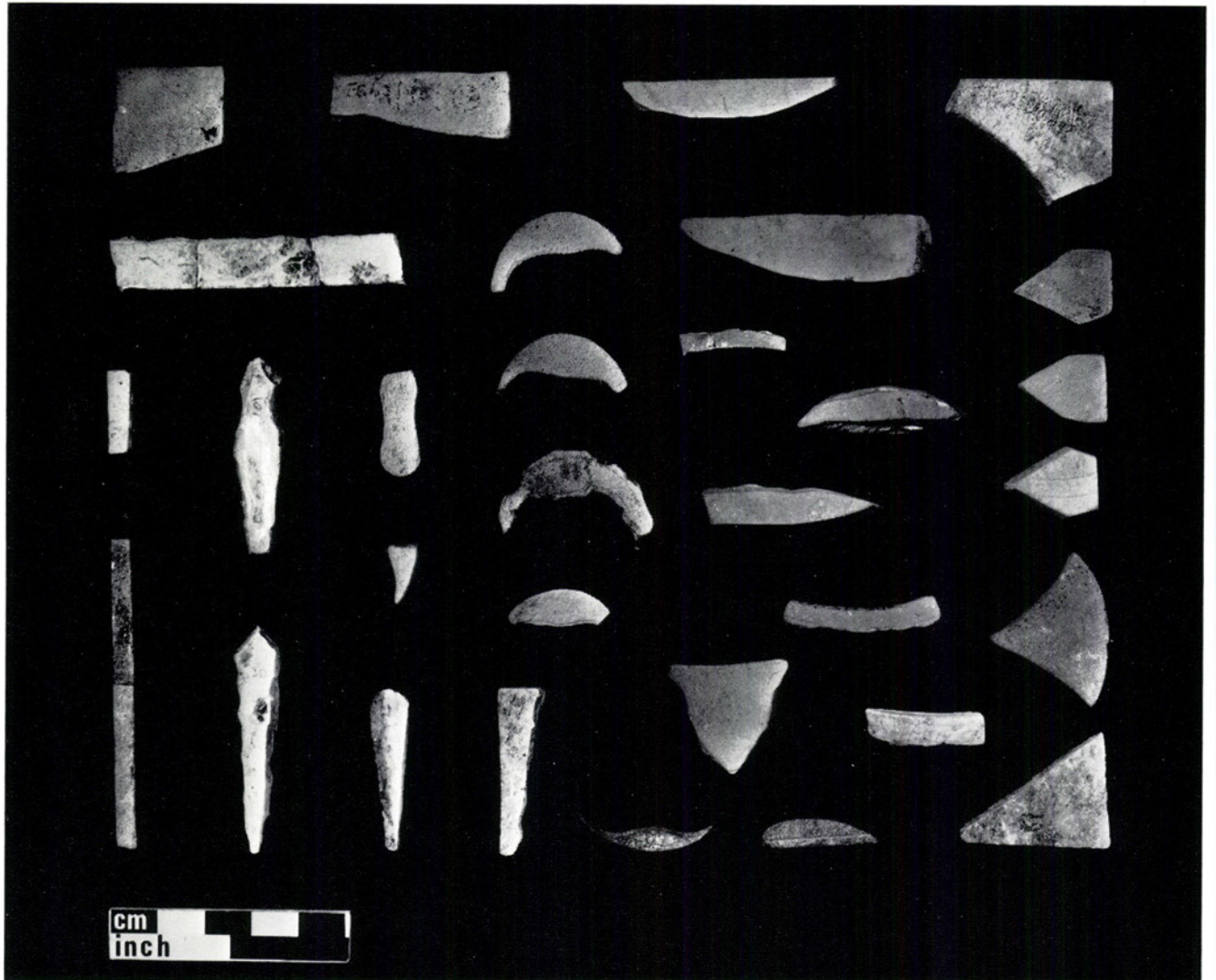


12

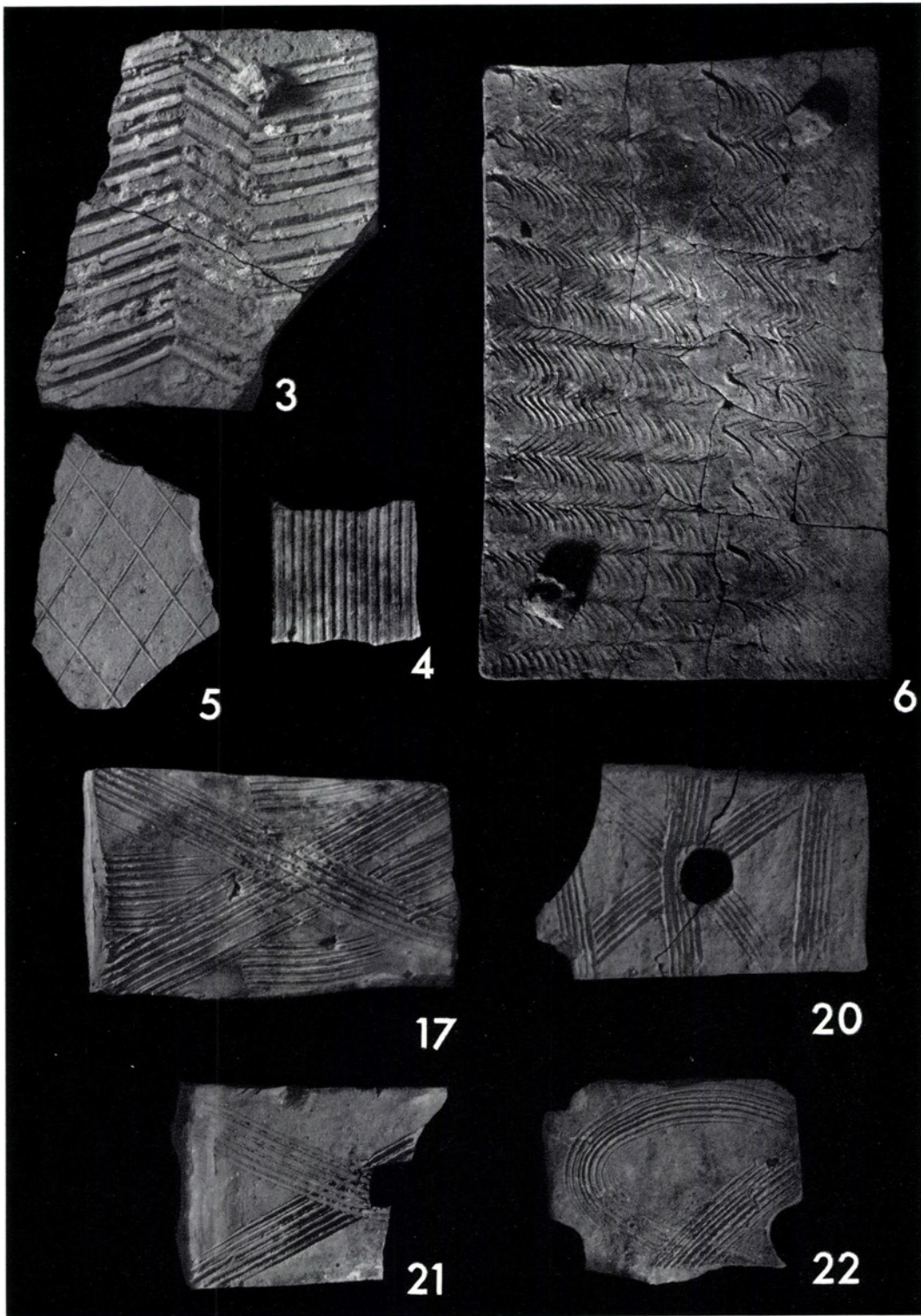


Various stone objects (p. 41)

PLATE X

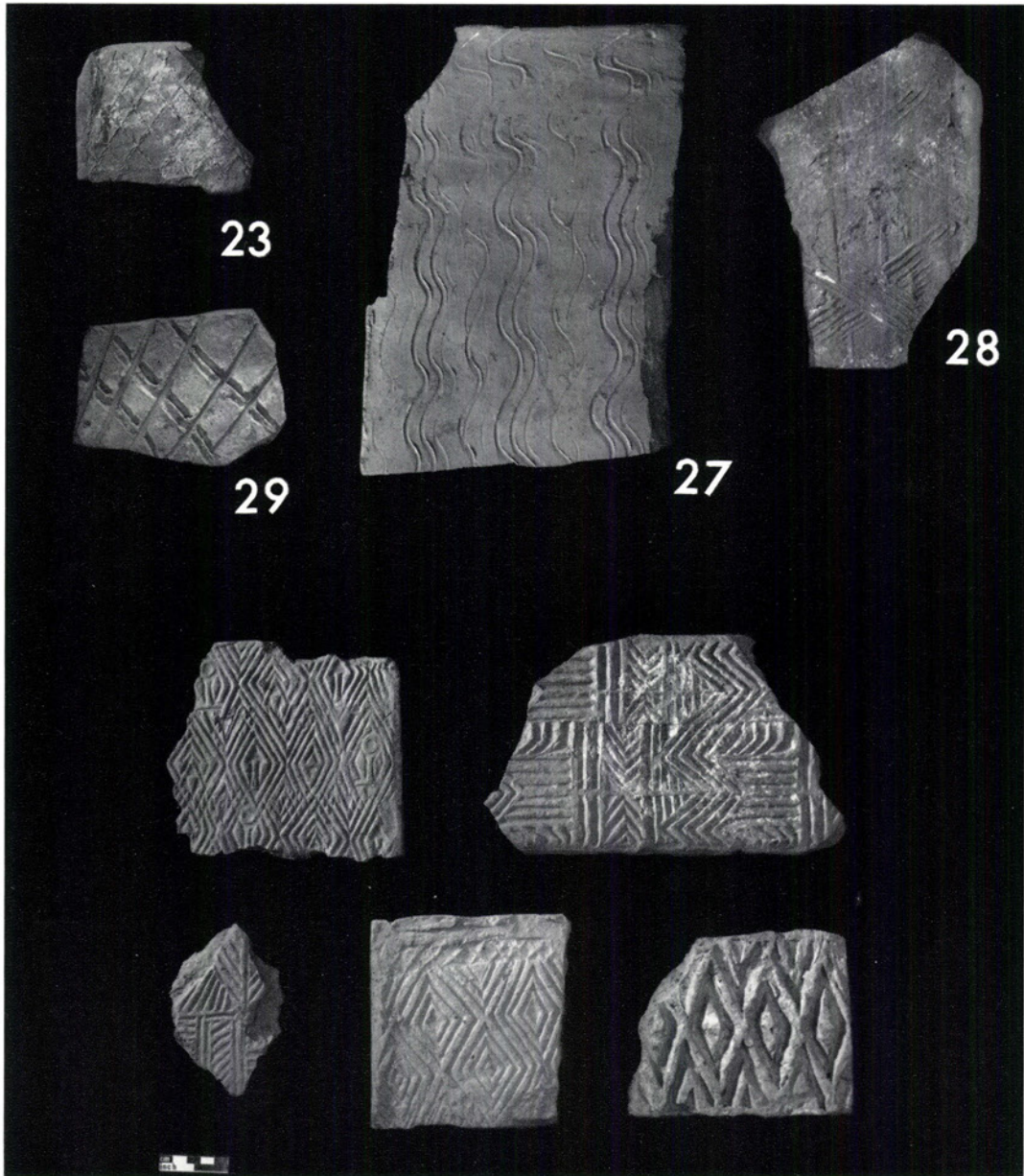


Stone elements cut for use, possibly as furniture inlay; from the builders' working yard (pp. 35-7)



Selection of tooled bricks and box-tiles: scale $\frac{1}{3}$ (pp. 43-5)

PLATE XII



Above: tooled box-tiles; below: roller-stamped tiles. Scale $\frac{1}{8}$ (pp. 45-9)

PLATE XIII



a. Painted plaster of First Period date from the area of the proto-palace (pp. 52-6)



b. Painted plaster from the north-west corner of the Flavian garden (p. 82)



c. Painted plaster from the eastern courtyard of the North Wing of the Flavian palace (p. 72)

PLATE XIV



a



b



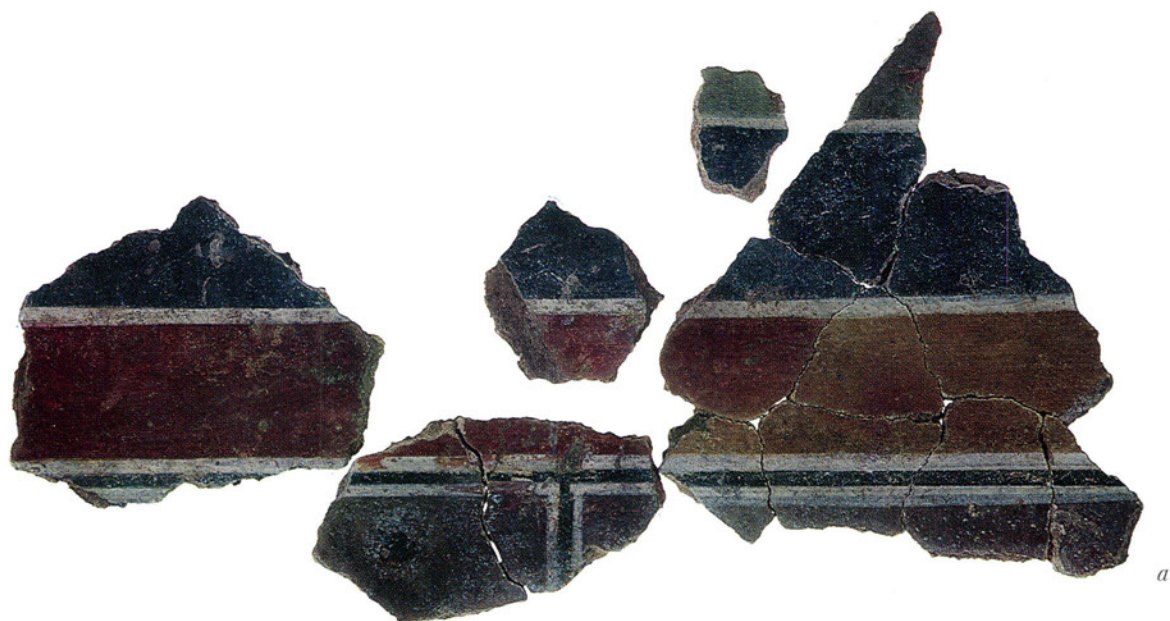
c

d



Painted plaster from the deposit west of the North Wing (pp. 57-8)
a. Harbour scene: approx. full size
b. Flower paintings
c. Framed panels
d. Fragments of scenes

PLATE XV



a



b

- a.* Painted plaster from the western courtyard of the North Wing (pp. 70-2)
b. Painted plaster from in front of the Audience Chamber (pp. 81-2)

PLATE XVI

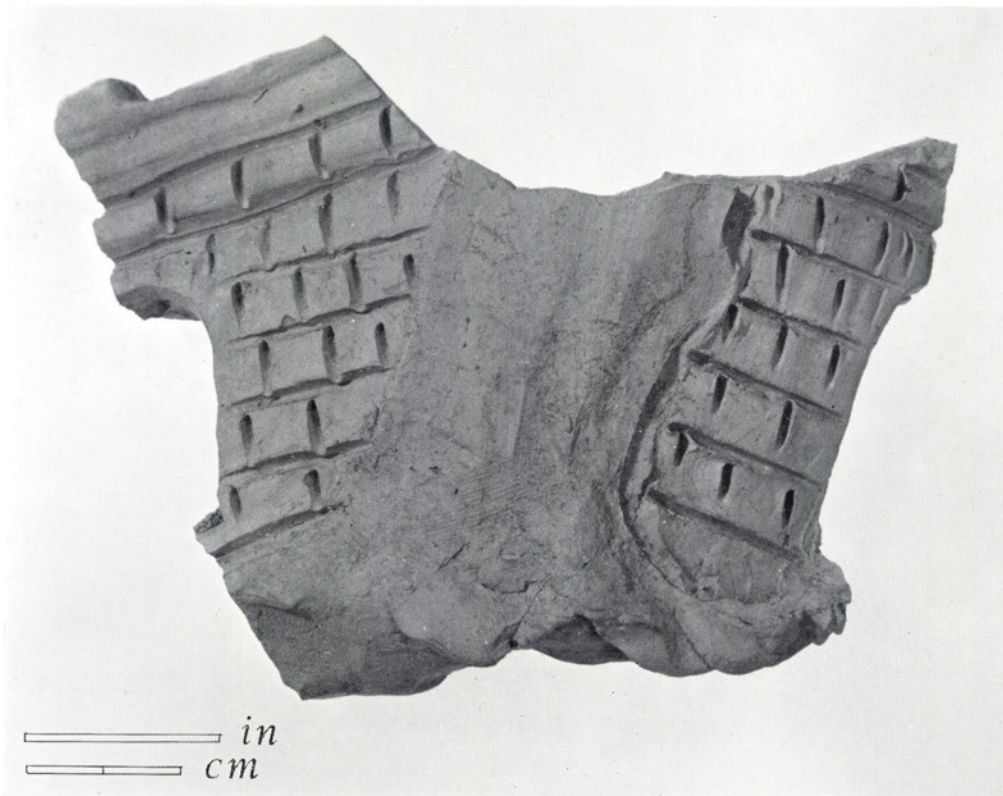


Painted plaster from various parts of the North Wing (pp. 58-70)
a. from room N 7; *b.* from room N 12; *c-e.* from room N 1; *f-i.* from room N 7

PLATE XVII

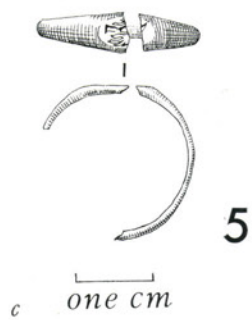
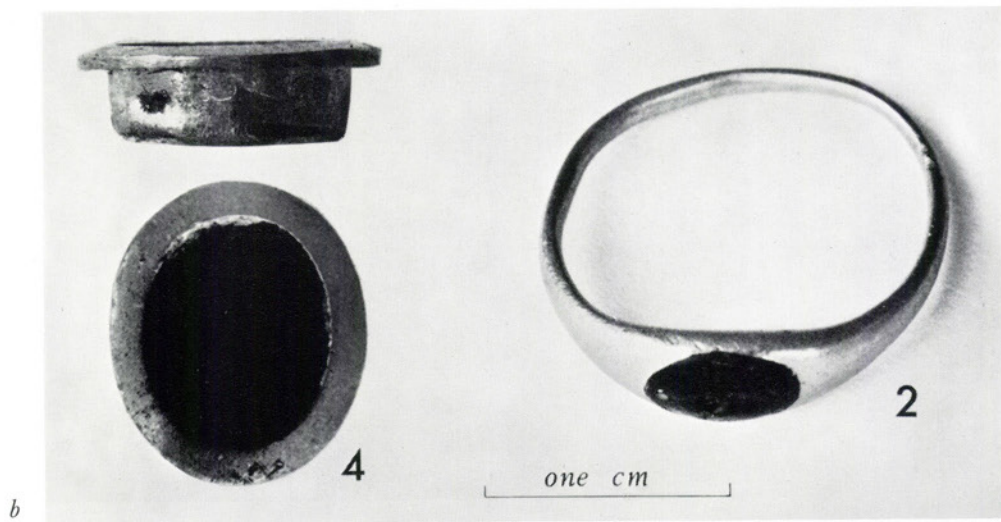
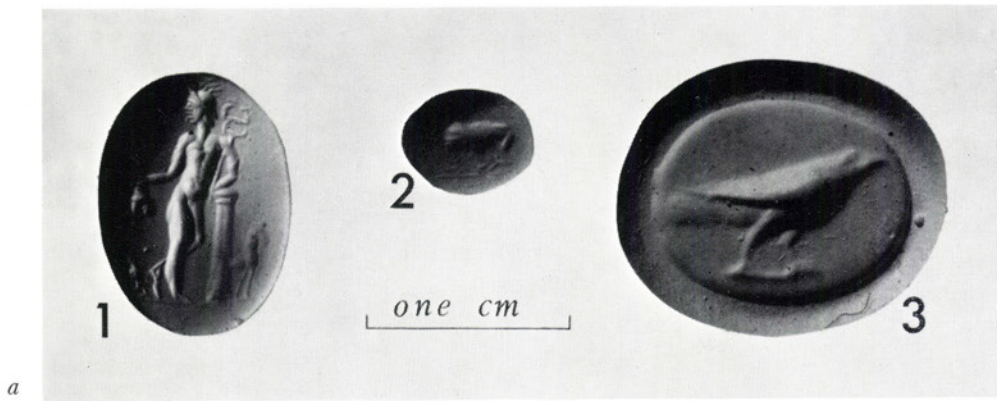


a. Stucco from the North Wing (p. 50)



b. Fragment of a mural crown (p. 152)

PLATE XVIII

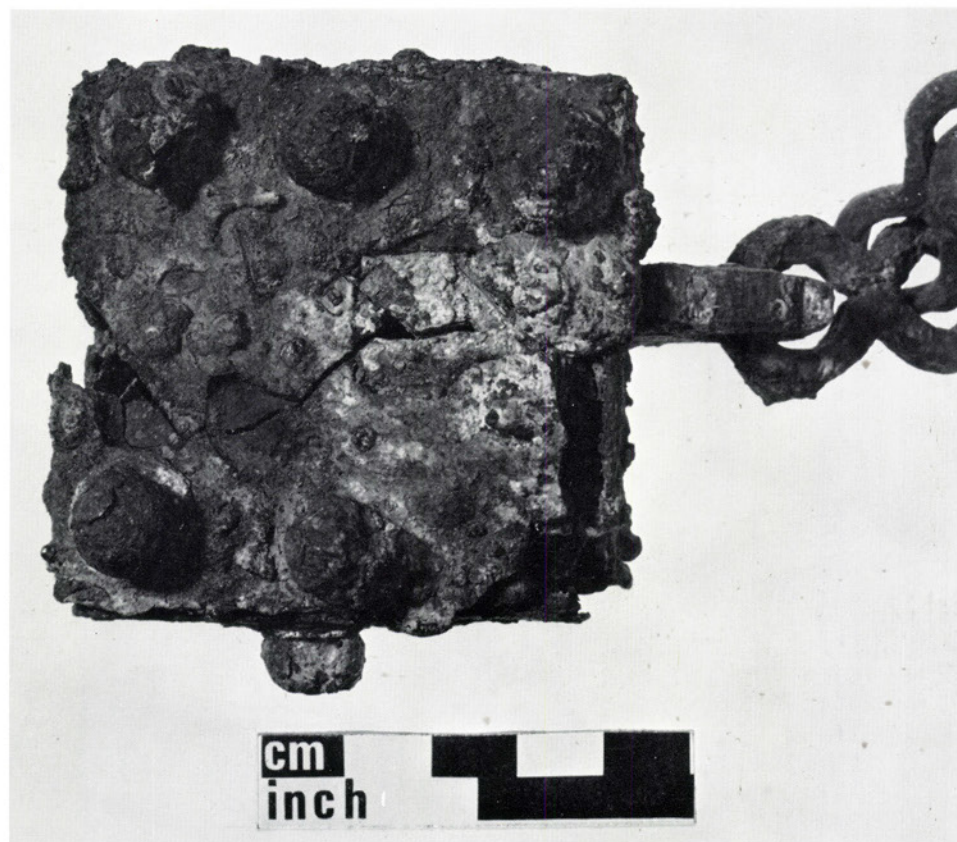
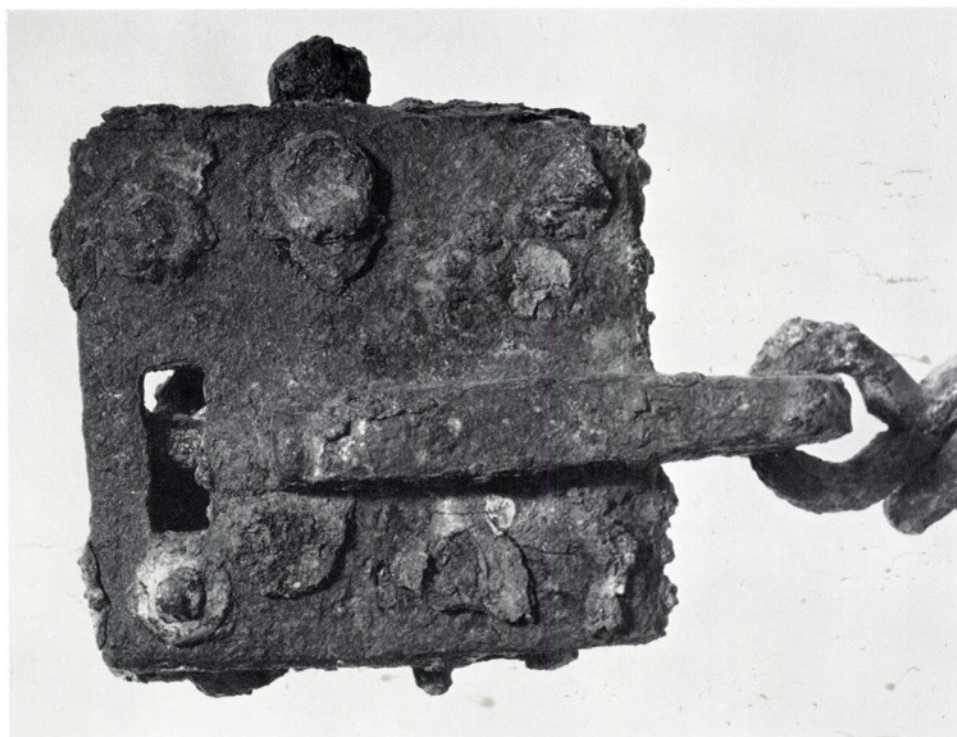


a-c (nos. 1-5) Gemstones, rings, etc. (pp. 83-92); *d*. Theatrical mask from a pot: scale $\frac{1}{2}$ (p. 152)

PLATE XIX

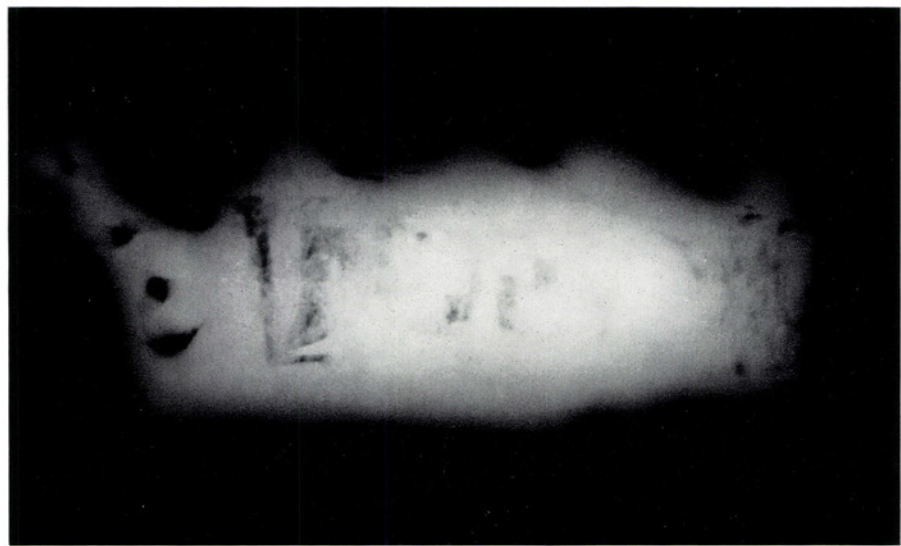
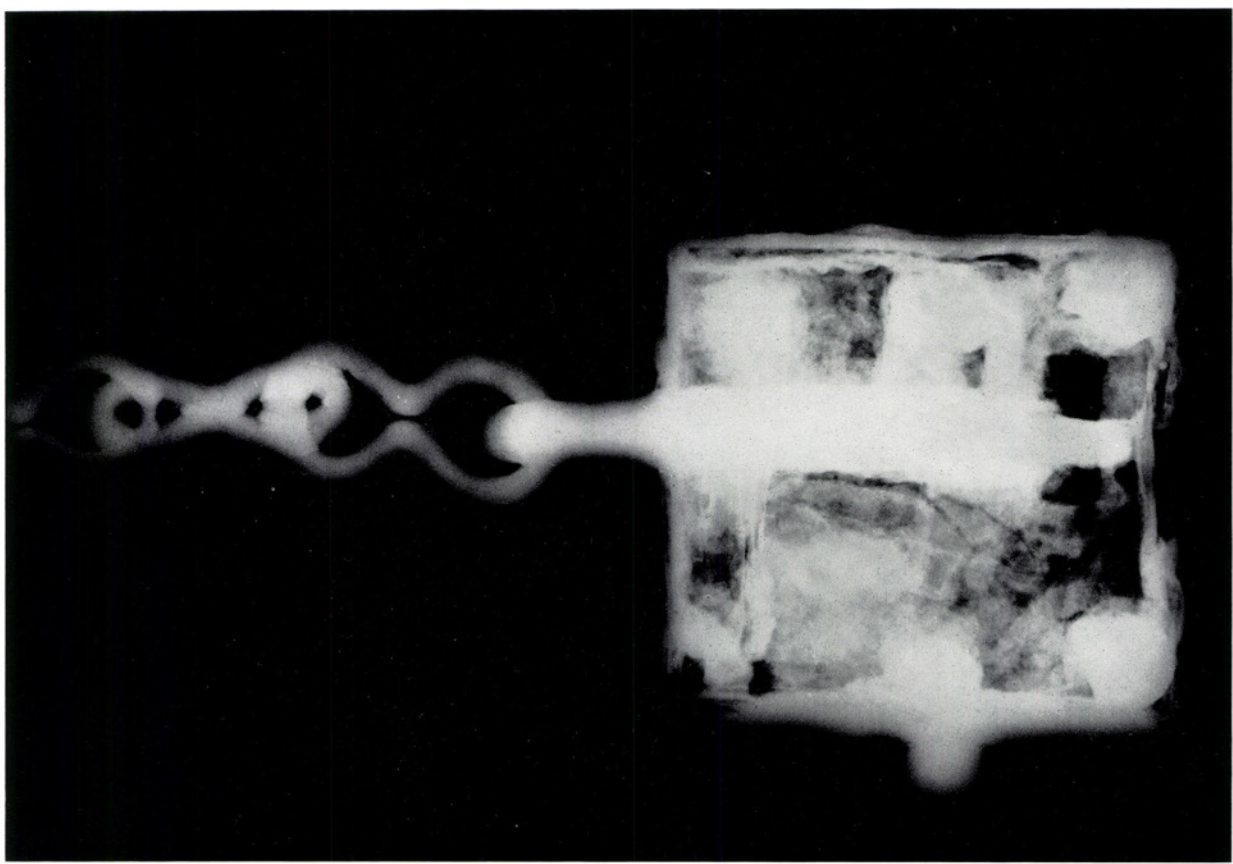


Lead junction between a wooden water main and an upright pipe (p. 144)



Iron padlock (pp. 140-3)

PLATE XXI



X-ray photograph of the iron padlock (pp. 140-3)

PLATE XXII

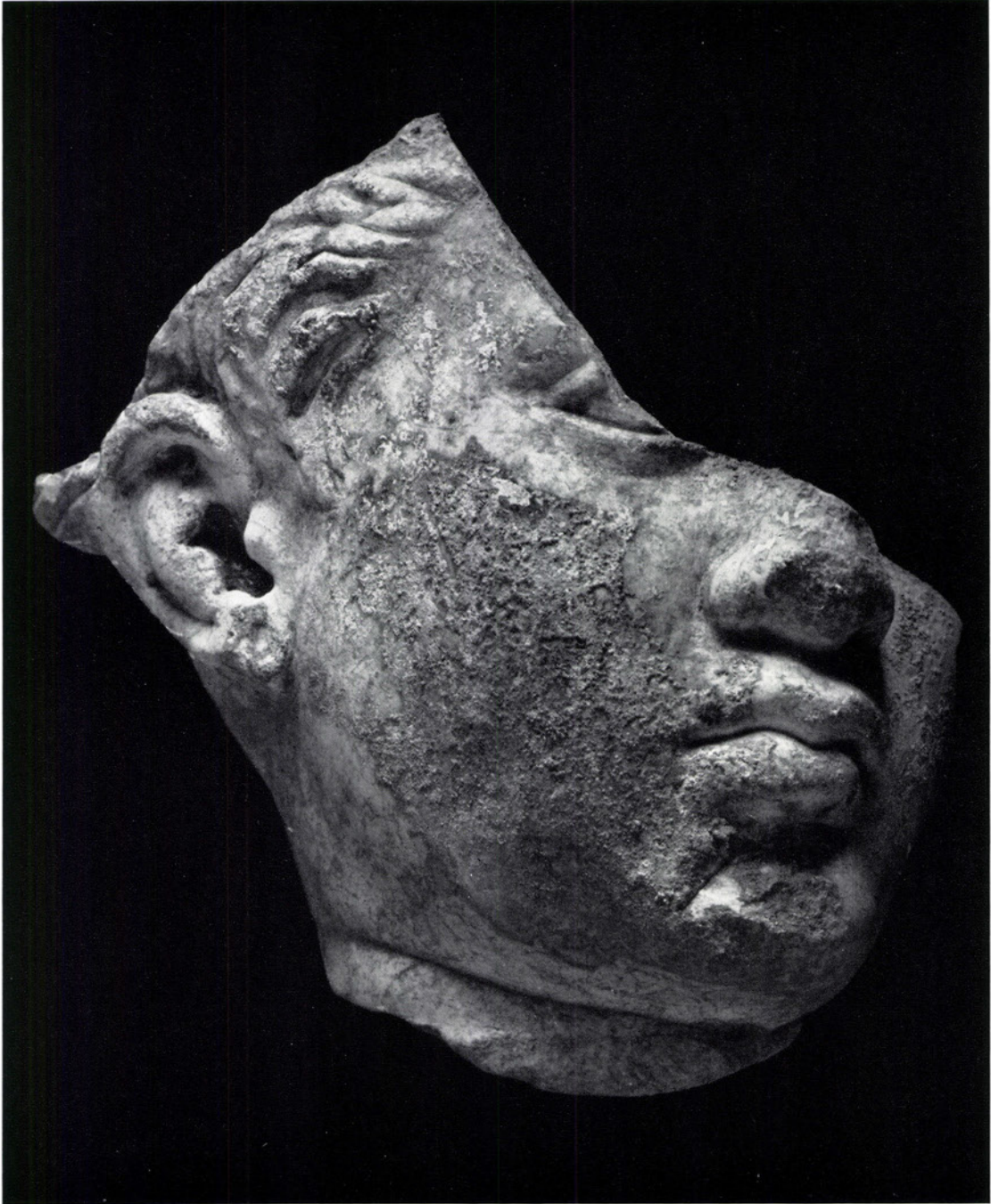


a. Venus figurine: scale $\frac{1}{2}$ (p. 150, no. 1)



b. Gladiator plaque: scale $\frac{1}{2}$ (p. 152, no. 4)

PLATE XXIII

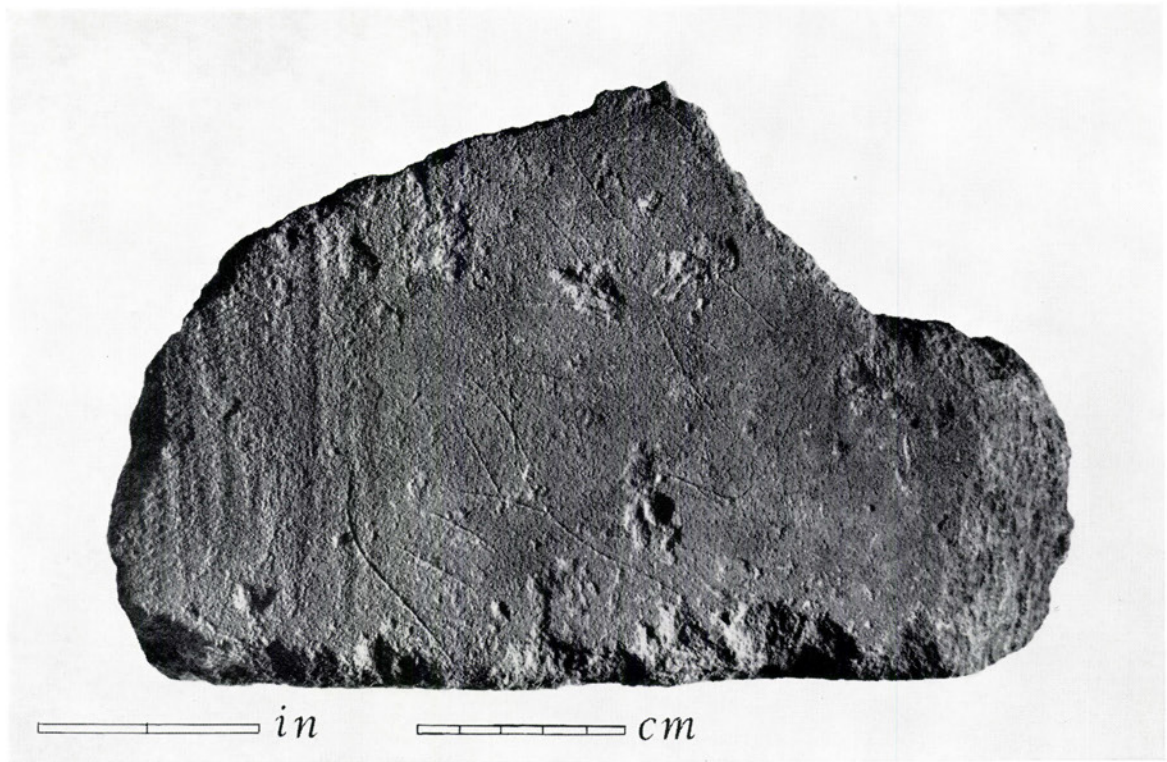


Marble head of a youth (for measurements and description, see pp. 156-7)

PLATE XXIV

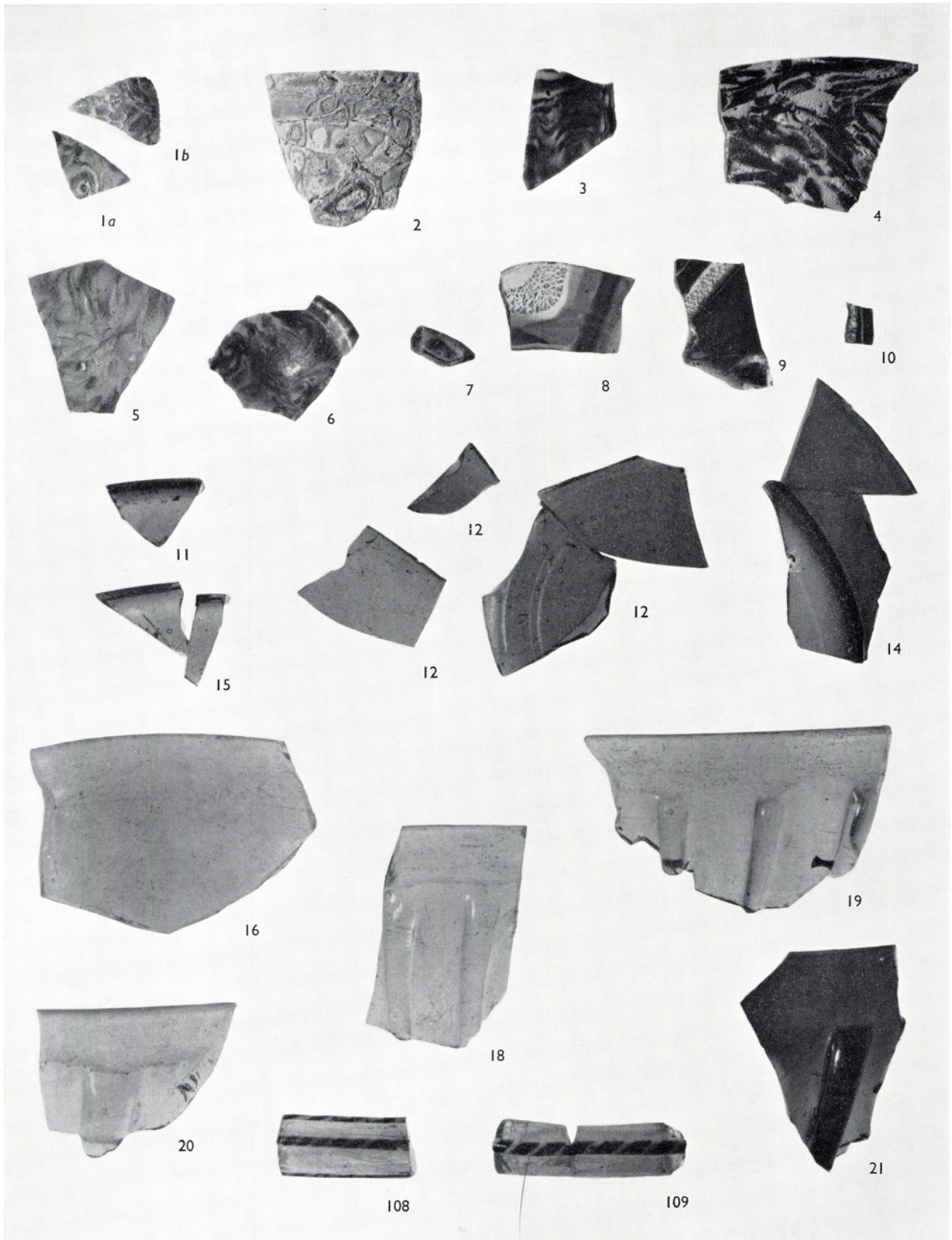


a. *Graffito* on wall plaster (p. 369, no. 9)



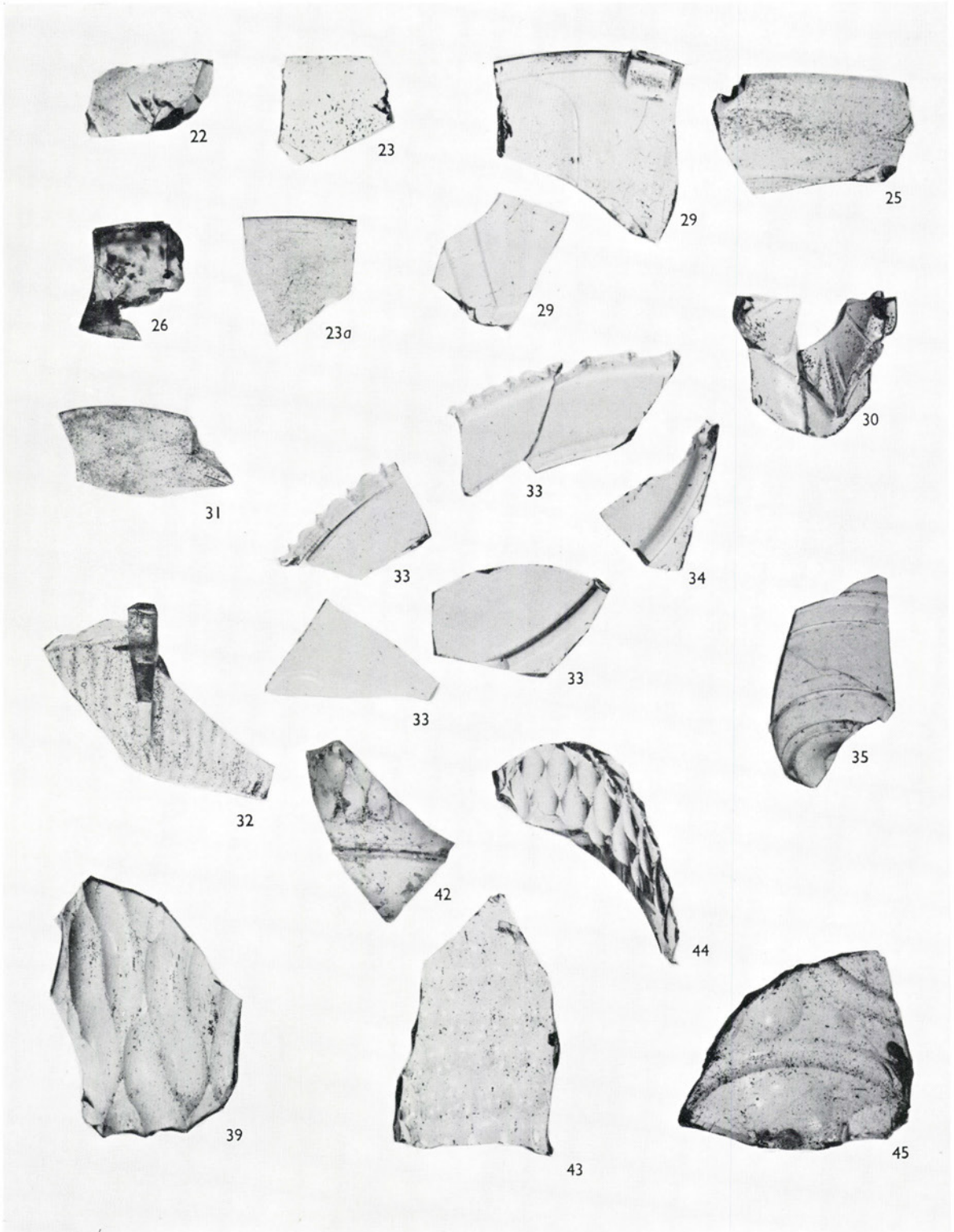
b. *Graffito* on a column drum (p. 369, no. 8)

PLATE XXV



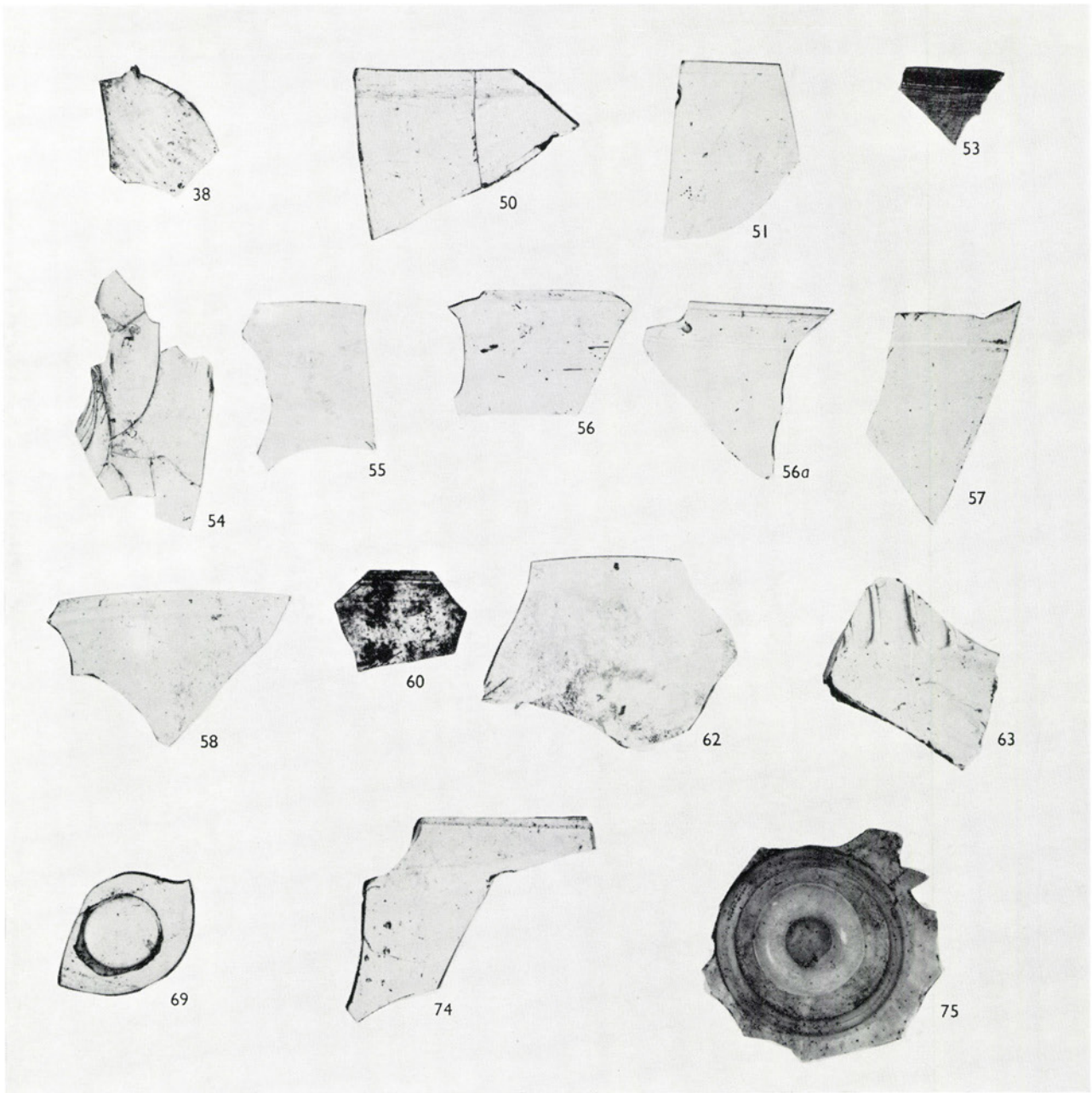
Fragments of glass vessels and two glass bangles (nos. 108-9): scale *c.* $\frac{2}{3}$. See pp. 324-30, 336 f.

PLATE XXVI



Fragments of glass vessels and glass spoon (no. 31): scale *c.* $\frac{2}{3}$. See pp. 331-44
N.B. For 34, read 33

PLATE XXVII



Glass (pp. 323-67)

above:

Fragments of glass vessels: scale *c.* $\frac{1}{2}$
See pp. 339, 346-55

left:

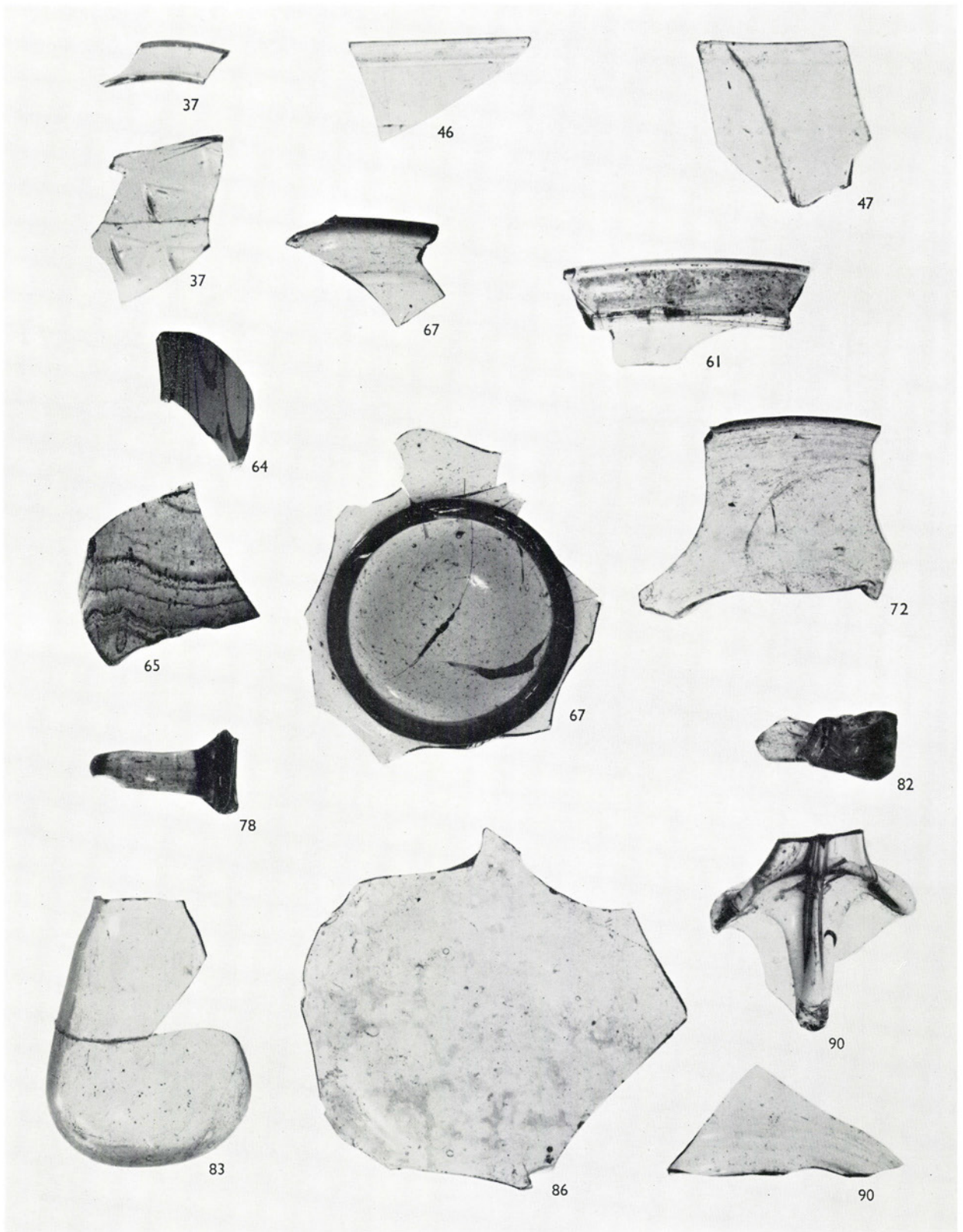
Chariot-cup from Colchester: scale *c.* $\frac{1}{2}$
See pp. 337 f.

right:

Fragment of beaker decorated with curving facets (no. 41) scale: *c.* $\frac{3}{4}$
See p. 342



PLATE XXVIII



Fragments of glass vessels: scale *c.* $\frac{2}{3}$. See pp. 339, 344 f., 349-60

