

# EXCAVATIONS AT LEFEVRE ROAD, OLD FORD, E.3.

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## I. AIM

The aim of this excavation was to try and locate either of the two Roman roads which have been suggested as running north-eastwards from London to join at the River Lea crossing point of Old Ford before continuing on to Colchester.<sup>1</sup> One of these roads should, theoretically, run to the Lea straight from Aldgate;<sup>2</sup> the other on a more easterly course, should come from Old Street.<sup>3</sup>

## II. THE SITE

The site chosen, which could be crossed by either, or both, of the proposed roads, is approximately  $2\frac{1}{2}$  miles north-east of the Roman city and  $1/5$ th mile south-west of the traditional fording point of the Lea.<sup>4</sup>

The main area available for examination comprised a triangular stretch of ground lying between the houses at the back of Lefevre Road and Lefevre Grove, and the cutting excavated for the North London Railway.<sup>5</sup> (See Fig. 1, site plan). Both the houses and the railway were of mid 19th century date and there is no record of any building here prior to them.<sup>6</sup>

Although there is little difference in height to the north and south of the site, to the east the land drops away as it approaches the Lea.<sup>7</sup> Geologically the first natural layer encountered is a sandy clay which lay about a foot deep on top of the gravel. The gravel, which is mingled with layers of sand and sandy clay, is shown by deep borings to descend for about 20 feet onto the London clay.

## III. THE MAIN RESULTS

### A. THE ROAD

The excavation resulted in the finding of a Roman road<sup>8</sup> which appears to be aligned on Aldgate and on the assumed crossing point of the Lea at Iceland Wharf.

In its initial phase the road had a total metalled width of 66-67 feet, and had been designed as a "three-track highway" with a raised central portion. From pottery incorporated in the construction of the first phase it would seem that the road was laid down soon after the Claudian invasion.

Two major reconstructions can be recognised: in the first of these the southern track was raised to the level of the central one, and the "three-track" aspect of the road was thus abandoned.

In the second, the southern track was again raised so that it was slightly higher than the centre one. Coin and pottery evidence associated with this last phase suggest that the road continued in use until at least the end of the 4th century A.D.

### B. THE SETTLEMENT

Alongside, and to the south of the road, evidence of 4th century A.D. settlement has been obtained from a number of pits and ditches as well as from laid pebble yards and a structure which might be interpreted as a tile kiln. The pits and ditches contained much pottery,

building material and animal bone as did a seemingly general scatter of debris extending about 40 feet south of the road. It is possible that this roadside occupation continued into the 5th century A.D.

#### IV. THE ROAD AND ITS STRUCTURE

##### A. GENERAL

The road lay at the northern edge of the area available for excavation. Its line had been cut through to the west of the site by the Lefevre Road houses and to the east by the railway. To the north the cellars of the Lefevre Grove houses had also been dug into it; on the main area of excavation, therefore, it was only possible to examine in detail the southern track of the road. Fortunately, by clearing down the side of it the railway cutting, and working into it, it was possible to obtain a complete section of the road.

Much of the following information is based upon the evidence gained from the railway cutting section (see Fig. 2).

##### B. THE FIRST PHASE (see Fig. 3a)

In its initial phase the road appears to have been designed as a "three-track highway" built upon a bed of cemented gravel and clay. The following measurements for the metallised surfaces are suggested:

<i>Description from south to north</i>	<i>feet</i>
Southern track flat – – – – –	10·0
Southern track rise – – – – –	12·5
Centre track flat – – – – –	12·5
Northern track fall – – – – –	16·0
Northern track gentle rise – – – – –	5·0
Northern track flat – – – – –	11·0
	<hr/>
Total metallised width – – – – –	67·0*
	<hr/>

It would seem that initially gravel and sand had been dug from the area where the road was built and that the quarry area was then filled back with clay. Fig. 3a shows that the depth of the quarrying was not even and had a pitted base. Other sectional evidence on the site confirmed this; it could be that a general quarrying ditch was deepened when it was judged that extra material was needed.

The clay fill which served as a base for the agger was also shaped to make the sloping areas between the central and the side tracks. It was generally chocolate to tan in colour and very clean except for flecks of charcoal and the occasional sherd of pottery. Its top 2 inches were in part greyer and stiffer with a greenish tinge as though exposed for some time.

The agger, a solid core of thickly cemented pebbly gravel, had a base width of 25 feet, and a top width of just under 13 feet. It was approximately 1 foot thick at its maximum, and, like the clay beneath it, was shaped to accommodate the side slopes of the road. In common with the side tracks it had a surface of small but irregular-shaped pebbles.

The southern track was composed of a single but very solid pebble layer rammed hard into the clay. Its flat surface had a width of 10 feet and was approximately 1·5 feet lower than the central track. It had a rising track width of 12·5 feet.

\* As it was not possible to obtain a section exactly at right angles to the road 66ft. may be a more exact width.

The first phase of the northern track seems to have also consisted of just one layer of rammed pebbles falling 16 feet from the centre track into a small hollow which may have served as a drainage gully. It then rose gently for 5 feet and ran horizontally for a further 11 feet at a height of some 2 feet below that of the centre track. It partially overlay what was presumably a shallow quarrying area, backfilled with clay and extending northwards out of the section.

Much of the evidence for the construction date of the road came from one part of the site. Here a quantity of pottery, daub and charcoal was found lying in a black greasy burnt deposit on top of the clay sub-structure and underneath the first surface of the rising southern track.

Although a few similar pottery sherds were found in other areas of the site where the clay base was exposed and excavated, only in this area was there such a concentration of it. It may represent part of a camping area used by native road labourers.<sup>9</sup>

The pottery (some of which is illustrated in Fig. 4) is similar in both form and fabric with Conquest period material from CAMULODUNUM<sup>10</sup>. It also has strong affinities with the Belgic pottery from the Kentish hill-fort of Oldbury.<sup>11</sup> The absence of Romanised forms is perhaps significant and implies that the London-Colchester road was built soon after the start of the occupation.

In terms of fabric, two types of vessels are represented. Firstly "quality" vessels which have a fine even paste, feel hard and smooth, and possess everted rims (Fig. 4; 1, 2, 3 and 4). Secondly, "coarse" vessels with beaded rims (Fig. 4; 5, 6, 7, 8 and 9). The "coarse" vessels are generally denser than the "quality" ones; their surfaces may be described as "pitted" or "pock-marked" and they have a texture which has elsewhere been referred to as "corky" or "porridgy".

Three of the four base examples (Fig. 4; 10, 11 and 12) are in the former type of fabric. No. 12 has a pronounced foot ring; the others and No. 13 are flat-bottomed.

Fig. 4 (1) *Everted rim jar*: light grey in section, a fairly fine fabric with particles of grog visible. Darker grey on the surfaces with the external one burnished. The vessel has a hard smooth feel. One cordon occurs at the base of the neck; a less pronounced one, between grooves, is found at the shoulder.

Fig. 4 (2) *Jar or beaker with slightly everted rim*: the fabric and finish is very similar to (1) above.

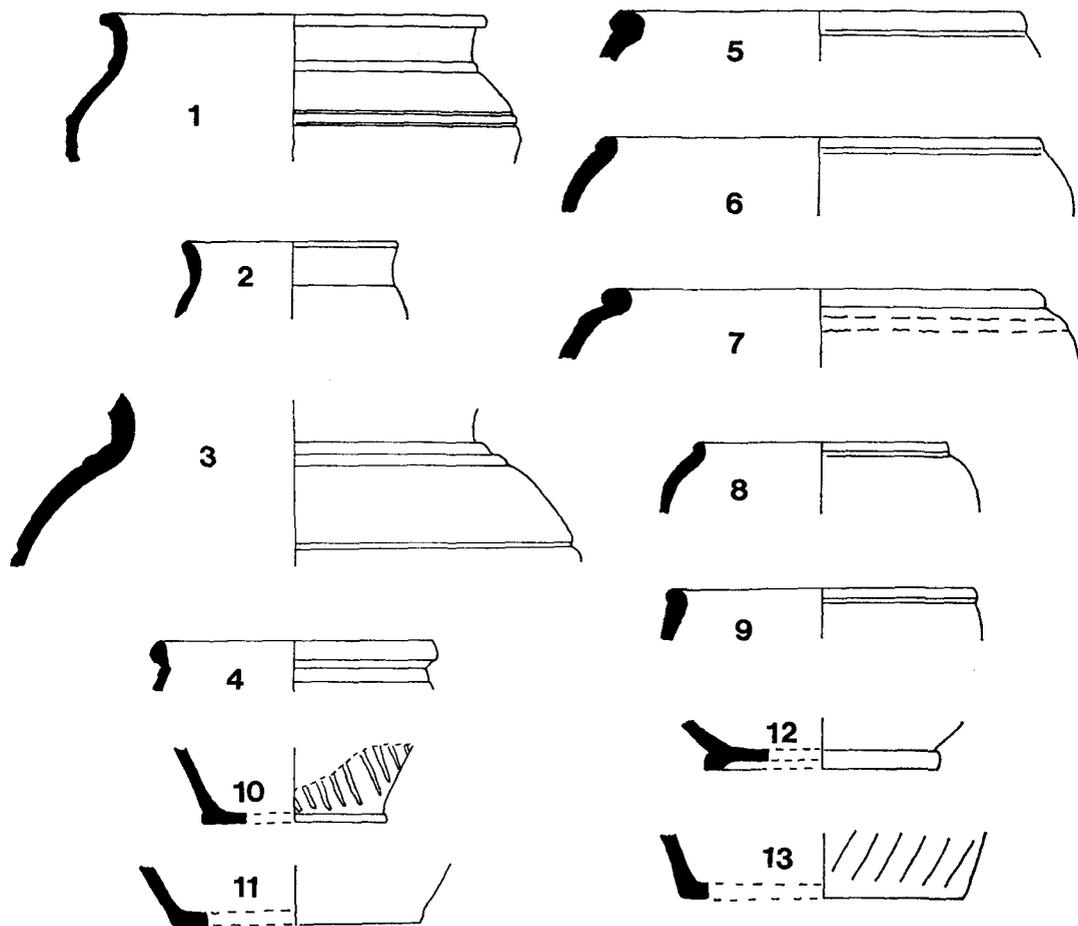
Fig. 4 (3) *Probably a jar with an everted rim*: in section this vessel has a light grey core in a buff sandwich. The paste is fine with grog particles visible. The surfaces are light buff in colour. The external one has been smoothed and has a hard feel. A double cordon is at the base of the neck and another one occurs at the lowest surviving part of the body.

Fig. 4 (4) *Probably a butt beaker*: medium dark grey in section with a fine paste. The surfaces are greyish-brown and probably burnished.

Fig. 4 (5) *Bowl (or jar) with beaded rim*: this vessel is light brown to pink throughout. The surfaces are "pitted" — very rough and uneven and the texture is "corky". Two similar examples have not been drawn. Small particles of shell or chalk are visible.

Fig. 4 (6) *Bowl (or jar) with beaded rim*: fairly similar to (5) with a pink "corky" fabric and "pitted" surfaces.

Fig. 4 (7) *Jar (or bowl) with beaded rim*: the section varies in colour from grey to pink-brown. The external surface is orangy-brown — the internal one pink-brown. The texture is "corky" and the surfaces "pitted". Particles of grog visible. There is a slight indication of a swelling below the rim on the external surface.



**FIG.4 ; POTTERY FROM THE CONSTRUCTION PHASE  $\frac{1}{4}$**

Fig. 4 (8) *Probably a jar with a beaded rim*: This vessel is light grey in section. The internal surface is pinkish at the rim and possibly under-fired. The external surface is darker grey and lumpy, with a marked groove below the rim. Both surfaces are "pitted".

Fig. 4 (9) *Bowl with a beaded rim*: the fabric of this vessel is dark grey in colour with a "corky" texture and "pitted" surfaces.

Fig. 4 (10) *Flat base*: coloured dark grey in section with a fine paste. The surfaces are pinker with combed lines on the external one.

Fig. 4 (11) *Flat base*: pink coloured in section, surfaces a greyer-pink. Similar to (10).

Fig. 4 (12) *Base with a marked foot ring*: very fine light grey paste. The surfaces are whitish-grey, but probably burnt. Very smooth feel externally.

Fig. 4 (13) *Flat base*: medium grey in section with grey-brown surfaces. "Corky" texture and "pitted" appearance. Lightly combed on the external surface.

The "three-tracked" structure of the road at Old Ford compares well with evidence gathered from what is considered to be its Colchester end in 1934.<sup>12</sup> Although it was "disturbed along the surface of its central roadway" the excavator concluded that it had a total width between side ditches of 67 feet. He believed that a reconstruction "on level ground" would show an agger with a 33 feet base having on top a central roadway of 27 feet, with two lower side tracks each of  $16\frac{1}{2}$  feet. Other evidence of the "three-tracked" type of road in Britain has come from Ermine Street at Ware.<sup>13</sup> Here a section produced evidence of the road having a total width of 65 feet between ditches, consisting of "two side portions, each about 20 feet wide with a central and thicker roadway about 24 feet wide".

There is little clear evidence of side ditches during the initial phase of the road at Old Ford. The ditch at the south of the road (see Fig. 2) overlies a quarrying area of the Flavian period, and had an earlier ditch occurred here it is likely to have been destroyed by this later activity.

To the north nothing like an open road ditch was recorded<sup>14</sup> although a feature probably related to the laying out of the road was seen. This was a small box-shaped depression about 3 inches to 4 inches deep and 2 feet wide, seemingly running parallel to the road. It lay just outside the northern edge of the metalling and its outer edge was 42 feet north of the centre of a pit, apparently cut into the clay sub-structure of the road after only part of it had been laid. This pit, which had been filled back with gravel, was just under 2 feet 6 inches wide at its top and 2 feet 6 inches deep. If there had been a southern counterpart to the box-shaped depression, it would have been removed by Flavian quarrying. It is possible that the central gravel-filled pit and the northern depression were the remains of initial surveying features. Their 42 feet distance fits well with Margary's observation that 84 feet was a standard layout measurement for first class roads.<sup>15</sup>

At the north of the road two features beneath the clay sub-structure were seen (see Fig. 2). Both were backfilled with dirty clay containing streaks of charcoal and bricky traces. Whether they were pits or ditches is not clear, but they may be indications of activity during the early part of the construction phase.

### C. THE SECOND PHASE (see Fig. 3b)

We have little indication of the length of the life of the first phase of the road. Neither the south nor the north track showed any real signs of heavy wear; there was little washed gravel and no patches or layers of dirt on the surfaces.

At the north only one reconstruction was seen which was interpreted as a remodelling of the road. Apparently the height was raised with a level of sandy-orange gravel to that of the southern flat track. Accompanying this reconstruction, the northern track was provided with a 12 feet wide shoulder of fine cementy gravel which had a greenish coloured tinge. This rose about 1 foot over its length towards the north, partially overlying the old track.

As the northern flat track was raised to the same height as its southern counterpart, it could imply that the original three-track design was retained during the re-modelling. If so, the following revised measurements for the road apply:

<i>Description from south to north</i>	<i>feet</i>
Southern track flat - - - - -	10.0
Southern track rise - - - - -	12.5

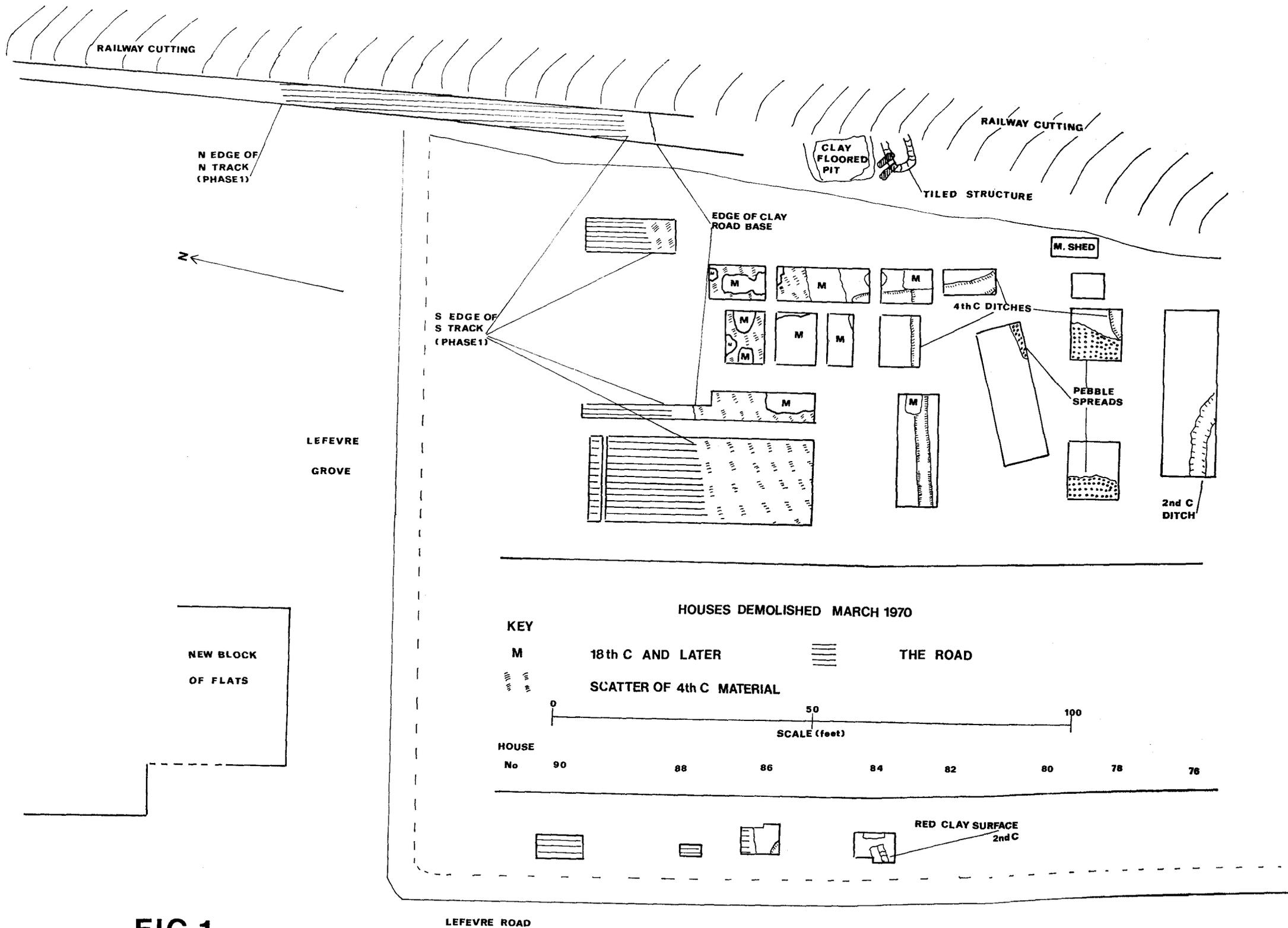


FIG. 1

LEFEVRE ROAD; SITE PLAN

Centre track flat	-	-	-	-	-	-	12.5
Northern track fall	-	-	-	-	-	-	10.5
Northern track flat	-	-	-	-	-	-	17.0
							<hr/>
Total metalled width	-	-	-	-	-	-	62.5
							<hr/>

If this interpretation is correct then the road in this phase was 4 feet to 5 feet less in width than in its initial phase.

The material to provide the gravel for the redesigned northern track could have come from the quarry ditches which were found to the south of the road.<sup>16</sup>

These pits were backfilled with clay and then capped with pebbles to form a ditch bottom and southern shoulder to the road. The quarry ditch shown in Fig. 3(b) contained quite an amount of pottery, including fragmentary sherds of various Samian vessels. From this evidence it may be assigned to the Flavian period.

If this quarrying is related to the second phase of the northern track, then a Flavian date for the re-modelling may be given. The only Samian sherd on this second northern track has been dated as Hadrian-Antonine.<sup>17</sup>

The final gravel surfacing on the northern track was probably a local feature. A loose pebble spread was laid over the track running up to the agger; it was traced as a continuous surface for over 60 feet running north out of the section. Its horizontal top was about 1.5 feet below that of the central track.

This gravel spread was not observed in a contractors' section some 35 feet to the west of the railway cutting, and it could perhaps have served as a pebble track leading to part of the settlement. It would suggest that the northern track went out of use as part of the road.<sup>18</sup> The date for this is uncertain but a clue might come from the 1934 Colchester excavation.<sup>19</sup> Here also the northern track was found to have been abandoned and the excavator judged, from the pottery in the side ditch, that this occurred in the Antonine period.

#### D. THE THIRD PHASE—FIRST MAJOR RECONSTRUCTION (see Fig. 3(c))

The first major remodelling of the road involved raising the southern track so that it approached the height of the original centre one. This fundamentally changed the original design and probably converted the appearance of the road to that of a more conventional highway.

The level was raised firstly with a layer of gravelly sand, and then capped with a surface of irregular pebbles. It is probable that this spread continued as a fresh surfacing over the original centre track.

Dating evidence for the remodelling is sparse, but a Samian sherd of Trajanic-Hadrianic date, found on the original southern track, suggests that it did not take place before the early 2nd century A.D. A few sherds in the build-up for this phase were of Antonine, or possibly later, date.

If we assume that the northern track was abandoned as part of the remodelling<sup>20</sup> then the roadway would have had a flat track width of about 21 feet, with a marginal drop of about 4 inches over a further 2 feet, followed by a further flat stretch of 11 feet. In all, therefore, it would have had a total width of 33 to 34 feet.

The road in this phase was accompanied to the south by a shallow ditch some 17 feet wide, which contained 2nd century A.D. pottery lying in a greenish coloured fill. Over the southern edge of the ditch was a deposit of brownish earth overlaid by bands of silty clay and blacker earth. The interpretation of these strata is difficult, but they could have been a deliberate banking for a spread of gravel some 29 feet wide which ran over the bank and up to the southern edge of the road. This spread was dirty and thin at its highest area over the bank, but clean, and on average 6 inches thick, over the ditch.

A similar spread was recorded in the other sections to the south of the road. The gravel, which had a raised shoulder some 6 feet wide at its extreme south, may have been laid to function as an additional track.

It is possible that, although this gravel spread was laid on to the edge of the phase three road, it was designed as part of the final reconstruction described below. The gravel spread, and the bank, are shown as relating to this last phase (Fig. 3 (d)).

#### E. THE FOURTH PHASE—SECOND MAJOR RECONSTRUCTION (see Fig. 3(d))

In the final phase of the road the area over the old southern track was again raised, with a layer of sandy gravel; this was some 19 feet wide and had a maximum depth of about 7 inches. Although the new surface was some 3 inches higher than the surviving top of the rest of the road, there is no evidence to suggest that the latter went out of use. As with the previous phase this reconstruction had the effect of moving the centre of the road further to the south.

It is likely that the roadway, in its last phase, was about 34 to 35 feet wide. To its side lay the loose gravel spread described above, with the southern shoulder at approximately the same height as the main roadway.

We have no evidence in the structure for the date of this — the last — remodelling of the road. However, above the gravel spread, in the ditch-like hollow between the shoulder and the road edge, was found pottery of the 4th century A.D. This lay in a grey-black earth deposit with animal bone and building tile. The mixture was very similar to that found alongside the south of the road elsewhere on the site. The debris, found in quantity to the side, did not extend over the top; this suggests that the road was still in use at the end of the 4th century A.D. Certainly there is no evidence from the final surface that the road was abandoned before that time. The excavation showed that the final surface — where intact — had been covered by a fine light brownish soil, containing abraded sherds of Roman pottery.

#### F. POTTERY ASSOCIATED WITH THE LAST PHASE OF THE ROAD

Vessels from the area south of the road are illustrated in Fig. 5. Some are from the ditch-like hollow (Fig. 5, nos. 4, 8, 9, 11, 13, 14, 17, 19, 23, 24 and 25). The remaining examples are from the scatter deposit (Fig. 5, nos. 1, 2, 3, 5, 6, 7, 10, 12, 15, 16, 18, 20, 21, 22, 26 and 27).

##### *Dishes*

1. (T2 L3): hard fine light grey fabric. Surfaces are dark grey; internal surface almost black and is burnished (worn in places); external surface has been smoothed except for a roughened band just below the rim and another at the base. (*cf.* Lockleys, Fig. 9, no. 4; dated to 300–340).

2. (T<sub>15</sub> L<sub>1</sub>): coarse hard grey fabric. Surfaces are dark grey; internal surface has two rough broad grooves below the rim and a looped burnished line towards the base. (*cf.* Alice Holt, Fig. 4, no. 35).

3. (T<sub>15</sub> L<sub>1</sub>): hard buff fabric. Surfaces are black and polished; internal surface and rim are smoother than the external surface. There is a groove and roughened band on the external surface just below the rim.

4. (RC<sub>3</sub> L<sub>1</sub>): hard fine light grey fabric. Internal surface, rim and top  $\frac{1}{4}$  inch of external surface have polished grey slip. Rest of external surface is the same colour of the core, and is smoothed except for a reserved band about  $\frac{1}{2}$  inch wide immediately below the slip. A broad shallow groove divides this reserved band.

5. (T<sub>15</sub> L<sub>1</sub>): hard fine buff/grey fabric. Surfaces are dark grey and polished; internal surface and rim are smoother than the external surface. No decoration. (*cf.* Alice Holt, Fig. 4, no. 36, 4th century).

*Jars (a) with "cavetto rims"*

6. (T<sub>2</sub> L<sub>3</sub>): hard fine light grey fabric. Surfaces are burnished.

7. (T<sub>15</sub> L<sub>1</sub>): hard fine grey fabric. Surfaces are grey; internal surface above the neck and external surface below a line  $\frac{1}{4}$  inch above the neck have polished grey slip. The rest of the internal and external surfaces are fairly smooth, and there is no decoration.

8. (RC<sub>3</sub> L<sub>1</sub>): hard fine pale grey fabric. External surface and internal surface down to about  $\frac{1}{4}$  inch above the neck have grey slip, which is patchy on the external surface. The rest of the internal surface is grey-brown and fairly smooth.

9. (RC<sub>3</sub> L<sub>1</sub>): hard sandy grey fabric, showing traces of oxidisation near the surfaces. The surfaces are grey and have been slightly smoothed. There is no slip or decoration.

*Jars (b) others*

10. (T<sub>2</sub> L<sub>3</sub>): hard fairly fine light grey fabric, with a gritty fill. The external surface is a darker grey, with a groove at the base of the neck.

11. (RC<sub>3</sub> L<sub>1</sub>): hard coarse sandy grey fabric. Surfaces are grey and rough, with no slip or decoration.

12. (T<sub>15</sub> L<sub>1</sub>): hard fine grey fabric, oxidised to red-brown towards the surfaces. The surfaces are grey; the internal surface is lumpy and unsmoothed, and the external surface is polished and smooth. There is a cordon and groove at the junction of the neck and shoulder. (*cf.* Alice Holt, Fig. 3, no. 19).

13. (RC<sub>3</sub> L<sub>1</sub>): hard coarse sandy fabric, off-white at centre but buff near the surfaces. Surfaces are buff with darkening at the rim. No slip or decoration.

*Miscellaneous*

14. (RC<sub>3</sub> L<sub>1</sub>): small bowl in hard sandy light red fabric. Surfaces are light red and smoothed. No slip or decoration.

15. (T<sub>15</sub> L<sub>1</sub>): flange in hard fine orange-buff fabric. The surfaces have orange slip and there is white-painted decoration and rouletting on the upper surface.

*Flanged bowls*

16. (T<sub>1</sub> L<sub>3</sub>): coarse dark grey fabric. Both surfaces have been burnished, the external surface less carefully than the internal.

17. (RC<sub>3</sub> L<sub>1</sub>): hard fairly fine fabric. The surfaces have black slip; the external surface and the upper surface of the flange are burnished and smooth, but the internal surface is badly abraded.

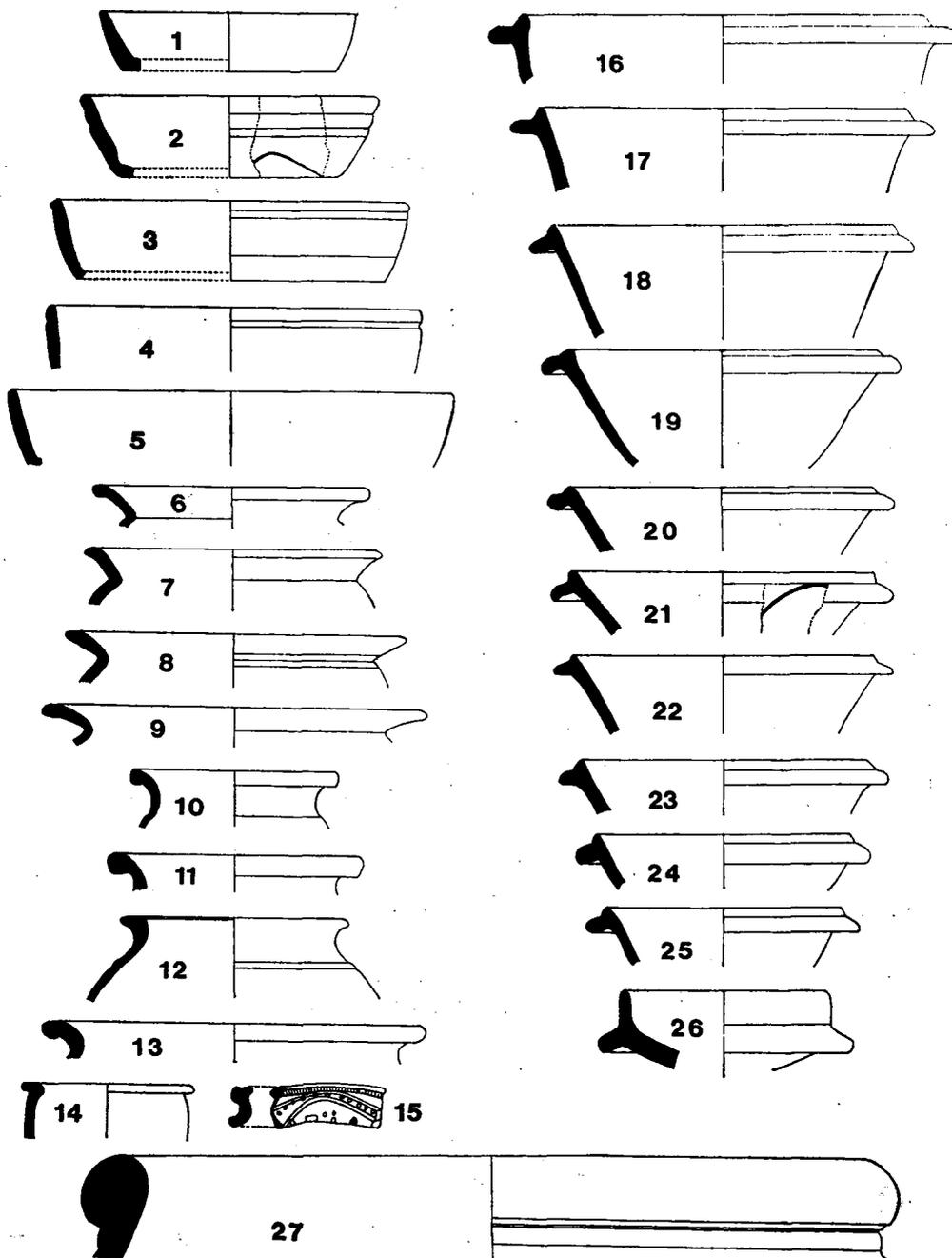
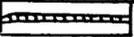
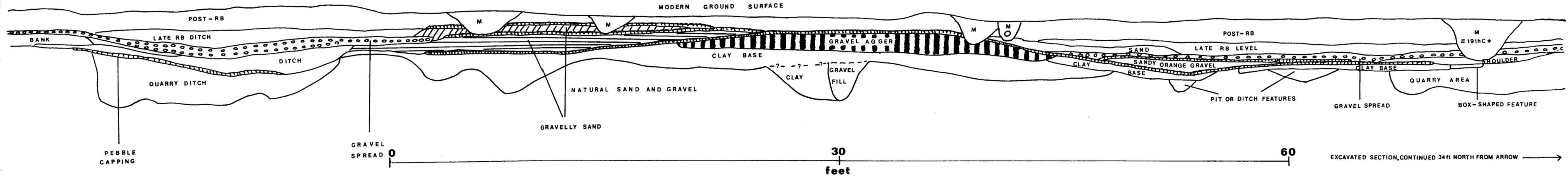


FIG. 5 ; POTTERY FROM LAST PHASE OF ROAD  $\frac{1}{4}$

FIG 2 ; THE ROAD IN THE RAILWAY CUTTING (facing west)

ROAD SURFACES : 



18. (T2 L3): hard fine light grey fabric. Both internal and external surfaces are burnished. (*cf.* Lockleys Fig. 9, no. 11, dated 300–340).

19. (T17 L1): hard fine cream-coloured fabric. Internal and external surfaces are covered by dark brown slip which tends towards orange on the flange, with a bright orange patch on the inner part of the lip.

20. (T15 L1): hard sandy grey/buff fabric. The surfaces are grey/orange; both have been smoothed but the external surface is slightly astringent. No decoration.

21. (T15 L1): hard granular black fabric. The surfaces are black and polished, and the external surface is decorated with a burnished looped line.

22. (T2 L3): hard fine grey fabric. Both the internal and external surfaces are burnished a darker grey. No decoration.

23. (RC3 L1): coarse hard grey fabric. The surfaces have been smoothed; the internal surface continuously and the external surface in horizontal bands. The flange has been damaged.

24. (T17 L1): fine hard grey fabric. The surfaces are smooth; the internal surface and the upper part of the rim have a white slip and are burnished.

25. (T17 L2): coarse hard sandy fabric, shading from dark grey in the flange to orange-brown towards the internal surface. Surfaces are dark grey; the external surface and the flange are burnished, while the internal surface is rough.

26. (T15 L1): fine hard buff fabric. The surfaces are buff/grey; the external surface is polished but worn and the interior is slightly lumpy. There is a low flange at the bottom of the vertical side to the vessel. No decoration.

#### *Storage jar*

27 (T2 L3): coarse hard light grey fabric. The surfaces are darker grey; the external surface is smoothed but the internal surface is uneven. There is a groove just below the rim.

## V. THE SETTLEMENT

### A. THE EVIDENCE FOR SETTLEMENT

Evidence of settlement near to the highway was obtained from a number of ditches and pits as well as from laid pebble yards. The former contained much pottery, animal bone and building tile, as did a seemingly general rubbish scatter extending for about 40 feet south of the road. The pottery and associated coins suggest that most of the occupation features are of 4th century date (see Fig. 1 Site Plan).

Our knowledge, from this excavation, of the layout of the settlement and of its social and economic nature is very limited. The loose spreads of pebble did not appear to be the floors of structures. There was no evidence of accompanying post-holes or beam slots to suggest that they were walled, and there was no notable concentration of collapsed building material lying over them.

The ditches may have served boundary or drainage purposes. One, which ran parallel to the road about 40 feet from its southern edge, had been cut down through earlier Roman levels. Material in it dated to the 4th century and the top fill contained a fairly clean brown earth suggesting that it finally silted up after the end of the settlement. A second ditch cut from the edge of one of the pebble spreads ran towards the east. This also contained late pottery.

Well over 90 per cent of the total animal bone recovered from the ditches and the rubbish scatter was ox, but horse, pig, sheep and dog were also found.<sup>21</sup> Much of the skeletal evidence was fragmentary and there was no suggestion of complete burial except in the case of two dogs.

A fair proportion of the oxen were immature animals (see Appendix 11). This suggests that they were deliberately killed for food, an idea supported by the chop marks identified on many of the bones. As all parts of the animals were represented it is probable that they were butchered on the site. The evidence does not suggest a weighting in favour of the non-edible parts and it is possible therefore that they were consumed locally with the remains being thrown away as debris.

## B. THE CLAY-FLOORED PIT AND THE TILED STRUCTURE

The excavation on the railway cutting produced evidence of very late Roman activity, probably of an industrial nature. Less than 10 feet south of the edge of the road complex was a rectangular clay-floored pit and next to it—slightly further south—a tiled structure.

### (i) *The Clay-floored Pit*

This pit lay about 9 feet south of the edge of the gravel spread associated with the second or third major phase of the road. Although its eastern side had been taken out in the railway excavation it was apparently rectangular in shape, with a north-south width of 10 feet 6 inches at the west, widening to nearly 12 feet where the railway had destroyed it. Its east-west width was at least 7 feet. It had been cut down to a depth of about 6 feet, and floored with a layer of white clay which followed the outline of the pit. The edges of this floor were located: they had a maximum north-south width of 9 feet 6 inches and an east-west width of nearly 7 feet.

The clay floor, which was about 3 inches thick, contained a hearth in the centre of its northern area: this was a circular burnt area with some charcoal in the circumference. Found on the floor were various bronze objects, a complete box tile with mortar adhering, and several coins. Over part of the floor was an area of similar but slightly dirtier material; embedded in it were large fragments of plain and decorated tile. This level scaled the coins found on top of the clay floor, one of which (Appendix 1, no. 129) suggests that the pit was in use at a date not earlier than 383 A.D.

After the pit went out of use it was filled back with earth containing an amount of pottery, animal bone, daub and charcoal. Thirty-seven coins were recorded from the pit fill. One, found near the bottom (Appendix 1, no. 138) shows that this took place at a date not earlier than 395 A.D. The base of a 5th century glass vessel (Appendix 111, no. 10) indicates that the back filling—and possibly even the use of the pit—could have occurred at a date substantially later than that which can be proved by coin evidence.

### (ii) *The tiled structure*

This structure had been cut down into the natural sandy gravel, and was substantially intact only below this level. Its northern edge was 3 feet south of the pit described above. The back wall and about 5 feet of the parallel side walls had survived to where they had been taken out in the mid-19th century railway excavation. At some time after this the northern wall had been damaged by the insertion of two large wooden beams with long iron rods bolted to them.

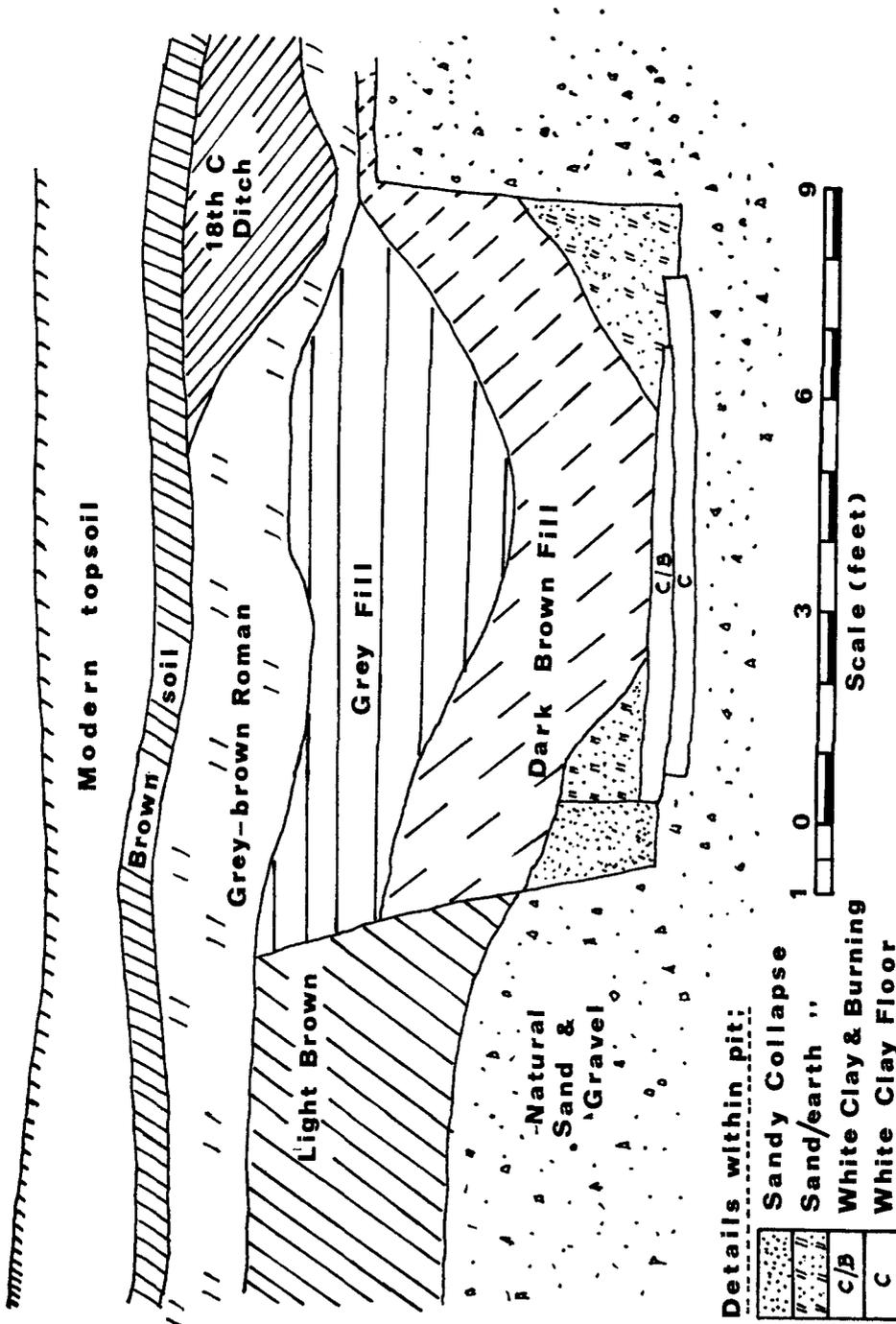


Fig. 6

**CLAY-FLOORED PIT ASSOCIATED  
WITH TILE-BUILT STRUCTURE**  
(view facing west)

The back and side walls had been built of layers of tile set in clean white clay. At the back, six layers of the tile survived, on the south wall four, on the north wall five. The internal height of the walls was, on average, 1 foot 6 inches at the sides, and a maximum of 2 feet at the back. The tiles were approximately  $1\frac{1}{2}$  inches thick and some had mortar attached, probably showing previous use.

A layer of burning, about 3 inches thick, lay on the gravel at the base of the structure. This burning did not extend right up to the walls, and the clay bonding was fairly plastic. It is possible that the inside of the walls had been faced with earth, although this was not recognised in excavation. The structure itself had the appearance of a flue or furnace with an internal width of 2.5 feet and a surviving length of 5 feet. The height is unknown but must have been at least 2 feet. Detailed examination of the wall construction was not possible as the structure was destroyed by vandals the evening after the inside had been cleared.

Although there was no evidence of wasters, a likely interpretation of the structure is that it was the flue of a tile kiln. It has similarities to one found at Canterbury which "consisted of two much mutilated parallel walls, each 2 feet thick, built of flat Roman building tiles set in puddled clay, in a trench about 3 feet deep and 7 feet wide at original ground level". Here the main flue was 3 feet wide and 19 feet 6 inches long.<sup>22</sup> Another tile kiln, from St. Albans, was "constructed in a rectangular pit, dug 4 feet into the natural clay". This kiln had a central flue, nearly 16 feet long and approximately 3 feet wide.<sup>23</sup> It was noted that the cross-flues commenced "at a height of 21 inches from the tiled floor of the main flue". There was no sign of cross-walls in our structure, but it is possible that they could have been built up from ground level and destroyed when the kiln went out of use.

If the interpretation of the structure as a tile kiln is correct then it should be assigned to Grimes Type II Rectangular Kilns,<sup>24</sup> distinguished as having "horizontal flue bottoms above the level of the main flue".

That the structure was contemporary with the pit is indicated by the identity of the material in the two fills. Sherds were recovered from one which joined with those recovered from the other. Their functional association is also likely; both stood together and the clay used for the floor of the pit was similar to that which bonded the tile layers together.

Assuming that the structure was a tile kiln, then the pit could have been intended for the storage of tile "cut-outs" in the process of drying, or finished products awaiting collection. If bulky products were to be made and stored in proximity to a road, then a pit with a cover at ground level might be a relatively safe method of concealment.

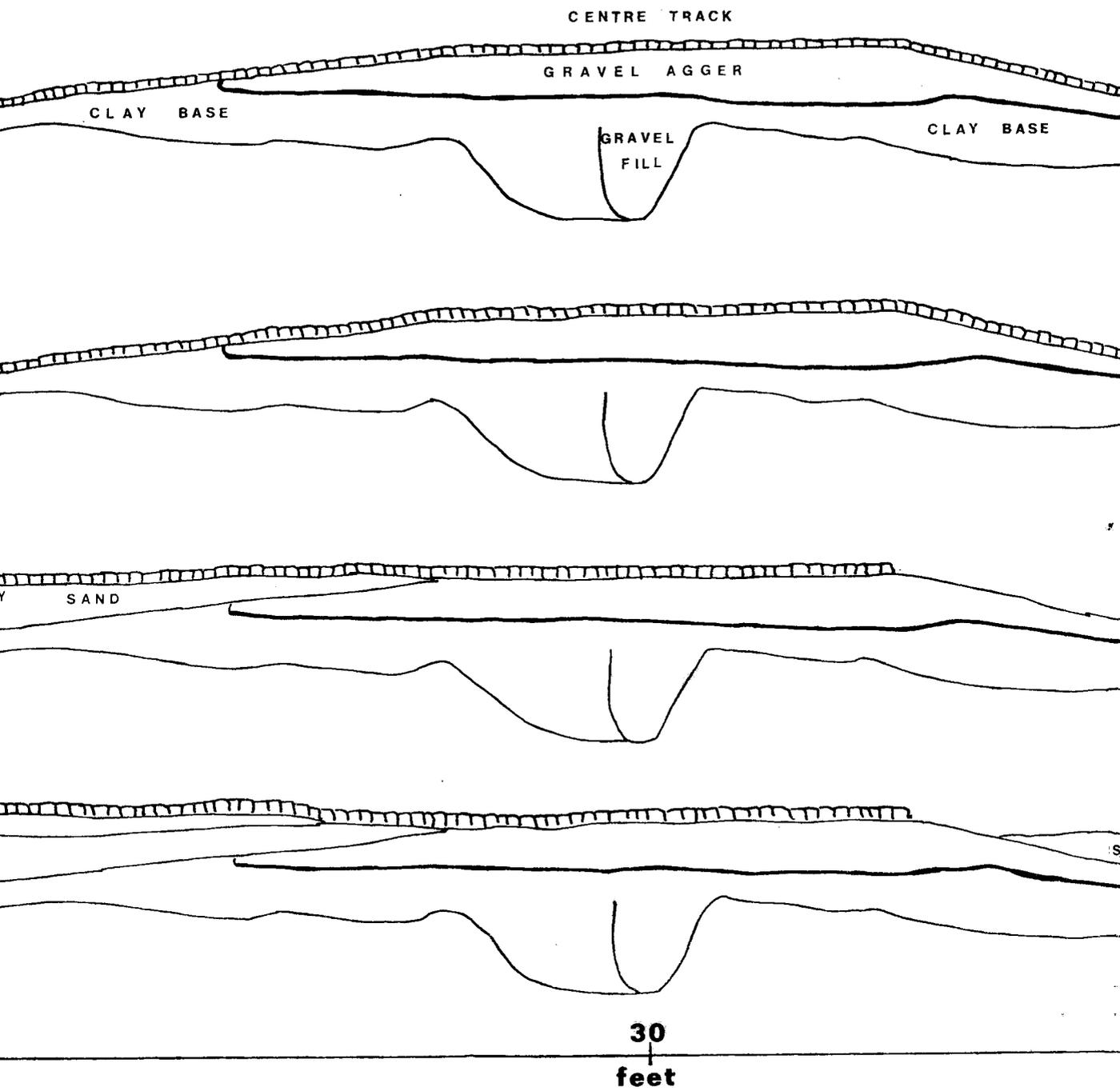
### (iii) THE POTTERY FROM THE CLAY-FLOORED PIT AND THE TILED STRUCTURE

(Figs. 7, 8 and 9)

This pottery has been dealt with in some detail; the forms and fabrics suggest that it is substantially of a 4th century date. Although some sherds are undoubtedly survivals, very few earlier types are apparent in any quantity. For example, only one sherd was definitely from a "poppy beaker". Similarly, only eight out of the almost 2,000 sherds in the pit fill came from Samian vessels: all, except one of these, were worn and abraded.

The coins spread through the fill of the pit support the belief that most of the pottery is late. Of the 37 found only one was pre-3rd century, while 26 were definitely 4th century, and a further six either 3rd or 4th century.

Of the 120 vessels illustrated, 112 were from the clay-floored pit and six from the associated tiled structure (Fig. 7 (1), (21); Fig. 8 (5), (20); Fig. 9 (21), (23)). (Two vessels were found to have joining parts in each context (Fig. 8 (2), (32)).)



**FIG 3 ; THE ROAD PHASES (facing west)**

An interpretation of the

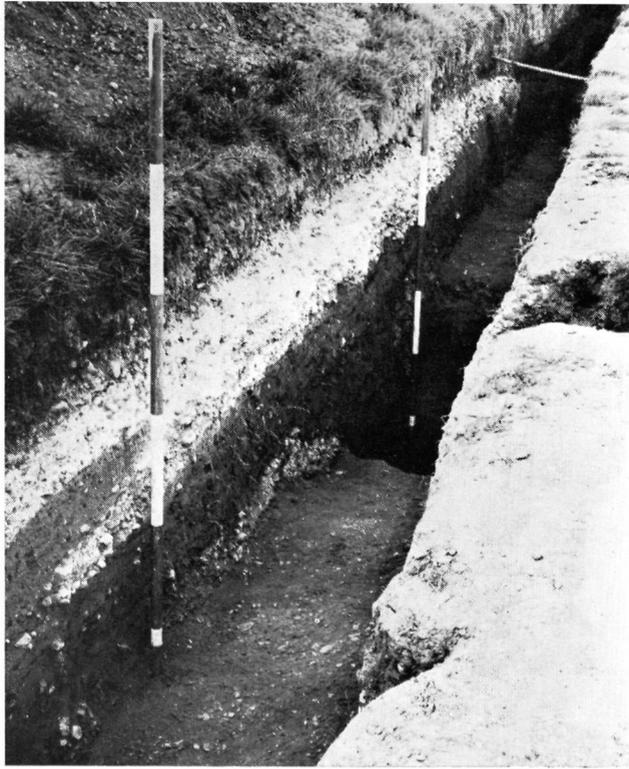


PLATE A. The road in the railway cutting looking north. The picture shows the raised centre track with the northern track in the distance. In the foreground, the raised southern track is seen to overlie its earlier lower version. Scale in feet.

*Photographs by Bernard Brandham*

PLATE B. A detail of the rising southern track of the road (first phase) overlain by the later higher versions (third and fourth phases). Scale in feet.

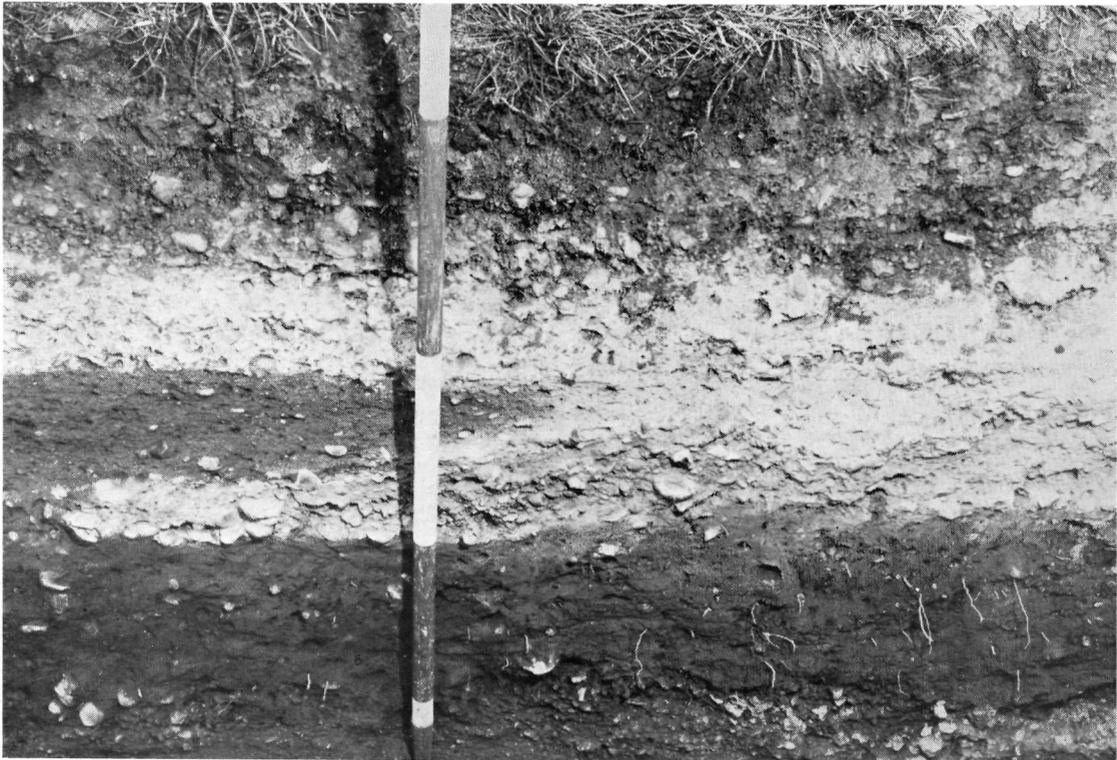




PLATE C. The tiled structure.

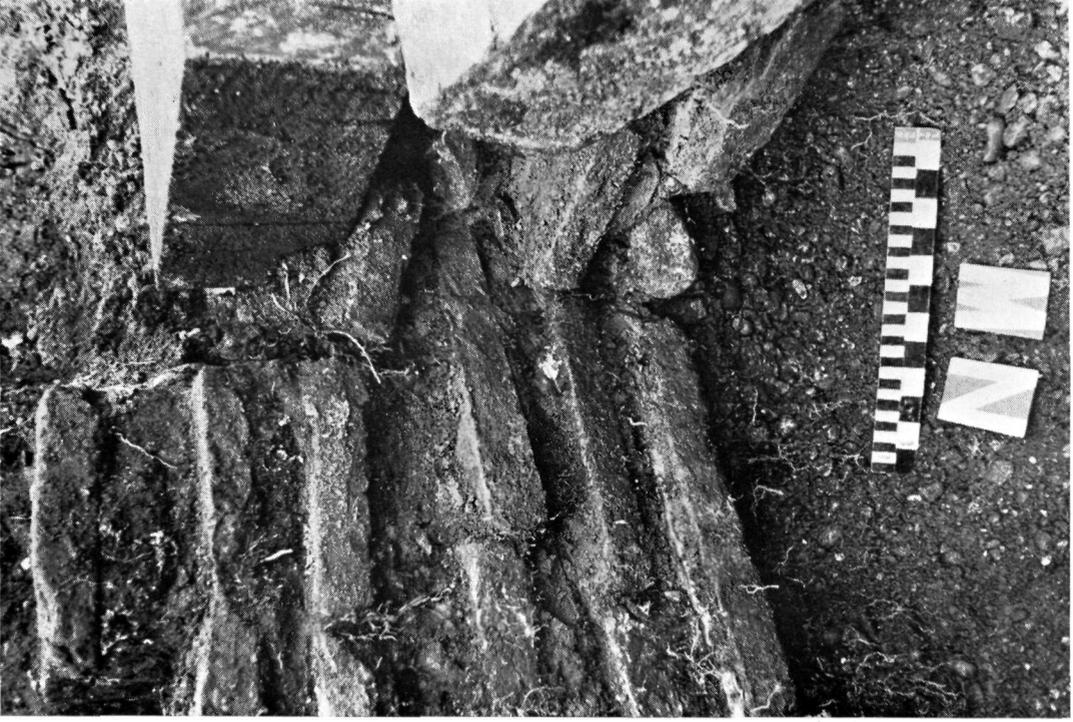


PLATE D. Detail of the north-west corner of the tiled structure (the two large beams are later intrusions).

*Photographs by John Earp*

## FIG. 7

## Dishes and Platters

## (i) Internal decoration and external horizontal groove

1. Hard, fine grey fabric, outer surface polished lightly. External groove  $\frac{1}{4}$  inch below rim. Internal tooled looped scrawl decoration, cut at top and bottom by burnished bands.  
*Similar unpublished specimens from Alice Holt Forest, in Guildford Museum Collection.*
2. Smooth, light brown fabric; light grey polished slip on lip, extending down rim  $\frac{1}{4}$  inch on outside,  $\frac{1}{5}$ th inch on inside. Crude, lightly tooled criss-cross pattern on inside face.  
q.v.: *Park Street, Fig. 20, 4 (late 4th century); Lockleys, Fig. 9, 5 (325-30 A.D.).*

## (ii) External decoration

3. Chamfered base. Black, somewhat coarse ware, burnished on surface, but with a rough unburnished band, c.  $\frac{1}{2}$  inch wide,  $\frac{1}{2}$  inch below lip on exterior face. Scribed horizontal external wavy line decoration, displaying a lean to the right.  
q.v.: *Shakenoak, Fig. 17, 19, for shape and fabric: all periods of occupation.*
6. Hard, dark grey gritty fabric, smoothed surface, but with external narrow unsmoothed band below lip. Light brown film on inside face, fading towards rim. Lightly tooled line pattern on exterior face. Letter "A" scratched into exterior.

## (iii) Plain

4. Hard, smooth grey fabric, surface layer (c. 1 mm.) oxidised red-brown. Light grey slip, lightly smoothed on surface.
5. Hard, black sandy fabric, lightly polished. *Similar to Richborough I, 106.*
7. Hard, sandy grey-brown fabric. Dark grey slip, lightly smoothed on inside.
8. Hard, brown gritty fabric, smoothed, but rough bands remaining on interior surface. Black polished slip on surface.
9. Hard, light grey sandy fabric. Dark grey slip, lightly smoothed. *Similar to Park Street, Fig. 18, 5 (first half 4th century).*
10. Smooth grey fabric. Surfaces oxidised brown. Coated with dark grey roughly smoothed slip.

## Flanged Bowls and Dishes

## (i) Bowls with decoration on flange

11. Foot-ring base. Hard smooth red-brown fabric, fired or subsequently burned from red-brown on outer surface layers, through pink-brown and purple in central layers, to chocolate-brown on inner surface layer. Coated with light chestnut slip, burnt grey or burnt away on inside face. Black slip scroll pattern on flange; also three vertical parallel streaks of slip over part of flange burned grey, apparently of lighter colour slip. Fabric somewhat "bubbled" and slightly warped along one of the lines of break, showing burning on both faces at this point.  
*Similar to Verulamium, Fig. 11, 19; Dorchester, 217 (late 4th century).*
12. Smooth hard light-brown fabric with grey core, burned grey throughout in many parts, either during firing or from subsequent burning. Burnished chestnut slip over both faces, burned metallic grey in parts. White scroll pattern on flange.  
q.v.: *Lockleys, Fig. 12, 3 (early 4th century); Dorchester, 211 (late 4th century).*

## (ii) Other flanged Bowls or Dishes

13. Hard, smooth purplish-pink fabric, fired orange on surface and coated with a smoothed deep orange slip. Imitating Samian form Drag. 38. *Type typical of 4th century wares from Dorchester, Oxon.*
14. Smooth powdery light grey fabric. Light grey polished slip. Diameter uncertain.  
q.v.: *Verulamium Theatre, 1934 (unpublished specimen, Institute of Archaeology Collection).*
15. Thick, stubby, hooked flange. Hard, slightly rough, sandy, light grey fabric, lightly smoothed.
16. Thick, stubby flange. Hard, slightly rough, sandy, grey fabric. Fired darker grey on surface. Light grey slip, lightly polished on flange, rim and inner surface.  
q.v.: *Verulamium Theatre, unpub., Inst. Arch. Coll.*
17. Thick flange. Hard, rough, somewhat gritty, grey-buff fabric. Surface smoothed in horizontal bands with spatula-like instrument.  
q.v.: *Verulamium Theatre (as 15), Shakenoak, Fig. 18, 52 (second half 4th century); Richborough I, 122 (4th century).*

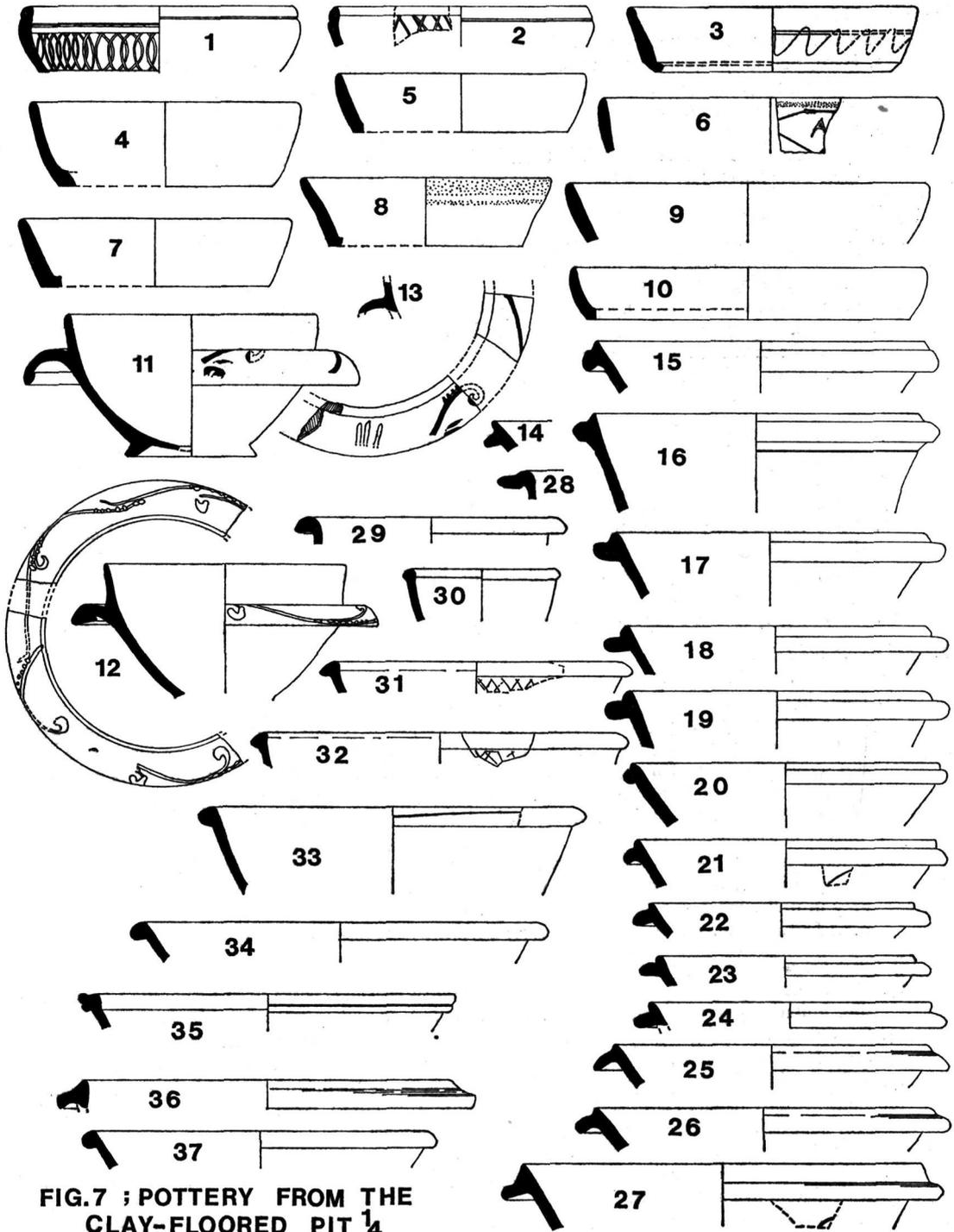


FIG.7 ; POTTERY FROM THE CLAY-FLOORED PIT 1/4

18. Smooth powdery light grey fabric. Surface treatment as 17.  
q.v.: *Park Street, Fig. 18, 12 (first half 4th century)*.
19. Thick rounded flange. Sandy, powdery, dirty-grey fabric. Polished grey slip.  
q.v.: *Verulamium Theatre, unpub., Inst. Arch. Coll.*
20. Vestigial flange, grooved at junction with rim. Hard grey-buff sandy fabric. Smoothed grey slip on inner face, rim and top of flange. Exterior surface matt, smoked dark grey.
21. Small, slightly hooked flange. Hard, gritty, grey-brown fabric. Matt black slip. Vestige of lightly tooled external decoration, probably intersecting arcs.  
q.v.: *Shakenoak, Fig. 18, 48 (240-430)*.
22. Hard, slightly gritty fabric. Grey-brown core, surfaces oxidised chestnut-brown. Coated with black polished slip. q.v.: *Lockleys, Fig. 9, 12*.
23. Smooth, powdery, light grey fabric. Light grey polished slip. *Fabric similar to Verulamium Theatre specimen in Inst. Arch. Coll., unpub.*
24. Hard, slightly gritty, dirty grey fabric, with dark grey burnished slip.
25. Wide, thin flange. Hard, sandy, dirty-grey fabric. Micaceous dark grey slip, very lightly polished on flange.
26. Hard, slightly gritty, grey fabric. Dark grey polished slip.
27. Large, slightly hooked flange and large triangular-section rim. Rough, hard, gritty grey fabric, oxidised dark brown on surface and coated with dark grey polished slip. Vestige of external tooled pattern, probably intersecting arcs.  
q.v.: *Park Street, Fig. 18, 14 (first half 4th century); Gillam 228 (310-370 A.D.)*.

#### Other Bowls

28. Hard, smooth fabric, basically blue-grey, but in parts fired reddish or light grey on surface. Thick grey-white slip, especially thick below rim projection.  
q.v.: *Godmanchester, Fig. 9, 3; Jewry Wall, Fig. 45, 15-18 (both Antonine)*.
29. Horizontal everted rim. Hard, rough sandy grey fabric. Pinkish-grey smoothed slip.
30. Small bowl, rounded rim, with slight overhang on inner lip. Hard, sandy self-coloured pink-red fabric, smoothed with spatula-like instrument, with horizontal strokes on rim and vertical strokes on exterior surface.
31. Dish or bowl. Triangular rim with slight overhang on inner lip. Hard, rough sandy grey-black fabric. Coated with lightly polished black slip. Lightly tooled external lattice body pattern.
32. Dish or bowl. Similar in form, fabric and slip to 31, though surface layers of fabric reduced deep brown. Body pattern similar to 31.
33. Rounded rim. Hard, sandy, dirty grey-brown fabric, surface smoked black. Milk-chocolate-coloured slip, smoothed, and with a light polish on rim and inner face. Scribed undulating line pattern on outer edge of rim.
34. Rounded rim. Hard, sandy, light-grey fabric. Creamy grey slip, polished externally, and tending to grey-brown on rim and inner face.
35. Square-section rim, grooved on top and outer edge. Hard, smooth off-white self-coloured fabric. Ochreous-red slip on top and outer face of rim. A side "keel" and several base fragments, all with ochreous brown decoration, of this ware also found.  
q.v.: *Verulamium Theatre (unpub., Inst. Arch. Coll.); Richborough II, 303 (late 3rd, 4th century)*.
36. Bowl with flange-like rim. Hard, rough, calcite-tempered grey-brown fabric; rim and flange burned through to black.  
q.v.: *Irchester, p. 126, no. 65 (from late structure); Verulamium, Fig. 11, 27; Dorchester 233 (late 4th century); Park Street, Fig. 20, 5 (late 4th century)*.
37. Rounded rim. Soapy-feel grey-brown fabric, smoked dark grey on surface.

#### FIG 8

##### Mortaria

1. Side-wall rim. Hard, salmon-pink fabric; slip of same colour on exterior surface, burnished on top of rim. Applied external criss-cross pattern in white slip. Pink-brown grit.  
q.v.: *Dorchester 213 (late 4th century); Richborough I, 107*.

2. Triangular-section flange. Fine hard grey fabric, core fired dull red in parts. Both surfaces coated with grey-white slip. Pink and grey grit. Sherds of this vessel found in the tile-built structure, and both in and above the associated pit.  
*Similar to Richborough III, 360.*
3. Square-section flange and groove in top of rim. Hard, smooth off-white fabric. Pink grit.
4. Hard, slightly rough cream fabric. Traces of cream-pink slip. Greyish grit.  
*Similar Sandford, Fig. 6, 31.*
5. Hard, smooth pink-brown fabric. Traces of cream slip on inner and outer surfaces. Pink and grey grit. This sherd was built into the south wall of the tile-built structure associated with the pit.  
q.v.: *Sandford, Fig. 6, 33; Lullingstone, Fig. 9, 42; (A rim sherd of very similar form and fabric, from the surface of the Saxon shore fort of Brancaster, Norfolk, is in the possession of M. J. Hammerson).*

*Jars*(i) *Everted rims*

6. Hand-made. Hard, coarse, gritty fabric with "corky" appearance. Colour varies from dirty pink to light grey. *Similarity to Sumner, pl. XIV, 10-11.*
7. Hard, sandy dark grey fabric, burnished on outer face, and on inner face down to point of minimum diameter.

*Rims with slight thickening at tip*

8. Hard, black calcite-gritted fabric. Surface has smooth silky feel. Light combed pattern on shoulder. Surface colour varies from black to grey-brown.  
q.v.: *Verulamium (unpub., Inst. Arch. Coll.); Park Street, Fig. 18, 33 (first half 4th century).*
9. Hard, sandy grey-buff fabric, dark grey on surface. Outer face of lip and rim lightly polished. Cordon on shoulder. q.v.: *Lockleys, Fig. 13, 5 (mid-4th century).*
10. Smooth light grey fabric, fired darker grey on surfaces. Light grey slip on lip and outer surface, smoothed except on inner lip.
11. Thick neck, rim sharply everted. Hard, sandy grey fabric. Smoothed grey-white slip on outer surface, and on inner surface to about half-way down neck, though absent from underside of rim overhang.
12. Smooth hard grey fabric. Light grey slip on outer face and rim, polished on outer surface and top of rim.
13. Hard, sandy grey-brown fabric. Outer 1 mm. thickness of surface reduced grey. Rim smoothed. Two horizontal burnished bands below rim.
14. Hard, smooth light grey calcite-gritted fabric, lightly smoothed.
15. Rough sandy grey self-coloured fabric, surface layers reduced slightly darker grey.
16. Cut-off rim. Self-coloured hard sandy cream-coloured fabric. Horizontal combed shoulder pattern. Surface of rim lightly smoothed. Rim has been burned blackish. (Two other similar rims, several body sherds, and bases of at least seven other individual vessels, all displaying horizontal combing pattern, found. Bases showed withdrawal from potter's wheel by "cheese-wire" method).
18. Smooth, gritty matt self-coloured orange fabric. Rim with light grey core.  
*Similar to Park Street, Fig. 20, 13 (late 4th century).*
20. Hard, sandy grey-brown fabric, tending to grey on surfaces and in core. Outer face smoothed and grey-brown.  
q.v.: *New Forest 1965, Crock Hill Type E.2, Fig. 6, 13.*

*Hooked and undercut rims*

17. Hard, smooth grey-brown fabric, partly burned dark grey. Matt surface. Two narrow burnished bands around neck.
19. Smooth, sandy matt self-coloured grey fabric, though the core is sandwiched by thin red-brown layers.
21. Hard, sandy grey fabric, with smoothed, somewhat milky-grey, surface.
22. Hard, black smoothed calcite-gritted fabric, lightly polished on inner face.  
q.v.: *Verulamium (unpub. Inst. Arch. Coll.); Shakenoak 106 (second half 4th century).*
23. Smooth, hard grey self-coloured fabric, lightly smoothed on lip and outer surface. Traces of red slip on outer face of neck and rim.
24. Hard, sandy self-coloured grey fabric, lightly smoothed.

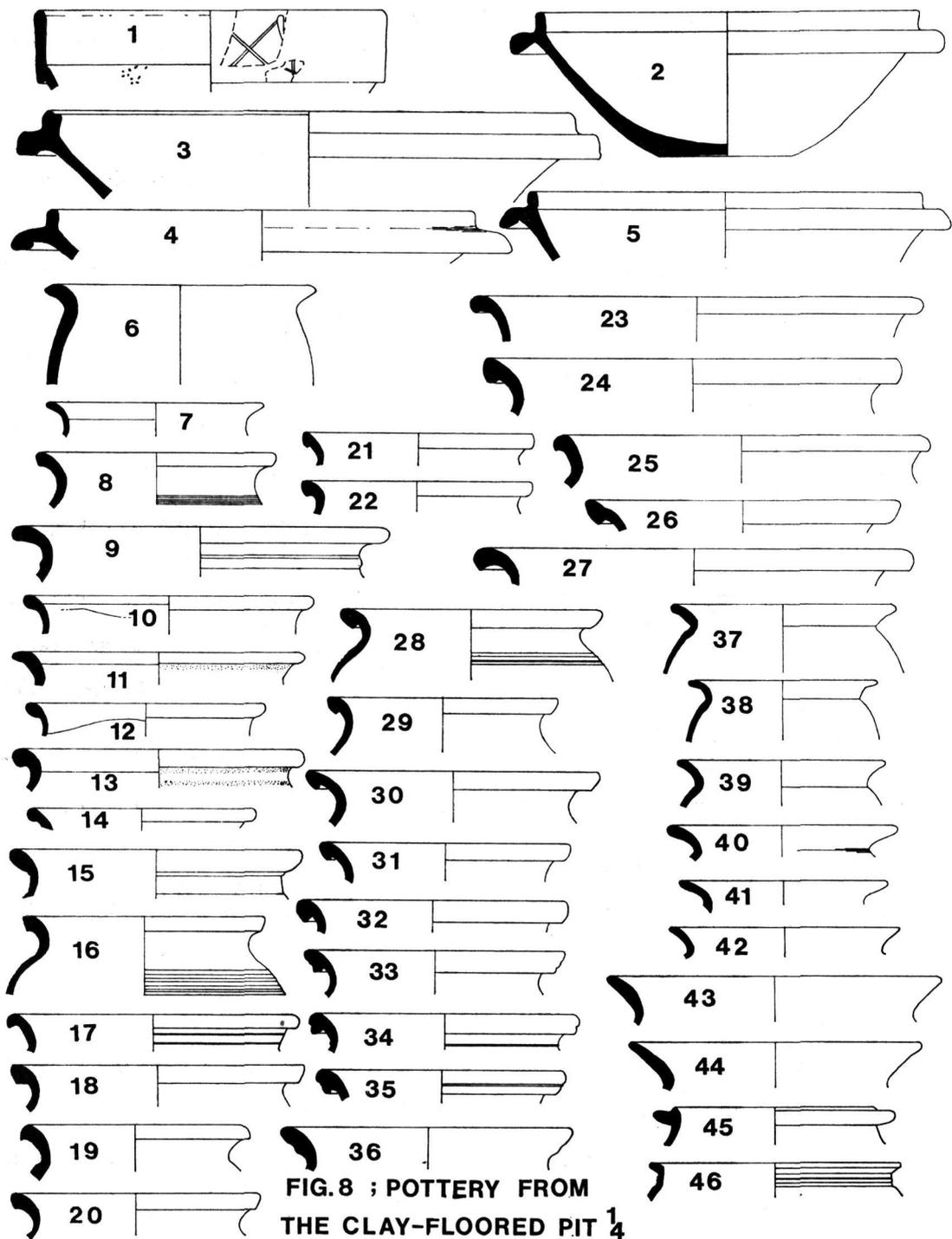


FIG. 8 ; POTTERY FROM  
THE CLAY-FLOORED PIT 1<sub>4</sub>

25. Hard, sandy grey-brown fabric. Surface layer dark grey, smoothed on inner face; outer face slightly rough. *Similar New Forest 1965, Crock Hill Type E.2, Fig. 6, 14.*
26. Rim slightly stepped on inner face. Hard, black slightly porous-textured calcite-gritted fabric. Smoothed surfaces.
27. Hard, smooth orange fabric, grey core. Smoothed surfaces.
28. Hard, red-brown sandy fabric, rim with grey core, surfaces smoked dark grey. Three shallow horizontal shoulder grooves.
29. Hard, smooth grey fabric. Surface matt, lightly "smoked" darker grey.
30. Hard, smooth grey fabric, oxidised dull red on surface. Grey surface slip of identical colour to fabric.
31. Hard, black calcite-gritted fabric, surfaces lightly smoothed. Inner face below rim oxidised dull pink.  
q.v.: *Lockleys, Fig. 12, 2 (early 4th century); Verulamium (common in 4th century deposits); Irchester, p. 126, no. 55 (second half 4th century); Shakenoak 108 (second half 4th century); Dorchester 231 (4th century).*
32. Slightly gritty grey-brown fabric. Surfaces "smoked" dark grey, and lightly smoothed.

"Cornice-rim" Jars

33. Hard, sandy grey self-coloured fabric.
34. Hard, gritty grey self-coloured fabric. Incised horizontal shoulder groove.
35. Vestigial cordon around centre of "cornice". Hard, smooth grey fabric; surfaces smoothed and with brownish tinge.
36. Smooth fabric. Core and surface light grey, sandwiching a thin orange-brown layer.

"Cavetto-rim" Jars

37. Possibly hand-made. Hard, smooth grey self-coloured fabric. Exterior surface lightly polished.
38. Hard, sandy self-coloured grey-brown fabric, smoothed on rim and exterior surface.
39. Hard, sandy self-coloured fabric, dull chestnut-brown. Rim and exterior smoothed.
40. Smooth light grey fabric. Exterior surface smoothed in horizontal bands with a narrow spatula-like instrument; also on interior surface down to narrowest point of neck.
41. Hard, smooth chestnut fabric, but neck has thin grey core. Outer face polished; also inner face to narrowest point of neck. Exterior surface reduced dark grey-brown.
42. Hard, sandy grey-brown fabric. Smoothed on outer surface and top of rim. Internal surface reduced dark grey.  
q.v.: *New Forest, 1965, Type C.1, Linwood North.*
43. Hard, rough sandy fabric, grey core, outer layers dull grey-brown. Inner face of rim and exterior of neck polished.
44. Hard, sandy black fabric, burnished on inner face of rim, and on outer face of body below neck.

Miscellaneous Jars

45. Flanged rim. Hard, sandy light grey self-coloured fabric, lightly smoothed.  
*Type and fabric similar to wares occurring at Crock Hill (New Forest, 1965); Type F.2.*
46. Offset-neck jar with sharply everted rim. Two shallow incised horizontal bands on neck. Hard, fine salmon-pink fabric with matt chestnut-coloured slip.

FIG 9

1. Neckless jar, undercut rounded rim. Hard, rough sandy self-coloured grey fabric, lightly polished on exterior surface.  
q.v.: *Verulamium Theatre (unpub., Inst. Arch. Coll.); Alice Holt (unpub., Farnham Mus. Coll.); Alice Holt, 1963, Fig. 3, 14.*
2. Neckless jar, rounded rim. Hard, rough grey-brown fabric. Surface reduced matt grey.  
q.v.: *Alice Holt (unpub., Farnham Mus. Coll.).*
3. Neckless jar, oval-profile rim. Hard, rough sandy grey fabric. Outer surface, and top of rim, polished.  
q.v.: *Verulamium Theatre (as 1 above); Alice Holt (as 2 above).*
4. Neckless jar. Rim folded over outwards to form rounded profile. Hard, sandy grey fabric. Outer surface, and top of rim, polished.  
q.v.: *Alice Holt (as 2 above).*

5. Body only of globular jar. Hard, fine, quite smooth orange-red fabric. Outer face lightly polished. Three incised grooves in shoulder.
6. Rounded rim, offset neck. Single band of rouletting around neck, cut by lightly tooled groove. Smooth, hard, fine pink-brown fabric with lightly polished orange-brown colour coat.  
q.v.: *Lullingstone, Fig. 8, 35; Dorchester, 224 (4th century)*.
7. Everted round-rimmed jar. Hard, sandy polished orange fabric. Roughly applied and crudely-finished hand-pressed neck frill. Incised wavy line on edge of rim above frill, with loops displaying slight lean to the right.
8. Flat-topped everted rim. Coarse soft grey-buff fabric, heavily gritted with small pinkish grit. Traces of ochreous slip over rim. Top of rim has incised wavy line pattern, displaying slight lean to the right.

#### Storage Jars

9. Coarse rough soft reddish-brown fabric; tempering material burned or leached out, leaving "corky" appearance. Hand made.
10. Hard, rough, sandy grey fabric, surface fired dirty grey. Square, undercut, everted rim, with horizontal lip groove. Dark grey burnished slip on top and outer face of rim.  
q.v.: *Alice Holt unpub., Farnham Museum Coll.*
11. Diameter uncertain, but possibly in excess of 15 inches. Hard, coarse grey-brown fabric, fired grey in patches on outer face of rim. Shallow groove around upper outer edge of rim, and step in shoulder profile.
12. Diameter uncertain. Hard, rough sandy grey fabric, oxidised slightly reddish on inner body wall. Surface lightly smoothed.
13. Hard, sandy grey-brown, rather rough. Fired red-brown on surface. Outer face, and top  $\frac{3}{4}$  inch of inner rim, smoothed.
14. Hard, quite fine, light grey fabric, with polished creamy-grey slip on outer body and rim. Shallow groove in top of rim, and two horizontal grooves in shoulder below rim.  
q.v.: *Alice Holt (as 2 above)*.
15. Body of storage jar, maximum diameter c.15 inches. Hard, smooth grey-brown self-coloured fabric. Zone of thinly-applied grey slip, of uncertain width, above herring-bone pattern. Beneath slip zone, a matt zone, with burnished lines in centre and at base of zone; herring-bone pattern centred on the central burnished line, each panel of decoration applied by hand with a six-toothed instrument, the "V's" of the pattern pointing to the right; the entire zone 1 11/16th inches wide. Below this, a further zone of thinly-applied grey slip, 2 inches wide. Below this, body is matt, but with five horizontal burnished lines, each from  $\frac{1}{2}$  inch to  $\frac{3}{4}$  inch apart; between the first and third lines, two burnished wavy lines, the lower somewhat irregularly applied.  
q.v.: *Alice Holt (as 2 above)*.

#### Beakers

16. Offset neck beaker, hard smooth fine fabric. Grey core sandwiched by salmon pink surface layers, but the inner surface layer considerably thicker, on the whole, than the outer. Exterior surface, and rim, has dark brown polished colour coat. Horizontal rouletted body bands on body, probably four in all.  
q.v.: *Lullingstone, Fig. 8, 36 (but no rouletting); Cowley, Fig. 20, 21 (but slip red)*.
17. Rounded rim, with neck groove cutting into rim. Horizontal shoulder groove. Hard, smooth pink-orange fabric, with dark chocolate colour-coat having a somewhat metallic sheen.
18. Rounded rim. Soft smooth grey fabric, surfaces oxidised salmon pink. Exterior face, and interior of rim, coated with dark chocolate-colour coat. Two horizontal rouletted bands around neck, and an (apparently) circular pattern of impressed squares immediately below.
19. Everted beaker, smooth fine light-grey fabric, self-coloured. Lightly smoothed. Two horizontal rouletted bands around shoulder, of differing patterns.
20. Plain-rimmed beaker with horizontal groove just below lip, giving rim a hooked profile. Diameter and angle uncertain. Hand made. Hard, pink-brown calcite-gritted ware, of rough appearance. Surface dark grey, and has a smooth feel.
21. Rounded rim. Hard, slightly rough, orange fabric. Core slightly purplish in parts. Smoothed on rim and outer body surface.

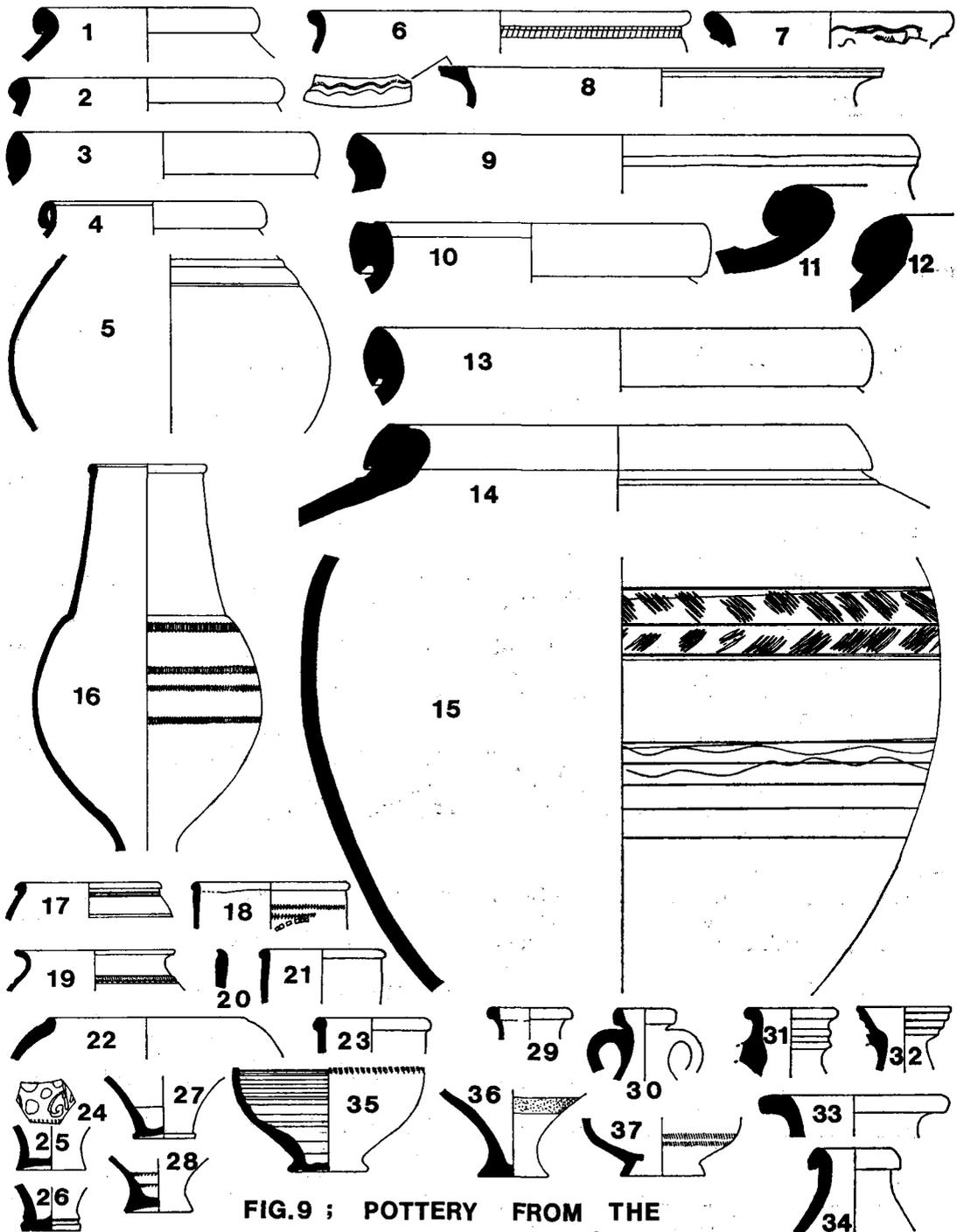
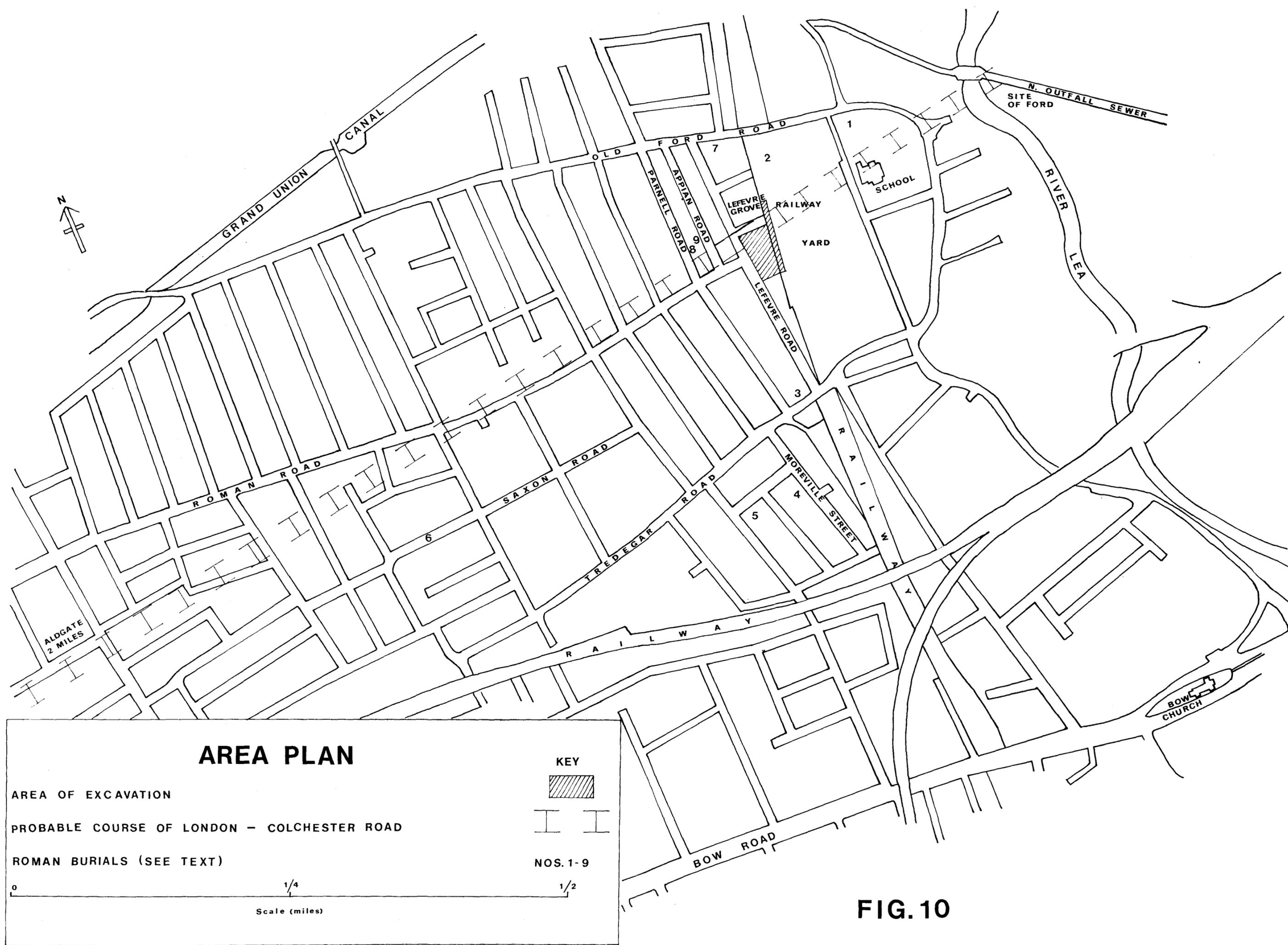


FIG.9 ; POTTERY FROM THE  
CLAY-FLOORED PIT 1<sub>4</sub>



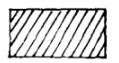
**AREA PLAN**

AREA OF EXCAVATION

PROBABLE COURSE OF LONDON - COLCHESTER ROAD

ROMAN BURIALS (SEE TEXT)

**KEY**



NOS. 1-9



Scale (miles)

**FIG. 10**

22. Slightly upturned rim. Hand made. Fabric almost identical to Beaker 20 above, but of a more red-brown colour. Most of the exterior surface dark smoky grey.  
*Similar to Gillam 155 (160-200).*
23. Rounded rim, inner lip projecting slightly. Smooth hard orange fabric, self-coloured. Smoothed with spatula-like instrument; on rim, by horizontal strokes, on outer body by vertical strokes.
24. Beaker sherd. Sandy grey-brown ware. Metallic brown colour coat on outside with unusual applied white slip decoration in round blobs and scroll pattern. Traces of rouletting at base of sherd. Inside face matt dark blue-grey.
25. Beaker base. Hard, smooth, light grey ware. Outer and inner surface layers fired pink-brown, and both covered with chocolate colour coat, lightly polished on outer surface. Three patches around foot without slip where vessel was held during dipping into slip.
26. Beaker base. Sandy dirty-pink ware. Outer surface coated with dull brown colour coat. Roughly incised rings around foot, and on base.
27. Beaker base. Hard, smooth grey-brown ware, outer and inner surface layers fired pinkish. Both surfaces and underside coated with metallic chocolate colour coat, polished on exterior body. Three patches around foot, as 25.
28. Beaker base. Hard, smooth orange-brown ware, coated on inner and outer surfaces with chocolate colour-coat, polished to a metallic sheen on outer surface. Marks around foot, as 25.

#### Flagons

29. Rounded rim, with slight internal step. Light sandy grey self-coloured fabric, exterior "smoked" slightly darker.  
*(Similar New Forest (1964), Crock Hill Type A.2)*
30. Collar rim, two handles. Hard, sandy grey-brown fabric; black slip on exterior surfaces, and on interior of spout down to narrowest point, burnished on exterior.  
q.v.: *Alice Holt, unpub., Farnham Mus. Coll.*
31. Ring-necked, one(?) handle. Smooth sandy fabric. Partly fired pink-brown throughout; partly grey core with pink-brown surface layers. Surface smoky grey. Lightly burnished on high points of neck rings. Part of rim has spongy or flaky appearance, suggestive of misfiring.
32. Ring-necked, one(?) handle. Hard grey-brown core, outer layers oxidised red-brown. Thin cream slip on both surfaces, though only patchy on inner.
33. Hard, off-white fabric. Core of rim pink.
34. Undercut rounded rim. Smooth, fine fabric; outer half fired grey-brown; inner half oxidised orange-brown.

#### Miscellaneous

35. Base, jar or beaker. Smooth, fine grey-brown fabric. Outer surface covered with lightly polished brown slip. Horizontal rouletted band decoration.
36. Pedestal base. Hard, grey sandy ware, outer surface polished, with exception of a matt horizontal zone nearly  $\frac{1}{2}$  inch deep.
37. Foot-ring base of small bowl. Hard, fine smooth fabric, salmon pink with purplish-pink core. Coated with dull orange slip. Two horizontal rouletted bands on exterior of "keel". Possibly in imitation of Samian form 29.

### C. OTHER LOCAL FINDS

The occupation evidence is not altogether surprising. Nineteenth-century building development and railway excavation led to the discovery of at least six places containing either inhumation or cremation burials within half a mile of the Lefevre Road site. The finds (see Fig. 10, Area Plan 1 to 6) were summarised and discussed by Reginald Smith in 1910.<sup>25</sup>

Smith thought that the burials were of London inhabitants and that they indicated the proximity of a road.<sup>26</sup> It is possible, though, that some at least of these remains were of people who lived more locally than the city. In an earlier description of one of the burials<sup>27</sup> Roach Smith noted that it had been found "contiguous to fields and gardens in which

Roman urns have occasionally been found and Roman coins in great abundance". He also recorded that "the tenant of one of the gardens . . . told us that he had dug up within the last few years, at least 500 Roman coins".

Current redevelopment in Old Ford has led to a renewal of burial discovery during 1969. On the Lefevre Road project the staff of John Laing Construction recorded a cremation probably of 1st century date (Area Plan 7) and an inhumation contained in a stone coffin (Area Plan 8).<sup>28</sup> A further inhumation was found some 100 feet north-east of the latter in October, 1970, in a machine-dug section (Area Plan 9).<sup>29</sup>

#### D. THE NATURE OF THE SETTLEMENT

From this limited amount of excavation it is not possible to obtain a clear picture of the Old Ford community, either in terms of size or function.

The weight of evidence, from this site, points to a late date. Only two of the non-road features investigated belong to an earlier period. One, a ditch, lay 90 feet south of the road, away from the area of late scatter and contained 2nd-century pottery. The second was a red clay surface, baked hard by fire, which lay near to the southern edge of the road, at the extreme west of the site. Only its eastern part could be examined; the rest lay under the Lefevre Road pavement. The feature was accompanied by a rectangular pit which contained pottery, also of the 2nd century, lying in a burnt deposit.

It is possible that we are investigating some "ribbon development" alongside the main road. This could, in turn, be the western part of a settlement on the Ford relating to the road crossing, and possibly to the docking of river transport. Equally, we might be in a village, or on the outskirts of a farmstead or a villa. It would be unwise to decide at the moment.

In order comprehensively to understand the nature of this settlement more excavation is required during the next few years in liaison with the Tower Hamlets and G.L.C. development programmes in Old Ford. Probably much of the settlement was destroyed during 19th century building operations; we have evidence that some went unrecorded in the cutting made for the North London Railway. Undoubtedly more will go as the large development programme planned for the early 70's radically alters more than the face of Old Ford.

#### ACKNOWLEDGEMENTS

This excavation, carried out on behalf of the London Museum, was intended to last only two weeks in September, 1969. Due to alterations in the Lefevre Road building programme it was possible to continue, mainly during weekends, until June, 1970. In that month the site was finally cleared and much of it was mechanically excavated away to a depth well below any cultural levels.

By that time the initial objective had been achieved and, in addition, a large proportion of the available area examined. This was due largely to the efforts of the following: John Earp, Mike Hammerson, Becky Warren, Pete Daniels, Eddie Phillips, John Barrett, Geoff Toon, John Warbis, Win Exley, Elizabeth Pye, Geoff Barratt and Alison Laws. John Earp also acted as site photographer.

On their behalf I would like to thank the many others who gave assistance on the site: Sheila Phillips, who made so many hundred cups of tea during the winter of 1969-70; Gwenno Caffel and Savilla Connolly who washed most of the pottery.

Thanks are especially due to the following: the Site Agent and Staff of John Laing Construction for their encouragement and provision of many facilities; Tower Hamlets' Architects Department for their advice, help and co-operation, Tower Hamlets Borough Council and the Department of Environment (then Ministry of Public Building and Works) for making grants towards the cost of the work to the London Museum.

Much of the post-excavation work on the pottery was undertaken by Mike Hammerson, Clive Orton, Pat Evans, Geoff Toon, John Earp, Win Exley and Becky Warren. Bernard Barrell was responsible for the information on local history; Elizabeth Pye undertook the conservation work on the small finds, and also drew them; Joanna Morris examined and reported on the Samian.

I would like to thank Dr. John Alexander and Mr. Ralph Merrifield for frequently visiting the site and giving advice; Mr. Ray Farrar for his comments on the pottery; and Bernard Brandham of the Horniman Museum for taking an additional photographic record of the road. Roy Canham, the London Museum Field Officer, was responsible for the initiation of the dig and its administration and gave much valuable help at every stage.

Facilities for post-excavation work were provided by E. M. Hutchinson who made space for storage and working available at the N.I.A.E., and also by the Director and Librarian who allowed us to use the Institute of Archaeology Library. The report was typed by Win Exley.

ABBREVIATIONS USED IN REFERENCES FOR POTTERY Illustrated in Figs. 5, 7, 8 and 9.

Alice Holt	"A Romano-British Kiln-mound in Alice Holt Forest" (Bennett, Davies, Thomas and Vignaux; <i>Surrey Arch. Coll.</i> , 1963).
Alice Holt (unpub., Guildford/Farnham Mus. Coll.)	Alice Holt — unpublished specimens in Guildford/Farnham Museum Collections.
Cowley	"Two Romano-British Potters' Fields near Oxford" (D. B. Harden, <i>Oxoniensia</i> , 1936).
Dorchester	"Excavations at Dorchester-on-Thames (S. Frere, <i>Archaeological Journal</i> , Vol. CXIX, 1962).
Gillam	"Types of Roman Coarse Pottery in Northern Britain" ( <i>Archaeologia Aeliana</i> , 1957).
Godmanchester	"A Roman Farm Settlement at Godmanchester" (W. H. C. Frend, D.D., F.S.A., <i>Procs. Camb. Ant. Soc.</i> , LXI, 1968).
Irchester	"Excavations at the Roman Town of Irchester, 1962-63 (D. N. Hall and N. Nickerson; <i>Arch. Jnl.</i> , CXXIV, 1967).
Jewry Wall	"Excavations at the Jewry Wall Site, Leicester (K. M. Kenyon; <i>Res. Rep. of Soc. of Ant.</i> , 1948).
Lockleys	"The Roman Villa at Lockleys, Welwyn" (Ward Perkins; <i>Ant. J.</i> XVII, 1938).
Lullingstone	"Lullingstone Roman Villa"; 2nd Interim Report.
New Forest, 1964-65	"Report on the Excavation of Three Pottery Kilns in the New Forest" (B. Cunliffe; <i>Procs. Hants. Field Club</i> , 1964, 1965).
Park Street	"The Roman Villa at Park Street, near St. Albans, Herts." ( <i>Arch. Jnl.</i> , CII, 1945).
Richborough, I, II, III	1st, 2nd and 3rd reports on the Excavations of the Roman Fort at Richborough, Kent (J. P. Bushe-Fox, F.S.A.; <i>Soc. Ant. Lond.</i> , 1926-28-32).
Sandford	"On the Pottery from the Waste Heap of the Roman Potters' Kilns Discovered at Sandford, near Littlemore, Oxon., in 1879" (T. May; <i>Archaeologia</i> , 72, 1922).
Shakenoak	"Excavations at Shakenoak" (A. C. Brodribb, A. A. Hands, D. R. Walker (Privately Printed), Part I, 1968).
Sumner	"Excavations in New Forest Pottery Sites" (H. Sumner, London, 1927).
Verulamium Theatre	"The Roman Theatre at Verulamium" (K. M. Kenyon; <i>Archaeologia</i> , 84, 1934); also: unpublished specimens in the collection of the Institute of Archaeology.
Institute of Archaeology Collection	Institute of Archaeology Collection, London.

APPENDIX I  
COINS FROM THE EXCAVATION

BY M. J. HAMMERSON

The excavation produced 172 Roman coins, ranging almost entirely from the Gallic Empire to the end of the Roman occupation. A summary follows:

1st-2nd century Asses, unidentified	2		
Vespasian	1		
Trajan	1		
Hadrian	2	Claudian-Antonine	9
Antoninus Pius	1		
Marcus Aurelius	1		
Faustina Jr.	1		
<hr/>			
Early 3rd century (incl. one coin of Julia Domna)	2	Severan	2
<hr/>			
Gallienus	2		
Postumus	2		
Claudius II	2	Mid-3rd century	8
Claudius II (Barbarous imitations)	2		
<hr/>			
Victorinus	3		
Tetrici	9		
Other Gallic Empire, uncertain	10	Gallic Empire	29
Barbarous Radiates	7		
<hr/>			
Antoninianus, unidentifiable	1		1
<hr/>			
Carausius	5		
Allectus	1	British usurpers	6
<hr/>			
Maximian or Maximinus II	1		
Licinius I	2		
Constantine I	4		
Constantinopolis	3		
Urbs Roma	3		
Helena	1	House of Constantine	41
Crispus	1		
Constantine II	3		
Constans	4		
Constantius II	4		
Other House of Constantine, uncertain	6		
Barbarous imitations, House of Constantine	9		
<hr/>			
Magnentius	1		
Gratian	4		
Valentinian I	5	House of Valentinian	31
Valens	17		
Other, unidentified	3		
Barbarous imitation of Valens	1		
<hr/>			
Magnus Maximus	2		
Theodosius I	1		
Aelia Flacilla	1		

Arcadius	3	House of Theodosius	21
Honorius	2		
Other, uncertain	8		
Barbarous imitations	4		
	<hr/>		
Other 4th century, uncertain	6		
Minimi	5	Other Roman	24
Unidentifiable	13		
	<hr/>		
Post-Roman (18th–19th century)	8		8
	<hr/>		
		Total	<hr/> 180

## DETAILED COIN LIST

- Notes:* 1 Left-hand column shows coin numbers as referred to elsewhere in report.  
 2 All coins bronze, except numbers 9 and 10.  
 3 \*\*\*indicates from tile-built structure; \*from associated pit fill; \*\* from beneath dirty clay deposit over floor of pit.  
 4 N after reference number indicates coin from non-Roman context.  
 5 Numbers in right-hand column are small-find numbers allotted to coins.  
 6 Dates refer, where possible, to period during which coin was minted; otherwise to reigns.

*Abbreviations:* RIC: Mattingly & Sydenham, "Roman Imperial Coinage"  
 LRB I/II: Carson, Hill & Kent, "Late Roman Bronze Coinage", Parts I and II.

*Probable condition at time of deposit* indicated by letters in right-hand column.

A=little or no wear; B=light wear only; C=average wear; D=fairly heavy wear; E=very heavy wear. Where two letters are given, condition is somewhere between the two grades.

Whilst these categories represent the writer's opinion alone, and are therefore subjective, it is hoped that they will provide a relative guide to the length of time during which the coin may have been in circulation.

1/N	AE As, Claudian or Flavian	244a	D/E
2	Vespasian. Rev. SECVRITAS AVGVSTI, AE As, (71–73)	183	B/C
3	AE As, late 1st–early–2nd century	164	E
4	Trajan (98–117): AE Sest. Obv. [IMP CAES NER TRAIAN OPTI]MO AVG GER DAC P . . . Rev. Standing figure	205	E
5	Hadrian (123–4) AE Sest., Alexandria Mint. Obv. (in Greek) TRAIAN ADRIANO. Rev. Sphinx L., holding wheel; between L and H	257	C/D
6*	Hadrian (117–38), AE Sest.	230	E
7	Antonius Pius (157–8), AE Sest., Rev. TR POT (X)XI . . . S C	260	E
8	Marcus Aurelius (161–80), AE Sest.	81	±D/E
9/N	Faustina Jr. (146–61), RIC (Marcus Aurelius) 1678/9	84	E
10/N	Julia Domna (211–17), AR Ant., RIC (Caracalla) 373a	202	C
11	Unidentified Empress, early 3rd century, AR Ant.	180	?
12	Gallienus (253–68). RIC 180	144	D/E
13	Gallienus (253–68). RIC 283	130	D/E
14	Postumus (259–61). RIC 53, 54 or 55	174	B
15	Probably Postumus (259–68), AE Ant.	153	D
16	Claudius II (268–70). RIC 62 or 63	71	C
17	Claudius II (268–70). AE Ant.	50	C/D
18	Barbarous imitation, Claudius II, type RIC 261/262	151	D
19	Barbarous imitation, Claudius II, possibly type FIDES MILITVM	126	E

20	Victorinus (268-70). RIC 78	96	C
21	Victorinus (268-70). RIC 114	72	D
22	Victorinus (268-70). AE Ant.	123	E
23	Tetricus I (270-3). RIC 79-81	142	C/D
24	Tetricus I. RIC 148	132	D
25*	Tetricus I. AE Ant., type LAETITIA AVG, irregular die	220	B/C
26	Tetricus I. AE Ant., type PROVIDENTIA AVG	128	D/E
27/N	Tetricus II (270-3). RIC 270-4	255	D
28/N	Tetricus II. AE Ant.	184	E
29	Tetricus II. AE Ant., type SPES AVGG	212	D
30	Tetricus II. AE Ant.	138	C
31	Tetricus II. AE Ant., type SALVS AVG	165	E
32	Victorinus or Tetricus I (268-73). AE Ant.	187	E
33	As 32	211	D/E
34	As 32. Possible rev. type Victory L	185	D/E
35*	As 32. Rev. type SALVS AVG	220	C/D
36/N	Probably as 32. AE Ant.	11	D
37	Probably Tetricus I or Allectus (270-96). AE Ant.	14	D/E
38/N	AE Ant., uncertain	15	D/E
39	As 38	168	E
40/N	As 38	197	B/C
41/N	As 38	83	E
42	As 38	137	E
43	Barbarous AE radiate	196	D
44	As 43, rev. type figure with olive branch and cornucopiae	152	E
45*	As 43. Rev. figure L. holding olive branch. Inscription PAE (imitation of PAX or PIETAS)	217	B
46	As 43	167	D/E
47	As 43, type of PAX AVG	171	A
48***	As 43. Obv., portrait of Gallic Emperor. Rev. GENI(VS EXERCITI), type of Claudius II	251	B
49*	As 43, rev. figure with spear or standard	216	B
50/N	Carausius (287-93). RIC 895	22	C
51	Carausius. AE Ant., type PAX.AVG, mint unattributable	173	C
52/N	Carausius, AE Ant.	258	C
53***	Carausius, AE Ant., probably London mint, type HILARITAS AVG	250	C/D
54/N	Carausius, AE Ant., type PAX AVG	54	C/D
55	Allectus (293-6). RIC 55	198	B/C
56	AE Ant., late 3rd-early 4th century	260	E
57**	Maximian (306-8) or Maximinus II (309-13), AE Follis, type GENIO POPVLI ROMANI, Trier Mint	252	A
58/N	Licinius I (310-13), RIC 845b	8	D
59/N	Licinius I (320-1). RIC 295	9	B
60	Constantine I (307-24), AE Follis, London mint, type SOLI INVICTO COMITI	161	C
61	Constantine I (320). RIC (London) 169	47	C/D
62	Constantine I (321). RIC (Trier) 303	149	B
63*	Constantine I (324-6). AE 3/4, type VICTORIAE LAETAE PRINC PERP	248	C
64/N	Constantinopolis (330). LRB I-52	190	C
65	Constantinopolis (330-5). LRB I-71	135	C/D
66	Constantinopolis (330-5). AE 3/4	69	B
67	Urbs Roma (334). LRB I-389	159	D
68	Urbs Roma (330-41). AE 3/4	201	C
69	Urbs Roma (330-41). AE 3/4	191	D
70	Helena (337-41). LRB I-112	195	C/D
71	Crispus (322-3). RIC (London) 247	155	D

72	Constantine II (320-1). RIC (London) 190	162	E
73/N	Constantine II (325). RIC (Siscia) 194	88	B/C
74	Constantine II (337-41). LRB. I-686, 686a, 690 or 692a	178	C
75	Constans (330-5). AE 3/4, type GLORIA EXERCITUS, possibly Lyons Mint	166	C
76	Constans (341-6). LRB I-140	29	A/B
77	Constans (341-6). LRB I-142a	127	B
78	Constans (341-6). LRB I-456	134	B
79	Constans or Constantine II (341-6), type VICTORIAE DD AVGGQ NN	41a	E
80	Barbarous imitation, Constans, type (330's) (Trier), GLORIA EXERCITVS	136	E
81	Constantius II (324-30). LRB I-298, 307, 313, 317 or 325	80	A
82	Constantius II (335-7). LRB I-94	66	C
83	Constantius II (346-60). AE 3/4, rev. type FEL TEMP REPARATIO	177	C
84	Constantius II (337-61). AE 3/4, possibly barbarous imitation	157	?
85/N	Constans or Constantius II (341-6). AE 3/4, rev. type VICTORIAE DD AVGGQ NN. Mint possibly Aquileia, Siscia or Thessalonika	193	E
86/N	As 85, possibly barbarous imitation	85	C/D
87	Constans or Constantius II (335-7). AE 3/4, rev. type GLORIA EXERCITVS, one standard. Mint of Rome or eastwards	179	E
88/N	AE 3/4, rev. type GLORIA EXERCITVS (one standard)	94	D
89*	Barbarous imitation, Constantius II, type FEL TEMP REPARATIO. AE 20mm	214	D
90	As 89, AE 15mm	45	B/C
91*	As 89, AE 15mm	213	C
92	As 89, AE 14mm	175	C
93	As 89, AE 13mm	207	E
94	As 89, AE 12mm	125a	C
95	Barbarous imitation, mid-4th century. AE 15mm, elliptical flan	147	E
96*	Barbarous imitation, mid-4th century. AE 10mm	232	C/D
97	Magnentius (351-3). AE2, type VICTORIAE DD NN AVG ET CAES	133	E
98*	Constantius II or Julian II (355-60). AE 4, type SPES REIPUBLICAE	247	B
99	Gratian (367-75). RIC (Arles) 15	125	D
100	Gratian (367-75). LRB II-1324	48	C
101	Gratian (367-75). AE3. rev. type GLORIA ROMANORVM, mint mark R.A.G. Carson suggests that it may be a defective LRB.II-1421-3, with the F appearing as a P	$\frac{P}{R} \frac{R}{A}$	
102*	Gratian (367-78):AE3, rev. type SECVRITAS REIPUBLICAE, possibly LRB II-726 or 731	)SISC( 189	B/C
103	Valentinian I (367-75). LRB II-300, 307, 313 or 317	222	D
104**	Valentinian I (364-7). LRB. II-490	145	B
105*	Valentinian I (364-7). LRB II-992	245	C
106	Valentinian I (367-75). LRB II-1418, 1419 or 1429	236	C/D
107*	Valentinian I (365-78). AE3, type SECVRITAS REIPUBLICAE	160	D/E
108*	Valens (364-7). LRB II-276	239	C
109/N	Valens (364-7). LRB II-483	237	C/D
110	Valens (364-7). LRB II-970	39	B
111	Valens (364-7). AE3, rev. type GLORIA ROMANORVM	68	B/C
112	Valens (364-78). Rev. as 111	194	E
113	Valens (364-75). LRB II-285, 292, 303, 305, 306, 309, 315, 319 or 322	146	E
114	Valens (367-75). LRB II-303	70	D
115	Valens (367-75). Rev. type of SECVRITAS REIPUBLICAE	172	C/D
116*	Valens (364-75)	131	D/E
117	Valens (364-78). Rev. as 115	240	D/E
118*	Valens (367-75). LRB. II-104	129	E
119*	Valens (367-75). LRB II-344	228	C
120	Valens (367-75). LRB II-499	215	C
		121	C

121/N	Valens (367-75). LRB II-502	203	D
122	Valens (367-75). LRB II-528	86	E
123	Valens (367-75). LRB II-1042 or 1743	148	D/E
124	Valens (367-78). LRB II-725	143	A
125	Barbarous imitation of Valens, LRB II-513 type	95	A
126***	AE4, type SECVRITAS REIPVBLICAE (367-78)	200	E
127*	As 126	249	E
128	Magnus Maximus (387-8). LRB II-156 or 157	188	C
129**	Magnus Maximus (383-7). LRB II-559	254	A
130	Theodosius I (378-83). Rev. type VOT X MVLT XX, possibly Aquileia mint	74	C
131*	Aelia Flaccilla (383). LRB II-2163	223	C/D
132*	Arcadius (383-92). LRB II-392, 566, 1087 or 1578	219	D
133*	Arcadius (388-402). LRB II-164/7, 170, 392/5/7, 566/9, 571, 1577 or 1581	233	C
134	Arcadius (388-402). AE4., rev type VICT(ORIA AVGGG)	141	D
135*	Barbarous imitation, Arcadius, rev. type VICTORIA AVGGG. AE 12mm	241	C
136	Barbarous imitation, Arcadius, type LRB II-566/569. AE 14mm	206	B/C
137***	Honorius (394-408). Possibly LRB II-806/9, 810/1, 1111/3, 2194 or 2579	199	C
138*	Honorius (395-402). LRB II-174, 398 or 572	238	C/D
139*	AE4, rev. type SALVS REIPVBLICAE (388-408)	225	E
140	As 139	156	E
141	As 139. Mint of Rome or eastwards	208	D
142*	AE4, rev. type VICTORIA AVGGG (388-402). Possibly Trier mint	243	B
143	As 142, mint uncertain	150	E
144*	AE 3/4, 2nd half 4th century	209	E
145*	As 143	235	E
146	AE4, late 4th century. Rev. type Victory advancing L	176	E
147*	Barbarous imitation, rev. type SECVRITAS REIPVBLICAE, AE 11mm	246	C
148*	Barbarous imitation, late 4th century. AE 8mm	218	D
149/N	AE 14mm, 4th century	120	?
150	AE 12mm, 4th century	139	?
151	AE 11mm, 4th century	140	?
152*	AE 11mm, 4th century	226	?
153	AE 11mm, 4th century	163	?
154*	AE 10mm, 4th century	242	?
155/N	AE Minim, 8mm	244b	?
156	AE Minim, 8mm	204	?
157	AE Minim, 8mm	158	?
158*	AE Minim, 6mm	256	?
159*	AE Minim, 5mm	229	E

The following probably all 3rd or 4th century, but otherwise unidentifiable:

160	AE 16mm	61
161	AE 16mm	192
162/N	AE 14mm	81
163*	AE 14mm	221
164	AE 12mm	97
165	AE 12mm	170
166	AE 11mm	41b
167*	AE 10mm	234
168*	AE 10mm	224
169*	AE 10mm	227
170	AE 9mm	112
171	AE 7mm	68a
172	AE (disintegrated during cleaning)	169



5



48



89



49



96



90



91



92



94



101



125



135



136



147

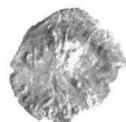


PLATE E. Selection of notable and barbarous coins.

*Modern*

173/N	George II, halfpenny, 17(129)	182	B
174/N	George III, penny, 1806-7	18a	D
175/N	George III, halfpenny, 1806-7	18b	D
176/N	17th-18th century coin weight	186	-
177/N	18th-19th century token	12	E
178/N	Victoria, farthing, 1839	7	A
179/N	Victoria, penny, type 1860-94	2	E
180/N	Victoria, penny, type 1860-94	259	B/C

COINS FROM THE TILE-BUILT STRUCTURE AND  
ASSOCIATED CLAY-FLOORED PIT

The discovery of these features, the fills of which contained joining sherds, provided a further 44 bronze coins, marked on the detailed list with asterisks. The emphasis on third and 4th century occupation, apparent from the coins as a whole, was especially noticeable in this group, 34 per cent of which represented the House of Theodosius. The following lists show comparisons of percentages of coins attributable to each period of occupation, for firstly, the site as a whole, and secondly, for the structure and pit only.

<i>Period</i>	<i>Total Coins from site</i>	<i>From Structure and Pit only</i>
	<i>(Total number 172)</i>	<i>(Total number 44)</i>
	<i>per cent</i>	<i>per cent</i>
1st-2nd century	5	2
3rd century	27	14
House of Constantine	24	14
House of Valentinian	18	18
House of Theodosius	12	34
Other 3rd-4th century	14	18

Significant dating evidence came from the fill of the structure, in which was found a coin of Honorius datable to 394-408; and on the floor of the pit was a coin of Magnus Maximus, datable to 383-7.

*Mint Marks*

The table below is an analysis of identifiable 4th-century mint-marks. It will be noticed that a higher proportion of the later coins come from easterly mints.

	London	Mints from Rome westward						Mints east of Rome				
		Trier	Lyons	Arles	Rome	Other	Total	Aquileia	Siscia	Constantinople	Other	Total
House of Constantine (307-324) .. ..	4	1					5					
" " (324-360) .. ..		6		3			9	1	1		2	4
House of Valentinian (364-378) .. ..		1	5	6	2		14	2	3		1	6
House of Theodosius (378-408) .. ..		2		1		1	4	1		1	2	4
<b>TOTALS</b> .. ..	<b>4</b>	<b>10</b>	<b>5</b>	<b>10</b>	<b>2</b>	<b>1</b>	<b>32</b>	<b>4</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>14</b>

*Coins meriting individual mention*

No. 5: Hadrian, Alexandria mint. Very few of these coins have been found in definite Romano-British contexts.

No. 48: Barbarous Radiate, imitating portrait of Gallic Emperor, but with reverse apparently imitating a type of Claudius II.

No. 101: Gratian. Possible a mint-mark not recorded in RIC or LRB. See comments in detailed list, and illustration.

No. 131: Aelia Flaccilla, wife of Theodosius I. Uncommon in Romano-British contexts.

#### *The "Barbarous" Coins*

Several of these have been illustrated. Total of barbarous coins attributable to each period as follows:

To mid-3rd century	Nil
Gallienus-Claudius II	2 out of 8
Gallic Empire (excluding Carausius and Allectus)	7 out of 29
House of Constantine	9 out of 41
House of Valentinian	1 out of 31
House of Theodosius	4 out of 21

#### *Defacements, etc.*

<i>Ref. No.</i>	<i>Details</i>
15, 166	Possibly drilled near edge and subsequently broken.
46, 95	Struck on elliptical flan
91	Possibly an overstrike.
107	Cut or snapped in half in antiquity
116, 160	Clipped.
124	Square depression, c.1mm wide, punches near centre of reverse.
137	Very fine hole through centre. Unlikely a result of corrosion, as coin is otherwise in a good state of preservation.

#### ACKNOWLEDGEMENTS

R. Merrifield, Esq., of the Guildhall Museum, for kindly checking the identifications, making amendments or adding comments where necessary, and for his invaluable assistance in identifying some of the badly-preserved coins.

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R. A. G. Carson, Esq., of the British Museum (Dept. of Coins and Medals), for his helpful comments regarding coins Nos. 5, 101 and 131.

## APPENDIX II THE ANIMAL BONES

BY DERRICK RIXSON

### INTRODUCTION

The animal bone was generally in a good state of preservation, although most of it was fragmentary. The only whole bones were phalanges, carpals, tarsals, one cattle metatarsal, one cattle metacarpal, one sheep metatarsal; also one horse femur was almost complete. There was considerable evidence that the cattle bone had been chopped in the course of butchering the animals, which would have initiated the break-up of the bones with further fragmentation occurring subsequently.

More than 90 per cent of the total bone was from cattle, but this fact is not reflected in the total number of individuals, as the individuals of other species were mainly represented by a small number of bones.

### METHOD

The bones of each trench and layer were sorted and recorded separately. They were sorted into specie and then into skeletal order. The details recorded under each specie were:

- Number of bones or fragments of each bone.
- Any evidence of fusion or non-fusion of the epiphyses or tuberosities.
- Age category based on the fusion state.
- Minimum number of individuals.

The minimum number of individuals recorded for each bone, e.g., 6 distal right humerus and 2 distal left humerus; minimum number of individuals, 6. The total of individuals for each trench-layer would be the highest number of individuals recorded against any single bone; likewise, the totals for each age category. The totals of individuals for the site are the sum of the totals of each trench-layer.

The fragments of skull, maxilla, premaxilla, horn core and mandible were listed separately. The teeth, including loose teeth, were sorted into incisors, canines, upper and lower premolars and upper and lower molars and, where possible, the numbers of the teeth, e.g., third molar, third temporary molar.

The age categories are as follows:

	Cattle	Sheep	Pigs
A.	Less than 1 year	Less than 1 year	Less than 1 year
B.	1-2½ years	1-2 years	1-2 years
C.	2½-4 years	2-3½ years	2-3½ years
D.	4 years and over	3½ years and over	3½ years and over

These figures are approximate and there will be some degree of overlap of the categories. The individual animals were placed into these age categories according to bone fusion and tooth eruption. The categories B/C and C/D include those individuals which belong to one or other of the two categories, but could not with certainty be placed in either of them.

Some of the bone material was adequate to define a separate individual, but was not that part of the bone that would show evidence of age; therefore, the total number of individuals exceeds the sum of the totals of the separate age categories.

The division of bones for the different parts of the body was as follows:

<i>Forequarter</i>	Radius, ulna, humerus, scapula, cervical and thoracic vertebrae.
<i>Hindquarter</i>	Tibia, femur, patella, pelvic, lumbar and sacral vertebrae.
<i>Feet</i>	Carpals, tarsals, metatarsals, metacarpals, phalanges.
<i>Head and Teeth</i>	Skull, mandible, horncore, teeth.

The division of bones into these categories can aid conclusions relating to social and economic significance of the bone material.

#### FINDINGS

The bone findings could indicate that the cattle, sheep and pigs were slaughtered on or near the site and were then butchered and the meat consumed locally. This would be supported by the definite signs of chopping on many of the bone fragments from cattle. The bones of cattle were fairly evenly representative of all parts of the body, apart from the lower number of individuals represented by hindquarter bones (54) which would not constitute a really significant difference considering the nature of the bone material. This even representation would be contrary to what would be expected if the animals were slaughtered at the site and the meat transported for consumption elsewhere.

The sheep and pigs are represented by a higher proportion of head and teeth than by other bones, which, coupled with the more even representation of cattle bones, could indicate that this bone residue is from the point (butcher's shop) where the carcasses were butchered and the meat taken to dwellings in the vicinity for cooking and consumption. The beef could have been taken boneless and the pork or mutton cuts taken with the bone; hence the small representation of pig and sheep individuals by bones other than head and teeth.

The total of animals show as many individuals less than mature (approx. 4 years) as there were fully mature (over 4 years). These young animals which were being slaughtered may have been animals reared specifically for meat, or they may have been animals that were being reared for breeding stock, milk or draught, and then, for some reason, slaughtered off.

The chopping signs on the bones indicate that chopping was the main method of breaking a carcass down into the various joints. All the heads of the femurs found were separate from the shaft and most had been chopped, while the remainder had separated at the epiphyseal joint, but may have been originally chopped. This could indicate that the hind limb was removed from the pelvis in this way. There were consistent signs of chopping on the ulna in a ventral dorsal direction at the point where the shaft curves to the olecranon. This could have been for the separation of the humerus radial joint. For the remainder of the bones, there did not appear to be a consistent pattern of the chopping signs. Although many of the vertebrae were chopped, it was mainly across and not in a posterior/anterior direction; therefore the indications were that the carcasses were

not split in two through the vertebrae. If the facilities for hanging whole carcasses were inadequate it would have been more suitable to place a carcass, back down, on a firm surface and chop it into joints similar to the method employed by a butcher today when cutting up a lamb on a block.

The only two reasonably complete burials were of two dogs; one was found in the fill of a pit, another in a ditch. Both were well south of the main bone scatter.

There were no clear signs of pathology in the bone material. One cattle mandible had a third molar with only two cusps instead of three. This is probably a genetic feature which has been reported in Iron Age, Roman and Saxon cattle (*personal communication* - Barbara Noddle).

Totals of animals represented by the bone material:

		Cattle	Sheep	Pig	Horse	Dog
Total of individuals		117	38	15	6	4
Number of individuals in each age category	A					
	B	9				
	BC	6	1			
	C	16	4	3		
	CD	4	1			
	D	32	6	3		
Number of individuals represented by bones of different parts of the body	F <sub>4</sub> <sup>*</sup>	73	11	4		
	H <sub>4</sub> <sup>**</sup>	54	16	2		
	Feet	77	8	1		
	Head and Teeth	70	31	13		

\* F<sub>4</sub> = Forequarter

\*\* H<sub>4</sub> = Hindquarter

### APPENDIX III

#### THE SMALL FINDS—FIGS. 11 AND 12

*Drawn by ELIZABETH PYE*

1. Bronze Lion-headed Handle with Iron Bar. The head is designed to be viewed horizontally and probably the object in use was placed in that position. Small holes drilled into the corners of the mouth could have been for a loop. It was found lying in what is considered to be the make-up for the top surface of the road's southern track. A functional parallel could be the bronze terminal found at Tarrant Hinton Down, Dorset, which was described as possibly belonging to "the pole of a chariot or the frame of a bed or funerary bier" (*Ant. Journal*, 1970, L. 337-8 and Plate LVI).
2. Bronze Pin. Found lying on the sand above the northern track of the road.
3. Bone Pin: Knob Headed. In the Late Roman ditch.
4. Bone Pin: Round Headed. Later Roman scatter.
5. Bone Pin: Lozenge Headed. In the Late Roman ditch.
6. Shaped Bone Object. Possibly a handle. A hole had been drilled through the bone. Clay-floored pit.
7. Bronze Stud. A similar object from Reculver in Maidstone Museum was labelled as a "Military and Harness fitting". Clay-floored Pit.
8. Probably a Small Bronze Bell. Clay-floored Pit.
9. Bone Pin: Knob Headed. Clay-floored Pit.
10. Base of a Glass Vessel. Miss Dorothy Charlesworth commented: "Probably a jar. The pad base overlies intersecting notched trails. Greenish glass with slight iridescence. 5th century". Clay-floored pit.

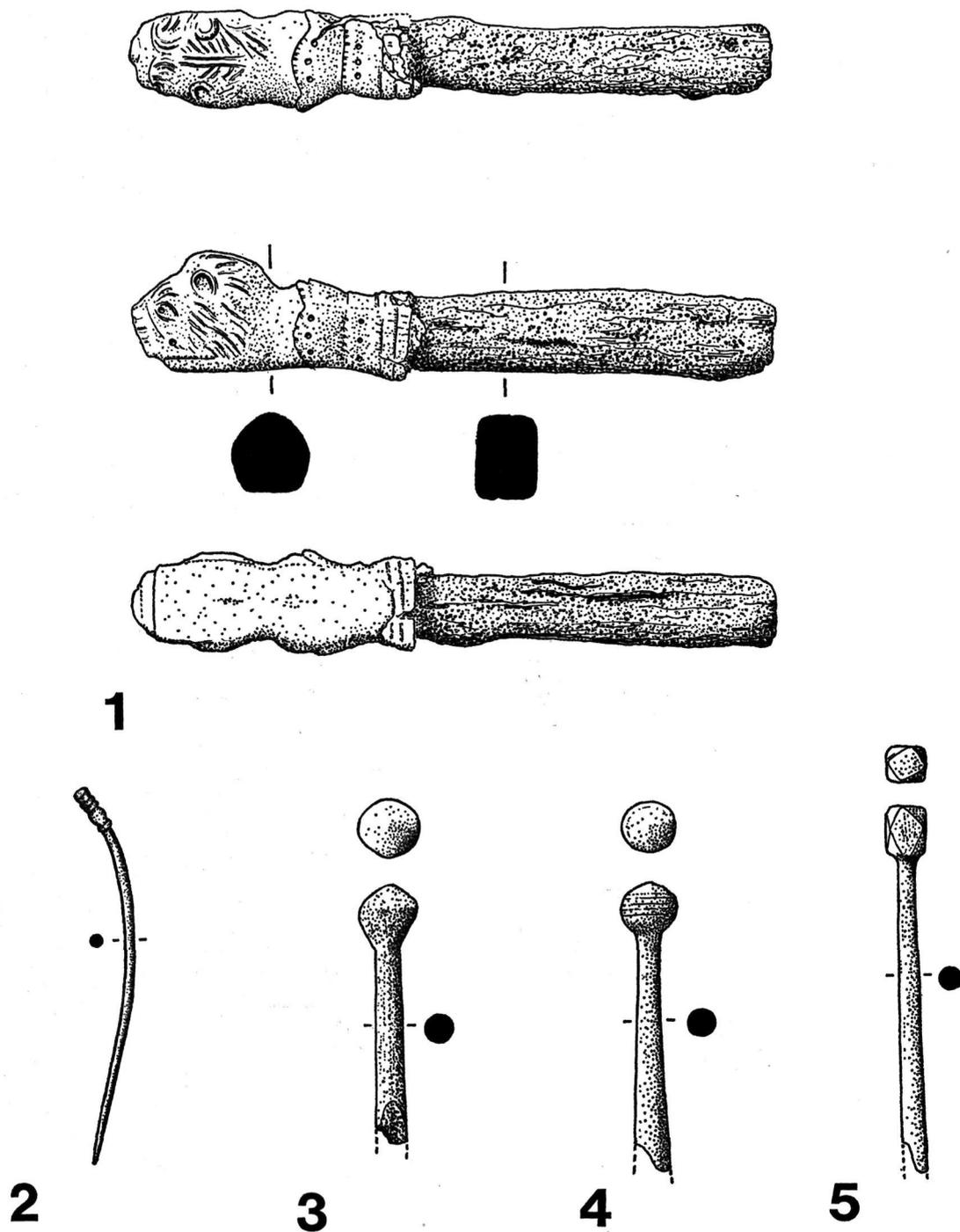


Fig. 11  
Small finds. Scale: 1 and 2 half size; 3, 4 and 5 actual size.

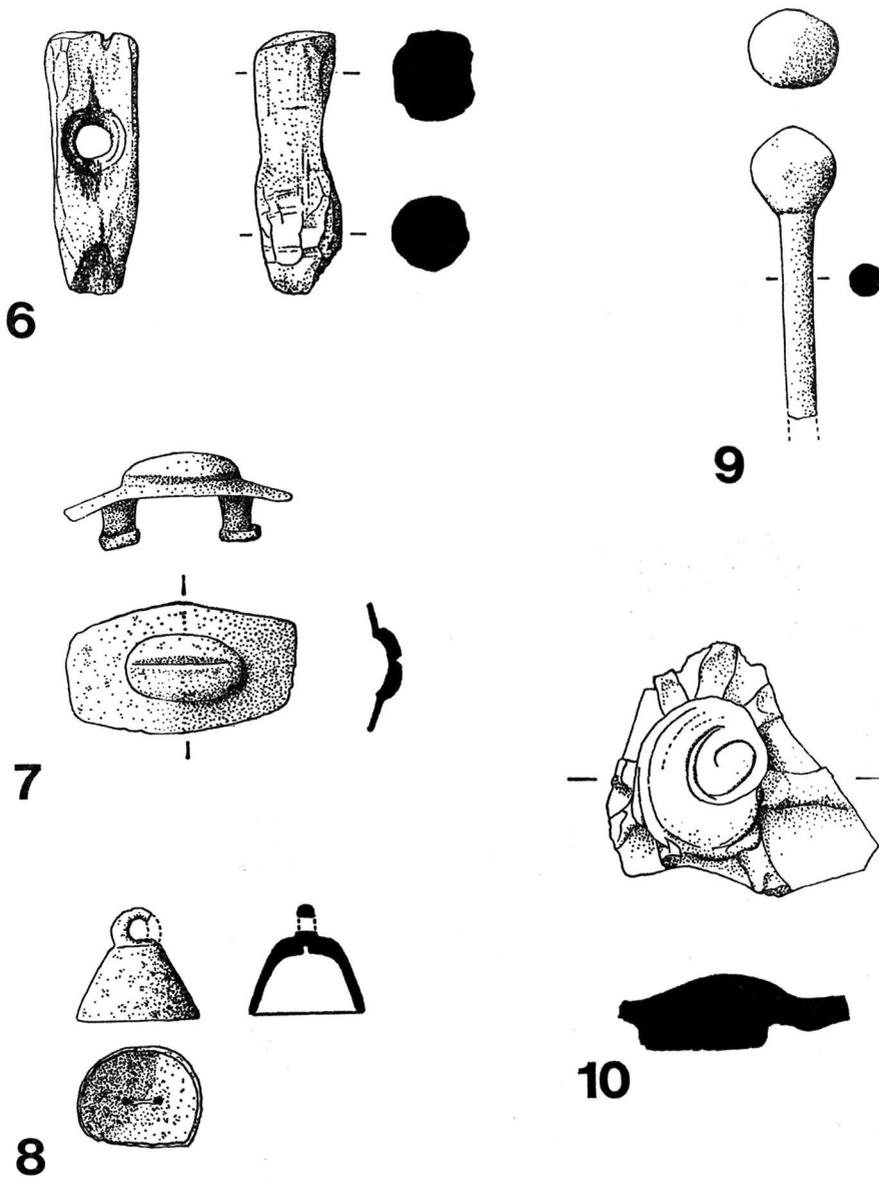


Fig. 12  
 Small finds from the clay-floored pit. Scale: 6, half size; 7, 8, 9 and 10 actual size.

## NOTES

- <sup>1</sup> The course of both these roads east of the city and west of the Lea have generally been treated as hypothetical.
- <sup>2</sup> Margary stated that "a direct road probably led from London Bridge through Aldgate to Old Ford though remains of it have not yet been traced" (p. 246). He thought it to be "one of the earliest of the main Highways" (p. 56); "Roman Road in Britain", 1967 edition.
- <sup>3</sup> Its existence might be indicated in the report of Roman road surfaces seen at Bethnal Green (*J.R.S.*, Vol. 29, 1939, p. 217). Some authorities suggest that this road follows the line of a pre-Roman track (Grimes: "The Excavation of Roman and Medieval London, 1968, p. 45; Margary: "Roman Roads in Britain", 1967, p. 54).
- <sup>4</sup> This traditional point is at Iceland Wharf. A short un-named access road which still leads to the Wharf was shown on Gascoigne's map (1703). In 1906 pieces of herring-bone masonry, thought to be Roman, were dredged up from the Lea river bed "opposite the Chemical Works of Forbes, Abbott and Leonard" *Victoria County History of London*, Vol. 1, p. 31-32. The description of the find spot was vague, but according to Kelly's Post Office London Directory of 1870, the premises owned by the firm were at Iceland Wharf.
- <sup>5</sup> It was also possible to examine small areas in the front gardens of Lefevre Road. The Lefevre Grove houses had been demolished before the excavation started; those in Lefevre Road were pulled down while it was still in progress.
- <sup>6</sup> Fields are shown in John Jenning's "A Survey of Land Owned by Christs Hospital" (1655), and in the maps of Gascoigne (1703) and Rocque (1740).
- <sup>7</sup> At the north-eastern corner of the site (TQ 3705.8360) the land surface was approximately 40 feet Ordnance Datum.
- <sup>8</sup> Sections of the road were exposed at intervals over a distance of some 135 feet.
- <sup>9</sup> Only a small area could be examined; to the west stood the Lefevre Road houses and to the north the road had been cut by the Lefevre Grove cellars.
- <sup>10</sup> Hawkes and Hull, *Camulodunum*.
- <sup>11</sup> Excavations on the Iron Age hill-fort of Oldbury, near Ightham, Kent. *Archaeologia*, Vol. 90, 1944. Ward Perkins believed that the re-population phase of Oldbury, from which his Belgic pottery came, was occasioned by "the invasion of Britain by Claudius' armies in 43 A.D." The pottery is in the Maidstone Museum Collection.
- <sup>12</sup> *J.B.A.A.*, 3rd series, 6-7, 1941-42, pp. 53667. "A Three-tracked Roman Road at Colchester". The author quoted continental examples of three-tracked roads and argued that Stane Street and probably some other British roads were of this type.
- <sup>13</sup> *E.H.A.S. Trans.*, V. XIII, Part II, 1952-54, pp. 156-158; "The Ermine Street at Ware".
- <sup>14</sup> In June, 1970, it was possible to quickly examine a contractor's trench approximately 35 feet west of the railway cutting. Here two ditch-like features were noticed at the north of the road but their relationship to it is not clear.
- <sup>15</sup> I. Margary: "Roman Roads in Britain".
- <sup>16</sup> Quarry ditches were found in two of the three sections across the southern part of the road.
- <sup>17</sup> Basal sherd, Dr 31, central Gaul.
- <sup>18</sup> Above the pebbles, thin patches of sand were found in the earth over part of the area of the old northern track. This might imply another phase. On top of this was a scatter of late Roman pottery and bone.
- <sup>19</sup> "A Three-tracked Roman Road at Colchester", p. 57.
- <sup>20</sup> We have no direct evidence to support the idea that they were contemporary, but both the remodelling of the south and the abandonment of the north meant a radical change. The Colchester excavation suggested that the northern track was out of use in the Antonine period, and our remodelled southern track could have been built at this time.
- <sup>21</sup> In fact oxen only represented two-thirds of the individual animals distinguished. It is possible that the remains of 180 were found, of which 117 were ox, 38 sheep, 15 pig, six horse and four dog. This may be an overestimate as each trench and layer were treated as separate entities.
- <sup>22</sup> "A Roman Tillery and Two Pottery Kilns at Durovernum (Canterbury)"; Frank Jenkins, F.S.A., *The Antiq. Journ.*, 1956, p. 40.
- <sup>23</sup> "Roman Tile Kiln at Park St."; B. F. Rawlins. *Watford & S.W. Herts. Arc. Soc. Bulletin*, No. 10 (New Series), Oct. 1969.
- <sup>24</sup> "Holt, Denbighshire: The Work Depot of the Twentieth Legion at Castle Lyons". W. F. Grimes, M.A.; *Y Cymmrodor*, 1930.
- <sup>25</sup> "A Stone Coffin and other Roman Burials found at Old Ford"; *P.S.A.L.*, Second Series, Vol. XXIII, p. 230.
- <sup>26</sup> Which he believed ran from Old Street to Old Ford.
- <sup>27</sup> *Archaeologia* 31 (1846), pp. 308-11.
- <sup>28</sup> Information on Area Plan 7 and 8 from Roy Canham, London Museum. Both burials were found in 1969.
- <sup>29</sup> The burial was observed by Peter Daniels in a site-watching operation. The find led to an excavation on the site which commenced in March, 1971.

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