

EXCAVATIONS AT GOODMAN'S YARD, 1978

ROBERT WHYTEHEAD

SUMMARY

Excavations at Goodman's Yard uncovered a series of late Roman deposits. These layers appear to have been dumped, probably to fill in a quarried area, in the late 3rd or early 4th century. Near the top of the sequence part of a skeleton and an associated Roman shoe were found. A building with stone foundations was constructed on the site probably in the Tudor period.

INTRODUCTION

The site of Goodman's Yard (TQ33708091) (Fig. 1) lies 100 metres east of the Roman City of London on the Flood Plain Gravels of the River Thames. Excavation by the Inner London Archaeological Unit was carried out alongside the contractors for the Greater London Council Tower Hill Northern Approach Improvement Scheme.

The total area available for excavation extended over 42 square metres of which 22 square metres were undisturbed between 2.00m deep concrete foundations. The excavation was limited to five areas. Area A (Fig. 2) had been exposed by a cut for a subway dug by the contractors and the G.L.C. allowed the Unit two days to investigate this. Further permission was then obtained to excavate in four areas immediately to the east of Area A (B, C, D, E) (Fig. 2) over a period of four weeks in June 1978. Work was hampered by the limited size of the areas under excavation and by the width of the concrete foundations which divided them. These foundations presented difficulties in relating the layers of one area to those of another. Area B was further divided by a sewer trench running east to west. The detailed site notes can be consulted at the Inner London Archaeological Unit's offices, 42 Theobalds Road, W.C.1.

DESCRIPTION OF EXCAVATION

The subsoil at Goodman's Yard consisted of orange sand and gravel with a well-compacted surface. The surface sloped down over 3.80m from south to north, 10.00m+O.D. to 9.60m+O.D. (Fig. 3.)

The first evidence for human activity was discovered in a layer of yellow sandy clay (232, 186) which overlay natural in all areas except B. The layer, which was between 0.02m and 0.20m deep, contained a few small round pebbles, pot sherds and bone fragments, but no other inclusions. This deposit was the lowest layer of those on site, all of which were dated to the late 3rd or possibly early 4th century.

AREA A (Figs. 3, 6)

The earliest deposit (186), found over most of the site, was deepest (0.20m) in this area (Fig. 3). It was overlain by two layers (184, 180) both consisting of dark grey sandy clay containing oyster shells, charcoal flecks and burnt daub. Overlying these were two layers (175, 176) both

Site Location

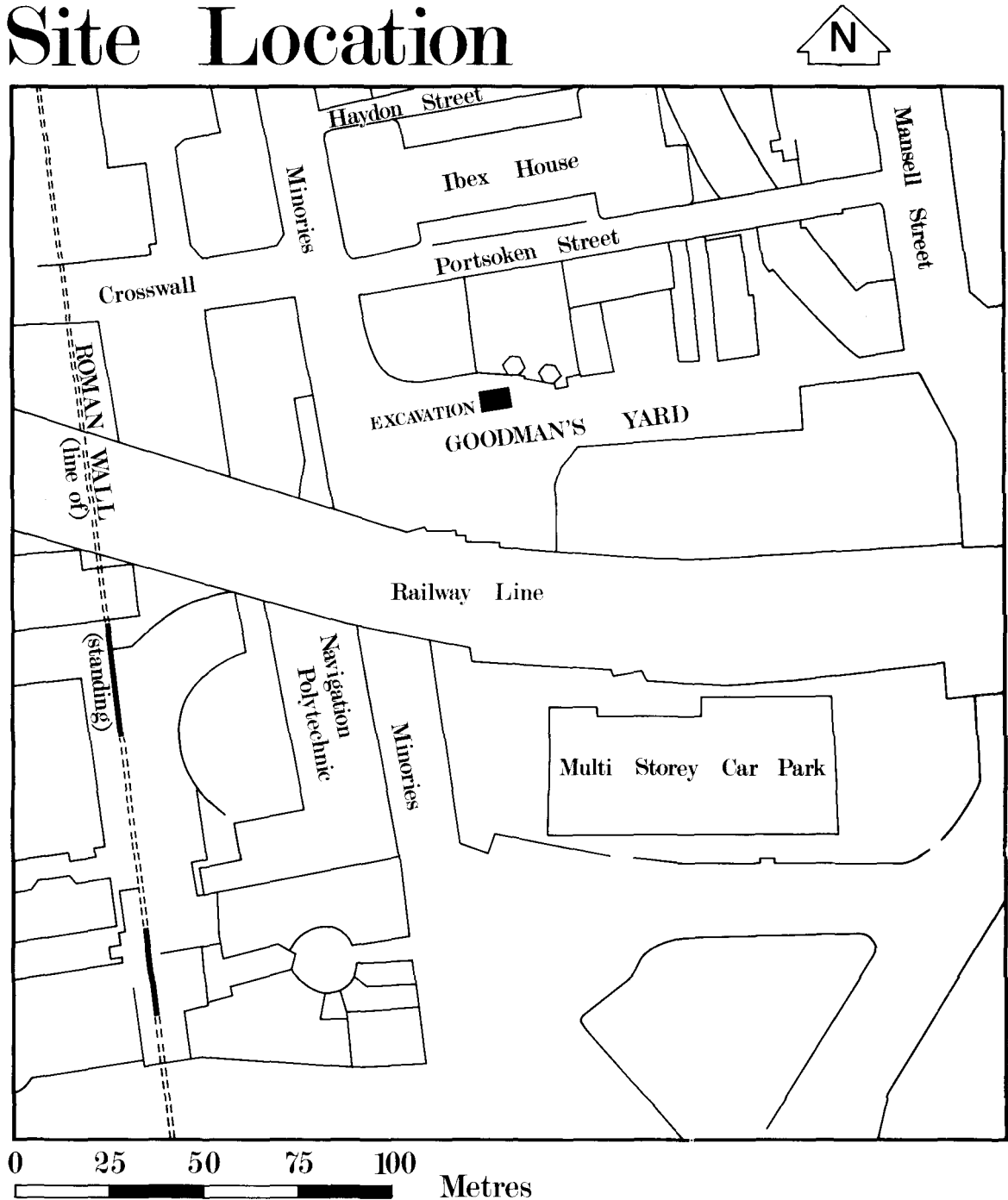


Fig. 1. Goodman's Yard: Site Location Plan.

cut from above by modern disturbance. The lower (175) consisted of grey/green sand containing flecks of charcoal, mortar and chalk and patches of clay. The subsequent one (176) was made up of mottled dark yellow clay with charcoal flecks and oyster shells. It was in turn overlain by a shallow layer (182) which had been heavily disturbed and survived only at the north end of the area. Composed of dark brown clayey sand, layer 182 contained charcoal, chalk, brick flecks and many fragments of wall plaster, one of which was painted, and also the articulated bones of a human left foot. Beside the foot lay one leg bone broken by modern cellar building which had removed the rest of the burial. Adjoining the foot lay the hobnails of a boot which had fallen away from the foot sole uppermost (Fig. 6) [see p. 44]. The surrounding disturbance made it impossible to establish if the remains had been laid in a grave.

AREA B (Figs. 3, 4)

The natural subsoil in Area B was covered by a 0.10m deep deposit of dark yellow clayey sand (258) containing charcoal flecks and a few lumps of *opus signinum* (Fig. 3).

A shallow feature (259) had been cut into the surface of this deposit and ran the full length of the area from east to west, 1.40m (Fig. 4). It was 0.08m wide at either end expanding to 0.15m in the centre, had a 'u' shaped profile, and was 0.08m deep. This appeared to be a gully or slot.

A shallow, rectangular feature (261) adjoined the slot (Fig. 4). It had rounded corners and a flat bottom and measured 0.15m×0.13m×0.04m deep. This may have been the base of a post hole.

The slot (259) was filled with grey sandy clay (260) containing a large amount of charcoal in lumps and flecks, a few burnt daub flecks, and a few oyster shells. This in turn was overlain by a layer of dark grey sandy clay (255) (Fig. 3) which also held a large quantity of charcoal, numerous flecks of burnt daub and mortar and a lump of limestone.

The intersecting arms of what is interpreted as a second slot (257) cut into the burnt debris. Two arms were arranged in a right angle and a third was added to form a 'T' shape (Fig. 4). The east-west arm was 0.20m wide and 0.06m deep. The north-south arm was less well defined. Its western edge sloped gradually to a depth of 0.03m. The addition to the west was 0.18m wide and 0.06m deep, but extended only 0.15m before being lost under the edge of Area B (Fig. 4).

Because of the insubstantial nature of the slots it has not been possible to place an interpretation on them.

A layer of light brown sandy clay (256) containing numerous flecks of chalk, mortar and daub sloped downwards from the south to the north and filled the slot (257). Above this a further four layers, 0.60m deep had been deposited (Fig. 3) (253, 249, 246, 244). These deposits differed from each other in colour and contained varying amounts of charcoal flecks, mortar, plaster, bricks, lumps of burnt daub and chalk and some round pebbles. All the layers below 241 in Area B have been dated to the late 3rd century and appear to be the product of dumping.

Overlying the Roman layers was black, slightly clayey silty sand (241) containing chalk, charcoal and brick flecks with medieval and residual Roman pottery, up to 0.25m deep. It was cut in Area B by a chalk and limestone wall (211) which extended over the full length of Areas B and C (Fig. 2). In Area B the north side of the wall (211) was abutted by a north-south wall (213). In Area C an extension (212) continued the construction southwards. The stone was laid in courses, no more than three deep and although roughly faced was probably a foundation wall.

The stonework was overlain by modern disturbance and remains undated, although a row of buildings along the north side of Goodman's Yard is shown on the 'Agas' map of 1561-1570.

AREA C

The layers in the northern half of Area C were similar to those in Area B and those in its southern half to Area D.

AREAS D and E (Fig. 5)

The fills of these two areas were very similar to each other and would appear to be one major deposit of dumping in the late 3rd or early 4th century. The matrix, a greyish green/brown silt,

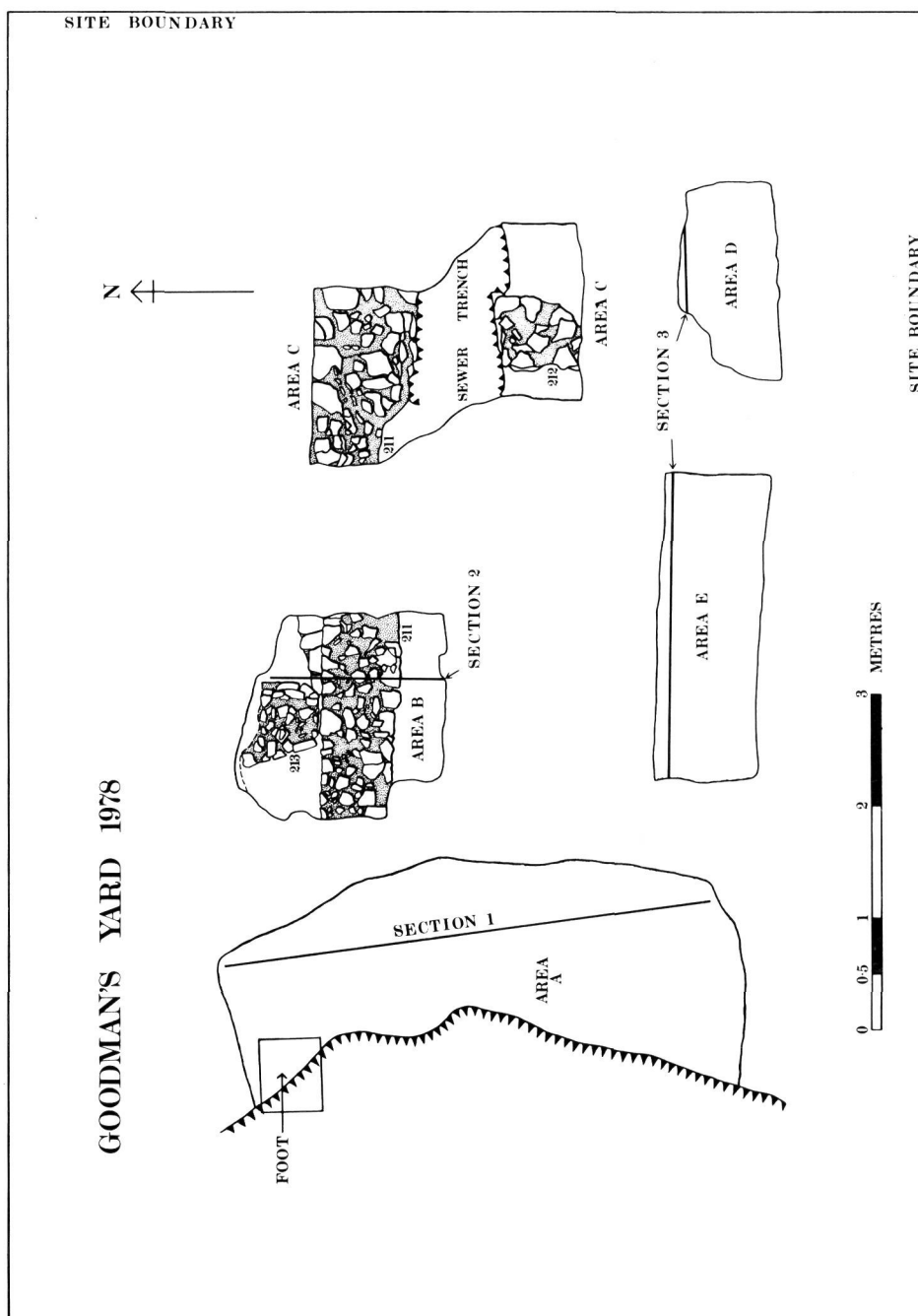


Fig. 2. Goodman's Yard: Plan of areas A-E showing stone wall.

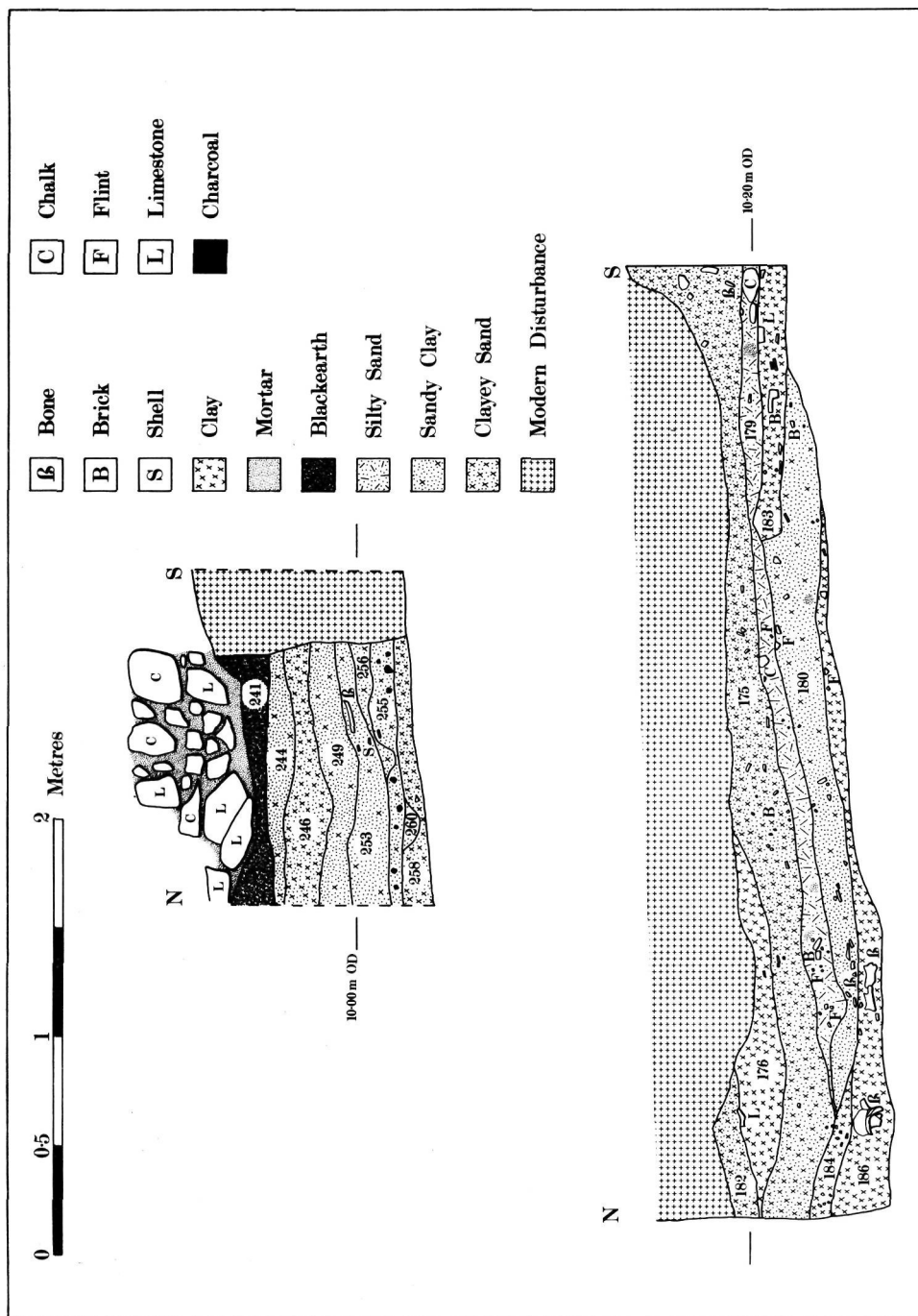


Fig. 3. Goodman's Yard: (above) Section 2 across Area B, (below) Section 1 across Area A.

contained charcoal, mortar, and burnt daub flecks, lumps of plaster, oyster shells, and some lumps of chalk (229, 223, 215).

The three layers of this deposit were separated by four thinner layers of material. One of these thinner layers (226) resembled layers 180 in Area A and 256 in Area B. It was composed of mottled light brown clayey sand containing numerous chalk flecks, some charcoal and burnt daub flecks. A layer of light brown clay (250) with numerous charcoal flecks and some burnt daub, brick and mortar flecks lay to the east of layer 226. The two upper spreads consisted of very compact clay (219) and concentrated charcoal (218) which contained what appeared to be the outline of a burnt plank.

CONCLUSION

The deposits were laid directly on the natural sand and gravel. Topsoil must have been removed from the site and possible brick-earth and gravel too. The top of the natural deposits sloped as if cut away, and it seems likely that the excavated trenches lay within an area of quarrying activity. Quarry pits dating to the 2nd and 3rd centuries AD have been found at Cutler Street in Bishopsgate,¹ and, at the east end of Goodman's Yard, a 13th-century gravel pit was revealed during excavation in 1976.²

The possible quarry at Goodman's Yard appears to have been backfilled on the evidence of the coarseware in the late 3rd century or slightly after by a series of layers which contained numerous fragments of building material and other rubbish. This was probably debris cleared from a site(s) in the City. It is difficult to date when the quarry was dug. The earliest deposit filling the quarry, a yellow sandy clay which contained little archaeological material, may have been due to weathering prior to the main backfilling. Most of the pottery

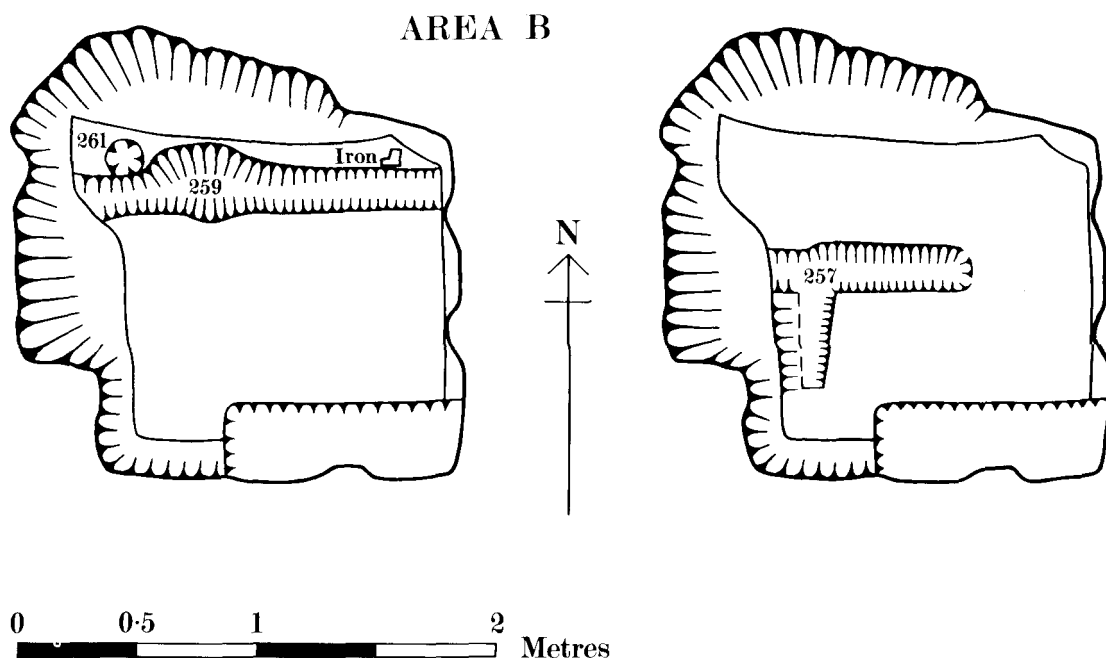


Fig. 4. Goodman's Yard: Area B, Plan of slot 259 and Plan of slot 257.

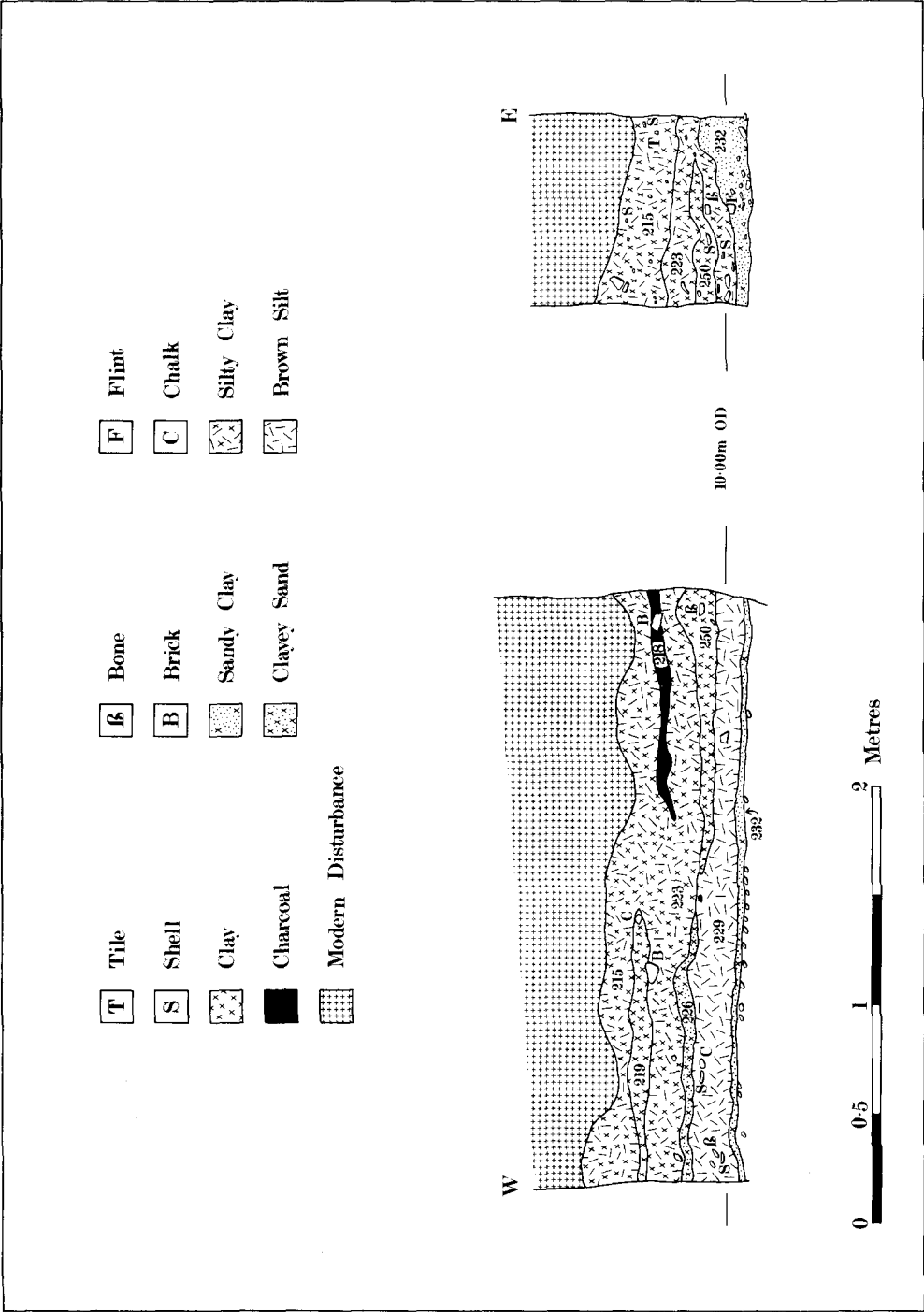


Fig. 5. Goodman's Yard: Section 3 across Areas E and D.

from this early stratum was not datable but there were some similarities between the fineware from this and the overlying layers. This suggests that there was not a long gap between the digging and the filling up of the quarry.

The slots (257 and 259, Area B) lay within layers apparently deposited over a short period of time and there were no signs of floors associated with them. Therefore it seems unlikely that they contained beams for timber buildings. The slots could be simply the imprint of discarded timbers which have completely decayed.

Goodman's Yard lies in the area known as Goodman's Fields, defined by the Royal Commission on Historical Monuments³ as extending from the Minories to Church Lane Whitechapel and from Commercial Road to the Thames. A number of burials have been found in this area. These include both cremations and inhumations and range in date from the 1st to the 4th century AD.⁴ The articulated foot indicates the presence of at least one late Roman inhumation on the site of Goodman's Yard. The grave had been too disturbed to tell if the body had been buried in a coffin, etc. Finds from the vicinity include tombstones from Tower Hill and the Minories,⁵ a glass flask and two ceramic flagons recovered from a grave (burial rite unknown) at St. Clare House which have been dated by Harden and Green to the 3rd century.⁶ Three inhumations were also recorded from this site.

Sometime after the Roman period a building with stone foundations was erected on the northern part of the site. It is possible that these belonged to the buildings depicted on the 'Agas' map (1561–1570).

NOTES

1. John Maloney—Personal Communication.
2. 'Sites Investigated by the Inner London Archaeological Unit 1974–1976' *Trans. London Middlesex Archaeol. Soc.* 28 (1977) 255.
3. Royal Commission on Historical Monuments (England) *An Inventory of the Historical Monuments in London Vol. 3. Roman London* (London 1928) 157–159.
4. R. Merrifield *The Roman City of London* (London 1965) 95.
5. R. G. Collingwood and R. P. Wright *Roman Inscriptions of Britain Vol. 1 Inscriptions on Stone* (Oxford 1965) Nos. 9 and 11. Also No. 12 part of a tombstone re-used in the construction of Bastion 2 of the City Wall.
6. D. Harden and C. Green 'A late Roman Grave-Group from the Minories, Aldgate.' *Collectanea Londiniensia* London Middlesex Archaeol. Soc. Special Paper No. 2 (1978).

ACKNOWLEDGEMENTS

The Greater London Council kindly gave us permission to excavate during their development programme. Those who worked on the site were: Michael Carpenter, Dave O'Connor, Julian Davidson, Neil Hastings, Alex Hooper, Paul Walker and Gareth Williams. I would like to thank Harvey Sheldon, David Whipp and Elizabeth Platts who discussed this report with me, John Maloney for providing information, Dorrie Orchard for preparing the illustrations, and Rita Springthorpe who typed the report.

THE FINDS

SAMIAN

By Geoff Marsh

Trench A

Context 186	Dr. 31	CG	Antonine
189	Dr. 45	CG	Late 2nd century
180	Dr. 45×2	CG	Late 2nd century
	Dr. 18	SG	Flavian
	Dr. 35	Martres?	Early 2nd century (burnt)
	Dr. 37	CG	Part of double medallion and beaded border. Antonine
	Dr. 37	EG	Late 2nd—Mid 3rd century
183	Dr. 38	EG	Late 2nd—Early 3rd century
	Dr. 18	SG	Flavian
178	Dr. 18/31	Martres	Early 2nd century
	CG/EG	Sherd	Late 2nd—Early 3rd century
179	Curle 11	CG	Hadrianic/Early Antonine
	Dr. 33	CG	Antonine
	Fragment of cut glass decoration	EG	Late 2nd century
	CG sherd		
175	Dr. 38	CG	Late 2nd century
	Dr. 38 (at least 4)	EG	Late 2nd—Mid 3rd century
	Dr. 45	CG	Late 2nd century
	2 enclosed vessels	EG	Late 2nd—Early 3rd century
	Dr. 37	CG	Antonine
	2 CG sherds		2nd century
	? Martres sherd		Early 2nd century

Trench B

Context 258	Dr. 38	CG	Antonine
255	Dr. 45?	CG	Late 2nd century
253	Dr. 45	CG	Late 2nd century
	Dr. 38	CG/EG	Late 2nd/Early 3rd century (burnt)
	Dr. 38	EG	Late 2nd/Early 3rd century
	Dr. 37	SG	Rosette tongued ovolo with bands of wreath and band of gadroons below. c. AD 70–85
249	EG?	Sherd	
	CG/EG Sherd		Late 2nd/Early 3rd century
246	Dr. 38	CG	Mid Antonine
	Dr. 45×2	CG	Late 2nd century
	CG Sherd		
244	Dr. 27	SG	1st century

Trench C

Context 251	Dr. 37	CG	In style of Divixtus, an identical design with caryatid (0.1199) and double bordered medallion is shown on S and S, pl 116, 8 c. AD 150–175.
242	Dr. 38	CG	Antonine
	Dr. 38	EG	Late 2nd/Early 3rd century
	CG Sherd		2nd century
230	Argonne sherd enclosed form	Antonine	
248	Dr. 45	CG	Late 2nd century
227	Dr. 18	SG	Pre/Early Flavian
	Dr. 31	CG	Late 2nd/Early 3rd century
	Dr. 38	CG	Late 2nd—Early 3rd century

Trench D

Context 234	Dr. 38	EG	Late 2nd—Early 3rd century
	Dr. 45	CG?	Late 2nd century
	Dr. 33	CG	Antonine
	CG Sherd		2nd century
225	Dr. 45	CG/EG	Late 2nd/Early 3rd century
217	Dr. 45	CG	Late 2nd century
	Curle 21	CG	Late 2nd century
	Dr. 37		Treble bordered ovolo with plain tongue from the Argonne. Antonine
	Dr. 37	EG	Double bordered ovolo with plain tongue, unidentifiable decoration below. Later 2nd—Early 3rd century.

Trench E

Context 229	Dr. 38	EG	Late 2nd–Early 3rd century
	Dr. 45	CG	Late 2nd century (burnt)
226	W. 79	CG	Late 2nd century
228	Dr. 44	CG	Antonine
	Dr. 45	CG	Late 2nd century
	CG/EG Sherd		
250	Dr. 37	CG	Antonine, fragment of decoration
223	Dr. 38	EG	Late 2nd–Early 3rd century
	Dr. 33	EG	Late 2nd–Early 3rd century
	Dr. 37	CG	Antonine
	Dr. 38	CG/EG	Late 2nd–Early 3rd century (slightly burnt)
	CG 2 Sherds	Antonine	
218	Dr. 31	EG	Late 2nd–Early 3rd century
	CG Sherd		2nd century
	EG Sherd		Late 2nd century
219	Dr. 33	EG	Late 2nd–Mid 3rd century
	Dr. 38	EG (Argonne)	Late 2nd century
215	Dr. 37	CG	Double bordered hammerhead ovolo with fragment of panel decoration below c. AD 150–180 (2 sherds)
	Dr. 38	CG?	Late 2nd century (burnt)
	Footring	EG	Late 2nd–Early 3rd century
	Dr. 31?	EG	Late 2nd–Early 3rd century

The material from Goodman's Yard forms an interesting group, probably dating to the early 3rd century with the possible exception of 3 sherds which may be as late as mid 3rd. Samian of this date is uncommon in London and contrasts sharply with that from Tower Hill (see report this volume) which does not extend beyond the later Antonine period.

THE OTHER ROMAN POTTERY

By Wendy McIsaac

Introduction

Most of the pottery illustrated below (Nos. 1–15) is from Trench A, layer 175 which contained the largest assemblage of material. The vessels depicted from 175 indicate the main forms present and similar vessels were found in most deposits on the site. Nos. 16 and 17 were also common forms but appeared in 175 only as tiny fragments. Two other sherds, not from 175, are also included below: part of a 'Rhenish' motto beaker and a fragment of a face jug in a Much Hadham fabric.

The abbreviations BB1 and BB2 have been used for categories of Black Burnished ware. Descriptions were done using a 20× magnification and the frequency of inclusions is indicated as rare, occasional, frequent, or very frequent.

I would like to thank Mrs. J. Bird for her comments on the pottery.

Layer 175

(Fig. 7)

Jars and Beakers

1. Hard black, burnished. Frequent mainly white and colourless quartz, 0.27–0.73mm. BB1.
2. Hard red with grey core. Lighter grey slip, rim and exterior burnished. Slightly burnt. Very frequent quartz, <0.09mm with occasional clear, white and colourless quartz up to 0.27mm. Frequent black iron, <0.09mm.
3. Hard grey with darker surfaces. Rim and exterior slipped light grey and burnished. Zone of roller stamp decoration. Very frequent quartz, <0.09mm with occasional colourless quartz, 0.27mm. Frequent black iron, 0.09mm. A similar type of decoration, termed 'chessboard' was found on vessels in Colchester (Hull 1963). It had been applied to grey ware copies of colour-coated beakers from kiln 28 (c. A.D. 300), an unclassified jar form (Hull 1963, Fig. 6 no. 18) and to several pots from the Mithraeum (Hull 1958, 136 no. 55 and 144 No. 148). There is also an example from Rayne Road, Braintree (Pratt 1976, Fig. 23, no. 55).
4. Hard brownish grey. Frequent clear, white and colourless quartz, 0.27–0.45mm. Rare red iron, 0.27mm.
5. Hard layered grey and red fabric. Dark brown lustrous colourcoat. No visible inclusions. 'Rhenish Ware' (Moselkeramic). (cf. Greene 1978, Fig. 47 No. 1.) Late 2nd–Mid 3rd century.
6. Hard red with buff exterior. Dark brown matt colourcoat with barbotine decoration. Rare-occasional colourless quartz up to 0.36mm. Occasional red iron up to 0.73mm. Probably Nene Valley.

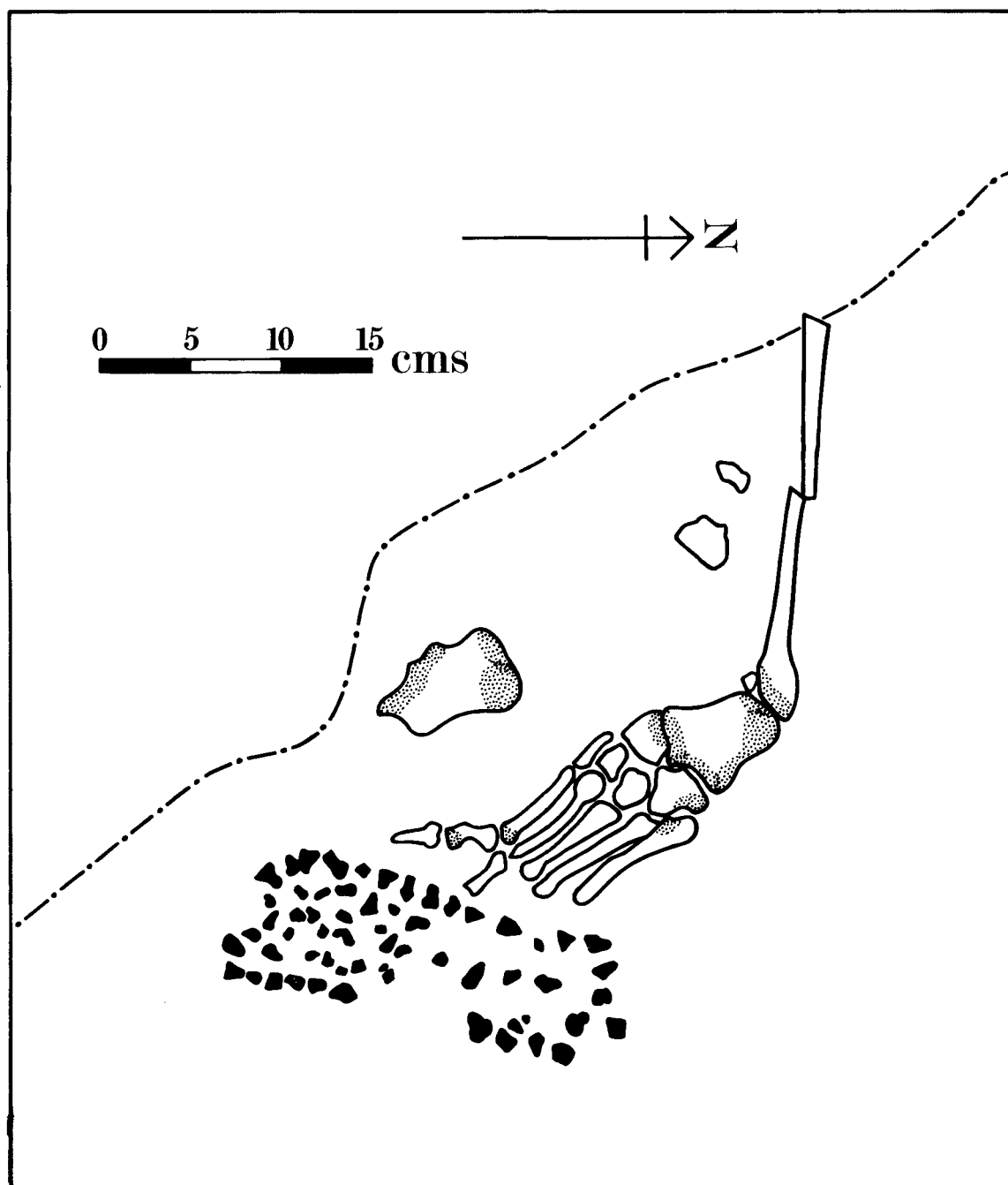


Fig. 6. Goodman's Yard: Plan of foot and boot hobnails in Area A.

7. Hard red, reddish-brown colour-coat. Very frequent quartz, $<0.09\text{mm}$. Frequent red iron, 0.09mm .
8. Hard buff. Slightly lustrous dark brown colour-coat, lighter on interior surface. Frequent red iron, $<0.09\text{mm}$. Probably Nene Valley.
9. Hard red. Dark brown lustrous colour-coat. As for 6. Occasional red iron, 0.27mm . Probably Nene Valley.

Flagon

10. Hard buff. Dark brown matt colour-coat. As for 9. Probably Nene Valley.

Mortarium

11. Hard off-white. Reddish brown patches on exterior. Pink, grey and white trituration grits. Frequent clear and colourless quartz, $0.18\text{--}0.45\text{mm}$, and red iron up to 0.45mm . Oxfordshire. Type M.18 (Young 1977).

Bowls and Dishes

12. Hard black with brownish exterior. Burnished surfaces. Very frequent quartz, $\leq 0.09\text{mm}$. BB2.
13. Hard black with brown margins. Rim and interior burnished. Frequent white quartz $0.27\text{--}0.45\text{mm}$. Although of similar form, the majority of flanged bowls from the site were in a BB1 type fabric.
14. Hard black, burnished. Arcade decoration as for 1. BB1.

Layer 183

Jar

15. Hard black, burnished. As for 1. BB1. This more pronounced form of cavetto rim was present in several layers.

Layer 219

Bowl

16. Hard grey with red-brown margins. Frequent clear and colourless quartz up to 0.45mm . Occasional

black, $<0.09\text{mm}$ and rare red iron 0.27mm . (cf Colchester form 306 (Hull 1963); a number were found at Swan Street, Southwark dated 2nd half of 3rd century (Hammerson and Murray 1978, nos. 1762–68, 1850–54). Although there were no draw-able examples of this type of vessel from Layer 175, bowls similar to this were found throughout the sequence.

Layers 178 and 180

Flagon

17. Hard red, burnished. Very frequent clear and white quartz, $\leq 0.09\text{mm}$. Frequent black and occasional red iron, 0.09mm . Much Hadham. Part of a flagon with a face on the front. Only the hair on one side of the head survives. The 'handle' lies flat against the side of the vessel.

Layers 226 and 229

Beaker

18. As for 5. White slip lettering and decoration. 'Rhenish Ware' (Moselkeramic). Part of a motto beaker. Sherds from several such vessels were recovered from the site.

Vessels not illustrated.

Body sherds, but no rim or bases, from a group of similar vessels were found in Trenches A, B and E.

Fabric: Hard reddish sometimes with a grey core; surfaces vary from brown to buff. Burnished neck and rouletted shoulder and body. Frequent clear and colourless quartz $0.09\text{--}0.18\text{mm}$. Frequent red iron, 0.27mm and occasional-frequent black iron up to 0.18mm .

Several body sherds of eastern Mediterranean/North African amphorae dated late 3rd–early 4th century (information C. Green) came from layers: 176, 217, 228, 243.

Discussion

The types of vessel recovered from the site were of late 3rd- or possibly early 4th-century date. This differs from the samian which appears to belong to the early 3rd century. An attempt was made to see if a difference in date was visible between the lower and upper layers of the sequence by comparing the proportions of various fabrics and pottery types. No definite trends could be discerned. The material suggests that the layers of dumping were deposited over a relatively short period of time. In a number of instances sherds from the same vessel were found in several different layers.

The earliest strata 186, 232, 258 and 264 differed from the other deposits on the site in having very little pottery, none of which was diagnostic for dating. In common with the overlying layers, however, they did contain sherds of 'Rhenish Ware', so although possible, it is unlikely there was much of a break in deposition.

A relatively large quantity of 'Rhenish Ware' (Moselkeramic) was found. The vessels included pieces from several motto beakers as well as indented beakers. Apart from one vessel with an 'E' on it (No. 16), only fragments of letters were visible. 'Rhenish Ware' was found in c. 66% of the Roman contexts. In c. 49% 'Rhenish Ware' constituted $>10\%$ of the fineware while in c. 29% of the contexts it was $>20\%$.

The remainder of the fineware consisted largely of vessels from the Nene Valley (or possibly Colchester). No sherds of Oxfordshire fineware were identified which suggests that the deposits do not go very far into the 4th century, if at all.

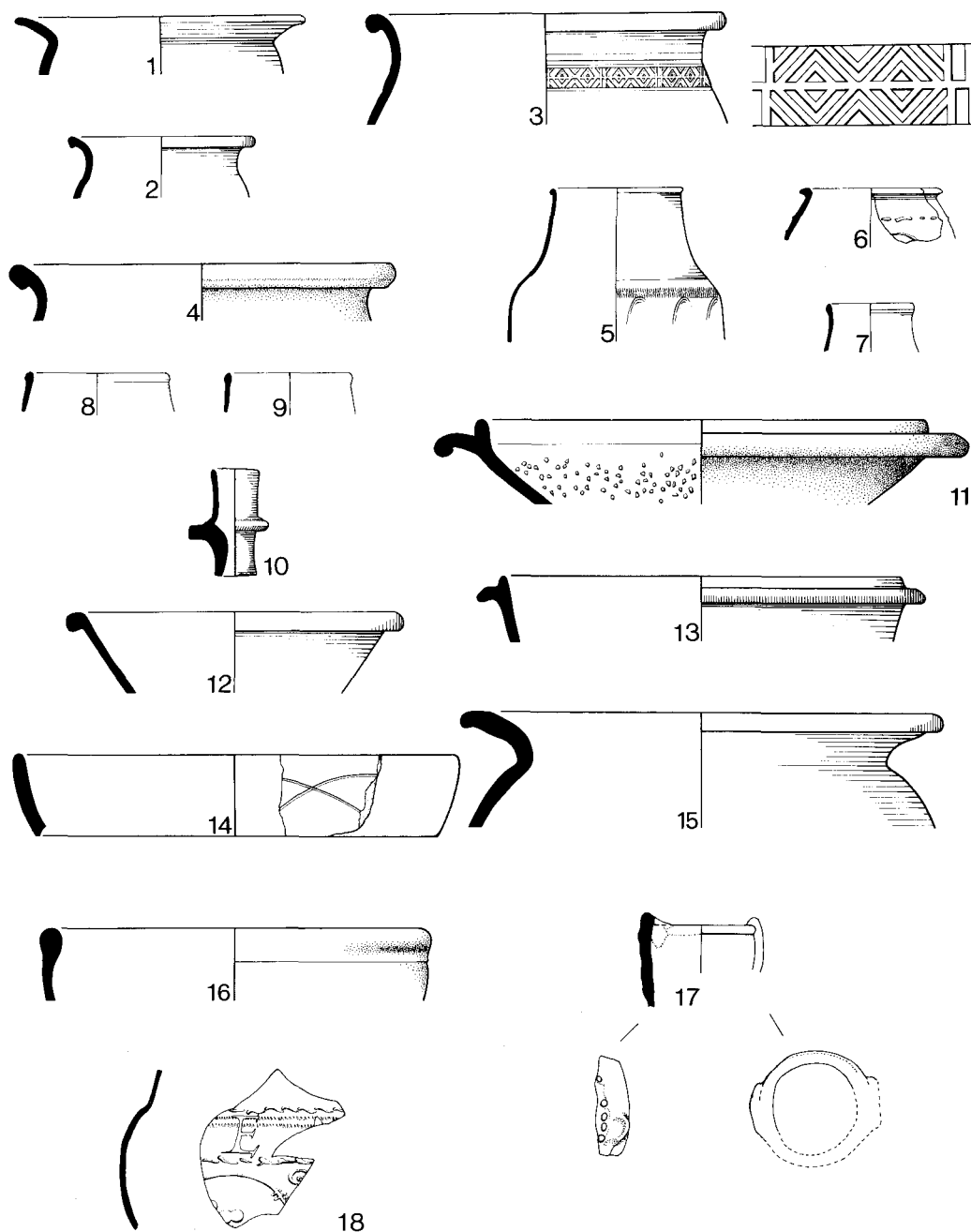


Fig. 7. Goodman's Yard: Roman pottery Nos. 1-18 (1/4); detail of No. 3 (1/1).

THE GLASS

By John D. Shepherd

This site produced forty-five fragments of glass, including the glass tessera No. 45, of which twenty-one fragments can not be assigned to any particular form or date. All forty-five fragments are catalogued according to colour below.

(Fig. 8)

Colourless Glass

1. Fragment from the side of a bowl or beaker. Blown; decorated with a small marvered 'prunt' of the same metal. Colourless glass. Illustrated. (From 175)
 2. As No. 1. Colourless glass. Probably from the same vessel as No. 1 above. (From 175)
- The following 6 fragments (Nos. 3-8) belong to four vessels of similar form (Nos. 3-7 (Isings 1957, 126f form 106/136f form 109); No. 8 (Isings *op. cit.* 136f form 109)). Sadly, insufficient of each example exists to allow close parallels to be made but such fragments are a common feature of glass assemblages of the 3rd and 4th centuries. (From 177)
- 3-5 Three fragments from the side of a beaker. Blown; decorated with a group of three horizontal wheel-cut lines. Colourless glass. (From 175)
 6. Fragment from the side of a beaker. Blown; decorated with a group of wheel-cut lines. Colourless glass with faint greenish tinge. (From 182)
 7. As No. 6. Decorated with a group of narrow wheel-cut lines. Colourless glass with a faint greenish tinge. (From 251)
 8. As No. 6. Decorated with four horizontal wheel-cut lines above a rounded carination. Thick colourless glass. Illustrated. (From 253)
 9. Small fragment from the side of a flask or bowl. Blown; decorated with a thick vertical marvered trail of the same metal. Thick colourless glass. (From 232)
 10. Fragment from the lower part of a hemispherical bowl. (Isings *op. cit.*, 114, form 96b). Blown; decorated with two rows of vertical narrow wheel-cut facets. Colourless glass. (*cf* Calvi 1968, 72, no. 168; Harden 1968, 80, no. 103. 2nd century). Illustrated. (From 183)
 11. Fragment from the side of a beaker or bowl. Blown; decorated with a deep vertical indentation. Four indents on reconstructed vessel. Thick colourless glass. 2nd or 3rd century. (From 251)
 12. Fragment from the base of small beaker or bowl. Blown; hollow tubular base-ring. Colourless glass. Illustrated. (From 246)

13. Lower part of a large handle of an urn or flask. Applied and drawn on a blown vessel. Thick colourless glass. Illustrated. (From 223)
14. Small fragment from the ribbed handle of a flask or bottle. Technique as for No. 13. Thick colourless glass. (From 225)
- 15-23 Nine fragments of thin blown colourless glass of indeterminate forms and dates. (From 175 (x3); 182; 223; 225; 244; 251; 253)

Naturally coloured glass (Bluish-green etc.).

24. Fragment from the rim and neck of a bottle (Isings *op. cit.* 63-69 form 50/51). Blown; rim folded inwards and flattened. Thick greenish-blue glass. Late 1st or 2nd century. Illustrated. (From 175)
25. Small fragment from the rim of a flask or bottle. Blown; rim folded inwards and flattened. Greenish-blue glass. (From 255)
26. Small fragment from the handle of a bottle or flask. Greenish-blue glass. (From 223)
27. Fragment from the side of a bottle (Isings *op. cit.* 63f form 50). Mould-blown; thick greenish-blue glass. Late 1st or 2nd century. (From 179)
28. As No. 27. Thick greenish-blue glass. (From 249)
- 29-30 Two fragments from the side of a bowl or flask. Blown; decorated with a large vertical marvered trail of the same metal. Bluish-green glass. 2nd century. (From 182)
31. Fragment from the side of a bowl. Blown; decorated with a horizontal marvered trail of the same metal. Greenish-blue glass. (From 183)
- 32-42. Eleven fragments of blown greenish-blue glass from vessels of indeterminate form and date. (From 179 (x2); 182, 219; 223 (x2); 244; 249 (x3); 253)

Greenish colourless glass. (See also Nos. 6 & 7)

43. Fragment of blown greenish colourless glass of indeterminate form and date. (From 175)

Window glass

44. Fragment of window glass of the double glossy variety. Greenish-blue glass. (From 175)

Glass other than vessels

45. Small tessera, triangular in section, of opaque blue glass paste. (From 175)

As well as fragments of 2nd- or 3rd-century date vessels of the late 3rd or early 4th century (e.g. Nos. 3-9) are also represented. It is not possible to make any further observation concerning the glassware at this site due to the small size of the assemblage and the inability to date individual vessels closely.

COIN

The one Roman coin found on the site came from a dark earth deposit (182). It has been identified by M. J. Hammerson.

Nero. AE As. AD 66-68.

Obv. [NERO CAE] sar AVG PM [AX TRP PP]; rev.

SC. Victory

With shield inscribed SPQR; Lyons.

Roman Imperial Coinage (1925-) 329.

SMALL FINDS

(Fig. 8)

Bone

1. Pin with spherical head. Polished. Handcut. (From 175).
2. Pin with spherical head. End of shaft broken. Lightly polished. Handcut. (From 175)
3. Pin with spherical head. End of shaft broken. Lightly polished. Handcut. (From 226)

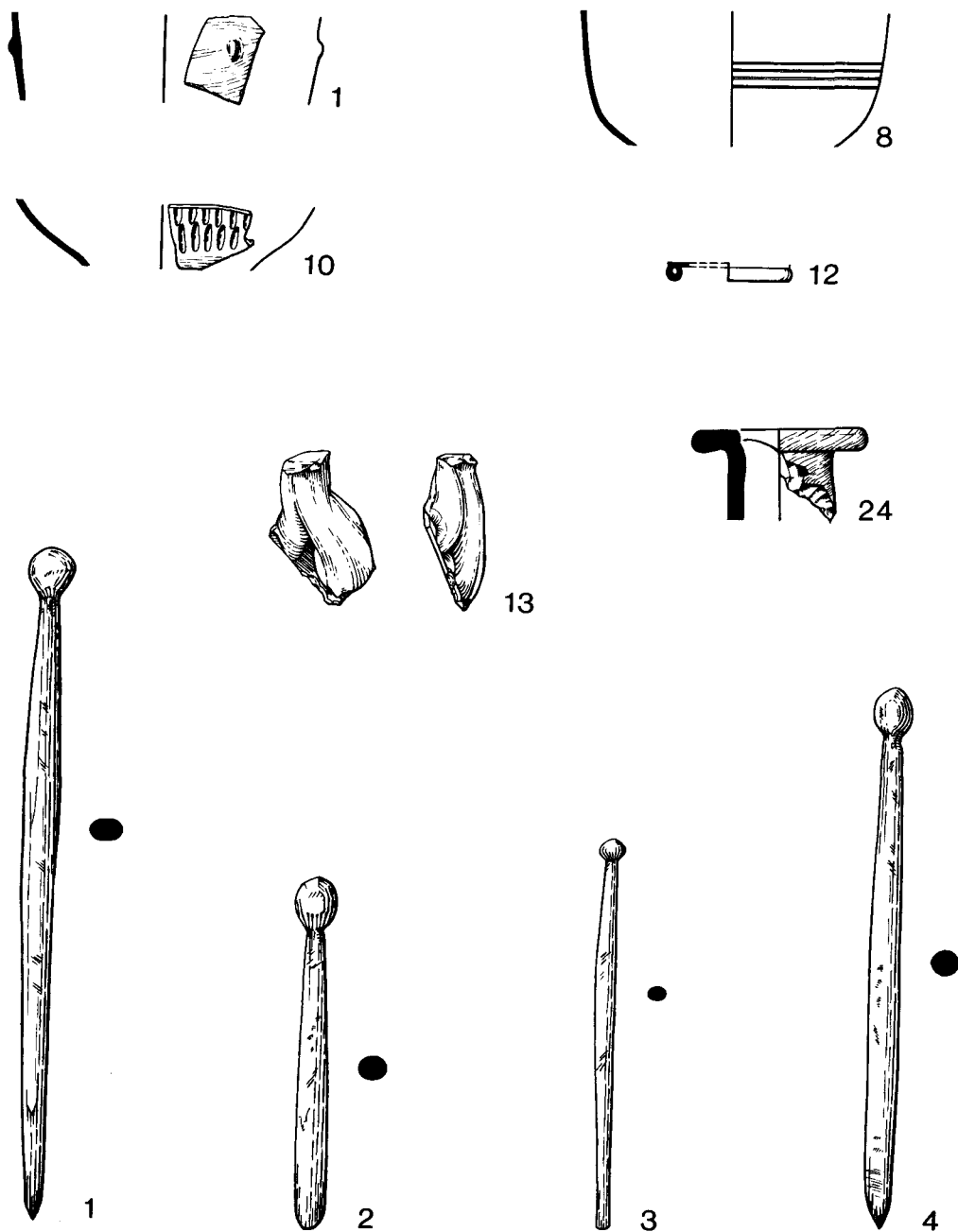


Fig. 8. Goodman's Yard: Roman glass Nos. 1, 8, 10, 12, 13, 24 (1/2); Roman small finds, bone Nos. 1-4 (1/1).

4. Pin with spherical head. Polished. Handcut. (From 227)

Stone

5. Fragment of a quern stone. It has been identified by Martyn Owen (Institute of Geological Sciences) as Niedermendig lava from the Mayen area of Germany. Not illustrated. (From 253)

THE REMAINS OF A ROMAN HOBNAILED SHOE

By Michael Rhodes

Associated with the surviving foot bones in Layer 182 were the remains of a shoe. The leather parts had disappeared leaving *in situ* 56 of the hobnails which once held together the layers of the bottom unit. The heads of the nails were uppermost, showing that the shoe was buried upside down. The shoe may have slipped at least partially off the foot during the process of burial, suggesting that this was probably not done in a particularly careful fashion.

The nails are now very corroded, but the heads appear to be of the usual conical type with a diameter of c. 10–11mm. Their arrangement indicates that the specimen was a left shoe and was c. 215mm long; equivalent to c. size 13 on the English shoe size scale. This shoe is at the top end of the known Roman size-range for its type. The exact pattern of nailing is not entirely clear, but definitely belongs to Type C (Rhodes, *in press*). This is the most heavily nailed variety with two rows around the outside edge of the sole (in this example they do not appear to extend down to the heel), at least one row round the remainder and within its border, 2 to 3 straight rows extending either along the whole length of the sole or just along the tread or heel. Shoes with this nailing pattern are thought to be *caligae* or army boots because, as well as being the most heavily-nailed, they are usually larger than other types of shoe and are associated with uppers of the 'moccasin' or one-piece variety, thought to be the distinctive mark of this type of footwear (Rhodes, 1980).

Although the shoe is of a military type, this does not necessarily mean that its wearer was a soldier. Shoes of similar form appear to have been widely adopted by the civil population at least by the time of Diocletian (*Diocletian's Edict* 9, 1–6 and 10).

THE ANIMAL BONES

By Alison Locker

The bulk of deposits on the site were dumped and of the same or very similar date (late 3rd or possibly early 4th century). These layers from all trenches have been combined for the purpose of faunal analysis.

The Mammal Bones

A total of 1,286 mammal bones was recovered, the following species were identified; ox (*Bos* sp.), sheep (*Ovis* sp.), pig (*Sus* sp.), horse (*Equus* sp.), dog (*Canis* sp.), cat (*Felis* sp.) and hare (*Lepus* sp.), measurements were taken whenever possible according to Jones (1976) and von den Driesch (1976). These are available on request. Below greatest length is abbreviated as GL.

The table below indicates the number of bones for each species. Fragments termed ox or sheep sized have been added to the categories ox and sheep respectively. Loose teeth and rib fragments have been included in the count.

ox	sheep	pig	horse	dog	cat	hare	unidentifiable	=	total
493	51	109	22	21	2	2	586		1286

Ox was the predominant species (forming 38% of the mammal bone) both numerically and even more so in terms of meat contribution. All parts of the skeleton were represented and butchery marks were common.

Butchery was frequently observed on mandible chopped around the area of the gonion,

possibly for the removal of the cheek meat and the tongue, as well as chopping around the diastema and under the alveoli of the molars.

Scapulae were chopped through the joint surface, the proximal surfaces of radii, tibiae, and metapodials were often chopped along their posterior surfaces, possibly as a result of chopping the joint above. The distal condyles on the posterior surface of the femur were also chopped. The os coxae were chopped around the area of the acetabulum.

All the ox bones were mature and fully fused.

Sheep were present in low numbers (4%), and butchery was noted on a number of long bones. Most of the bones were mature except for 2 immature mandible fragments.

Pig formed 8% of the total, many of the bone fragments were still porous, and some were from neonatal individuals. It is common for pig to have a higher proportion of immature bone than ox or sheep since its prime function is as a meat producer. Butchery was observed in the form of chop marks through the frontals of the skull, and through the mandibles at the area of the alveoli of the premolars. Many of the long bones also showed chop marks.

A number of horse bones were recovered. Context 186 yielded the partial skull, and the mandible of a small individual, the skull measurements compared closely with the complete Roman horse skull from Quakers Burial Ground, Staines (Chapman in press). This individual appeared to be horse rather than donkey, indicated by the 1st molar of the mandible (Armitage 1979). The atlas, axis and 3 cervical vertebrae which all articulated were also present. Measurement of a horse radius (GL 337mm) from context 180 suggested an individual with a withers height of 146cms which is approximately 13 hands (Kieswalter 1974).

The only instance of pathology was seen on a dog femur, where exostosis covered the proximal area of the shaft. The shoulder heights of dog gave a range of 33 to 57cms, which is within the Romano-British range given by Harcourt (Harcourt 1974).

	GL	Shoulder height
Dog radius	142mm	47cms
	175mm	58cms
ulna	148mm	42cms
	118mm	33cms
femur	160mm	48cms

The Bird Bones

A total of 77 bird bones was recovered, the following species were identified; domestic fowl (*Gallus* sp.), duck (*Anas* sp.) and goose (*Anser* sp.).

dom.fowl	duck	duck (cf mallard)	duck (cf golden eye)	goose	immature	unidenti- fiable	total
32	1	1	3	18	5	17	= 77

Measurements were taken whenever possible according to Jones 1976, all these bones probably represent domestic food refuse.

The Fish Bones

A total of 9 fish bones was recovered, 8 of which were from context 175. Seven of these belonged to a flatfish, probably sole (*Solea solea*) representing one individual, and the vertebral centrum of a bream (*Abramis brama*) was also recovered.

The Shellfish

A total of 764 fragments of shellfish was recovered, and the following species were identified; oyster (*Ostrea edulis*), whelk (*Buccinum undatum*), mussel (*Mytilus* sp.), cockle (*Cardium edule*), carpet shell (*Venerupis decussata*), limpet (*Patella vulgata*) and one *Cepaea* shell.

oyster	whelk	mussel	cockle	carpet shell	limpet	cepaea	total
228 upper valves	13	14	7	5	1	1	= 764
90 lower valves							
16 indeterminate							

The mussel, oyster, whelk, cockle, carpet shell and limpet may have been collected for food from around the shoreline and in the case of oysters from deeper water.

It is not clear whether Cepaea were eaten, this one individual may have been part of the surrounding land fauna which became incorporated in the deposits.

General Conclusions

The small nature of the sample precludes any estimation of the relative contribution of different species to the diet during the Roman period but broadly speaking the deposits seem to represent well mixed deposits of food refuse, there appears to be little difference between the 3 deposits though this may be a factor of the small size of the sample rather than true homogeneity.

The Human Bones

A total of 55 human bones were recovered from 5 different contexts.

Layer 182	1 pair of tali
1 pair calcanea	15 fragments of phalanges etc.
1 fibula	1 proximal end of an ulna
1 distal phalanx	1 skull fragment
2 proximal phalanges	2 proximal ends and shafts of tibiae } possibly a pair
1 1st metatarsal	2 distal ends of tibiae
1 2nd metatarsal	2 radius shaft fragments
1 3rd metatarsal	1 midshaft and distal end of a humerus
1 4th metatarsal	2 ulna shaft fragments
5 talus bones	1 fragment of os coxa
	1 fragment of acetabulum
Layer 186	
1 skull fragment	
2 femur shaft fragments	
1 vertebral centrum	
1 long bone shaft fragment	
Layer 224	
1 pair of calcanea	
	Layer 232
	1 fragment of os coxa
	Layer 241
	1 long bone shaft fragment
	1 skull fragment

All these bones were adult and quite robust. Anatomically they could all belong to a single adult male, but the stratigraphy suggests that it is more likely that at least 2 individuals are present.

BIBLIOGRAPHY

- ARMITAGE (1979), P. Armitage 'Jawbone of a mule from the Roman levels, Billingsgate Buildings', in P. Armitage and H. Chapman 'Roman Mules' *London Archaeol.* 3 No. 13 (1979) 339-346.
- CALVI (1968), M. C. Calvi *I Vetri Romani del Museo di Aquileia* (Aquila 1968).
- CHAPMAN (in press), J. Chapman 'The animal bones Quakers Burial Ground, Staines' (in press).
- DRIESCH (1976), A. von den Driesch 'A guide to the measurement of animal bones from archaeological sites' *Peabody Mus. Bull.* No. 1 (1976).
- GREENE (1978), K. Greene 'Roman trade between Britain and the Rhine provinces: the evidence of pottery to c AD 250' in J. du Platt Taylor and H. Cleere (eds.) *Roman Shipping and Trade: Britain and the Rhineland Provinces*. CBA Res. Rep. No. 29 (1978).
- HAMMERSON AND MURRAY (1978), M. J. Hammons and C. Murray 'Other Roman Pottery' in Southwark and Lambeth Archaeol. Excav. Com. 'Southwark Excavations 1972-74'. *London Middlesex Archaeol. Soc. and Surrey Archaeol. Soc.*, Joint Pub. No. 1, Vol. 2 (1978).
- HARCOURT (1974), R. A. Harcourt 'The dog in prehistoric and early historic Britain.' *Journal of Archaeol. Sci.* 1 No. 2 (1974) 151-177.
- HARDEN (1968), D. B. Harden et al *Masterpieces of Glass*, British Museum (London 1968).
- HULL (1958), M. R. Hull *Roman Colchester*, Rep. Res. Com. Soc. Antiq. London, No. 20 (Oxford 1958).
- HULL (1963), M. R. Hull *The Roman Potters' Kilns of Colchester*. Rep. Res. Com. Soc. Antiq. London, No. 21 (Oxford 1963).
- ISINGS (1957), C. Isings *Roman Glass from Dated Finds*. (Groningen/Djakarta 1957).
- JONES (1976), R. T. Jones *Osteometric Methodology Ancient Monuments Laboratory Report*, No. 2333 (1976).
- KIESWALTER IN DRIESCH AND BOESSNECK (1974), A. von den Driesch and J. Boessneck 'Kritische Anmerkungen zur Widerristhöhenberechnung aus Längemassen vor und früh geschichtlicher Tierknochen'. *Saugetier kundliche Mitteilungen*, 22 (1974) 325-348.
- PRATT (1976), G. D. Pratt 'Excavations at 51-57 Rayne Road.' *Essex Archaeol. Hist.* 8 (1976) 3-64.
- RHODES (1980), M. Rhodes 'Leather Footwear' in D. M. Jones 'Excavations at Billingsgate Buildings ("Triangle"), Lower Thames Street, London, 1974.' *Trans. London Middlesex Archaeol. Soc. Special Paper* No. 4 (1980).
- YOUNG (1977), C. Young *Oxfordshire Roman Pottery*. Brit. Archaeol. Reps. 43 (Oxford 1978).

The Society is grateful to the Department of the Environment for a grant towards the cost of publishing this report.