

Transactions of the
London & Middlesex
Archaeological Society

incorporating the
Middlesex Local History Council

Volume 25

1974

Bishopsgate Institute, Bishopsgate, London E.C.2

57 50 1181 3
XPS 1000000000

Hon. Editor:

Lawrence S. Snell, M.A., F.S.A., F.R.Hist.S., F.R.S.A.
NEWMAN COLLEGE
Bartley Green
Birmingham B32 3NT
Telephone Nos.: 021-476 1181 (College). 021-472 2588 (Home)

Assistant Editor:

Hugh Chapman, B.A., A.M.A.
Guildhall Museum, Gillett House
55 Basinghall Street, London EC2V 5DT

Editor's Note:

The Editors will be glad to consider papers for publication. New contributors should obtain a copy of 'Notes for Contributors' from the Editor before submitting a paper.



LAMAS LIBRARY
REFERENCE ONLY

Transactions of the
London & Middlesex
Archaeological Society

incorporating the
Middlesex Local History Council

Volume 25

1974

Bishopsgate Institute, Bishopsgate, London E.C.2

Hon. Editor:

Lawrence S. Snell, M.A., F.S.A., F.R.Hist.S., F.R.S.A.

NEWMAN COLLEGE

Bartley Green

Birmingham B32 3NT

Telephone Nos.: 021-476 1181 (College). 021-472 2588 (Home)

Assistant Editor:

Hugh Chapman, B.A., A.M.A.

Guildhall Museum, Gillett House

55 Basinghall Street, London EC2V 5DT

Editor's Note:

The Editors will be glad to consider papers for publication. New contributors should obtain a copy of 'Notes for Contributors' from the Editor before submitting a paper.

CONTENTS

Officers	i
118th Annual Report and Accounts, 1972-1973	iii
Excavations at Toppings and Sun Wharves, Southwark, 1970-1972. <i>By Harvey Sheldon</i>	I
Excavations at The Custom House Site, City of London, 1973. <i>By Tim Tatton-Brown</i>	117
Excavations at Christ Church, Newgate Street, 1973. <i>By Tony Johnson</i>	220
Excavations for Stane Street in the Clapham Area, 1966-71. <i>By Donald Imber</i>	235
Excavations at Brockley Hill, Middlesex, March-May, 1972. <i>By Stephen A. Castle</i>	251
A Medieval Deposit from 224-246 Borough High Street, Southwark (TQ 3234 7967), London. <i>By F. S. C. Celoria and J. C. Thorn</i>	264
Three Roman Objects from the City of London. <i>By Hugh Chapman</i>	273
A Late Bronze Age Pin from Brentford. <i>By Francis Celoria</i>	278
Two Pit Groups in the City of London. <i>By Peter Marsden</i>	282
A Fifteenth-Century Middlesex Terrier. <i>By Douglas Moss and Ian Murray</i>	285
The Edwardian Inventories of Middlesex. <i>By Lawrence S. Snell, M.A., F.S.A., F.R.Hist.S., F.R.S.A.</i>	295
The Brasses of Middlesex, Part 15: Hayes. <i>By H. K. Cameron, M.A., Ph.D., F.S.A.</i>	303
An Address given at the Pepys Commemoration Service in the Church of St. Olave, Hart Street in the City of London, 6th June, 1974. <i>By Hugh Trevor-Roper, M.A., F.B.A., F.R.Hist.S.</i>	310
John Stow and His Monument. <i>By A. J. Taylor, C.B.E., M.A., D.Litt., F.B.A., Dir.S.A., F.R.Hist.S.</i>	316
Obituary: <i>T. A. N. Henderson, F.S.A.</i>	322
New Books	323
Stop Press	324



Transactions of the
London & Middlesex
Archaeological Society

incorporating the
Middlesex Local History Council

Volume 25

1974

Bishopsgate Institute, Bishopsgate, London E.C.2

London & Middlesex Archaeological Society

incorporating Middlesex Local History Council

ESTABLISHED IN 1855

Patrons:

THE MOST REV. THE ARCHBISHOP OF CANTERBURY
THE RIGHT REV. THE BISHOP OF LONDON
THE RIGHT HON. THE LORD MAYOR OF LONDON
H.M. LIEUTENANT FOR GREATER LONDON AND CUSTOS ROTULORUM
H.M. ASSISTANT LIEUTENANT FOR THE MIDDLESEX AREA OF GREATER LONDON
THE VERY REV. THE DEAN OF ST. PAUL'S

President:

RALPH MERRIFIELD, B.A., F.S.A., F.M.A.

Past Presidents:

PROFESSOR W. F. GRIMES, C.B.E., D.LITT., M.A., F.S.A., F.M.A. (1950-1958)
D. B. HARDEN, C.B.E., M.A., PH.D., F.S.A., F.M.A. (1959-1964)
R. MICHAEL ROBBINS, M.A., F.S.A. (1965-1970)
ARNOLD J. TAYLOR, C.B.E., M.A., D.LITT., F.B.A., DIR. S.A., F.R.HIST.S. (1971-1973)

Vice-Presidents:

SIR MORTIMER WHEELER, C.H., C.I.E., M.C., T.D., M.A., D.LIT., D.LITT., F.B.A., F.S.A., F.M.A.
LAWRENCE E. TANNER, C.V.O., M.A., LITT.D., F.S.A. ARTHUR HALL, F.S.A., F.L.A.
MISS E. D. MERCER, B.A., F.S.A. S. W. HOWARD, M.C., F.I.B.
W. J. SMITH, M.A., F.R.HIST.S.

Trustees:

BARCLAYS NOMINEES (BRANCHES) LTD.

Bankers:

BARCLAYS BANK LTD.
(Cocks, Biddulph Branch)

Council:

S. W. HOWARD, M.C., F.I.B. (Chairman)
W. J. SMITH, M.A., F.R.HIST.S. (Deputy Chairman)

Ex-Officio: The Officers mentioned in Rule 9

K. BAILEY, M.A., F.R.G.S.
V. R. BELCHER, M.A.
J. A. CLARK, B.A.
G. J. DAWSON, B.A.
N. M. D. FARRANT
C. H. J. FARTHING, O.B.E., B.A., F.S.A.

M. G. HEBDITCH M.A., F.M.A.
MISS M. B. HONEYBOURNE, M.A., F.S.A.
R. C. JARVIS, I.S.O., F.S.A., F.R.HIST.S.
J. D. LEE, F.L.A.
D. O. PAM, F.L.A.
S. E. WARREN

Editorial Advisory Committee:

Ex-Officio:

S. W. HOWARD, M.C., F.I.B.
(*Chairman of Council*)

R. MERRIFIELD, B.A., F.S.A., F.M.A.

ERIC E. F. SMITH, F.S.A.
(*Hon. Secretary*)

A. TRIBE, F.C.A.
(*Hon. Treasurer*)

LAWRENCE S. SNELL, M.A., F.S.A.
F.R.Hist.S., F.R.S.A. (*Hon. Editor*)

HUGH CHAPMAN, B.A.
(*Assistant Editor*)

Appointed by Council:

MISS M. B. HONEYBOURNE, M.A., F.S.A.
N. M. FARRANT S. N. P. MARKS

Archaeological Research Committee:

Chairman: R. MERRIFIELD, B.A., F.S.A., F.M.A.

Secretary: R. A. CANHAM, B.A., London Museum, Kensington Palace, W.8

Historic Buildings and Conservation Committee:

Local History Committee:

Chairman: Miss M. B. HONEYBOURNE, M.A. F.S.A.

Secretary: H. E. ROBINS, B.A., F.R.G.S., 3 Cameron House, Highland Road, Bromley, Kent

Honorary Editor:

LAWRENCE S. SNELL, M.A., F.S.A., F.R.Hist.S., F.R.S.A.

Assistant Editor:

HUGH CHAPMAN, B.A., A.M.A.

Honorary Librarian:

D. R. WEBB, B.A., A.L.A.

Assistant Librarian:

MRS. I. EADES

Honorary Director of Meetings:

F. J. FROOM

Honorary Treasurer:

A. TRIBE, F.C.A.

Assistant Treasurer:

M. J. VENTHAM, A.C.A.

Honorary Secretary:

ERIC E. F. SMITH, F.S.A.

Honorary Assistant Secretary:

J. A. CLARK, B.A.

Honorary Auditors:

L. J. MAGUIRE, M.B.E.
MRS. C. H. ALLEN, F.C.A.

ERATUM

The plate which appears between pages 156 and 157 should refer to
Excavations at Brockley Hill, Middlesex, pages 251 to 263.

London & Middlesex Archaeological Society

incorporating Middlesex Local History Council

118TH ANNUAL REPORT OF THE COUNCIL FOR THE YEAR ENDING

30TH SEPTEMBER, 1973

There were fourteen meetings, including lectures on 20th October: Change in the Historic Town, 1945—72, by Cecil H. J. Farthing, O.B.E., B.A., F.S.A.; 17th November: Roman Provincial Architecture, by Nicholas Farrant; 8th December: The Importance of Coins in Archaeology, by Dr. John Kent, F.S.A.; 19th January, 1973: Annual General Meeting and Presidential Address, Castles and Castle Building, the Thirteenth Century; 16th February: Ceremonial of the City of London, by Ralph Merrifield, B.A., F.S.A., (The George Eades Memorial Lecture); 16th March: Recent Excavations at Hadleigh Castle, Essex, by P. L. Drewett, B.A.; 4th May: Deserted Mediaeval Villages, by J. G. Hurst, M.A., V.P.S.A.; 28th September: Roman Leicester, by Max Hebditch, M.A., F.S.A.; and visits on 7th October: West Drayton Local History Exhibition; 4th November: Apothecaries' Hall, Middle Temple Hall and Temple Church; 9th December: The Map Room, British Museum; 24th February: Bruce Castle, Tottenham; 14th April: Allington Castle and Aylesford Priory; 23rd June: whole day visit to Cirencester.

The customary two Conferences were held and were both very well attended. The Local History Conference was held on 25th November, the principal speaker being Mr. John Earl, of the G.L.C. Historic Buildings Division, on The Urgent Need to Know More. The Archaeological Conference was held on 31st March and reports were given on recent excavations at Baynard's Castle; Southwark; Arundel House; and Aldgate.

The Stow Commemoration Service was held at St. Andrew Undershaft on 11th April, the address being given by Francis W. Steer, M.A., F.S.A. The Pepys Service was held at St. Olave, Hart Street, on 23rd May, the address being given by R.C. Latham, M.A.

Transactions Volume XXIII part 2 was issued as well as three numbers of the News Letter.

Membership at 1st October, 1972 was 587 and at 30th September, 1973 was 682 made up as follows: Life Members 47; Honorary Members 8; Student Members 24; Junior Members 35; Annual Members 568. There are 41 Affiliated Societies. These figures shew a most gratifying general increase in membership which it is hoped may continue in the current year.

During the year a duplicated Library Catalogue was prepared and copies are available to members on request.

We have again to record a deficit on our accounts, due principally to continually increasing costs. The increase in postage rates and the advent of V.A.T. have, together, rendered the Society's subscription rates inadequate and some increase is now inevitable if we are not to curtail our activities during the coming years. The increase in membership referred to earlier will produce some additional income in the next year's accounts, but there is still an urgent need to broaden the Society's membership base if we are to support rapidly increasing printing costs.

The Council wishes to record its sincere thanks to the Honorary Officers for their work during the year.

By direction of the Council,

S. W. HOWARD, M.C., F.I.B.
Chairman of the Council.

E. E. F. SMITH,
Honorary Secretary.

WORDENS OF CORNWALL LTD.
PARADE STREET PENZANCE

EXCAVATIONS AT TOPPINGS AND SUN WHARVES, SOUTHWARK, 1970-1972

BY HARVEY SHELDON

A. INTRODUCTION:

The site of Toppings and Sun Wharves lies on the south bank of the Thames and on the north side of Tooley Street, between the present London Bridge and St. Olaf House (Fig. 1).

Demolition of the wharves during 1970 allowed Southwark Archaeological Excavation Committee to examine the site prior to its redevelopment. With funds made readily available by the Department of the Environment, Southwark Borough Council and the owners, the Proprietors of Hay's Wharf Ltd., it was possible to carry out three separate seasons of excavation between September 1970 and December 1971. For an overall period of about twelve months, the work was undertaken by a small full-time group assisted by others at weekends. In order to complete the excavations, some further weekend work was done between February and May, 1972.

During this time it was possible to excavate much of the southern part of the site. All this area had been cellared, and was back-filled to ground level after demolition, except north of the roadway entrance; here the basement roof remained unbroken to provide passage for vehicles. Excavation started in the north of this area (Trench 1, Fig. 2) and during the first season extended west and south to include Trenches 2-8. In a short second season Trenches 9-13 were opened; these and Trench 14 were largely completed during the third season.

Although modern ground level was above +4.3 m. O.D., the nineteenth century cellars had imposed a fairly uniform destruction on all the archaeological levels above about +1.7 m., except in the south-west of Trench 14. Deeper intrusions, largely in the form of wall foundations, pillar bases and eighteenth century floors had caused further loss.

These disturbances in general left some 0.6 m. of early Roman deposits relatively intact at the south of the site, although medieval levels, mainly river deposited, survived more deeply to the north.

THE REPORT

The report comprises the following sections:

- B Summary of results.
- C The documentary sources in relation to the excavation.
- D The findings:
 - I. Pre-Roman.
 - II. Early Roman settlement: 1. The ditch; 2. Extent of the buildings; 3. Methods of construction; 4. Associated activity; 5. Duration of settlement; 6. Building I; 7. Building II; 8. Building III; 9. Building IV; 10 Building V; 11. Alley between Buildings V and VI; 12. Building VI; 13. Other early Roman activity.
 - III. Late or sub-Roman.
 - IV. Medieval pre-erosion.
 - V. Erosion and deposition: 1. Erosion; 2. Deposition.
 - VI. Later medieval and Tudor: 1. The stone buildings; 2. The dock and associated timber structures.
 - VII. Later activity.
 - VIII. General conclusions.
- E The finds: I - XII and Appendix.

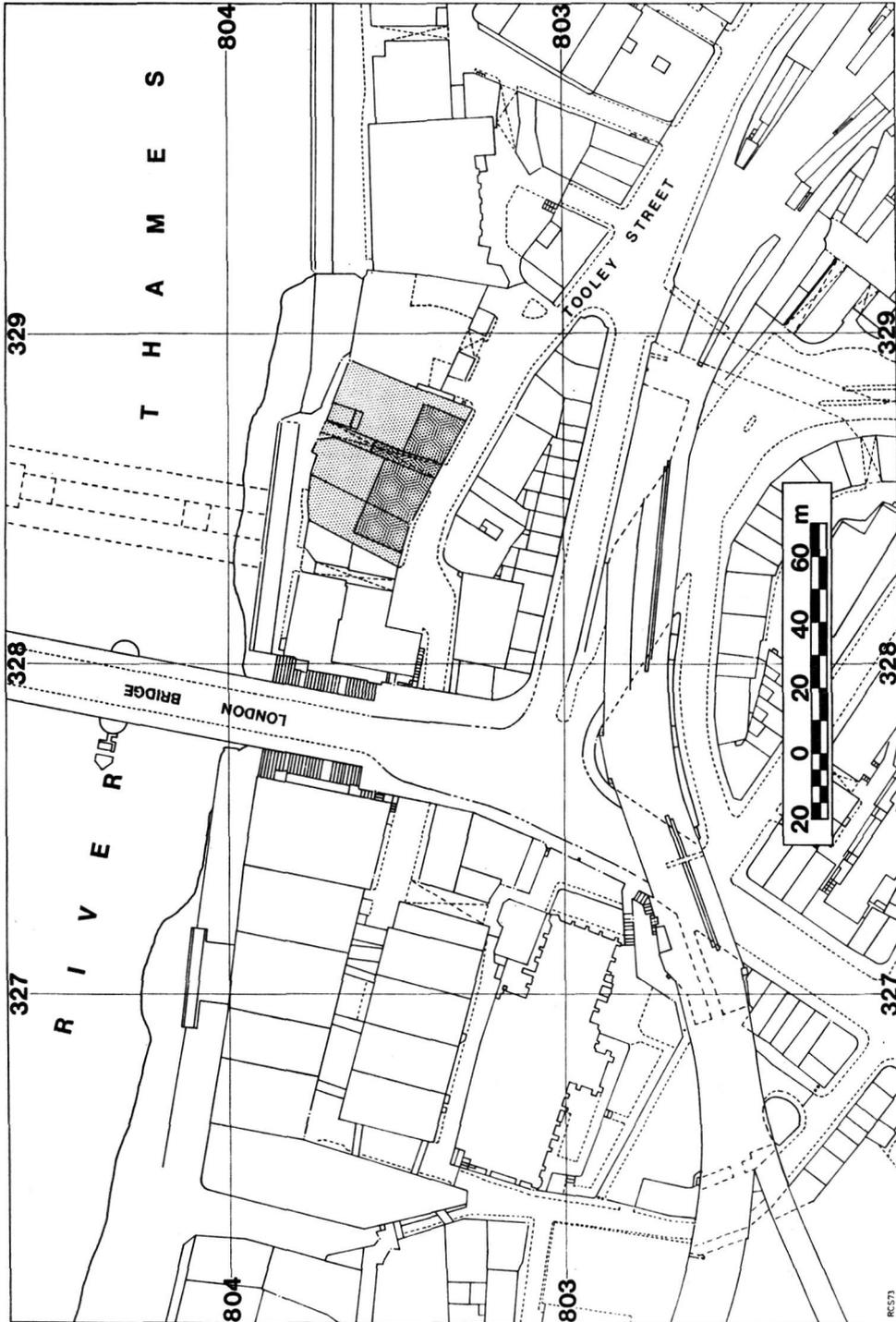


Fig. 1. Toppings Wharf; Location map; heavy shading covers the excavated area

B. SUMMARY OF RESULTS:

1. Although traces of late-prehistoric activity were found within the top layers of the river gravels at about +0.8 m. O.D., the first identifiable settlement began probably a generation or so after the invasion of 43 A.D. Before this the Thames had deposited silt over the river gravels and then retreated, bringing the land level up to about +1.1 m. O.D.

2. A number of early Roman buildings were erected on the silt at the south of the site; they were constructed largely of clay and timber and all but the eastern one appeared rectangular in plan. They could have been part of a complex associated with the early Roman bridgehead. Evidence of metal working in bronze and iron was recovered from two of the buildings but little else survived to indicate reliably what other manufacturing or trading activities took place within them.

3. Some demolition and rebuilding occurred, probably in the early years of the second century, but cellar intrusions had destroyed the later sequence in all but a small area. Here a collapsed building was overlaid by brown silty earth. This, and the scarcity elsewhere of intrusive Roman deposits later than the mid-second century could mean that the site was flooded at that time and became unsuitable for further settlement. Darker earth with late Roman pottery over the deposit of silty earth could have been dumped in the late or sub-Roman period to raise the land level against the rising Thames.

4. No evidence was found of activity between the late or sub-Roman period and the twelfth or thirteenth century, when a substantial building was erected. This was destroyed by a devastating flood towards the end of the thirteenth century. All the earlier levels in its path were eroded, thus removing the possibility of locating the Roman river bank on the northern part of the site. For a time the Thames flowed into the northern part of the excavated area, but earth banking seems to have been thrown up at the south of the site more or less immediately after the disaster.

5. The river bank must then have been pushed out to the north again, for the chalk foundations of later medieval walls were cut into the post-erosion deposits, and a wooden structure—possibly a jetty associated with the dock—was built, probably within the first half of the fifteenth century.

6. The floor of the dock itself—known to have been in existence in 1323—was found, and a wall bounding it to the east. This wall was probably built in the late fourteenth or early fifteenth century and may have replaced or extended an earlier one destroyed in the erosion. A further timber structure, possibly a revetment, was built into the dock in the early sixteenth century.

C. DOCUMENTARY SOURCES IN RELATION TO THE EXCAVATION

BY RHODA EDWARDS

I. SUMMARY.

Evidence from documents establishes one main feature on the site, existing (with some alterations) for at least 500 years. This was the narrow dock, midway along Toppings Wharf, which formed the entry to a gated landing-place known as the Watergate, and was so named as early as 1323.¹ Map evidence of the sixteenth century proves the position of the dock, and also shows that St. Olave's stairs lay on the riverfront immediately west of the dock entry.² The maps also indicate that this side of the dock south of the stairs was an open space or wharf, and that both wharf and dock extended almost as far as Tooley

Street. Wyngaerde's panorama of London c. 1543 shows dock, wharf and stairs, and a structure bridging the dock at its southern end that is presumably the Watergate. At some place upon the wharf, a parish public privy was in use at least between 1566 and 1699.³

It is not possible to identify and locate any other individual structures such as houses, shops or warehouses, but documents suggest that the whole area in the near vicinity of London Bridge was densely built-up from before the fourteenth century.

By 1716 the southern part of the dock had probably been filled in and the Watergate removed, though the remaining inlet (measuring only 13 ft. 8 in. x 28 ft. 7 in.) was still known by that name. A shop and warehouse stood on the southern end fronting Tooley Street, and the open wharf on the west side had been built over, leaving only a narrow alley leading to St. Olave's stairs.⁴ By 1779, this, and other property on the west side of Toppings Wharf, was leased to Thomas Preston, who is listed in the *Universal British Directory* of 1790 as a lead merchant and shot maker. In 1806, a shot tower was built in his lead works,⁵ and later used as a signalling tower for "Watson's Telegraph to the Downs".⁶ All the buildings at Toppings Wharf were destroyed by fire in 1843,⁷ and the warehouse built after this finally demolished in 1970.

Occurrences of fire and flood nearby, which may have affected the site, have been documented. A flood in 1097 was severe enough to damage London Bridge badly; a fire in 1135 or 1136 destroyed the wooden bridge and houses at the Southwark end of the bridgefoot, possibly also reaching the site. Another fire burnt houses on the south end of the new stone bridge in 1213.⁸ A great flood in 1294 was almost certainly that which archaeological evidence shows devastated the site in the late-thirteenth century.⁹ A fire on 8th September, 1725, broke out at a brushmaker's house in Tooley Street and burned all the east side of the Southwark end of London Bridge, though it did not touch St. Olave's church.¹⁰ The excavation indicated that the site at Toppings Wharf was burnt.

2. DOCUMENTED ARCHAEOLOGICAL FINDS:

It was possible to associate documentary evidence with some archaeological features. It was clearly shown on the ground that a flood and consequent "great erosion" did occur in the late-thirteenth century. A Thames flood on 18th October, 1294, was recorded, and, although the London Bridge area is not specifically mentioned as being affected, it seems likely that this event was the cause of the "great erosion". The 1294 flood is said by the chroniclers compiling the *Annals of Bermondsey Abbey*, to have devastated the lands of the Abbey, which included much of the riverside from Southwark to Rotherhithe.¹¹ Other documents suggest that the Thames' banks near London Bridge were subjected to repeated flooding in the late-thirteenth or early-fourteenth century.

In 1303 the Prior of St. Mary Overy petitioned the King, mentioning the "continual resistance, which without ceasing, we attempt against the violence of the river Thames, on whose banks our home is situated".¹² Excavations some 150 m. west of Toppings Wharf, at New Hibernia Wharf in 1973, on the site of the Priory, showed that the "great erosion" also affected the western side of London Bridge.¹³

In 1327 a Papal Mandate was sent to the Bishop of Winchester ordering him to relax 60 days of enjoined penance to all who contributed within three years to the repair of St. Olave's church, which had been damaged by the tide beating against the walls, and carrying off bodies from the graveyard.¹⁴

In 1330 the Thames seems to have been a cause of trouble on the east side of St. Olave's church. Isabella, late wife of Hamo Godchepe, was allowed to "construct a wharf between the wharf of the Abbot and Convent of St. Augustine, Canterbury, on the east and the wharf of the churchyard of the church of St. Olave, Suthwerk, on the west, in order to keep off the water of Thames from the houses of her late husband in the parish aforesaid".¹⁵

Numerous commissions for the repair of stretches of the southern Thames bank were issued, in 1298, 1303, 1309, 1311, 1320 and 1325.¹⁶ These may have been merely routine measures, but it is reasonable to assume, in view of the above evidence, that some were for the repair of flood damage. In 1334 the Thames again caused widespread flooding, according to John Capgrave's *Chronicle* (fifteenth century): "This yere were so grete wateres, that thei broke down walls in Temse and othir places, ovircured the londis, and kyllid many bestes".¹⁷

Of the structures documented on the site, archaeological evidence of the dock was found. In Trench 13 successive layers of sand and gravel, containing pottery of the fourteenth to late-fifteenth century, may have represented phases of the dock floor. Presumably cleaning and relaying of gravel in the dock took place at intervals. In 1566 the expenses of cleaning and repair appear in St. Olave's churchwardens' accounts. Payments included: "paide for iii Loades of gravell . . . iiis; paide to three Laborers that clensyd the Docke . . . vs; paide to v men at the betill x tydes cv(er)y man viiid a tyde dryvynge of pylls . . . xxxiiis iiid".¹⁸

Evidence of the 1725 fire might have been found in Trench 8. Here a cellar floor built in the mid-seventeenth century was overlaid by burnt debris which included pipes and pottery fragments of early to mid-eighteenth century date.

3. FINDS NOT DOCUMENTED :

Other structures found cannot be associated with specific documentary evidence. Late-twelfth or early-thirteenth century massive stone foundations in Trenches 8 and 11 (Building VII) probably belonged to a structure destroyed in the 1294 flood. Two other stone buildings of similar date were recorded just before their destruction in the nineteenth century, on the southern side of Tooley Street, in Churchyard Alley and Walnut Tree Court; the first may have been part of the house of the Earls of Warenne, the second of the Prior of Lewes.¹⁹

Many later medieval chalk foundations were found in the northern trenches. This is consistent with the general picture of the area; in 1323, fourteen small shops at "La Watergate" are mentioned, and in 1392, property on its west side is described as new built.²⁰

Chalk foundations and a cellar of possible early-sixteenth century date on the extreme east of the site in Trench 14 (Building IX) are unlikely to have been part of old St. Olave's church, as when it was rebuilt in 1738, "the walls of the new church are to jut out at the west end two feet further than the old one",²¹ and the 1875 60 in. o.s. map shows the new church did not overlie the Toppings site.

Large quantities of Dutch-type pottery of early Tudor date were found in Buildings IX and X. The possibility that this was imported by Dutchmen can be supported by the fact that a large number of them settled in St. Olave's parish. In 1441 and 1484 Southwark had a population of about 350 "Dutch" (this means Flemings and Germans also); the City of London had about 1,500.²² In 1541 about 350 aliens were listed in St. Olave's parish alone.²³

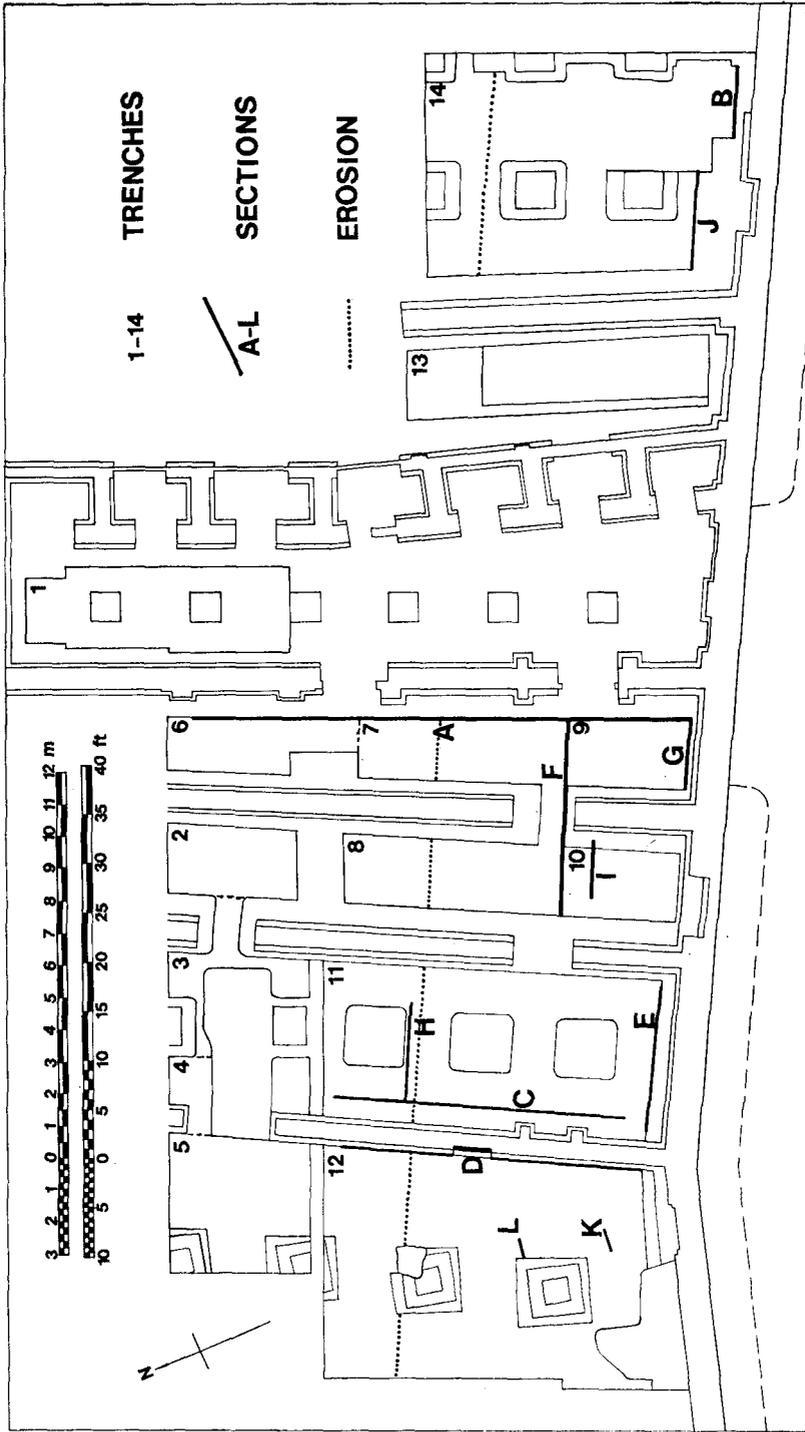


Fig. 2. Toppings Wharf; key plan to show trenches, sections, and line of Medieval erosion

Another possibility is that the Dutch-type pottery was made in England by immigrant potters. In 1542 and 1550 aliens in Greenwich and Woolwich were described as "potters" in Kent Lay Subsidy lists, and may even have been working there at an earlier date.²⁴ However, the term "potter" is often used for a metal potmaker, so this evidence should not be taken as conclusive.

4. OTHER DOCUMENTARY EVIDENCE:

It has been suggested that the pre-Norman bridgefoot adjoined St. Olave's stairs, that is, a little east of the medieval bridge. No sign of the approach to a bridge in this position was found on the site. The fact that the strip of land occupied by the dock and Watergate belonged to the City of London from at least 1546, has been used as an argument to support this theory of the site of a pre-Norman bridge. It is claimed that the strip represents an ancient ward boundary of the City, and therefore would be a likely spot for the positioning of a bridge.²⁵ However, no evidence exists that the City owned the dock before 1546, when the churchwardens of St. Olave's rented it from the Corporation.²⁶ The Watergate certainly existed in 1323, but ownership by the City cannot be proved.

The possible evidence of the dock found in Trench 13 did not include any indication of the position of the Watergate itself. Its existence on the site can be proved in 1323. First, property listed in the *Inquisition Post Mortem* of Lora, wife of William de Peyfrer included: "Parish of St. Olave, Southwark. A messuage with 14 small shops at 'La Watergate', held for life, by the demise of John de Northwode the elder, with reversion to the said John and his heirs, of the Earl of Warenne by service of 6d. yearly . . ." ²⁷

Second, tenements, "late of William de Wyntryngham 'carpenter' and by him new built", lay between property of William Horston (etc.) on the west and the "Watregate in the parish of St. Olave, Suthwerk on the east . . ." ²⁸

Thirdly, a lease of 1373 by the Prior of Lewes to William de Wyntryngham of property on the south side of Tooley Street, described it as measuring, "in breadth from our gate towards the north 23 feet as far as the tenement that William de Wyntryngham had of John de Northwode".²⁹ The Prior of Lewes's gatehouse was opposite St. Olave's church on the south side of Tooley Street, and de Northwode had been the tenant in 1323 of the shops adjoining the Watergate, thus this lease proves its location on the site of Toppings Wharf.

In the sixteenth century, the Watergate features prominently in St. Olave's churchwardens' accounts. In 1546-48 they "payd for making clen the water gate and for making clen a howsse & karting a way the rubysh . . ." ³⁰ In 1554 a royal visit by Edward VI was recorded: "pd to Mr Koke for rynggyng whene the Kyngs grace came to take hys barge at the Wattargatte for to gooe to Grenewyche". Other payments included in 1568-70 "It(e)m for planks to mend the entry of ye Water gate", and "It(e)m yt is further agreed at this vestry yt the lytell house w^{ch} stand upon the warfe wthin the water gate w^{ch} was a pryvye before shall be made a pryvye agayne". In 1579 the Vestry agreed, "that the prive be vewed at the watergate, and pr(ov)isyo(n) to be made that it may be made swete, yf yt may be, by digginge, bordinge, or otherwise as shall be thoughte most meete . . ." In 1584 Mr. John Bayley was made Keeper of the privy on the bridge and at the watergate.

Both the watergate and the privy seem to have been in constant need of repair. In 1608, "Edward Duckett hattbandemaker had warninge given him to repayre and amend the

stayres and wharfe upon the watergate accordinge to the Covenant in his lease". In 1614, "the wharfe at the watergate & the house of Office theircupon is very much out of Reparationes . . ." ³¹ In 1699, however, the privy or house of office was still in use. ³²

At some date after 1660, the parish ceased to rent the Watergate from the City of London, and by 1716 the Corporation leased its site to other tenants. ³³

D. THE FINDINGS

BY

BY HARVEY SHELDON

WITH PAT EVANS, ERIC FERRETTI, BERNARD JOHNSON AND IRENE SCHWAB

D.I. PRE-ROMAN:

Little evidence of activity prior to 43 A.D. was obtained from the excavation. Some worked flints and about half-a-dozen abraded pieces of pottery were found in the top sandy stratum of the river gravels on the western side of the site at a height of approximately ± 0.6 m. to ± 0.8 m. O.D. These and the flints from later levels are reported on below (see E.I and E.II). No features indicative of settlement accompanied the discovery of the artefacts, and it may be that they were washed onto the site by the river. This process could have occurred over some length of time, between the Mesolithic period and the beginning of the pre-Roman Iron Age or even later.

D.II. THE EARLY ROMAN SETTLEMENT:

The top of the natural gravels rose from a height of about O.D. level at the east of the site to ± 0.8 m. at the west, forming the eastern side of the ridge on which the Roman bridge probably stood.

At some time, probably during the Iron Age, but possibly more or less contemporary with the Claudian invasion, the top of the natural gravels was covered with a layer of clay-like silt which varied in thickness from approximately 0.3 m. at the west of the site to at least 1 m. at the east. This brought the land level up to about ± 1.1 m. O.D. The deposition of silt rather than sand and gravel was presumably caused by changes in the river flow.

After it had accumulated, but at the latest within the generation following the Conquest, the river retreated to the north. Clearly two possibilities can be suggested as the cause of this retreat: either there was a natural fall in water level, or the Thames was artificially banked and contained within its old channel. Whatever the cause, and the former seems more likely, the silt was left on dry land and the area became available for settlement.

For the purposes of dating the settlement both the coins and the Samian pottery were examined. Of the 10 closely datable coins found within the relevant layers, the latest was Neronian. (See E.VI, coins 1, 2, 3, 4, 5, 6, 7, 8, 9 and 12). The much more abundant Samian ware would, however, suggest a later date for the settlement. Consequently, in the following sections (D.II. 1-13) the latest Samian within a context has been used to assign a date to it, except when the residual nature of the pottery has been apparent.

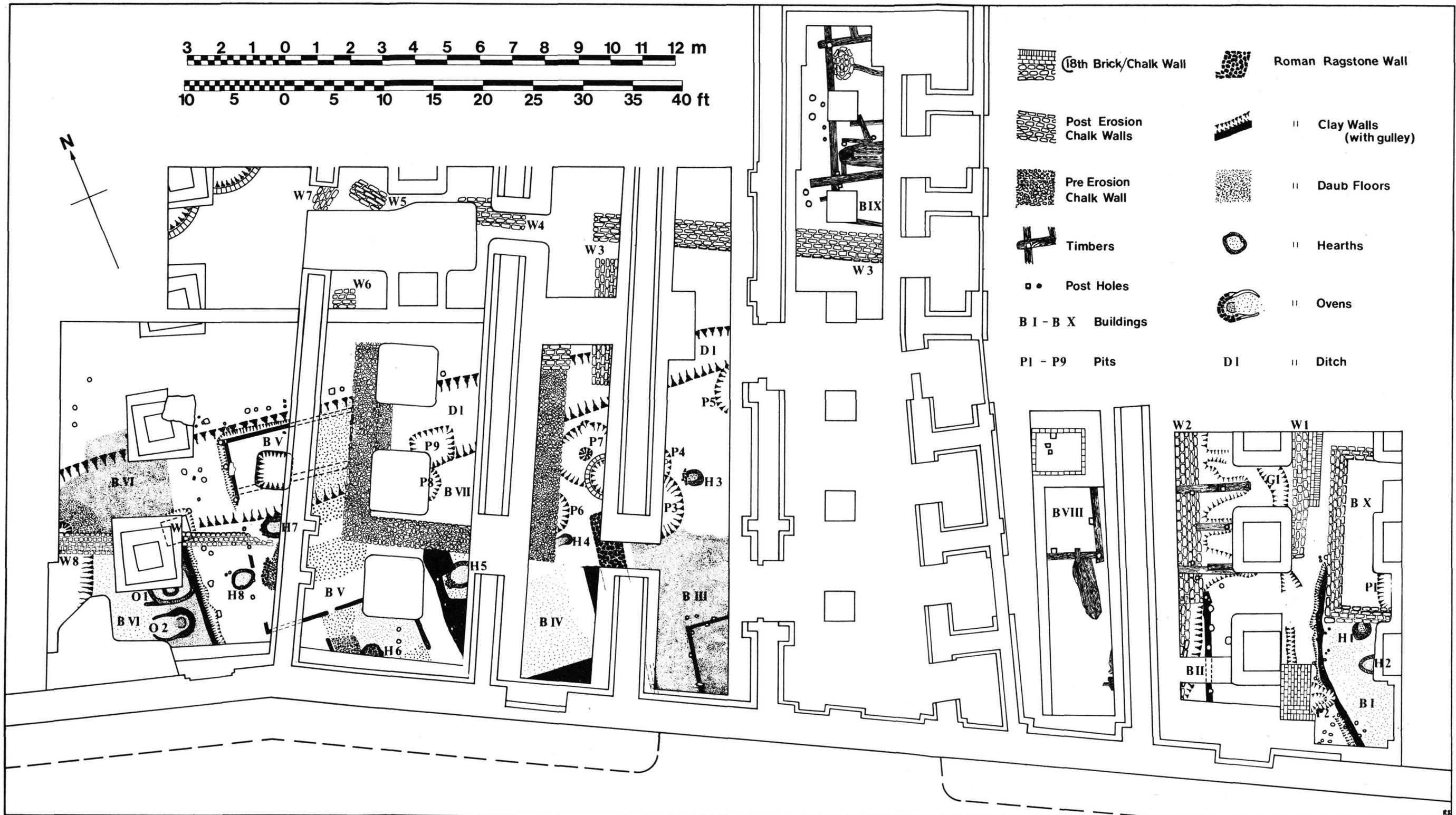


Fig. 3. Toppings Wharf; Site Plan

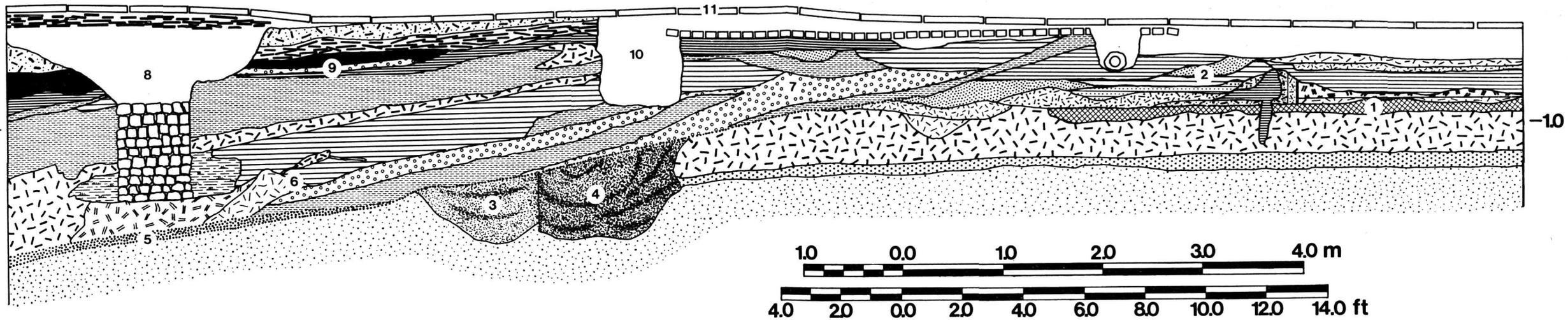


Fig. 4. Toppings Wharf; Section A. Trenches 6, 7 and 9, facing east

A red daub floor above the natural clay (1) is overlaid by a clay wall with plaster facing (left, above (1)). Rubbish deposits have been tipped into the disused building (2). These layers, and the early Roman ditch (3) and a later pit (4) have been eroded by a late thirteenth century river flood, marked by the line of the gravel (5). Above it occur various waterlaid (6) and dumped deposits (7) probably of early fourteenth century date. (7) could represent the base of a contemporary river bank. The post-erosion deposition levels have been cut by a later Medieval wall which has in turn been robbed out (8). (9) is a Medieval gravel surface laid over the deposition layers, overlaid by burnt building debris. The section has been truncated by at least two post-medieval cellars; the earlier brick floor accompanied by a wall (10), the later paved with York stone (11).

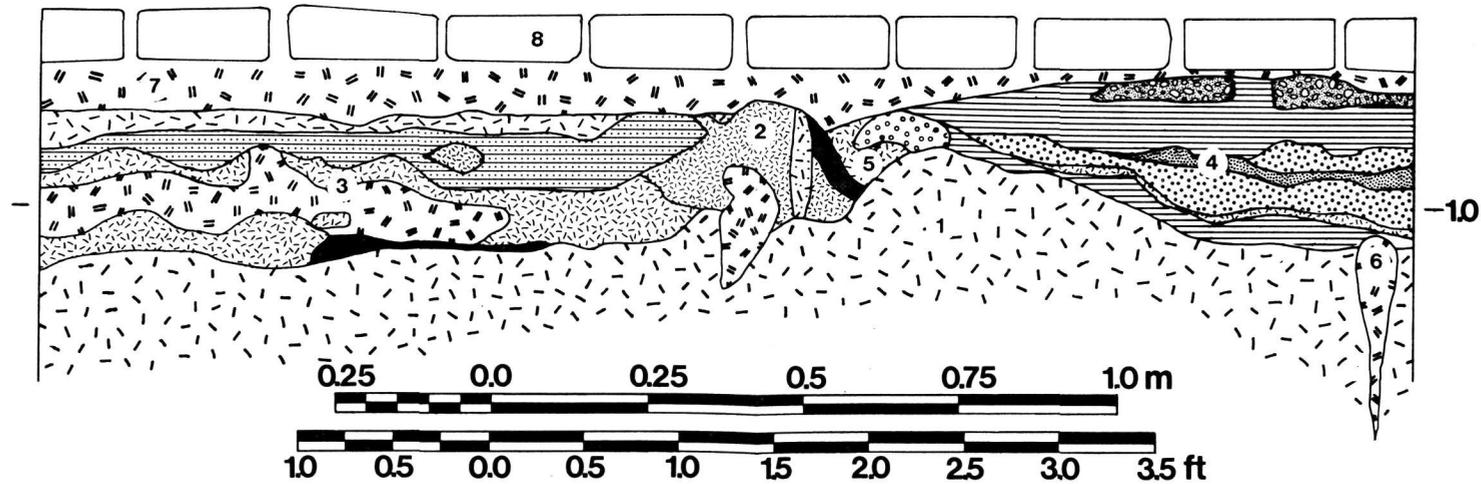


Fig. 5. Toppings Wharf; Section B, Trench 14, facing south

The river silt (1) has been cut away on both sides of the clay wall (2) to put in the floors of the early Roman building to the east (3) and the gravels of the alley to the west (4). The latest floor of yellow clay has been truncated by post-Roman features. Immediately to the west of the wall stump is a gully (5). The post (6) is one of a number cut through the river silt beneath the gravels. The top layer of grey-green clay (7) is a foundation layer associated with the eighteenth century brick floor (8).

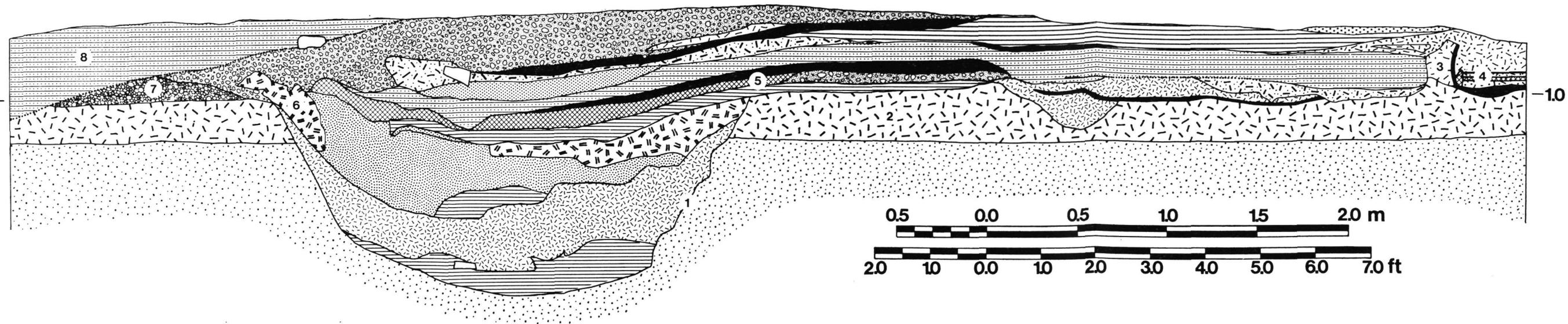


Fig. 6. Toppings Wharf; Section C, Trench 11, facing east

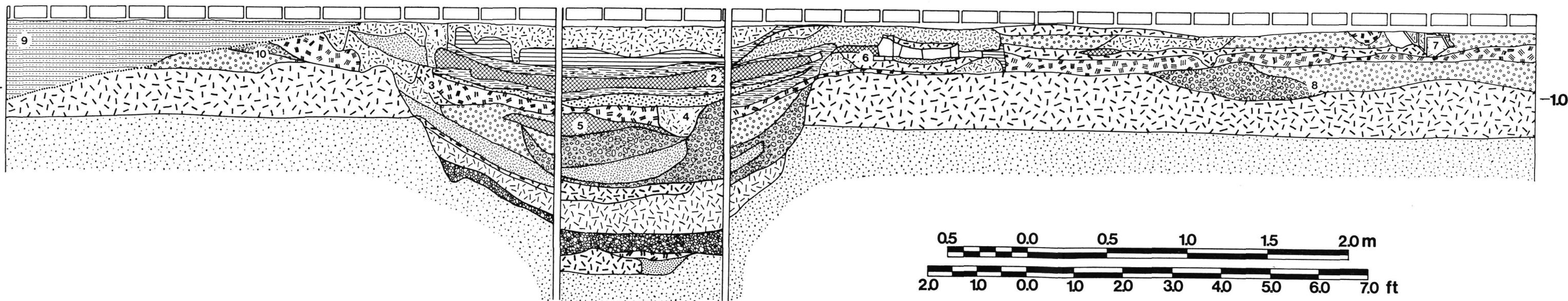


Fig. 7. Toppings Wharf; Section D, Trench 12, facing east

Fig. 6. The early Roman ditch (1) is seen cut through the natural silt (2). The northern clay wall of Building V's southern room is shown (3) with floors to the south (4) and north (5). The line of a possible clay wall (6) is seen in the north of the building. The Roman gravel (7) to the north of the ditch is shown, as is the deposition above the erosion (8).

Fig. 7. The middle has been stepped back to avoid a post-medieval intrusion. The ditch is overlaid by the early Roman Building V. The northern clay wall (1) a red daub floor to the south (2), and earlier phase northern wall (3) and a probable partition wall (4) are indicated. The earliest probable floor (5) is shown subsided into the ditch. A hearth (6) within Building V is also shown and the possible base of the building's south wall (7). What is probably an earlier intrusion into the silts is seen at the south of the section (8). The post-erosion deposits to the north of the trench are indicated (9) overlying Roman gravel layers (10), possibly a bank.

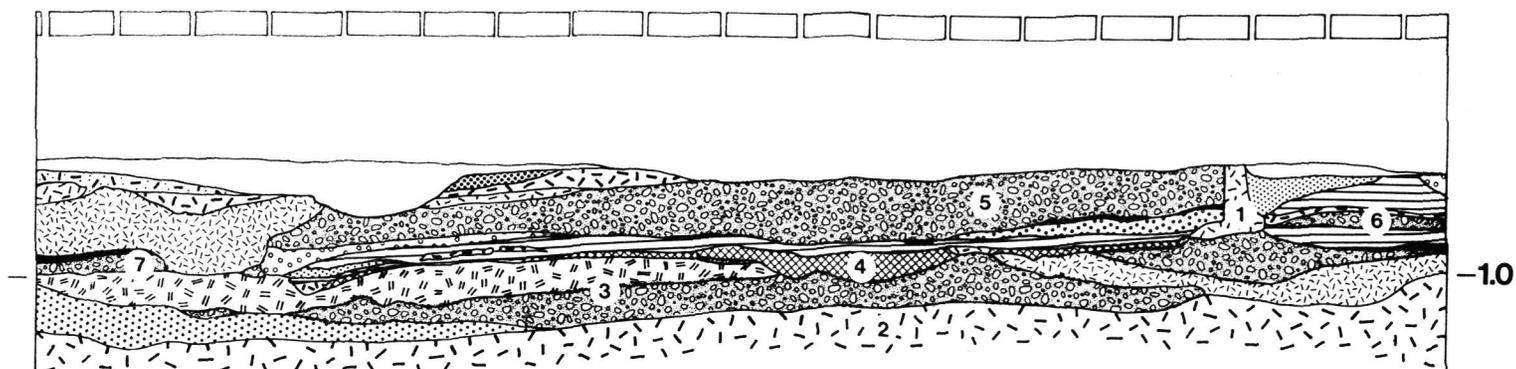


Fig. 8. Toppings Wharf; Section E, Trench 11, facing south

The western wall of Building V (1) is seen overlying the natural silt (2) and the foundation layers (3). The hearth (4) is seen as a thickening of the first floor. (5) represents a probable series of floors not distinct in section. West of the building lies an alley floor (6). East of the building lies similar gravel (7) possibly representing a passage between IV and V.

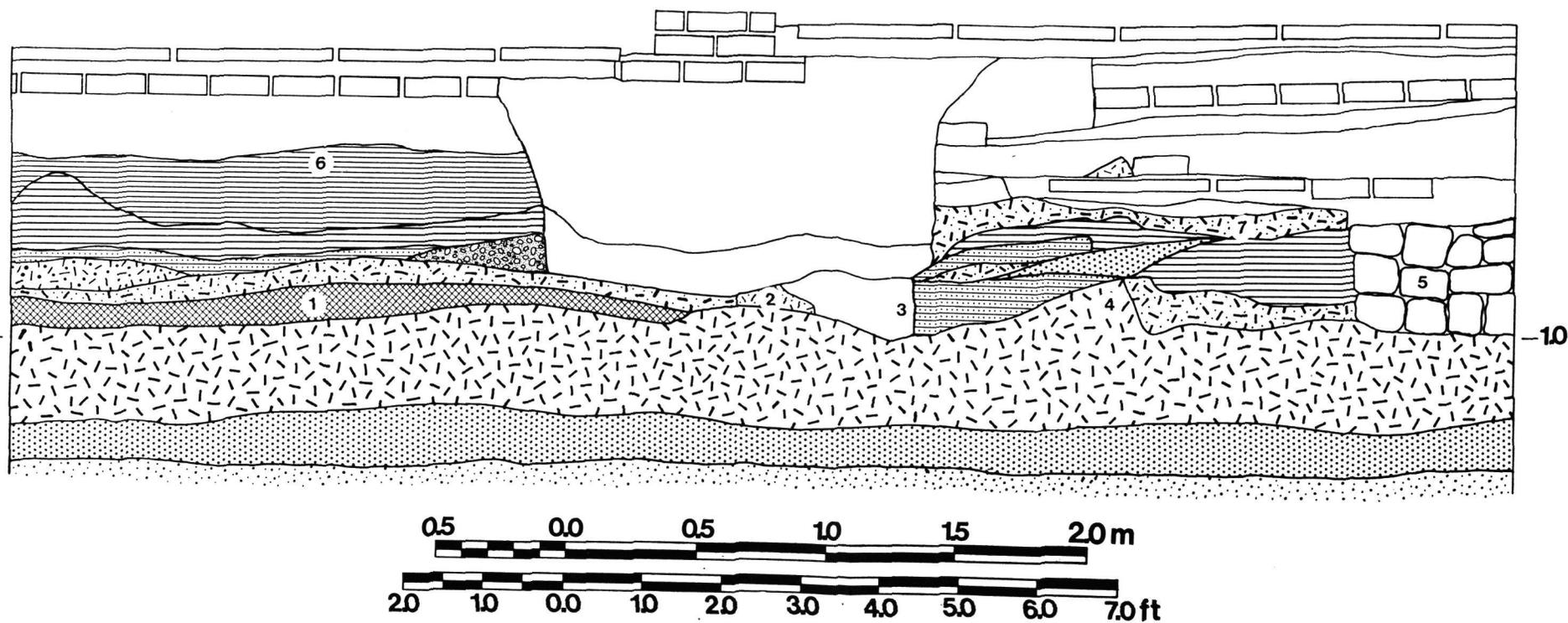


Fig. 9. Toppings Wharf; Section F, Trenches 7 and 8, facing south

This shows the daub floor of Building III at the south of Trench 7 (1). The probable western clay wall (2) is shown, possibly cut into it by the wall base of ragstone and gravel (3). This also seems to have intruded through the eastern wall of Building IV (4), but the stratigraphy was unclear. The southern end of the east wall of the medieval Building VII (5) is also shown. (6) and below represent the filling of Building III and (7) could be a later clay floor or a collapsed wall over Building IV.

D.II. 1. THE DITCH:

The earliest major Roman feature on the site was an east-west ditch, which was traced for a length of over 18 m. through Trenches 7, 8, 11 and 12 (Fig. 3). The ditch was best preserved in Trench 12 and the western part of 11; elsewhere much of its northern side had been destroyed, largely as a result of the thirteenth century river erosion.

Although a distinctly defined linear feature, the ditch varied both in width and depth. In general it was some 2.7 m. wide and 1.2 m. deep. It was dug through the clay-silt probably to quarry the underlying gravel, perhaps for an accompanying road or bank. No trace of either was found south of the ditch and had one existed it must have been to the north, on the river side. (Figs. 4, 6, 7).

Unfortunately, due largely to the medieval erosion, only at the west of the site—in Trenches 11 and 12—did any Roman levels survive north of the ditch. These layers of gravel might support the idea that some sort of bank once existed. (Figs. 6, 7).

The probability that the ditch was dug for quarrying rather than for drainage is suggested by the nature of the filling, which consisted mainly of clay, gravel and domestic refuse, the latter presumably suggesting settlement nearby. As very little silt was found at the base of the ditch it is likely that it remained open for only a short time. Samian sherds from the ditch suggest it was filled during the early part of the Flavian period.

In Trenches 11 and 12, outside the ditch and running parallel to its northern edge, stood a line of posts; these varied in depth from 30 cm. to 70 cm. and in diameter from 5 cm. to 10 cm. They may have extended originally further east along the ditch edge, where the erosion had destroyed the stratification. They could have been the vertical timbers of a revetment holding back a gravel bank to the north of the buildings.

D.II. 2. THE EXTENT OF THE BUILDINGS:

The early Roman buildings will be described in some detail across the site from east to west below (D.II. 6-12), but a general summary is given first (D.II. 2-5).

What have been interpreted as parts of six separate buildings were found (Fig. 3. B.I to B.VI). They were generally set on the underlying silt, but certainly two of them (V and VI) were partially constructed over the back-filled ditch. No evidence of a soil level underneath the buildings was found, although it is possible that the silt supported vegetation which was cleared prior to construction.

Apart from the ditch there was very little stratigraphic evidence of Roman activities preceding the buildings. No significant difference in dating was obtained from the Samian associated with the ditch and that found in the early levels of the buildings, except perhaps for Building III which might be slightly later. This could suggest that the ditch was dug as part of the initial development of the site.

The building to the east of the site (I) may have been round, but all the others were rectangular and thus fit into the pattern familiar from other urban settlements of the period. Gravel yards or alleys separated the easternmost (I) and the westernmost (VI) from their immediate neighbours. Other buildings probably stood between II and III, but it was not possible to excavate most of this area, and the part which was opened (Trench 13) had been disturbed by the construction of a medieval dock (see D.VI. 2).

No frontage on which the buildings may have been aligned was discovered; one to the north would have been destroyed in the medieval erosion and a southern frontage would have been under Tooley Street or beyond it. It is certainly possible that these structures

formed part of a complex associated with the Roman bridgehead and laid out in conformity to it, for their north-south orientation was similar to that which the bridge might be expected to take. This probably stood on or very near to the site of its medieval successor, which may have reached the river bank only some 40 m. north of Building VI.

D.II. 3. METHODS OF CONSTRUCTION:

It seems certain that unbaked clay and wood were the main materials used for the buildings, which can probably best be described as timber-framed with an infilling of daub. The walls were usually first identified as raised stubs of clay (Plate 2); sometimes these were accompanied by external gullies, and post-holes were associated with both.

None were found to a surviving height of more than 30 cm. and clearly only the bases of the superstructures remained. In places the only guide to the wall was the termination along its line of a floor; it is very probable that some were missed in excavation.

In their shape and structural materials these buildings seem representative of the houses found within the urban centres of Roman Britain during the first 100 years or so of the Province's history. However, any detailed interpretations as to the construction must rely partially on evidence gathered by other researchers from more complete remains. These have shown that a variety of methods were employed using timber and clay, sometimes incorporating stone foundations as a footing.³⁴

Evidence from within Verulamium *insulae* XVII³⁵ and XIV,³⁶ of buildings destroyed respectively in Neronian and Antonine fires, revealed sleeper beams laid within foundation trenches. These horizontal timbers formed the bases of wood and clay superstructures. A building from XIV contemporary to that destroyed by the earlier fire also yielded sleeper beams but some were not set in trenches. However, three successive buildings in XIV that were erected and went out of use in the period between the fires yielded only one partially preserved timber within the various foundation trenches. It is clear from this that conflagration and consequent baking and burial provide more information than demolition or decay.

This finding may have some bearing on the Toppings Wharf site for, apart from organic traces, the wood had decayed beyond recognition. The holes in which the posts had stood contained only a greenish soil but their outlines were clearly identifiable as intrusive shapes cutting the underlying strata.³⁷ The problem of wood decay would more seriously hamper the recognition of horizontal timbers, especially if these were unaccompanied by foundation trenches.

There was, in fact, little indication at Toppings Wharf that foundation trenches were used. Only in the southern part of two western walls—those which served internally for Building III (Plate 3) and externally for Building VI—were cuts identified which could have taken associated timbers. (Figs. 10 and 14). In both cases, if these were slots for timbers, they indicate horizontal beams provided for only parts of a frame, perhaps to serve as an opening in the wall.

Only one example of a possible horizontal timber just above floor level was seen within a clay wall; this was in the northern wall of Building V where for about 0.3 m. a greenish soil layer sandwiched between yellow clay was traced. That the timbers were there is made likely by the finding of many fragments of building nails, usually within the debris lying over floors, but occasionally within the clay stubs themselves. More than 120 nails were found, and they represent by far the largest single type of metal object recovered. It is

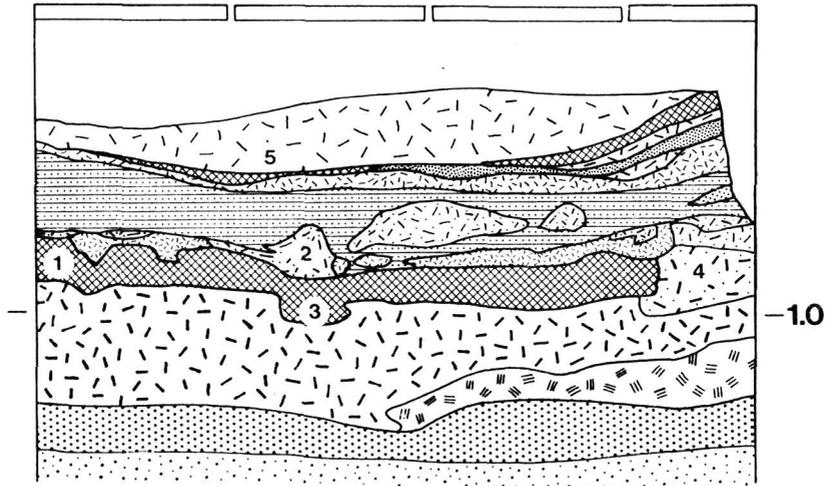


Fig. 10. Toppings Wharf; Section G, Trench 9, facing south

This shows Building III's daub floor (1) at the south of Trench 9 overlying the natural deposits. It may have collapsed into a beam slot (3) just below the demolished western partition wall (2). To the west the floor terminates at the probable main wall (4). Rubbish has been tipped into the building, overlaid by a possible floor or collapsed clay wall (5).

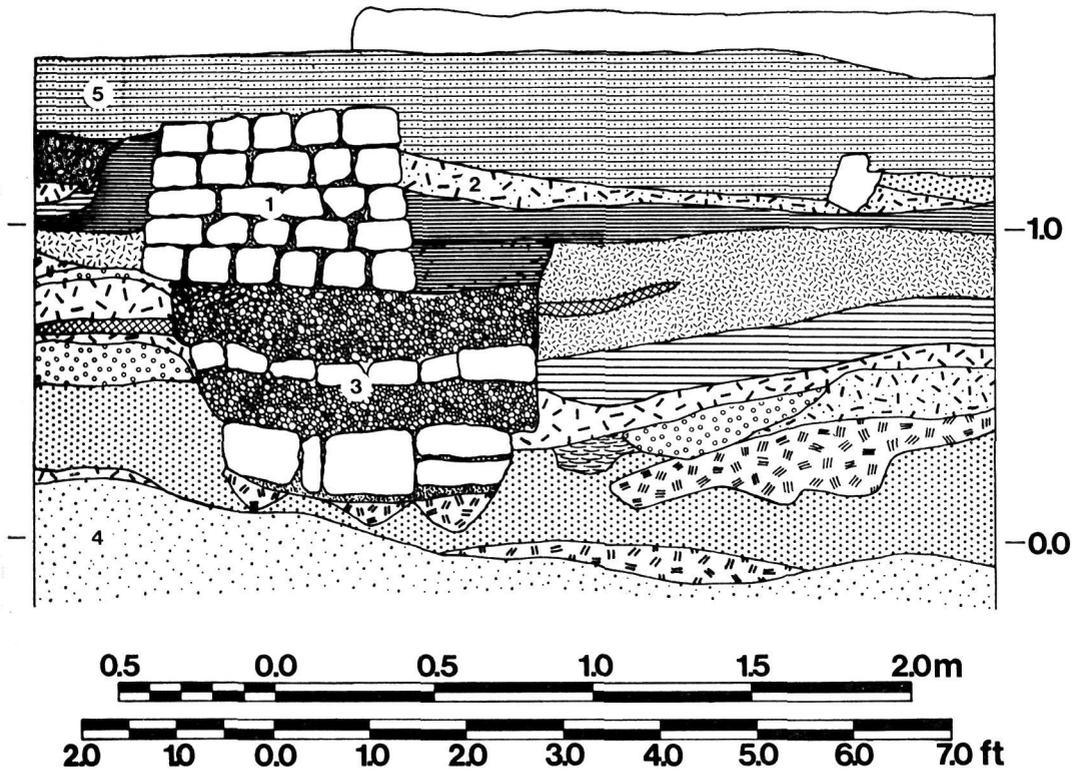


Fig. 11. Toppings Wharf; Section H, Trench 11, facing north

The western wall of Building VII (1) is accompanied by a clay floor (2) and rests on a raft of packed gravel and chalk blocks (3). The wall has been cut down through the early Roman ditch which here overlies natural sand (4). Above the building is the post-erosion deposition (5).

possible that the lowest horizontal timbers were generally higher up than the walls survived; this would have served to keep more of the wood away from the damp underlying silt, and reduce the consequent problems of rot.

Evidence of posts within the line of the walls, or just off them, was more common, especially from Buildings I, II, V and VI, and it seems likely that these must have provided the main supports for the walls and the roofs. Convincing traces of wattling, however, were found only in the northern and eastern wall of Building V's southern room. Here the white core remains of horizontal branches, which had been woven round the verticals, were seen.

It is possible that some walls were built without internal timber supports of any kind and could have been made entirely of clay. The party walls within III, except to the south of the western one, did not seem to contain posts, and no wattles were apparent in analysis (E.XII). In this sense they might be similar to the party walls from the Antonine building in *insula XXI* at Verulamium.³⁸

The probable southern and western walls of Building IV and the first phase eastern wall may have been built largely of clay, although it is possible that the clay served as a sill on which the horizontal lower timbers of a frame were laid³⁹ (Fig. 3). The rebuilt eastern wall—which may also have served as the western wall of Building III—was the only one to rest on a bed of masonry and gravel. This was covered by clay, but modern intrusion prevented positive identification of its higher parts. Traces of burnt wood over the clay suggest that the structure was carried up partly at least in timber, but the possibility that it continued in clay alone cannot be ruled out.⁴⁰

Little evidence of how the walls were finished was found. Only the internal walls of Building III definitely contained plaster *in situ* (Plate 1), although probable traces were seen in the western face of the wall bordering III and IV.

Floors consisted of burnt and unburnt clay and also gravel. The burnt red daub of the former type could be the residue from buildings destroyed elsewhere and re-used for this purpose.

It is probable that the roofs were made of thatch, or perhaps timber, but no evidence of this was found. Tiles occurred, but usually formed the walls of ovens and hearths. They were not found in contexts suggesting derivation from roof collapse.

No evidence was found of furniture, although many internal posts were noted, which may have been fittings, especially in Building I near to the western wall. A lock found among the debris from Building V could have been all that remained of the door.

The number of successive floor levels might seem surprising in view of the short period of occupation. However, the excavations at Verulamium showed that there were four reconstructions over a period of 100 years, following the first buildings in *insula XIV*. Admittedly, two of the five phases were destroyed by fire, but the excavator also noted a greater number of successive floor levels during this time. This would indicate firstly the need to replace the clay and timber structures perhaps every 25 or 30 years; and secondly, the need to replace the floors within them perhaps every 10 years.

D.II. 4. ASSOCIATED ACTIVITIES:

The difference in construction between the buildings at Toppings Wharf could indicate that they were individual holdings and that an overall plan was lacking. It would be reasonable to expect that within the parts that were found, many commercial, manufacturing and

domestic activities were carried out. However, there was no proof that they were shops, and only a limited number of recognisable tools and pieces of equipment were found. (See E.VII. 1).

Metal-working was the only industry that was certainly present. Residual slags and fragments from both bronze and iron working were found within Buildings I and V, although the only unfinished item associated was a bronze ring. The hearths from these buildings may have been used during production. The distribution of workshops at the east and west of the site is perhaps an additional indication of individual tenancies, rather than a planned unit. Apart from this, evidence of manufacturing was not found, although the working of organic raw materials could, of course, disappear without trace.

Activities that might be categorised as domestic were more easily recognisable. The small rooms of Building III and V may have been enclosed residential quarters. The former contained plastered walls, which, with the probable exception of the eastern wall of Building IV, were not found elsewhere.

The hearth from the south of Building V and the small ones possibly inside the northern parts of Buildings III and IV may have been for cooking; a number of the broken pots on the site were covered with soot. The two ovens in Building VI could also have been for food preparation.

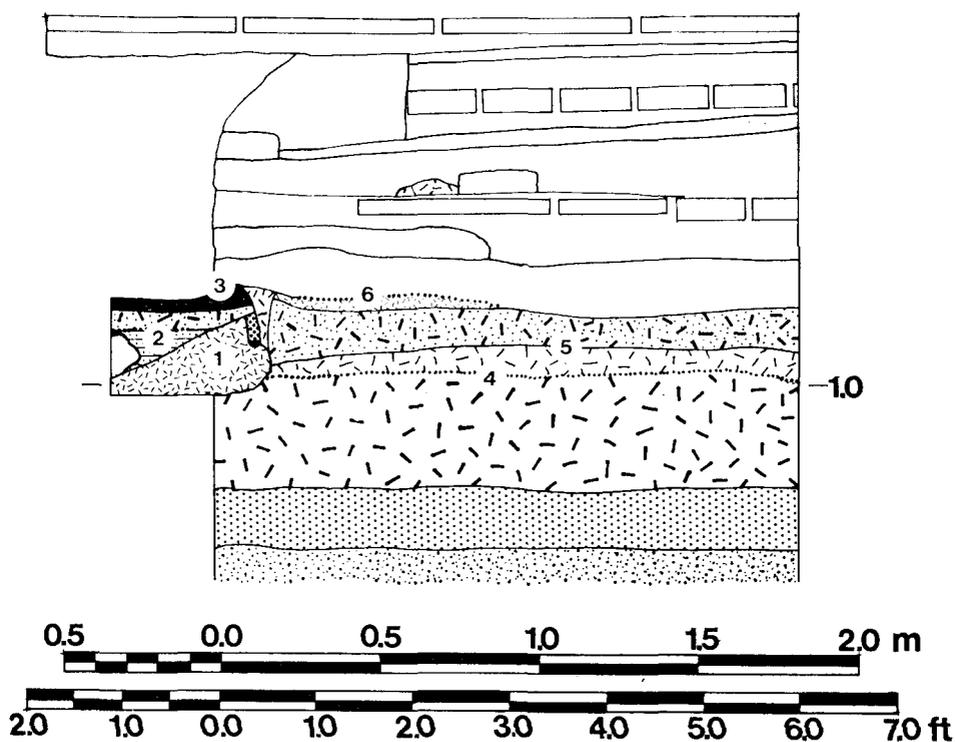


Fig. 12. Toppings Wharf; Section I, Trench 10, facing south

The clay wall with plaster facing (1) may have been replaced by one with a foundation of ragstone blocks and gravel (2) covered with clay. The burnt wood (3) could represent the remains of a beam. (4) and (5) appear as early floors of Building IV. (6) could be a floor associated with the later phase of the building.

The rims of more than 250 Romano-British vessels were identified; food and drink containers were numerous, although only a small proportion of these were flagons, mortaria and amphorae (see E.IV). The importance of Gaulish pottery within the local market in the later first century is indicated by the finding of parts of at least 40 decorated and a larger number of plain Samian vessels (see E.III). More than 20 glass vessels were also present (see E.IX).

The debris from eating and drinking was also seen in the faunal remains which were scattered liberally about the site. Cattle, pig and sheep seem to have been the major meat sources, although waterfowl, goat and hare also occurred (see E.X). Oysters were abundant: some 124 lb. in weight of shells was recovered probably representing more than 1,500 individuals (see E.XI).

Indications of recreational activity were limited. A probable set of bone gaming counters was found on a floor in Building I, but other examples were isolated, apart from three glass counters in a pit (P.5) (see E.VIII and E.IX).

D. II. 5. DURATION OF SETTLEMENT

It seems likely that the buildings, except perhaps for III, were erected during the earlier part of the Flavian period. A number of successive floors were found inside Buildings I, IV, V and VI; all, on the pottery evidence, belonged to the later part of the first century, although Building I could have continued in use at least until the early second century.

Some form of re-planning, at least in the western part of the site, is probable either at the close of the first century or in the early years of the second. The internal walls of Building III were demolished, and layers of rubbish were spread over the wall stubs and floors (Figs. 4 and 10). Building V seems to have been similarly filled, whilst the alley between V and VI, and VI itself, were overlaid by greenish earth and gravel. Pottery of Flavian-Trajanic date was found amongst the debris associated with Buildings V and VI, and of Trajanic date in that associated with Building III.

Due mainly to the fairly uniform level of the nineteenth century cellar intrusions, the nature of the subsequent early Roman settlement is unknown, but it is probable that buildings still continued to occupy the site until at least the middle of the second century.

Layers of yellow clay occurred as the highest recognisable Roman levels within the areas of Building III and over the eastern part of Building V; these may have formed the floors of succeeding structures. No clear indication of the direct relationship of these to the earlier buildings was obtained.

Further occupation is also attested by a well cut through the floor levels of Building VI and filled back probably within the first half of the second century (Fig. 3, W and Plate 4). No structural remains associated with it survive, but layers of sand and gravel containing Antonine pottery occurred nearby, where they had subsided into the filling of the main ditch.

It is perhaps significant that, apart from a gully and two pits, no intrusive features were found proving usage later than the Antonine period. No other pits, ditches or wall foundations were revealed cutting through the earlier strata. The possibility might be considered that the settlement there ended within the second century, leaving the site either largely deserted, or at least open ground.

The truncation of the Roman levels caused by cellar digging meant that in one small area only could this possibility be tested. This was to the east, where a shallow cellar dug from above the alley and the eastern part of Building II allowed a seemingly complete sequence to survive through the Roman deposits. The results of its examination are described below (D.II. 7); they are not incongruent with the possibility of a fairly abrupt ending to the settlement. The silty deposits over the building and alley could well indicate flooding; while the darker earth above might represent late or sub-Roman dumping intended to safeguard this perhaps marginal land against further river intrusion (Fig. 13).

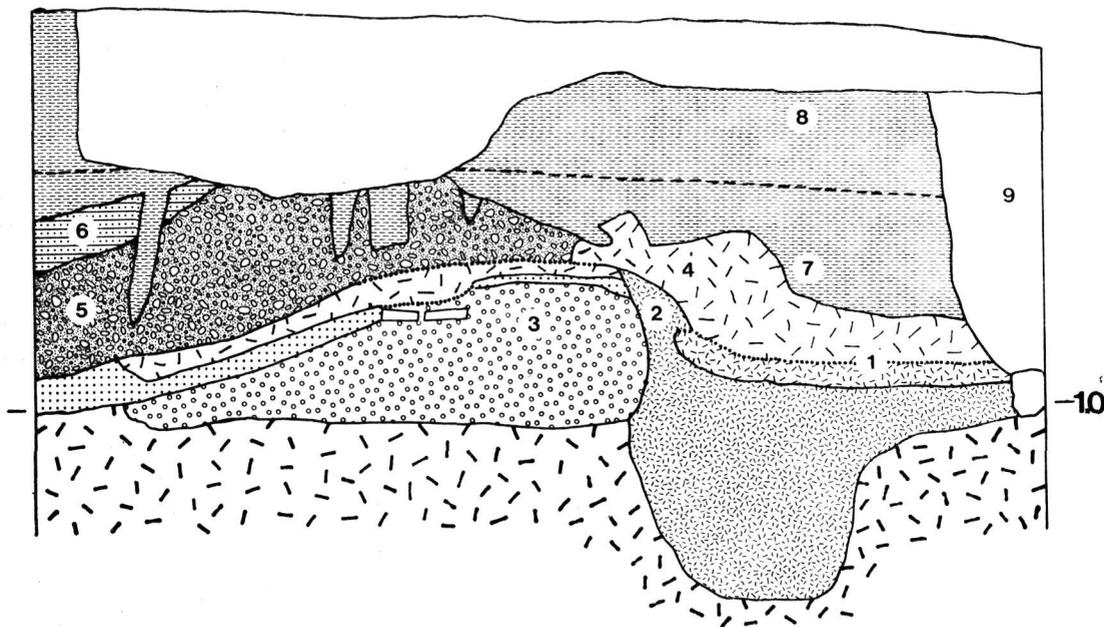


Fig. 13. Toppings Wharf; Section J, Trench 14, facing south

The gravel floor of Building II (1) is accompanied by the clay wall stub (2) backed by the gravels of the alley to east (3). Either collapsed clay walling or the base of a later wall and accompanying floor (4), overlies (1) and (2). Possibly two later phases of the alley gravels (5) and (6) survive, with posts cut through them. The brown mud overlying the building and alley (7) could have resulted from flooding, while (8) probably represents late or sub-Roman dumping. The robber trench through a medieval wall (9) is seen at the extreme west.

D.II. 6. BUILDING I:

Within the easternmost trench on the site there was evidence of two buildings (I and II), which were probably contemporary; a gravelled alleyway lay between them (Fig. 3).

Building I appeared to be a circular structure and had an estimated diameter of 8.2 m. Several floors and part of the walling on the western side were found. Only two features—a number of stake holes and a small pit—seemed to antedate the building. The stake holes were found cutting through the natural silt and did not appear to form any coherent plan. It is possible that they were connected with one of the earlier floors of the building, but no trace of them was seen in these higher levels. The pit, which was about 2.4 m. deep and 0.8 m. in diameter, contained fragments of shell, bone and tile, but was not closely datable.

The earliest floor of the building was represented by a layer of charcoal and burnt material. A large amount of iron slag, and some bronze slag, was found in this and the following four layers (see E.VII. 1), showing that some form of metal-working, including smithing, was taking place. The floor was probably covered with rushes or some other organic material. The next floor, of clay, daub and charcoal rubble, could indicate some destruction within the building. An associated hearth (Fig. 3, H1) at the north end consisted of an oval area of ash, part of which was cut away by a medieval chalk wall. Traces of metal-working were again found in this floor. The latest surviving floor lay over a build-up of soil and sand, and was in the form of hard-packed yellow clay 10 cm. thick; on it 12 bone gaming counters were found (Fig. 47). A hearth of baked clay lay somewhat to the west of the centre of the floor (Fig. 3, H2).

The building appeared to be roughly circular, but not enough survived to confirm the plan. The pottery from the floors indicates a usage that began during the Flavian period and continued at least into the earlier part of the second century.

The walls, as they survived, consisted of stumps of green clay about 10 cm. high and 15 cm. wide, built directly on the natural silt (Fig. 5). These contained a number of stake holes, varying in depth from 4 cm. to 60 cm. and in diameter from 2 cm. to 11 cm., which formed no regular pattern. The stake holes were also found in a shallow external gully, about 13 cm. wide and 8-10 cm. deep, which was filled with a dark green soil. West of this the natural silt was cut away to form a larger gully about 40 cm. wide, into which the layers of gravel outside the building had subsided.

Building I was clearly a clay and timber-framed structure, and the clay stumps, which are all that survive of the walls, may well have been the base of packing round the timbers. The larger holes could have taken relatively substantial timbers, perhaps supporting the roof, and the smaller ones part of the wattle framework.

The slag found in the lower floor levels, and in the build-up between them, suggests that the building was, at least in its earlier phases, some sort of metal workshop.

In the vicinity of Building I the alleyway consisted of at least five layers of hard-packed pebbles and sand. The surfaces ran down from Building II towards Building I, and between the two structures the alleyway was some 3 m. wide; it broadened out towards the north, possibly into a courtyard.

D.II. 7. BUILDING II:

Just east of Building II three probable surfaces were distinguished in the alley, none yielding pottery of later than Flavian date. It was clear that the thickest deposit of gravel, at least in the earliest phase, had been placed next to the building, so that the surfaces sloped down to the east, towards Building I (Fig. 13). From a section dug at the south of the trench, it appeared that the natural silts had been removed and replaced by a greener clay, acting both as a foundation layer for Building II and as the lower part of the wall. A sherd of pre-Flavian pottery was found in the lowest part of the alley gravel and fragments of another vessel of similar date were found within the clay under the floor. Little remained of the gravel floor within the building; much of the interior had been removed by a wall, which probably bordered the eastern side of the medieval dock (see D.VI. 1 and 2).

Building II's eastern wall was traced for a length of nearly 3 m. north from the edge of the trench. It was seen as a band of green to yellow clay some 15 to 18 cm. wide, surviving to about 15 cm. above the floor. Four postholes, which extended for an average of 50 cm.

below the wall, and could have taken substantial timbers, were identified along its length. Overlying the wall stump and the gravel floor was a deposit of yellow clay. It was not clear whether this was originally the higher part of the wall that had subsequently fallen into the building, or whether it was both the wall base and the floor belonging to a later phase of the structure. The clay butt end of a northern wall was also discovered adjoining the eastern one.

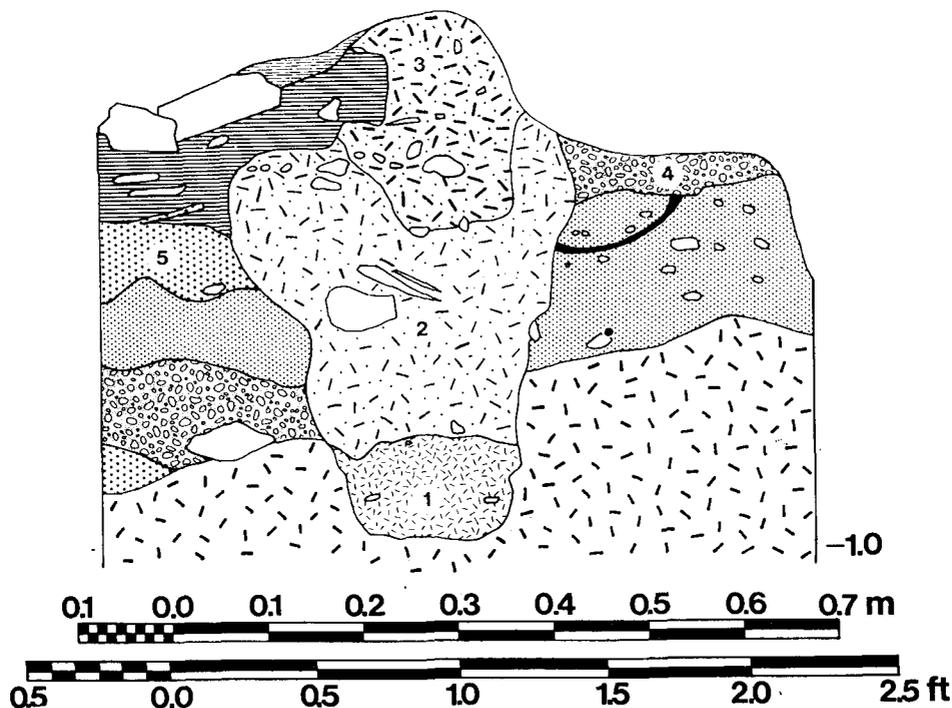


Fig. 14. Toppings Wharf; Section K, Trench 12, facing south

This shows a detail of the eastern wall of Building VI. Below the wall a layer of clay and stones could represent a packing in a trench cut to receive a beam (1). The wall as found here consisted largely of green soil (2) capped by yellow clay (3). It is possible that (2) represents decayed wood; fragments of bone and pottery as well as stone occurred within it. (3) might represent the daub infilling of the wall. To the west the lower floor of Building VI is shown (4). West of the wall layers of gravel and sand were found at (5) and below.

Above both the alley and the remains of the building was a layer of brown "silty earth". This seemed to follow the outlines below of both the collapsed building and the sloping external alley gravels; it was perhaps deposited by flood water from the Thames. Above it, starting at a height of +1.7 m. O.D. lay a fairly homogeneous darker earth containing late Roman pottery and building rubble, which could have represented the lower part of a late- or sub-Roman dumping intended to raise the land levels as a safeguard against incursions of the river.

Similar deposits have been encountered in other recent SAEC excavations and may be widely distributed in Southwark.⁴¹ In one case they overlie an early Roman building sequence (106 Borough High Street, 1974), but in another, a well, which was probably not filled in until the early fourth century (Angel Place, 1973).

D.II. 8. BUILDING III:

Building III's floor was composed of irregular segments of reddened baked clay, on average some 1 cm. thick. Neither the southern nor eastern border lay within the excavated area, but it measured at least 4.9 m. from north to south and 2.7 m. from west to east. A wall was found bounding the building to the west, but none was discerned to the north, although the clay which had collapsed over the northern part may have originally served as one.

Two internal clay walls, probably bordering a partitioned area were found. Both had been destroyed, but the northern wall survived to a height of some 30 cm. to the east of Trench 9 (Fig. 4). Here it was about 18 cm. thick and faced on its southern side with white plaster (Plate 1). *The texture of the wall clay varied; the southern part was sticky and green, while the northern part was yellow, and contained flecks of reddened clay* (see E.XII). The base was set without foundations on the red baked clay; the associated surface seemed to be an overlying band of yellow clay some 3 cm. thick. A dark stain less than 2 mm. thick was noticed in parts upon it; this could have been the remains of a wood or rush covering.

It is possible that both walls stood largely without wooden support. No traces of wattle framework were found and although five possibly associated post-holes were examined, only one, some 30 cm. north of the southern edge of Trench 9, was directly on the line of the wall. This descended only 5 cm. below the red clay, but south of it the floor subsided into a hollow. Possibly the post was at the northern end of a beam-slot, providing the base support for part of the wall (Fig. 10 and Plate 3).

The masonry-based wall between Buildings III and IV had been destroyed by modern foundations (see D.II. 9) and to its east the red baked clay floor terminated; it was not possible to establish a relationship between them. *A stub of clay west of the floor might have been the original wall, replaced by the masonry base, although both could be part of the same structure* (Fig. 9).

As only one floor was found, it is possible that Building III had a relatively short life. The finding of a Trajanic sherd within the collapsed structural debris (see below), suggests that it may have been occupied during the early part of the second century. No evidence of its function was obtained, but the plastered internal walls, unusual on this site, seem to suggest living quarters rather than industry. Only one hearth was found (H.3), which may not have been within the building, as it lay some 1.5 m. north of the edge of the red baked clay.

This building was either destroyed, or at least rebuilt, in a way which involved the demolition of the internal walls and the raising of the floor levels. Layers of clay over the floor could have been the demolished walls, which were covered by deposits of domestic rubbish. One pit was distinguished (Pit 3), which cut the collapsed debris; it might have been dug prior to the general rubbish dumping. Above this, in the southern part of the building, a layer of clay might have been another floor, but no other evidence survived beneath the post-medieval cellar.

D.II. 9. BUILDING IV:

This structure lay immediately west of Building III. Three walls were identified, one at the south, which belonged to the earlier phase of the building, one to the east, and one to the west. Three successive floors were found. The primary one, consisting of well-packed

gravel, lay directly on the silt, and was covered by a thin brown layer less than 3 mm. thick—perhaps a wood or rush surface. Above this a clay floor was covered by a similar lens. Flavian pottery was found both on the bottom surface and in a levelling of sandy earth containing domestic refuse dumped over its successor. A hearth was found on a level equivalent to the bottom floor, but north of where the building could be positively located.

A later gravel floor laid above the levelling also contained Flavian pottery. On the floor were deposits of burnt matter with quantities of oyster shell. This later phase seemed to have involved southward extension of the building necessitating the demolition of the southern wall and, perhaps, the reconstruction of the eastern one.

What was interpreted as the southern wall related only to the lowest two floors of the building and was represented by a plinth of green clay some 60 cm. wide, surviving some 15 cm. above the base floor level. Presumably the higher levels of the wall had been demolished when the structure was extended. No trace of wood was found associated with it, and it is not possible to say whether the higher parts of the wall were carried up in clay and timber, or clay alone.

The eastern wall of the building had been much destroyed by a nineteenth century basement wall, but it seemed that two phases could be discerned. The first was represented by green clay, similar to that in the south wall, which survived to about 23 cm. above the base floor, and was associated with the first two surfaces; within its core a sherd of Neronian or early Flavian pottery was found. Traces of plaster were seen sticking to the western face of the clay.

Both the plaster and the clay appeared disturbed (Fig. 12) by an intrusion dug into the wall. This was cut to lay in a bedding of hassock blocks accompanied by tiles, which may have been a base for a wall serving both Buildings III and IV. This masonry foundation was about 0.8 m. wide and was traced in plan for a length of 1.5 m. Its edge was located twice by undercutting the basement wall 2.6 m. and 5.3 m. respectively from the northern end. The foundation was covered by bands of gravel and sandy clay. Capping the latter was a layer of burnt wood, which could have represented the remains of a horizontal beam.

About 2.1 m. north of the end of this wall, was a deep post-pit, cut some 1.4 m. into the silt and underlying gravel. The large post, apparently with a diameter of 40 cm., which stood there could have been a major support for the roof of the two buildings. No pottery of later than Flavian date was found in the fill.

The probable western wall of Building IV was found in Trench 11 (Fig. 3). It consisted of a broad band of green clay, similar to the southern and earliest eastern walls, with three post-holes in a line along its centre, about 5 cm. in diameter and 40 cm. deep. Towards its northern end, the clay band was narrower, and then broadened out again, enclosing an area of well-packed gravel to the east. This was possibly the western edge of the earliest floor in Building IV.

D.II. 10. BUILDING V :

What was defined as Building V lay within Trenches 11 and 12, and seemed to consist of at least three rooms. The evidence from each trench will be dealt with separately.

(a) EVIDENCE FROM TRENCH 11 :

Only one feature, apart from the ditch, clearly antedated the building. This was a small pit either cut down from the top of the natural silt or having had its top layers removed during the building's construction. One sherd of pre-Flavian pottery was found in its fill.

The most substantial part of the building to survive was in the southern strip of the trench. Here the lower parts of three clay walls were exposed, between which was laid a red baked clay floor with a hearth set into it (Fig. 3). None of the walls survived to a height of more than 26 cm. above this floor.

In the southern strip of the trench, layers of sand and gravel overlay natural silt. These may be unconnected with the construction of Building V, but they could perhaps represent a preparatory levelling-up of the area. Over the sand and gravel a band of greenish clay was laid, which seems to have been a foundation for the eastern wall and the earliest floor (Fig. 8). A second possible clay foundation layer was seen in the western strip, north of the northern clay wall. Although this clay merged with the natural silt beside the wall, towards the ditch it covered a thin layer of burnt clay. The whole layer was cut down slightly into the top of the natural clay (Fig. 6).

No pottery later than early-Flavian was found within these layers beneath the building.

The wall at the eastern end of the southern room, which ran north-south across the southern strip, was made of the same greenish-grey clay as the layer underlying the floor, and merged imperceptibly into it. Four vertical holes, lined with the remains of wood, were visible in the wall, as were strips of decayed wood running horizontally through it. Two of the posts were about 26 cm. deep and were set alternately with shallower ones. The wall ended before reaching the southern edge of the trench, and no trace of it could be seen in the southern face. However, the line of the wall was preserved by the join between the layers to east and west of the wall. Possibly there was an entrance to the room at this point.

The western wall was of clean green-yellow clay, and survived to a height of 23 cm. Its eastern face was almost vertical, and at the base the clay spread out on either side of the wall, on the eastern side almost at right-angles to it. This could have been in order to give the wall stability. However, the absence of any internal wattling indicates that the wall was not intended to stand on its own, and the sharp right-angle in its eastern side suggests that the clay was perhaps the bedding for a beam, which would have supported a clay and wood superstructure. The wall rested on a band of gravel which ran along its line over the clay foundation layer. This could have been to provide better drainage for a main wooden beam. The western wall did not join the northern, but its line was preserved by floors inside and outside the room.

The northern wall of yellow sandy clay was the most substantial. The southern face had been baked solid, and the area of burning extended under the lowest floor of the room. About half-way along the wall was a vertical stake-hole, while running horizontally through the wall were the well-preserved remains of small branches, apparently woven around the vertical stakes; these were evidently the remains of the wattle core. The wall rested on a foundation of dirty green/grey clay, which carried on westwards into the edge of the trench, although broken by a later intrusion.

FLOORS:

In the area enclosed by the walls, the earliest floor was a layer of red baked clay. About half-way between the walls lay a tiled hearth cut down into the clay beneath the floor (Fig. 3 H.6). North of the room, gravel with a hard-packed surface extended towards the ditch, running into a second baked clay floor above the ditch. (Fig. 6).

To the west of the southern room was another gravel surface, which seems to have been part of the alleyway which ran between Buildings V and VI.

Between the western wall of Building IV and Building V was a strip about 60 cm. wide, of gravel in the southern part, with a mixture of red baked clay, charcoal and floor plaster to the north. It could perhaps have been a passage running between the buildings, but there seems to have been no evidence for a well-compacted floor surface. The latest pottery found in all these early floors was of Flavian date.

Although the existence of floors showed that Building V extended north from the clearly defined southern room, the evidence for accompanying walls was limited. None were obvious in excavation, but traces of two were seen above the ditch, which were aligned with those crossing the ditch in Trench 12.

Later floors occurred within the southern room. Two successive gravel layers were found here; the first had a covering of dirty sand, and charcoal was found spread over the second. Flavian pottery was again associated with these floors.

Evidence for the destruction of the building was most clearly seen in the vicinity of the southern room. Overlying the northern wall stub was a spread of gravel containing domestic refuse including pottery of Flavian-Trajanic date; within it lay a band of yellow clay, perhaps representing the fallen wall. Over the eastern wall lay a mixture of dirty sand and brown clay which seemed also to cover the western part of Building IV.

There was some indication that the occupation sequence continued above Building V. The highest surviving levels revealed a slab of plaster some 2 cm. thick and 1.21 m. long, running roughly on the same line as the old eastern wall. It was painted on the eastern face, but was packed in a matrix of uniform yellow clay which did not allow the wall's outline to be distinguished. Set into the yellow clay, to the north of the plaster, was a hearth walled with tile and pottery (Fig. 3, H.5.).

(b) EVIDENCE FROM TRENCH 12:
WALLS:

The western wall was mainly evident within the ditch where the subsidence had enabled it to survive. Here the wall of yellow green clay was about 9 cm. thick and stood to a height of 10 cm. above floor level; outside the ditch, the wall remained only as a tumbled clay ridge. Associated with the wall were six post-holes, set outside it on the edge of a gully.

Immediately east of one post-hole, an oval piece of rough-hewn ragstone, wedged with tiles, had been inserted into the wall. It may be that the decomposition of domestic refuse in the ditch below the building caused the post to move and thus necessitated the repair of a load-bearing timber, perhaps a roof support, which had tilted to the east.

The floors and walls had subsided into the ditch. Within it, two separate stages of the northern wall were found, one on top of the other, each approximately 25 cm. high (Fig. 7). The last part of the northern wall, before it reached the north-west corner of the building, consisted of buff clay at each side with green sandy soil, which might represent decayed wood, in the middle. The green soil was visible to a depth of 4-5 cm. into the top of the clay wall. Set into the north-west corner was a single rectangular post, about 10 cm. x 15 cm. with a depth of 20 cm.

FLOORS:

Two baked clay floors had subsided into the ditch. Both were of similar composition, but the lower one, 25 cm. deeper, was less thick. This original floor contained a green clay band, running parallel to the north wall, but 1.2 to 1.5 m. further south. This was presumably an internal wall, demolished before the later floor was laid in.

HEARTH:

On the southern edge of the ditch was a hearth (H.7), the eastern part of which had been destroyed by a modern wall. A ridge of grey clay set onto the silt formed the sides of a shallow pan, 1.2 m. in diameter, filled with carbonized deposits. These were covered by a red baked clay crust 5–8 cm. thick, on which were set pieces of masonry. Above the masonry were several more layers of burnt material with clay between them. Round the baked clay was an incomplete ring of broken tegulae.

South of this hearth, on the same level as the baked clay crust, was an area of carbonized sandy soil, with a line of broken tegulae on its western side. The middle of this burnt area contained numerous iron and bronze particles, suggesting hearth-rakings from metal-working had collected there.

Pottery from the building in this trench, as in Trench II, indicated that it was in use during the Flavian period.

D.II. 11. THE ALLEYWAY:

The gravel alleyway between Buildings V and VI was 1.8 m. wide; its original surface was covered by a layer 7.5 cm. thick of domestic rubbish. Into that surface had been set a hearth (H.8), providing evidence of a number of fires, of which at least one had been doused with sand. Two later surfaces were found, and into the second a gully had been cut alongside Building VI.

D.II. 12. BUILDING VI:

WALLS:

The eastern wall of the building, which was 13 cm. wide, survived to a height of between 25 and 30 cm. between the south of the trench and a later wood-lined well which cut through it (Fig. 3). In some parts the core of the wall was sandy and green, with bone, stones and tiles in it, and topped by buff sandy clay. Elsewhere, especially towards the north end, it was of solid yellow clay.

A gully lay outside the wall, containing black soil with domestic refuse. Five post-holes were found just east of the gully, averaging between 15 cm. and 20 cm. in diameter and 30 to 50 cm. in depth.

Pottery from the wall indicated that it may have been built in the early Flavian period.

FLOORS:

Two floors were associated with the wall and each had an oven based on it. The lower oven (Fig. 3. O1) was placed on the original crushed red baked clay and pebble floor; its successor (O2) stood on a later pebble floor.

Pottery from the floors associated with the ovens was of Flavian date.

Lying over the earlier east-west ditch, was a second red baked clay floor. This may have been a continuation of the earlier floor at the south, although the relationship had been obscured by later intrusions. This floor had subsided into the ditch. The wall of Building VI had become completely distorted and the only firm evidence for it was the eastern edge of the floor which lined up with the wall in the southern part of the trench. The subsidence was remarkably irregular along the ditch, as in some places the floor fell by approximately 60 cm., while in other areas it fell hardly at all.

OVENS:

A modern intrusion had destroyed the northern half of oven 1, leaving a wall only to the east and south. The wall was constructed from tile, rubble, wall-plaster and clay. The plaster slabs were well preserved, probably due to their being baked while the oven was in use (see E.XII. b).

The later and better preserved oven (O2) was 90 cm. in diameter. Its floor was a small circle of light grey mortar set in a hard-packed layer of clay. The mortar and clay base was covered by three large yellow tiles, which had been subjected to enough heat to craze them *in situ*. Over the tile base a piece of tegula lay in the middle of the floor, but, apart from that, the only contents were carbonized remains. The main wall of the oven was constructed from pieces of broken red tile, laid in two courses on the floor, and daubed with clay as a lining. Outside, presumably as a packing to retain heat, were slabs of painted wall-plaster stacked to a height of about 10 cm., possibly cleared from the earlier oven. The front opening, on the west side, had been completely removed by a modern intrusion, but a pair of probable clay flue walls about 45 cm. long extended from the west side. A deposit of mixed charcoal and sand spread westwards from the oven over the associated pebble floor.

ABANDONMENT OF BUILDINGS V AND VI:

Covering the alley and remains of the buildings were layers of yellow sandy gravel and green soil. Flavian-Trajanic pottery was found within them, suggesting that Buildings V and VI had been abandoned by the early part of the second century.

D. II. 13:

EARLY ROMAN ACTIVITY PROBABLY LATER THAN BUILDINGS I TO VI:

Two pits (P.5 and P.9) were found cutting the ditch but their relationship to the buildings had been destroyed by the erosion in one case (P.5) and the medieval Building VII in the other. Associated pottery suggested that they were at least of early second century date. A pit cutting the floor of Building III was probably Trajanic (P.3) and this had disturbed a pit dug to contain a post (P.4) which could have been related to the building.

It is possible that pits 5 and 9 belonged to a phase of the settlement higher in the stratification than survived the clearance for the nineteenth century cellars; the same may be true of the well which had been cut through Building VI (Fig. 15).

This well was 2.5 m. deep and the bottom lay at a height of -1.1 m. O.D. Wooden shuttering extended up from the base for almost 1 metre (Plate 4). This was made of oak planks about 2 cm. thick, which enclosed an area 76 cm. by 82 cm., and sat on a thick sandy crust. On the western side three planks of unequal height but 82 cm. in length sat one above the other. Sections had been cut in the ends of the timbers to receive the tongues of the other boards at right angles. Higher up the well, and presumably originally behind the wood, the sides were lined with brown clay.

The bottom of the well contained an accumulation of dirty sand and gravel about 15 cm. deep; within it were two lead weights (see E.VII.1a). Above lay a filling of brown clay—perhaps collapsed lining—which included a wooden barrel base and staves, as well as fallen sections of the higher planking.

Above the lower layers were other deposits of gravel, clay and carbonized remains. Capping them was a layer of sandy clay some 91 cm. thick containing abundant remains of cream to white plaster in 1 cm. thick slabs, some with red paint on one surface. This probably represented a destroyed clay wall, thrown in to seal the well.

Samian in the back-fill suggested that the well had gone out of use during the first half of the second century. The more abundant coarse pottery might place this event in the Hadrianic/early Antonine period (Fig. 31).

D.III. LATE- OR SUB-ROMAN:

The only intrusive features apparently belonging to the latter half of the Roman period were found to the east and west of the site. Under the Tudor Building X the corner of a pit occurred; this contained only a few sherds of pottery, at least two of which seemed to be late Roman (P.1). West of this a gully (G.1) cut through the gravels between Buildings I and II and was truncated by the late thirteenth century erosion. It contained about 50 pieces of pottery as well as building debris. Although the pottery could have been second century in date, the fill also included a fourth century coin. Building debris was also found in an intrusion at the far west of the site, of which only part was recovered; a substantial proportion of the associated pottery was of fourth century date.

The possible significance of the lack of later Roman features and of the black earth overlying Building II is discussed in D.II.5 and D.II.7

D.IV. MEDIEVAL PRE-EROSION PERIOD:

Parts of two pits (P.6 and P.8) were all that was found to represent the period between the deposition of the late- or sub-Roman dark earth and the construction of Building VII (Fig. 3). Both contained some Roman pottery as well as a smaller number of sherds dated to the twelfth or early thirteenth century (see E.V.1) and both were truncated during the construction of Building VII.

Three of the building's substantial walls were found. The southern one was some 3.7 m. long and those to the east and west survived to a length of approximately 6.1 m.; they were nearly 90 cm. wide and remained to a height—including the underlying rafts—of about 1.2 m. (Plate 5).

During construction the building area was cleared down to a level approximating to the top of the natural silt, and then trenches at the sides were cut for the deeper foundations of the walls (Fig. 11). Sections cut through the east and west walls showed that they were laid on rafts about 60 cm. deep and 1.2 m. wide, consisting of chalk blocks alternating with layers of packed gravel. The wall above was narrower and built of mortared chalk blocks incorporating tile fragments, with stone on the inner sides, facing a cellar. This contained two clay floors, which lay at about 30 cm. below the surviving top of the wall. The brown clay lower floor was some 5 cm. thick and had a dirty grey surface; its successor was of orange clay and about 3 cm. thick. These were underlaid by a layer of dark earth containing many chalk fragments, presumably deposited during construction.

No pottery was found on the floors but two medieval sherds from within the wall fabric were of a date similar to those found in the underlying pits (see E.V.1). It seems clear, therefore, that Building VII was put up in the twelfth or thirteenth century, but its ownership is unrecorded, and no evidence as to its usage was found. It may indeed have had a short life, for the walls were destroyed by the flood which caused a considerable erosion on the site at the end of the thirteenth century.

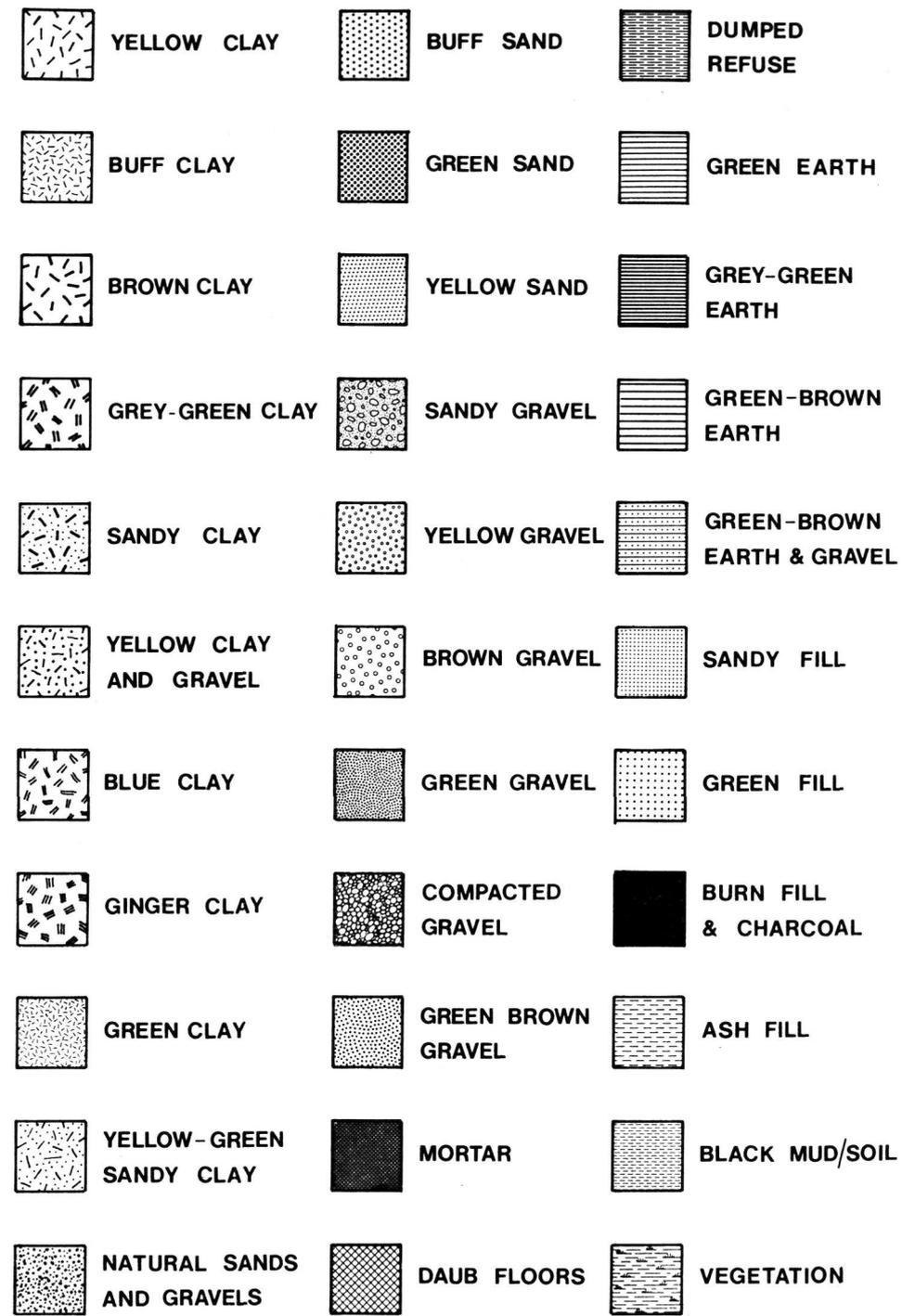
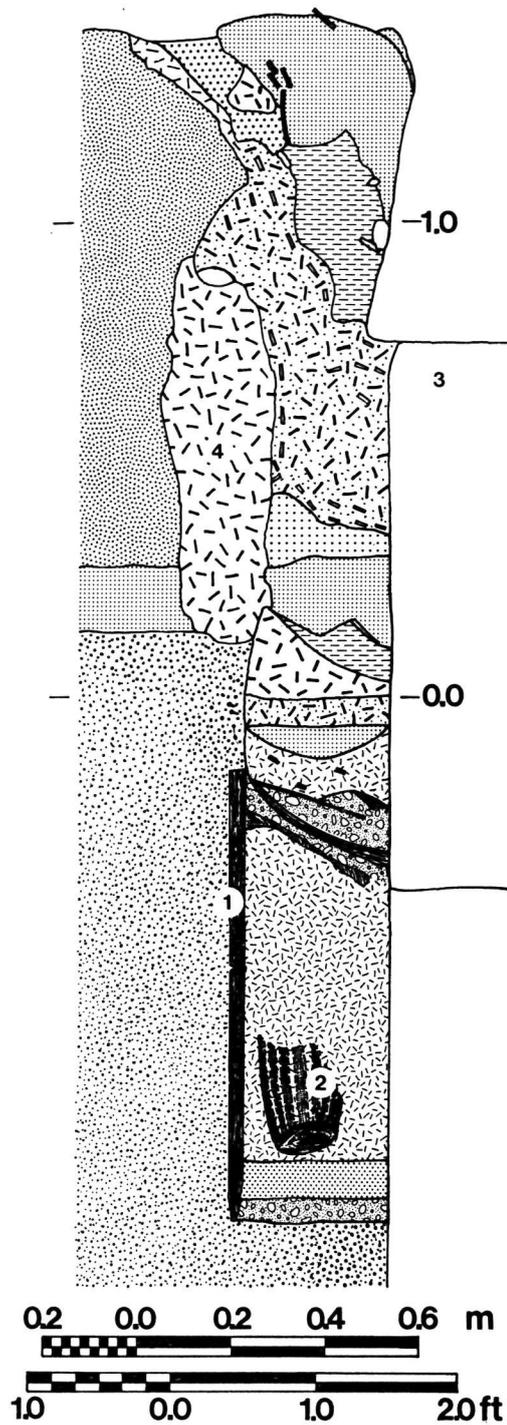


Fig. 15A. Key to section shading. All sections marked at + 1.0m O.D.

Fig. 15. Toppings Wharf; Section L, Trench 12, well, facing south—This shows the wood lining (1) and the barrel (2) overlaid by layers of fill. The clay lining at the east of the well is shown (4) as is the pillar base foundation (3) which had destroyed much of the well.

D.V. THE EROSION AND DEPOSITION:

1. THE EROSION:

The limit of the flooding was clearly marked by the gravel which was deposited in its wake (Fig. 4). This rose from the Thames progressively towards the south of the site and presumably showed the declining power of the water. The river must have breached the medieval bank and washed away all that lay in its path inland. Building VII was destroyed, and any neighbouring structures, with their contents, must at least have been extensively damaged. Moreover, many of the site's buried levels were taken out. The most northerly feature to survive was the lower part of the early Roman ditch; all levels more than 12 m. away from the site's southern boundary were gone.

Pottery from the gravels suggests that the erosion could have occurred about 1300, while documentary evidence points to an inundation of 1294 (see E.V.2 and C). It therefore seems reasonable to suppose that the gravels found were laid during that natural disaster.

2. THE DEPOSITION:

For some time after the river broke its banks, it intruded into at least the northern part of the site. Here bands of grey clay-like silt, brown mud, vegetation and loose gravels were found overlying the erosion gravels, rising to a height of over +1.20 m. O.D. It seems likely that the dumping of soil was started more or less immediately after the erosion, presumably in an effort to reconstitute a bank. The evidence for this came from layers of earth containing building debris, pottery and animal bone at the south of the site, directly overlying the erosion-laid gravel, but underlapping some of the more obviously water-laid deposits to the north (Fig. 4).

The pottery found both in the dumped and water-laid deposits was little different in date to that found in the underlying gravels. It is probable, therefore, that this more southerly bank, was built either at the very end of the thirteenth or early in the fourteenth century, as a temporary measure against the widened river. (See E.V.4).

D.VI. LATER MEDIEVAL AND TUDOR:

1. THE STONE BUILDINGS:

Any bank to the south of the site must soon have been replaced by one further north. Over the riverine deposits in the south of Trenches 2 and 6 lay a gravel surface (Fig. 4, 9) at a height of +1.7 m. O.D. Whether the surface was the floor of a building, or a path behind the river bank is uncertain. It was overlaid by deposits of soot and building debris, but these covered a wider area than the gravel and could have been dumped.

Cut through the deposition layers were trenches for a number of chalk walls. Wall 3 (Fig. 3) was built of chalk blocks bonded with pebbles. The building it contained was traced for 9 m. east-west and for 3.8 m. south from the south-western corner. The foundations were about 1 m. wide and in places survived to a depth of 1.2 m. This was probably a substantial late-medieval building, perhaps a merchant's house, erected to the west of the dock and behind the wharf (see D.VI.2). No evidence came from within the foundations to prove that it was built later than the middle of the fourteenth century.

Further west, part of a small, similarly built foundation (W.6), probably the column of a retrieving arch, was found. Three mortared chalk walls lay further north (W.4, 5, 7). These, too, were cut through the deposition layers, to a depth of 90 cm. to 1.2 m., and were probably the lower parts of retrieving arches belonging to the later medieval riverside buildings.

An east-west wall (W.8) was found cut through the top of the Roman levels in Trench 12. This survived for a length of about 6 m. and was 60 cm. wide at its thickest part, west of a modern pillar base. The bottom course, on the northern side, consisted of dressed chalk blocks, measuring 20 x 20 x 30 cm. These were stained on the northern face, possibly with tar. The rest of the foundation was made up of mortared roughly-hewn chalk and ragstone boulders. Some looser rubble above, which might have represented the bottom of a robber trench, contained a tobacco pipe, probably of early eighteenth century date and a seventeenth century coin (E.V.6, coin 42).

A further chalk structure, an oval column, was found at the north end of Trench 1. This isolated base might have been the unmortared lower foundation of a crane or similar structure associated with the jetty. (See D.VI. 2).

More information was obtained about the medieval wall (Wall 2) at the west of Trench 14, which may have directly bordered on to the dock (see D.VI.2). The chalk foundations of this wall adjoined a second one of flint and ragstone to the south on the same alignment. The relationship between the two is unknown as both had been extensively robbed during the early Tudor period. The ragstone wall contained one thirteenth century sherd, while the pottery evidence for the foundation of the chalk wall suggests a late fourteenth or early fifteenth century date. The former may have been an early dock wall damaged during the erosion and replaced by one with a foundation of chalk blocks set in mortar. This was at least 80 cm. thick but the western edge, facing the dock, lay under the baulk. On the east side of the wall the foundation cut encompassed a number of timbers, possibly support for a structure situated above or behind the wall. Of the three horizontal east-west beams at the base of the foundation the central one abutted the wall, while the other two ran into and probably through it. Higher timbers were also found; the southern beam was overlaid by a horizontal 50 cm. above. A post in the central beam was wedged by a timber running obliquely from it down to the wall base, whilst the northern beam acted as a sill for timbers running both obliquely to the wall and up to a higher horizontal (Fig. 3). These beams were very decayed and also damaged when the wall was robbed.

The destruction of the eastern wall of the dock (Wall 2) assigned to between 1450-1550 on the pottery (E.V) was perhaps represented by a layer of chalky rubble, immediately overlying the highest gravels, but not intruding into Building VIII. This event might be contemporary with the filling in of the southern part of the dock which is known from documentary sources to have happened before 1716 (see C.1).

Less than 4 m. east of Wall 2 lay Building X. Parts of three cellar walls survived; they were approximately 60 cm. wide and built of mortared chalk blocks of varying sizes with an admixture of tile (Plate 6). The walls were faced on the inside and clearly a foundation pit had been excavated and the wall built up flush against one side. For a length of 1 m. along the south wall the chalk blocks were obliquely cut, sloping up towards the outside, indicating a cellar window. A plank as long as the inlet and a foot wide lay on the floor immediately below it, which was of packed clay about 10 cm. deep. No firm dating was obtained for the building but the floor and demolition levels above contained pottery of the early sixteenth century. Chalk robbed from this building may have been re-used in the construction of the seventeenth or eighteenth century wall (1) which lay just to the west.

2. THE DOCK AND THE TIMBER STRUCTURES:

A dock was certainly in use at Toppings Wharf from 1323 (see C.4). Probable evidence of it was found at the south-east of the site, in Trench 13. The successive layers of sand,

earth and gravel sloping down towards the river represented its base. The lowest stratum, of discoloured sand, contained late thirteenth and fourteenth century pottery and rested on the natural gravels declining from about O.D. height at the south of the trench to -50 cm. at the north.

The dock was built or, more probably, reconstructed after the late thirteenth century erosion. The gravels laid elsewhere on the site were not found here, although the base level of sand could have been a local equivalent. Above this sand two gravel deposits brought the bottom of the dock up to about +90 cm. O.D. and extended its use into the fifteenth century, and possibly into the early sixteenth century. Between these strata was a layer of grey earthy gravel, containing a scatter of domestic and industrial debris including animal bone (see E.X.2), pottery, various metal objects and manufacturing residue (see E.VII.2). It is not certain what significance to attach to this deposit and its contents, which could have accumulated during the use of the dock.

The south-east corner of a timber-framed structure was found cut into the uppermost gravels of the dock (Fig. 3, Building VIII); 2.3 m. of the east side and 1.7 m. of the south side remained. These were based on beams, now badly decayed, laid into the gravel about 30 cm. below its surviving surface at a height of +60 cm. O.D. Two posts were found driven some 80 cm. into the natural sand which contained the base beams, while a third pinned them at the corner. Traces of planking on the beams survived to a height of 30 cm. Inside the structure the dock gravels continued to slope towards the river.

Running down onto the southern beam was a wooden channel, possibly a drain, 50 cm. wide consisting of two parallel planks laid flat in the gravel. Possible detached traces of it were also seen in the south-east of the trench. Other planks lying on edge apparently formed the sides, but only survived to a length of about 5 cm. This could have been for channelling sewage into the river.

Possibly the main structure was a revetment built into the dock in the late fifteenth-early sixteenth century, perhaps enclosing a smaller inlet formed in a reconstruction which accompanied the dismantling of the eastern wall (W.2).

It was filled by a deposit containing early Tudor pottery (see E.V.5), animal bones (see E.X.3) and other debris. This perhaps represented rubbish thrown down into the water, as it lay between a matrix of organic remains and sand.

A second timber structure was found in Trench 1, the northernmost part of the site examined (Fig. 3, Building IX). Its remains consisted of beams, again much decayed, laid horizontally in a packing of clay at a height of about +1.7 m. O.D. The foundations rested on layers of mud and gravel, probably representing a continuation of river-laid and dumped deposits. The higher layers contained pottery of the first half of the fifteenth century, and a similar date might therefore be given for the construction. The longest timber ran north-south for over 5 m., and from it two subsidiary timbers extended to the east. Further lengths of timbers were found but it is uncertain whether all were *in situ*.

Three posts pinning the beams down were found as well as an incorporated shute which sloped down to the east, perhaps into the dock. Three possible sets of posts were also seen west of the main beam, cut through the muds and possibly associated with the structure. This could have been the landward remains of a jetty set to the west of the dock on the wharf which was illustrated by Wyngaerde, c. 1543 (see C.1).

D.VII. LATER ACTIVITY:

Post-Tudor evidence was mainly confined to brick and tile cellars, which survived either intact or as rubble under the nineteenth century warehouse basements in Trenches 2, 6, 7, 8, 9, 10, 13 and the south-eastern part of 14 (Fig. 2). Two phases of floor were found in Trench 8. Pottery and pipe evidence suggest that the former cellar was built during or after the mid-seventeenth century, while its successor was laid down about 100 years later. The first floor was overlaid by a burnt deposit containing rubble which could indicate destruction in the fire of 1725 (see C.1). Between bricks in the cellar floor over the dock was a 1736 farthing (E.VI, coin 46) suggesting that the dock gravels at the south of the site had been built over by the early part of the eighteenth century. This confirms the documentary evidence (see C.1).

Apart from the floors, three circular brick-lined pits were found. Two occurred in isolation at the north-west of Trench 6, where they had been disturbed during the construction of a nineteenth century pillar base. They were filled with soil and may well have been cess pits in use during the eighteenth century. The third was cut down from the level of the eighteenth century cellar floor in Trench 8, and could have served a similar purpose. A halfpenny was included in the fill (E.VI, coin 50) as were a number of gun flints.

A square brick-lined pit at the north of Trench 13 was also found. This had been dug down into the earlier dock gravels and filled back with soil and ash containing clay pipes of the early nineteenth century, pottery, animal bones, glass and building rubble.

D.VIII. GENERAL CONCLUSIONS:

The findings from Toppings Wharf cannot be isolated from the context of other excavations undertaken in Southwark. An attempt is made below to relate some of these both to published work and more recent excavations.

I. PREHISTORIC:

Dr. Kenyon mentioned "three minute sherds of Iron Age A pottery and one flint arrow-head" as coming from her excavations.⁴² The occurrence at Toppings Wharf of flints and pottery in the top of the river gravels at a height of +0.6 m. to +0.8 m. O.D. must strengthen the possibility of some form of late prehistoric settlement. This might have been dependent on the fish and fowl in the marshy low-lying areas on both sides of what is now Borough High Street. Recent work some 400 m. south of Toppings Wharf has produced a larger assemblage, containing both Bronze and Iron Age pottery lying in sand and perhaps washed in from higher ground nearby.⁴³ These lay below a deposit of clay-like silt similar to that found at Toppings Wharf, and at a similar absolute height.

Research has shown that even on the higher ground, marginal differences in height might determine whether any one particular area was above the water at any one time.⁴⁴ It might be more realistic to envisage the Borough High Street area not as a sand ridge stretching back from the Thames bank at the north, to higher ground in the south, but as a number of "eyots". Consequently the examination of sites set on the higher ground, at about +1.5 m. or +1.8 m. O.D. might produce more substantial evidence of pre-Roman occupation.

2. PRE-ROMAN TRANSGRESSION:

The silts overlying the river gravels at Toppings Wharf have been found elsewhere in the bridgehead region, rising to a height of about +1.4 m. O.D.⁴⁵ They seem to represent an

incursion that took place during the pre-Roman Iron Age and show that, during the transgression, the Thames must have been flowing at a height greater than +1.4 m. O.D. Unless deliberate embankment is assumed, they also show that the river had retreated and fallen to below +1.1 m. O.D. by the time of the Roman period settlement. Most of Southwark's early Roman sites lie on this silt or sand, at a base height of between -1.1 m. and +1.5 m. O.D. During the later first and early second centuries it is likely that Thames high-water was about equivalent to O.D. level, for work on the lower ground to the west of Borough High Street has shown peat deposits at that level, perhaps representing marsh land, containing first and second century pottery.⁴⁶ Even without embanking, therefore, the settlement sites would have stood above high-water level.

3. THE ROMAN SETTLEMENT :

Recent work has necessarily altered former views as to the extent of the early Roman settlement. It is now known that clay and timber buildings stood to the western side of the main north-south road some 400 m. south of the river bank within the early Flavian period and that contemporary structures were erected on its eastern side 550 m. to the south.⁴⁷ Indeed, at 207-211 Borough High Street sizeable deposits of domestic waste occurred in pre-Flavian contexts.

Colonisation of the south bank, including the settlement of sites near to the bridgehead within a generation or so of the Roman conquest is not unexpected, and may well represent a growing demand for goods and services by the large community on the north bank, attracting traders, craftsmen and other workers.

That metal-working was an important aspect of the early settlement is shown by the presence of iron and bronze slags at other sites and by what was thought to be a residue from a goldsmith's workshop.⁴⁸

4. THE END OF THE EARLY ROMAN SETTLEMENT :

The possible ending of the settlement at Toppings Wharf in the mid-second century could have been caused by flooding, or even by the threat of the rising Thames to low-lying land. Evidence for the flooding of riverside settlements both upstream and downstream of London is known at some time during the second century or after.⁴⁹ There is reason to believe that in the City's Walbrook valley, the stream was silted up and the surrounding ground swamped soon after 155 A.D.⁵⁰

In Southwark no flooding in actual occupation sites has been proved, although a canalized stream found recently just east of Borough High Street had overflowed its banks, and was depositing sands at a height of +0.6 m. O.D. in the middle part of the second century.⁵¹

Whether or not the Toppings Wharf settlement was terminated by flooding, a fundamental change at this time has been noticed at other sites.⁵² Here the sequence of buildings ends somewhere in the middle of the second century, perhaps implying temporary desertion. The size of this disruption, and its causes, are so far unknown. It does seem clear, however, that the later Roman buildings are more likely to be of stone and are less ubiquitous than their predecessors.

5. THE LATE OR SUB-ROMAN BLACK EARTH :

This earth is familiar from many of the early Roman settlement sites, but seems to be confined to the area of these. It could generally represent an attempt to raise the land level against the rising river, but at Toppings Wharf might conceivably have formed part of a river bank.

Although apparently homogeneous, the earth could represent more than one period of dumping. The former view that it was water-laid and represented a widespread incursion of the river, is precluded both by the random distribution of the associated debris and the well-preserved state of the pottery and plaster.

6. SAXON :

No evidence of the elusive Saxon settlement was recovered. This is understandable in terms of stratification, for the levels, had they existed, would certainly have been taken out by the cellars. Very few Saxon sherds were claimed from the dumped and water-laid deposits that succeeded the late thirteenth century erosion, although an appreciable amount of Roman and eleventh or twelfth century pottery occurred there. Consequently, Saxon settlement on the site of Toppings Wharf seems doubtful.

7. THE LATE THIRTEENTH-CENTURY EROSION :

The construction of a large stone building at Toppings Wharf in the twelfth or thirteenth century shows that the contemporary river bank may have been as far north as it is today.

The erosion is the only tangible evidence on the site of the marginal nature of this riverside land, and the destruction of the building clearly illustrates the extent of the damage. That it was wide-ranging has been shown by work on sites to the west of the bridge.⁵³ At one of these, New Hibernia Wharf, more detailed evidence was obtained than at Toppings Wharf, revealing ditches dug probably in front of a temporary river bank.⁵⁴

It is likely that the disaster swept away the river bank, causing severe flooding, and the destruction of river defences as well as docks and warehouses, although documentary records only give a general indication of the disruption (see C.2).

NOTES

¹ *Calendar of Inquisitions Post Mortem*, 6 (Edward II), No. 632.

² Anthony Wyngaerde's *Panorama of London* (c. 1543). Ralph Agas (c. 1560-70). John Norden (1600).

³ This is mentioned in St. Olave's Churchwardens' Accounts 1546-1610, 175-78, and in St. Olave's Vestry Minutes 1551-1604 and 1604-1724, which are kept in the Southwark Archives, Newington District Library, Walworth Road, S.E. 17.

⁴ A series of leases of this property, dated 1716-1800 refer to it as the Watergate. Small plans drawn in the margins of these show the dimensions and a wooden landing stage built over the southern end. Corporation of London Record Office.

⁵ Rate Books: Southwark Archives as in Note 3.

⁶ E. Walford, *Old and New London*, 6 (1873), 99.

⁷ *The Illustrated London News* (26 August 1843), 137-38.

⁸ See Marjorie Honeybourne, "The Pre-Norman Bridge of London", in *Studies in London History, presented to Philip Edmund Jones* (1969), 20-21.

⁹ R. H. Luard (ed.), *Annales Monasterii de Bermundeseia A.D. 1042-1432* (1866), 468.

¹⁰ Gordon Home, *Old London Bridge* (1931), 259.

¹¹ As Note 9.

¹² W. Taylor, *Annals of St. Mary Overy* (1833), 37.

¹³ "Excavations at New Hibernia Wharf", *London Archaeol.*, 2, 99-103.

¹⁴ *Calendar of Papal Letters*, 2 (1895), 256.

¹⁵ R. R. Sharpe, *Calendar of Letter Books—E 1314-1337* (1903), 243.

¹⁶ *Calendar of Patent Rolls, Edward I, 1292-1301*, 347; *Ibid.* 1301-07, 196; *Edward II, 1307-13*, 172-3, 422; *ibid.* 1313-17, 56; 1317-21, 482; 1324-27, 232.

¹⁷ F. C. Hingeston (ed.), *The Chronicle of England by John Capgrave* (1858), 203.

¹⁸ *St. Olave's Churchwardens' Accounts 1546-1610, 175-78* (see Note 3).

¹⁹ John Gage, "Remains of the Prior of Lewes' Hostelry . . .", *Archaeologia*, 23 (1831), 299-308;

C. E. Gwilt, "Norman Building in Walnut Tree Court", *Archaeologia*, 25 (1834), 604-06;

G. R. Corner, "Observations on the Remains of an Anglo-Norman Building in the Parish of Saint Olave, Southwark . . ." *Archaeologia*, 38 (1860), 37-53.

²⁰ 1323 (as Note 1). 1392 *Calendar of Inquisitions Post Mortem*, 11 (Edward III), No. 582.

²¹ D. E. Hubbard, *History of St. Olave's, Southwark* (Typescript Thesis, Goldsmiths' College) (1953), 30, in Southwark Archives as in Note 3.

²² Sylvia L. Thrupp, "Aliens in and around London in the Fifteenth Century", in A. E. J. Hollaender and William Kellaway (eds), *Studies in London History, presented to Philip Edmund Jones* (1969), 251-72.

- ²³ *Huguenot Society Publications*, 10, Part 1 (1900), 31-36.
- ²⁴ Public Record Office E179/124/247 (1542); E179/126/334 (1550).
- ²⁵ Marjorie Honeybourne, as in Note 8.
- ²⁶ *St. Olave's Churchwardens' Accounts*; see Note 3.
- ²⁷ As Note 1.
- ²⁸ As Note 20.
- ²⁹ "The Surrey portion of the Lewes cartulary", *Surrey Archaeol. Colls.*, 43 (1934), 84-112.
- ³⁰ As Note 18.
- ³¹ All as in Note 3 (Vestry Minutes).
- ³² R. C. Carrington, *Two Schools* (1971), 83.
- ³³ As Note 4.
- ³⁴ I. A. Richmond in *Studies in Building History* (1961).
- ³⁵ K. M. Richardson, *Archaeological Excavations at Verulamium* (1938).
- ³⁶ S. Frere, *Verulamium Excavations I* (1972).
- ³⁷ Although many of the vertical timbers were clearly rammed into the silt rather than placed in receiving holes, they have been described as posts rather than stakes because of their large size. The term post-hole rather than stake-hole is therefore used in the text.
- ³⁸ S. Frere, "Excavations at Verulamium 1956", *Antiq. J.*, 1956. He noted that similar walls had been identified at Canterbury.
- ³⁹ I. A. Richmond, as in Note 34, gives examples.
- ⁴⁰ Clay walls built on masonry dwarf walls are known from Verulamium (see S. Frere in Note 38 above), in the Antonine period. Claudian examples turned up with unbaked clay blocks from Colchester are known (R. Dunnett, "Excavations at North Hill, Colchester", *Archaeol. J.*, 122 (1966), 77F). In the latter building other main walls of clay blocks rested on spreads of gravel and in one case brushwood.
- ⁴¹ They might represent a local phenomenon, but "black soil" is present in a number of towns lying stratigraphically between the late Roman and the next well-defined occupation. See S. Frere, "The end of Towns in Roman Britain", in John Wacher, *Civitas Capitals of Roman Britain* (1966), 23.
- ⁴² K. M. Kenyon, *Excavations in Southwark* (1959), 15.
- ⁴³ SAEC excavation at 106-114 Borough High Street.
- ⁴⁴ Summarised in Alan Graham, "Southwark: the physical geography and archaeology of the settlement", unpublished B.A. dissertation 1974, Institute of Archaeology, London.
- ⁴⁵ SAEC excavations London Bridge, 1969, G. Dawson; Montague Close, 1969-73, G. Dawson; Old Hibernia Wharf, 1974, Alan Graham; New Hibernia Wharf, 1973, P. Evans, *et al.*
- ⁴⁶ As Note 44.
- ⁴⁷ SAEC excavations, 106-114 Borough High Street, 1973-74; 207-11 Borough High Street, 1972-73.
- ⁴⁸ P. R. V. Marsden, SAEC interim report 1964.
- ⁴⁹ R. E. M. Wheeler, "Old England, Brentford", *Antiquity* 3 (1929), 20; and *R.C.H.M. Essex, S.E.* (1923), 38-39.
- ⁵⁰ R. Merrifield, "Roman Coins from the bed of the Walbrook and their significance", *Antiq. J.*, 42 (1962), Pt. 1.
- ⁵¹ SAEC excavation, 1974.
- ⁵² SAEC excavations 207-11 Borough High Street, and Angel Place, 1972-73; 106-14 Borough High Street, 1973-74.
- ⁵³ Montague Close and New Hibernia Wharf, as in Note 45.
- ⁵⁴ P. Evans *et al.*, "Excavations at New Hibernia Wharf", *London Archaeol.*, 2, No. 5 (1974).

E.I. FLINTS

BY JOHN CRESSWELL

Some 35 pieces of flint were examined from the excavation. Of these 27 were of undoubted human agency. Ten were from the top of the pre-Roman gravels, the remaining 25 were from later layers, mainly Roman.

The material contains mostly blades and blade fragments, and a few core-rejuvenating flakes. The technique of removing blades from prismatic cores was introduced by Mesolithic man, but continued in use during subsequent prehistoric periods, and with the lack of any definite diagnostic pieces it would be difficult to assign this material to a specific culture.

Struck flint is relatively common in the present foreshore gravels of the Thames and thus cannot be reliably used to date any layers in which it is found. In consequence, and because of the sparsity of the material, it will be treated as a whole.

The flint used was mainly a light brown flint with chert inclusions (only one piece was of black flint). Some pieces had traces of patination, but only two items were heavily patinated. Grey chert was also used for five pieces. The raw material could have been obtained from the Thames foreshore. Most of the items appear quite fresh and only a few show signs of being rolled, although water-working could have added fresh scars.

The material as recorded contains only a couple of primary flakes (it would be difficult to ascertain the agency of singly-stuck flakes) and very little waste material. No cores were recovered. All the material described could have had some functional value—although as previously stated—very little is diagnostic. Only a few items had retouching along an edge, but many had chips off indicative of use—or perhaps rolling. A couple of items had signs of silica gloss along the supposed cutting edge. (One flake had a straight, steeply-retouched end, plus retouched notches along its side, which makes it an undoubted scaper.) Three pieces had sufficient retouch to class them as scrapers; one looks like a core retouch (perhaps from a core scraper). One piece of truncated blade has a trapezoidal shape and is suggestive of a *petit-tranchet* arrowhead.

DESCRIPTION OF MATERIAL (Fig. 16)

1. Knife blade, 5.7 cm. long, back blunted by single flake scar.
2. Blade, 4.1 cm., sides trimmed and end forming possible screwdriver-type burin.
3. Blade, 3.5 cm., made from chert, end truncated into notch, slight silica gloss along one edge.
4. Blade, 3.1 cm., crescentic, accentuated by side pieces being snapped away.
5. Pointed blade, 3.0 cm., some trimming along side.
6. Truncated blade, 3.1 cm.
7. Blade, 3.6 cm., end trimmed to point, sides trimmed with notch along one side.
8. ?Petit-tranchet arrowhead, 1.7 cm., made from truncated blade.
9. Flake, 5.6 cm., with trimmed notch giving hollow scraper.
10. Truncated blade point, 2.1 cm., notched along one edge, suggesting possible saw-blade.
11. Core-retouching flake, 3.9 cm., perpendicular to striking platform, portion of side trimmed to form scraper.
12. Truncated blade point, 2.7 cm., possible knife.
13. Core-retouching flake, 2.2 cm., parallel to platform, trimmed to form scraper.
14. Flake, 2.9 cm., naturally obliquely pointed.
15. Truncated blade point, 3.0 cm., trimming along one side.
16. Truncated blade, 2.2 cm.
17. Piece of flint, 3.4 cm., trimming along one side, with faint traces of silica gloss.
18. Core-retouching flake, 2.2 cm., perpendicular to platform, truncated into awl shape and flake scars indicative of such use.
19. Scraper, 3.8 cm., doubly-truncated blade with steep retouch along straight end, retouching and notches along sides.
20. Pointed blade, 3.9 cm., possible knife.
21. Blade, 4.7 cm., snapped off tip, both sides with slight trimming, especially near tip, possible awl.
22. Blade, 3.0 cm., crescent-shaped.

E.II. PREHISTORIC POTTERY

BY JOHN BARRETT

It can be argued that this material from the top of the river gravels belongs to the general run of Iron Age pottery common to the Lower Thames Valley. However, an early Roman date for Nos. 1 and 2 cannot be eliminated.

1. Abraded body sherd in dark fine fabric.
2. Abraded body sherd in dark fabric with fine flint grit, brown surfaces.
3. Two body sherds, black fabric with sparse flint grit; surfaces light brown. Both sherds abraded.
4. Fragments of fired clay, very abraded. Black fabric, brown surfaces, filler of fine sand.
5. Very small fragments of pottery in light brown fabric with flint grit.
6. Abraded sherd, black fabric with flint grit.

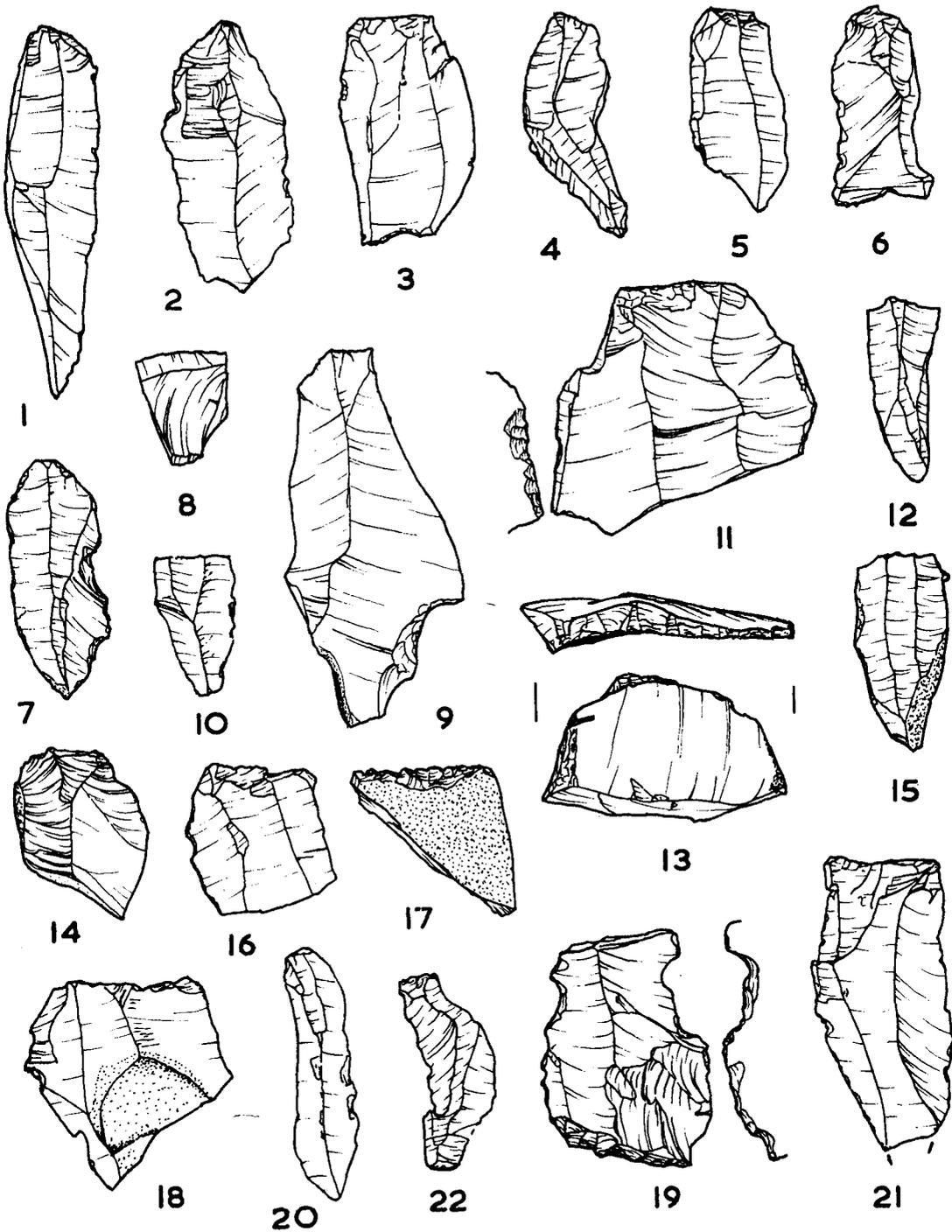


Fig. 16. Toppings Wharf; flints 1-22 (1/1)

E.III. THE SAMIAN WARE

BY JOANNA BIRD

ABBREVIATIONS:

LRF:	W. Ludowici, H. Ricken and C. Fischer, <i>Die Bilderschüsseln der Römischen Töpfer von Rhein Zabern</i> , Heft 7 (Bonn, 1963).
O:	F. Oswald, <i>Index of Figure-types on Terra Sigillata</i> (1936-37).
S. & S.:	J. A. Stanfield and G. Simpson, <i>Central Gaulish Pottery</i> (1958).
ATKINSON, 1914:	D. Atkinson, "A Hoard of Samian Ware from Pompeii" in <i>J. Roman Stud.</i> , 4.
HULD-ZETSCHKE, 1972:	I. Huld-Zetsche, <i>Trierer Reliefsigillata, Werk-statt I</i> (Frankfurt).
KNORR, 1919:	R. Knorr, <i>Töpfer und Fabriken verzierter Terra-sigillata des Ersten Jahrhunderts</i> (Stuttgart).
KNORR, 1952:	R. Knorr, <i>Terra-sigillata-gefäße des Ersten Jahrhunderts mit Töpfernamen</i> (Stuttgart).
STANFIELD, 1937:	J. A. Stanfield, "Romano-Gaulish Decorated Jugs and the work of the potter Sabinus" in <i>J. Roman Stud.</i> , 27.

This report is on the decorated vessels, the stamps and the graffito.

The information on the stamps has kindly been provided by Brian Hartley, F.S.A., and that on the graffito by Mark Hassall. The plain Samian is not included here but the relevant information has been incorporated elsewhere in the study.

I. DECORATED SAMIAN

EAST-WEST DITCH

DESCRIPTION (Nos. 1-14 Fig. 17)

1. Form 29, South Gaul. Leaves under the arcade of a scroll; c. A.D. 50-70.
 2. Form 30, South Gaul. Straight wreath above scroll with wreath arcades; c. A.D. 50-70.
 3. Form 29, South Gaul. Gadroons in lower frieze; c. A.D. 60-80.
 4. Form 30, South Gaul. A vessel from Bregenz (Knorr, 1919, 97A) has all the motifs in a closely similar arrangement; c. A.D. 50-65.
 5. Form 29, South Gaul. Fragment of scroll in upper frieze, and corner in lower. Neronian-Early Flavian.
 6. Form 29, South Gaul. Fragment of scroll in upper frieze; c. A.D. 55-75.
 7. Form 29, South Gaul. Edge of scroll in lower frieze. Neronian probably. (Not illustrated).
- Form 30, South Gaul. Neat wavy line borders with corner; c. A.D. 55-70.

EARLY ROMAN SETTLEMENT

8. Form 29, South Gaul. Similar upper scrolls were used by Mommo (Atkinson, 1914, 17) and by Vitalis (Knorr, 1919 83E); c. A.D. 60-80.
9. Form 30, South Gaul. Formal arrangement of corded leaves; c. A.D. 50-65.
10. Form 29, South Gaul. Hare (O.2098A) in a finely-corded medallion; similar leaf scrolls were used by several potters (cf. Atkinson, 1914, 21); c. A.D. 60-80.
11. Form 29, South Gaul. Scroll with corded leaf; c. A.D. 65-80.
12. Form 29, South Gaul. Scroll with corners above short gadroons; c. A.D. 60-80.
13. Form 29, South Gaul. Formal leaves in a scroll; c. A.D. 50-65.
14. Form 29, South Gaul. The motifs were all used by Celadus—the rosette and circles on Knorr, 1919, 21B; the leaf on Knorr, 1952, 15D; and the gadroons (here badly smeared by the potter) on Knorr, 1919, 21A; c. A.D. 45-65.

(Nos. 15-29, Fig. 18)

15. Form 29, South Gaul. A similar wreath scroll was used by Bassus and Coelus (Knorr, 1952, 10H), and they also had similar central wreaths; c. A.D. 50-70. Burnt.
16. Form 30, South Gaul. Neatly modelled ovolo above straight wreath and panel frieze; c. A.D. 50-70.
17. Form 29, stamped by Mommo of La Graufesenque. The fabric and modelling are unusually poor, the slip having little gloss. The figure types are: hare, O.2078; dog, O.1924; deer, O.1737; and small dog, O.1916A. Many of the motifs were used elsewhere by Mommo; cf. particularly Atkinson, 1914, 3, 5 and 15; c. A.D. 70-85. (see S10).
18. Form 29, South Gaul. Tridentarius (O. 1013E) in lower frieze; c. A.D. 55-70.
19. Form 29, South Gaul. Gadroons; c. A.D. 55-75.
20. Form 29, South Gaul. Scroll with palmettes and small stipuled buds; c. A.D. 50-70.

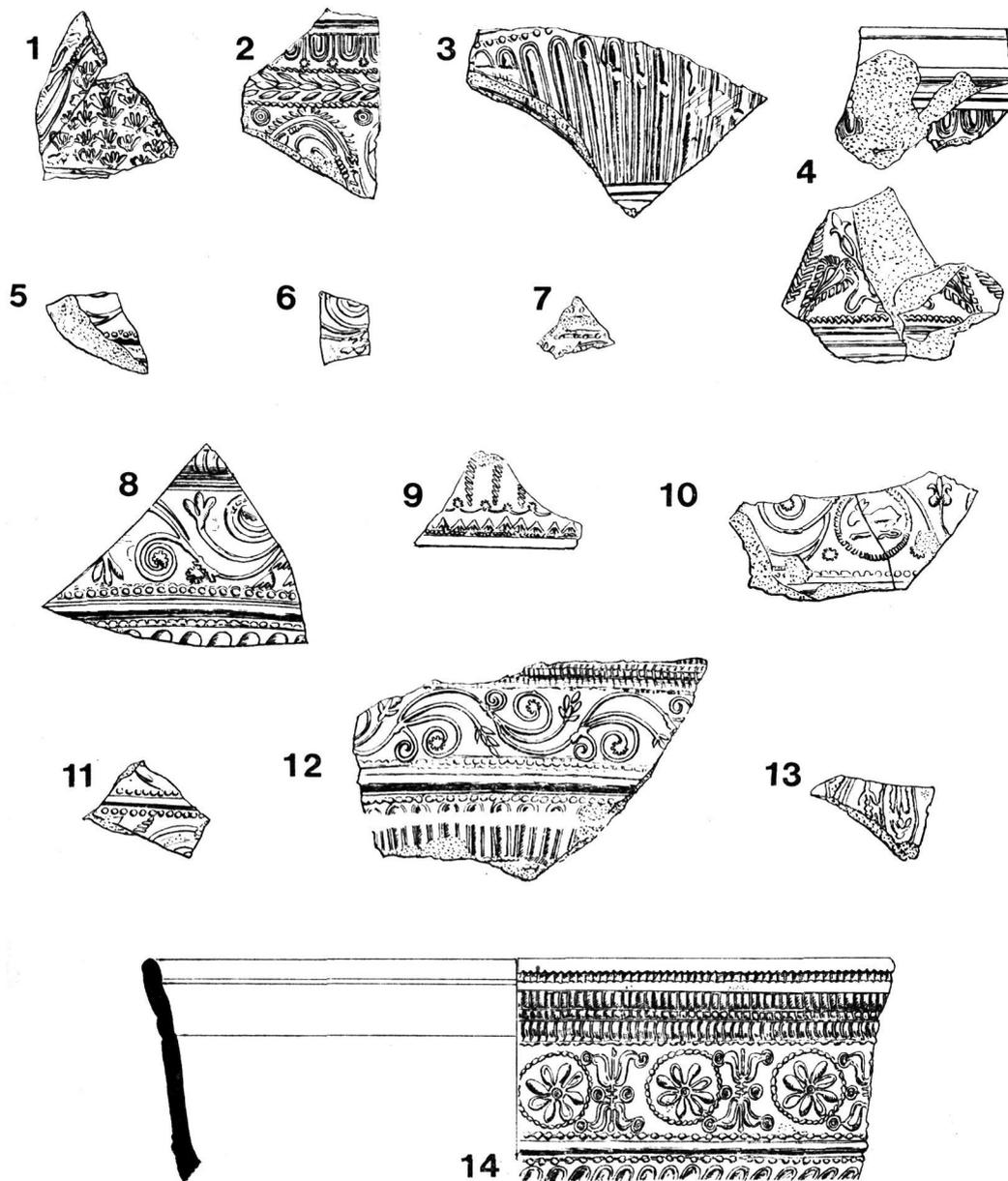


Fig. 17. Toppings Wharf; The Samian, 1-14 ($\frac{1}{2}$)

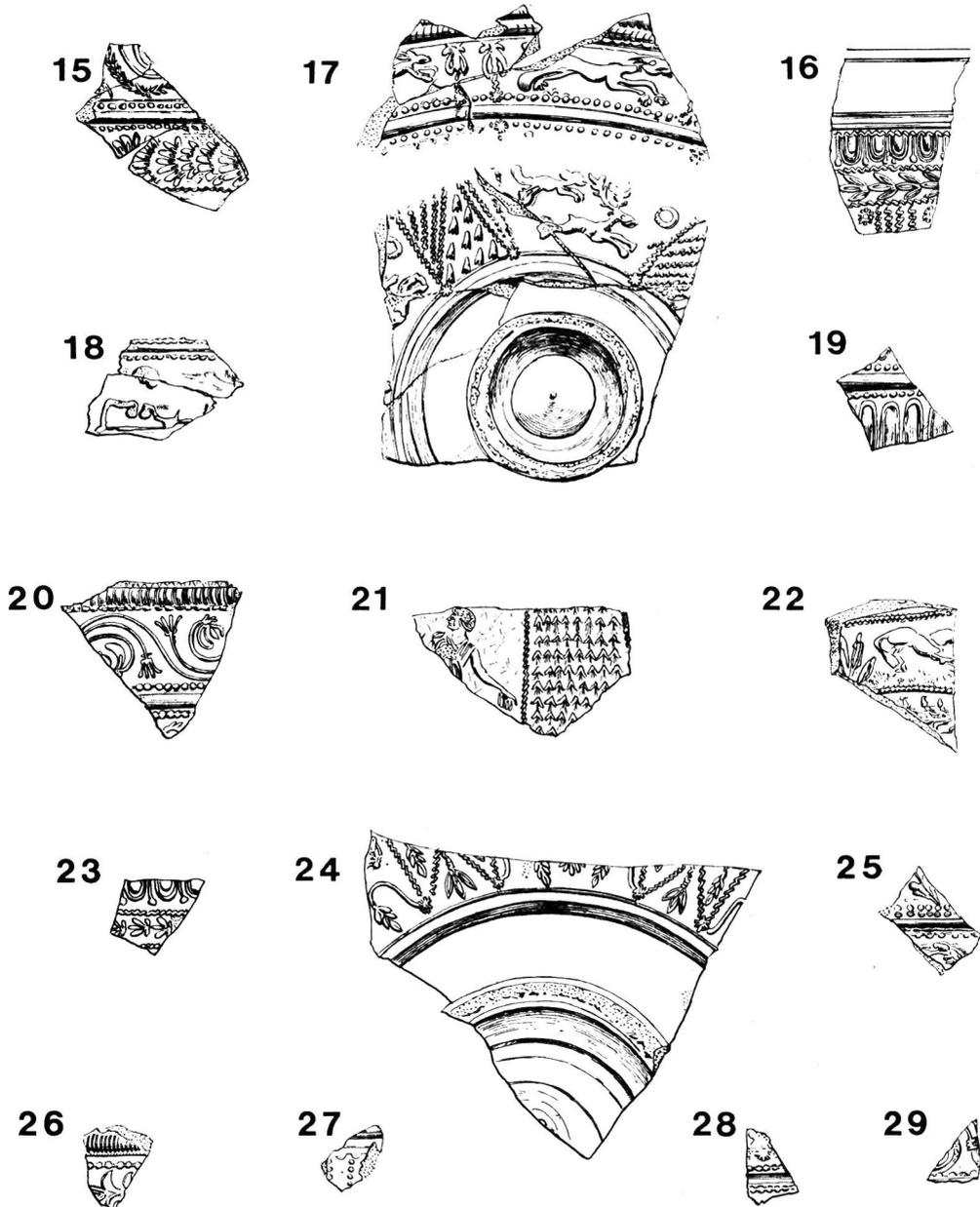


Fig. 18. Toppings Wharf; The Samian, 15-29 ($\frac{1}{2}$)

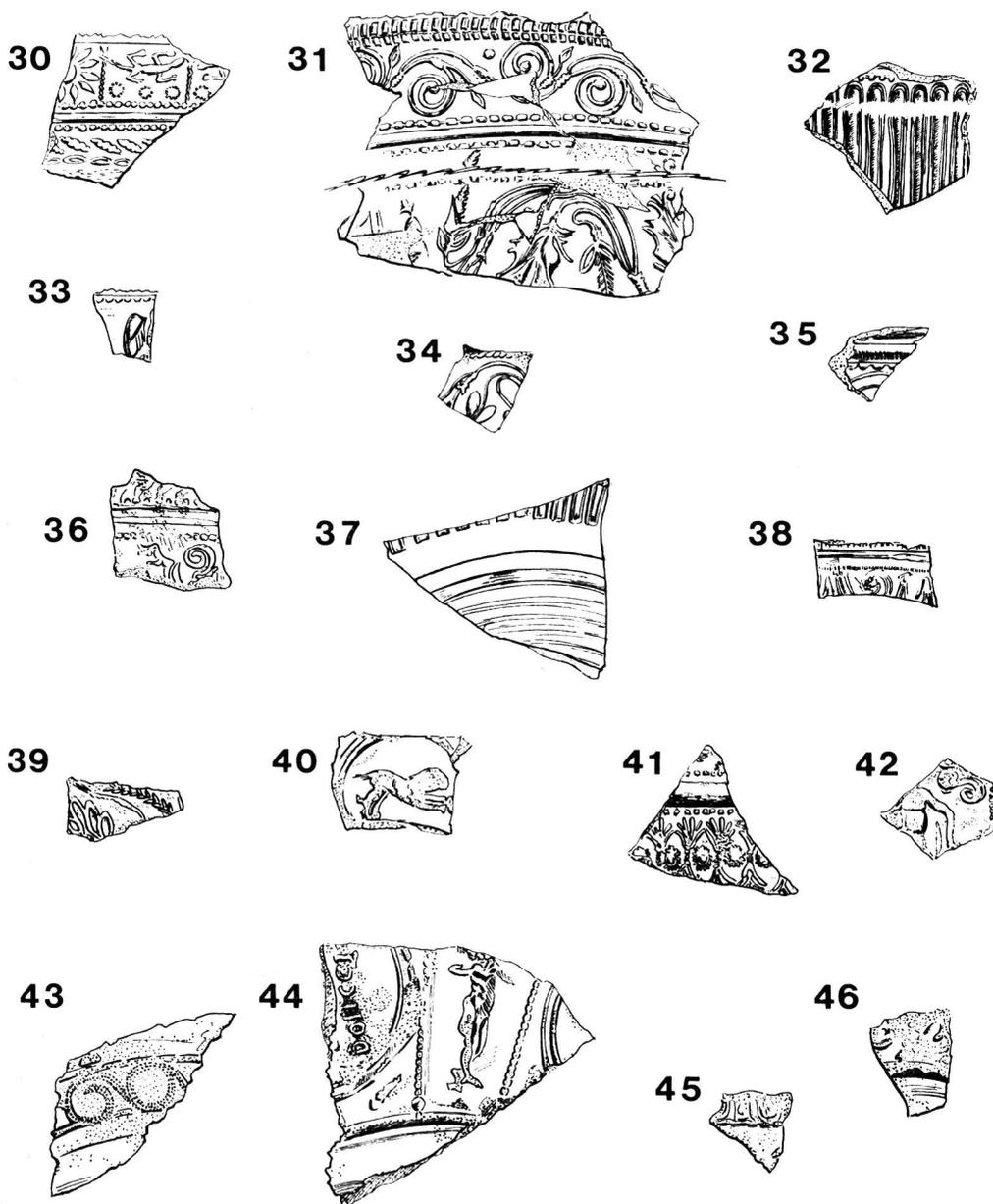


Fig. 19. Toppings Wharf; The Samian, 30-46 ($\frac{1}{2}$)

21. Jug of the type made by Sabinus of La Graufesenque (Stanfield, 1937). The figure is O.924; the leaves were used by Sabinus on a similar jug (Knorr, 1919, 100A); c. A.D. 50-70.
 22. Form 29, South Gaul. The lion is probably O.1417. A similar arrangement of lions with this foliage motif and chevron wreath was used by Rufinus (Atkinson, 1914, 36); c. A.D. 70-85.
 23. Form 30, South Gaul. Three small sherds (two not illustrated). Neat single-bordered ovolo above a simple wreath; c. A.D. 50-70.
 24. Form 29, stamped by Cabucatus of La Graufesenque. Fine wavy lines and pointed leaves; c. A.D. 65-85. (See S3).
 25. Form 29, South Gaul. Both friezes probably contained scrolls, the upper with pointed leaves, the lower with cornears; c. A.D. 60-80.
 26. Form 29, South Gaul. A closely similar wreath was used by Germanus (Knorr, 1919, 37K); c. A.D. 60-80.
 27. Form 67, South Gaul. Vertical beadrows. Flavian probably.
 28. Form 29, South Gaul. Scroll with rosettes and leaves; c. A.D. 50-70.
 29. Form 29, South Gaul. Scrolls with acorn terminals were used by several potters, notably Aquitanus (Knorr, 1952, 4F) and Bassus (*ibid.*, 7C); c. A.D. 50-70.
- (Nos. 30-46, Fig. 19)
30. Form 29, South Gaul. An unusual arrangement of two panels containing a lizard (O.2151 variant) and three rosettes alternating with a single large rosette. The central wreath was used by several potters; c. A.D. 55-75.
 31. Form 29, South Gaul. The scroll in the upper frieze ends in small diamond-shaped leaves. The beautifully modelled leaf in the lower frieze is identical to one from the Walbrook (site ref. F.750.1); the pointed leaf was used by several potters, including Aquitanus (Knorr, 1952, 4D). The third motif is probably a pomegranate bud; c. A.D. 50-65.
 32. Form 29, South Gaul. Gadroons in lower frieze; c. A.D. 55-75.
 33. Form 29, South Gaul. Eagle (O.2175) in upper frieze; c. A.D. 60-80.
 34. Form 29, South Gaul. Fine scroll with leaves and tendril-bindings; c. A.D. 45-65.
 35. Form 29, South Gaul. Fragment of scroll in upper frieze; c. A.D. 65-85.
 36. Form 29, South Gaul. Simple wreath in upper frieze, and probable scroll in lower. The relief is very shallow, suggesting that the mould was worn; c. A.D. 55-70.
 37. Form 29, South Gaul. Gadroons in lower frieze; c. A.D. 65-85.
 38. Form 29, South Gaul; slightly blurred by the potter. Small festoon and scroll, alternating with large arrowheads; c. A.D. 65-80.
(Not illustrated).
Form 29, South Gaul. Straight wreath above formal delicate scrollery; c. A.D. 50-65.

EARLY ROMAN PITS

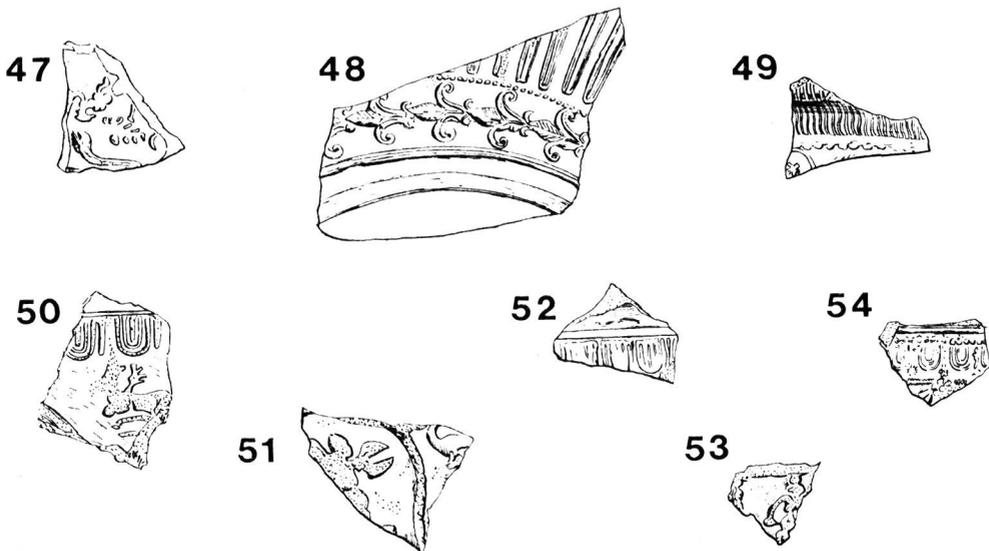
39. Form 29, South Gaul. Corded scroll with a large leaf; c. A.D. 50-65.
40. Form 29, South Gaul. Lion (probably O.1417) in a scroll; c. A.D. 55-75.
41. Form 29, South Gaul. Large rosettes between pairs of palmettes; c. A.D. 50-65.
42. Form 37 in the style of the "Large-S Potter" of Central Gaul. The Mercury (O.535), s-motif, and bead-row are illustrated on S. & S., Pl. 76, 33; c. A.D. 125-145.
(Not illustrated)
Form 29, South Gaul. Panels with wavy-line borders; c. A.D. 60-80.
Form 29, South Gaul. Part of a leaf in the lower frieze; c. A.D. 55-75.

LATE OR SUB-ROMAN

43. Form 37, very abraded. Similar s-scrolls were used at Rheinzabern (LRF R 56-58) and at Trier (Huld-Zetsche, 1972, O.33-36) but the plain line on each side is more characteristic of Trier; late second-mid-third century).
44. Form 37, stamped in the mould by Doecus of Lezoux. The motifs all occur elsewhere in his work—Venus (O.331) on S. & S., Pl. 148, 15, the beads, rosette, medallion and astragalus on S. & S., Pl. 148, 25; c. A.D. 160-195. (See S4).
45. Form 37, East Gaul and probably Rheinzabern. The ovolo is too abraded to identify; later second-mid-third century.
46. Form 37, Central Gaul. Antonine probably.

REDEPOSITED (Nos. 47-54, Fig. 20)

47. Form 37 with freestyle hunting scene in the style of the Cinnamus-Cerialis group at Lezoux; *c.* A.D. 150-180.
48. Form 29, South Gaul. Gadroons above a basal wreath of finely-modelled formal leaves; *c.* A.D. 45-65.
49. Form 29, South Gaul. Scroll with rosette terminals. Neronian or early Flavian.
50. Form 37 in the style of Primitivus of Rheinzabern, apparently the sole user of this ovolo (LRF. E41); he also used the deer (LRF. T96b); *c.* A.D. 200-250.
51. Form 37 in the style of Cinnamus of Lezoux, who used the Cupid (O.401—S. & S., Pl. 157, 2) and a similar bird in a scroll (S. & S., Pl. 162, 58); *c.* A.D. 150-180.
52. Form 37, South Gaul. Broken ovolo; *c.* A.D. 80-110.
53. Form 37, Central Gaul. The small warrior (O.1057) was used on stamped bowls by Lastuca, Albucius and Cinnamus (S. & S., Pl. 100, 4; 121, 17; 160, 41); the beadrows are too abraded to aid closer identification; *c.* A.D. 150-180.
54. Form 37 with the smaller ovolo and distinctive rosette used by Drusus I (X-3) of Les Martres de Veyre (S. & S., Pl. 13, 156); *c.* A.D. 100-125.

Fig. 20. Toppings Wharf; The Samian, 47-54 ($\frac{1}{2}$)

2. THE SAMIAN POTTERS' STAMPS

Fig. 21)

- All are from levels associated with the buildings unless otherwise stated.
1. (AL)BANI on form 15/17 or 18.
Die 10a, Albanus of La Graufesenque. Probably pre-Early Flavian.
 2. (A)VINIF on form 15/17 or 18.
Die 1a, Avinius of South Gaul. and probably of La Graufesenque. Flavian.
 3. (CABV)CATI on form 39.
Die 2a, Cabucatus of La Graufesenque; this potter is usually misread as Cannrugatus. *c.* A.D. 65-85. (See Decorated No. 24.)
 4. DOIICCI on form 37.
Die 5a, Doecuss of Lezoux, impressed in the mould. *c.* A.D. 160-95. (See Decorated No. 44).
 5. OFFELICIS on form 18.
Die 2b, Felix I of La Graufesenque. *c.* A.D. 45-65.
 6. L.IC.INI (ANAO) probably on form 29.
Die 7a, Licinus of La Graufesenque. *c.* A.D. 55-65.

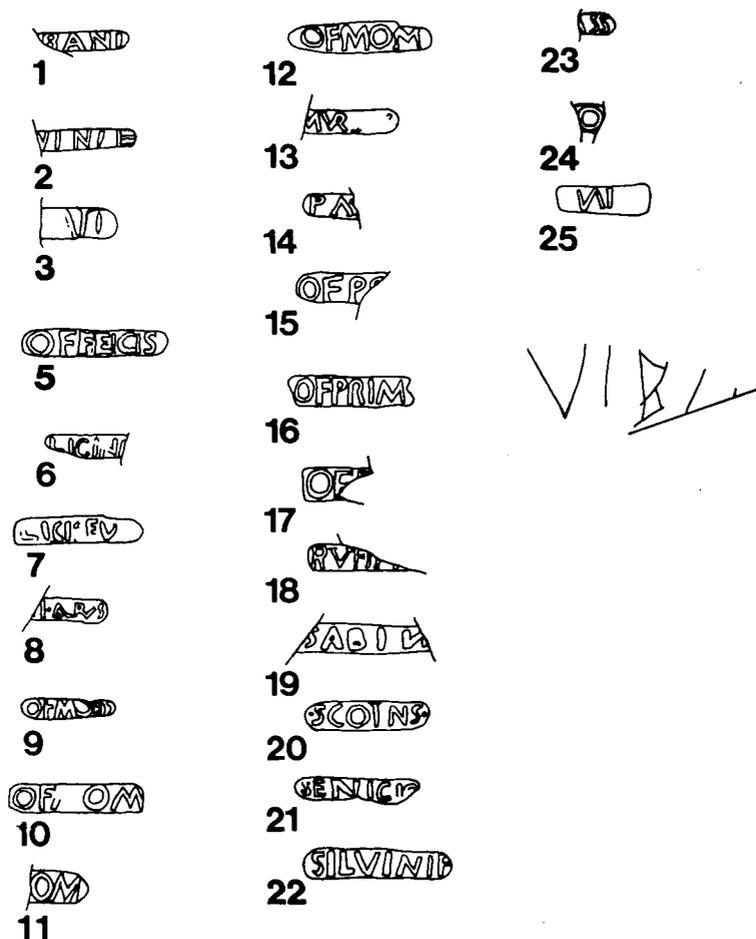


Fig. 21. Toppings Wharf; The Samian Stamps and the Graffito (I/I)

7. LICISEV on form 27g.
Die 2a, Lici() and Severus of La Graufesenque. The first potter is not the Licinus of the earlier Officina Liciniana stamps. *c.* A.D. 75-100.
8. (MASC)LIBALBVS on form 18.
Die 1a, Masclus and Balbus of La Graufesenque. *c.* A.D. 60-80.
9. OFMODES on form 24/25.
Die 4b, Modestus I of La Graufesenque. *c.* A.D. 45-60.
10. OFMOM on form 29.
Die 9j, Mommo of La Graufesenque. *c.* A.D. 70-85. (See Decorated No. 17.)
11. (OIM)OM on form 18.
Die 9i, Mommo of La Graufesenque. As this die is found on form Ritt 1, it should be dated to the 60s A.D.
12. OF.MOM on form 18.
Die 9b, Mommo of La Graufesenque. This die is so far unique; the context suggests a Neronian-early Flavian date.
13. (OF.)MVRAN on form 18.
Die 8f, Murranus of La Graufesenque. Probably *c.* A.D. 45-60.
14. PA(SSIEN) on form 27g.
Die 60a, Passenus of La Graufesenque. *c.* A.D. 55-70.

15. OFPO(NTHEI) on form 15/17 or 18.
Die 1a, Pontheius of La Graufesenque. c. A.D. 70-85.
16. OFPRIM on form 27g.
Die 18b, Primus III of La Graufesenque. c. A.D. 55-75.
17. OFP(RIMI) on form 15/17 or 18.
Die 12r, Primus III of La Graufesenque. c. A.D. 50-65.
18. RVFI(NI.MA) on form 18.
Die 15a, Rufinus II of La Graufesenque. c. A.D. 70-80.
19. ()SABIN() on form 15/17 or 18.
A unique and incomplete die, Sabinus III of La Graufesenque. Neronian-early Flavian, on context.
20. SCOTNS on form 18.
Die 5a, Scotnus of La Graufesenque. c. A.D. 50-65.
21. SENICIO on form 27g.
Die 6a, Senicio of La Graufesenque. Probably c. A.D. 50-70.
22. SILVINIF on form 18.
Die 8a, Silvinus I of La Graufesenque. c. A.D. 65-80.
23. ()ASS on form 15/17 or 18.
Unidentifiable; South Gaulish.
24. ()O() on form 15/17 or 18.
Unidentifiable; South Gaulish.
25. ()Λ/() on form 27g.
Unidentifiable; South Gaulish.

3. GRAFFITO

Incised on the exterior of a Form 27 cup. Reads VIBI?. A personal name. The last letter is uncertain.

E.IV. THE OTHER ROMAN POTTERY FROM THE EARLY ROMAN SETTLEMENT

BY PAT EVANS

I. INTRODUCTION:

The groups of illustrated pottery represent most of the vessels from the major features of the early Roman settlement which could be drawn.

The pottery is presented in the following order: the first group is from the east-west ditch which was filled prior to the construction of the buildings. Then follow groups from the buildings and alleyways starting with Building I and moving to the west across the site.

A further group comes from a destruction level just east of, but later than, Building V. The final groups come from three pits and the well. Pit 3 is later than Building III, but no stratigraphical relationship was obtained between Pits 7 and 9 and the buildings. Pit 7 could be a post-pit associated with the masonry wall between Buildings III and IV. The well was cut through the floor levels of Building VI.

Pottery from within the buildings has been divided into groups under the following headings: *Construction Phase*: pottery from foundation layers, walls and contained within primary floors; *Occupation within the building*: pottery from later floors and fill layers, deposited while the building was still in use; *Destruction layers filling building*: pottery from deposits associated with, or later than, the destruction of the building.

The date in brackets after each group heading is that of the latest Samian from the context. Where the samian appears to be residual, and contradicts the date indicated by the stratigraphy, this is stated in the text.

Conventions used in the descriptions of the drawn vessels are as follows: (i) *Temper*: "sandy" indicates that small grains were visible in the clay; "gritty" that large grains were present. Where no tempering is mentioned, none was visible. (ii) *Hardness*: "hard" indicates

that the sherd could not be scratched with the thumbnail; "fairly hard" that the sherd could only be scratched with difficulty; "fairly soft" and "soft" that little or no effort was needed to make an impression. (iii) *Quality*: "fine" and "coarse" indicate the texture of the clay and the degree of finish applied to the surface; these terms are very subjective. (iv) *Colour*: a hyphen indicates an intermediate colour (e.g. red-brown, a colour between red and brown), and a solidus, a mixture of colours (e.g. red/brown, patches of red and patches of brown).

In the individual descriptions, all types of jars and beakers have been grouped under the heading *Jars*.

2. THE DRAWN POTTERY

(a) DITCH. (Nos. 1-21, Fig. 22). (Flavian) from the fill of the Ditch pre-dating buildings.

Jars:

1. Sandy, fairly hard, fairly coarse fabric; yellow-buff core with reduced grey centre, yellow-buff internal surface, grey/dark brown external surface caused by burning. Cordon at base of neck. Band of vertical combed wavy lines on shoulder. "Butt beaker".
2. Soft, fine, red fabric. Cordon at base of the neck, white slip applied to both surfaces.
3. Grogged hard, coarse, dark grey fabric. Burnished external surface between incised band and rim, and inside rim. Band of thin roughly incised lines on shoulder.
4. Gritty, hard, fairly fine fabric; light grey core and darker grey surfaces.
5. Micaceous, gritty, hard fairly coarse fabric; grey core with black internal surface inside rim; black external surface. Burnished on neck.
6. Gritty, hard, fairly fine fabric; light grey core, and darker grey surfaces. Lightly burnished band on neck. Traces of soot below lip.
7. Sandy, hard, fairly coarse fabric; light grey core, darker grey surfaces. Cordon at base of neck.
8. Sandy, soft, fairly fine red fabric. Cream slip applied to both surfaces.
9. Grogged, with some grit inclusions, hard, coarse fabric; grey core, surface colour varies between red, brown, grey and black.
10. Micaceous, sandy, hard, fairly fine fabric; brown core with reduced grey centre, external surface dark grey, internal surface brown. Burnished on rim and neck.
11. Sandy, hard, fairly fine fabric; red core, with reduced grey centre, dark brown surfaces. Burnished lightly on external surface. Groove on shoulder.
12. Gritty, hard, coarse fabric; brown core reduced to light grey in centre, dark grey lightly burnished surfaces.
13. Micaceous sandy, hard, fairly fine fabric; grey core, black external surface, dark grey internal surface. Shallow groove on shoulder.
14. Sandy, hard, fairly coarse fabric; light grey core, surface colour varies from dark to light grey. Irregular lattice of burnished lines on external surface.

Dishes:

15. Micaceous, sandy, fairly fine fabric; light grey core, dark grey surfaces. Imitation terra nigra.
16. Sandy, hard, fairly fine grey fabric.

Bowl:

17. Sandy, hard, fairly fine grey fabric. Shallow groove around the body.

Mortarium

18. Sandy, soft, fairly coarse buff fabric. Grits on internal surface and upper surface of flange. Stamp on flange near bead.

Bowl:

19. Sandy, soft, fairly coarse fabric; grey core and red surfaces. Broad cordon beneath rim, two narrow cordons at base of sherd. Cream slip applied to both surfaces, burnished externally. Imitation Samian Form 30.

Amphora:

20. Sandy, hard, coarse cream fabric.

Flagon:

21. Sandy, hard, coarse pink fabric.

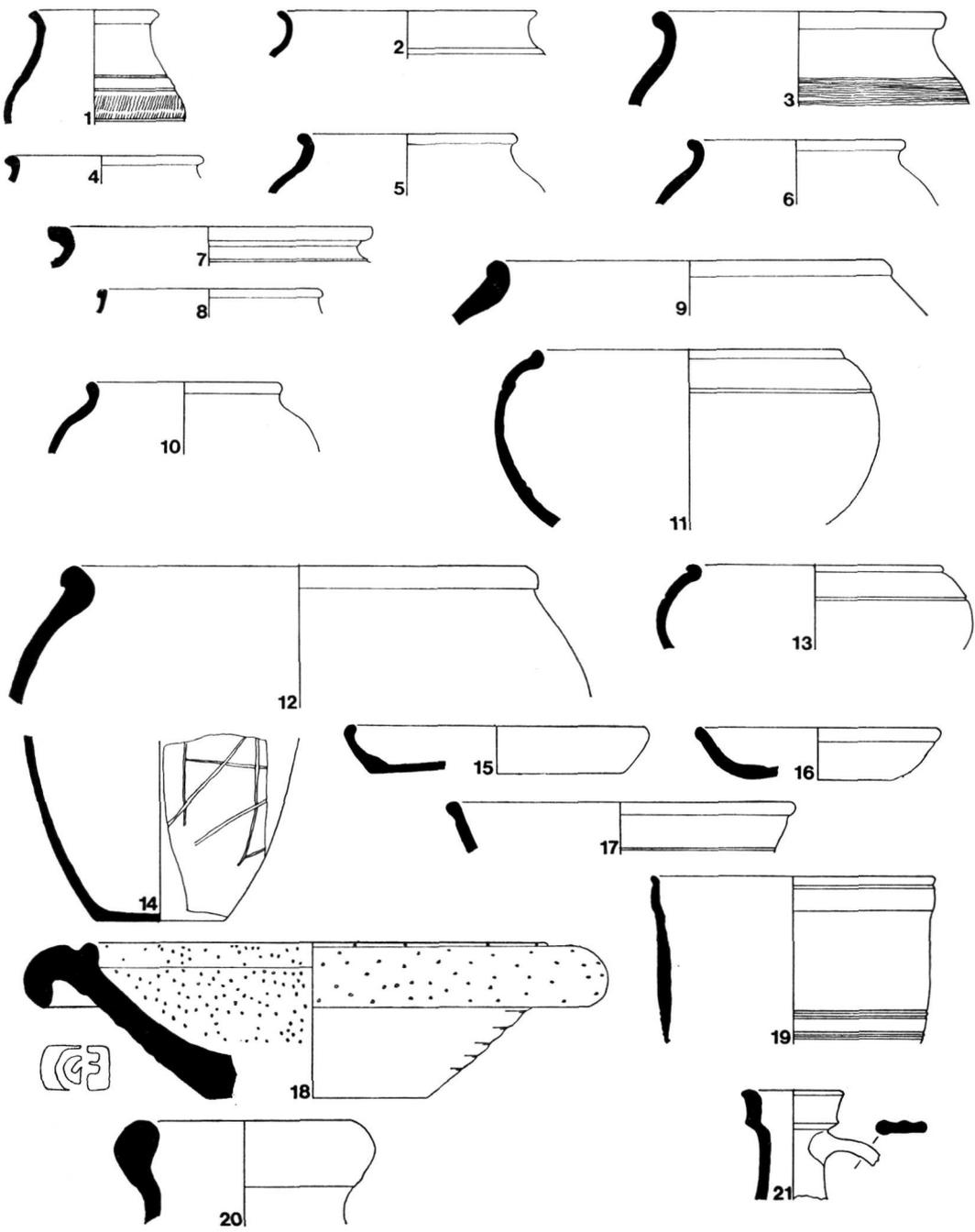


Fig. 22. Toppings Wharf; Roman pottery, 1-21 ($\frac{1}{4}$) except stamp ($\frac{1}{2}$)

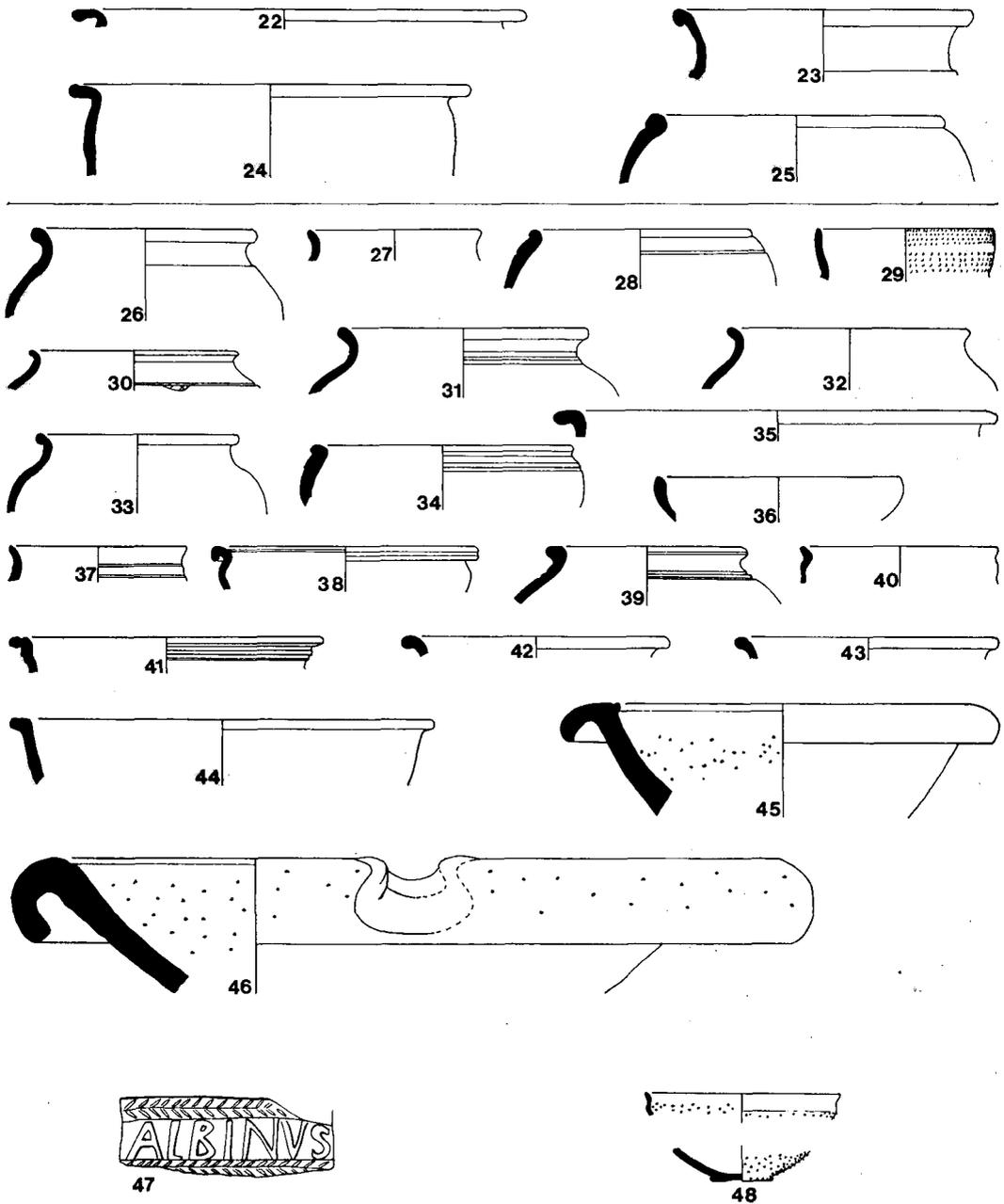


Fig. 23. Toppings Wharf; Roman pottery, 22-48 ($\frac{1}{4}$) except No. 47 ($\frac{1}{2}$)

(b) BUILDING I. (Nos. 22–48, Fig. 23. Nos. 49–50, Fig. 24)

(i) Construction Phase. (Nos. 22–25). (Neronian–early Flavian)

Bowl:

22. Sandy, hard, fairly fine grey fabric.

Jar:

23. Sandy, hard, fairly fine grey fabric. Cordon on shoulder.

Bowl:

24. Gritty, hard, fairly coarse fabric; grey-pink core, black surfaces. Smoothed external surface.

Jar:

25. Possibly shell-tempered, fairly hard, light grey fabric.

(ii) Occupation within the building: (Nos. 26–28). (Flavian)

(Nos. 29–50). (Flavian–Trajanic)

Jars:

26. Sandy, hard, coarse fabric; grey core with dark grey/brown surfaces. Burnished patches on exterior.

27. Sandy, hard, fairly fine pink-buff fabric. Smoothed externally on shoulder and inside rim.

28. Sandy, soft, fairly coarse fabric; red core, grey surfaces. Shallow groove on shoulder.

29. Very hard, fine red fabric. Green, rough-cast glaze on external surface.

30. Sandy, hard, fairly fine red fabric. Groove on shoulder. Burnished lattice below groove.

31. Sandy, hard, coarse light grey fabric. Burnished band on shoulder. Two grooves on neck.

32. Sandy, hard, coarse grey fabric. Burnished band below rim.

33. Sandy, hard, coarse grey fabric. Burnished band on neck.

Bowls:

34. Sandy, hard, fairly coarse fabric; grey core with oxidised red centre, grey surfaces. Two grooves below rim, surface smoothed between rim and grooves.

35. Sandy, hard, fairly coarse fabric; grey core with brown/black surfaces.

Dish:

36. Sandy, soft, fairly fine fabric; red core with grey surfaces.

Jar:

37. Sandy, hard, fairly fine grey fabric. Two grooves below rim. Black burnished slip on external surface.

Bowl:

38. Sandy, hard, fairly fine grey fabric. Groove on top of rim, shallow groove on edge of rim.

Jars:

39. Sandy, hard, fairly fine grey fabric. Two grooves on shoulder, one on rim.

40. Sandy, hard, fine grey fabric. Burnished black slip applied to external surface, running down internal surface.

Bowl:

41. Sandy, hard, fairly coarse grey-brown fabric. Groove on rim, two cordons on external surface below rim.

Jars:

42. Sandy, fairly hard, fairly coarse grey fabric.

43. Sandy, fairly hard, fairly coarse fabric; red-brown core with grey surfaces.

44. Sandy, hard, fairly fine fabric; grey core, orange-pink mica-dusted surfaces.

Mortaria:

45. Hard, coarse cream fabric; grits on internal surface.

46 and 47. Hard, coarse, pink-buff fabric. White grits, probably flint, on internal surface. Stamp ALBINUS across rim. For *Albinus* (c. 65–95 A.D.) see B. J. Philp, *Excavations in West Kent, 1960–70* (1973), 89; also H. Chapman and T. Johnson, "Excavations at Aldgate and Bush Lane", *Trans. London Middlesex Archaeol. Soc.*, 24 (1973), 39.

Cup:

48. Fairly soft, very fine cream fabric. Green-brown slip applied to surfaces, rough cast except on rim. Probably Lyons ware.

Bowl:

49. Sandy, hard, fairly coarse grey fabric. Two shallow grooves on external surface.

Jar:

50. Grogged, hard, coarse grey fabric.

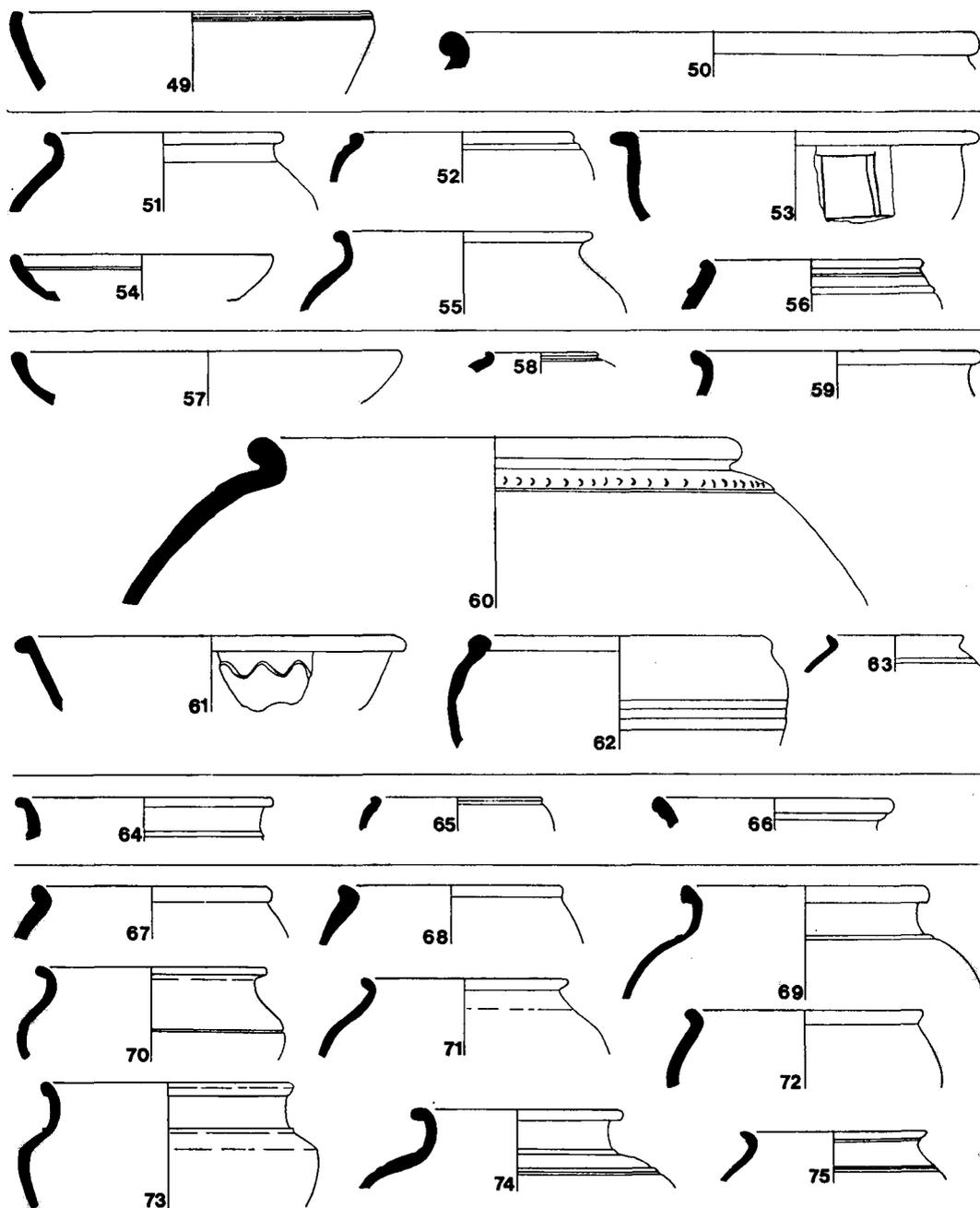


Fig. 24. Toppings Wharf; Roman pottery, 49-75 ($\frac{1}{4}$)

(c) ALLEY WEST OF BUILDING I, (Nos. 51-56, Fig. 24). (Flavian)

Jars:

- 51. Sandy, hard fairly fine fabric; grey core with black surfaces. Smoothed on external surface.
- 52. Sandy, hard fairly fine fabric; grey core with red surfaces. Groove on shoulder.

Bowl:

- 53. Sandy, hard, coarse fabric; grey core with orange-buff surfaces. Vertical burnished lines on external surface.

Dish:

- 54. Sandy, hard, fairly fine grey fabric. Two grooves below rim on internal surface.

Jars:

- 55. Sandy, hard, fairly fine, light grey fabric.
- 56. Sandy, hard, fairly coarse buff fabric. Shallow grooves below rim, with cordon beneath.

(d) ALLEY EAST OF BUILDING II. (Nos. 57-63, Fig. 24). (Flavian).

Dish:

- 57. Hard, fine fabric; white core with metallic grey, lightly burnished surfaces. Terra nigra.

Jars:

- 58. Sandy, hard, fine fabric; grey core with black surfaces. Narrow cordons below rim.
- 59. Sandy, soft, fairly fine fabric; red-brown core with grey surfaces. Smoothed band on shoulder.
- 60. Gritty, shell-tempered, hard, coarse fabric; brown core with grey/brown surfaces. Smoothed band on external surface below rim, with groove beneath. Row of fingernail impressions between smoothed band and groove.

Dish:

- 61. Sandy, hard, fairly fine grey fabric. Incised wavy line on external surface. Traces of white slip on body.

Jars:

- 62. Sandy, hard, fairly fine grey fabric. Two cordons round body.
- 63. Sandy, fairly hard, fairly fine pink-buff fabric. Two shallow grooves on shoulder.

(e) BUILDING II. Construction Phase. (Nos. 64-66, Fig. 24). (Early Flavian)

Jars:

- 64. Sandy, hard, fairly coarse grey fabric. Cordon and groove at base of neck.
- 65. Sandy, soft, fairly fine grey fabric.

Bowl:

- 66. Sandy, hard, fairly coarse, grey fabric.

(f) BUILDING III. Destruction Layers filling building. (Nos. 67-75, Fig. 24. Nos. 76-102, Fig. 25). (Trajanic).

Jars:

- 67. Gritty, hard, coarse fabric; dark grey core, with brown/dark grey pitted surfaces.
- 68. Grogged, with some grit inclusions, hard, coarse fabric, grey core, with light cream-brown surfaces.
- 69. Sandy, fairly hard, coarse fabric; grey core with dark grey surfaces. Cordon at base of neck.
- 70. Micaceous, sandy, hard, fairly coarse fabric; light grey core with dark grey surfaces. Incised line around girth.
- 71. Micaceous, sandy, hard, fairly coarse fabric; light grey core with darker grey surfaces. Broad burnished band at base of neck.
- 72. Gritty, fairly hard, coarse fabric; grey core with grey-brown surfaces.
- 73. Gritty, hard, fairly coarse fabric; light grey core with dark grey surfaces. Burnished on external surface. Cordon at base of neck.
- 74. Gritty, hard, fairly coarse fabric; light grey core, with dark grey surfaces, smoothed on external surface. Cordons at base of neck and on shoulder.
- 75. Micaceous, sandy, fairly hard, fine fabric; light brown core with reduced grey centre, dark grey surfaces. Burnished on external surface. Two parallel grooves around shoulder.

Bowls

- 76. Sandy, hard, coarse dark grey fabric. Two grooves on upper surface of rim.
- 77. Micaceous, sandy, hard, fairly coarse fabric; grey core with very dark grey surfaces.
- 78. Sandy, hard, coarse fabric; dark brown core with grey/light brown surfaces.
- 79. Sandy, hard, fairly fine fabric; mid-grey core with light brown surfaces. Two grooves on top of rim.

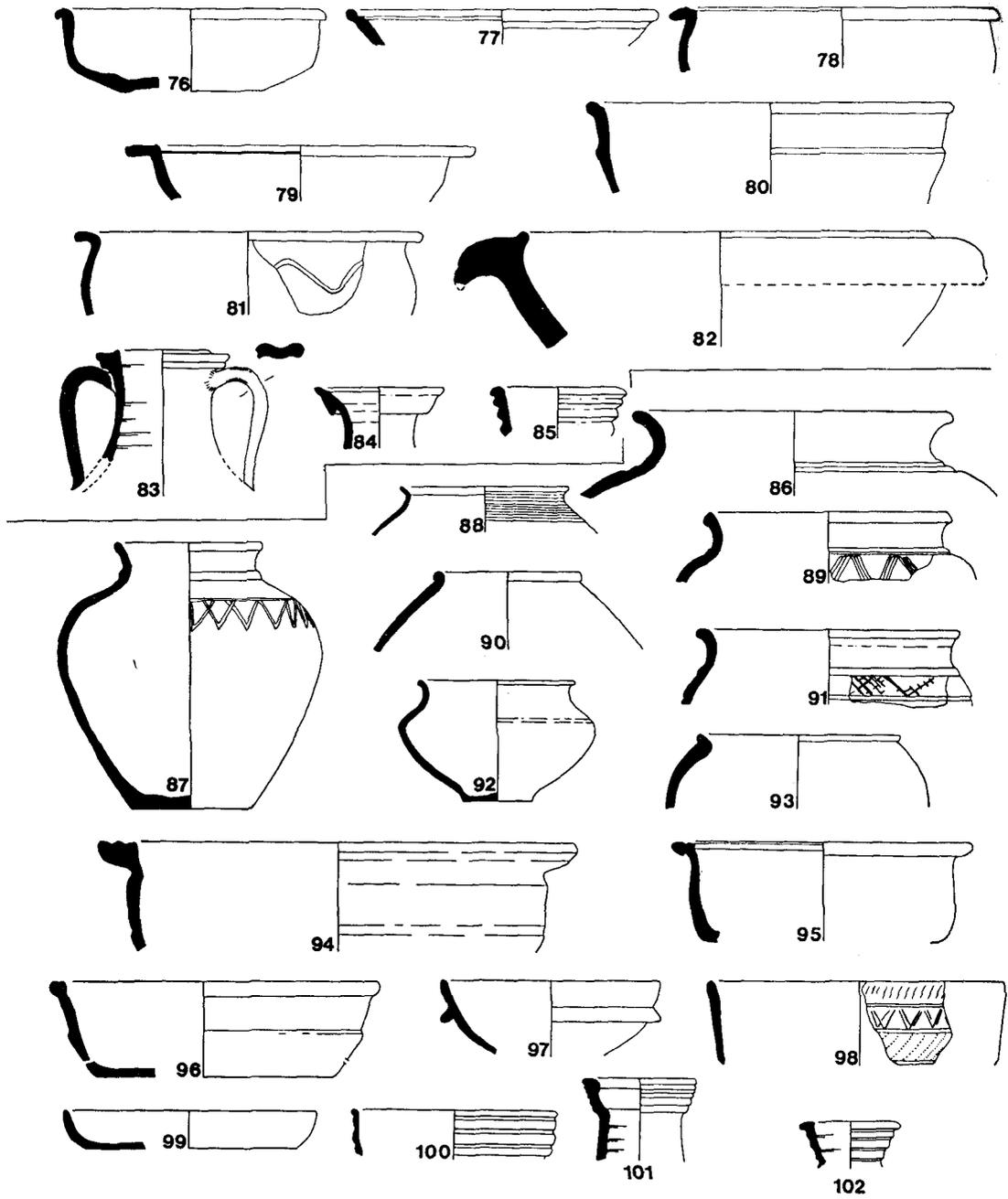


Fig. 25. Toppings Wharf; Roman pottery, 76-102 ($\frac{1}{4}$)

80. Sandy, hard, coarse dark grey fabric. Two grooves on top of rim.
81. Grogged, fairly hard, coarse fabric; grey core with darker grey surfaces. Incised wavy line around body.
Mortarium:
82. Sandy, with some grit inclusions, hard, coarse fabric; red core with brown/grey surfaces. Traces of white slip on both surfaces. Internal surface pitted and worn with few grits.
Flagons:
83. Gritty, hard, fairly coarse pink-buff fabric. Neck and body thrown separately.
84. Sandy, hard, fairly fine red-brown fabric. Cream slip applied to surfaces.
85. Gritty, fairly hard, coarse, pink fabric.
Jars:
86. Grogged, fairly soft, coarse fabric; grey core, dark grey-brown external surface, grey internal surface. Two grooves at base of neck.
87. Sandy, fairly hard, fairly fine fabric; red-brown core with grey/brown surfaces. External surface on neck smoothed. Cordon at base of neck, with band of burnished lines on shoulder.
88. Micaceous, sandy, hard, very fine fabric; light grey core with dark grey surfaces. Broad band of lightly incised lines below lip.
89. Micaceous, sandy, hard, fairly fine fabric, light grey core and internal surface, very dark grey external surface. Cordons at base of neck. Band of burnished lines on shoulder.
90. Grogged, hard, fairly fine fabric; pink core with reduced grey centre, dark grey surfaces.
91. Sandy, hard, fairly fine fabric; light grey core with darker grey surfaces. Cordons at base of neck and on shoulder with a very worn band of incised lattice between.
92. Sandy, hard, fairly fine fabric; light grey core with darker grey surfaces. Traces of burnishing on external surface. Light groove around girth.
93. Gritty, hard, very coarse fabric; grey core with very dark grey uneven surfaces.
Bowls:
94. Gritty, hard, coarse fabric; pink-buff core, with reduced grey centre, pink-buff surfaces. Two grooves on top of rim.
95. Sandy, hard, coarse grey fabric. Groove on top of rim.
96. Gritty, hard, coarse fabric; light grey core with dark grey surfaces. Groove on top of rim.
97. Sandy, fairly hard, fairly fine fabric; light grey core with dark metallic grey burnished surfaces. Terra nigra.
98. Micaceous, sandy, hard, fairly fine fabric; light grey core and internal surface, dark grey external surface. Two horizontal burnished lines dividing external surface into three zones, with two upper zones containing bands of incised lines, and lower zone a band of comb stabbing.
Dishes:
99. Sandy, hard, coarse fabric; orange core with reduced grey centre and red slip applied to surfaces. Imitation terra rubra.
100. Sandy, soft, fairly fine fabric; light brown core with dark grey surfaces. Three cordons on external surface.
Flagons:
101. Sandy, hard, fairly fine fabric; pink core with reduced grey centre, red surfaces. Cream slip applied to external surface.
102. Sandy, hard, coarse cream fabric.

(g) MASONRY BASED WALL BETWEEN BUILDINGS III AND IV. (Nos. 103-108, Fig. 26)

(i) Construction Phase (Nos. 103-105). (Neronian-early Flavian)

Jars:

103. Gritty, fairly hard, coarse, dark grey fabric.
104. Sandy, fairly hard, fairly fine fabric; grey core with darker grey surfaces. Groove around shoulder.

Bowl:

105. Fairly hard, fine grey fabric.

(ii) Possible Construction Phase. (Nos. 106-108). (Neronian-early Flavian)

Jars:

106. Micaceous, hard, fine fabric; red-brown core with grey/dark brown surfaces.
107. Fairly gritty, hard, fairly fine fabric; grey core with dark grey surfaces.
108. Gritty, hard, fairly coarse fabric; grey core, brown-grey internal surface, dark grey external surface. Lightly incised lines covering external surface below rim.

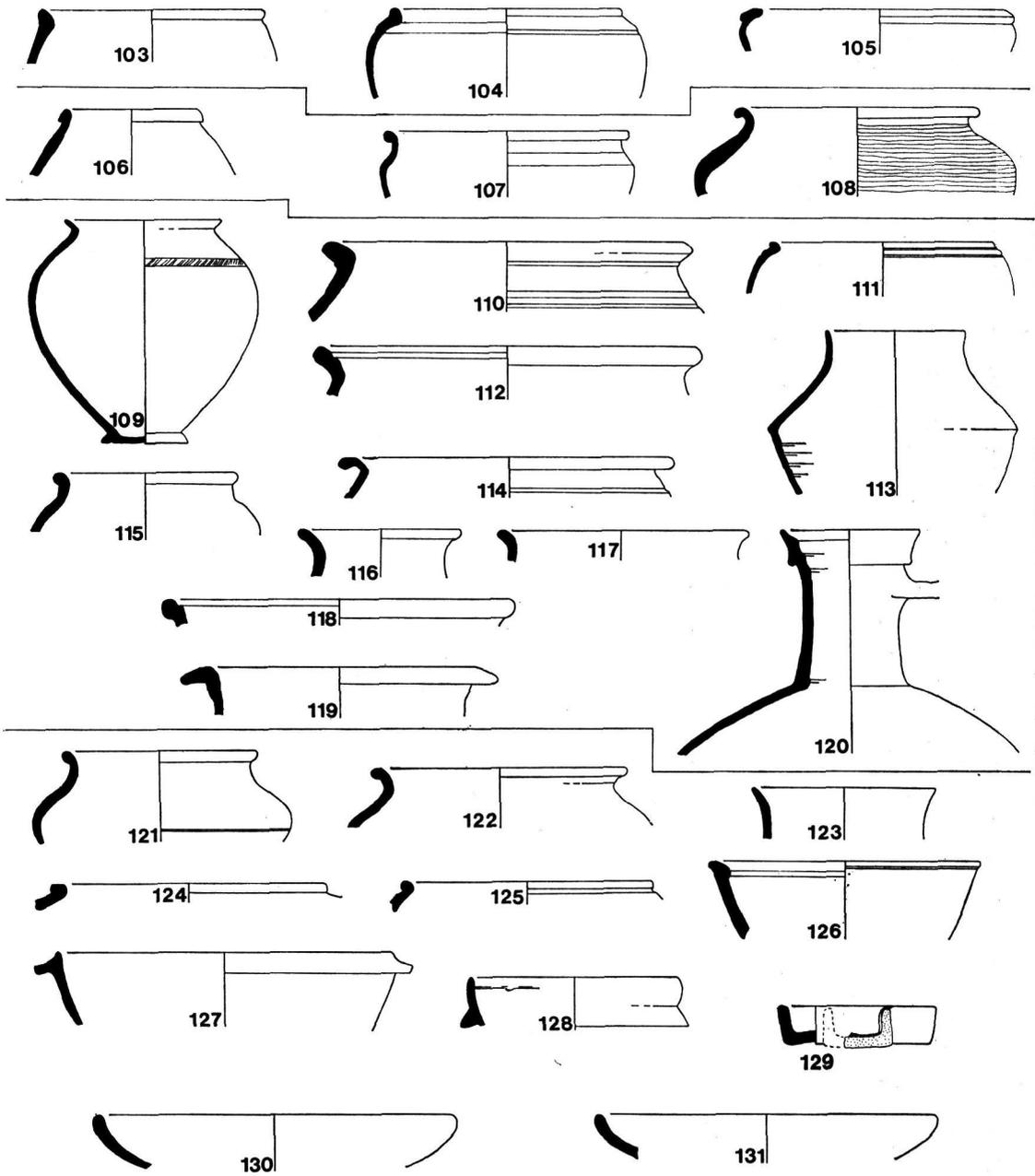


Fig. 26. Toppings Wharf; Roman pottery, 103-31 ($\frac{1}{4}$)

(h) BUILDING IV. (Nos. 109-131, Fig. 26)

(i) Deposits over earlier floors. (Nos. 109-120). (Flavian)

Jars:

- 109. Micaceous, sandy, hard, fairly fine fabric; red-brown core with reduced grey centre, dark grey surfaces. Band of incised lines on shoulder between two horizontal grooves.
- 110. Sandy, hard, coarse fabric; pink-buff core, light grey internal surface, very dark grey external surface. Cordon at base of neck.
- 111. Sandy, fairly hard, fairly coarse fabric; dark grey-brown core with dark grey surfaces. Cordon below rim.
- 112. Gritty, hard, fairly coarse fabric; grey core with dark grey surfaces. Groove on internal surface below lip.
- 113. Hard, fine grey fabric.
- 114. Micaceous, sandy, hard, fairly fine fabric; grey core with dark brown-grey surfaces.
- 115. Gritty, hard, coarse cream-grey fabric.
- 116. Gritty, hard, coarse fabric; dark grey core with red/dark grey surfaces.
- 117. Sandy, soft, fairly fine grey fabric. Lightly burnished external surface.

Bowls:

- 118. Sandy, hard, fairly coarse fabric; grey core with dark grey surfaces.
- 119. Micaceous, gritty, hard, fairly coarse fabric; light grey core with dark grey surfaces.

Flagon:

- 120. Sandy, hard, coarse cream fabric.

(ii) Later floor or floors of subsequent building. (Nos. 121-131). (Flavian)

Jars:

- 121. Gritty, hard, fairly coarse fabric; grey core, light grey internal surface, darker grey external surface. Groove around lower part of body.
- 122. Gritty, hard, coarse fabric; dark grey core, light grey internal surface, very dark grey external surface.
- 123. Sandy, hard, fairly fine dark grey fabric.
- 124. Shell-tempered, soft, very coarse fabric; grey core with pink-brown surfaces.
- 125. Sandy, hard, coarse fabric; light grey core with dark grey burnished surfaces.

Bowls:

- 126. Gritty, hard, coarse fabric; dark grey core with cream/grey/brown surfaces.
- 127. Gritty, hard, coarse fabric; light grey core with darker grey surfaces.
- 128. Hard, very fine fabric; light grey-white core with very dark grey surfaces. Terra nigra.

Lamp:

- 129. Very gritty, very hard white fabric.

Dishes:

- 130. Hard, very fine fabric; light grey core with very dark grey surfaces. Terra nigra.
- 131. Slightly gritty, hard, very fine fabric; cream-light grey core with light grey surfaces.

(i) BUILDING V. (Nos. 132-155, Fig. 27).

(i) Construction phase (Nos. 132-140). (Flavian)

Jars:

- 132. Sandy, hard, fairly coarse fabric; light grey core with darker grey surfaces. External surface and rim burnished. Cordon at base of neck.
- 133. Sandy, hard, fairly fine fabric; light grey core with darker grey surfaces. Lightly burnished on top of rim. Cordon at base of neck.
- 134. Sandy, hard, fairly fine fabric; mid-grey core and internal surface, darker grey external surface. Band of incised lattice on shoulder.
- 135. Sandy, hard, fairly fine fabric; light brown core and internal surface, dark grey external surface. Burnished on external surface and inside rim.
- 136. Sandy, hard, fairly fine fabric; light grey core with darker grey surfaces.
- 137. Sandy, hard, fairly fine fabric; dark grey core with light brown/dark grey surfaces. Burnished on external surface and inside rim. Two horizontal grooves below neck.
- 138. Gritty, hard, fairly fine fabric; light grey core with grey/light brown surfaces.
- 139. Gritty, hard, rather coarse red fabric.

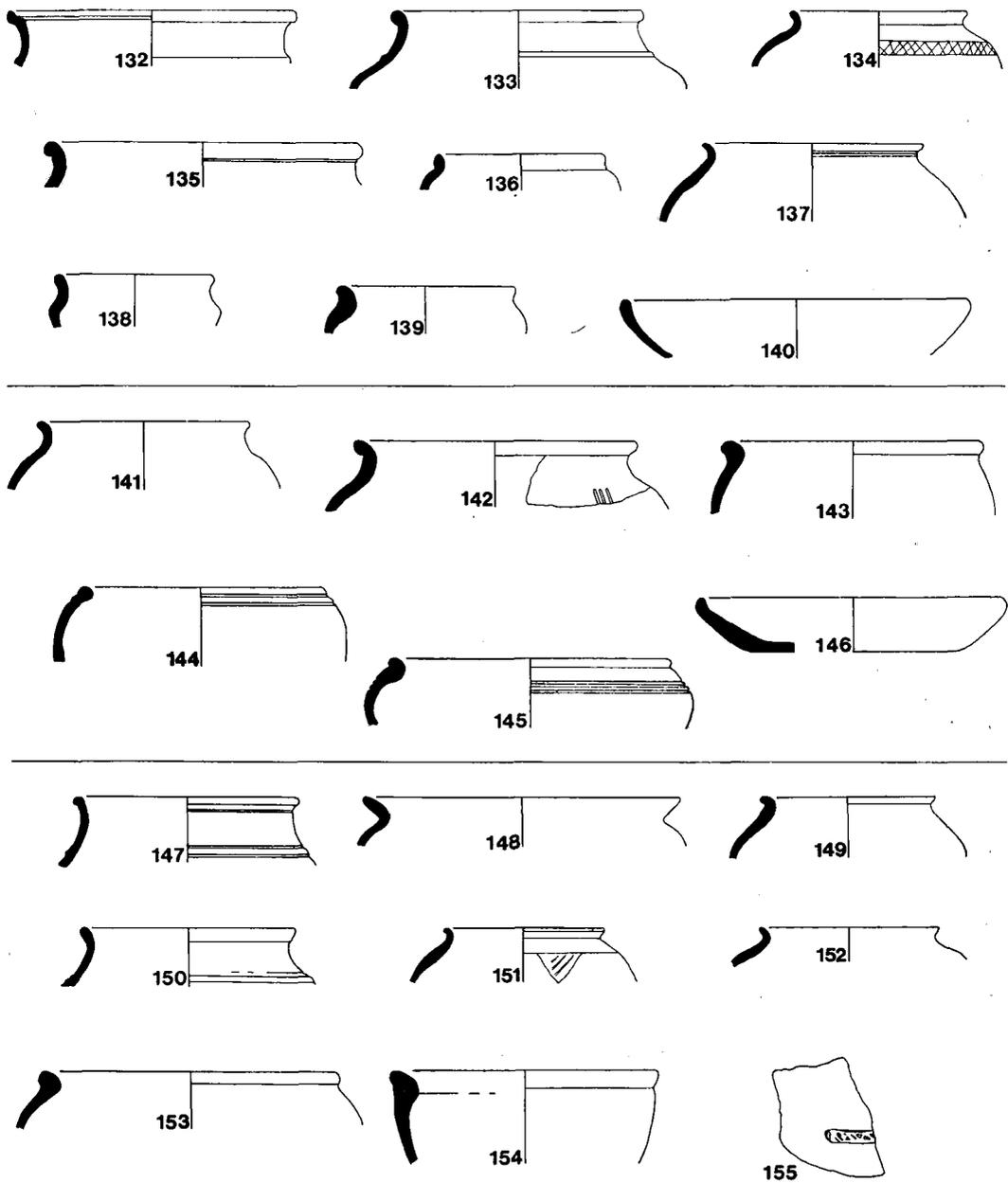


Fig. 27. Toppings Wharf; Roman pottery, 132-55 ($\frac{1}{4}$) except stamp ($\frac{1}{2}$)

Dish:

140. Hard, fine fabric; white core with very dark blue-grey surfaces. Terra nigra.

(ii) Occupation within the building. (Nos. 141-146). (Flavian).

Jars:

141. Micaceous, sandy, hard, fairly fine fabric; light brown core with reduced grey centre, grey surfaces. Traces of burnishing on neck.

142. Gritty, hard, fairly fine fabric; light grey core with darker grey surfaces. Burnished on rim and neck, with three burnished lines on shoulder.

143. Shell-tempered, hard, coarse fabric; light grey core, black internal surface, brown/black external surface.

144. Sandy, hard, fairly fine fabric; light grey core with dark grey surfaces. Burnished on external surface from rim to shoulder. Cordon below rim.

145. Sandy, hard, fairly fine dark grey fabric. Burnished on external surface and inside rim. Two cordons on shoulder.

Dish:

146. Sandy, hard, fairly fine fabric; light brown core with reduced grey centre, dark grey burnished surfaces.

(iii) Destruction Layers filling building. (Nos. 147-155). (Flavian-Trajanic)

Jars:

147. Sandy, hard, fairly fine fabric; white core with grey surfaces. Neck and internal surface inside rim burnished. Cordon at base of neck.

148. Sandy, hard, fairly fine grey fabric. Burnished dark grey slip on external surface and inside rim.

149. Sandy with some grit inclusions, hard, fairly fine fabric; light brown core with reduced grey centre, dark grey surfaces. Burnished on external surface.

150. Micaceous, sandy, hard, fairly fine fabric; grey core, grey external surface, grey-brown internal surface. Cordon at base of neck.

151. Sandy, hard, fairly fine fabric; grey core with light brown/red surfaces. Burnished on shoulder and lip. Three incised lines on shoulder.

152. Sandy, hard, fairly fine grey fabric. Burnished on external surface and inside rim.

153. Grit and grog-tempered, hard, coarse fabric; grey core with black surfaces.

Bowl:

154. Gritty, hard, coarse fabric; grey core with black/grey surfaces.

155. Part of a base with stamp on internal surface. Sandy, hard, rather coarse fabric; light grey core with dark grey surfaces. Sherd abraded.

(j) ALLEY BETWEEN BUILDINGS V AND VI. (Nos. 156-173, Fig. 28)

(i) Silt level prior to alley. (No. 156)

Bowl:

156. Sandy, hard, fairly coarse fabric; grey core with red surfaces. Two grooves on top of rim.

(ii) Alley. (Nos. 157-171). (Flavian)

Jars:

157. Sandy, hard, fairly fine fabric; grey core with darker grey surfaces. Groove inside the rim and cordon on shoulder.

158. Gritty, hard, coarse fabric; grey core with light grey/dark grey surfaces. Band of incised lines on shoulder.

159. Grogged, hard, coarse fabric; light grey core with darker grey surfaces.

160. Gritty, with some organic inclusions, hard, coarse fabric; light grey core, black external surface, grey internal surface.

161. Sandy, hard, fairly fine light grey fabric. Cordon on shoulder.

162. Sandy, hard, fairly fine, cream fabric. Cream slip applied to both surfaces.

163. Sandy, hard, fairly fine fabric; light grey core with darker grey surfaces. Lightly burnished on external surface and inside the rim. Groove inside rim and cordon on shoulder.

164. Gritty, hard, coarse fabric; light grey core with darker grey surfaces.

165. Hard, fairly fine fabric; light brown core with reduced grey centre, grey surfaces. Burnished on external surface and rim. Band of wavy combed lines between two grooves on shoulder.

166. Sandy, hard, fine fabric; grey core with darker grey surfaces. Grooved cordon at base of neck.

167. Sandy, hard, fine fabric; light brown core with grey surfaces. Lightly burnished on external surface. Grooves at base of neck and on shoulder.

168. Soft, fine fabric; dark grey core with orange surfaces.

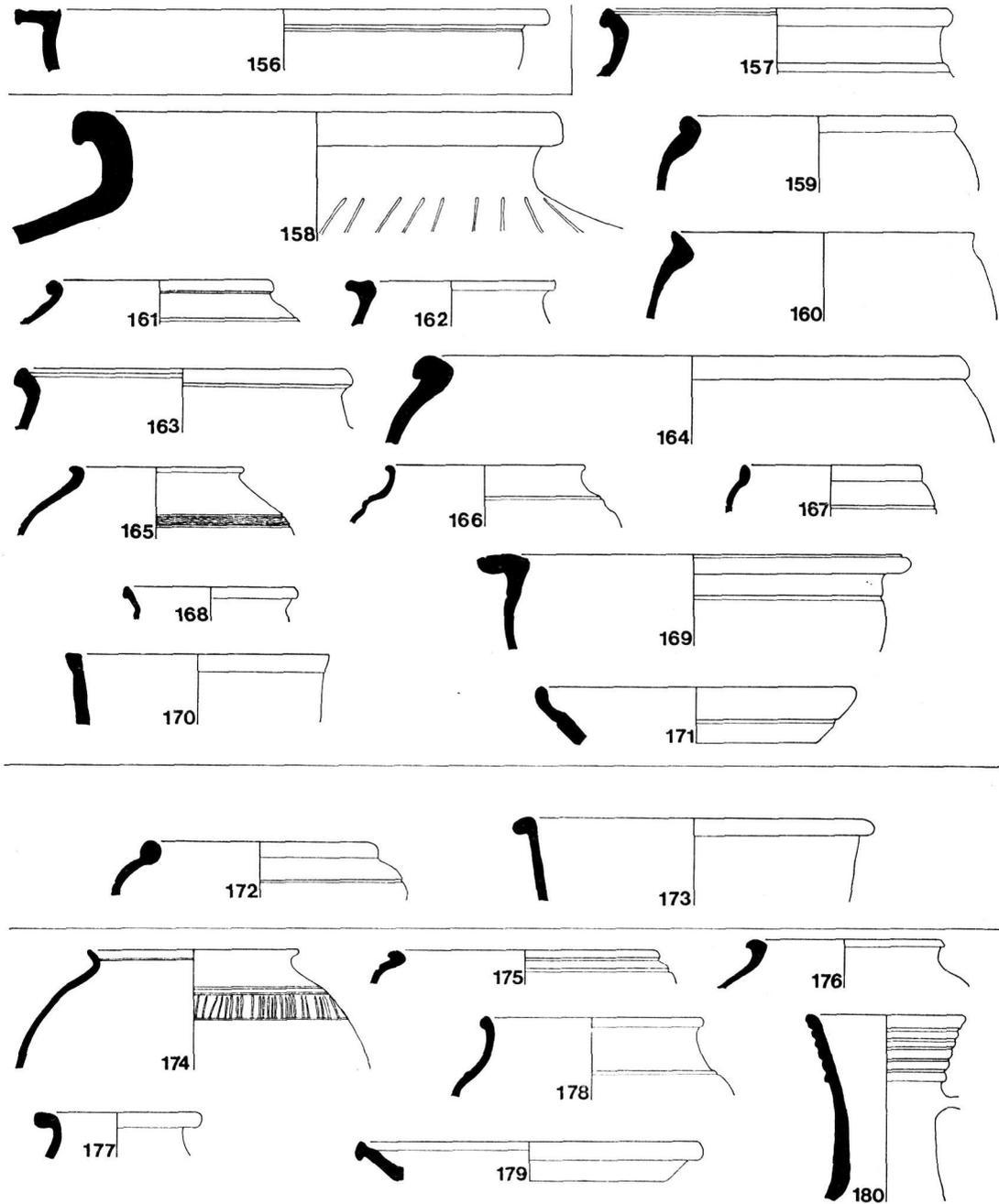


Fig. 28. Toppings Wharf; Roman pottery, 156-80 ($\frac{1}{4}$)

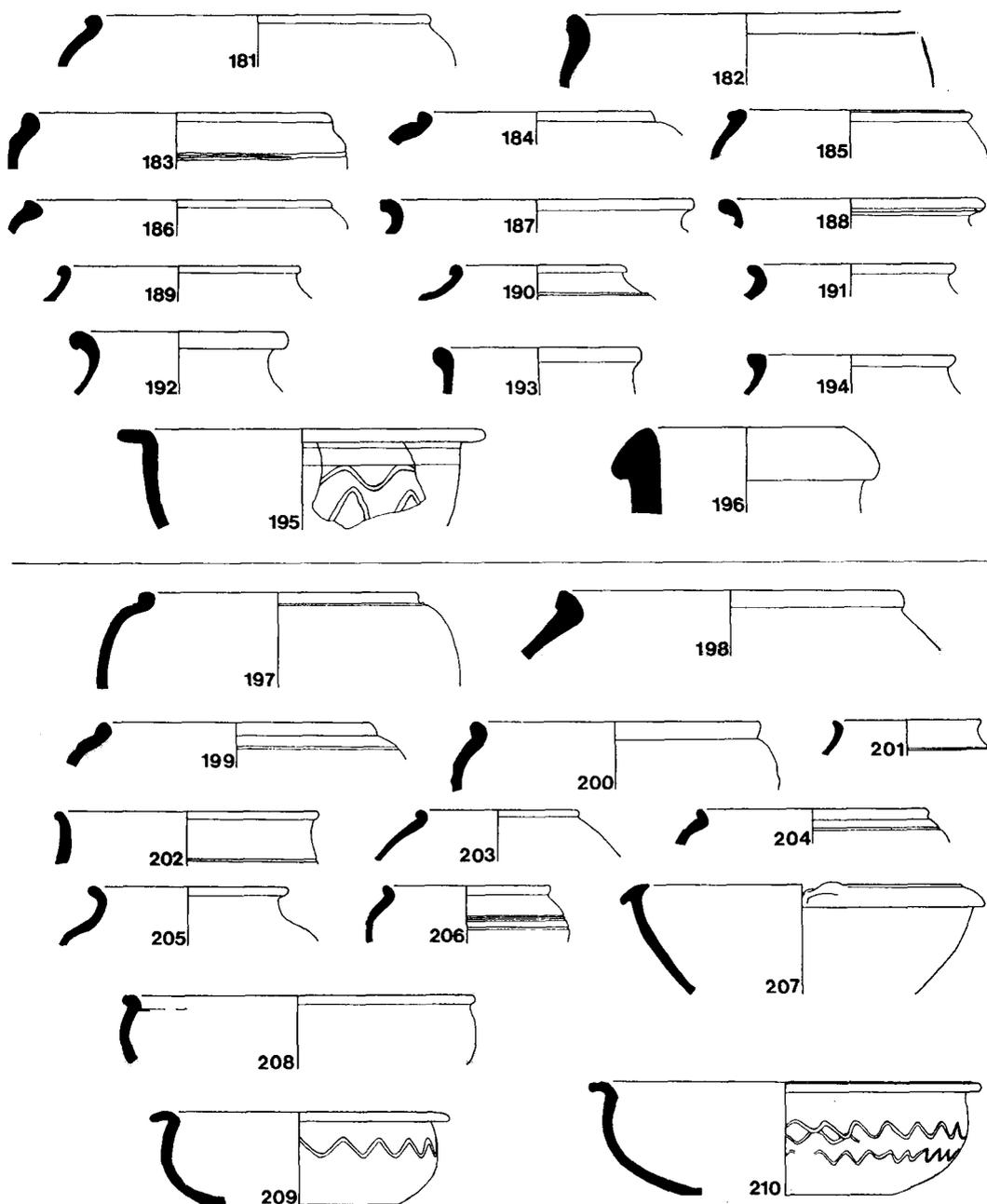


Fig. 29. Toppings Wharf; Roman pottery, 181-210 ($\frac{1}{4}$)

Bowls:

169. Sandy, hard, fairly fine fabric; white core with white/grey/black surfaces. Two grooves on top of rim and one groove on external surface below rim.
 170. Gritty, hard, fairly coarse fabric; light brown core with black surfaces. Roughly burnished on external surface.

Dish:

171. Micaceous, sandy, hard, fairly fine light grey fabric. Internal surface of rim lightly burnished. Shallow incised line below rim on external surface, and deep groove around body.
 (iii) Soil over alley. (Nos. 172-73). (Flavian-Trajanic)

Jar:

172. Sandy, hard, fairly fine fabric; light grey core with darker grey surfaces. Lightly burnished on rim and on external surface above shoulder groove.

Bowl:

173. Sandy, hard, fairly fine fabric; grey core with darker grey burnished surfaces.

(k) BUILDING VI. (Nos. 174-180, Fig. 28. Nos. 181-196, Fig. 29)

(i) Construction Phase (Nos. 174-180). (Early Flavian).

Jars:

174. Sandy, hard, fine fabric; light grey core with dark grey surfaces. Burnished on external surface and inside rim. Band of incised lines on shoulder between two horizontal grooves.
 175. Sandy, hard, fairly fine fabric; red core with reduced grey centre, dark brown surfaces. Lightly burnished on rim. Two horizontal grooves on external surface.
 176. Sandy, hard, fairly coarse fabric; grey core with grey/black surfaces.
 177. Sandy, hard, fairly fine fabric; dark grey core with black surfaces. Burnished on neck and lip.
 178. Hard, fairly coarse fabric; light grey core with red/grey/light brown surfaces. Burnished lightly on neck. Cordon on shoulder.

Dish:

179. Sandy, hard, fairly fine fabric; red/light brown core with grey, lightly burnished surfaces.

Flagon:

180. Sandy, hard, fairly fine red-buff fabric. Traces of cream slip on both surfaces.
 (ii) Occupation within the building. (Nos. 181-196). (Flavian).

Jars:

181. Grogged, hard, fairly coarse fabric; buff core with reduced grey centre, dark grey surfaces. Burnished on external surface and rim. Groove on top of rim.
 182. Gritty, hard, coarse fabric; light grey core with dark grey surfaces.
 183. Sandy, hard, fairly coarse fabric; light grey core with darker grey surfaces. Burnished on external surface. Roughly incised groove on shoulder.
 184. Shell-tempered, fairly hard, coarse light brown/grey fabric.
 185. Gritty, hard, fairly coarse fabric; buff core with grey reduced centre, grey surfaces. Lightly burnished on external surface.
 186. Gritty, hard, fairly coarse fabric; light grey core with dark grey surfaces.
 187. Sandy, hard, fairly fine fabric; light grey core with darker grey surfaces.
 188. Sandy, hard, fine fabric; red core with dark grey surfaces. Burnished on lip. Groove under rim.
 189. Sandy, hard, fairly fine fabric; light grey core with darker grey surfaces. Burnished on external surface and inside rim.
 190. Sandy, hard, fairly fine fabric; grey core with red surfaces. Cordon at base of neck.
 191. Sandy, hard, fairly fine grey fabric. Burnished on external surface and inside rim.
 192. Sandy, hard, fairly fine fabric; light grey core with dark grey surfaces.
 193. Sandy, hard, fairly fine fabric; buff core with grey-brown surfaces. Burnished on external surface.
 194. Sandy, hard, fairly fine grey fabric.

Bowl:

195. Sandy, hard, fairly coarse grey/brown fabric. Burnished on rim, with burnished band beneath rim. Two incised wavy lines beneath burnished band.

Amphora:

196. Gritty, hard, coarse fabric; orange core with light brown surfaces.

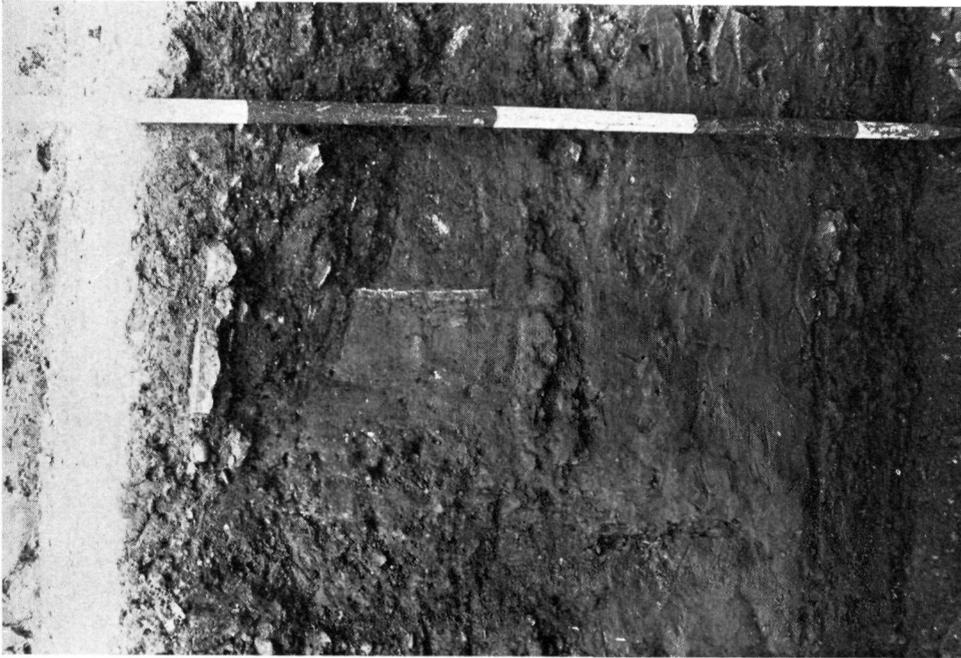


Plate 1. The northern internal clay wall of Building III with plaster facing the clay. Scale in feet



Plate 2. The western internal clay wall of Building III shown in plan. In the section at the top is seen the northern wall, overlaid by rubbish tipped into the disused building. Scale in feet.

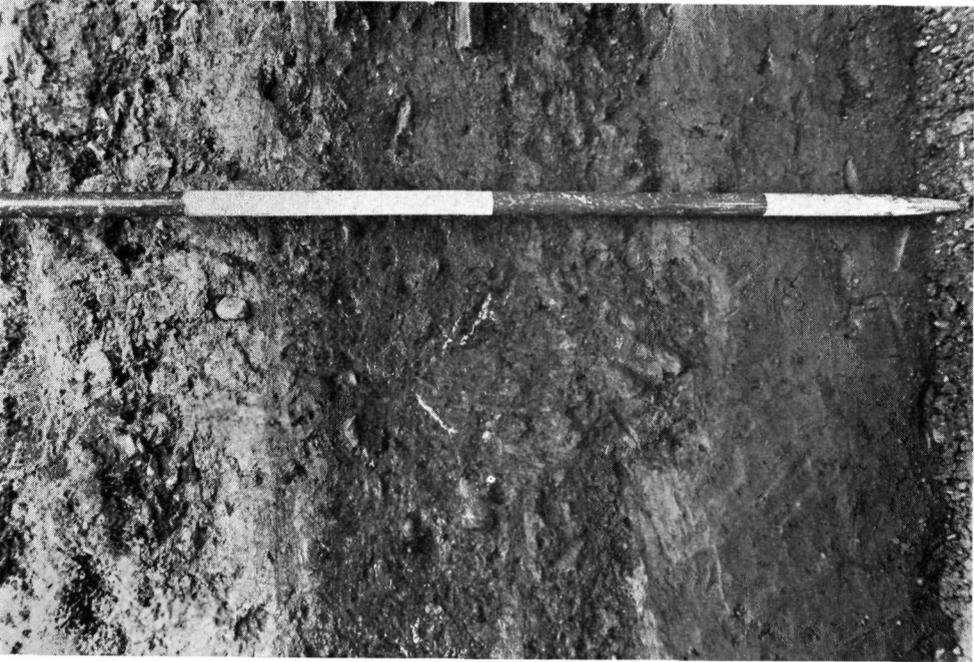


Plate 3. The western internal clay wall of Building III with a possible underlying beam-slot. Scale in feet.



Plate 4. The wooden shuttering of the Roman well. Part of the clay lining is shown to the right of the ranging pole. To the left a modern concrete pillar foundation has intruded into the higher part of the well. Scale in feet. (Photo: M. V. Conlon)

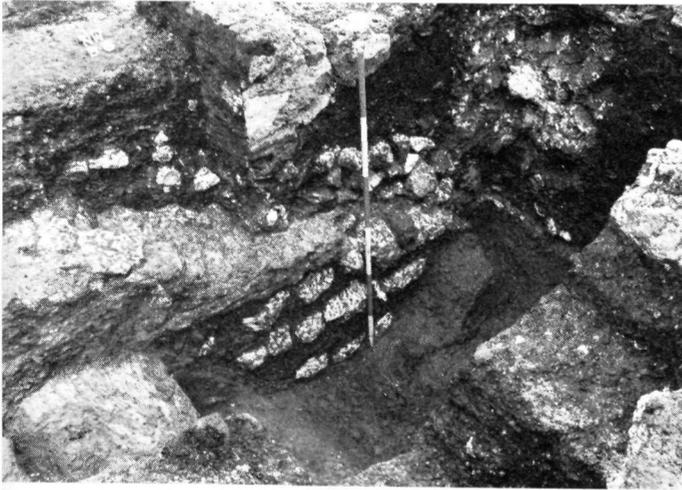


Plate 5. The eroded foundations of Building VII's eastern wall overlaid by debris and the post-erosion earth deposits. The ranging pole stands on the northern side of the Roman ditch, the profile of which has been retained in excavation. Scale in feet.



Plate 6. The north, south and western walls of Building X, with a section through the cellar floor shown behind the nearest ranging pole. Scale in feet.

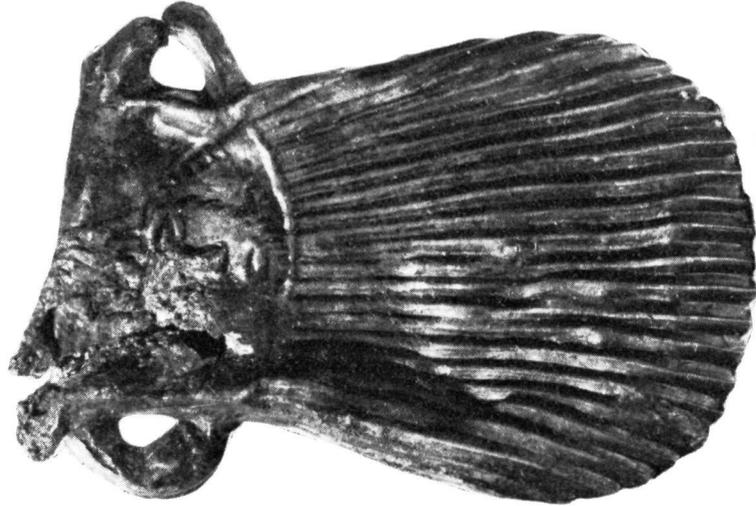


Plate 7. The pewter ampulla, twice actual size

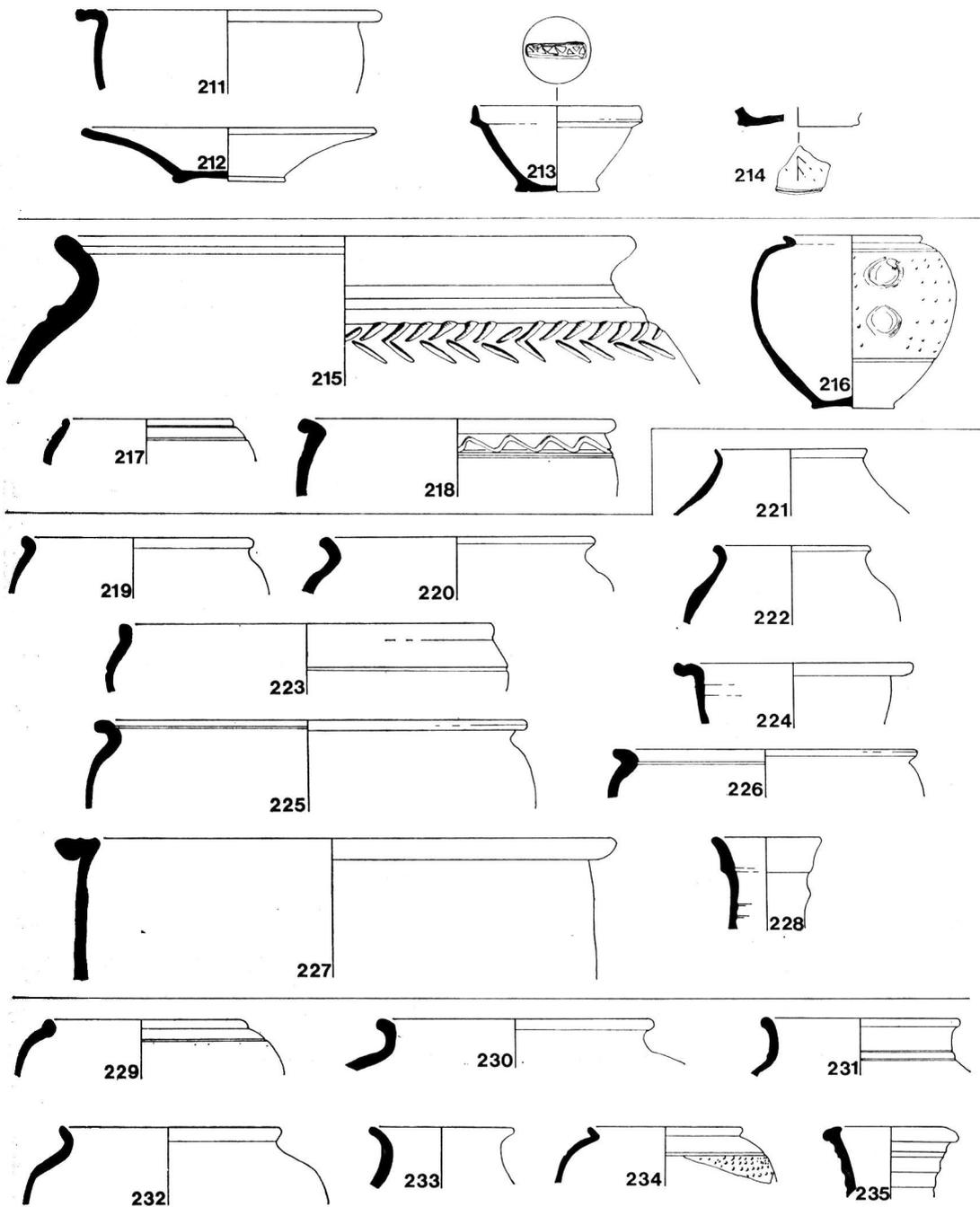


Fig. 30. Toppings Wharf; Roman pottery, 211-35 ($\frac{1}{4}$) except stamp ($\frac{1}{2}$)

(l) AREA EAST OF BUILDING V: Probably later than the destruction of the building (Nos. 197-210, Fig. 29. Nos. 211-214, Fig. 30) (Flavian-Trajanic).

Jars:

- 197. Sandy, hard, fairly coarse fabric; light grey core with dark grey surfaces. Burnished on external surface. Cordon beneath rim.
- 198. Gritty, hard, coarse grey fabric.
- 199. Sandy, soft, fairly fine fabric; red-brown core with reduced grey centre, black surfaces. Burnished on external surface and top of rim. Groove on shoulder.
- 200. Gritty, hard, coarse, grey fabric. Burnished on top of rim.
- 201. Sandy, hard, fairly fine grey fabric. Cordon at base of neck. Light grey burnished slip applied to external surface, and running down internal surface. Possibly a "poppy beaker".
- 202. Sandy, hard, fairly coarse fabric; light grey core with brown surfaces. Burnished on external surface and inside rim. Groove at base of neck.
- 203. Sandy, hard, fairly fine fabric; buff core with grey surfaces. Burnished on external surface and inside rim.
- 204. Sandy, hard, fairly fine fabric; grey core with pink-light brown surfaces. Groove on external surface below rim.
- 205. Sandy, hard, fairly coarse grey fabric. Burnished on rim and neck.
- 206. Sandy, hard, fairly coarse fabric; orange core with reduced grey centre, grey surfaces. Burnished on rim, with two horizontal burnished lines above shoulder. Three horizontal incised lines on and below shoulder.

Bowls:

- 207. Possibly a small mortarium. Soft, fine fabric; red core with reduced grey centre. White slip applied internally and externally, with fine sand added to slip on internal surface.
- 208. Shell-tempered, hard, coarse fabric; grey core with red surfaces.
- 209. Grogged, vesicular, soft, fairly coarse fabric; grey core, grey internal surface, grey/orange external surface. Groove on top of rim. Incised wavy line below rim.
- 210. Grogged, vesicular, hard, fairly coarse fabric; grey core and internal surface, grey/brown external surface. Groove on top of rim. Two horizontal incised wavy lines below rim.
- 211. Sandy, hard, fairly fine fabric; light grey core with darker grey surfaces. Two grooves on top of rim.

Dish:

- 212. Sandy, soft, fairly fine fabric; orange core with reduced grey centre, dark grey surfaces. Two horizontal burnished lines on internal surface, burnished band near base on external surface.

Bowl:

- 213. Sandy, hard, fine fabric; light brown-grey core with darker grey surfaces. Illiterate stamp within incised circle on upper surface of base.
- 214. Part of base. Sandy, hard, fairly coarse fabric; light grey core with dark grey surfaces. Incised graffito on lower surface of base.

(m) PIT 3. (Nos. 215-218, Fig. 30). (Flavian: at least Trajanic on stratigraphic evidence)

Jars:

- 215. Gritty, hard, coarse fabric; grey core and internal surface, smoothed buff-brown external surface. Cordon at base of neck, with band of incised chevrons below it.
- 216. Sandy, hard, fairly coarse, pink-cream fabric. Broad bands of barbotine dots and trailed circles of barbotine on external surface, between two shallow horizontal grooves. "Poppy beaker".
- 217. Sandy, hard, fairly fine fabric; light brown core with reduced grey centre, black surfaces. Two grooves below rim.
- 218. Gritty, hard, fairly coarse fabric; light brown core with reduced grey centre, darker brown surfaces. Cordon below rim on external surface, with horizontal incised wavy line above.

(n) POST-PIT 7. (Nos. 219-228, Fig. 30). (Flavian)

Jars:

- 219. Gritty, fairly hard, coarse fabric; dark grey core with very dark grey surfaces.
- 220. Shell-tempered, gritty, fairly hard, very coarse fabric; grey core with dark grey surfaces.
- 221. Hard, fine fabric; brown-grey core with dark grey surfaces.
- 222. Micaceous, hard, very fine fabric; dark brown core with dark grey-brown surfaces.
- 223. Gritty, hard, fairly coarse fabric; brown-red core with dark grey surfaces. Groove on shoulder.

Bowls:

224. Gritty, fairly soft, coarse red fabric. Groove on top of rim.
 225. Grogged, gritty, fairly hard, coarse fabric; grey core with dark grey surfaces. Deep groove on internal surface inside rim.
 226. Gritty, hard, coarse fabric; grey core with darker grey-brown surfaces. Groove on internal surface below rim.
 227. Sandy, hard, coarse grey-cream fabric. Two grooves on top of rim. Some sooting on external surface.

Flagon:

228. Gritty, hard, coarse pink-buff fabric.

(o) PIT 9. (Nos. 229-235, Fig. 30. Nos. 236-238, Fig. 31). (Flavian-Trajanic)

Jars:

229. Sandy, hard, fairly coarse fabric; brown core with grey-brown surfaces. Burnished on external surface below rim. Groove on shoulder.
 230. Sandy, hard, fairly coarse fabric; light brown core, with reduced grey centre, dark grey surfaces. Burnished on external surface and top of rim.
 231. Sandy, hard, fairly coarse fabric; light brown core with reduced grey centre, surfaces dark grey. Burnished on external surface and inside rim. Cordon at base of neck.
 232. Micaceous, sandy, hard, fairly fine fabric; light brown core with reduced grey centre, dark grey surfaces.
 233. Sandy, hard, fairly fine fabric; light grey core with dark grey surfaces. Burnished on external surface and inside rim.

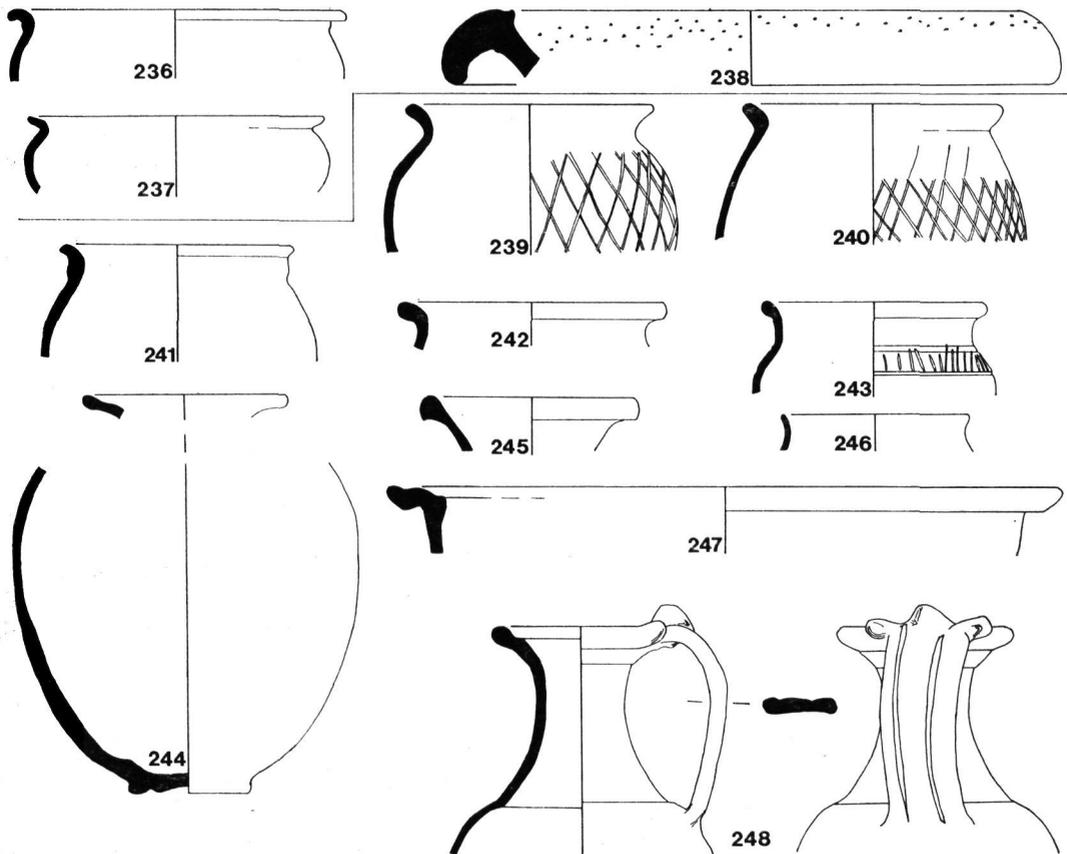


Fig. 31. Toppings Wharf; Roman pottery, 236-48 ($\frac{1}{4}$)

234. Soft, fine pink fabric. Light brown slip applied to external surface. Horizontal groove on shoulder with uneven rows of cream barbotine dots beneath it. "Poppy beaker".
Flagon:
235. Sandy, hard, fairly coarse fabric; cream-pink core and external surface, cream internal surface.
Bowls:
236. Sandy, soft, coarse fabric; light grey-brown internal surface and dark brown external surface.
237. Soft, fine, grey fabric, surfaces burnt.
Mortarium:
238. Sandy, fairly soft, coarse cream fabric. Grits on internal surface of body and upper surface of rim.

(p) WELL. (Nos. 239-248, Fig. 31). (First half of second century)

- Jars:*
239. Sandy, hard, fairly fine fabric; light grey core with darker grey surfaces. Burnished white slip applied to external surface down to shoulder and inside rim. Burnished lattice on external surface.
240. Micaceous, sandy, hard, fairly fine fabric; grey-brown core with light grey surfaces. Dark grey slip applied to external surface and inside rim, burnished on shoulder and rim. Burnished lattice on external surface below shoulder.
241. Sandy, hard, fairly coarse fabric; dark grey core with black surfaces. Lightly burnished band on shoulder.
242. Sandy, hard, fairly coarse fabric; grey-cream core and surfaces, reduced to grey on outer edge of rim. Traces of soot on external surface.
243. Sandy, hard, fairly fine grey fabric. White slip applied to external surface and inside the rim, burnished on rim, neck and lower part of body. Band of burnished lines between cordon at base of neck and shoulder groove.
244. Sandy, hard, fairly fine red-brown fabric. Mica-dusted external surface.
245. Sandy, hard, fairly fine red-brown fabric.
246. Sandy, hard, fine grey fabric. Burnished light grey slip applied to both surfaces.
Bowl:
247. Sandy, hard, fairly fine fabric; pink-brown core and surfaces, reduced to grey on the rim. Two grooves on top of rim.
Flagon:
248. Micaceous, fairly soft, fine fabric; grey core, orange external surface and inside the rim, the rest of the internal surface grey with orange streaking. Three knobs of clay applied to join between rim and handle. Surface of handle, knobs and area of body around base of handle very gritty.

3. ANALYSIS:

An analysis of the forms, fabrics and decoration of the illustrated pottery had been based on 242 of the drawn examples, and the results are given below, together with the findings from a similar analysis carried out on the total number of sherds from a selected area of the site (T.14).

FORMS:

The majority of illustrated vessels were jars (63%), which, with beakers (4%), accounted for two-thirds of the total. Of the minority forms, bowls (19%) and dishes (6%) comprised the only other large group. Other forms represented were minimal: flagons (5%), mortaria (2%) and amphorae (1%).

FABRICS:

In the analysis of fabrics represented in the drawn pottery, surface colours and inclusions in the clay were examined. These inclusions were probably for tempering, although sand and grit can occur naturally in clay.

Sand (73%) and grit (18%) were by far the most common inclusions. The numbers of vessels tempered with grog (6%) and shell (3%) were minimal, while vegetable inclusions

were found in only 1% of the vessels, always with some other form of temper. Only neckless jars, bead-rim jars and one bead-rim bowl were shell-tempered.

A grey surface colour, caused by reduction, was the most common, occurring on three-quarters of the published vessels, and was found on the majority of jars, bowls and dishes; none of the flagons, mortaria or amphorae were reduced. About a tenth of the vessels had an oxidised orange or red surface colour, while only about a twentieth were white or buff.

T.14. POTTERY ANALYSIS:

The early Roman pottery (Flavian/Flavian-Trajanic) associated with Building I and the alley was also examined. All sherds were classified according to colour of section, temper and hardness of fabric.

1. Colour was determined by the colour of the fabric in cross-section:

(a) Red; (b) Grey or black; (c) White or cream.

2. Extraneous material included in the clay (sherds were double counted if more than one temper was apparent):

(a) Sand; (b) Grit; (c) Grog; (d) Shell.

3. Degree of hardness was established by the impression which could be made by a finger nail.

The results of the analysis of sherds clearly showed a similarity to the results obtained in the analysis of the drawn vessels. Although "hardness" was not included in the latter, an examination of the vessel descriptions shows that overall only 10% were defined as "soft".

		<i>Drawn Vessels</i> (242)	<i>Sherds</i> (889)
		%	%
Colour	Grey	75	68
	Red	12	15
	Buff	7	17
	White	6	
Temper	Sand	73	84
	Grit	18	17
	Grog	6	2
	Shell	3	2
Hardness	Hard	90	94
	Soft	10	6

DECORATION:

Of the drawn vessels, 35% appeared undecorated, although in some cases very little of the body had survived.

The most common type of decoration was a burnish (34%), although this is perhaps better described as a finish. In about half of these vessels the burnish was accompanied by some other form of decoration. Of the minority varieties, simple grooves (24%), cordons (14%) and slip (9%) were the only large groups. Other types of decoration occurred only on small numbers of the drawn vessels: bands of incised lines (5%), bands of burnished lines (3%), bands of combing (2%), mica dusting, lattice and barbotine (1% each). There was only one glazed rim. The comparative rarity of these types of decoration again could

be due to the fact that on some vessels, little more than the rim has survived. On bead rim jars only burnished grooves and cordons were used, while the only decoration applied to flagons and mortaria appears to have been slip.

INCLUSIONS BY VESSEL FORM

	Total	Jars	Bowls	Dishes	Flagons	Beakers	Mortaria	Amphorae
Sand*	177	106	32	14	8	10	6	1
Grit	43	28	10	1	3	0	0	1
Grog	15	11	4	0	0	0	0	0
Shell	7	6	1	0	0	0	0	0
TOTAL	242	151	47	15	11	10	6	2

*Sand includes the 20 vessels which had no visible inclusions or which contained only mica.

SURFACE COLOUR BY VESSEL FORM

	Total	Jars	Bowls	Dishes	Flagons	Beakers	Mortaria	Amphorae
Grey	182	126	38	14	0	4	0	0
Red	30	15	3	1	6	2	2	1
White	14	4	2	0	3	1	3	1
Buff	16	6	4	0	2	3	1	0
TOTAL	242	151	47	15	11	10	6	2

4. A NOTE ON SOURCES:

As Joanna Bird has indicated (*Trans. London Middlesex Archaeol. Soc.*, 24 (1973), 39), at present knowledge of pottery production centres supplying London in the late first century A.D. is limited. Evidence from the sites in the City of London is minimal. The only kilns in close proximity to the city, known to have supplied the London market are those at Highgate Wood. Although Highgate products have been identified from Southwark sites, they seem in general to be limited to second century A.D. contexts, and it seems probable that what survives of the early Roman settlement at Toppings Wharf was too early to have used the kilns at Highgate Wood as a major source for coarse pottery. Very few of the drawn vessels can be attributed to these kilns; the grogged bowls with wavy line decoration (81, Trajanic; 209 and 210, Flavian-Trajanic) were possibly made at Highgate, although in form only one (81) bears a strong resemblance to Highgate material. (See *London Archaeol.* 1, 38, 150, 300). Of the finer grey wares, the beakers (201, Flavian-Trajanic; 246, first half second century) could also be Highgate products, although the out-turned rim of 201 is not typical of Highgate wares. These kilns also produced grogged bead-rim jars; Nos. 9, 68, 153, 159 and 181 are all possible Highgate products, but this attribution is not at all certain.

Other kilns close to London which could have supplied the settlement at Toppings Wharf were those on Watling Street at Brockley Hill. It is possible that the flagons (180, Early Flavian; 21, 120, 228, Flavian; 235, Flavian-Trajanic; 102, 83, 85, Trajanic) and the reed-rimmed bowl (94, Trajanic) were produced at this site.

DECORATION BY VESSEL FORM

	Jars									
	Total	Necked	Un-necked	Bead-rim	Bowls	Dishes	Flaggons	Beakers	Mortaria	Amphorae
Total number of vessels	242	86	30	35	47	15	11	10	6	2
Undecorated	84	20	13	13	16	6	8	2	4	2
Burnished area	83	41	12	14	8	5	0	3	0	0
Groove	57	16	6	10	19	2	0	4	0	0
Cordon	34	22	3	4	2	1	0	2	0	0
Slip	22	5	3	0	3	2	3	4	2	0
Incised band	12	5	1	0	5	1	0	0	0	0
Burnished line band	6	5	0	0	1	0	0	0	0	0
Incised line	8	6	0	0	1	1	0	0	0	0
Combed band	5	2	1	0	1	0	0	1	0	0
Mica-dusted	3	1	0	0	1	1	0	0	0	0
Burnished lattice	2	0	2	0	0	0	0	0	0	0
Barbotine	2	0	0	0	0	0	0	2	0	0
Glaze	1	0	0	0	0	0	0	1	0	0
TOTAL DECORATIONS	319	123	41	41	57	19	11	19	6	2

E.V. MEDIEVAL AND TUDOR POTTERY

BY CLIVE AND JEAN ORTON AND PAT EVANS

List of excavation reports referred to:

Note: BROB stands for *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek*.

- Aardenburg 1962*: J. A. Trimpe Burger, "Ceramië uit de bloeitijd van Aardenburg", *BROB* 12-13 (1962-63), 495-548 (A).
Aardenburg 1965: J. A. Trimpe Burger, "Korte vondstberichten uit Aardenburg II", *BROB* 15-16 (1965-66), 211-220 (A).
Basing House: S. Moorhouse, "Finds from Basing House (c. 1540-1645): Part I", *Post-Medieval Archaeol.*, 4 (1970), 31-91 (BH).
Borough: D. J. Turner, "A Late Medieval and Post-Medieval Pottery Sequence from 199 Borough High Street, Southwark", *Surrey Archaeol. Colls.*, 68 (1971), 97-107 (S).
Brighton: G. C. Dunning, "Report on Pottery from a Ditch under Balsdean Chapel", *Sussex Archaeol. Colls.*, 91 (1953), (Ba).
Eynsford Castle: S. E. Rigold, "Eynsford Castle and its Excavations", *Archaeol. Cantiana*, 86 (1971), 109-72 (E).
Farnham Castle: S. Moorhouse, "Two Late- and Post-Medieval Pottery Groups from Farnham Castle", *Surrey Archaeol. Colls.*, 68 (1971), 39-55 (FC).
Guildford Park Farm: A. G. Crocker, "Excavations at Guildford Park Farm", *Surrey Archaeol. Soc. Bulletin*, No. 96 (1973) (G).
Hangleton: E. W. Holden, "Excavations at the Deserted Medieval Village of Hangleton, Part I", *Sussex Archaeol. Colls.*, 101 (1963), 54-181 (H).
Middelburg: J. A. Trimpe Burger, "Een oudheidkundig onderzoek in de Abdij te Middelburg in 1961", *BROB*, 14 (1964), 97-132 (M).
Northolt: J. G. Hurst, "The Kitchen area of Northolt Manor, Middlesex", *Medieval Archaeol.*, 5 (1961) (N).
Southwark: K. M. Kenyon, "Excavations in Southwark 1945-47", *Research Papers of Surrey Archaeol. Soc.*, No. 5 (S).
Spangen: J. G. N. Renaud, "Middelleeuwse Gebruiksvoorwerpen, Spangen (Zuid-Holland)", *BROB*, 3 (1952), 53-62 (Sp).
Ter Does: J. G. N. Renaud, "Ter Does: ein Rundling des 13 Jahrhunderts Prov. Zuid-Holland", *BROB*, 5 (1954), 137-153 (T).
Waltham Abbey 1970: P. J. Huggins, "Waltham Abbey, Monastic Site and prehistoric evidence 1953-67", *Trans. Essex Archaeol. Soc.*, 3rd series 2 (1970), 216-66 (WA).
Waltham Abbey 1973: P. J. Huggins, "Excavations at Waltham Abbey 1970-72", *Trans. Essex Archaeol. Soc.*, 3rd series (1973) (WA).
Westminster: J. G. Hurst, "A late medieval pit at Westminster Abbey", *Antiq. J.*, 40 (1960), 188-94.
Winchester: B. Cunliffe, "Winchester Excavations 1949-1960, 1 (1964) (W).
Writtle: P. Raltz, "King John's Hunting Lodge at Writtle, Essex", *Soc. Medieval Archaeol. Monograph*, 3 (1969) (Wr).
Zandenburg: J. G. N. Renaud, "Zandenburg, Zealand", *BROB*, 7 (1956), 95-108 (Z).

INTRODUCTION:

This report is in five sections, dealing with pottery from (i) pre-erosion medieval levels, (ii) the erosion levels, (iii) the deposition levels, (iv) the late medieval features above the deposition, and (v) the "Tudor" levels.

Each section starts with a description of the fabrics represented; a coding system is employed for the broad fabric groups, new categories are introduced as they appear. Exceptional sherds which do not fit any of the categories are called "M" (miscellaneous) and are described individually.

A table follows showing the quantities of each fabric (in terms of the estimated number of vessels represented). Some vessels are represented in more than one layer, and are therefore over-counted. However, a fair idea of the *relative* proportions should be given. The presence of residual Roman pottery is denoted by a "P".

Individual descriptions of drawn and other notable sherds come next; conventions used in the descriptions are: (i) colour: a hyphen indicates an intermediate colour; while a solidus (/) indicates a mixture of colours (*e.g.* red-brown means a colour between red and brown, red/brown means red in parts and brown in parts); (ii) hardness: "hard" means "cannot be scratched with the thumb nail", "soft" the opposite, and "fairly hard" that considerable effort is needed to scratch the sherd; (iii) texture: "fine-sandy" means that the fabric feels sandy, but individual grains cannot be seen; "coarse-sandy" means that they can be seen, while "gritty" means that the shape as well as the existence of individual grains can be seen. For the off-white sherds, in which sand, if present, is more usually apparent, only the term "fine" (no sand apparent) and "sandy" are used.

Site reports are referred to by site name in the text; a list of the full references is given above and the locations of these and other sites mentioned are shown on the map (Fig. 32). Solid circles indicate sites for which a reference is given; hollow circles indicate other sites and shading represents more general "areas". Codes used on the map are given in the list of references: other sites are: B=Beauvais, C=Cologne, Ch=Cheam, F=Frechen, L=Laverstock, R=Raeren, Sb=Siegburg, SN=St. Neots, So=Southampton, St=Stamford; and the areas are: ES=East Surrey, Li=Limburg, WS=West Surrey.

The conventions used in the illustrations are based on those recommended by R. H. Smith (*World Archaeol.* 2 (1970), 212-218). Glaze is represented by a uniform screen, and slip by random stippling. Glaze or slip covering the entire surface of a vessel is not shown.

Each section closes with a discussion and comments on dating.

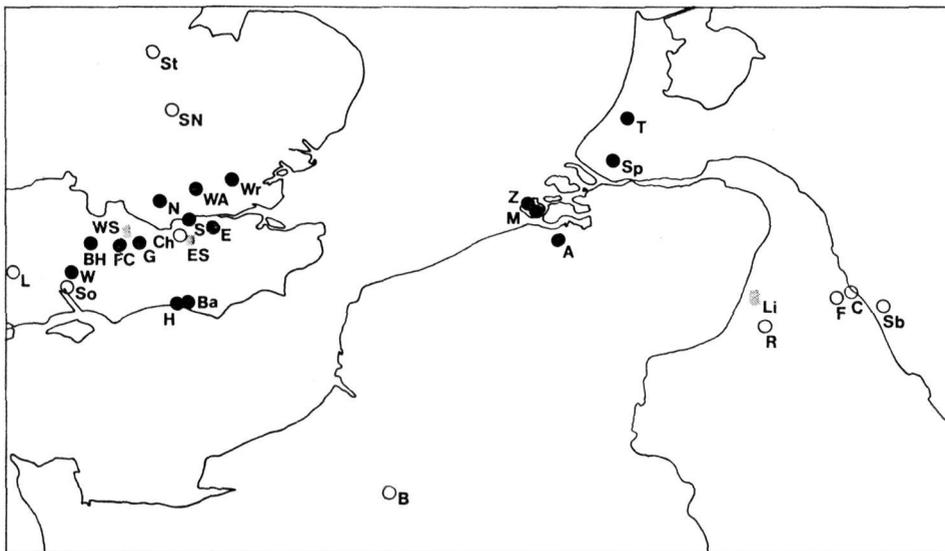


Fig. 32. Toppings Wharf; Map of N.W. Europe showing location of sites and areas referred to in the Medieval and Tudor pottery Report (1:6,000,000)

1. THE PRE-EROSION LEVELS:

Shelly fabrics predominate in these features (see Table 1). Most common is fabric A2: a grey shelly/sandy fabric with red/brown or grey/black surfaces. There are some sagging bases in this fabric but no rims. A rather softer shelly fabric (A1) is also present: this has no sand, and a "soapy" feel, and is presumably a derivative of the St. Neots-type fabric. One vessel in a hard grey gritty fabric (B) is represented. The coarse-sandy sherds (C) seem to correspond to fabric (i) at Northolt; they are hard and grey, some being very light grey, or with a pinkish tinge. The fine-sandy unglazed sherds (D1) give some problems; they are small and featureless and might well be Roman. There is one very small sherd (M) which may be Saxon; it is grey/brown and lumpy with shell and possibly grass tempering.

TABLE 1: POTTERY FROM THE PRE-EROSION MEDIEVAL LAYERS

Feature	Fabric							Total
	R	A1	A2	B	C	D1	M	
B VII WALL	P		2					
P1r	P	1	5		1			
P1r	P	2	4	1	3	3	1	
TOTAL	P	3	11	1	4	3	1	23

A twelfth century, or possibly early thirteenth century date is indicated for these pre-erosion features.

2. THE EROSION LEVELS:

In these features the emphasis shifts to the fine-sandy fabrics (D1 - unglazed and D2 - glazed) although none with all-over white slip (D3) are present (Table 2). These sherds are either red with spots of orange glaze or grey with a green glaze. Two of the latter are decorated with vertical applied clay strips, one of which has impressed decoration, while a third has a "scaly" decoration. There are also some coarse-sandy sherds (C) similar to those in the pre-erosion layers, and a little of the grey gritty (B) and shelly/sandy (A2) fabrics. Of particular interest is a small sherd in an off-white "Surrey"-type fabric (E2) with green/yellow glaze. None of the pottery was worth drawing.

TABLE 2: POTTERY FROM THE EROSION-LAID GRAVEL

	Fabric								Total
	R	A1	A2	B	C	D1	D2	E2	
TOTAL	P	0	2	2	5	1	8	1	19

Nineteen sherds from 10 locations in the erosion gravels were examined. A date just before 1300 is indicated; if earlier, one would not expect any Surrey-type vessels, and if later, one would expect a higher proportion of them.

3. THE DEPOSITION LEVELS:

The earliest large groups of pottery come from these layers, in which a wide range of fabrics is represented. Slightly more than half of the vessels are in the fine-sandy fabric, D1/2/3 (see Table 3), compared with about 25% in coarse-sandy fabric (C), 15% in shelly fabrics (A), 5% in gritty fabrics (B), and 4% in off-white fabrics (E).

The most common shelly fabric is hard, rough and grey and contains some sand as well as large pieces of shell. Surfaces are either black, red-brown or yellow-brown. Minority fabrics include a softer grey shelly/sandy fabric and one with grit or possibly chalk as the secondary filler. Very few sherds with only shell and a "soapy" feel (*i.e.* A1) are present. Rims in the majority fabric are generally strongly out-turned with a flat (but not usually horizontal) top, and squared-off end. Simpler rims occur in the minority fabrics. Decoration is not common, and consists of (i) thumbing on the top of the rim, or (ii) applied thumbed strips, either horizontal or vertical.

The sherds in the gritty fabric are generally reduced, although some are partly oxidised. Very few rims or bases occur, and the decoration is limited to incised lines and dots.

Two fabrics predominate in the coarse-sandy group. One has much coarse sand and is very variable in colour; basically grey, it shades off to buff, pink-buff, cream or off-white at a surface. The second is a uniform light or mid-grey, sometimes with darker surfaces, and contains less sand. Of the sherds drawn, only Nos. 21 and 27 fall into this category. A number of unusual over-fired sherds occur in these features: No. 28 illustrates the category. Glaze is rare but not unknown on the coarse-sandy sherds.

Reduced fabrics are most common in the fine-sandy group, although oxidised fabrics (red or buff) are well represented. Over 90% of the sherds are glazed (D2) and some unglazed sherds (D1) may well belong to partially glazed vessels. Glaze is most often green: orange, yellow and brown glazes also occur as does polychrome glazing (combinations of green, brown, red and yellow). A wide range of decorative techniques are employed; these are grouped as: (i) applied clay strips, either plain or with impressed patterns; (ii) simple patterns executed in white slip: horizontal or vertical lines, loops, lattices, vertical strips (often over a white slip coating); (iii) white slip patterns associated with polychrome glaze: broad strips, pellets and narrow strips outlining a band of a different glaze; (iv) patterns on overall white slip, reserved bands and combed sgraffito decoration.

The few off-white sandy sherds are divided roughly equally between unglazed and glazed (with green or yellow glaze). None are decorated. The finer sherds (E1) are described individually.

TABLE 3: POTTERY FROM THE DEPOSITION LAYERS

	R	A1	A2	B	C	D1	D2	D3	E1	E2	E3	E4	M	Total
Total	P	3	65	25	108	21	181	34	5	11	0	0	1	454
Percent-ages	—	15	5	24	5	40	8			4				100

INDIVIDUAL DESCRIPTIONS (Nos. 1-25, Fig. 33)

FABRIC A2

(a) *Bowls:*

1. Small everted rim sherd in hard grey fabric with shell and chalk. Both surfaces are hard, smooth and grey, slightly darker than the fabric. Worn and encrusted.

(b) *Jars and Cooking Pots* (i) everted rims with thickening:

2. Rim sherd in hard pale grey shelly/sandy fabric. Surfaces are rough; interior and top of rim are red, exterior is dark grey. (See Waltham Abbey, 1970, Fig. 12, No. 37).

3. Rim sherd in hard grey shelly/gritty fabric. Surfaces have a rough "patchy" appearance but feel fairly smooth; interior is buff and exterior red.

(b) (ii) squarish everted rims with flat top:

The rims in this group are strongly out-turned, to a horizontal or almost horizontal angle.

4. Rim sherd in fairly hard grey shelly/sandy fabric. The surfaces are light yellow-brown, smooth, but slightly abrasive.

5. Rim and body sherds in hard grey shelly fabric with some grit. The surfaces have been smoothed but have a rough, hard feel. Exterior is dark brown/black, interior is dark khaki-brown. Vertical thumbled strip on the exterior.

6. Rim sherd in black shelly/sandy fabric, shading to brown near the surfaces, which are also brown.

7. Rim sherd in hard light grey shelly/sandy fabric, shading to pink-buff near surfaces. Exterior is dark grey/black, interior pink-buff.

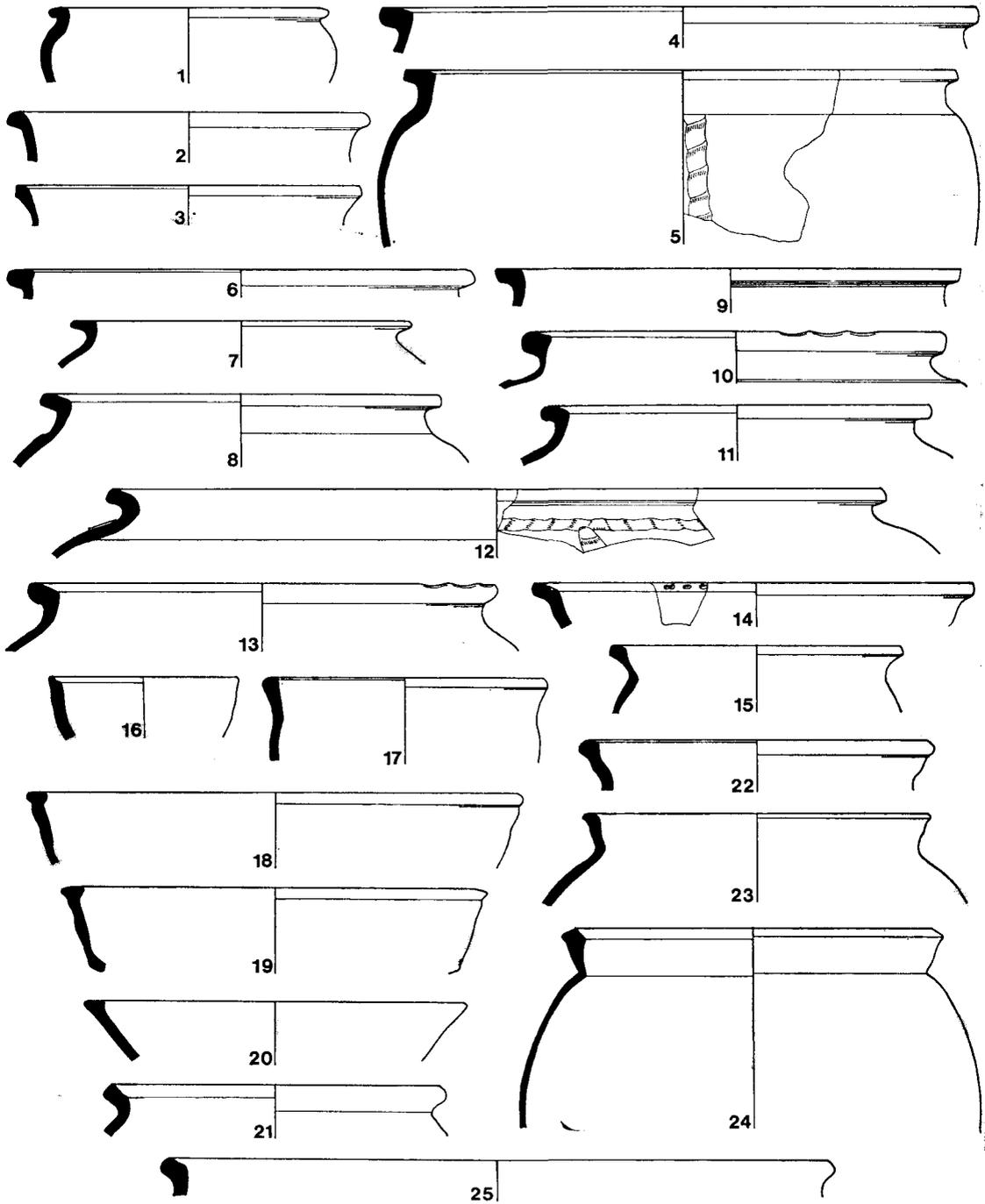


Fig. 33. Toppings Wharf; Medieval pottery from the Deposition Layers 1-25 ($\frac{1}{4}$)

8. Rim sherd in hard grey shelly/sandy fabric, shading to brown near surfaces. Exterior is black, interior light brown.
9. Rim sherd in light grey shelly/sandy fabric, shading to buff near surfaces, which are also buff. (Borough Fig. 1, No. 2).
10. Rim sherd in hard light grey shelly/sandy fabric, shading to buff near the surfaces. Exterior is black and interior dark brown. Group of three thumb impressions on the rim.
11. Rim sherd in fairly soft grey shelly/sandy fabric. The surfaces are fairly soft, grey-brown and smooth; exterior is darker than the interior.
12. Large rim sherd in hard grey shelly/sandy fabric. Surfaces are hard and rough; exterior is brown/black and interior is red-brown. There is a thumb-strip "collar" with a near-vertical thumb-strip leading up and over it.
13. Rim sherd in hard light grey shelly/sandy fabric. Surfaces are also grey; exterior is slightly darker. Group of three thumb impressions on rim.

FABRIC B

(a) *Bowl*:

14. Rim sherd in hard grey/brown gritty fabric. Interior surface brown and exterior blackened. Four small impressions on upper surface of rim.

(b) *Jar or Cooking Pot*:

15. Thickened everted rim sherd in hard dark grey gritty fabric. Exterior surface light brown.

FABRIC C

(a) *Bowls*:

16. Rim sherd in hard light grey coarse-sandy fabric. Both surfaces are grey on upper part, shading to pink on lower part. Patch of a possible green glaze on exterior.
17. Slightly everted rim sherd in hard grey coarse-sandy fabric. Exterior surface black, interior grey-black.
18. Expanded rim sherd in hard coarse-sandy fabric, shading from grey at exterior surface to off-white at inner surface. Patches of black on exterior.
19. Expanded rim sherd in hard grey/off-white coarse-sandy fabric. Surfaces are hard and rough, exterior is black/grey and interior black/off-white.
20. Expanded rim sherd in hard grey coarse-sandy fabric. Surfaces are hard and dark grey/black. Possibly a lid.

(b) *Jars or Cooking Pots*:

21. Simple everted rim sherd in hard light grey coarse-sandy fabric. Dark grey surfaces. (See Northolt, Fig. 67, No. 42).
22. Everted and expanded rim sherd in hard grey/buff coarse-sandy fabric. Surfaces are hard and rough and a dirty cream in colour. Worn and encrusted.
23. Everted and slightly expanded rim sherd in hard dark grey coarse-sandy fabric, shading to buff near the surfaces, which are also buff and have been smoothed. Turning marks on interior.
24. Large sherd of everted and expanded rim in hard light grey coarse-sandy fabric, shading to pink-brown near surfaces. Exterior is buff, interior is grey with cream-coloured streaks. Spot of green glaze on the rim.
25. Simple everted rim sherd in hard grey coarse-sandy fabric, shading to buff near surfaces, which are also buff. Exterior has been smoothed.

(Nos. 26-36, Fig. 34)

26. Flat-topped everted rim sherd in hard light grey coarse-sandy fabric. Surfaces are pink-buff.
27. Everted rim sherd in hard light grey coarse-sandy fabric.

(c) *Jug*:

28. Small "flagon"-like rim sherd in very hard grey coarse-sandy fabric, shading to grey-buff near surfaces, which have a purple tinge and a fine yellow deposit. Overfired.

FABRIC D

(a) *Jars*:

29. Small everted rim sherd in hard brown sandy fabric. Exterior and top of rim are black. Encrusted.
30. Small everted rim sherd in hard light grey fine-sandy fabric, shading to orange-brown near surfaces, which are also orange-brown. Patchy green/yellow glaze, mainly on exterior and top of rim.

(b) *Jugs*:

31. Flat-topped rim sherd in hard buff fine-sandy fabric. Surfaces are hard and sandy; exterior and top of interior have worn yellow glaze, rest of interior is brown and unglazed. (See Borough, Fig. 1, No. 5).
32. Flat-topped rim sherd in hard grey fine-sandy fabric, shading to red near exterior surface, which is glazed mostly green with some red/yellow. Glaze extends a short way down inner surface, rest of which is purple-grey and very hard. Spurred handle.
33. Flat-topped rim sherd in hard grey fine-sandy fabric, shading to pink/buff at surfaces. Patches of olive glaze on exterior and spots of it on interior.
34. Flat-topped rim sherd in hard grey fine-sandy fabric, shading to grey-brown at surfaces. Patchy olive glaze on exterior.
35. Rim sherd in hard light grey fine-sandy fabric. Interior surface is orange with some white slip, exterior has a cream slip and mottled green glaze.
36. Base and body sherds in hard red fine-sandy fabric. Surfaces are hard and slightly sandy with all-over white slip. Exterior has yellow glaze with "pitted" appearance. Decorated with applied bands of red clay over the slip. Irregular thumb-pressing and sagging base. Very squat jar. Possibly an import.

(Not illustrated):

FABRIC E1

- One sherd in hard white "chalky" fabric with smooth apple-green glaze.
- One sherd in very fine white fabric, mottled green glaze on exterior. French?
- One sherd in thin white fine-sandy fabric, with brown painted line on exterior.
- One sherd in fine white fabric with yellow glaze on exterior.
- One sherd in fine off-white fabric, green glaze on both surfaces. Clay strip applied under glaze on exterior.

OTHER FABRICS (M)

- One small sherd in buff fabric with pink core. Raised horizontal band on exterior, covered with red paint.

DISCUSSION:

More than 450 sherds from 43 separate locations were examined. The shelly/sandy fabric A2 seems to correspond to fabric (g) at Northolt, which has been dated to 1050-1150. The simpler forms (Nos. 2 and 3) would fit in well with this date (No. 2 has an eleventh-twelfth century parallel at Waltham Abbey) but the more complex rims (Nos. 4 to 13) are best paralleled in shape by the thirteenth century hard sandy fabric (k) at Northolt. Similar "squared-off" rims in shelly or shelly/sandy fabrics were found in thirteenth century levels at Eynsford Castle. (Phases Z [late twelfth-early thirteenth century] and A [early thirteenth century] for the shelly fabrics, and phase B [mid-thirteenth century] for the shelly/sandy fabric), although there they were horizontal or down-turned and not up-turned, as many of the Toppings Wharf examples. At 199 Borough High Street a rim similar to No. 9 was ascribed to the thirteenth century, supporting a general conclusion of a thirteenth century date for these rims. A source in West Kent seems likely. The few small sherds in fabric A1 are of St. Neots' type and presumably rather earlier (tenth or early eleventh century).

Little can be said about the gritty fabrics: the everted and slightly expanded rim, No. 15, is probably of eleventh or twelfth century, but the bowls are difficult to date.

The coarse-sandy fabrics fit best with Northolt fabrics (i)/(j) and (k). The former, which are in the majority, are of "Limpsfield" type (East Surrey) and have the expanded rims characteristic of the twelfth century in South-east England (e.g. at Northolt and Brighton). The latter fabric is less well represented, but can be paralleled (No. 21) at Northolt and seems to be of thirteenth century Elstree type.

The sandy fabrics D are of types common in the London area in the period 1250-1350. Those with overall white slip may be in imitation of the fine white fabrics being imported in the last quarter of the thirteenth century; this technique is known in both Essex (e.g. at Writtle, fabric groups E, G, H) and in West Kent; on balance a Kentish origin seems more likely.

The white sandy fabric (E2) is of Surrey type, generally thought to have started production about or just before 1300. This fabric tends to be extremely common in fourteenth century deposits in the London area, and its relative scarcity here suggests a date little, if at all, after 1300.

In these features we have a wide range of pottery, dating mainly from the twelfth and thirteenth centuries, dispersed fairly uniformly throughout the depth of the deposits, and all in good condition (only some of the Roman material shows signs of water-rolling). This suggests a deliberate dumping rather than a gradual build-up of water-laid deposits.

4. THE POST-DEPOSITION LEVELS:

The wide range of fabrics present in the deposition layers continues into these post-deposition layers, though in different proportions. The shelly fabrics have declined from 15% to less than 10%, the coarse-sandy fabrics from 24% to 16%, and the fine-sandy (excluding the white slipped D3) from 45% to 37%. There is a large increase in the "white" element: fine-sandy fabrics with all-over white slip increase from 8% to 18% and off-white fabrics from 4% to 12%. A new fabric (E3: buff sandy, similar to E2 but darker) appears for the first time in some of these features. (See Table 4).

For fabrics A-D, the same detailed variants and techniques of decoration occur as in the deposition layers. A minority of fabric E in this group is decorated: applied vertical strips under the glaze are most common, there are also single examples of a curved applied strip, shallow combing, and brown painted line on an unglazed surface. (Cheam style, see Pl. G in B. Rackham, *Medieval English Pottery*, 2nd ed., 1972.) Some features contain material in apparently post-medieval fabrics.

TABLE 4: POTTERY FROM THE POST-DEPOSITION FEATURES

	R	A1	A2	B	C	D1	D2	D3	E1	E2	E3	M	Total
TOTAL	P	7	54	46	122	61	221	138	13	75	13	8	757
Percentages	—	8		6	16	8	29	18	12		2	1	100

INDIVIDUAL DESCRIPTIONS (Nos. 37-53, Fig. 34)

FABRIC A

(a) *Jars or Cooking Pots* (i) everted rims:

37. Straight everted rim sherds in hard grey shelly/sandy fabric. Surfaces are hard and fairly smooth; exterior is pink and interior grey. Robbing of Wall 3.
 38. Everted rim sherd in hard grey shelly/sandy fabric. Surfaces are black/brown. Layers above Wall 2 foundation.
- (ii) Simple thickened rim:
39. Rim sherd in "soapy" shelly fabric shading from grey exterior to red-brown interior. Diameter greater than 5 in. Wall 2 foundation. (See Waltham Abbey, 1973, Fig. 19, No. 4).
- (iii) Squarish rims with flat top:
40. Everted rim sherd in hard dark grey shelly/sandy/gritty fabric. Surfaces are hard, pink-buff, show sand or grit and are pitted where shell has been eaten out. Turning marks on both surfaces. Wall 2 foundation.

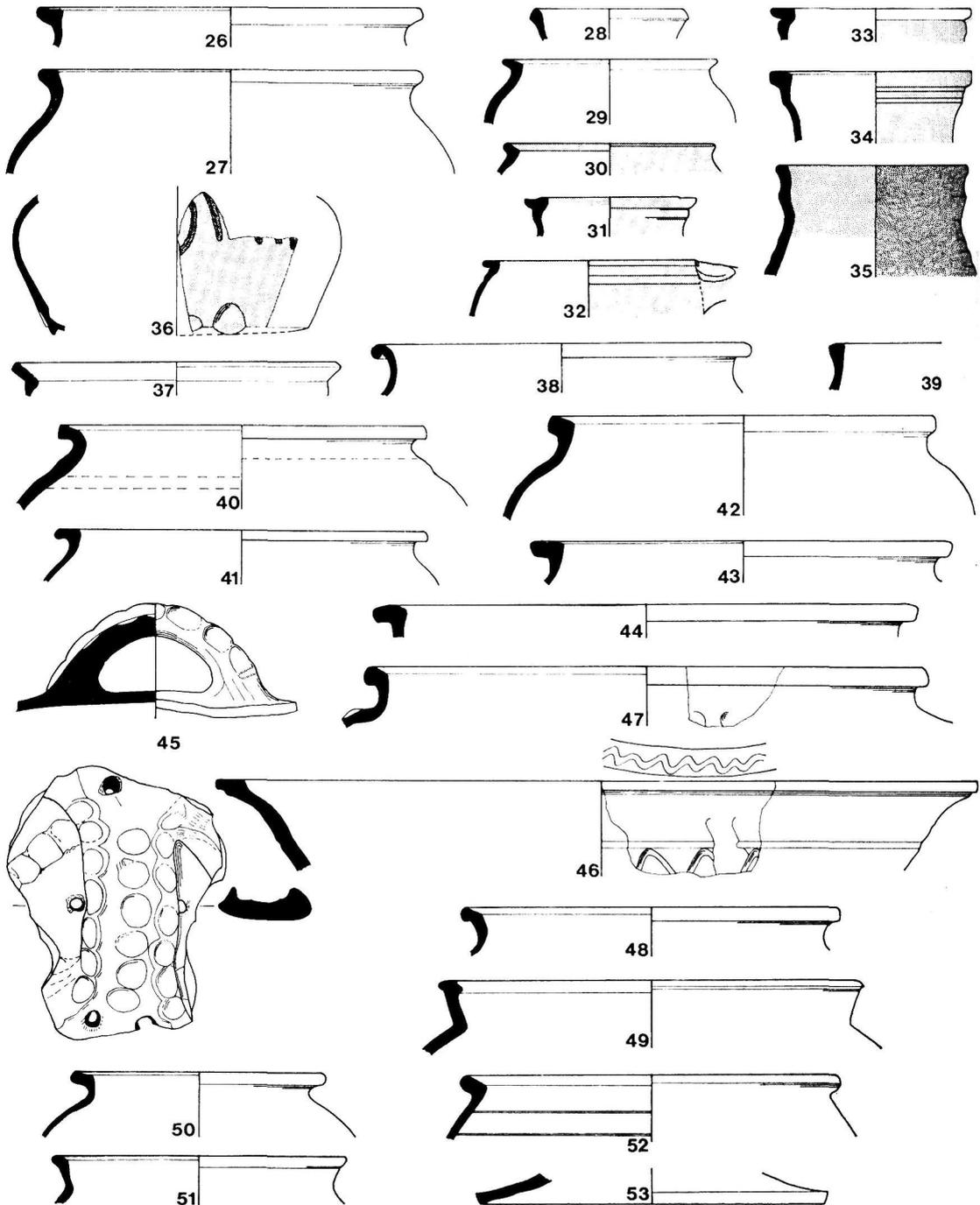


Fig. 34. Toppings Wharf; Medieval pottery from the Deposition Layers 26-36, and the post-Deposition Features 37-53 ($\frac{1}{4}$)

41. Everted rim sherd in fairly hard dark grey shelly/sandy fabric. Surfaces are smooth and dark grey. In Wall 3. (See Borough, Fig. 1, No. 2).
42. Everted rim sherd in hard grey shelly fabric (large pieces of shell), shading to brown near surfaces. Exterior is dark brown/black, interior is red-brown; both surfaces are hard and slightly irregular to the touch. Faint turning marks on the interior. Layers above Wall 2 foundation.
43. Flat-topped everted rim sherd in hard light grey shelly/sandy fabric, shading to orange near surfaces. Exterior is light orange, interior and top of rim are buff. Above T6 gravel spread. (See Borough, Fig. 1, No. 2).
44. Flanged rim in hard grey shelly/gritty fabric, shading to red near surfaces, which are also red. Robbing of Wall 3.
(b) *Fire Cover*:
45. Handle and part of surrounding area. Fabric is fairly hard, red, shelly/sandy, grey in core. The upper surface is red and the lower grey/buff but blackened. The handle is heavily thumbbed: the sides have been pulled upwards and together, and there is a row of shallow thumb impressions on the centre-line. There are also thumbbed strips leading up to the handle. There are six holes ("vents"), two at each end of the handle and two in line with its transverse axis. All holes have been pushed through from the upper surface. Robbing of Wall 3.

FABRIC B

- (a) *Bowl or Dish*:
46. Flat-topped rim sherd in hard light grey/dark grey gritty fabric. Surfaces hard and rough; exterior is light grey and interior dark grey. Decorated with incised horizontal groove and wavy line overlaid by vertical applied strip. Incised wavy line on top of rim. Above T2 gravel spread.
- (b) *Jars or Cooking Pots*:
47. Everted and expanded rim sherd in hard light grey gritty fabric, with dark grey surfaces. Beginning of an applied strip on the shoulder. T6 burnt debris above gravel spread.
48. Bevelled everted rim sherd in hard dark grey gritty fabric, with slightly darker surfaces. Wall 2 foundation.

FABRIC C

- (a) *Jars or Cooking Pots*:
49. Everted and expanded rim sherd in hard light grey coarse-sandy fabric, shading to buff near surfaces, which are pink-buff with apparently an off-white slip. Layer above deposition.
50. Everted and bevelled rim sherd in hard grey coarse-sandy fabric. Exterior surface is buff and interior dark grey. Encrusted. Wall 2 foundation.
51. Everted and expanded rim sherd in hard light grey/off-white coarse-sandy fabric. Wall 2 foundation.
52. Everted rim sherd in hard light grey coarse-sandy fabric. Surfaces are darker grey; exterior slightly "metallic" and turning marks on interior. Wall 2 foundation.
- (b) *Lid*:
53. Sherd in hard grey/buff coarse-sandy fabric. Exterior surface blackened. Wall 2 foundation.
(Nos. 54-70, Fig. 35)
- (c) *Jug*:
54. Complete base in hard grey coarse-sandy fabric (with a few large grits). Surfaces are rough and pink-brown. Strong turning marks on interior. T6 gravel spread above deposition.
- (d) *Miscellaneous*:
55. Straight rim sherd (?dripping pan) in hard black/brown coarse-sandy fabric. Exterior is black; interior brown with patch green glaze. Hand made. Wall 2 foundation.

FABRIC D

- (a) *Dishes/Bowls*:
56. Rim sherd in hard grey sandy fabric with red surfaces. Patchy yellow glaze on interior. Wall 2 foundation.
57. Rim sherd in hard brick-red sandy fabric with grey core in thicker parts. Surfaces are brick-red with some mica. Wall 2 foundation.
58. Small rim sherd in hard grey fine-sandy fabric. All-over white slip and patches of green glaze. Wall 2 foundation.
- (b) *Jars*:
59. Rim sherd in hard light grey sandy fabric with dark grey surfaces. Wall 2 foundation.

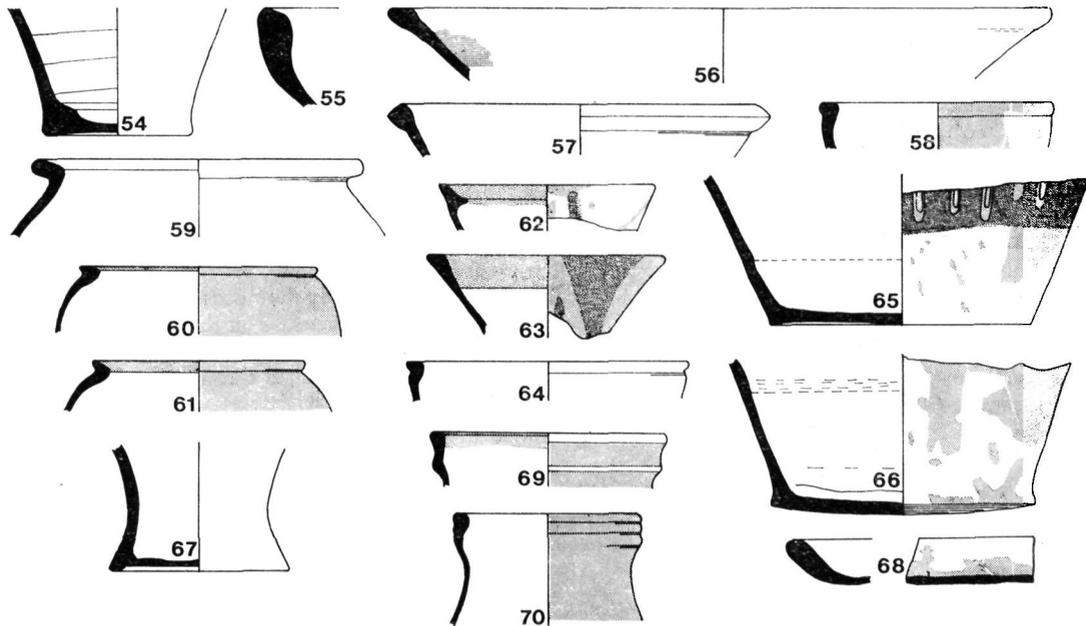


Fig. 35. Toppings Wharf; Medieval pottery from the post-Deposition Features, 54-70 ($\frac{1}{4}$)

60. Rim sherd in hard sandy grey fabric. Mottled dark green glaze on exterior and top only. Wall 2 foundation.
61. Rim sherd in hard grey sandy fabric. Surfaces are red-brown with patchy mottled green glaze on exterior and top only. Wall 2 foundation.
- (c) *Jugs:*
62. Rim sherd in hard grey fine-sandy fabric, red at surfaces. White slip on exterior and interior down to a "ledge" about 0.4 in. below rim. Exterior decorated with vertical strip of applied white slip and lines and spots of green/yellow glaze. Layers above Wall 2 foundation.
63. Rim sherd in hard green/red fine-sandy fabric. White slip on exterior and upper part of interior. Exterior decorated with brown clay bands applied over the slip, and a pale green/yellow glaze over all. Wall 2 foundation.
64. Rim sherd in hard grey fine-sandy fabric, shading to pink-buff at surfaces. Exterior is pink-buff with spots of olive-green glaze, interior is pink-grey. Robbing of Wall 3.
65. Sherds of almost complete large base in hard grey fine-sandy fabric with red-brown margins. Exterior surface is smooth and pink with white slip over upper part and a glaze, varying from a continuous green over the slip to a spotty orange lower down. Interior is brown-pink and sandy. Decoration of vertical applied red-brown clay bands over the slip. T6 gravel spread above deposition.
66. Slightly sagging base in fairly hard red fine-sandy fabric. Interior surface is brown with a few small spots of orange glaze. Exterior is pink-brown, with patches and spots of green/mottled green-orange/orange glaze. One very large grit ($\frac{1}{4}$ in.) is visible. T6 debris above gravel spread.
67. Base in fairly hard grey fine-sandy fabric, shading to red-brown at surfaces, which are hard, red-brown and smooth, showing signs of wheel-turning. Few spots of orange glaze on underside. T14—no exact location.
- (d) *Miscellaneous:*
68. Straight rim sherd (?dripping pan) in hard dark grey sandy fabric. Patchy green-yellow glaze on interior. Wall 2 foundation.

FABRIC E2

Jugs:

69. Rim sherd in hard off-white sandy fabric with yellow tinge. Worn green glaze on exterior, top and upper part of interior. Rest of interior has a cream-coloured slip. Robbing of Wall 3.
70. Rim sherd in hard off-white sandy fabric. Mottled green glaze on exterior. Wall 2 foundation.

(Not illustrated)

FABRIC E1

Two sherds in fine pink/white fabric with pale yellow glaze on exterior. Stamford? T6 burnt debris above gravel spread.

Two sherds in fine white "chalky" fabric with mottled pale green glaze on exterior. Layers above Wall 2 foundation.

Sherd in fine white fabric, green glaze on exterior and "scaly" decoration. Layers above Wall 2 foundation.

Three sherds in fine white fabric with mottled green glaze on exterior. Vertical applied clay strips with "impressed-lattice" decoration. Wall 2 foundation.

Sherd in fine off-white "chalky" fabric, apple-green glaze on exterior. Wall 2 foundation.

Sherd in very fine white fabric (Saintonge). Layers above Wall 2 foundation.

Sherd in fine off-white fabric with glossy mottled green glaze. Wall 2 foundation.

Four sherds in fine white fabric with pale green/clear glaze on exterior. One is a small straight rim. Wall 2 foundation.

One similar sherd with diagonal applied clay strip. Wall 2 foundation.

OTHER FABRICS (M)

One small flat-topped rim sherd in hard fine-sandy fabric, grey with red margins, olive glaze on both surfaces and white slip on interior. Tudor? Layers above Wall 2 foundation.

One hard red sandy sherd, olive glaze on exterior. Tudor? Layers above Wall 2 foundation.

One sherd in grey fabric with brown margins, white slip and crazed yellow glaze on exterior. Tudor? Layers above Wall 2 foundation.

One sherd in hard red sandy fabric with spots of red glaze on interior. East Anglian. Wall 2 foundation.

One sherd in hard red sandy fabric with crackled yellow glaze on exterior. Wall 2 foundation.

Two sherds in red fine-sandy fabric with grey core, glossy orange glaze on both surfaces. Wall 2 foundation.

DISCUSSION:

The sherds in fabrics A-C seem to have the same origin and dating as those in the underlying deposition features, from which they may have been derived. Of particular interest is the fire-cover handle (No. 45). Although fire-covers have now been reported from a number of sites both in England (*e.g.* Laverstock, Hangleton, Northolt, Winchester) and Holland (see Hangleton, 135-8 for discussion of English and Dutch fire-covers), this example is atypical in being in a shelly fabric and having a number of small vents rather than two large ones.

Fabric D would have continued into the first half of the fourteenth century, when it would have been contemporary with fabric E2. The buff Surrey fabric (E3) is generally given a later date (*e.g.* 1350-1425 at Northolt, as fabric (m)). However, it seems likely that much of the pottery in these features is survival material from earlier deposits, so the evidence suggests no finer dating than fourteenth or fifteenth century for these layers. The foundation trench for Wall 2 and the layers above it seem to be later than the other deposits. The former contains pottery of the late fourteenth-early fifteenth century, while the latter contains pottery similar to that found in the Tudor features and is probably of late fifteenth or early sixteenth century date.

5. THE TUDOR FEATURES:

Fabric I predominates in these layers (see Table 5); it is a hard rough sandy fabric, which breaks with a "crumbly" fracture. The fabric colour varies: grey and red are commonest, often in the same sherd. About 60% of the pottery in this fabric has some glaze, in a wide range of greens, yellows or oranges (I1). A further 10% is also glazed, but in a dark purple or purple-brown (I2) and the remaining 30% is unglazed (I3). There are four basic forms represented: bowls or dishes with horizontal handles and small pulled-down feet, globular vessels with vertical loop handles, everted rims and tripod or ring feet, dripping pans, and jars with small pulled-down feet.

Next most common is fabric E, the bulk of which is of categories E2 or 3 (sandy). There are also a few sherds of a finer fabric (E1) with glossy green glaze ("Tudor green") or in a very hard fine fabric with a red slip, yellow glaze and sgraffito decoration (E4 Beauvais type). Other fabrics not previously met are:

F: stonewares, mostly with a grey fabric and surfaces and a colourless/brown glaze (category F1 Raeren type) but with some other examples (see descriptions).

G: a buff fine-sandy fabric, sometimes with white slip or yellow glaze.

H: a "dense" grey fabric, which breaks with a smooth fracture. It usually has white slip and yellow glaze on interior surfaces.

About 20% of the pottery consists of residual Roman or medieval material (fabrics A to D). In addition these are a few sherds which do not fit any category and are therefore described individually (M).

TABLE 5: POTTERY FROM THE TUDOR FEATURES
Fabric

	R	A-D	E1	E2/3	E4	F1	F2	G	H	I1	I2	I3	M	Total
TOTAL	P	49	10	76	6	15	3	7	12	116	18	50	6	368
Percent-ages	—	13	3	21	2	4	1	3	3	31	5	13	2	100

INDIVIDUAL DESCRIPTIONS. (Nos. 71-93, Fig. 36)

FABRIC E2

(a) *Bowls or Dishes:*

71. Sherd of flanged rim in hard off-white sandy fabric, with a pinkish tinge near surfaces, which are however off-white with greyish patches. Robbing of Wall 2.
72. Sherd of flanged rim in hard off-white sandy fabric, with hard, greyish sandy surfaces. Base floor Building VIII.

(b) *Jars or Jugs:*

73. Sherds of base in hard white sandy fabric, with white interior and spots of green glaze on exterior and underside. There is one vertical flat "face" perhaps indicating a costrel. Rust-stained. Fill of Building VIII.
74. Sherd of inward-sloping rim in hard off-white fabric, with green glaze on exterior and upper part of interior. Worn and encrusted. Fill of Building VIII.
75. Sherd of base in hard off-white sandy fabric, with a rich green glaze on interior and a paler mottled green glaze on the exterior and underside. Base floor of Building VIII.
76. Sherd of rim in hard, off-white sandy fabric, with green glaze on both surfaces. There is a groove on the upper surface of the rim. Worn. Robbing of Wall 2.

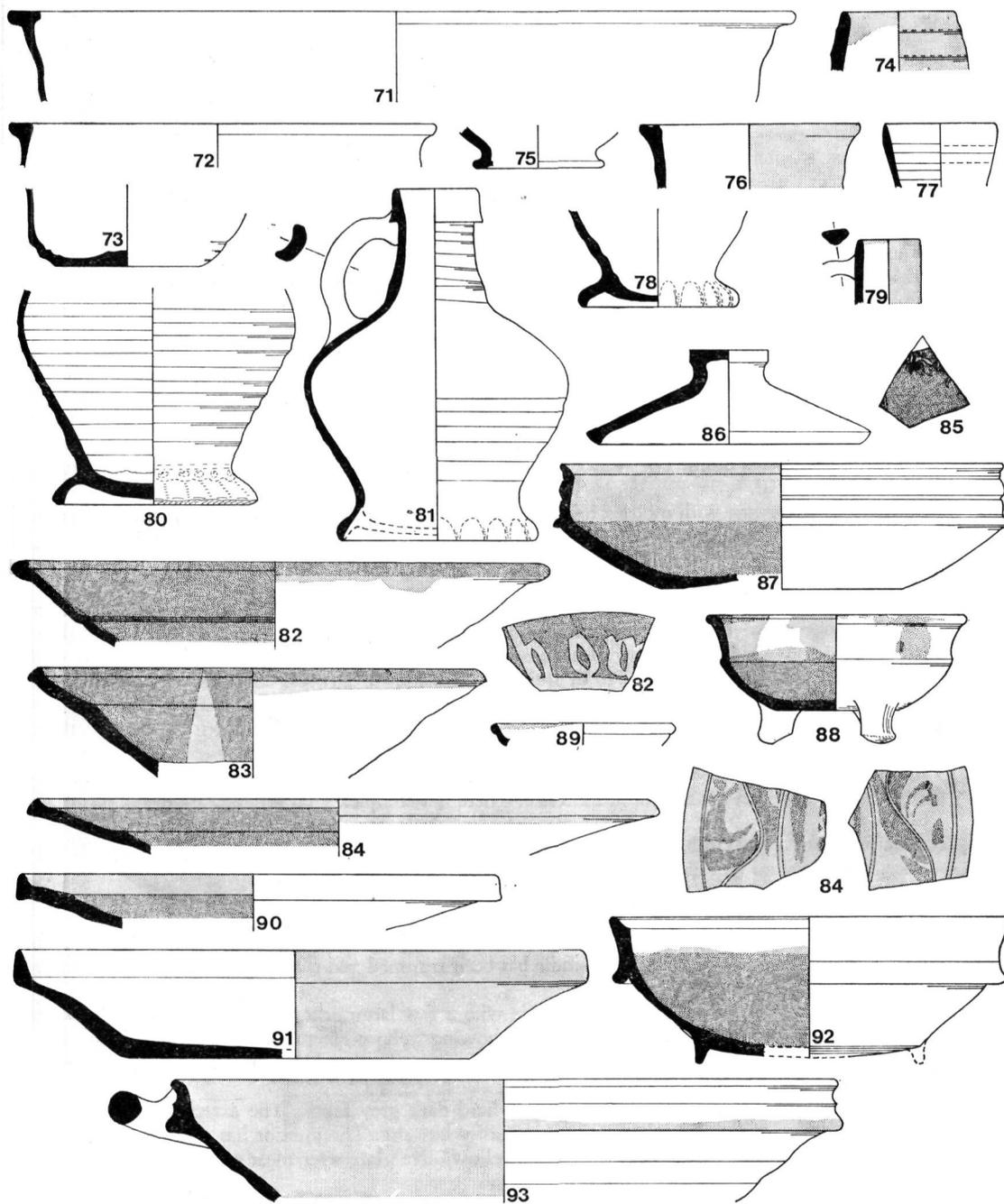


Fig. 36. Toppings Wharf; pottery from the Tudor Features 71-93 ($\frac{1}{4}$)

FABRIC F1

77. Sherd of "tulip-mouth" rim in pale grey stoneware, with colourless glaze on exterior and yellow-brown glaze on the interior. Both surfaces have ribbing; that on the exterior is the less pronounced. Floor of Building X. (*Cf.* gp23, Baynards Castle; unpublished material from recent excavations at this site was examined by the authors).
78. Sherd of "frilled" base in grey stoneware, with light brown/colourless glaze on exterior and colourless glaze on interior. Fill of Building VIII.
79. Sherd of straight-sided rim in grey stoneware, with brown/colourless glaze on exterior and top of interior; rest of interior is brown and unglazed. Fill of Building VIII. (*Cf.* gp23, Baynards Castle).
80. Lower part of a flagon in hard pale grey stoneware, with colourless glaze on both surfaces. The base is "frilled" and there are pronounced turning marks on both surfaces. Fill of Building VIII.
81. Several sherds of a flagon in hard pale grey stoneware. The glaze, which covers both surfaces, is colourless except for a patch of brown on the shoulder. There is a single handle, strong ribbing on the neck and lower part of body and a "frilled" base. Fill of Building VIII. (See Spangen, Fig. 3, No. 3; and Zandenburg, Fig. 3, No. 3).

FABRIC F2

(Not illustrated)

Sherd in grey stoneware with brown glaze on exterior and none on interior. Part of an "oak-leaf" decoration in relief on the exterior. Cologne type. (See Farnham Castle, Fig. 1, No. 26). Fill of Building VIII.

Two featureless sherds in fine off-white stoneware with smooth cream-coloured surfaces. Siegburg type. Fill of Building VIII.

Sherd in grey stoneware with mottled brown glaze on exterior and colourless glaze on interior. Frechen type? Base floor of Building VIII.

FABRIC E4

82. Rim sherd of a plate in hard white fine fabric. The upper and interior surfaces are covered by a red slip, in turn covered by a yellow glaze which has dribbled slightly down the exterior. The rest of the exterior is hard, off-white/brown and shows traces of turning. The decoration on the outer part of the plate consists of sgraffito lettering. Fill of Building VIII.
83. Rim sherd of plate or dish in hard off-white fine fabric. The interior surface has a yellow glaze over a red slip (showing a sgraffito streak at one point); these continue a short way down the exterior, the rest of which is off-white and smooth. Fill of Building VIII.
84. Two rim sherds of a plate in hard white fine fabric. Yellow glaze covers the upper surface, the upper part of the exterior and the red-slipped interior. There is a complex sgraffito decoration. Fill of Building VIII.
85. Flat fragment (of a tile) in hard off-white fine fabric. There is a yellow glaze and red slip on the upper surface, with sgraffito lettering. Fill of Building VIII.

FABRIC H

86. Lid sherd in hard pale-grey "dense" fabric with a few large grits. The surfaces are hard, red-brown and show strong signs of turning. The handle has been trimmed and is poorly finished. Fill of Building VIII.
87. Sherd of small dish in hard grey "dense" fabric with a few large grits. The exterior is red/black, unglazed and rough, while the interior is glazed, showing yellow-green over a white slip in the lower part and green/brown in the upper part. The rim is badly twisted and the sherd may be from a waster. Fill of Building VIII.
88. Rim and base sherds of a small tripod skillet in hard dark grey fabric. The exterior is hard, purple-brown with a spot of purplish glaze and splashes of white slip. The interior has continuous white slip in the lower part, patches of it on the rim, and a yellow/olive glaze over most of it. The finish is crude. Fill of Building VIII.

FABRIC G

89. Rim sherd of small dish in hard buff fine fabric. Both surfaces have a yellow glaze over a white slip, but at the rim the slip is brown. Fill of Building VIII.

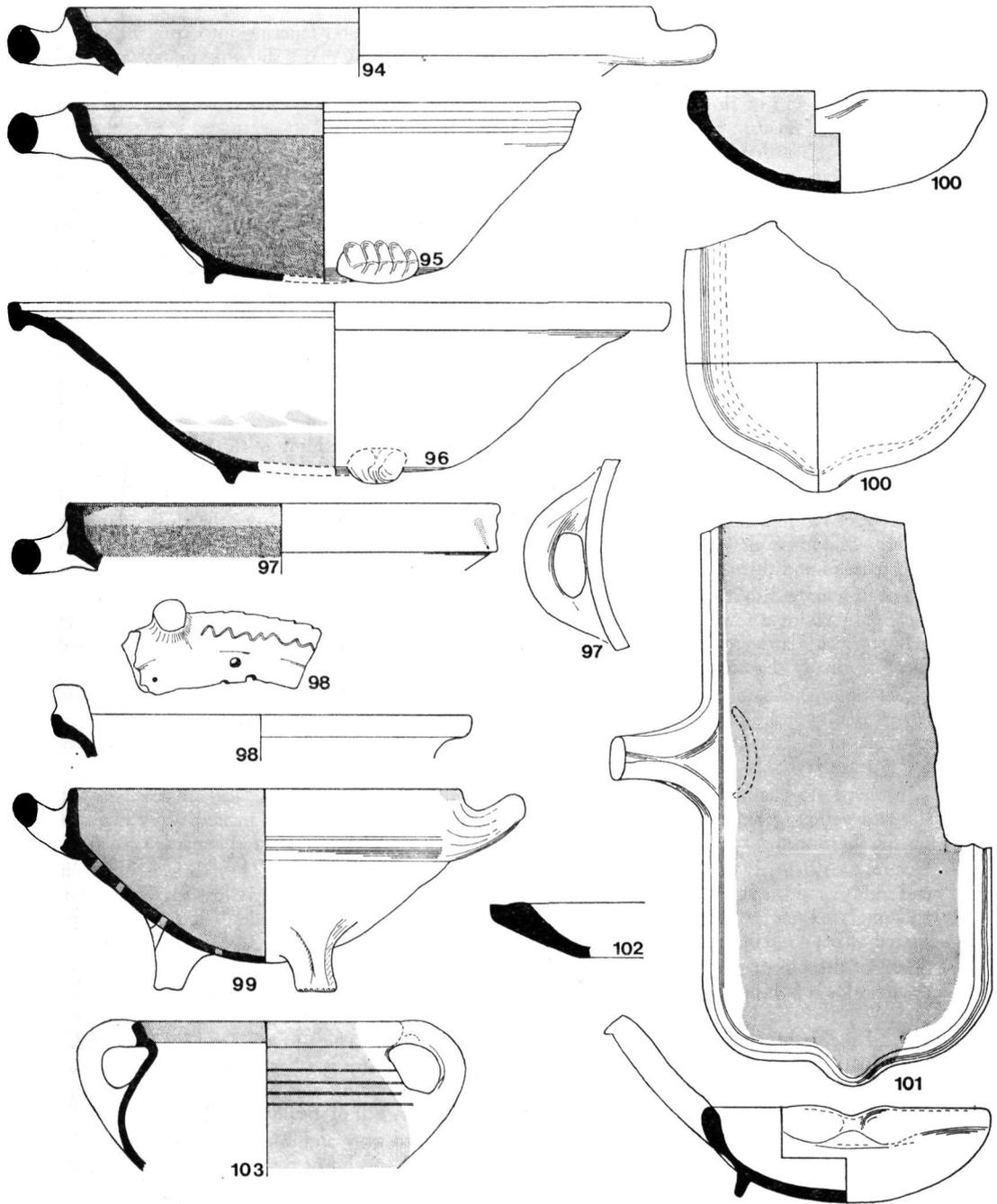


Fig. 37. Toppings Wharf; pottery from the Tudor Features, 94-103 ($\frac{1}{4}$)

FABRIC I

(a) *Plate*

90. Rim sherd of plate in hard red sandy fabric, grey at the rim and tapering into core. Exterior surface is black and smoothed, but now worn. Upper surface has yellow glaze, showing orange and green over red and grey fabric. There is a white slip on the "bowl" of the upper surface, with traces of a cracked yellow glaze. Fill of Building VIII. (*Cf.* gp 23, Baynards Castle).

(b) *Dishes and Bowls:*

91. Sherds of dish in hard orange sandy fabric. The surfaces are hard; the exterior has orange/green glaze, worn in places, and the underside is also glazed. The interior surface is badly worn, with sparse traces of dark red slip. Fill of Building VIII.
92. Sherd of bowl in hard grey sandy fabric, shading to brown at surfaces, which are hard and sandy. The exterior is orange-brown at the rim shading to dark brown at the base; the interior is red-brown except where it has white slip and green glaze. There are three or four feet, and possibly a horizontal handle. Fill of Building VIII. (See Spangen, Fig. 5, No. 1; and Zandenburch, Fig. 7, No. 7—(which is larger)).
93. Two sherds of dish in hard grey/buff sandy fabric. The surfaces are hard; interior is glazed (green over grey, yellow over buff fabric), exterior is buff with spots of yellow-green glaze. There is a stripe of yellow glaze around the lower edge of the rim. Fill of Building VIII. (See Aardenburg, 1965, Fig. 4).

(Nos. 94–103, Fig. 37)

94. Sherd of a dish in hard sandy fabric, light grey in core but orange/brown at surfaces. Patchy olive grey on interior, and spots of glaze on the horizontal handle. Fill of Building VIII. (See Zandenburch, Fig. 3, No. 9—(which has no handle)).
95. Sherd of bowl in hard red sandy fabric. Exterior is black with small patches of orange glaze; interior is dark red with white slip, covered with a glaze which shows yellow over the slip and orange elsewhere. One horizontal handle and one pulled-down foot are present; originally there would have been two handles and three feet. Fill of Building VIII.
96. Sherd of a large dish in crumbly red-brown fabric, grey in thicker parts of the core. Exterior is yellow-buff, flaky, with a few traces of a black surface. Interior surface is hard and rough, red-brown with yellow/green glaze, continuous at the base but thinning out towards the rim. There is one pulled-down foot; originally there would have been three. Fill of Building VIII.
97. Horizontal handle sherd of a dish in hard sandy light red fabric, with dark grey core. A brown glaze covers the lip and the top $\frac{1}{2}$ in. of interior; below that the glaze shows yellow over a white slip. There are patches of brown glaze on the handle and of yellow slip on the exterior. Fill of Building VIII. (*Cf.* gp 23 Baynards Castle; and see Fig. 21, No. 69, Waltham Abbey, 1973).
98. Rim sherd of a chafing dish in orange sandy fabric with grey core. Both surfaces are covered with white slip and yellow/green glaze, which is patchy on the exterior. There is an incised wavy line decoration on the interior and a notching on the rim. Fill of Building VIII. (*Cf.* gp 1, Baynards Castle).
99. Several small sherds of a colander, including two feet and one handle. The fabric is hard, pink-buff and sandy, and the surfaces are smooth. The interior has a slightly mottled yellow glaze; exterior is buff and unglazed except for small areas round the holes and above the handle. The holes are irregularly spaced at 0.4–0.9 in. between centres. Fill of Building VIII.
100. Sherd of dripping pan in yellow/brown sandy fabric, orange in core. The interior has a yellow glaze; the exterior is buff but burnt on one side. Fill of Building VIII. (*Cf.* gp 23, Baynards Castle—but in a grey fabric).
101. Several sherds of dripping pan in hard buff/red sandy fabric. The surfaces are hard pink and crudely smoothed; interior is mostly covered with a yellow glaze. There is a handle (probably) half-way along one side and a single "steady" foot beneath it. The surviving end has an off-central spout. There are traces of burning on both surfaces, opposite the handle. Fill of Building VIII.
102. Small sherd, probably from a dripping pan. Fabric is hard grey and sandy, red near surfaces. Interior surface has brown glaze; exterior is light brown, unglazed and burnt near the rim. Fill of Building X. (*Cf.* gp 23, Baynards Castle—but with green glaze).

(c) *Cooking and Chamber Pots:*

There seems to be a distinction between cooking pots, with two handles and tripod feet, and chamber pots with one handle and ring foot. Some vessels are too fragmentary to be put into a category with any certainty.

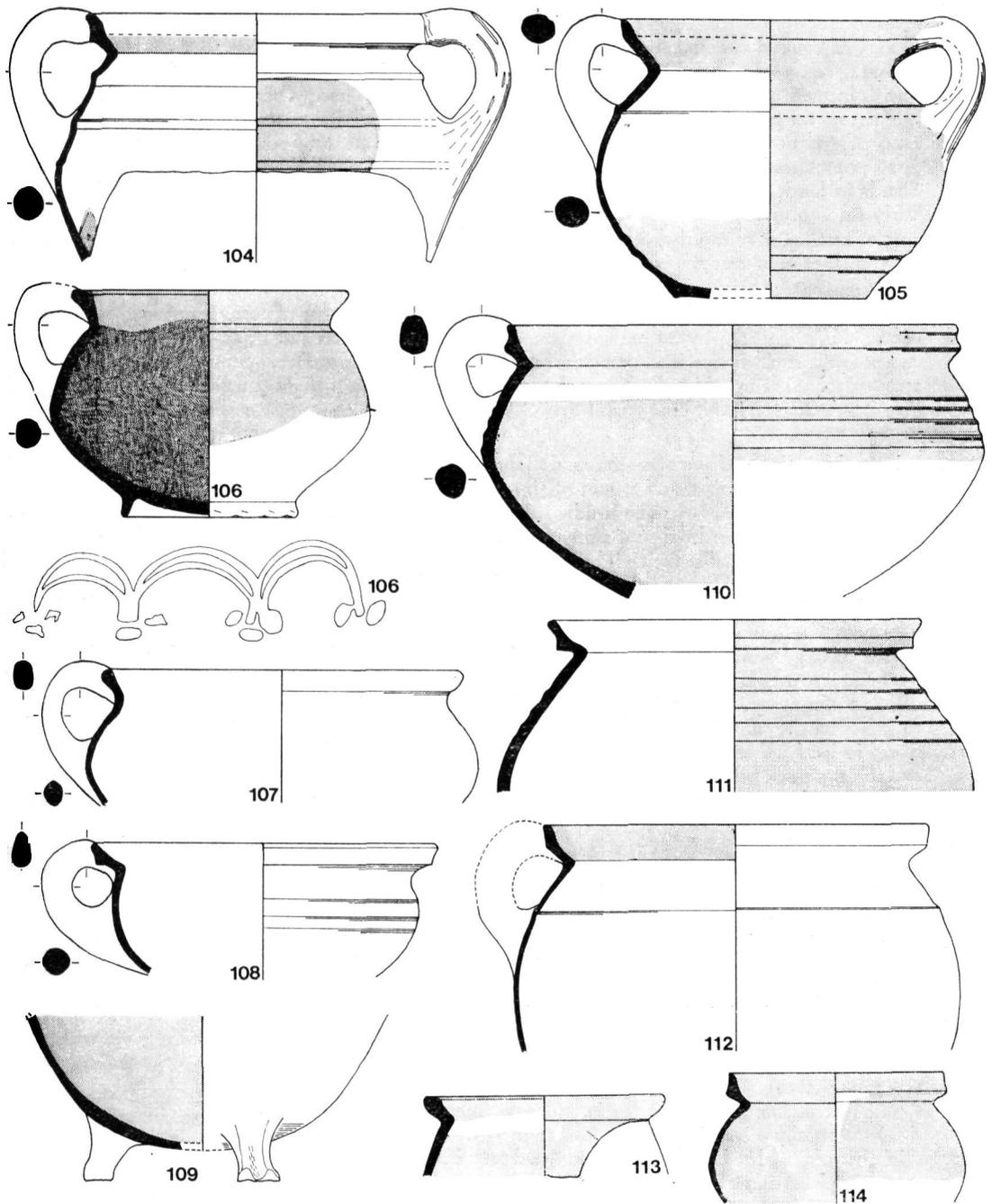


Fig. 38. Toppings Wharf; pottery from the Tudor Features, 104-14 ($\frac{1}{4}$)

(i) *Cooking Pots:*

103. Sherds in hard grey fairly coarse fabric, shading to red at interior surface. Both surfaces are hard and red-brown, with a green glaze on the exterior and upper part of interior, but avoiding the handles. Hollowed everted rim and slight ribbing on shoulder. Fill of Building VIII. (See Middelburg, Fig. 9).

(Nos. 104-114, Fig. 38)

104. Sherds in hard pale grey fabric. Surfaces are hard: interior is "lumpy" but exterior is sandy. Interior is buff except for green-glazed areas at rim and towards base; exterior varies from buff to black, with large areas of green/orange glaze away from the handles, which are brown and have large vertical cracks. Two pronounced ribs on shoulder. Fill of Building VIII. (See Middelburg, Fig. 9).

105. Sherds in hard grey sandy fabric, shading to red-brown at surfaces, which are hard, red-brown and fairly smooth. There is one large ($> \frac{1}{4}$ in.) grit visible in the fabric. Exterior (except for handles) and part of interior have mottled olive glaze, encrusted in places. One pronounced rib on the shoulder and three smaller ones near the base. Fill of Building X.

(ii) *Chamber Pot:*

106. Almost complete, in hard orange sandy fabric, grey in thicker parts of core. Exterior is orange-brown except where covered by an orange glaze. The interior is glazed and shows yellow on a white slip, except at the rim where it is an orange/green. The upper exterior surface, opposite the handle, has a triple arcade decoration in white slip under the glaze. The ring base is slightly frilled. Fill of Building VIII. (See Zandenbergh, Fig. 3, No. 5; and Pl. XXIV, No. 1).

(iii) *Either:*

107. Rim and handle sherd in coarse red sandy fabric, shading to black near exterior on lower part of body and rim, and with grey patch at join of rim and handle; there is one large grit ($> \frac{1}{4}$ in.). The surfaces are rough, with olive glaze. The handle is black and unglazed. Fill of Building VIII.

108. Rim and handle in hard red-buff sandy fabric. The exterior surface has a hard orange glaze except for on and around the handle, which is buff/black. The interior has an orange/green glaze. The glaze is pitted with small burst bubbles, and the general finish is crude. Fill of Building VIII.

109. Tripod base in hard buff/grey sandy fabric. The surfaces are hard: the exterior is black/grey and sandy; interior has yellow glaze and shows scratch marks. Fill of Building VIII.

110. Sherds of large vessel in hard grey/orange sandy fabric. The surfaces are hard and rough: the interior has green/brown glaze except for an "inaccessible" zone which is brown, while the exterior has a similar glaze on the upper part but is black lower down. The handle is unglazed and grey-brown. There are four ribs on the shoulder. Fill of Building VIII.

111. Sherd in hard red sandy fabric, with a few large grits. The interior surface is hard, brown and sandy; exterior has thick olive glaze except in small patches where the surface shows black. There are five ribs on the shoulder. Fill of Building VIII. (See Ter Does, Fig. 12, No. 5; and Basing House, Fig. 16, No. 167—but reduced).

112. Sherds in hard grey sandy fabric. Both surfaces are red-brown and unglazed, except for the interior at the rim, which has an olive-green glaze. There is one pronounced rib on the shoulder. Fill of Building X.

(iv) *Small Pipkins:*

113. Rim sherd in hard red sandy fabric. Surfaces are sandy and pink, except where covered by a glossy yellow/olive-brown glaze. There is the beginning of a slip decoration on the exterior. Base floor of Building VIII.

114. Rim and other sherds in hard red/buff sandy fabric, with buff sandy surfaces. Exterior surfaces and interior of rim are partly yellow-glazed; rest of interior has glossy yellow/green/brown glaze, with patchy and streaky appearance. Fill of Building VIII.

(Nos. 115-129, Fig. 39)

115. Rim sherd in fine grey sandy fabric, red near interior which is grey/brown. Exterior and interior of rim have patchy olive glaze. Fill of Building VIII.

116. Rim sherd in hard red sandy fabric with hard grey/black sandy surfaces. Exterior has olive-brown glaze, spotty in places and glossy elsewhere. The interior has an unusual pale green glaze. The lip is unglazed. Base floor of Building VIII.

(d) *Jars:*

117. Base sherd in hard fine red/grey sandy fabric with red/grey surfaces. Interior has an orange glaze. The foot has been "frilled" with fingertip impressions. Fill of Building VIII.

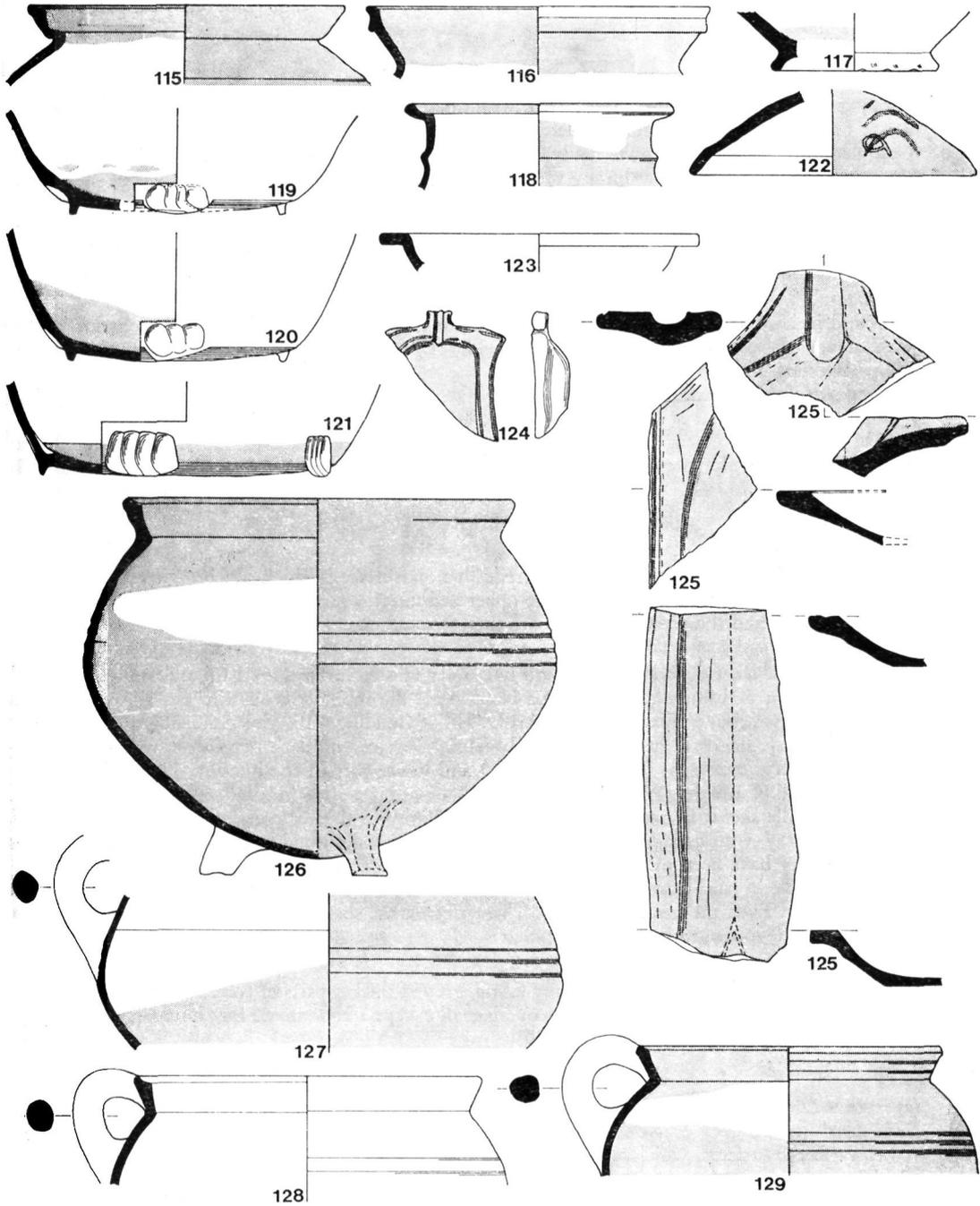


Fig. 39. Toppings Wharf; pottery from the Tudor Features, 115-29 ($\frac{1}{4}$)

118. Rim sherd in hard red sandy fabric. The surfaces are hard: interior is grey-pink and exterior deep pink. There is yellow glaze on upper surface of lip, and mottled yellow/orange glaze on lower part of exterior. Fill of Building VIII.

(e) *Large Storage Jars:*

119. Base sherd in hard grey fabric, containing large particles of flint and chalk. Exterior is black with spots of orange/green glaze; interior is red-brown with thick green glaze on base, thinning out up sides. There is one pulled-down foot: originally there would have been three or four. Fill of Building VIII.
120. Complete base in friable brown sandy fabric. The surfaces are hard, brown and have been crudely smoothed. There is an irregular lumpy yellow glaze on the lower part of the interior. Four pulled-down feet. Fill of Building VIII.
121. Base and sherds in hard buff-red coarse fabric. Surfaces are hard, rough and buff, shading to red near a patchy yellow/orange glaze on the exterior and base of the interior. Sagging base and (probably) five feet. Fill of Building VIII.

(f) *Others:*

122. Lid sherd in hard red fabric with grey core. Interior is hard red and fairly smooth; exterior is lumpy with orange glaze. There are three arches of white slip under the glaze, one is cut by an incised "P". Fill of Building VIII.
123. Flanged rim sherd in hard pale grey coarse sandy fabric. The surfaces are hard and rough, and both have a yellow-grey glaze. Fill of Building VIII.
124. Part of a miniature dripping pan in buff/grey fine sandy fabric (not the usual fabric of this group). There is an off-white bubbly patchy glaze on the upper surfaces. Possibly a toy or sample. Fill of Building VIII.

FABRIC I2

(a) *Dripping Pan:*

125. Three sherds in hard grey sandy fabric, reddish near surfaces, which are brown or purple-brown. There is a patchy purple/green glaze on the upper and interior surfaces. The general finish is crude. No two sherds join, and the positions shown are therefore estimated. Fill of Building X.

(b) *Cooking Pot (probable):*

126. Several sherds of large tripod vessel in hard red sandy fabric. Surfaces are hard and sandy, with purple glaze on exterior and interior, except for a band inside the shoulder. Four ribs just above girth point. No handles present but probably two originally. Fill of Building VIII. (See Zandenberg, Fig. 3, No. 8).
127. Body and handle sherds in hard orange sandy fabric. Surfaces are dark purplish-brown, with a glossy purple glaze on the exterior (except the handle) and lower part of the interior. Three ribs just above girth point. Fill of Building VIII.
128. Rim and handle sherds in hard orange sandy fabric, grey in thicker parts of core. Surfaces are hard: dark purple-grey, with dark purple-brown glaze except on and around handle, where it is patchy. Two ribs: there may have been more. Fill of Building VIII. (See Ter Does, Fig. 10, No. 2).
129. Rim and handle in hard orange sandy fabric. Surfaces are hard, with dark purple glaze except on zone inside shoulder. Even the handle is glazed. Three ribs on the shoulder and ribbing on the neck. Fill of Building VIII. (See Zandenberg, Fig. 7, No. 1).

(Nos. 130-138, Fig. 40)

130. Rim and other sherds in hard orange sandy fabric, grey in thicker parts of core and lowest part of body. Surfaces are brown, with a purple glaze covering all except a zone inside the shoulder. Two faint ribs just above girth point. Fill of Building VIII.

FABRIC I3

(a) *Plate or Dish:*

131. Rim sherd in hard grey coarse sandy fabric, with many small and one large air bubble. The fabric is red towards the surfaces, which are brown, hard and rough. Fill of Building VIII. (Cf. gp 23, Baynards Castle).

(b) *Jar:*

132. Rim and handle sherds in hard red sandy fabric, grey in core of handle. Interior surface and upper part of handle are orange. Exterior and rest of handle are dark brown. Fill of Building VIII. (Cf. gp 88/1 Baynards Castle).

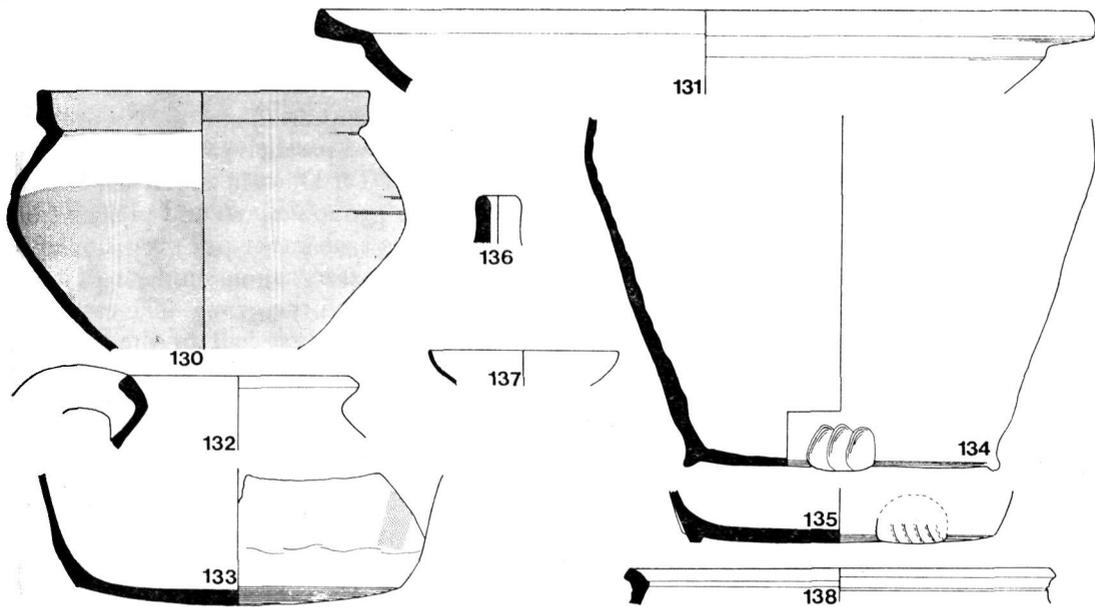


Fig. 40. Toppings Wharf; pottery from the Tudor Features, 130-38 ($\frac{1}{4}$)

(c) Large "Storage" Jar:

133. Base in hard red sandy fabric, grey in thicker parts of core. Surfaces are hard, red, sandy and crudely finished. There is a patchy smear of cream-coloured slip on the exterior. Fill of Building X.
134. Lower part of large jar in hard orange/brown coarse sandy fabric. Exterior surface is dark brown; interior is light brown with cream-coloured patches. Four pulled-down feet. Fill of Building VIII.
135. Base sherd in hard red sandy fabric. Surfaces are hard: exterior is red-brown, sandy and rough, while interior is red, smooth and has traces of white paint. One pulled-down foot is present; there would probably have been three originally. Fill of Building VIII.

OTHER FABRICS

136. Complete small rim in buff-yellow fabric with white tin-glazed surfaces. There is a vertical green stripe on the exterior. Probably from a flask. Fill of Building VIII.
137. Rim of cup in Cistercian ware; hard fine red fabric with thick glossy dark purple glaze. Fill of Building VIII.
138. Residual medieval rim sherd in hard brown gritty fabric with reddish surfaces. Robbing of Wall 2. (Not illustrated)
- Sherd of pale yellow fabric with white tin-glazed surfaces; both show faint traces of decoration but are badly worn. (Imported probably from Spain or Italy). Robbing of Wall 2.
- Two sherds in very hard brown fine sandy fabric, one with all-over white slip on exterior. Probably East Anglian. Robbing of Wall 2.
- Sherd in very hard pale grey sandy fabric. Buff interior and pink-brown exterior surfaces. Possibly imitating stoneware, or over-fired. Robbing of Wall 2.

DISCUSSION:

The majority of the pottery in fabric I appears to be of Dutch origin and of late fifteenth to early sixteenth century date. The influence of the Netherlands pottery at this time is discussed in P. Brears *The English Country Pottery* (1971), 27-31, who describes four characteristic Dutch forms, (i) chamber pots with a ring base and a single handle, (ii) fire pots, (iii) tripod pipkins or cooking pots with loop handles, (iv) bowls with horizontal handles. He also mentions large jars with small pulled feet. All except (ii) are present in this group.

Similar assemblages are known from at least five Dutch sites. A group from the moat at Spangen included pipkins and bowls showing general similarities (Figs. 2, 5 and 6) and a good parallel to No. 92. A Raeren flagon similar to No. 81 was with the group. The deposit was earlier than 1572 (when the castle is known to have disappeared) and the report dates the parallels to the fifteenth and sixteenth centuries. Two good parallels to pipkins Nos. 111 and 128 were found in the outer ditch at the manor house of Ter Does, in a fifteenth century deposit. The castle at Zandenburg yielded parallels to this group's bowls and pipkins from two rubbish pits (Figs. 3, 4 and 7). Particularly striking is a chamber pot very similar to No. 106, even to the "arcade" slip decoration. Again, a Raeren flagon similar to No. 81 (and dated independently to "not before 1500") was found with the group. The castle was demolished in about 1550 and both pits were dated to the "first half of the sixteenth century". A small group of vessels from a brick cess-pit (dated to c. 1500) at the Abbey of Middelburg (Fig. 9) shows strong similarities with the pipkins and chamber pot from Toppings Wharf. Finally, a bowl from Aardenburg, dated to the late fourteenth or the early fifteenth century, parallels No. 93.

Another good source of parallels are Dutch paintings of the sixteenth and seventeenth centuries. For example, Maes' "A sleeping maid and her mistress" (1655) has a strainer as No. 99 and a pipkin as No. 110; Adrien van Ostade's "An alchemist" (1661) has a vessel similar to No. 107, while William Duysten's "Man and Woman playing trick-track" (c. 1630) shows a man filling his pipe from a vessel shaped as No. 88 (fabric H).

However, none of these sources give us a close dating for the group. Recent excavations at Baynard's Castle (London) have yielded three closely dated groups in which parallels can be found. The first, group 88/1, dated to 1499 or 1500, has similar tripod pipkins, but with more pronounced and simpler rims, and an unglazed jar close to No. 132. Groups 1 and 23 (both dated to around 1520) contain a great deal of material paralleling the plates, bowls, pipkins, dripping pans and chafing dish, as well as general parallels for fabrics I 1, 2 and 3, H and some of the stoneware (see individual descriptions).

Similar groups are also known from other major ports (e.g. Southampton, Exeter), and are dated to the span 1450-1550. The Southampton pottery is thought to have originated from the Limburg area of Holland. Beauvais plates similar to No. 82 have also been found at Southampton and have been dated to the first half of the sixteenth century. The grey Raeren stoneware is commonly dated to about 1500 (see, for example, comments on the stoneware from Westminster Abbey).

On this evidence, Building VIII can be securely dated to the first half of the sixteenth century, with a "most likely" date of about 1520. The floor levels of Building X can be given a similar date, but rather less securely (on the basis of only two sherds of stoneware). The robbing of Wall 2, with a great deal of residual material and no really distinctive sherds, can only be given a general dating of 1450-1550, and a date rather earlier than the above is possible.

The distribution of pottery of these forms appears to tail off rapidly away from the coast. A handled bowl similar to No. 97 is known from Waltham Abbey 1973, a rim similar to No. 111 from Basing House, a pipkin showing some similarities from Farnham Castle (Fig. 1, No. 13; deposit dated 1521) and a tripod pipkin in the purple glaze of fabric I 2 has recently been found at Guildford Park Farm (not yet published). A nearby excavation at 199 Borough High Street produced no pottery parallel to this group, although one pit there was dated 1500-1525.

Although the stoneware and Beauvais ware are certainly imports, the Dutch pottery could be either imported or locally made (*e.g.* by Dutch potters). (See Note 24 in Documentary Sources above). For example, the form of No. 124 is Dutch but the fabric is not. However, the fabric differs from the rest of the group, some of which have distinctive large ($> \frac{1}{4}$ in.) purple grits in the fabric, presumably the outcome of a failure in clay preparation. The origin of these grits is not known, but they have not been observed in any local pottery, and support the idea that this group is imported.

The existence in these features of a high proportion of low-quality domestic vessels for which the local demand is apparently low can best be explained by the establishment of a Dutch trader here, who continued to use familiar pottery brought from "home".

CONCLUSIONS:

Contrary to the published evidence from earlier excavations (Southwark, Borough), the pottery from Toppings Wharf indicates early medieval (eleventh and twelfth century) activity in this area. Local wares, from Surrey, Kent or London, predominate throughout the medieval period, but there is a sudden increase in imported pottery, mainly from Holland but also from France and the Rhineland in the sixteenth century.

E. VI COINS

BY M. J. HAMMERSON

ABBREVIATIONS:

RIC: Roman Imperial Coinage.

LRB 1/11: R. A. G. Carson, P. V. Hill, J. P. C. Kent, *Late Roman Bronze Coinage*, Part 1/11 (1965).

BARNARD: F. P. Barnard, *The Casting-Counter and the Counting-Board* (1916).

DETAILED COIN LIST:

- Notes:
1. Left-hand numbers list coins in chronological order.
 2. All coins bronze, unless otherwise stated.
 3. Dates refer, where possible, to period during which coin was minted; otherwise to reigns.
 4. Probable condition at time of deposit, discounting corrosion effects as far as possible, to give a relative guide as to the length of time during which a coin may have been in circulation: A=unworn; B=slight wear; C=average wear; D=fairly heavy wear; E=very heavy wear.

		<i>Date</i>	<i>Condition</i>	<i>Provenience</i>
1	Agrippa, As, rev. Neptune left, with dolphin and trident, RIC (Tiberius) 32	23-32	D	Alleyway between Buildings I & II
2	Caligula, Dupondius, DIVVS AVGVSTVS type RIC (D.A.) 8.	37-41	C/D	Destruction Layer, Building III
3	Barbarous Imitation, Claudius I, Minerva rev., type of RIC 65, 27mm.	Claudian-early Neronian	B	Building IV
4	" " " 26 mm.	" "	C	Post-destruction deposits, Building V
5	" " " 27 mm.	" "	B/C	Foundation of Building V
6	" " " 26 mm.	" "	B	Building V
7	" " " 25 mm.	" "	B/C	Destruction Layer, Building III
8	" " " 25 mm.	" "	C	Building IV
9	" " " 24 mm.	" "	A/B	Alleyway between Buildings V & VI
10	Claudian Imitation, rev. type of liberty (RIC 69), 23 mm.	" "	B/C	Foundation of Building VII
11	Claudian Imitation, rev. type uncertain, 24 mm.	" "	D	Unstratified
12	Nero, As, rev. Victory I, RIC 329	55-68	B	Building III
13	Vespasian, As, type VICTORIA NAVALIS	67-79	C	Pre-erosion Pit 6
14	Domitian, Dupondius, rev. type uncertain	85-96	C	Building X
15	As, illegible	First-second century	?	Erosion gravels
16	" "	" "	?	Ditch I
17	Hadrian, Denarius, rev. AEGYPTOS, RIC 297	134-138	C	Unstratified
18	Antoninianus; obv., radiate hd, r., rev, uncertain figure	Second half, third century	C	Unstratified
19	Constantine I/II, rev. BEATA TRANQLTAS, mint PLOM (London)	320-24	A	Late Roman black earth
20	Urbs Roma, Mint TRS, LRB1-58 (Trier)	330-35	A	Victorian pit
21	Constans or Constantius II, rev. GLORIA EXERCITUS (1 standard)	335-41	C	Unstratified
22	Barbarous imitation, GLORIA EXERCITUS (1 standard) type	340's	C/D	Medieval deposition
23	" "	" "	B	Erosion gravels
24	Constantius II, rev.: GLORIA EXERCITUS (2 standards)	341-6	C	Modern intrusion
25	Constantius II or Constans, ditto type, Mint TRS, LRB1-158 to 168 (Trier)	" "	C	Medieval deposition
26	Constantine II, probably barbarous imitation (obv. CONSTANTINAVG), rev; 2 victories, VICTORIAE DD AVGGN	345-48	A	Late Roman black earth
27	House of Constantine, AE3, uncertain type	330's-40's	C	Unstratified
28	" "	" "	?	Unstratified

		<i>Date</i>	<i>Condition</i>	<i>Provenience</i>
29	Magnentius, rev. VICTORIAE DD NN AVG ET CAE(S), LRBII-56 to 61, mint TR (), (Trier)	351-53	A	Late Roman black earth
30	Valentinian I, rev. GLORIA ROMANORVM	364-75	C	Gully I
31	Valens, rev. SECVRITAS REIPVBLICAE	364-78	B/C	Unstratified
32	House of Valentinian, rev. ditto	"	D	T12 fourth century pit
33	House of Valentinian, rev. GLORIA ROMANORVM	"	C/D	Medieval deposition
34	Barbarous imitation, 9 mm.	Fourth century	?	Medieval deposition
35	Barbarous imitation, 9 mm.	Third/fourth century	?	Erosion gravels
36	Three barbarous coins, 8 mm., 7½ mm., 7 mm.	"	?	Foundation Building VII
37	French jetton; obv. figure on throne; rev. ornate cross. Cf. Barnard Pl. V. 23	Mid. fourteenth century	C/D	Medieval dock
38	Probably Nuremberg Counter, though small	Fifteenth century	C	Unstratified
39	Ditto, though border legend rather wider than normal. Possibly as late as sixteenth century	Fifteenth/sixteenth century	B/C	Building VIII
40	27 mm., possibly a late medieval counter, worm flat	Uncertain	?	Unstratified
41	Unofficial type Farthing; obv. King's Head (James I); rev. letters, uncertain. Possibly a Southwark token	First half seventeenth century	C	Below seventeenth century cellar
42	"Rose" Farthing of the small late type	"	B	T12 chalk wall
43	Unofficial type Farthing; one side with inscribed band round floral spray; other side uncertain. Possibly a Southwark token	"	B/C	Unstratified
44	Unofficial type Farthing, obv. with peacock or similar bird; rev. inscribed band with central design (uncertain)	"	C	Unstratified
45	William III, Halfpenny	1699-1701	E	T14 eighteenth century wall footing
46	George II, Farthing	1736	B/C	Below eighteenth century cellar floor
47	George III, Penny	1797-1807	B	Below concrete cellar floor
48	Illegible Halfpenny	Eighteenth century	E	Below eighteenth century cellar floor
49	Worm Halfpenny	Nineteenth century	E	Unstratified
50	Worm Halfpenny	Nineteenth/twentieth century	?	Eighteenth-nineteenth century brick-lined pit

While coins from most periods of the Roman occupation are represented in the finds, a rather high peak is found in the period to the reign of Nero (54-69), to which 12 out of the 38 identifiable Roman coins are attributable (*i.e.* almost 30%). The Flavian period is, by comparison, poorly represented, as is the period of Trajan-Hadrian, with only one coin. There is then a fairly normal gap in the coinage for the remainder of the second century, but coinage of the third century is very poorly represented, with only one specimen, a considerably lower proportion than usual. A second, more normal, peak is seen with the coinage of the House of Constantine (11 examples, though this is still low by comparison with the Claudian-Neronian peak). However, the low survival rate of fourth century levels, through later destruction by building, suggests that the original total of coin losses of that period could have been far higher.

Of specific interest is the fact that all of the nine Claudian coins are the well-known imitations of official types that are found in varying proportions with their prototypes on many sites, proportions of 50-75% imitations being by no means uncommon; and this figure is reinforced by finds from excavations at 207 Borough High Street, where, of a further 15 Claudian coins found, 13 were imitations. It is hoped to treat all these coins together in greater detail in a future paper.

SUMMARY OF COINS FOUND

Tiberius	1	Magnentius	1
Caligula	1	House of Valentinian	4
Claudius I (Barbarous Imitations)	9	Other barbarous third-fourth century	5
Nero	1	Medieval	4
Vespasian	1	Seventeenth century	4
Domitian	1	William III	1
Uncertain Asses., first-second century	2	Hanoverian	3
Hadrian	1	Nineteenth-twentieth century	2
Late third century radiate	1		—
House of Constantine: 320-24	1		52
330-41	4	Illegible	19
Barbarous Imitations: 330-41	2		—
345-48	1		71
Uncertain: 330-48	2		—

E.VII. METAL SMALL FINDS

BY R. TRIBBICK

A broad division is made into Roman, Medieval and post-Medieval, the latter being from an eighteenth century context.

I. ROMAN—PERIOD OF EARLY ROMAN SETTLEMENT

(unless otherwise stated, in and around the buildings)

A. THE METAL OBJECTS—bronze unless otherwise described.

(Nos. 1-9, Fig. 41)

1. Bow brooch with hinged pin (missing) 7.5 cm. long. Crude markings on the cross-arm. *Cf.* J. W. Brailsford, *Hod Hill*, 1 (1962), Fig. 8, C60.
2. Two bow brooches with sprung pin (one with coil only present). Incomplete. *Cf.* *Hod Hill*, 1, Fig. 6.
3. Bow brooch as 2 above, but complete in length—6 cm. Perforated catch-plate. *Cf.* as in 2.
4. Lock bolt for six-pin key. Raised web presumably to assist location of the key and prevent it overshooting the holes.

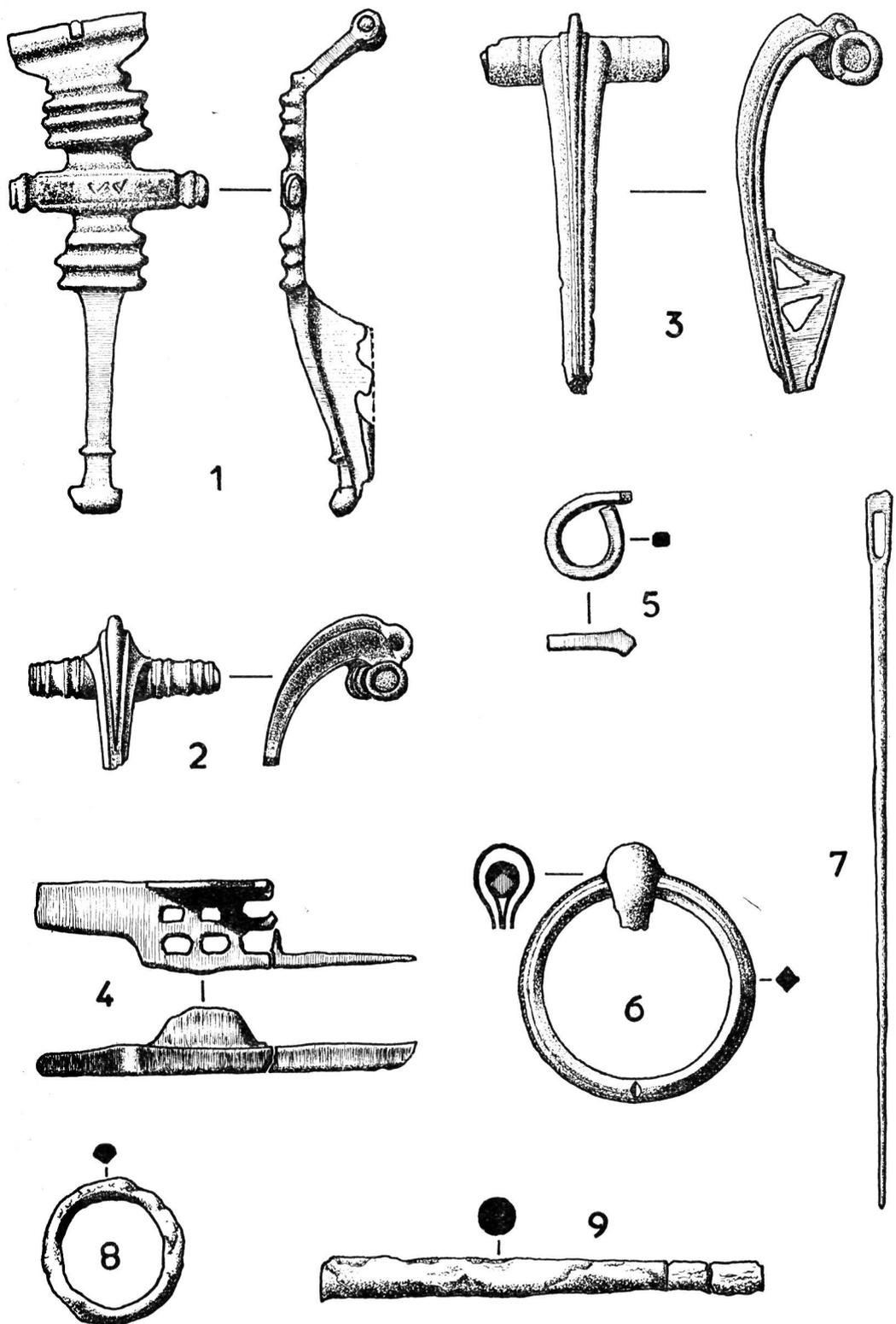


Fig. 41. Toppings Wharf; metal small finds, Roman (1/r)

5. Small turn of square wire with flattened, pointed end. Similar but larger piece is exhibited in Verulamium Museum as a bracelet detail.
 6. Brooch, circular, 3.6 cm. dia., with fine raised decoration on a rhombic section. Remains of the pin indicate a double-skin construction, pivoting on a circular zone applied to the rhombic form. Ditch I.
 7. Needle, 11.2 cm. long. Rectangular eye in a flattened end. Three other needles were found, but with broken eyes.
 8. Ring, 2.2 cm. dia. Possibly not a finger ring as the inside diameter is sharp. This may, however, suggest that the ring is in an unfinished condition.
 9. Rounded tapering bar, 6.5 cm. long, with traces of wood at the smaller end.
- (Nos. 10-11, 76, Fig. 42)
10. Circular cup, incomplete, but about 1.5 cm. dia. and hemispherical in form. A laminated inset, predominately calcium-carbonate, could be the remains of a pearl or worked shell.
 11. Handle, 5.8 cm. across with central raised decoration.
 76. Waisted fitting, 4.4 cm. long, with two holes 3.5 cm. dia., 2.2 cm. apart. Each hole faced with a shallow depression 1.2 cm. dia. on one side. The reverse side flat, except for the hollow in the raised area at one end. May be one of a pair mounted back to back, with a ring, for example, trapped in the hollow raised end. Facings at the two holes suggest a pivoting action.
 12. Sixteen sheet fragments. Pieces of sheet, either brought as scrap for re-melting or unrecognisable fragments of objects. Occupation and dump layers in Trenches 12 and 14, including Buildings I and V.
 13. Twenty-five irregular fragments. Fragments of bronze either brought for scrap for re-melting or unrecognisable objects. Occupation and dump layers in Trenches 11, 12 and 14, including Buildings I and V.
 14. Wire fragment, 2 mm. dia., 5 cm. long.
 15. Fragments of a tapered tube. Possibly a stylus case. Ditch I.
 16. Nails, two 5 cm. long.

IRON

17. One hundred and twenty-two nails. These were of building-construction size. Eighty-six of these were found in and around the buildings.
18. Spike, head at right-angle, shank 1.0 cm. square, 10 cm. long. Probably used to secure a wooden frame to masonry.

LEAD

(Nos. 19-20, Fig. 42)

19. Weight. Integral suspension eye, 9½ oz. Slightly tapered cylindrical form. Well.
20. Weight. Iron suspension eye (corroded), 17 oz. Opposed conical form. Well.
21. Disc, 4.8 cm. dia., 3 mm. thick. Central hole 5 mm. dia. Second hole dia. 2 mm. at 1.0 cm. from centre. No inscriptions or decoration.
22. Small fused fragment, about 1 cm. cube.
23. Twisted sheet fragment 9 cm. long, 4 mm. wide.
24. Sheet fragment 4 cm. long, 3 mm. wide. Ditch I.

B. THE METAL-WORKING RESIDUES

(Nos. 67, 73, Fig. 45)

67. Piece of copper sheared from heavy-gauge plate. No tin detected. From higher unsealed levels.
72. Bronze-melting slag. A glassy silicate with discrete bronze particles which is formed during the melting of bronze for casting, by combination with the crucible. Gully outside Building V and top floor of Building I.
73. Runner for a small casting in bronze. The shrinkage cavity in the flat face distinguishes this from a headed pin. Ditch I.
75. Ironsmithing slag. Iron-rich silicate, resulting from the accidental combination of iron-oxide scale and the furnace lining clay. Also from hammer welding, where the scale on the heated iron is intentionally combined with silica in the form of sand to clean the iron surfaces before hammering them to form the weld. Building I and Building V.

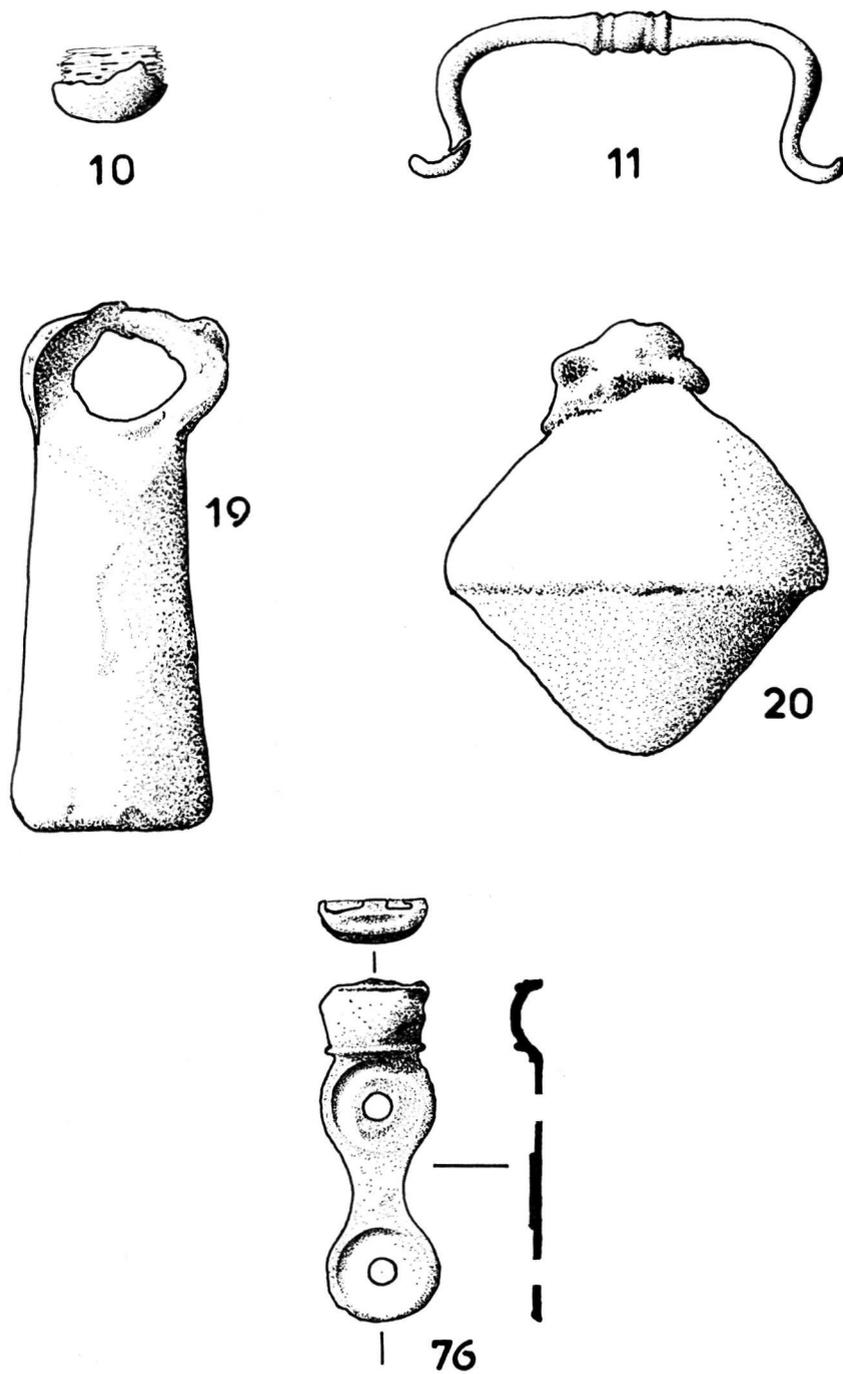


Fig. 42. Toppings Wharf; metal small finds, Roman (1/1)

DISCUSSION:

Of the fifteen bronze objects, seven are items of adornment. The others, three needles, part of a lock, a tapered rod, a handle, and two nails, can be interpreted as household effects. The iron and lead objects, equally, would seem to need no more than one dwelling to yield them.

The bronze objects were distributed as follows: "Adornment"—three inside buildings; two outside buildings; two in the ditch; one unstratified. "Household"—four inside buildings; two outside buildings; two unstratified.

The metal-working slags were predominantly from iron-smithing operations, but amongst those in Building I and Building V, isolated fragments of bronze melting slag were identified. Building I showed the greatest slag concentration, with 18½ lb. recovered; 1 lb. 13 oz. came from the area of Building V.

If any of the bronze objects are associated with the metal-working activity, they might be expected to be those from Building I and Building V, but there is no direct evidence to connect any of the objects with local production.

The area with the greatest number of nails does not correspond with the area containing the most slag. Nail production is not a convincing explanation for the iron slag, as local nail making would almost certainly start with a suitable size of raw material and not involve the production of much slag.

No semi-finished iron objects were identified to enable an alternative explanation for the slags to be offered.

The bronze casting runner (73) from Trench 8 seems to confirm local bronze working. The fact that it is divorced from the bronze slags of Buildings I and V is not surprising, as it would be understandable to conduct the fettling (trimming of the casting) away from the heat and fumes of the casting area.

The amounts of iron and bronze slag recovered do not seem to justify the conclusion of operation on an industrial scale, but as it is also unlikely that all the necessary apparatus and skill would be gathered for a few isolated sessions, it is possible that we have seen only scatter from a nearby industrial site, not uncovered by this excavation.

2. MEDIEVAL AND TUDOR

A. THE METAL OBJECTS—bronze, unless otherwise described.

(Nos. 25-33, Fig. 43)

25. Decorative bar with traces of gold over-lay. Length of rivet shank suggests mounting on leather rather than wood. Deposition layer.
26. Pin, silver, 4.2 cm. long. Spherical head 1.2 cm. dia., with granular surface bearing traces of gold. Pit or hearth in Building X.
27. Plain circular brooch, 3.0 cm. dia. Blunt pin, for use with prepared holes. See London Museum, *Medieval Catalogue*, 274-75. Probably thirteenth to fourteenth century. Building X.
28. Shaped object, possibly not complete. A possible "Face" in the contours. Erosion gravels.
29. Finger ring with round setting. Stone(?) missing. Building IX.
30. Pendant with claw-set blue cabochon. Mineral not identified but traces of gold on metal suggests a gem rather than glass. Deposition layer.
31. Hook, rivet shank suggests mounting on leather. Building VIII.
32. Pointed rod with hook, probably brooch or buckle pin (broken). Dock.
33. Chain. Figure-of-eight link. Deposition layer.

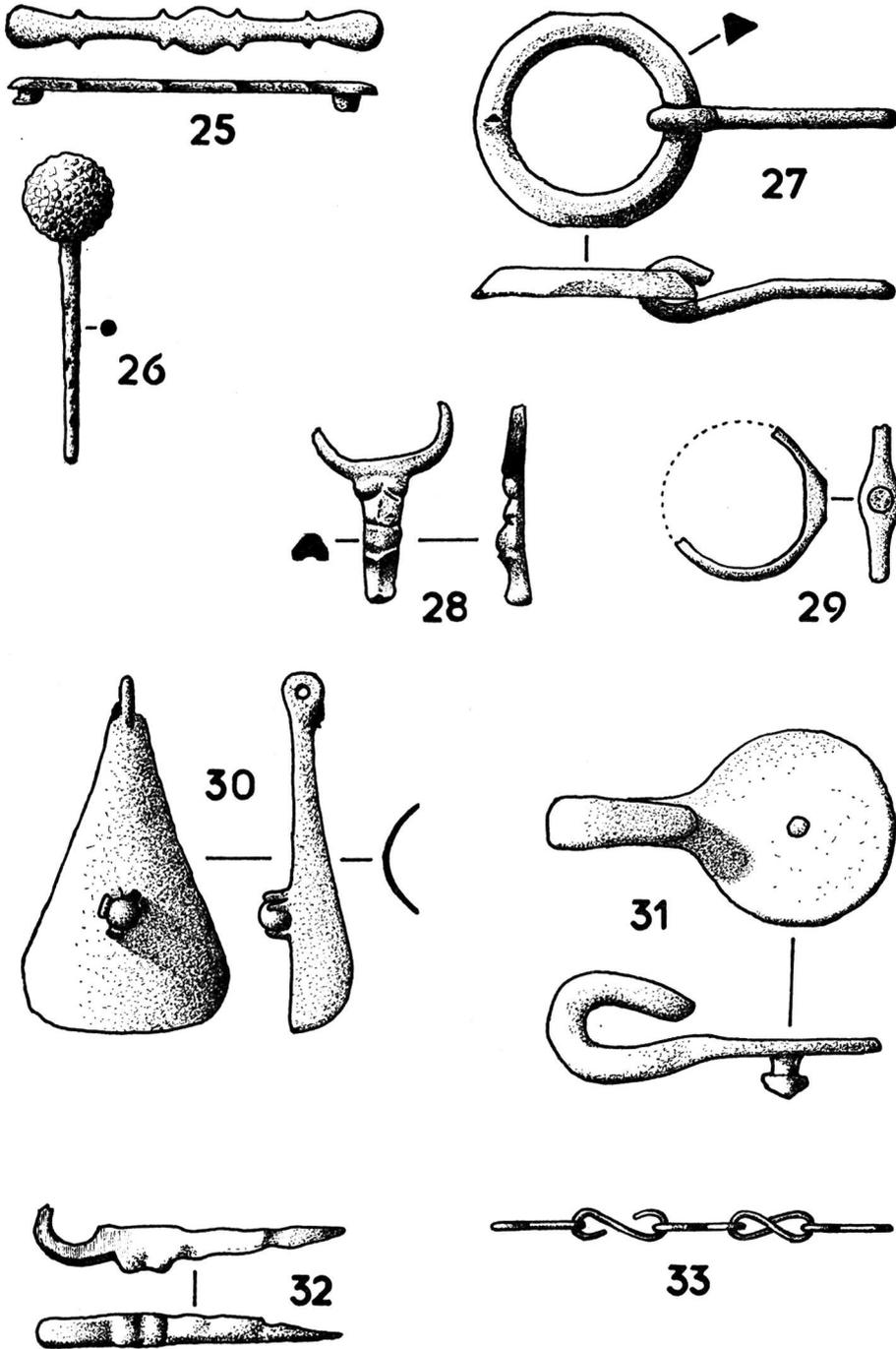


Fig. 43. Toppings Wharf; metal small finds, Medieval and Tudor (1/1)

(Nos. 34-43, Fig. 44)

34. Buckle. Plain. Deposition layer.
35. Bezel fragment, about 13 cm. dia. Building IX.
36. Cupped disc, 1.8 cm. dia., with central square hole possibly a leather-work fitting. Deposition layer.
37. Ring, 1.6 cm. inside, 2.3 cm. outside, crudely made, possibly not finished. Building X.
38. Finger ring, 1.7 cm. inside dia. Bi-convex section with lipped edges. The outer diameter bears an inscription in straight-line characters. This appears not to be purely decorative, but the sense is obscure, and it may be degraded by much repetition. Dock.
39. Key. Simple casket-form. Two of this form were found. Deposition layer.
40. Key. Symmetrical casket-form of the general type IX. London Museum, *Medieval Catalogue*, 135, Fig. 42. Deposition layer.
41. Disc. Shape suggests a scale-weight, but no value is marked. Top layer or layer above Building X.
42. Small cup in heavy gauge material. If No. 41 above is a weight, this may be part of the same nesting set. Lack of markings *may* suggest that these were in process of manufacture. Dock.
43. Pivoted cover. Deposition layer.
44. Sheet object, 3.5 cm. long, 1.6 cm. wide, with a central slot at each end. Building VIII.
45. Heavy sheet fragment, 5 mm. thick, apparently from the rim of a vessel about 50 cm. in dia. Dock.
46. Finger ring, 1.7 cm. outside and 1.1 cm. inside dia. Silver but completely corroded through section. No decoration visible. Trench 1, post-deposition pit.
47. Twenty-three sheet fragments. One from crosion gravels; six from the deposition layers; five from Building VIII; two from Building IX; five from Building X; two from the Medieval Dock/Tudor structure; one from the post-deposition pit; and one unstratified.

IRON

48. Ring, square section 6.5 cm. outside dia., 4.5 cm. inside. Deposition layer.
49. Ring, 4 cm. outside and 3 cm. inside dia. Rectangular section 2.5 cm. wide. Building IX.
50. Staple, 4.3 cm. long. Spikes 2.0 cm. apart. Deposition layer.
51. Fastener, 8 mm. square, shank bent at 90° giving limbs 10 cm. and 30 cm. long. A head has been formed at each end 2.5 cm. dia. Medieval post-deposition.
52. (Fig. 51). Ampulla in pewter. No joint is visible between front and back and the method of manufacture appears to have been by "slush" casting where the metal is poured into the mould (probably metal) and then immediately poured out to leave a thin hollow shell. Sealed by dry crimping after filling with water. (See Pl. 7 and Appendix for full discussion). Deposition layer.

LEAD

53. Circular block, 5.5 cm. dia., 2 cm. thick. One face marked XX followed by six pecks in a rough circle; by the same graver. The opposite face deeply marked with apparently unrelated depressions leaving a 5 mm. border. Weight 18 oz. Possibly not a weight but a soft pad for small metal-shaping operations. Dock.
54. Sheet fragment, 4 cm. long, 1 cm. wide. Small portion removed by two chisel cuts. Dock.
55. Strip, comprising two strips joined along the length with overlap; 6.5 cm. long. Dock.
56. Sheet fragment resulting from trimming an edge 8 cm. long. Medieval post-deposition.
57. Sheet fragment resulting from trimming a corner 4 cm. by 4 cm. Building X.
58. Sheet, 2.5 cm. square, one edge curled. Building VIII.
59. Sheet, broken, accurately squared corner piece 3 cm. by 2 cm. Dock.
60. Fused fragment, 6 cm. on major axis 5 mm. thick. Deposition layer.
61. Sheet, three-folded in "S" fashion and flattened, 5 cm. by 4 cm. Dock.
62. Bar fragment, 4.5 cm. long and approximately 1.0 cm. square. Dock.
63. Strip fragment, 8 cm. long, 6 mm. wide. Wall cut in T1.

B. THE METALWORKING RESIDUES

(Nos. 68-71, Fig. 45)

68. Part of a bronze ingot with evidence of a saw-cut through the section. Dock.
69. Buckle casting in bronze with runner in position showing how the casting was fed and with the flash untrimmed. Medieval post-deposition layers.
70. Bronze piece in the form of spillage from the crucible. Medieval post-deposition layers.

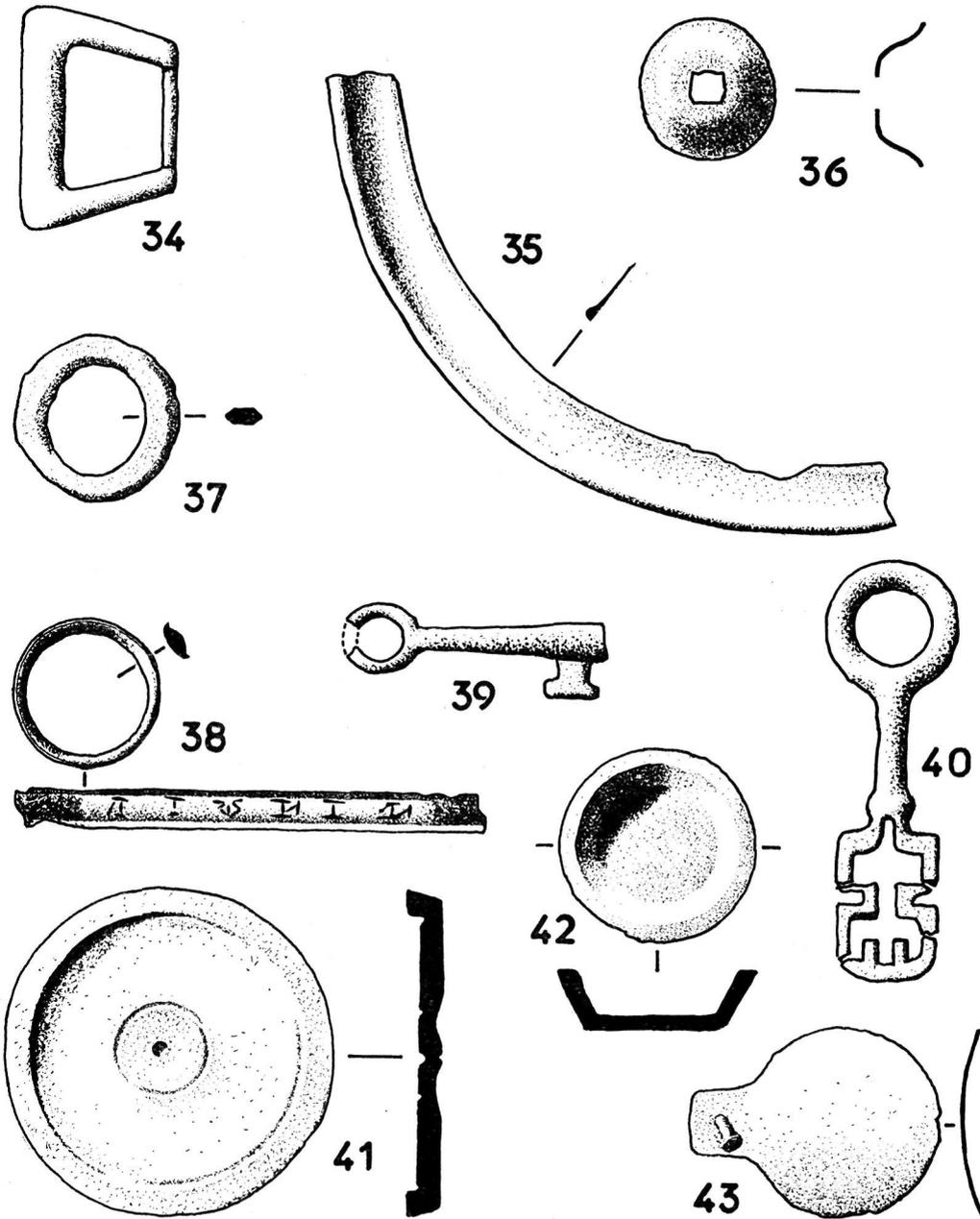


Fig. 44. Toppings Wharf; metal small finds, Medieval and Tudor (1/1)

71. Irregular piece of bronze, probably raw material. Two such pieces were found, both from the same location. Dock.
72. Silicate slag with discrete bronze particles. As with the Roman slag this results during the melting of bronze as for casting. Dock.

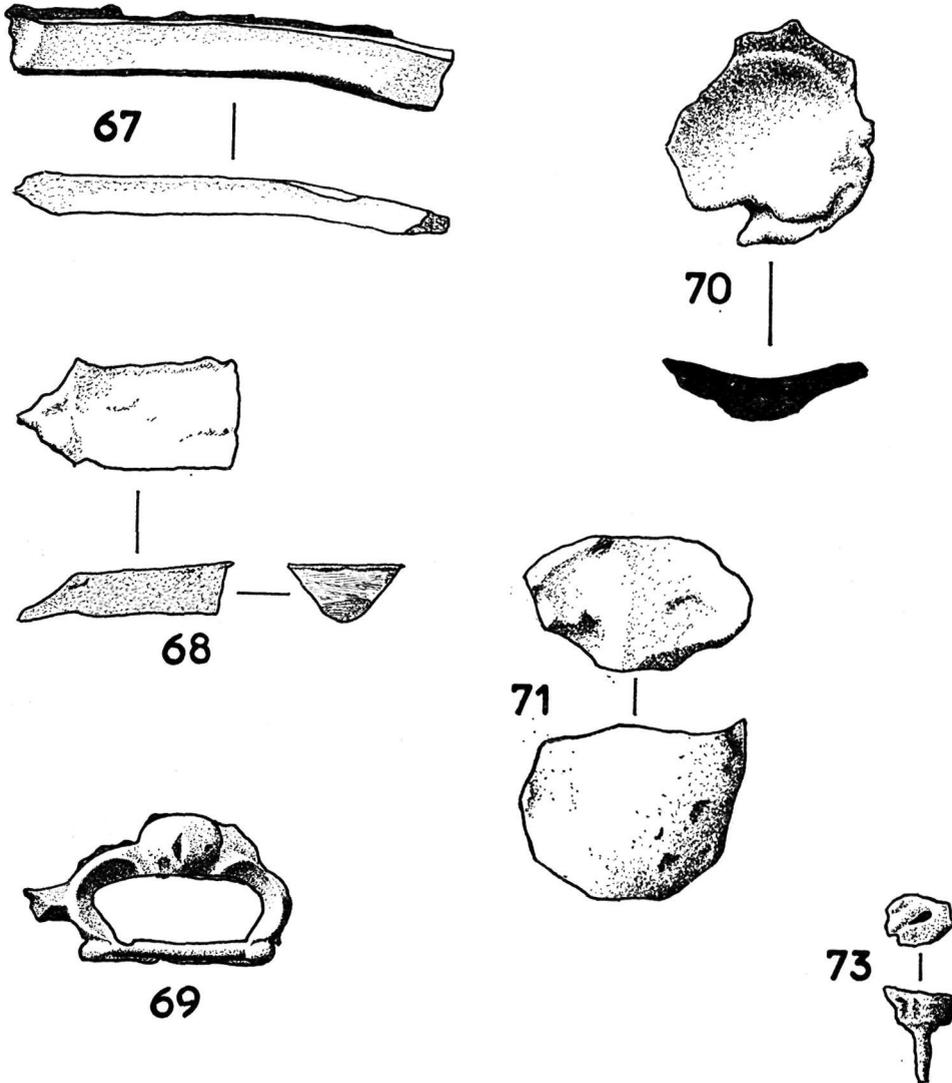


Fig. 45. Toppings Wharf; metal working, Roman and Medieval (1/1)

DISCUSSION :

Of the twenty three non-ferrous objects, other than lead base, twelve are items of adornment and none is of strictly domestic use.

In attempting to account for the presence of these objects, the metal-working activity in the area must be considered in addition to the more usual possibilities of abandoned household effects or accidental loss.

The post-deposition layers and the medieval dock yielded bronze melting evidence (see below), although in both cases this was in a secondary context; the raw buckle casting (69) shows the type of object being produced in the area. None of the objects found is out of scale with this activity.

Of the lead objects and fragments, the ampulla (52) could well be an accidental loss in the Thames. Six of the nine lead fragments came from the slag-bearing area of the dock as did the large block (53). These sheet fragments all suggest local lead working, but the ampulla had been crimped to seal it and presumably it was filled and sold at the shrine of origin and lost, rather than made, in the area.

The metal-working residues found in the dock and the post-deposition layers strongly suggest that bronze casting was conducted in the vicinity. No analyses have been carried out, as the re-use of scrap frustrates attempts to establish a link between raw material and finished object. The ingot (68) suggests that some fresh material was bought. The solitary thick vessel fragment (45) could well illustrate the re-use aspect as no other parts of this large object were found.

The distribution of finds shows Trench 13 as the source of most metal-working evidence and the wooden structure (Building IX) as the main concentration of objects and fragments. It is possible that some, if not all, the objects in Trench 13 were part of a collection of scrap awaiting re-melting and casting into fresh pieces. Lead was frequently added to bronze to increase fluidity and the lead fragment (61) folded over and flattened, suggests preparation for melting either in the bronze or for re-use as lead. Such preparation would be good economic practice as it reduces the area to weight ratio and thus reduces the oxidation losses during melting. A number of the bronze fragments appeared to have been treated in a similar way.

3. EIGHTEENTH CENTURY

A. THE METAL OBJECTS

BRONZE :

64. Buckle. Cast with integral decoration in apparent imitation of set stones. Eighteenth-century pit.

UNSTRATIFIED :

65. Thimble. Dimpling in spiral pattern. Internal dia. of 1.8 cm. suggests male and therefore industrial or seafaring use.
66. Chain. Found in several pieces, total length 55 cm. Circular links formed from square-section wire, dry butt-joints.

B. METAL-WORKING :

74. Stone mould for three plain buckles. No metal contamination; probably unused.

E.VIII. SMALL FINDS

BY IRENE SCHWAB

ROMAN

(Fig. 46)

1. Faience melon bead. Building VI.
2. Part of Faience melon bead. Building I.
3. Pottery sherd of soft pinky/orange fabric; traces of white slip on outer surface. Broken and repaired in antiquity. Top Roman level, Trench 8.
4. Tile fragment with two paw-marks, probably of dog. Coarse red sandy fabric. Building I.
5. Marble slab (broken), 4.9 x 4.0 x 1.6 cm. Probably from East Mediterranean (Greece or Sicily). Two surfaces worked. Between Buildings V and VI.
6. Chert piece, possibly used for smoothing; 5.0 x 2.3 x 1.2 cm. Possibly Jurassic, if so, from Portland, Dorset. Building V.
7. Whetstone of calcareous sandstone, probably from south-east England (Kent or Surrey). Polished on surface from frequent use. Well cut through Building VI.
8. Bracelet (broken) of bituminous shale, possibly from Kimmeridge, Dorset. Lathe-turned. Plano-convex shape. Small groove on the carination. Building V.
9. Tessera of chalk. Secondary calcareous deposit (tufa) on surface, possibly from the water binding the tessera into the mosaic. Probably from Gravesend quarries. Between Buildings V and VI.
10. Part of jet inlay(?). Decorated on one surface. Back surface slightly concave. Upper bar perforated. Ditch I.
11. Gaming counter of polished bone. Hole in centre where turned on lathe. Four concentric circles engraved on one surface. Under-surface slightly convex. Building III.
12. Gaming counter of polished bone. Turned on a lathe. Flat surface with carinated edge. Building V.

(Fig. 47)

13. Twelve gaming counters of polished bone. All are lathe-turned, have flat surfaces, and are chamfered on both edges. The inscriptions were made with a pointed object. The decoration may be very stylised laurel wreaths or garlands. (See *Britannia*, 3 (1972), 357-359). Building I:
 - (a) Dark brown. SIIXTIII with decoration engraved on one surface, P retrograde below it. IVNIII with decoration on reverse. Dia. 16.5 mm.; thickness 2 mm.
 - (b) Dark brown. SIIXTIII with decoration engraved on one surface. IVNIII.F(ecit) and soldier(?) facing right with loin-cloth, shield and decoration on reverse. Dia. 17 mm.; thickness 2 mm.
 - (c) Mottled dark and light brown. SIIXTIII with much decoration on one surface. IVNIII with decoration on reverse. Dia. 16 mm.; thickness 2 mm.
 - (d) Dark brown. SEIXTIII and decoration including quadruped (fox?) engraved on one side. RUFINUS and decoration on reverse. Dia. 15.5 mm.; thickness 2.5 mm.
 - (e) Mottled brown. SIIXTIII and decoration on one side. IVNIII and decoration on reverse. Dia. 16 mm.; thickness 2 mm.
 - (f) Mottled brown. Broken on one edge. SIIXTIII and decoration on one side. IVNIII and decoration on reverse. Dia. 16.5 mm.; thickness 3 mm.
 - (g) Light brown. SEXTI and decoration on one side. Reverse plain with hole in centre made by lathe. Dia. 17 mm.; thickness 4 mm.
 - (h) Mottled brown. SEXTI underlined on one side. Reverse plain with lathe hole in centre. Dia. 17 mm.; thickness 6 mm.
 - (i) Light brown. SEXTI and decoration on one side. Reverse plain with lathe hole in centre. Dia. 17 mm.; thickness 4.5 mm.
 - (j) Light brown. SEXTI and decoration on one side. Reverse plain with lathe hole in centre. Dia. 17 mm.; thickness 4.5 mm.
 - (k) Light brown. Plain on both sides. Lathe hole in centre of one surface. Dia. 16 mm.; thickness 4.5 mm.
 - (l) Dark brown. Both surfaces randomly scratched. Notched around edge. Dia. 17 mm.; thickness 2 mm.

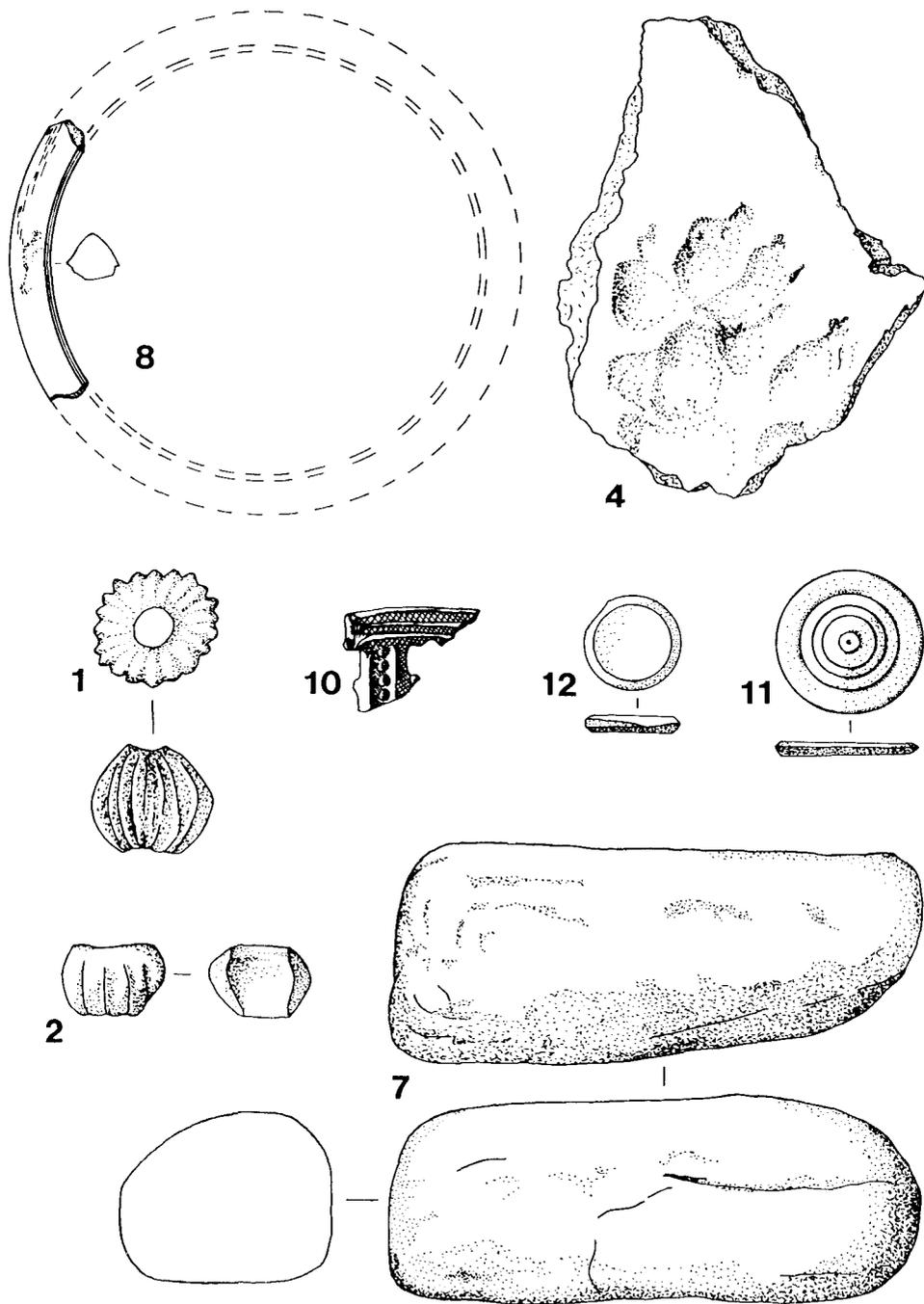


Fig. 46. Toppings Wharf; small finds, Roman (1/1), except Nos. 4 and 7 (1/2)

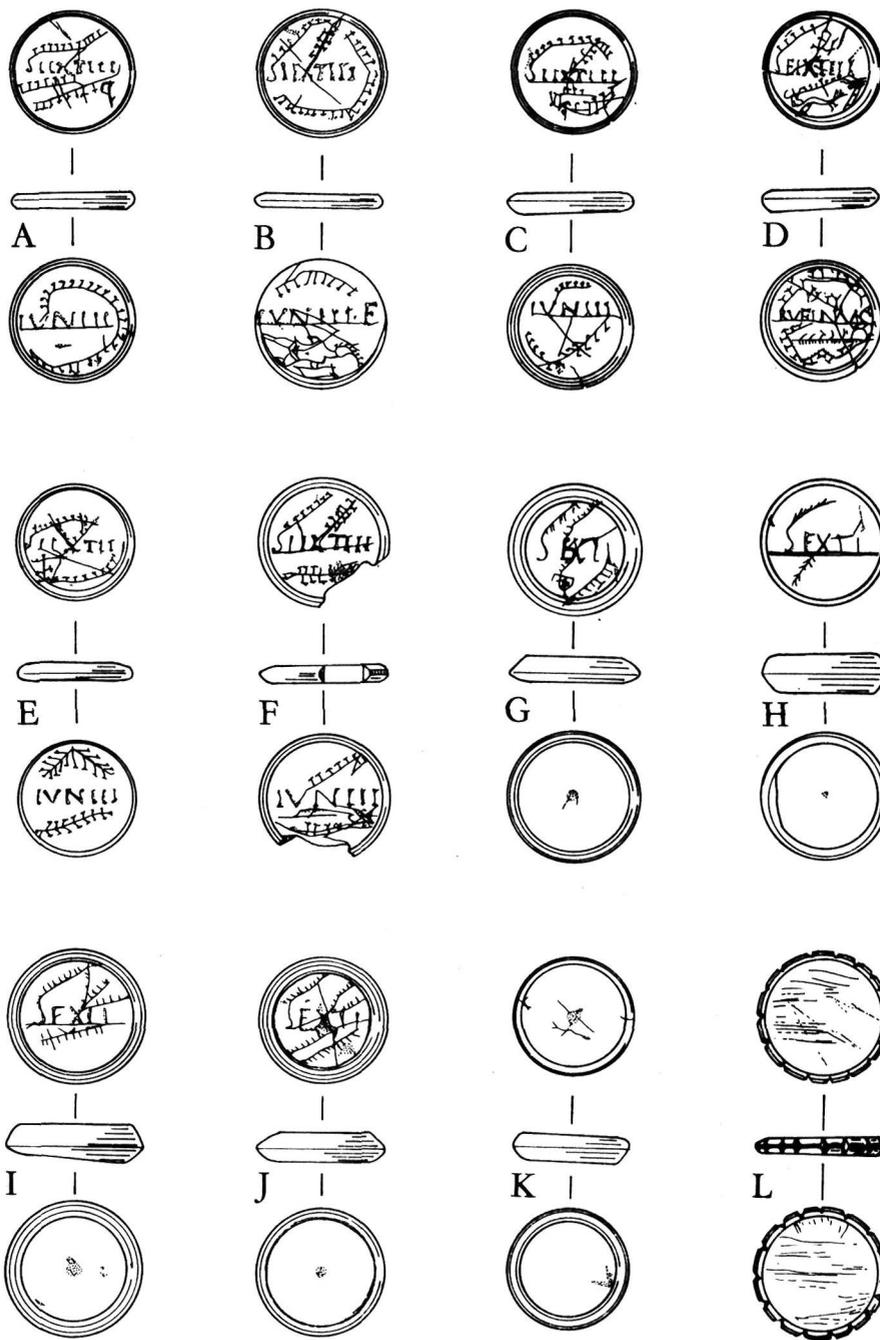


Fig. 47. Toppings Wharf; Roman gaming counters A-L (1/1)

MEDIÆVAL AND TUDOR

(Nos. 14-17, 26, Fig. 48); (Nos. 18-20, 22, 24, 27, Fig. 49)

14. Spindle whorl of soft, off-white, sand-tempered pottery. Plano-convex. Four shallow concentric grooves engraved on convex surface. Deposition layer.
15. Spindle whorl of soft, off-white pottery. Plano-convex, but flattened around perforation. Three concentric grooves engraved on convex surface. Pit in deposition layer.
16. Spindle whorl of hard, dark grey, coarse sand-tempered pottery. Both surfaces convex but flattened area has patch of applied clay. Slight ridge around part of carination. Building XI.
17. Loom(?) weight roughly formed of fired clay. Sand-tempered. Traces of burning on one side. Building VIII.
18. Hone of schist. Perforated at one end by drilling from both sides. Source of schist either in Aberdeenshire or in Norway. Deposition layer.
19. Hone of fine-grained calcareous sandstone. Flattened on one side. Source of sandstone in south-east or eastern England, but not in London area. Trench 8, pre-erosion pit.
20. Hone of schist. 10.0 x 2.3 x 1.3 cm. Broken at both ends. Slightly wedge-shaped. Perforated at wider end. Dock.
21. Hone of schist. 10.2 x 3.0 x 1.8 cm. Wedge-shaped. Broken towards thick end. Dock.
22. Spherical bead of jet. Dia. 1.5 cm. Lathe-turned. Perforation 1 mm. through centre. Building IX.
23. Polished bone pin broken at both ends. Length 4.7 cm.; dia. 0.4 cm., but narrower towards extremities. Construction layer of Building VII.
24. Polished bone tine, with arrow-head point, possibly from comb. Decoration of three concentric circles engraved on shaft, on both surfaces. Building VIII.
25. Polished bone knife handle. Hollowed in centre for tang. Length 8.7 cm.; width 1.9 x 1.3 cm. Deposition layer.
26. Polished bone tool. Pointed at one end. Shallow indentation at thick end may mean it is an unfinished netting needle. Length 14.1 cm.; width 1.2 x 1.0 cm. Probably from deposition layer.
27. Worked bone. T2 robber trench through mediæval wall.

E. IX. GLASS

BY IRENE SCHWAB

Much of the dating and identification of the glass was kindly provided by Dr. D. B. Harden.

ROMAN

(Nos. 1-12, Fig. 50)

1. Pillar-moulded bowl. Pale green. Lathe-polished top and inside of rim, but original fine finish over ribs. Two incised grooves on inside half-way down rib with lathe-polishing around. First century, probably not later than 75-80. Ditch I.
2. Rim and neck of jug. Brown. Awkward break in neck where handle broken off. First century; cf. Radnage jug in British Museum. *Antiq. J.* 47 (1967), 238-40, Pl. 43, Fig. 7, No. 17. Ditch I.
3. Neck and rim of large-necked flask, probably with a triangular body. Pale green. First century. Between Buildings V and VI.
4. Rim of two-handled stemmed cantharos. Pale green with applied white blob, originally one of many scattered on outer surface. Flavian; cf. C. Isings, *Roman Glass from Dated Finds* (1957), 54 (Form 38). Between Buildings V and VI.
5. Neck of small bottle with glass folded inwards for rim. Blue-green. Building III.
6. Rim of bottle, probably prismatic. Green. Could be second century. Possibly second phase of Building IV.
7. Rim of unguentarium. Pale green. First century. Building I.
8. Rim of bottle, probably prismatic. Green. First or second century. Building V.
9. Base of unguentarium. Light green. First century A.D.
10. Base of unguentarium. Tall type. Thick green glass. First century. Destruction over Building V.
11. Base of large square bottle. Green. Slightly domed base with four concentric circles moulded in it, one indistinct. Building I.

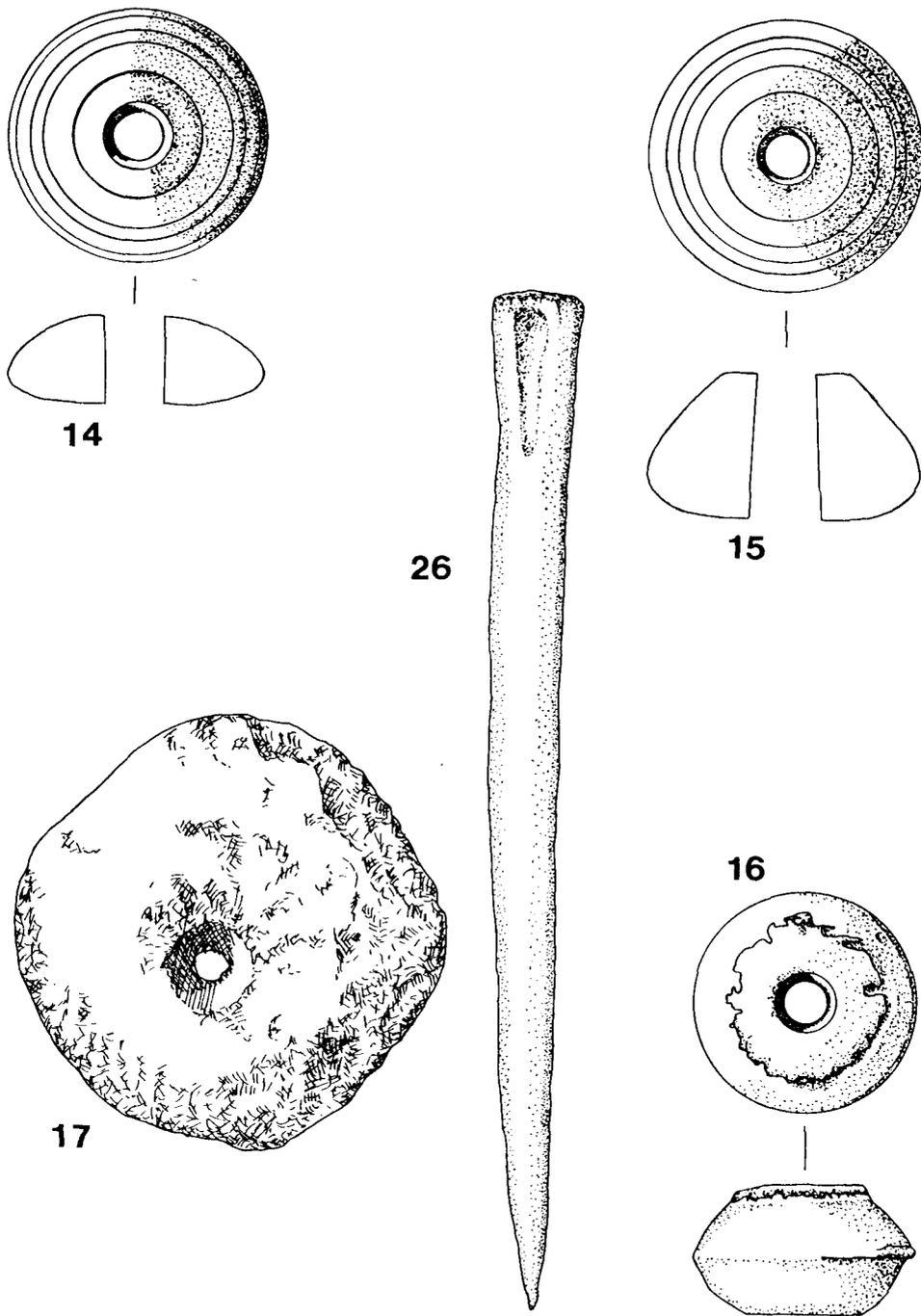


Fig. 48. Toppings Wharf; small finds, Medieval and Tudor (1/1)

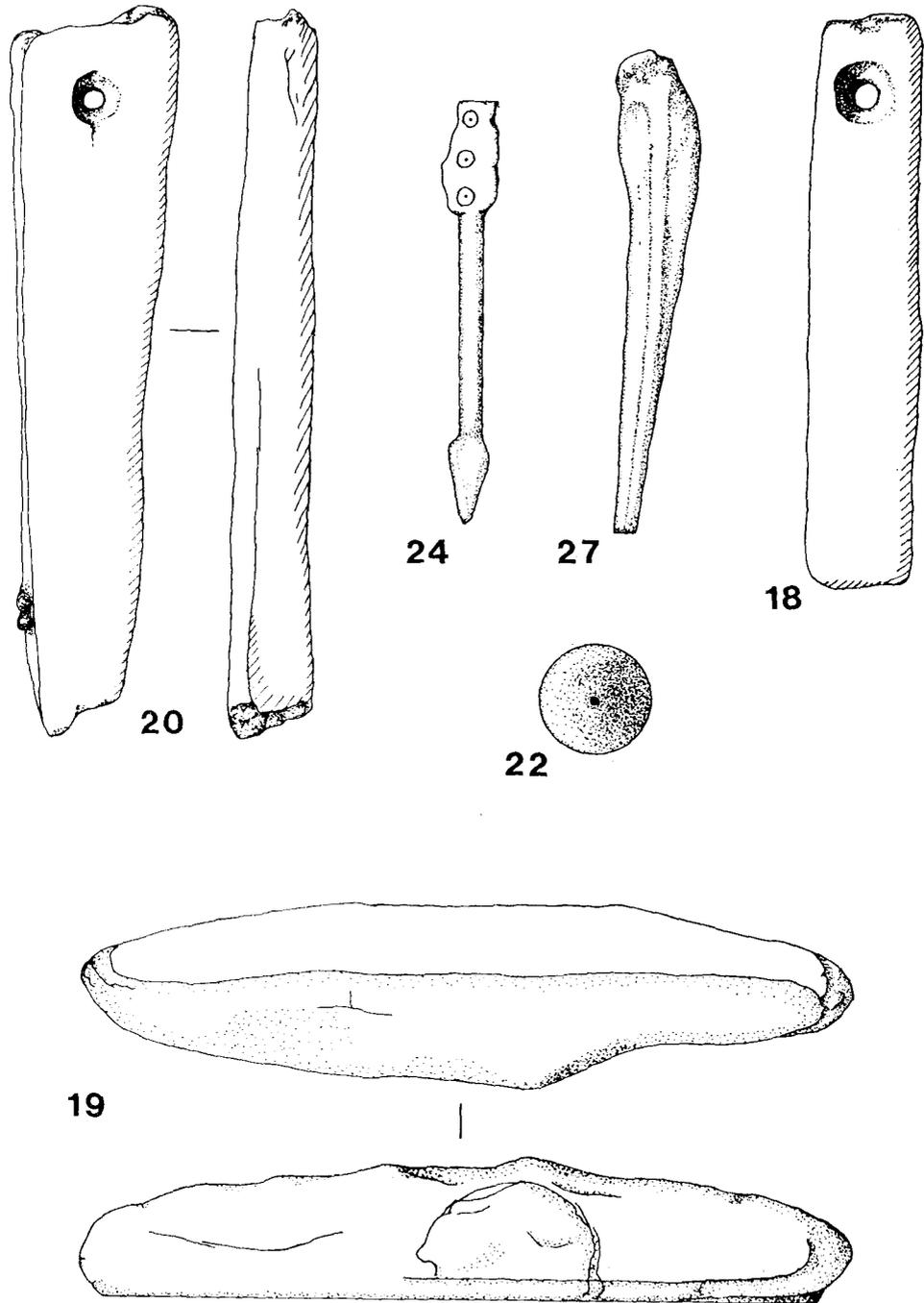


Fig. 49. Toppings Wharf; small finds, Medieval and Tudor (1/1)

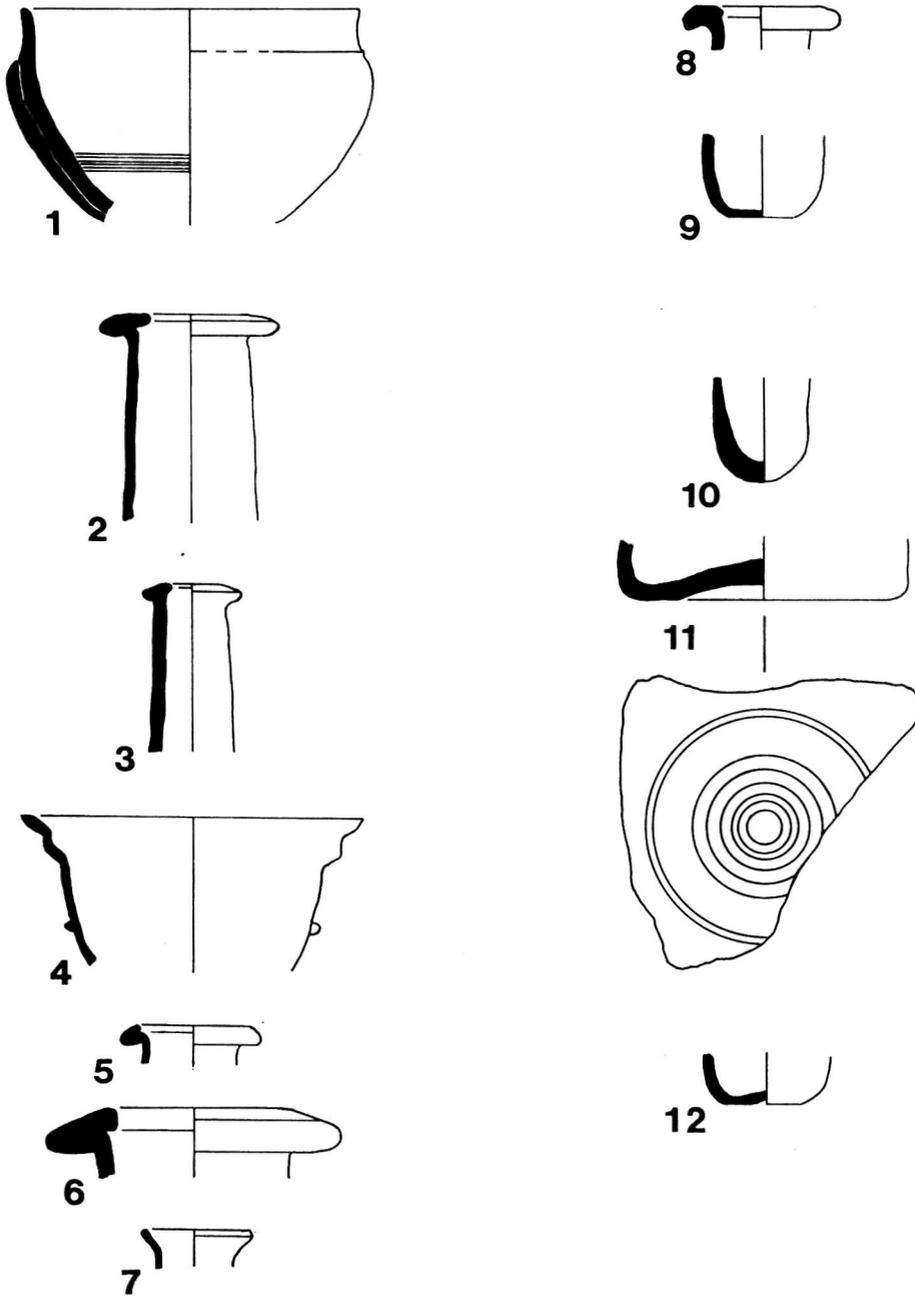


Fig. 50. Toppings Wharf; Roman glass, 1-12 ($\frac{1}{2}$)

12. Base. Pale green. Fill of Building III.
13. Body fragment 1 mm. thick. Pale yellow-green. Smooth on inside, rough and slightly pitted on outside, with four horizontal lines (wheel incisions) 1 mm. wide, the bottom two abraded. Probably originally the lines were dull and the surface shiny. From straight-sided beaker. Building VI.
14. Body sherd. Very pale blue. Smooth inside, rough outside surface and three horizontal lines (wheel incisions). Cf No. 13, 1 mm. thick. Occupation outside Building V.
15. Flat handle. Green. Four narrow and one broad rib on outer surface. First or second century. Well.
16. Jug handle. Green. Three central ribs. Distorted by a fire. First century. Ditch I.
17. Part of body of pillar-moulded bowl. Sherd from space between pillars. Green. Area just below rim was polished and now appears dull. Traces of polishing also on inside. Alley between Buildings V and VI.
18. Folded rim of bowl or wide-necked jar. Pale blue-green. Flattened on top. Late Roman black earth.
19. Counter. Light blue opaque glass. Plano-convex shape. Dia. 1.55 cm.; height 0.65 cm. Building III.
20. Flat body sherd of hexagonal or square prismatic bottle. Pale green. First or second century. Between Buildings V and VI.
21. Tail of jug handle. Green. Probably from bulbous tall-necked type. First century. Building V.
22. Handle fragment and body sherd. Dark blue. Late-first century. Building VI.
23. Top part of handle. Light green. Slightly rounded. First century. Building VI.
24. Edge of central rib and outer edge of angular handle. Dark blue. Building V.
25. Folded base of small jug. Pale green. Second century. Late Roman black earth.
26. Rim and body fragment of pillar-moulded bowl. Pale green. Worn surface. Construction layer between Buildings V and VI.
27. Rim of vase. Yellow. Later Roman pit.
28. Base of a handle. Light green. First century. Building IV.
29. Body fragment. Very pale blue. Building III.
30. Flattened base of bowl or flask. Dark blue. First century. Building IV.
31. Gaming counter. Off-white opaque glass. 1.8 cm. dia.
32. Gaming counter. White opaque glass. 1.1 cm. dia.
33. Gaming counter. Blue opaque glass. Broken and polished. Nos. 31-33 from pit, possibly later than Building III.
34. Two sides of square bottle. Green. 3 mm. and 4.5 mm. thick.
35. Two fragments of Hofheim-type bowl. Very pale green. Wheelmarks in a shallow groove probably just below rim. Another incised line below. First century. Cf. C. Hawkes and M. Hull, *Camulodunum* (1947), Pl. 88.
36. Body fragment. Pale green with many bubbles. Possibly fourth century.
37. Fragment. Colourless. Post-70 A.D., probably second century. Nos. 34-37 Pit, later than Building III.
38. Gaming counter. White opaque glass. Plano-convex shape. Broken patch on upper surface. Dia. 1.7 cm., height 0.6 cm. Ditch I.
39. Pillar-moulded bowl. Brown and white millefiore glass. Plain rim. Part of pillar remaining. Probably made in Italy (Rome or Campania), Claudian, cf. Radnage bowl mid-first century (different colour) in *Antiq. J.* 3 (1923), 334, Pl. 35. Pit possibly later than Building IV.
40. Base of unguentarium. Pale green. Possibly a stamp on base; cf. in B. Cunliffe *Excavations at Fishbourne* 1961-69 2 (1971), 358, No. 86, Fig. 142. Pit possibly later than Building IV.

MEDIEVAL

41. Linen smoother. Surface very weathered, therefore it is of potash glass which was used from 1000-fifteenth century. This is a Viking type, but probably dated eleventh-twelfth century; cf. Dudley Waterman, "Late Saxon, Viking and early Medieval finds from York", *Archaeologia*, 97 (1959), 96 and Fig. 22, Nos. 36-7. Medieval deposition layer.

E. X ANIMAL BONES

BY DERRICK RIXSON

INTRODUCTION:

The animal bone was in good condition, but mainly fragmentary and in many cases each trench or feature layer yielded only two or three fragments. As the bones from each trench or feature layer were sorted into species and individual animals for recording, there were many instances whereby one individual was represented by just one bone fragment. Under these circumstances, the total number of individuals for each species must be regarded with reservations, but the numbers of each species and of each age group can be compared proportionally.

The report of the findings is divided into Romano-British, Medieval and Tudor. The Romano-British bones come from the levels of the first and early second century settlement, the Medieval bones from the deposition layers and the gravels of the dock, and the Tudor bones from the infilling of Building X.

METHOD:

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

- (i) Number of bones or fragments of each bone.
- (ii) Minimum number of animals in each species (Table 1).
- (iii) Any evidence based on fusion or non-fusion of epiphyses or tuberosities.
- (iv) Age category based on fusion state of bones and dental state (Table 2).
- (v) Number of animals represented by bones of different parts of the body (Table 3).

The minimum number of individuals was recorded in respect of each trench or feature layer; therefore, if a trench or feature layer yielded just one fragment of sheep bone it would be recorded as one individual under sheep.

The age categories into which individual animals were placed were as follows:

Age Category:

“A” The following epiphyses would be unfused: Distal humerus, proximal radius, proximal 1st and 2nd phalanx, also the ischium, ilium and pubis would be unfused.

Dentition: temporary premolars, no molars or 1st molar only present.

“B” The above epiphyses would be fused with the following being unfused: distal metacarpus, distal metatarsus, distal tibia, trochanter minor of the femur.

Dentition: Temporary premolars and 1st and 2nd molars only.

“C” All the above epiphyses would be fused with the following being unfused: proximal humerus, distal radius, the olecranon process of the ulna, distal ulna, proximal and distal femur; proximal tibia (proximal fibula in pig), tuber calcis, tuber coxae, tuber ischii, also the epiphyses of the vertebrae.

Dentition: all premolars permanent and all molars fully erupted.

“D” All the above epiphyses and tuberosities fused.

Dentition: as for “C” with 3rd lower molar fully in wear on all cusps.

In many cases only the distal or proximal part of a bone was found which would place the animal in any of two or three age categories, which has given rise to the categories A/B or B/C, etc. (*e.g.* distal half of a metacarpus which is unfused=A/B category; proximal half of humerus which is unfused=A/B/C category; distal half of a tibia which is fused=C/D category). Where separate bone fragments of a species from one trench or feature layer could belong to the same individual and fall into overlapping age categories, the age category common to all the bone fragments would be the one recorded (*e.g.* distal fused tibia=C/D category plus a distal unfused femur=A/B/C age category—reported as one individual in C age category).

As some of the bone material was adequate to identify an individual, but was not the part of the bone to show evidence of age, the total number of individuals reported exceeds the total of individuals shown in the separate age categories.

The division of bones into separate parts of the body were as follows:

- (i) Forequarters—Scapula, humerus, radius, ulna, carpus, cervical and thoracic vertebrae.
- (ii) Hindquarter—Os coxae, femur, tibia, fibula, tarsus, lumbar and sacral vertebrae.
- (iii) Feet—Metacarpus, metatarsus, phalanges.
- (iv) Head and Teeth—Skull, mandible, horn cores, teeth.

This division of bones was only applied to cattle, sheep and pigs.

FINDINGS:

Many of the bones of cattle, sheep and pig from each period showed signs of chopping indicating that they had been butchered for food. There were no consistent chopper marks on the bones to indicate any particular method of cutting up the carcasses. The nature and type of bone generally would be consistent with the bone residue from normal household waste.

1. ROMANO-BRITISH:

Cattle (*Bos Taurus*): The Romano-British layers contained predominantly cattle bones whereas in the Medieval and Tudor layers, cattle, sheep and pig were more evenly represented; although with the small amount of bone from the Medieval and Tudor layers this fact should not be regarded as significant.

The age distribution of the cattle (Table 2) tended slightly towards the more mature and older animals, the younger animals (A and B categories) possibly representing casualty animals. Different parts of the carcass were evenly represented (Table 3) by the bone material indicating that whole animals or at least all parts from different animals were consumed as food on this site.

Sheep (*Ovis Aries*): The total number of individual sheep (Table 1) was about one third of the cattle numbers.

The age distribution of the sheep (Table 2) was fairly even and there was no significant difference in the numbers of individuals represented by bones from different parts of the body.

Goat (*Ovis Caprinae*): Bones of goat which were identified distinct from sheep represented two individuals. Bones which could not be identified as goat distinct from sheep were listed as sheep.

Pig (*Sus Scrofa*): The total of individuals was about two thirds that of cattle and twice the numbers of sheep (Table 1). The age distribution of the pigs was fairly even (Table 2) and there was no significant difference in the numbers of individuals represented by different parts of the body (Table 3).

Horse (*Equus Caballus*): There was a small amount of bone representing seven individuals.
Dog (*Canis familiaris*): Bone material of dog represented two individuals.

Other Species: There was a number of fragments of bone of deer representing five individuals and part of the ulna of a hare. There was also a number of bones and fragments of birds, mainly domestic fowl.

MEDIEVAL:

The bones from these layers were mainly cattle, sheep and pigs in fairly even proportions for each. The numbers were too small to show any significance in age distribution (Table 2) and the different parts of the body represented by the bone (Table 3).

In the fourteenth–fifteenth century gravels of the dock were the proximal ends of two metacarpal, proximal ends of six metatarsal and the distal end of one metatarsal of cattle which had been carefully sawn through using a fine-toothed saw. It is very unlikely that this sawing was carried out as part of the butchering of the animals, as it is so much easier to remove the feet of the animals by severing the ligaments and tendons to separate the metacarpal/carpal joint and the metatarsal/tarsal joint. It is highly probable that the parts of the bone found on the site were the waste parts and that it was the rest of the metapodial bone that was used after the proximal part was sawn off, possibly as a handle of a knife or some other tool.

The bone material representing one dog consisted of an ulna and radius which were fairly large. The measurements are as follows:

	<i>Total Length</i>	<i>Maximum Width Lateral–Medial</i>		<i>Mid-shaft Width Lateral–Medial</i>
		<i>Proximal</i>	<i>Distal</i>	
Ulna	242 mm.	24 mm.	9 mm.	13 mm.
Radius	210 mm.	24 mm.	32 mm.	17 mm.

3. TUDOR:

Mainly cattle, sheep and pig represented fairly evenly (Table 1). As with the Medieval, the age distribution of the animals (Table 2) and the different parts of the body represented by the bone could be regarded in no way significant as the numbers were too small.

A fragment of one human clavicle was found within the east wall of Building VI.

TABLE 1—MINIMUM NUMBER OF INDIVIDUALS OF EACH SPECIES

	<i>Cattle</i>	<i>Sheep</i>	<i>Goat</i>	<i>Pig</i>	<i>Horse</i>	<i>Dog</i>
Romano–British	107	35	2	70	7	2
Medieval	10	8	1	6	—	1
Tudor	8	8	—	4	1	1

TABLE 2—MINIMUM NUMBER OF INDIVIDUALS IN EACH AGE CATEGORY

Age Category	Cattle			Sheep			Pigs		
	Romano-British	Medieval	Tudor	Romano-British	Medieval	Tudor	Romano-British	Medieval	Tudor
A	1	—	2	1	—	—	1	—	—
A/B	2	2	—	3	—	1	11	1	—
A/B/C	—	—	—	—	—	—	1	—	—
B	2	—	—	1	1	—	2	—	—
B/C	7	1	2	1	—	1	6	—	1
B/C/D	3	—	—	1	—	—	2	—	—
C	2	—	—	4	—	2	5	1	—
C/D	6	1	—	5	—	1	3	—	—
D	15	—	—	3	5	3	5	—	—

TABLE 3—NUMBER OF INDIVIDUALS REPRESENTED BY BONES OF DIFFERENT PARTS OF THE BODY

	Cattle			Sheep			Pig		
	Romano-British	Medieval	Tudor	Romano-British	Medieval	Tudor	Romano-British	Medieval	Tudor
Fore-quarter	49	6	6	16	3	1	32	2	2
Hind-quarter	50	4	5	18	1	3	26	—	3
Feet	51	3	3	13	2	3	24	1	—
Head	37	4	3	11	3	6	27	4	1

E. XI ROMAN OYSTER SHELLS FROM BUILDINGS III AND IV

BY K. D. THOMAS

Over 400 specimens were examined from the levels above the top surviving floor of Building IV and the rubbish deposits filling Building III.

All are of the species *Ostrea edulis* L. which occurs around the British Isles and from Norway south to the Iberian Peninsula, the Atlantic coast of Morocco and into the Mediterranean and Black Sea. The species is very variable in size and form, this being related more to extremely local conditions, associated with substratum, than to geographically-determined factors. As a result, it is not possible to say from where the shells were derived. They may have come from local populations, or from abroad.

Measurements on the size and weight of sub-fossil oyster shells may enable the calculation of the amounts of animal protein eaten (by comparison with the average animal weight/shell weight ratio of modern specimens). This may enable an estimate of the importance of oysters in the diet, assuming a certain minimum essential daily calorific intake per human individual. However, in order to do this, some knowledge of the human populations which once inhabited the site must be available. In particular it is essential to have some idea of the numbers of people involved and the periods of occupation. In the present case such information is not available, so time-consuming measurements on the shells were not made.

The fact that the oyster shells occur throughout the site suggests that they may have been a regular part of the diet of the inhabitants. It is not possible to say how important they were in the economy of the occupation, or if they formed a seasonally-important part of the diet.

E. XII THE CLAY WALL FROM BUILDING III AND THE PLASTER FROM BUILDING VI

BY PAMELA PRATT AND ELIZABETH PYE

- (a) Examination of a section of the northern internal clay wall in Building III with an applied Plaster Surface.

The fabric of the wall and the surrounding soil fill was very damp and the plaster was soft and crumbly. Removal of the soil from the plaster surface for examination purposes proved to be very damaging, while the material was damp, and it was therefore decided to remove a section of the wall with some of the surrounding soil, so that it could be examined carefully under laboratory conditions. A section approximately 40 cm. was lifted and transported to the Institute of Archaeology conservation laboratory where it was allowed to dry out in controlled conditions over a period of months. Gradual drying caused the plaster to harden and it was then possible to remove the soil fill and examine the plaster and the wall support behind it.

Results of the Examination:

The wall is made up of a light brown compact clay, approximately 18 cm. thick, with organic and ceramic inclusions. It is easily distinguishable from the soil fill which is darker in colour and looser in texture.

The organic particles are distributed at random throughout the clay and therefore cannot be interpreted as a wattle-type support. The presence of ceramic fragments, up to 2 cm. in size, suggests that the wall may be of a pisé type.

The wall is rendered, on one side only, with two coats of lime plaster which differ from each other in texture and thickness. The first, applied directly to the wall surface, is approximately 15 mm. thick and contains a high proportion of well-graded sand filler.

Almost pure lime was used for the final plaster layer which is not more than 1.5 mm. thick in this section of plaster.

Both layers are in a friable condition which suggests that calcium carbonate has been leached from the plaster by acids present in the burial environment. The surrounding soil contains the remains of much organic material which has deteriorated in the damp conditions, producing organic acids which will have raised the acidity of the soil and attacked the plaster. Because of this it is difficult to calculate the percentage of lime to filler in the original plaster mixes.

Examination of the plaster surface did not produce any evidence that it had been painted. It must, therefore, be assumed that this section was undecorated.

- (b) Examination of fragments of Painted Plaster from Oven I in Building VI.

This was examined to determine the composition of the plaster and to identify the pigments.

All the samples examined were of lime plaster and in section showed that they were made up of three plaster layers differing in thickness and texture. These are probably the upper layers of a much thicker plaster, as the very coarse layer characteristic of this type of plaster rendering is missing.

The layer furthest from the painted surface is approximately 7.5 mm. thick and contains well-graded sand and fine gravel filler; the largest particle is not more than 2 mm.

in size. The second layer, 5 mm. thick, contains well-graded fine sand only. To this layer had been applied a white lime wash, not exceeding 1 mm. in thickness and containing a very small percentage of fine sand filler. This final coating served as a smooth ground for the paint.

Microscopic examination of a section of one of the samples showed that there was no clear division between the paint layer and the fine plaster, suggesting that the background colour had been applied before the plaster had set and while it was still damp. Further examination indicated that decorative detail had been applied to this background layer, using a pigment bound with an organic medium which proved impossible to identify.

The pigments remaining on the plaster were identified by chemical analysis with the following results:

Red pigment	—	haematite
Yellow pigment	—	yellow ochre
Green pigment	—	terre verte
White pigment	—	lime white

These are all earth pigments commonly used in wall painting and easily obtainable.

APPENDIX

THE LEAD AMPULLA

BY BRIAN W. SPENCER

(See E.VII No. 52, Fig. 51, and Pl. 7)

Returning from Paris in 1179, Gerald of Wales went first to visit the spot where Thomas Becket had been brutally murdered some nine years earlier. Before leaving Canterbury he bought a souvenir—a leaden ampulla. This little flask would have contained a drop of the water reputedly tinged with St. Thomas's blood and popularly held in the highest esteem for its miraculous healing and protective properties. Gerald and his companions then set out for London, intent on visiting the Bishop of Winchester whom they knew to be in residence in Southwark. They arrived at Winchester Palace in the middle of a chapter-meeting and the Bishop, breaking off to greet them, at once perceived the ampullae that hung about their necks and observed that they must have come from Canterbury.¹

Though commemorative badges were already known to pilgrims at three or four major continental shrines, these Canterbury ampullae were almost certainly the first travel souvenirs to be manufactured in England. And so universal was the impact of Canterbury's new saint that within four years of Becket's death Canterbury ampullae were said to be as well-known everywhere as the ubiquitous shells of *Compostella* pilgrims. This must have been especially true at London, Becket's birthplace. By 1177 "old" Canterbury ampullae brought back by Londoners were already being melted down.²

Not many ampullae were to find their way so quickly into the melting-pot, however, and among the survivors the example from Toppings Wharf turns out to be very nearly the earliest. It is certainly the earliest piece of tangible evidence of a Londoner's pilgrimage and of the cult that was to fill the medieval city with memorials to its most famous son and spiritual champion. On stylistic grounds there can be little doubt that the ampulla was made around 1200. Associated archaeological evidence, on the other hand, suggests that the

ampulla was deposited late in the thirteenth century. These disparate dates are perhaps best explained by the well-attested tendency among the more devout to keep their pilgrim souvenirs as lifelong devotional and talismanic objects. Some even took them to the grave or bequeathed them to relatives or took other measures to ensure the continued preservation of their pilgrim signs.³



Fig. 51. Toppings Wharf; ampulla (2/1)

Recent discoveries at Southampton and elsewhere have helped to advance our knowledge of the dating and development of Canterbury ampullae manufactured between about 1180 and 1280.⁴ Nearly all the specimens that survive from this period are so closely inter-related that they probably represent a tiny proportion of the massive output of a single workshop operating under the cathedral's authority, within or very close to the precincts of Christchurch. Outside the main class but of the same period, however, there exist a few novelties, all of them differing markedly from the more conventional group as well as from each other. Their idiosyncrasies suggest the work of free-lance ampollers, back-street competitors to the official trade in pilgrim souvenirs, who were often the subject of dispute and litigation in major pilgrim resorts.

It is to this group of sports that the ampulla from Toppings Wharf belongs. Only one other ampulla can be compared to it and that was found at Stone Bridge, Bristol, in 1897.⁵ Though they were cast from different moulds, the iconography is essentially the same in both.

Despite a more corroded surface, the Bristol specimen provides guidance on some of the details obscured by folds and creases in the more battered specimen from Southwark.

The ampulla is a slim, flat-sided, flask-shaped vessel with a pair of handles at the neck. On one side (Pl. 7) is depicted a scallop-shell, its corrugated surface reaching as far as the handles. Above the shell is shown St. Thomas's head, his face untypically bearded and his mitre worn athwart the head in the manner that went out of use in about 1200.

The scallop was essentially the emblem of St. James the Great. From the beginning of the twelfth century it was also the sign or badge worn by pilgrims to his famous shrine at Compostella. Outside the Holy Land it was, in fact, the earliest of all pilgrim badges. But just as St. James came to be regarded as the patron saint of pilgrims and to be regularly depicted in pilgrim's dress, so also did the scallop-shell come to be looked upon as the emblem of pilgrimage itself and in pictures of the later Middle Ages pilgrims, no matter where they had come from, were usually shown with a scallop-shell to mark their identity. It was natural, therefore, that shrines other than Compostella should decide to incorporate this symbol in the designs of their own pilgrim souvenirs, although the practice was vigorously opposed by the archbishops of Compostella. The shells on the ampullae from Southwark and Bristol, however, are the only instances of its use at Canterbury.⁶

As with most ampullae from Canterbury, the other side (Fig. 51 and Pl. 7) contains a representation of Becket's martyrdom. Four knights were implicated in his murder and occasionally all of them are depicted, assailing Becket from the left. Most ampullae, however, are content with a single knight, Reginald Fitzurse, who was thought to have delivered the fatal blow. But the Southwark ampulla portrays two knights, one in front of the archbishop, the other behind, and both hacking with swords at Thomas's skull. The arrangement of the figures in this way appears to be unique among the prolific representations of this scene.

The knights are dressed in hauberks of mail with slit skirts reaching to the knees, mail-hose and conical helmets with nasals, a type which was generally superseded after 1200 by the flat-topped helm that enclosed the head. The knight on the left is wearing prick-spurs. St. Thomas, again bearded, is dressed in full pontifical vestments, including a low-crowned mitre. As he begins to sink under the sword-blows, he retains a hold on the cross-staff before him. Above and to his left is depicted a hanging lamp, an allusion, very probably, to the apocryphal story that developed after an altar had been set up on the site of the martyrdom. Though Becket had stood his ground against the knights and had violently resisted their attack, popular belief soon held that he had been slain while kneeling submissively in prayer at an altar.

NOTES

¹ *Giraldi Cambrensis Opera*, ed. J. S. Brewer (1861), 1, 53; *The Autobiography of Giraldus Cambrensis*, ed. H. E. Butler (1937), 72.

² *Materials for the History of Thomas Becket*, ed. J. C. Robertson (1875-85), 1, 464-65.

³ See B. W. Spencer on "Medieval Pilgrim Badges" in *Rotterdam Papers: a Contribution to Medieval Archaeology*, ed. J. G. N. Renaud (Rotterdam, 1968), 137-53.

⁴ See B. W. Spencer on "The Ampullae from Cuckoo Lane" in Colin Platt and Richard Coleman-Smith, *Excavations in Medieval Southampton, 1953-69*, 2 (1974); "An Ampulla of St. Egwin and St. Edwin" in *Antiq. Journ.*, 51 (1971), 316-18.

⁵ Bristol Museum G2772.

⁶ See B. W. Spencer, "A Scallop-shell Ampulla from Caistor and comparable Pilgrim Souvenirs" in *Lincolnshire History and Archaeology*, 1, No. 6 (1971), 59-66.

ACKNOWLEDGEMENTS

A small full-time group: Eric Ferretti, Irene Schwab, Bernard Johnson, Geoffrey Barratt and John Earp, assisted during vacations by Pat Evans and Robert Symberlist, were responsible for much of the excavation. Many others helped, especially at weekends: Mike Hammerson, Peter Daniels, Eddie Jeffreys, Elspeth Grant, Win Exley, Richard Lock, Geoffrey Marsh, Richard O'Donnell, Amanda Hazelton, Kathryn Nuttall, Julie Coleman, Wendy McIsaac, Russell Fordham, Geoffrey Toon, John Booth, Iris Rosecare. John Earp undertook the site photography.

Financial assistance from the Department of the Environment, Southwark Borough Council and the Proprietors of Hay's Wharf Ltd. to S.A.E.C. made this work possible. Much of the administration was carried out by Graham Dawson and Allan Tribe. Individual help was often given by Sir David Burnett, E. C. Boorman and many of their colleagues at Hay's Wharf; also by the staff of Mowlem's and Trollope & Colls working on the London Bridge and Colechurch House sites.

Ralph Merrifield, Peter Marsden of Guildhall Museum, Professor Grimes and Dr. Cornwall of the Institute of Archaeology, London, gave much advice on the site. Help was given with the conservation of finds by Bill Rector of Guildhall Museum.

Post-excavation work was carried out, mainly in evening groups. After initial organisation by Robin Densem many contributed towards getting the material to a stage ready for publication. Help with the examination of the Roman pottery was given by Richard Lock, Win Exley, John Earp, Bernard Johnson, John Warbis, Irene Schwab and Eddie Jeffreys and on the Medieval and Tudor pottery by Richard Lock and John Warbis. Richard Lock also assisted in the examination of the animal bones.

Dr. E. M. Hutchinson and his successor as Secretary at the National Institute of Education, Arthur Stock, very kindly provided accommodation in their offices where the work took place from 1971 to 1974.

The site drawings in the report were produced by Robert Symberlist (Figs. 1-15). John Cresswell drew the flints (Fig. 16), Eddie Jeffreys the decorated Samian (Figs. 17-20), Geoffrey Marsh and Paul Tyers the Samian stamps (Fig. 21), Charles Murray with assistance from Paul Tyers, Mike Hammerson, Doreen Millard and Jean Orton the Roman pottery (Figs. 22-31); Clive and Jean Orton the Medieval and Tudor pottery (Figs. 32-40), Ron Tribbick the metal small finds (Figs. 41-45), Irene Schwab the other small finds and the glass (Figs. 46-50).

Much help in the examination of the finds was given by Martyn Owen (building stones); R. W. Sanderson (identification of stone small finds); Mark Hassall (gaming counters); Dorothy Griffiths (post-Medieval pottery); Jill Belcher and Stephen Walker (clay pipes); P. R. V. Marsden, Dr. A. G. Crocker, F. Holling, J. G. Hurst, R. G. Thompson, Dr. G. Dawson (Medieval pottery).

The report was typed by Win Exley and Rhoda Edwards.

The Editors and the Author are grateful to the Department of the Environment and the Proprietors of Hay's Wharf Ltd. for their grants towards the cost of publishing this excavation report.

EXCAVATIONS AT THE CUSTOM HOUSE SITE, CITY OF LONDON, 1973

TIM TATTON-BROWN

INTRODUCTION

During the summer and autumn of 1973 large-scale excavations were carried out on the Old Custom House site. The site (Fig. 1), which is about a hundred metres west of the modern entrance to the Tower of London, forms a rectangular area between Lower Thames Street and the river approximately 50 metres north-south by 75 metres east-west. To the east stands a modern office block on the "Three Quays" site, while to the west is the small lane called The Watergate and the present Custom House, which dates from the early nineteenth century. In area the site is about 0.375 hectares (just less than an acre) and though an extremely large area, it was known that the southern third of the site (Fig. 2) consisted of massive post-medieval stone, brick and concrete waterfronts with rubble fillings behind them.¹ It was also known that the north-western basement had a mass of piles underneath and, from the borehole survey, the upper levels between basements consisted mainly of brick rubble of a recent date. In the short time available for excavation (just over three months) it was decided therefore to excavate in the central and north-eastern basements. The boreholes also indicated that natural clay was -2 metres O.D. on the north side of the site falling to -4 metres O.D. in the middle of the site, and eventually to -7 metres O.D. on the southern side of the site (under the modern waterfront) (Fig. 2). With the floor of the central basement at +2 metres O.D. one could expect to excavate trenches at least 4 metres (13 feet) deep in waterlogged conditions if natural clay was to be reached. Thanks to a dry summer and sustained hard work by the excavators this was achieved in several large areas as some of the sections show.

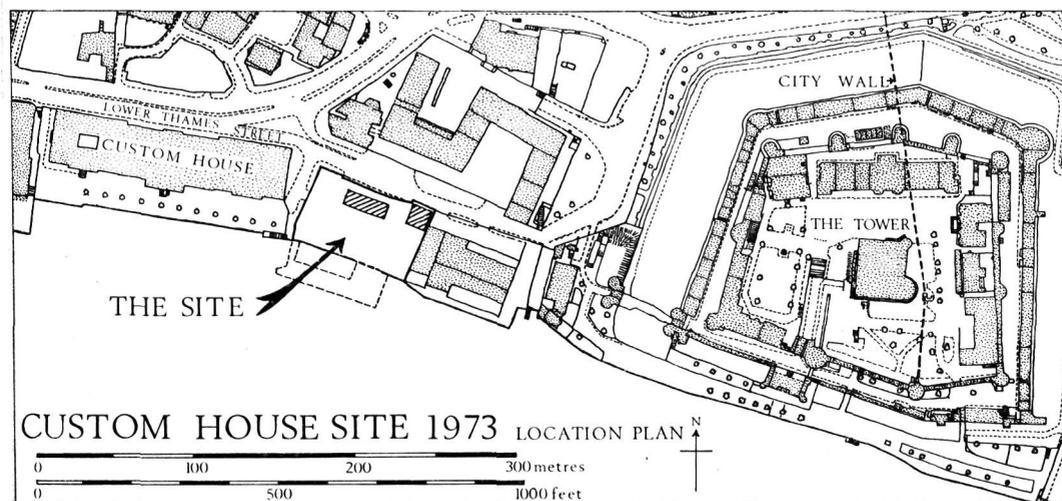


Fig. 1.—Custom House site; location plan (*Crown Copyright reserved*)

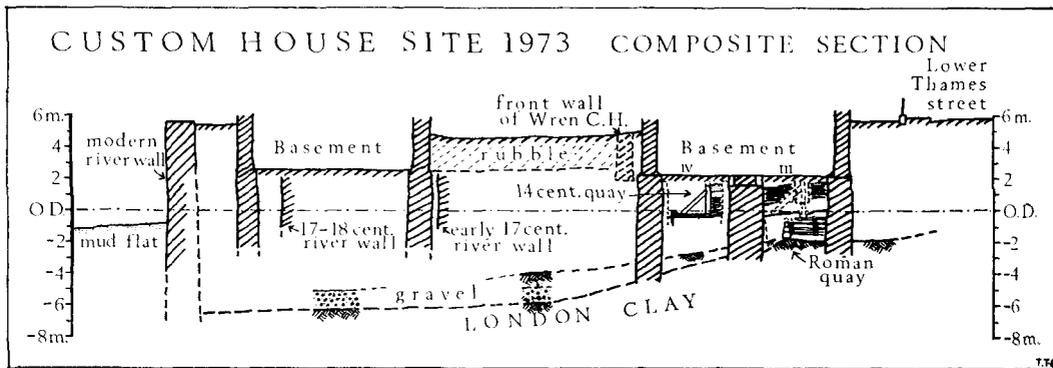


Fig. 2.—Custom House site; composite section

Work started in the central basement on 30th July, only a few days after the existing building had been demolished, and continued without a break, seven days a week, until 17th November, when piling began. Throughout the excavation work took place alongside the demolition contractors, Messrs. Henry & Co.² and later the main contractor and piling firm.

The excavations fell naturally into two parts (Fig. 3): (a) in the central basement (trenches I–VII), which lasted for eleven weeks and was carried out by a volunteer force of up to 25 people,³ and (b) in the northern part of the east basement (trenches VIII–XV), which lasted for five weeks after the end of the summer vacation and was carried out by a small group of paid diggers.

The following is the first and most substantial part of a full report⁴ of the excavations which were organized by the Guildhall Museum of the Corporation of London, aided by a grant from the Department of the Environment. The report was prepared at the Guildhall Museum by the writer in between full-time studies at the Institute of Archaeology, London, and is an attempt to publish, as soon as possible, the results of the excavation. Some background research has naturally been carried out but it was felt that this should in no way delay the publication of the report and I make no apologies for presenting the report in this form without detailed discussion of all the results. The finds and records of the excavation have been placed in the Museum of London, which incorporates the Guildhall Museum on 1st December, 1974.

THE SITE

The old Custom House site (N.G.R. TQ3329 8050) lies almost totally in the pre-second century river Thames (see Fig. 2). The undisturbed natural is London Clay with some pre-Roman sandy gravel layers on top. These clean sandy gravel layers are much thicker in the western part of the site where observation of mechanically excavated holes showed the Roman quay lying on a thick layer of sandy gravel well above natural clay. Along the northern half of the site the London clay rises steeply from –4 metres O.D. to –1.5 metres O.D. or even higher, which is almost definitely where the pre-Roman river bank ran and where the Roman timber waterfronts were built. A similar slope in the London Clay has been noticed at various points along the northern bank of the Thames in the City area (e.g. W. F. Grimes, *The Excavation of Roman and Medieval London* (1968), 58, and *Archaeologia* 71 (1921), 65, Fig. 9). The gravel layers are also much thicker in the southern part of the

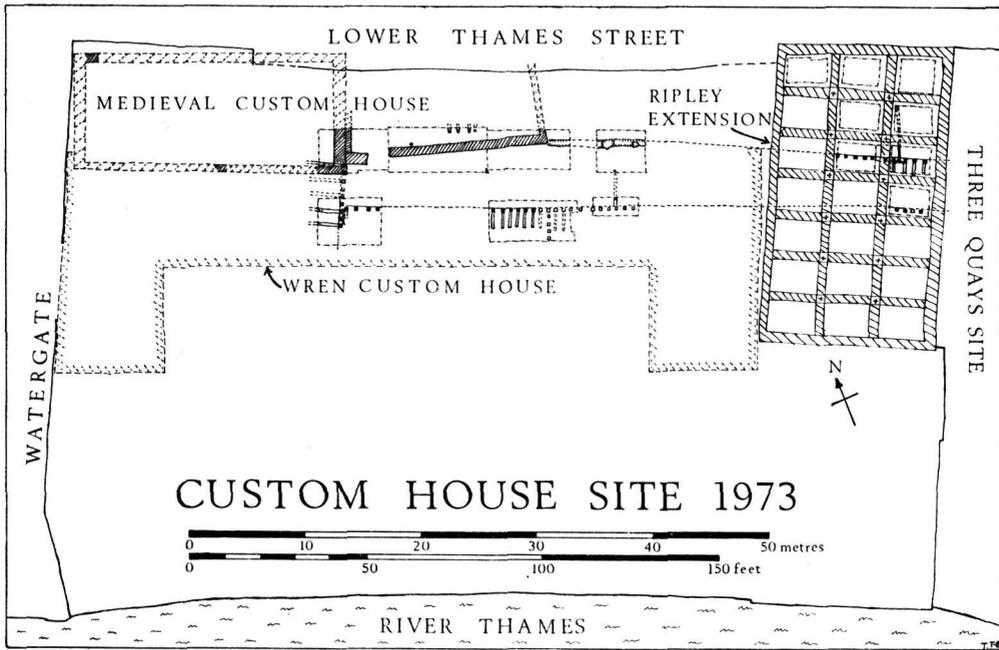


Fig. 3.—Custom House site; plan of post-Roman features

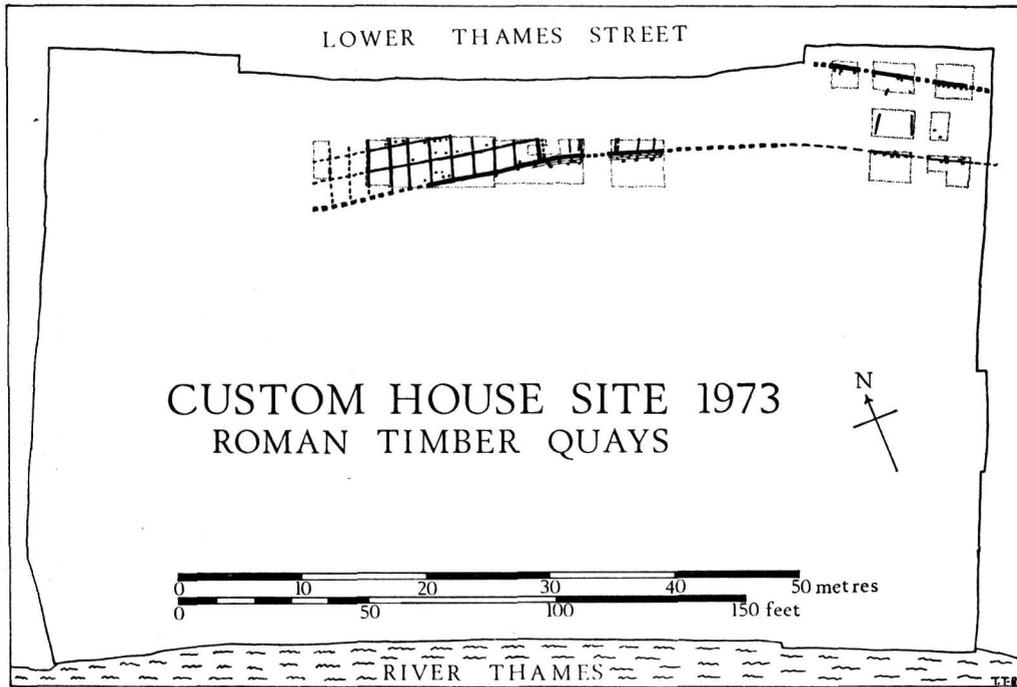


Fig. 4.—Custom House site; plan of Roman quays

site and the bed of the early Roman river Thames may have been at -7 metres O.D. or possibly at a higher level between -4 and -6 metres O.D. The gravel layer shown on the composite section (Fig. 2) may represent pre-Roman gravel. The river Thames in this area (the Pool of London) is today roughly 250 metres wide as opposed to at least 350 metres in the pre-Roman period.⁵ Once a wide shallow river, the Thames is now narrow and very

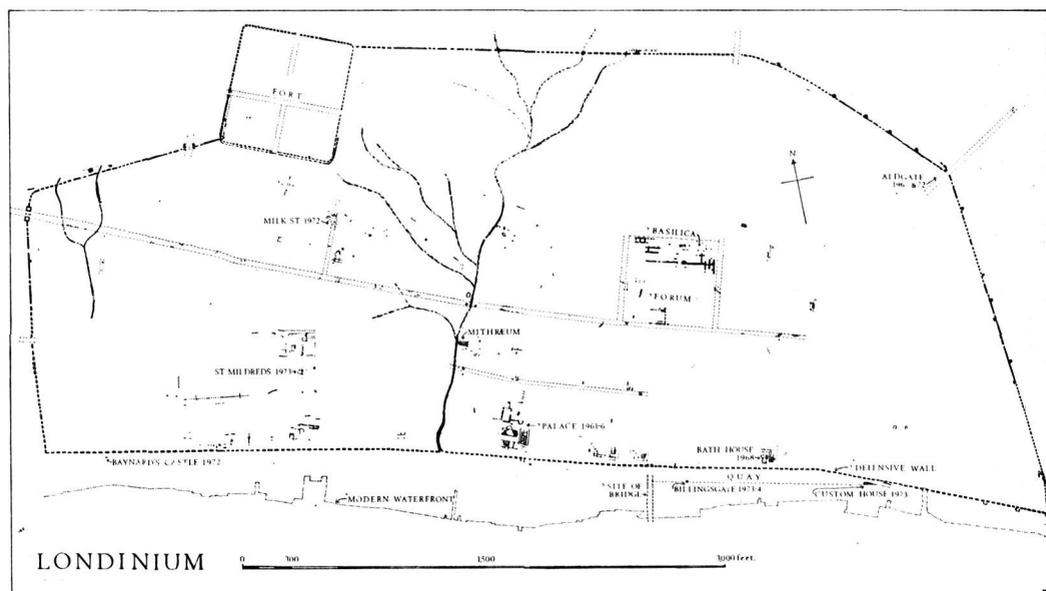


Fig. 5.—Custom House site; Roman London

deep due to the rise in sea level and dredging in the last hundred or so years.

The difference between high and low tide today can often be as much as 7.6 metres (*i.e.* between approximately -3.4 metres O.D. and $+4.2$ metres O.D.) but how this compares with pre-Roman times is still unknown. However, a clear picture of a considerable rise in sea level comes from the present site. It is likely, but not certain, that the Thames was tidal as far as the Pool of London in the pre-Roman or early Roman periods, even though the environmental evidence points to fresh water in the river here. The exact level of the river in the Roman period is also difficult to determine but the early Roman high-water mark cannot have been any higher than Ordnance Datum. Low water must have been below -1.6 metres O.D.

Much has been written on the subject of the late Roman marine transgression in the Thames estuary⁶ and the present site appears to give incontrovertible evidence for just such a transgression. One of the most surprising things about the excavation was the almost complete absence of any layers between the late Roman and the late thirteenth century.⁷ The break was marked by a series of very fine well-sorted sandy gravels containing only well-worn late Roman sherds. The only conclusion that can be reached is that the second century Roman quay became submerged in the late Roman period and the action of the river removed the upper levels. Some robbing of the larger timbers also occurred. All the waterfronts dating from between the fourth and thirteenth centuries must lie further north (*i.e.* under Lower Thames Street). The two most important pointers to a substantial marine

transgression are: first, the position of the late thirteenth century quay well above the Roman quay; and, second, the large quantities of water-laid gravel with peat above overlying the Roman timbers and extending to the northern limits of the site. These gravel and water logged peat layers are at least two metres thick (waterlogging occurs at least as high as +2.1 metres O.D.).

Both the Roman and early medieval waterfronts have a slight change in direction between the alignments of the east and western parts (Fig. 3 and 4). This may possibly be caused by a small stream entering the Thames at this point, which is roughly under the eastern end of the Wren Custom House (Fig. 3). This seems quite possible because a later medieval drain and then a brick-built nineteenth-century sewer ran here. However, it may simply be caused by a change in the natural course of the river (Fig. 5) before embankment.

NOTES

- ¹ The author was lucky in having beforehand a summary of the site and its history, including borehole sections, prepared by Mr. Richard Hughes of Messrs. Ove Arup and Partners, the consulting engineers.
- ² Special thanks must go to Messrs. Henry and Co. who often put their very expensive heavy machinery at our disposal to break up concrete floors and clear dumps from the basements.
- ³ Andy Cauldwell, Gerald Clewley, Brian Yule and Gil Burleigh were the main supervisors.
- ⁴ Interim reports were published in *The London Archaeologist* 1974, Spring and Summer issues.
- ⁵ Harvey Sheldon's recent excavations in Southwark have established the rough position of the southern waterfront.
- ⁶ The best summary is A. V. Akeroyd, "Archaeological and historical evidence for subsidence in southern Britain", *Phil. Trans. R. Soc. Lond.* 272 (1972), 151-169.
- ⁷ A similar sequence was briefly noted in 1959 at the Public Cleansing Depot (just west of Cannon Street Station). See R. Merrifield, *The Roman City of London* (1965), No. 262 (Gazetteer) and G. C. Dunning's Appendix in C.B.A. Research Report 4, *Anglo-Saxon Pottery: a symposium*.

THE EXCAVATIONS

Fifteen trenches were excavated on the site and these were numbered in the order they were started with Roman figures; trenches I to VII being in the central basement, and VIII to XV in the east basement (see Figs. 14 and 23). Within each trench a straightforward sequence of layers was followed and a summary of all the layers will be found below (p. 147). For brevity III-24, for example, means trench III layer 24.

During analysis of the stratification which took place after the excavation the medieval layers were arranged together in several groups. These were:

Group A Layers associated with the Custom House and quay surfaces. They were subdivided into:

- Group A1 - Custom House foundation trenches.
- Group A1/A2 - Timber drain construction trench.
- Group A2 - Custom House extension foundation trench.
- Group A3 - Trodden gravel layers of quay.
- Group A4 - Custom House cellar fill.

Group B Tips into the area of robbed medieval timbers (Trenches II and IV).

Group C1 Fill south of second period medieval timbers.

Group C2 Thick peat and organic layers north of second period medieval timbers and immediately post-dating these timbers.

Group D Earliest medieval foreshore gravels below the medieval timbers and above the late Roman destruction levels. This group was sometimes roughly divided into two sub-groups:

- Group D1 - the upper/later gravels.
- Group D2 - the lower/earlier gravels.

The Roman layers were not treated in this way.

The various features excavated on the site can be divided as follows:

- (a) Earlier Roman waterfront in the north-east corner of the site (Fig. 4). Early second century.
- (b) Later Roman waterfront with box-staging on the west. Late second century (Fig. 4).

- (c) Destruction of Roman waterfronts with some robbing. Rise in sea-level and erosion along the northern foreshore of the Thames. Fourth century onwards.
- (d) Construction of first medieval waterfront on the foreshore, re-using old timbers. Also construction of (?) jetty in the western part of the site with internal scissor brace (Fig. 3).
- (e) Collapse and partial removal of first medieval waterfront and replacement by a new well-built timber waterfront (Fig. 3). Earliest jetty still standing. (?) Late thirteenth-mid-fourteenth century.
- (f) Filling in of the area south of the Medieval timbers, presumably to move the waterfront forward. Robbing of some of the posts, braces and planks. Building of the chalk and ragstone foundations of the Custom House. *c.* later fourteenth century (perhaps Churchman's Custom House of 1382).
- (g) A few wall foundations survive of seventeenth and eighteenth century buildings, otherwise deep nineteenth and twentieth century basements have removed all the upper levels.

The following is a description of the various structures in chronological order. No detailed description or measurements are given, except when it is not clear from the plans or sections.

(a) EARLIER ROMAN WATERFRONT

In trenches VIII, IX and X in the north-east corner of the site was found the line of an early Roman waterfront (see Figs. 4 and 6). As this was very near to the Lower Thames Street frontage it was not possible to excavate the structure fully. However, the line of the waterfront was fully established and in the western part of trench X one small area of deep excavation was carried out.

The waterfront appears to consist of a series of horizontal east-west beams with a series of posts and planks in front. Clay with some mortar and chalk was then packed behind the waterfront. The pottery found in these layers dated from the later first century or the first quarter of the second century, so it seems likely that this waterfront had been built by the early part of Hadrian's reign. This is of particular interest as it shows that the northern shore of the Thames had been embanked by this time for more than half a mile east of the mouth of the Walbrook (Fig. 5).

The planking from this waterfront was later robbed out, but perhaps not until the later Roman period, and the robbing lines show clearly on the section (Fig. 26). The posts, on the other hand, were left after having been pulled forward during the robbing of the planks. A few planks still remained in trench X. In the eastern part of trench X were found three rectangular Roman posts which have sharpened ends and were clearly driven in later. They are possibly piles for a wall, though only a few loose chalk blocks survived. The tops of all these timbers were eroded and covered by river gravel which contained worn later Roman pottery.

(b) LATER ROMAN WATERFRONT

Sometime in the last quarter of the second century a new timber quay was built. The front of this was about 6 metres (*c.* 20 ft.) south of the earlier waterfront in the eastern part of the site. In the western part of the site this new waterfront was of an entirely different construction and consisted of a series of timber boxes (Figs. 7 and 8, and Pl. 1 and 2). These were presumably built as a timber staging with planks on top. No planks survived but planking similar to that on the Roman quay at Xanten¹ is probable. The nearest parallel to

this structure is the mole found at Dover in 1855 and illustrated by Mr. S. E. Rigold in a recent article.² The base of the piers of the Roman bridge at Mainz also had a comparable form of construction. The structure is also similar to Roman timbers found in London in the 1920's on either side of King William Street and just north of Upper and Lower Thames Streets.³

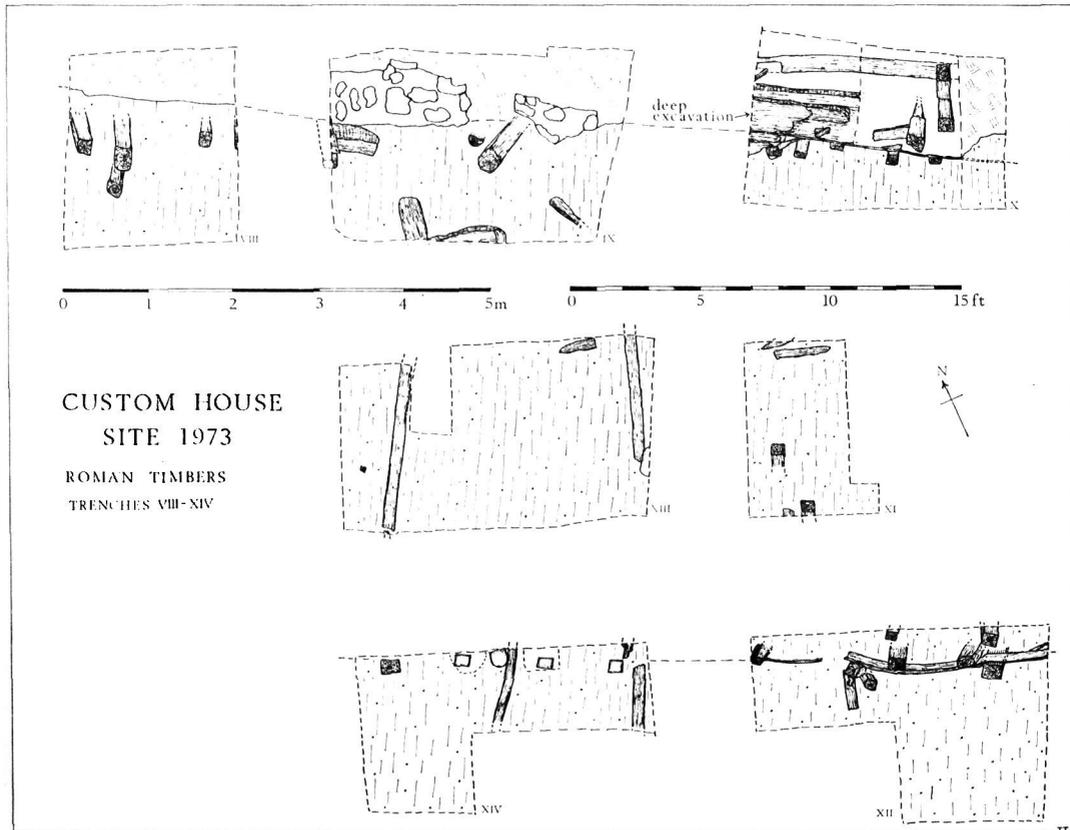


Fig. 6.—Custom House site; plan of Roman timbers in Trenches VIII – XIV

The timber staging was built with a series of at least four (probably five) tiers of massive oak baulks. These become progressively smaller as they rise and are joined vertically with small rectangular pegs (or false tenons) which are spaced at regular intervals along the beams (for joints see exploded view in Fig. 9). The cross-sections of these baulks are: 46 x 31 cm. (c. $1\frac{1}{2} \times 1\frac{1}{8}$ Roman feet), 38 x 33 cm. (c. $1\frac{1}{4} \times 1\frac{1}{8}$ Roman feet), 32 x 32 cm. ($1\frac{1}{8} \times 1\frac{1}{8}$ Roman feet), and 22 x 34 cm. (c. $\frac{3}{4} \times 1\frac{1}{8}$ Roman feet).⁴ It is interesting that the vertical measurements are all slightly more than a Roman foot. This contrasts strongly with the Xanten cross-sections⁵ where they are all just less than a Roman foot. Perhaps the London beams were planed down from $1\frac{1}{4}$ Roman feet. The massive beams of the quay front were joined perpendicularly at regular intervals (c. 1.66 metres) to a series of lesser beams by a half-dovetail joint. These beams, which were at least 4 m. long, were either 19 cm. square or 16 x 19 cm. in cross-section. There was a vertical gap between each beam of c. 19 cm. and to take the strain off the dovetails more beams (c. 19 cm. square in cross-section) ran east-west

immediately behind the main wall of beams. Then *c.* 1.6 m. and 3.2 m. further north ran two more east-west series of vertical baulks; where these met the other beams at right-angles there were half-lap joints. No gaps existed vertically between these east-west baulks and up to nine beams were piled one on top of the other. No vertical joints were found and they must have been kept in place just by their own weight and by the false tenons of the quay front. The structure resembled a whole series of boxes at least three deep by more than ten longways (several additional boxes on the west were observed after excavation had ceased and piling was taking place). Within the boxes were several lines of vertical posts which were not connected to the horizontal beams in any way. There was also a series of posts and planks in front of the quay (perhaps added later). These vertical posts must have been to keep the timber staging in position on the ground, though they may also be the foundations of quayside buildings; they were all approximately 20 x 15 cm. in cross-section and had sharpened ends.

Only one of the boxes was fully excavated down to natural London clay at -1.5 metres O.D. (the one in trench III, Fig. 8, and Pl. 1). All the other boxes in trench V were uncovered very hurriedly after the upper levels had been removed by machine and only the tops of the timbers were drawn. We were thus not able to examine in every detail the construction of the Roman quay. A few additional observations were made during the digging of a pile hole (Fig. 7) and this enabled the composite section to be made (Fig. 8 inset).

What is of great importance and interest is that none of the timber boxes was filled in after construction. The silt found inside was extremely fine (III-37 on Fig. 25) and had obviously accumulated over a very long period of time. In the top of the silt was fourth century pottery. This therefore leaves only two possible explanations: (a) that the timber structure was meant to float up and down with the tide, or (b) that there was no tidal rise and fall (*i.e.* the quay was above the tidal reaches of the Thames) and the level of water was never high enough up the side of the quay to cause it to float. Which of these two explanations is correct is as yet uncertain. The environmental evidence shows only fresh water conditions (see Professor Dimbleby's report, p. 210) and the possible depth of water in front of the quay could be 1 metre (*c.* 3-4 ft.) assuming the vertical quay front is at least 1.5 metres (5 ft.) high (Fig. 8 inset). This seems very shallow and in spite of the evidence for the cutting away of the natural clay in front of the quay (see Figs. 24 and 25), the ships must almost have sat on the mud when tied up at the quay.⁶ If the quay was situated above the tidal limits of the Thames, the level of water may, in the late second century, have been between Ordnance Datum and -1.5 metres O.D. This would mean that high tide at this time was well below Ordnance Datum, and that the rise in sea level had not yet started to take place. This conclusion is directly at variance with the evidence in the Walbrook valley, where Ralph Merrifield suggests⁷ that the Walbrook had become silted up by A.D. 160 at the latest on the evidence of the coins. Further evidence is still needed before any conclusions can therefore be made about the level of the Thames in the first two centuries A.D.

The timber staging is presumably the eastern end of the main Roman quay of Londinium (Fig. 5) which probably extended for at least $\frac{1}{4}$ mile to the Roman bridge across the Thames. The method of construction was clearly one of prefabrication with the timbers being cut and prepared elsewhere before presumably being floated into position down the river either in the box units or as individual timbers. All the joints were of a standard size and the beams themselves are perfectly rectangular in cross-section showing the use of the saw and plane. Most of the beams were joined longitudinally by simple butting except in one case in

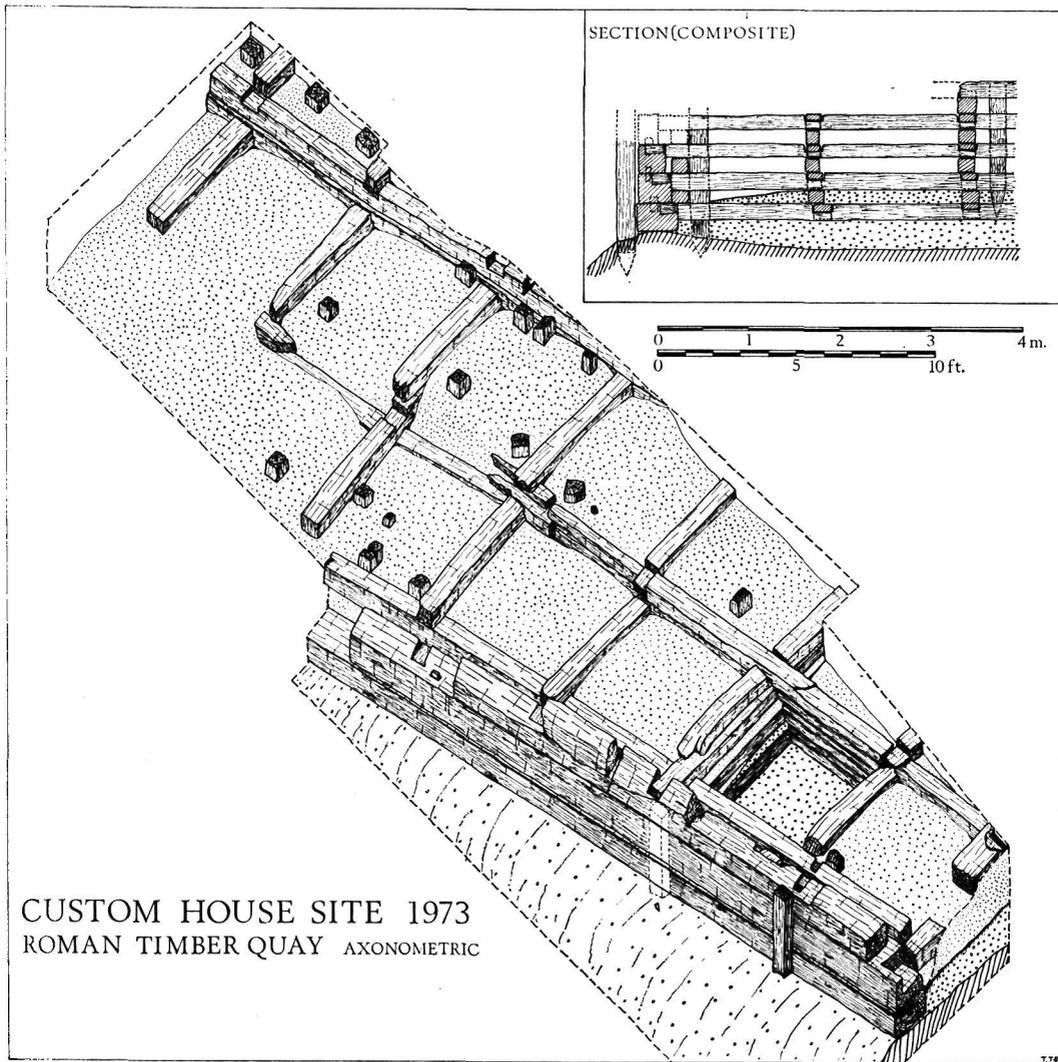


Fig. 8.—Custom House site; Roman timber quay; axonometric

trench III where a beam, which was not *in situ*, showed that it was originally joined to another by simple halving. This is very similar to the beams of the Xanten Roman quay.⁸ The whole quay may be presumed to have been officially constructed as part of a large-scale operation in London. Very large numbers of oaks must have been cut down to make the quay, but as oak was clearly abundant in the Thames valley in the Roman period, the trees were probably brought from very close to London.

The date indicated by the pottery for the construction of this quay is broadly between A.D. 150 and A.D. 200, and, as is shown below (p. 211), the dendrochronology, if matched correctly with the West German curve, gives a date in the last quarter of the second century, possibly in the decade between A.D. 180 and A.D. 190. One of the possible reasons for the

CUSTOM HOUSE SITE 1973

ROMAN TIMBER QUAY

TRENCHES I, III, V, & VI.

0 1 2 3 4 5 6m.

0 5 10 15 20 ft.

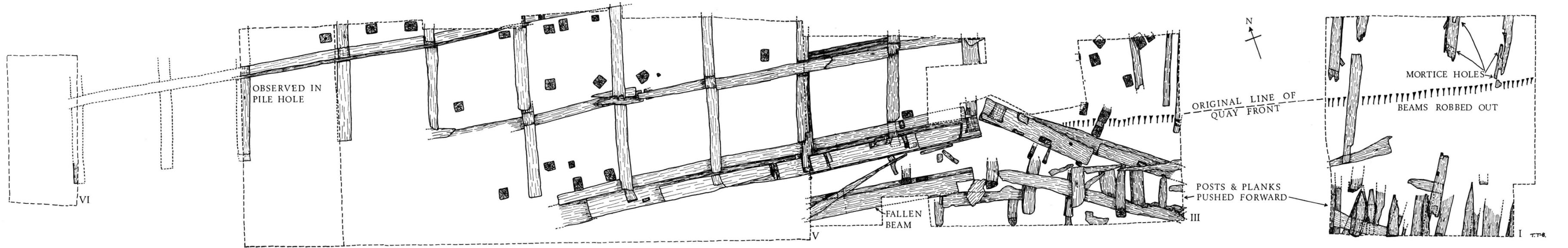


Fig. 7.—Custom House site; plan of Roman timber quay

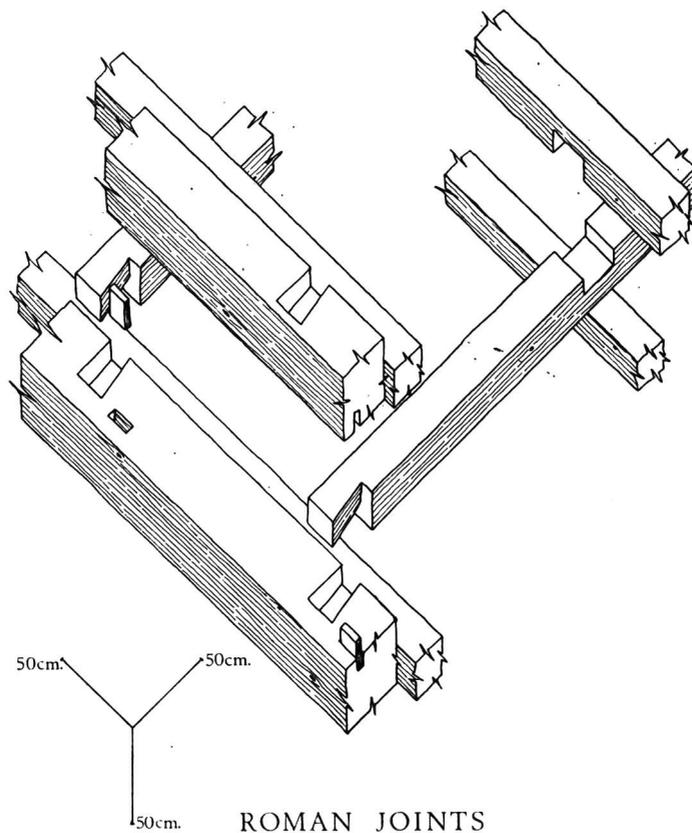


Fig. 9.—Custom House site; Roman joints (axonometric exploded view)

building of a massive quay at this time may have been that the construction of the defensive walls of the city necessitated a moving southwards of the quay so that there would be ample room between a possible southern defensive wall and the riverside for ships to unload (see Fig. 5). This would explain the necessity of constructing large-scale timber staging, particularly if there had been some rise in sea-level by the late second century. A Roman timber quay is in a similar position⁹ outside the walls of the Colonia at Xanten.

In the eastern part of the site the construction of the quay is different; the junction was unfortunately under one of the Medieval Custom House foundations in trench III and therefore could not be fully examined. It was also unfortunate that all the main beams of the quay front had been robbed out except in trench III where the lowest survived with half of another beam, the end having been deliberately sawn off.¹⁰ This section of quay must have been very similar to the Xanten quay in construction with a series of massive east-west beams at the front tied in at the top with lesser beams running north-south. Several of these beams were found in trench I and the eastern part of trench III as well as in trenches XI–XIV, in the eastern part of the site (Figs. 7 and 6). They had all been pulled forwards when the main beams were robbed (Pl. 3). Three of the beams in trench I had broken mortice holes in them and these may have lain on vertical posts with tenons in them, as at

Xanten. Around all these beams was packed building rubble, etc., including some painted wallplaster (e.g. I-26 to 29).

In front of the main quay wall had stood at least three rows of vertical posts with planks in between. They had all been pushed forward during the robbing of the massive beams. However, their original position can be reconstructed (Fig. 10) and this has been done for the Roman site plan (Fig. 4). Another section of this part of the quay was found in trenches XI-XIV where the alignment has changed more towards south-east to north-west. Packed around the timbers in this part is more rubble with, in the lowest levels (e.g. XIII-9) a lot of late first-early second century samian ware. In trench XIV all but one of the vertical posts had been pulled out, but as they had been carefully eased out in a vertical direction, an impression of them was left in the ground (Fig. 6). In trench XII, on the other hand, all the posts and planks remained. The largest post (XII-3) which was 20 cm. square had 68 rings in it which matched with the massive beams from trench III (see below p. 212).

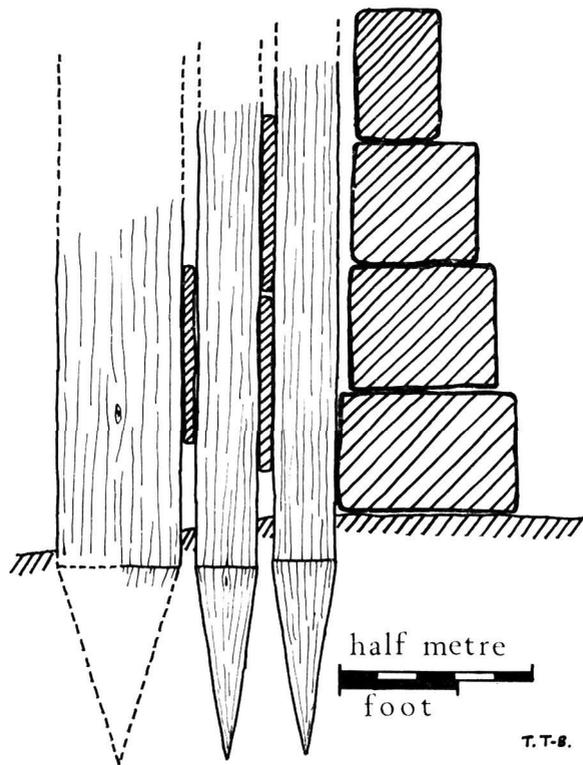


Fig. 10.—Custom House site; reconstructed Roman posts

This late second century waterfront appears to have remained in use for a fairly long time. The boxed staging of the western part of the quay had been gradually squeezed so that the timbers did not meet at right-angles before the boxes themselves had become filled up with fine silt. The result was that some of the dovetails broke, and the other dovetails and half-lap joints became pinched. When the quay went out of use is not certain, but the top part of the otherwise pottery-free silt filling the boxes (III-37) contains fourth century

pottery suggesting that by the fourth century, the planking of the quay had broken and pottery was falling through. We also do not know when the rise in sea-level in the Thames estuary started, but again it seems likely that there had been some sort of rise by the fourth century at the latest. It is also during this period that some of the timber must have been robbed from the now useless quay.

(c) FOURTH-LATE THIRTEENTH CENTURIES:

During this extremely long period of time, the upper Roman (and hypothetical early Saxon) levels were gradually eroded away by the action of the river. Virtually nothing dating from this period was found except for a few small sherds of Saxo-Norman and twelfth century pottery. All the other material from these layers was extremely well-rolled late Roman pottery. These post-Roman gravels covered all the trenches excavated on the site and are up to 50 cm. thick, though in places much thinner. South of the Roman quay the bottom of this layer is at -0.7 metres O.D., but it rises to $+0.5$ metres O.D. at the extreme northern limit of the site (*i.e.* above the early Roman quay). All the Saxon and subsequent waterfronts until the late thirteenth century must have lain further north under Lower Thames Street. Fitzstephen's account¹¹ of the wall on the southern side of the city being eroded away by the action of the river is possible documentary evidence for this. It seems likely that the rise in sea level reached a maximum in the late thirteenth century when extensive flooding took place in low-lying areas of the Thames estuary.

(d) FIRST MEDIEVAL TIMBER STRUCTURES

Some time in the fourteenth century (or possibly the late thirteenth century) a large, rough, braced structure was built on the foreshore. This was done first by cutting a rough channel parallel to the existing waterfront and at least eight metres south of it. In this channel were dug, at fairly regular intervals, sub-rectangular post-holes into which were put large roughly squared-off timber posts (Fig. 11 plan, Pl. 4, and Fig. 12 isometric). Some of these posts were of re-used timber (including part of a rib of a ship) and all varied greatly in size and length. The bottom of one post was nearly a metre below the contemporary surface, while another barely went in more than 29 cm. All the posts had sawn-off bases and were packed into the post holes with large stones (also Fig. 13). Along the south side of the line of posts so erected was placed a long horizontal beam which was held in place by a series of pointed silver birch piles which were driven in south of the beam. The tops of the posts were supported by a series of very rough braces which ran at an angle of about 45 degrees to the ground southwards from the post and rested on crude ground plates. The brace was inserted into the vertical post at the top and into the ground plate with a very rough tenon and mortice joint. The mortice hole was a long narrow slit which was far too big for the tenon, and on the ground plate very long wedges were driven in in front of the brace which acted both as a "chock" for the brace and as a means of holding the plate in place. There were possibly piles in front of the ground plate (shown dotted on Fig. 12) but it was not possible to excavate this area. Similar piles in front of ground plates were excavated along the north side of trench V (Fig. 14). Behind (*i.e.* north of) the vertical posts ran a continuous wall of planks, which had no visible means of attachment to the posts. These planks were all re-used and came originally from the hull of a boat or a ship which must have been broken up on the spot for re-use (this would be very logical on the foreshore). The hull fragments, which are possibly the two stern halves of a boat (Pl. 5 and Fig. 13) were at least 4.5 metres long and had up to five strakes articulated.¹² (The iron rivets of the clinker-built

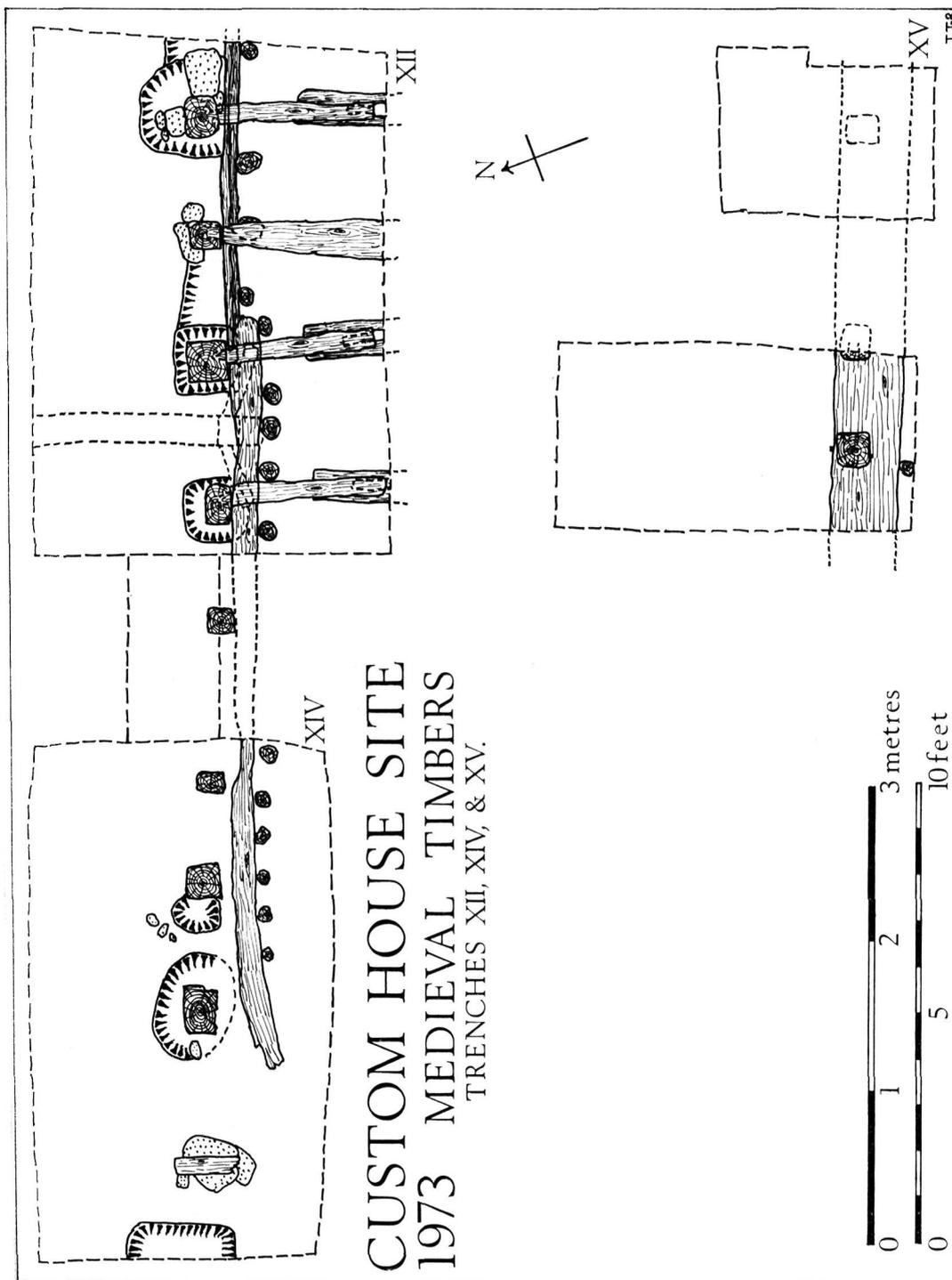


Fig. 11.—Custom House site; plan of Medieval timbers in Trenches XII, XIV and XV

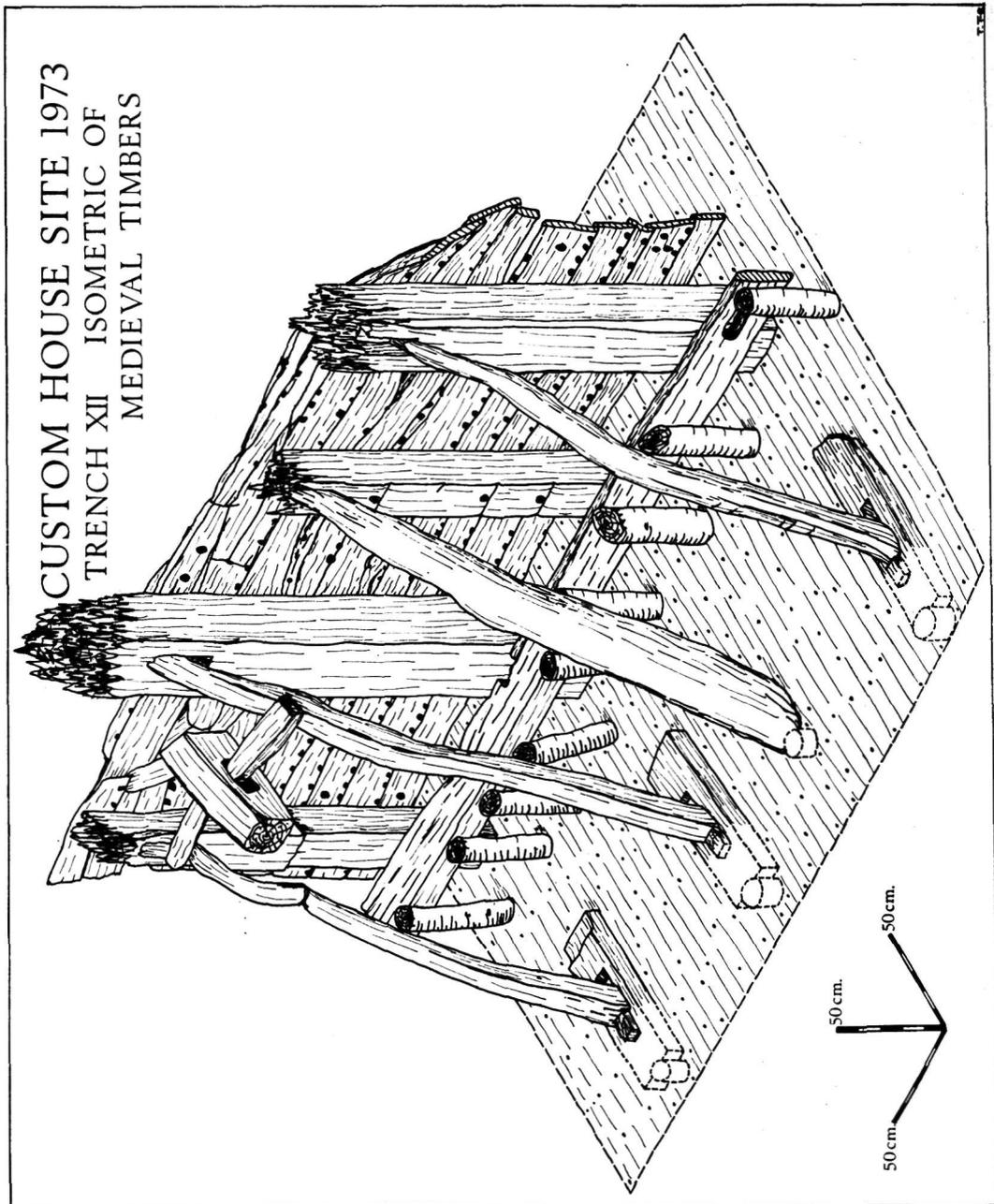


Fig. 12.—Custom House site: isometric drawing of early-Medieval quay

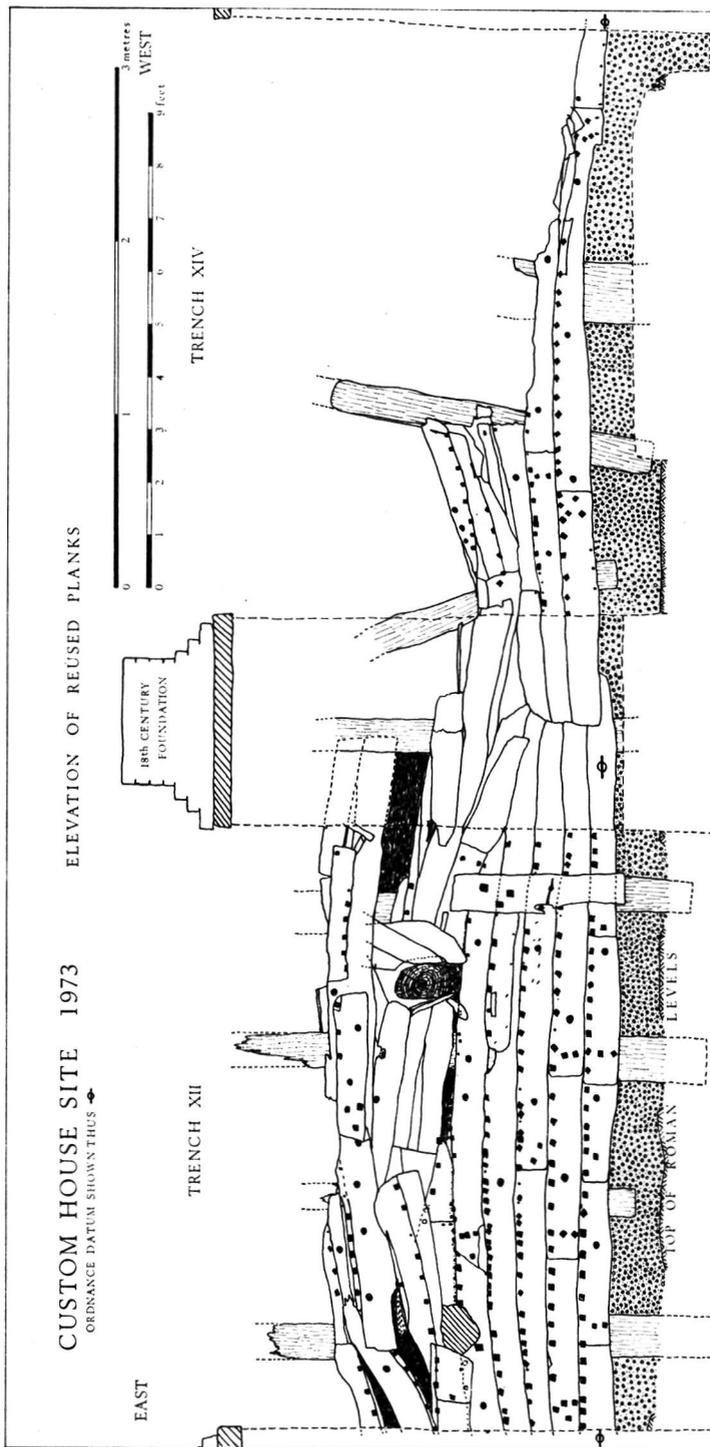


Fig. 13.—Custom House site; elevation of Medieval boat planks

hull were still in perfect condition due to the anaerobic condition of the waterlogged peat, and they only started to rust when water was regularly poured on the wood during excavation to stop it from drying out.) This braced timber structure was at least 2.2 metres high and probably ran right across the site (*i.e.* across both the Stone quay and the Wool quay of the documentary records). In the central basement (trenches I, III and V) only the gully and post-holes survived (Figs. 3 and 14); all the timbers had disappeared. However, a solitary post in trench V and several fragments of wood, rivets, etc., all point to the structure having been here. In trench XIV half of the structure had fallen forwards and in the western part of the trench a great "swirl" of gravel over the timbers suggested that the whole structure had collapsed unintentionally, and it was probably because of this that it had to be rebuilt six metres (*c.* 20 ft.) further forward. When one considers how roughly built the whole structure was (Fig. 12) it is hardly surprising that it collapsed. A large horizontal beam in trench XII appears to have been added later to tie in the already failing structure. Where this beam appears through the planks it has a very rough mortice hole cut through it. Into this hole was put a piece of wood about a metre long which was supported at either end on the top of two braces (Fig. 12).

At the same time that this structure was being constructed a north-south structure was also being built in the western part of the site (Fig. 14). This could only be partially examined in the excavations but it appears that it was a large timber jetty going out into the river. It was most probably the main jetty for the Wool quay. The east side of this was a braced and planked structure similar to that described above. However, running west from every second post was a large scissor brace. Three of these scissor braces were excavated, but in all cases it was not possible to examine them completely. The scissor brace in trench VI was later incorporated into the south wall of the Custom House foundations (Fig. 21) and even though this was partially demolished during the excavation it was not possible to examine the lowest part of the scissor brace. In trench VII two scissor braces were examined; both were crushed vertically and broken. In each case it was not possible to examine all the joints thoroughly; this was mainly due to shortage of time but also to the danger of working in the very narrow space with 2½-metre high unsupported sections on each side.¹³ However, on the drawing of the reconstructed scissor brace (Fig. 15) the only joint that is uncertain is that at the bottom of the post on the east side. All the other joints were pegged tenon-and-mortice or pegged half-laps. It was not possible to reconstruct what the rest of the scissor braces looked like, but they appear to have been double scissor braces with the whole structure supported on the ground on a plate. With the building of the second medieval timber waterfront, when the jetty carried on in use, the external raking braces had been removed, but a brace still survived (under the later timber drain) at the eastern end of the most northern scissor brace to be examined (Figs. 14 and 21). A similar series of scissor braces may have existed under the trestle bridge at Bodiam Castle where only the ground plates survive;¹⁴ a trestle bridge over a moat and a large jetty on the Thames would perhaps have been constructed in the same sort of way. They were both large-scale timber constructions of the fourteenth century.

(e) SECOND SERIES OF MEDIEVAL TIMBER STRUCTURES

Some time not long after the building of the first medieval timber structures it became necessary to replace them with something of much better design. This was probably due to the collapse of the first structure as described above, and this second structure may date

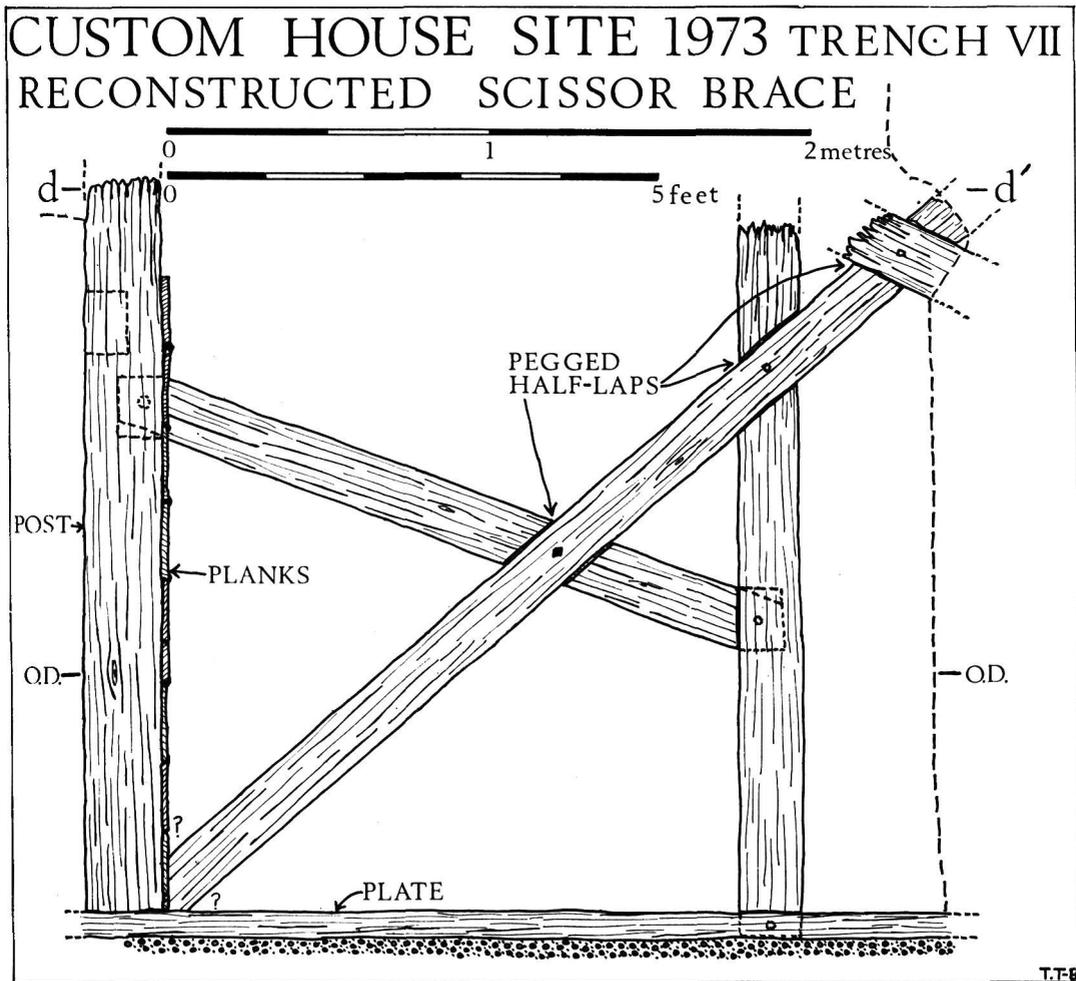


Fig. 15.—Custom House site; reconstructed scissor brace looking south

from not very long after the first; the former being “jerry built” while the latter used new materials and good carpentry. The new structure was exactly similar in function to the old one but it had the great difference of being supported on ground plates and piles (Pl. 7); no rough post holes were needed (Fig. 18 and Pl. 6). Under the main posts was a long continuous east-west plate on piles. The planks for this plate were carefully scarfed together, with a lightning or *trait de Jupiter* scarf joint and in trench II only this plate remained after the other timbers had been robbed (Fig. 14). The plates for the raking braces half-lapped over the main plate and were joined to it with vertical square pegs (see exploded view of this joint in Fig. 19). Into the centre of this half-lap joint was cut the mortice hole for the tenon of the vertical post, and this joint was fixed with a horizontal dowel (round peg). Small wedges were used in front of some of the raking braces to make sure of an absolutely tight fit of the chase-tenon (Fig. 16). The southern ends of all the ground plates of the braces were jointed on to a long east-west beam, and here a fine bare-faced soffit tenon was used

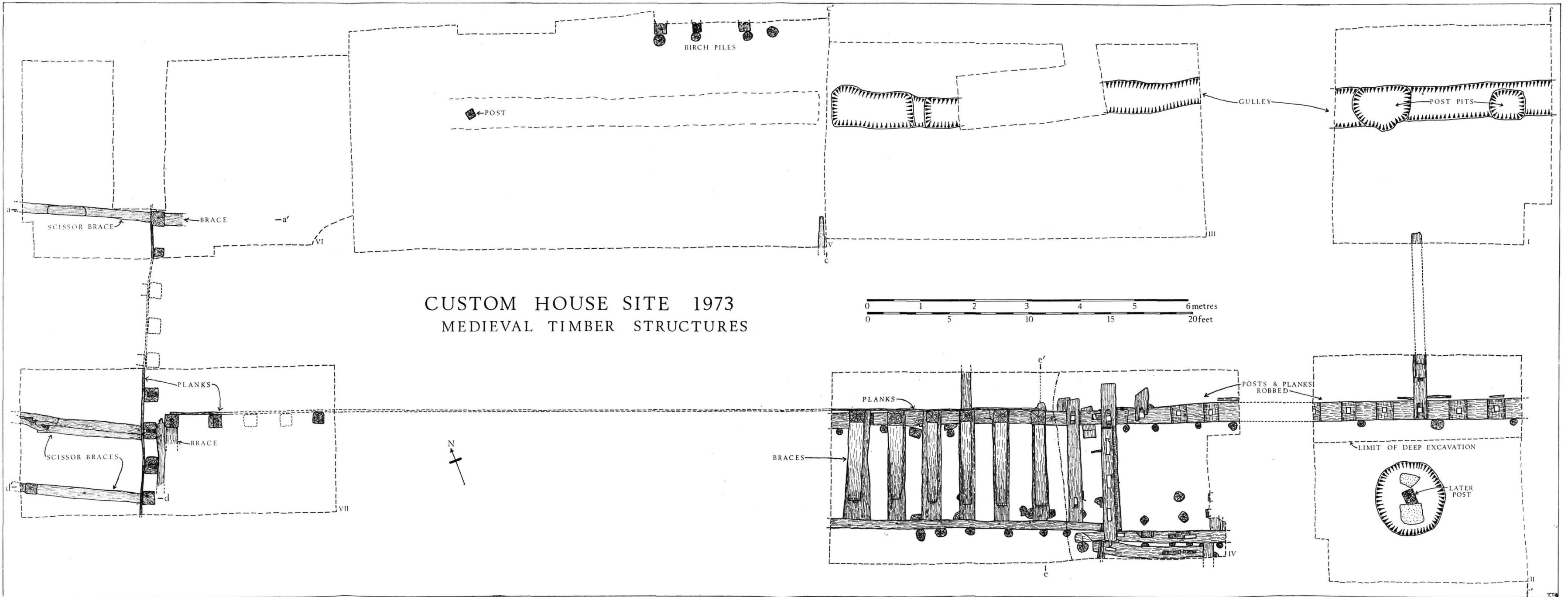


Fig. 14.—Custom House site; plan of Medieval features in central basement

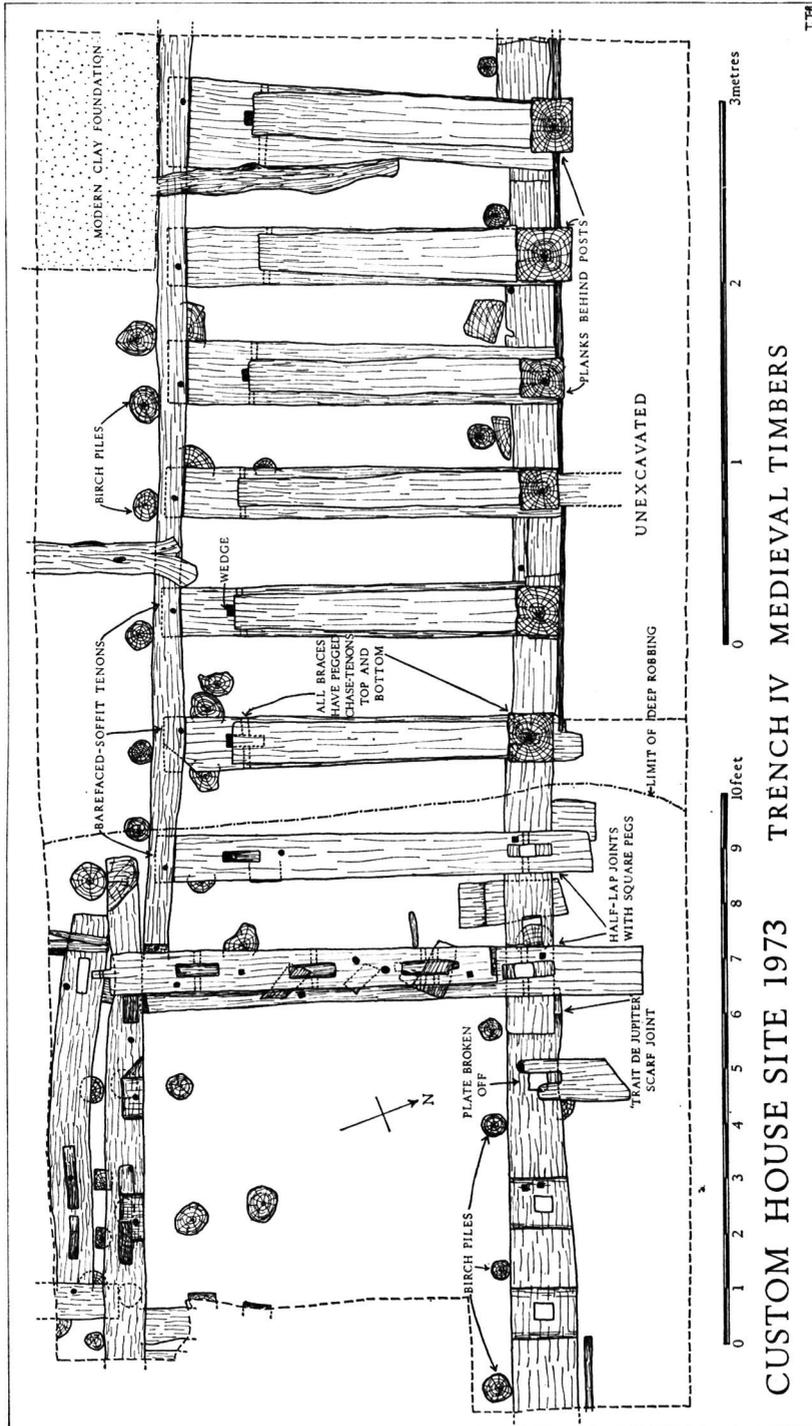


Fig. 16.—Custom House slan of item p; Medieval bers in Trench IV

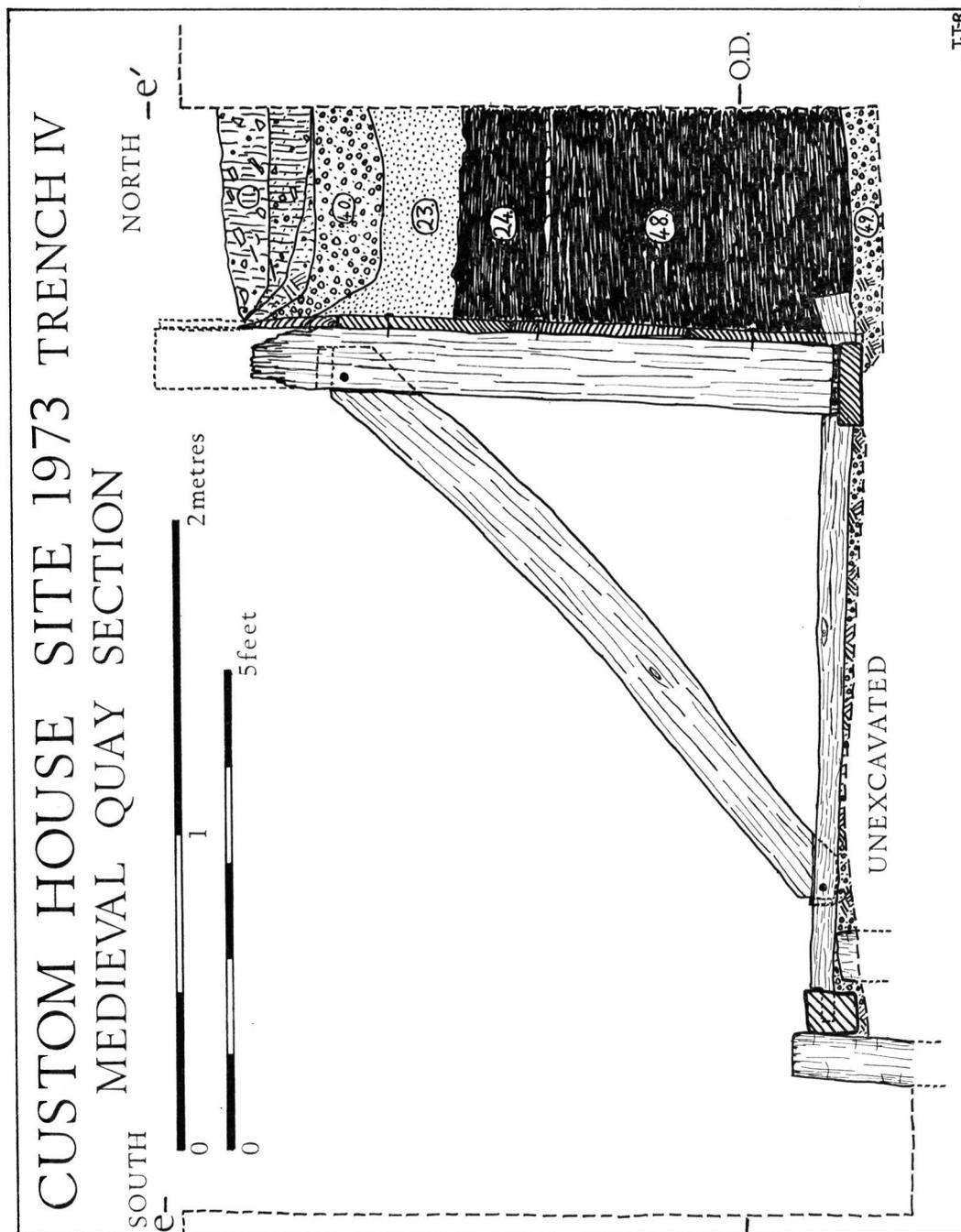


Fig. 17.—Custom House site; section through later Medieval quay in Trench IV

CUSTOM HOUSE SITE 1973 TRENCH IV
ISOMETRIC DRAWING OF MEDIEVAL TIMBERS

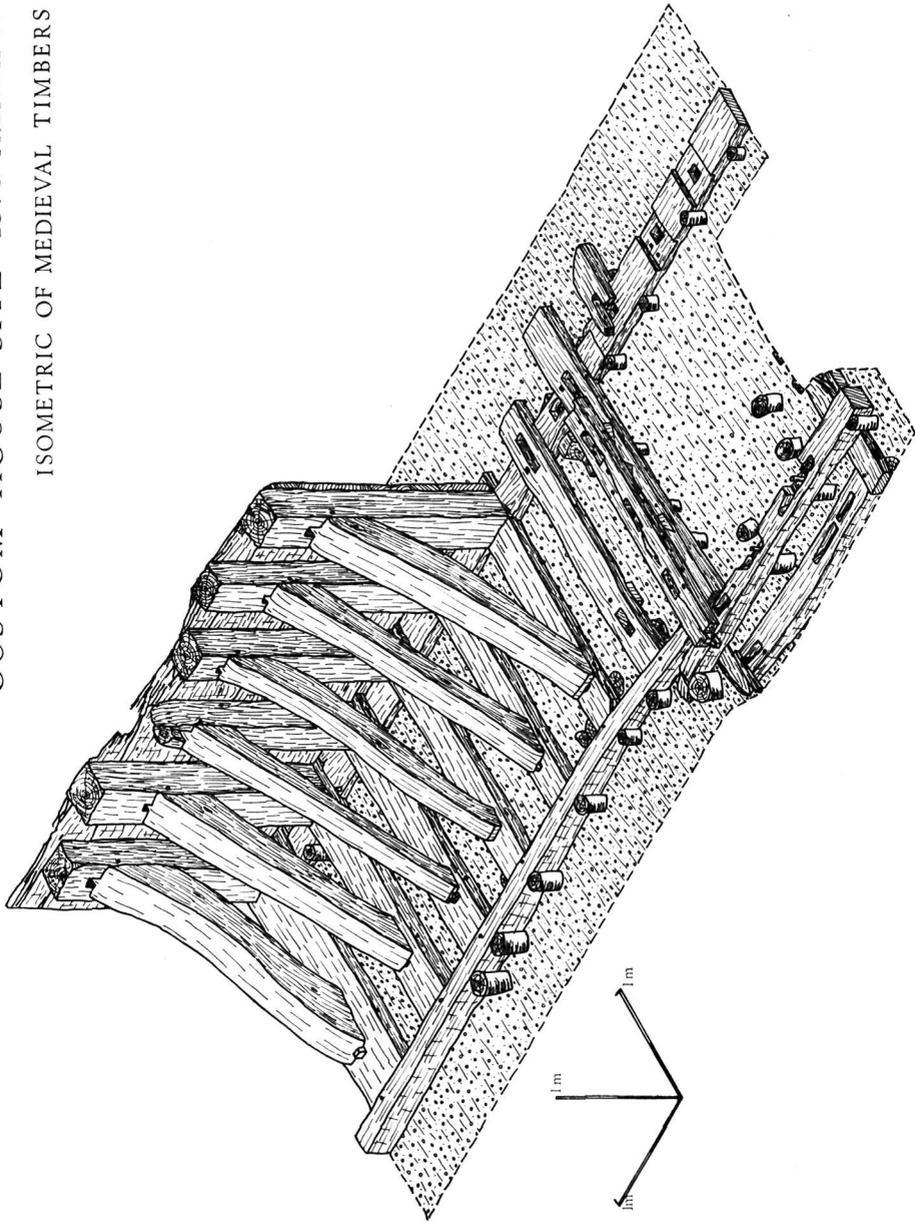


Fig. 18.—Custom House site; isometric drawing of Medieval timbers in Trench IV

with very long dowels driven in vertically (Fig. 17 and Pl. 7). In front of this beam a line of silver birch and elm piles had been driven in to hold it in place. Similar piles had also been used to hold the southern side of the main plate. Behind the posts were nailed large radially cut planks which fitted together perfectly.

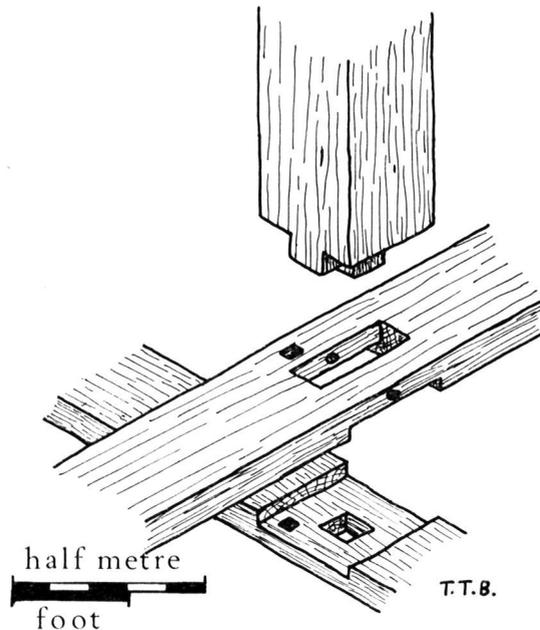


Fig. 19.—Custom House site; exploded view of Medieval joints

In the western part of trench IV this fine structure remained in excellent condition with only the tops of the posts and planks rotted (Pl. 6); however, for some unexplained reason, all the upright posts and some of the north-south ground plates had been robbed out in the eastern end of the trench and in trench II. The limit of robbing is sharply marked (Fig. 16) and clearly took place after the area south of the timbers had been filled in. The robbing appears to be associated with an additional timber structure which ran south from the east end of trench IV. There was clearly a line of vertical posts running north-south from the main plate; the last of these posts probably had a raking brace on the east. A possible explanation for this is that when the main waterfront for the Wool quay moved forward (and outside the area of excavation) it was necessary to have some form of ramp running down to the foreshore at the eastern end of the quay (*i.e.* in the area of trenches I and II), and for this end a north-south retaining wall was needed on the west side of the ramp.¹⁵ Equally there may have been a small stream here (as discussed above p. 121) necessitating the building of a small inlet to the river.

In the eastern part of the site (*i.e.* in the area of what was then the Stone Wharf) a new waterfront was also built. Unfortunately, only a very small part of this was able to be examined in trench XV (Fig. 11). This new waterfront was about $4\frac{1}{2}$ metres in front of the old one and consisted of a series of posts with planks behind them on a massive ground plate. Some of the planks were new while others were re-used from a boat. The line of these posts if continued westwards would join the waterfront in trenches II, IV and VII (Fig. 3).

The dating of all these medieval structures is still a problem as no clear method is yet available, but the most likely date seems to be some time in the mid-fourteenth century.¹⁶ Dendrochronology has so far been difficult because virtually all the oak used has been fast grown and is therefore not easy to match with existing mean-curves¹⁷ (see below p.214). The very large amount of pottery from the organic and peaty layers which immediately post-date the timber structures (Group C2) suggests a mid-fourteenth century date (see Mr. J. Thorn's interim report, p. 180-3) for the group. If the timbers date from much before this time one will have to postulate an area (behind them) open for a long time and full of half-rotted rubbish, which seems unlikely.

There is good documentary evidence for the site during the fourteenth century (see Mr. A. Dyson's report below, p. 143), and it is tempting to try and associate our timber structures with this. By far the most significant event in the mid-fourteenth century is the building of a fortification between the bridge and the tower at the start of the Hundred Years' War in 1339. On the Wool Quay site the lessee, William de Bricklesworth, complained that the landlord, Petronilla Turk, had refused to carry out the work of building these fortifications. The dispute was settled and the work was carried out by John de Tottenham at a cost of £10 and 6 shillings and 8 pence.¹⁸ It is just possible that the massive braced waterfront on the site was the base of such a fortification. The braced structure was certainly never intended to have ships lying alongside, and one must assume that the large ships anchored in the centre of the Thames. Their cargo would be taken off in smaller barges which then unloaded at the various watergates and jetties.¹⁹

(f) MEDIEVAL CUSTOM HOUSE FOUNDATIONS

Virtually all the later medieval layers on the site were destroyed by nineteenth and twentieth century rebuildings. Apart from the concrete foundations which go through everything down to natural clay (Fig. 2), the basements of all the warehouses have destroyed most of the upper levels down to +2 metres O.D. (i.e. 4 metres below the level of Lower Thames Street). When the excavations started in the two basements it was found that fourteenth century layers lay immediately below the basement floor. The only remains of later structures were some chalk and ragstone foundations in the central basement (Fig. 20 and Pl. 8) and chalk and brick cellars and foundations in the east basement which are described below (Fig. 23).

The chalk and ragstone foundations of the central basement (trenches III, V and VI) must be part of the medieval Custom House, though with only the foundations it is not easy to date them. It was also unfortunate that the few layers associated with these foundations produced few dateable objects (Group A). Apart from the foundations recorded in the excavations, a few additional observations were made in the north-western part of the site during piling operations (Fig. 3). The position of all these walls makes it quite clear that they can only belong to the Custom House. Wren's Custom House, which was built after the great fire of 1666, lay immediately in front (i.e. south) of the earlier Custom House and as can be seen from the plan (Fig. 3) this fits well with the remains found.

Of the actual walls excavated, little can be said; in trench VI the south-east corner of a building was found with a massive east wall going down to -0.3 metres O.D. (see sections a - a¹ Fig. 21, and b - b¹ Fig. 20). The south wall of this building was much less substantial and lay partly over an earlier scissor brace. The base of this wall was only at +1 metre O.D. but it was built on piles that were at least 1.5 metres long (Fig. 21). The position of these walls

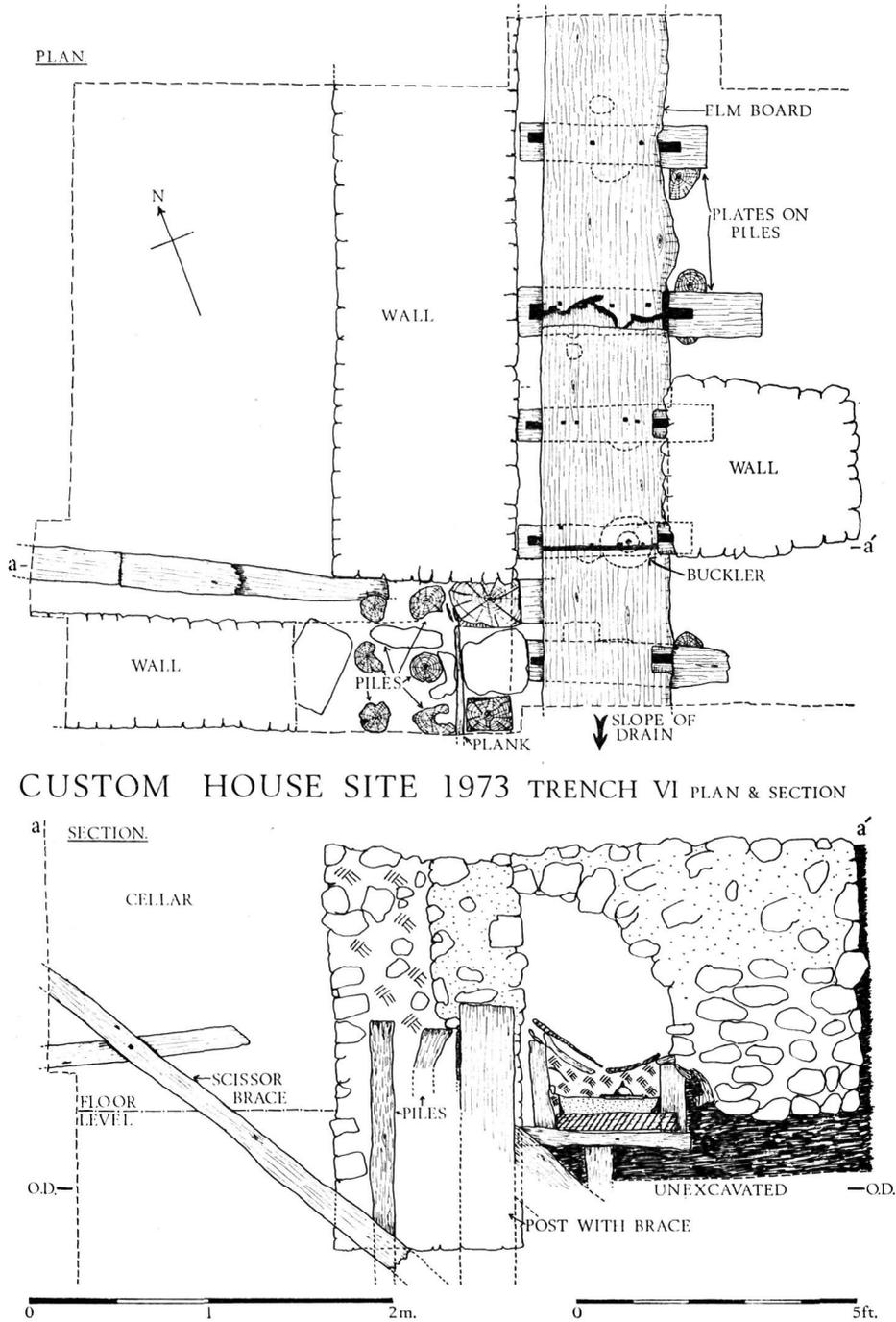


Fig. 21.—Custom House site; plan and section of Trench VI

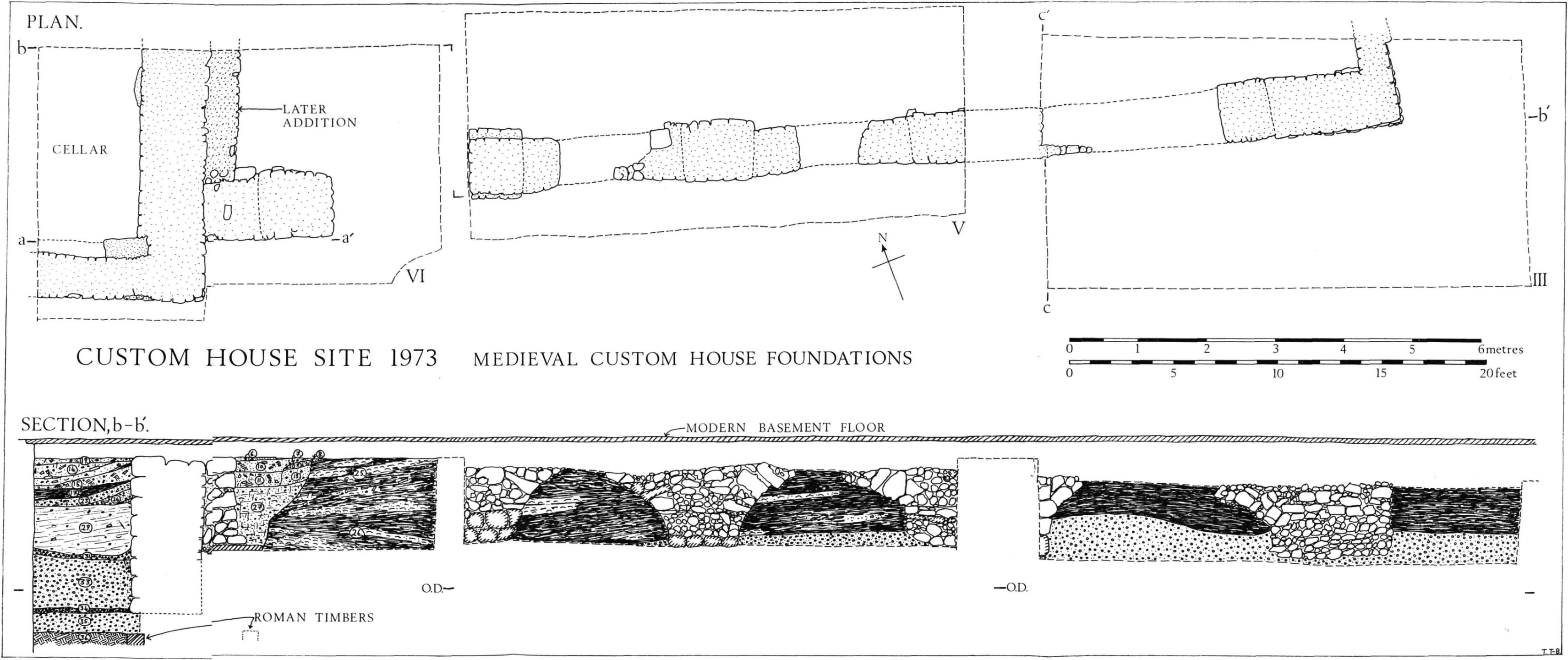


Fig. 20.—Custom House site; plan of Medieval Custom House foundation and section

in relation to the scissor braces of the jetty suggests that there may have been some connection between them. North-west of these two walls (i.e., within them) there appears to have been a cellar, though it must have been filled in soon after it was made. There is a very rough spread of chalk (VI-31) which is possibly the floor of the cellar.

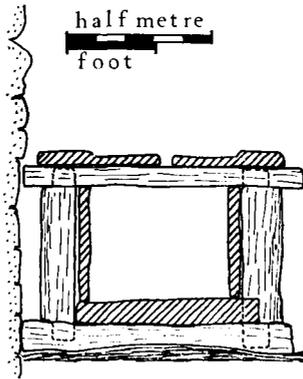


Fig. 22.—Custom House site; reconstructed section through Medieval drain

Outside the east wall of the building ran a very fine timber drain. This was constructed with a series of parallel ground plates on piles (like railway sleepers) above which was a series of elm boards carefully scarfed with diagonal bevels overlapping in the direction of flow. The boards were pegged down onto the plates (Fig. 21). At either end of the plates were two vertical posts; these were joined to the plates with a tenon-and-mortice joint that fitted almost perfectly. Across the top fitted another series of plates which supported the top of the drain, and inside were two vertical planks for sides (see Fig. 21 and reconstructed section, Fig. 22). The sides and top of the drain only survived in the southern part of the trench because in the northern part a later widening of the wall had destroyed it. This later wall used the elm board as a foundation (Fig. 20). Where the drain had survived intact the corrosive nature of the material flowing through it (presumably sewage) had almost completely worn away the side and top planks (see section a - a¹ Fig. 21). The fill of the drain consisted of c. 8 cm. of fine silt with above this and filling the rest of the inside a very sticky grey clay, in which were white limey streaks. Lying on top of the lower layer of fine silt was a buckler (see below, p. 201). The buckler had obviously been complete when thrown into the drain, and lay with its outside upwards; by good fortune it had come to rest in the drain at a point where neither the later Medieval nor the 20th century foundations had destroyed it. The drain itself sloped with a north-south gradient of roughly 1 in 14 going from +0.65 m. O.D. to +0.38 m. O.D. as it crossed trench VI.

At some time subsequent to the building of the drain an arched foundation for another building was added to the eastern side of the initial one. As can be seen from the elevation (Fig. 20 and Pl. 8) the arches were very roughly built in the ground with no uniformity about them. Apart from a few ragstones, which were used particularly for the bases of the rough piers, the whole of these foundations was of chalk and yellow mortar and they were clearly trench built. This contrasts strongly with the massive north-south wall described above which had ragstone on its east (outer) side and chalk on its inner side; on both sides the stone was coursed unlike the rough arched foundations. An as yet unexplained feature of this later foundation is that the final half arch at the western end (i.e., that going over the drain) is

offset from the rest of the foundations. There is also no arch between this offset pier and the neighbouring one on the east (see Figs. 20 and 21). The final addition to these foundations was the very solid north-south ragstone wall built on the elm board of the partially demolished drain which was mentioned above. No floors or walls above these foundations survive to tell us anything more about the building so one can only postulate for this part of the medieval Custom House a building *c.* 24 metres east-west by *c.* 10 metres north-south with an addition on the east 17 metres long by *c.* 9 metres wide. These are possibly the foundations of the famous Custom House of 1382 which John Churchman “newly built for the quiet of Merchants . . . to serve for the tronage of wools in the Port of London”. A further patent in the following year (1383) speaks of the granting of an extra sum “because he (John Churchman) has added a small chamber for a latrine and a sollar over the counting house 38 feet long by 21½ feet broad, containing two chambers and a garret, as a further easement for the customers, controllers and clerks”.²⁰ It is tempting to associate the main building on the west (Fig. 3) with the original hall of 1382 where the tron was kept and the extension with Churchman’s addition of the following year. The timber drain is clearly built to carry sewage into the Thames and would be ideal for Churchman’s latrine. It is an interesting thought that the most famous controller of Customs, Geoffrey Chaucer, may have used this latrine. However, they may only be the foundations of later 15th or 16th century buildings; but the depth of the foundations argues for an earlier rather than a later date.²¹ By the 16th century the area of the Woolwharf between Thames Street and the river seems to have been cluttered up with many buildings if we are to believe the maps of the time.²² The foundations of these later buildings may only have been of timber or, more likely, they were at a higher level and have therefore disappeared.

(g) POST-MEDIEVAL BUILDINGS

All the basements and buildings on the site in 1973 were of a 20th century date except for that in the north-east corner of the site. This building had a vaulted cellar three bays wide by seven bays long (Fig. 3). The foundations of this building were a series of reverse arches (Fig. 26) and it may date from the early eighteenth century, in which case it is Thomas Ripley’s 1722 extension to the Custom House, or more likely, from the early nineteenth century. This latter building would be a warehouse built after the Custom House site had been sold off in 1814.

The eight trenches (VIII–XV) excavated in the north-east part of the site were excavated in difficult conditions among these foundations, and the first thing to be encountered was a series of walls and small cellars of post-medieval date (Fig. 23). One of these cellars in the eastern part of trench XIII contained a group of pottery bellarmines, clay pipes, etc., which clearly dated from the second half of the seventeenth century and early eighteenth century (XIII-1). It is, therefore, almost certain that these walls belong to buildings constructed after the Great Fire on the property adjoining the Wren Custom House on the east. This property, called Hartshorn Quay at the time, was owned by Sevenoaks school.²³ On Ogilby’s map of 1677, three buildings are shown facing Thames Street with a small courtyard behind.

Apart from the walls noted above, a few other observations of post-medieval features were made, two of which are of importance. First several observations were made during piling of the front wall of the Wren-Ripley Custom House. Very little survived, but a series of brick arches was noticed and the foundations were also seen of part of the projecting east wing of the Custom House (Fig. 3). The position of the building fitted closely the position

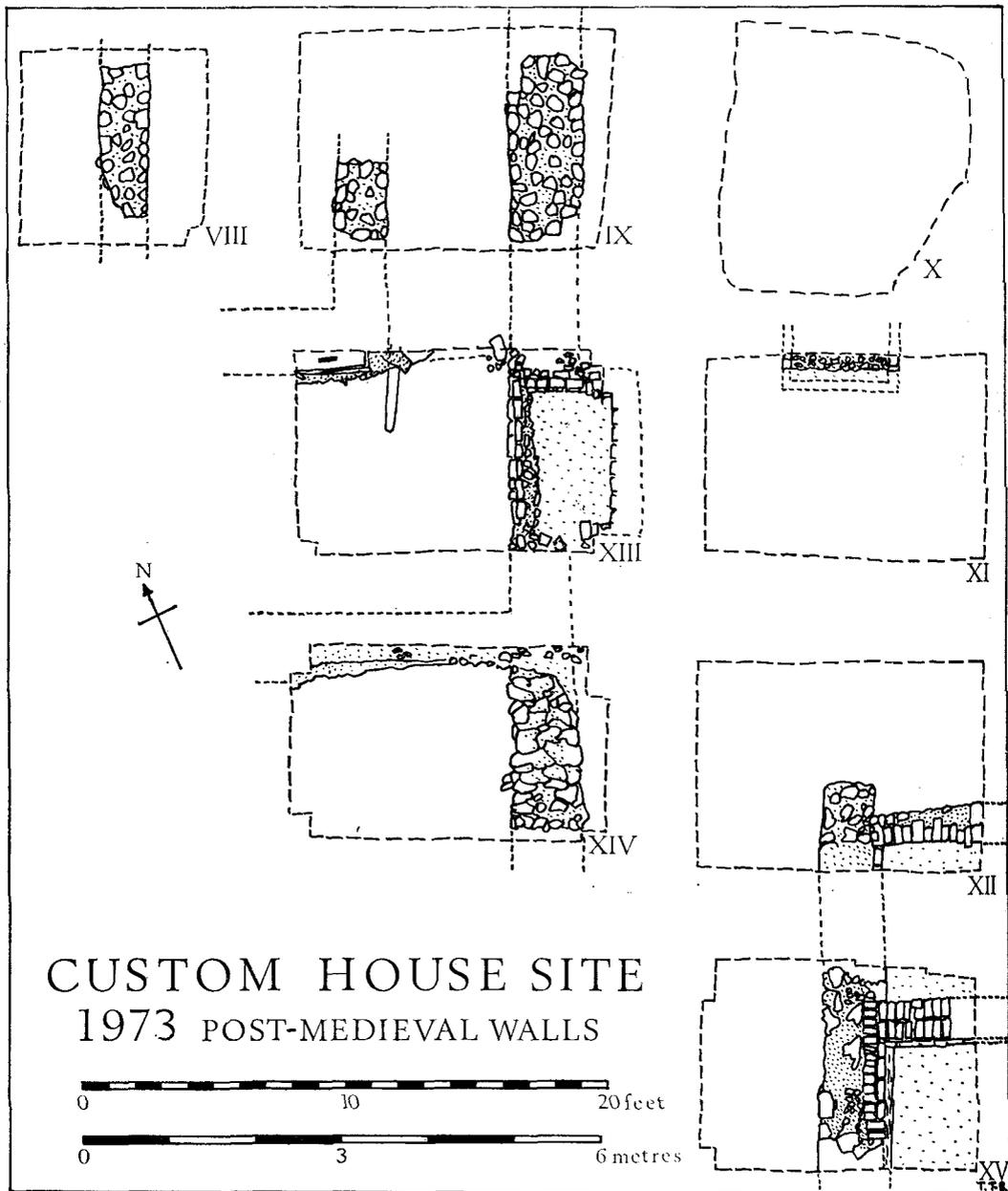


Fig. 23.—Custom House site; plan of post-Medieval walls in east basement

as known from early maps and plans.²⁴ It was not possible to locate the back wall of the Wren Custom House, though part of a brick foundation in the central basement (VII-11) may have been connected with it.

The second observation of importance is the lower part of the Wren-Ripley river wall which was observed during the demolition of the southern basement on the site (Fig. 2). Just in front of this wall (*i.e.*, in the Thames of the time) was found the Welsh hook (see small find report below, p. 195, No. 132).

NOTES

- ¹ See H. von Petrikovitz, "Die Ausgrabungen in der Colonia Traiana bei Xanten", *Bonner Jahrbücker* 152 (1952), 145-157 and Fig. 19.
- ² S. E. Rigold, "The Roman Haven of Dover", *Archaeol. J.*, CXXVI (1970), 91, Fig. 2.
- ³ F. Lambert, "Some recent excavations in London", *Archaeologia* LXXI (1921), 62-72. (For timbers east of Miles Lane) and Royal Commission on Historic Monuments, Vol. III, *Roman London* (1928), 132-34 (Timbers west of Miles Lane) and *J. Roman Stud.*, XIX (1929), 201 and Fig. 10 for a plan of all the timbers including those found in 1929 under Regis House by Dr. G. C. Dunning.
- ⁴ These were beams III, 4, 3, 2 and 1 respectively for the dendrochronology.
- ⁵ H. von Petrikovitz *op. cit.*, 146.
- ⁶ See P. R. V. Marsden, "A Ship of the Roman Period, from Blackfriars, in the City of London", Guildhall Museum (undated), 27, for a discussion of this type of ship.
- ⁷ R. Merrifield, "Coins from the Bed of the Walbrook and their Significance", *Antiq. J.*, XLII (1962), 48-52.
- ⁸ H. von Petrikovitz, *op. cit.*, Fig. 20.
- ⁹ H. von Petrikovitz, *op. cit.*, Figs. 4 and 13. It should also be said here that there is no conclusive evidence for a defensive wall on the south side of Londinium. I have put forward the arguments for a southern defensive wall in more detail in *The London Archaeologist* (1973), Vol. 2, Nos. 7 and 8.
- ¹⁰ This beam was beam H for the dendrochronology.
- ¹¹ William Fitzstephen, *Description of London* in John Stow, *The Survey of London*.
- ¹² The area under the baulk between trenches XII and XIV was only excavated on the last day of the excavations, and it was not possible at the time to plot on all the rivets on Fig. 13. All the boat timbers were, however, removed for a more detailed examination by Mr. Peter Marsden.
- ¹³ In fact, one of the sections slipped during the final stages of excavation.
- ¹⁴ See D. Martin, "Bodiam Castle Medieval Bridges", Hastings (1973).
- ¹⁵ A possible parallel for this is illustrated in a fine bird's-eye view of the area lying east of St. Katharine's Hospital, redrawn by Miss Honeybourne in London Topographical Society Publication No. 16 (1929).
- ¹⁶ Mr. C. A. Hewett suggested an earlier date for some of the joints but puts the scissor braces with tenon-and-mortices after c. 1300. I am extremely grateful to him for all his help and advice on the medieval timber joints, and for giving me the names of some of them.
- ¹⁷ Work is still in progress with the medieval samples and a matching is still possible in the future.
- ¹⁸ See *Calendar of Plea and Memorandum Rolls*, i, 177. This John de Tottenham was probably the same man as John de Tottenham I, who was City Carpenter from 1325 until 1347. Presumably, as City Carpenter, he was in charge of the work for all the fortifications built between the Tower and the Bridge in 1339. (For John de Tottenham I, see J. Harvey, "English Medieval Architects" (1954), 266. I am indebted to John Clark for this reference.)
- ¹⁹ See, for example, Braun and Hogenberg's map of 1572.
- ²⁰ *Cal. Patent Rolls* (1381-85), 149 and 299.
- ²¹ The bottom of the front wall of the Wren Custom House as observed was at +1.9 m. O.D.
- ²² *e.g.* Wyngaerde c. 1550, Aggas 1560, and Braun and Hogenberg 1572.
- ²³ See T. F. Reddaway "The London Custom House 1666-1740" in *London Topographical Record* xxi (1958), 1-25, for all the documentary aspects of this period.
- ²⁴ *e.g.* the plan drawn in T. F. Reddaway, *op. cit.*, 18. Fig. 5,

EARLY DEVELOPMENT OF THE CUSTOMS, AND THE TOPOGRAPHY AND DESCENT OF WOOL QUAY

BY TONY DYSON, *Department of Urban Archaeology, Guildhall Museum*

The first permanent and systematic exactions of royal customs in England were established in 1275 with the introduction of a New Custom, later known as the ancient or great custom levied upon wool, woolfells and hides. From the date of the earliest extant customs account of 1294-7 it is clear that a house was rented for these purposes—for the annual sum of 60s., at first, and for varying amounts intermittently thereafter—but no identification or location

of its site is given.¹ In fact, it is not until 1376, with the record of complaints by London merchants over certain charges imposed on wool and woollens at the *Wolkey*,² and 1377 when Richard II appointed Richard Baret as keeper of the great customs' house on *Wollekeye*,³ that an identification of the Custom house site with Wool Quay, where it remained until 1814, can definitely be made.

An attempt has been made to show that the customs administration, both great and petty had been based on the Wool Quay as early as 1318 and, in all probability, from the inception of the great custom in 1275.⁴ But while the evidence produced by Miss Mills in support of these claims is less than conclusive, it certainly shows—as might indeed be inferred from its name, which first appears in 1295—that the quay had been closely involved with the wool trade, and with customs, for three or four decades before Baret's appointment. In 1335 a plea of trespass for attaching 20 sarplers of wool on the site refers to the sale of this commodity in the house of Thomas Perle on Wool Wharf.⁵ Six years later Perle was appointed controller of customs.⁶ Between 1339 and 1341 three inquests relating to the non-payment of customs on wool were either held there or were attended elsewhere by juries of porters from the wharf.⁷ Wool "arrested" for similar reasons was stored at a house on the site at the king's expense.⁸ But it is with the description,⁹ in 1344, of John Vincent who died in, or shortly before, 1341,¹⁰ as weigher of wool at Woolwharf that we have the strongest indication, prior to the evidence of 1376–7, of customs activities here. Earlier than this, or earlier than 1339, there is little certainty. Miss Mill's contention that no other location in London can boast a comparable body of references to the wool trade, albeit negative, retains a degree of validity. Yet evidence from the early Mayor's Court rolls of 1305, a source not readily available in print when she wrote, shows Richer de Refham—who had been appointed collector of the new and old customs the previous year—"visiting" the quay, then known as "Baudri's wharf" in order to pass the merchants there.¹¹ The necessity to visit might suggest that wherever the site of the tron, the large wooden structure used for weighing and the indispensable hallmark of the great customs, may have been in 1305, it was not at Wool Quay. At the same time this evidence would suggest that, at least in the case of the new or petty customs (due on all goods except wool and wine) which were Refham's concern on this occasion, the early collectors were peripatetic, moving about their business from wharf to wharf. It is clear that other commodities than wool were handled at Wool Quay,¹² and before 1386, when a royal patent ordered that the petty customs be collected there,¹³ there is evidence that these had also been levied at Wool Quay¹⁴ in the years immediately before the temporary separation of the accommodation of the two customs in 1365–6.¹⁵

The earliest reference to Wool Quay, as *Wolhous*, appears in Adam Blakene's will of 1295 where the property is described as a hall (*aula*) with chambers, a house, and gardens in Sporigerslane in the parish of All Hallows Barking.¹⁶ Sporigerslane, later known as Water Lane, formed the western boundary of this parish, and *Wolhous* can therefore be located opposite Wool Quay on the north side of Thames Street. The property, which Adam bequeathed to his daughter Katharine, was one of three in the immediate area which he had purchased from John de la Tour whose own will, dated 1285, shows him to have been a considerable landowner in the area.¹⁷ Stonewharf, the quay immediately to the east of Wool Quay and the earliest Custom House site, was bequeathed to John's son Robert at the same time and was subsequently purchased by John of Canterbury, whose will of 1304 left it to his daughter Cecile.¹⁸ It may also be remarked that there is a tendency towards the same owner holding properties which faced each other across Thames Street.¹⁹

By some unrecorded transaction Katharine Blakene's property at Wool House came into the possession of Hugh Baudri, a fishmonger, who in 1305 entered a plea of trespass in the Mayor's court against Richer de Refham, a neighbour and a customs official.²⁰ Five years later the City sheriff's took the tenement into the City's hands and certified its value at 64s. p.a. By now Hugh had died, and a jury testified that Peter le Blount, who subsequently married Hugh's widow Agnes, occupied his house and affirmed that the deceased had held shops at the corner of Sporienslane, and that Roger de Romeseye presently held a wharf and cellars in the neighbourhood.²¹ In 1323 John Baudri, as the heir of Hugh and Agnes, demised to Godwyn and Petronilla Turk for life the whole tenement with a vacant plot of land, shops and a quay lying between the Canterbury tenement to the east and Spurienslane to the west, and between the tenement of Richer le Refham to the north and Thames Street to the south.²² The following year John quitclaimed all rights in the property to the Turks.²³

The Turk family held Wool Quay for at least 30 years. Appended to Godwyn's will of 1333 is Petronilla's claim to the property which had not been mentioned in that document.²⁴ By 1338 Petronilla had leased the quay to William de Bricklesworth for a period of four years. In considering measures for the defence of the City it was agreed by the Mayor's court on 9th October that all persons holding quays on the Thames between the Tower and the bridge should construct brattices of boards to this end. Bricklesworth, who was placed in charge of a contingent of men from Bassishaw and Coleman Street wards to provide day and night watches in the section of the waterfront from Stone Wharf to the bridge, complained that his landlord, Petronilla Turk, had refused to erect her defences. In the event William undertook the work, which cost £10. 6s. 8d. and was authorised to retain the quay beyond the term of his lease in order to recover his expenses.²⁵ But by 1344, according to a survey of Thames-side amenities and common ways, Petronilla's son Andrew occupied the quay, to the east of the improved Watergate.²⁶ Petronilla's will, drawn up on 20th April, 1349, left all her tenements with houses on Thames Street near the Woolwharf to her two sons Richard and Robert.²⁷

From this date until 1378 there is a break in the records—and in the tenure. In this year Gilbert de Meldeborne and William Rykyll granted to John and Emma Churchman the quay called Wool Wharf with houses, cellars and solars situated between the Salisbury's quay of Stonewharf to the east and Watergate to the west.²⁸ The grantors mention that they had only recently acquired the property, but there is no indication here or elsewhere in the Hustings rolls of how they had acquired it. Probably directly from the Turk family: two years later Thomas, the son of Richard Turk, quitclaimed to Churchman all rights in the property,²⁹ as at the same time did John, son of John Baudri.³⁰

NOTES

¹ P.R.O., Enrolled Customs Accounts, E.356, 1m. 25; 2m. 1v, cited in Mabel H. Mills, "The London Customs House during the middle ages" in *Archaeologia* LXXXVIII (1933), 309.

² *Rotuli Parliamentorum*, ii (Records Commission) London, 351.

³ *Cal. Patent Rolls* (1377-81), 36; *Cal. Close Rolls* (1377-81), 29.

⁴ M. H. Mills, *art. cit.* Cf. unpublished paper by Mr. A. J. Card on "Pre-Elizabethan Custom Houses in London" (1967).

⁵ Corporation of London, *Cal. Letter Book E*, 262.

⁶ *Cal. Patent Rolls* (1340-43), 83.

⁷ P.R.O., E.143, 11/1, No. 31 *Cal. Miscellaneous Inquisitions* (1307-49), No. 1762.

⁸ *Cal. Close Rolls* (1341-43), 64.

⁹ *Cal. Letter Book F*, 112.

¹⁰ *Cal. Patent Rolls* (1340-43), 83.

¹¹ *Cal. Early Mayor's Court Rolls* (1298-1307), 184. In 1323 Refham owned property on the east side of Sporienslane (Water Lane) immediately north of Wool House—Corporation of London Records Office, Hustings Roll 54 (115).

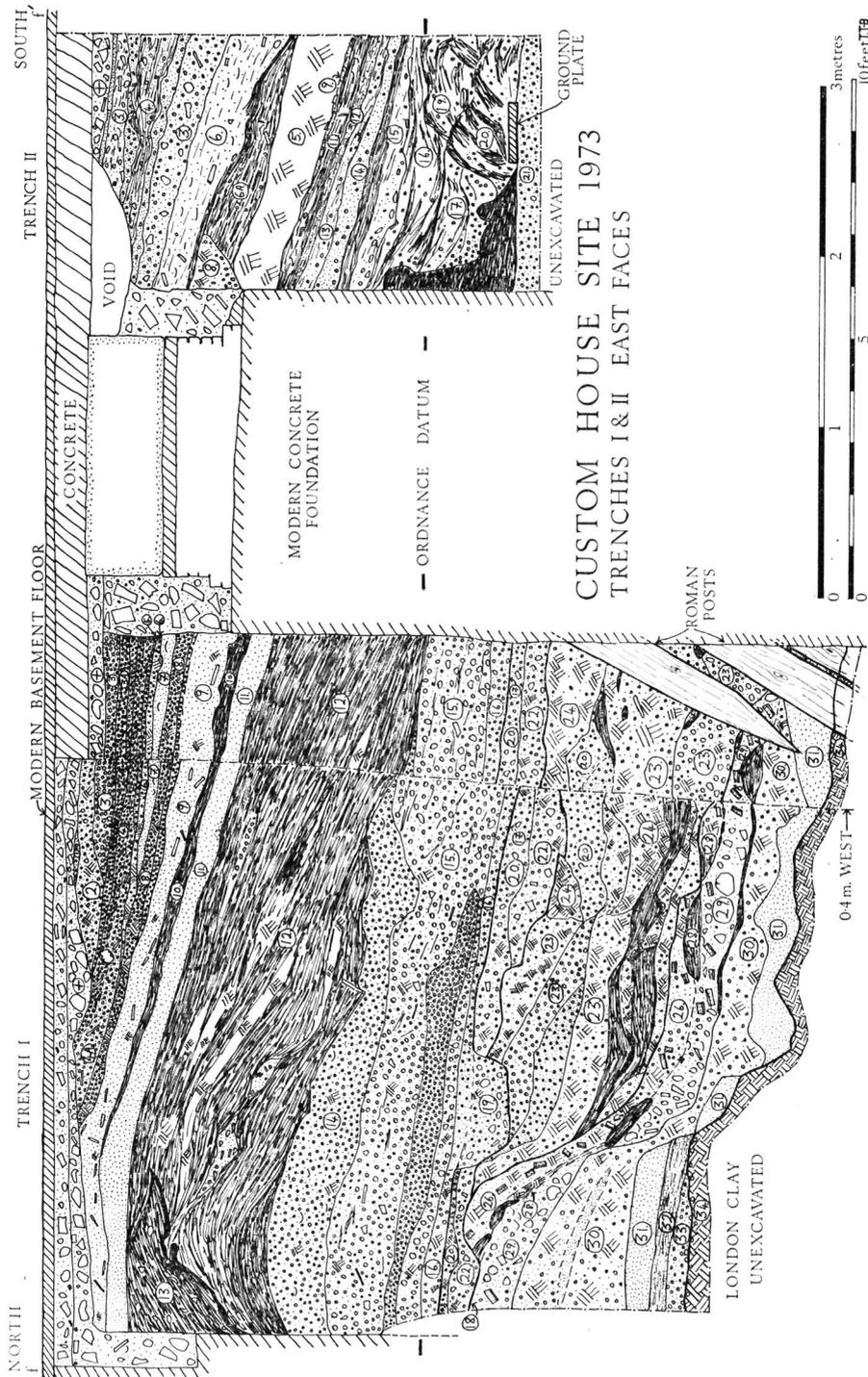


Fig. 24.—Custom House site; section of Trenches I and II, f—f¹

¹² Riley, *Memorials of London*, 254.

¹³ *Cal. Patent Rolls (1385-89)*, 204.

¹⁴ *Cal. Close Rolls (1360-64)*, 26, dated 1st May, 1360.

¹⁵ P.R.O., E.159, 142.

¹⁶ *Hustings Roll 24 (100)*.

¹⁷ *Ibid.*, 15 (48).

¹⁸ *Ibid.*, 32 (40).

¹⁹ *Cf. Ibid.* The Stonewharf and associated property east of Berewards Lane; and also the will of William de Bodele (dated 1332); *Ibid.*, 59 (145) whose property, divided and described in two parts, lay west of Sporiarslane and of its southern extension of Watergate. These tenements are described in the will as "apud le Wollewharf" in the parish of St. Dunstan. This appears to have led Leftwich, in his article on the Custom House in *Survey of London*, Vol. 15 (All Hallows Barking, part II), 1934, 31 *et seq.*, to confuse Bodele's property with the Woolwharf itself.

²⁰ See Note 11 above.

²¹ *Cal. Letter Book D*, 239.

²² *Hustings Roll 54 (115)*.

²³ *Ibid.*, 54 (116).

²⁴ *Ibid.*, 61 (83).

²⁵ *Cal. Plea and Memoranda Rolls*, i.177.

²⁶ *Munimenta Gildhallae Londoniensis: Liber Custumarii*, Pt. 2, 446.

²⁷ *Hustings Roll 78 (97)*.

²⁸ *Ibid.*, 106 (150).

²⁹ *Ibid.*, 108 (14).

³⁰ *Ibid.*, 108 (24). For the subsequent history of the Wool Quay Custom House, see Leftwich, *op. cit.* 31 *et seq.*

STRATIFICATION

TRENCH I (see Fig. 24, Section f—f¹)

Layers 1 – 8. Compacted gravel with some occupation in between (Group A3) — *c.* fourteenth century.

Layers 9–11. Clean orange sand with a thin layer of peat (10) in between. Layer (9) also contains a thick band of slate.

Layers 12–13. Very thick peat layer containing much organic material as well as much pottery, leather, and small finds. The layers also contain some clay lenses. —? Late thirteenth–mid-fourteenth century (Group C2).

Layers 14–17. Gravel with some streaks of peat. More Roman material towards the bottom. Later thirteenth–fourteenth century (Group D).

Layers 19 and 25. Fill of gully and post holes. Gravel with some large areas of tree bark — late thirteenth century.

Layers 20–22. Black sandy gravel with clay and much ragstone and Roman brick. Most of the pottery is late Roman but very well rounded, and these layers represent the erosion surfaces between the late Roman and the thirteenth century.

Layers 23–24. Mixed clay and gravel layers. These layers contain a mixture of late second-century pottery and a coin of Antoninus Pius (A.D. 151–2) and late third century pottery. They were presumably disturbed in the late Roman period when the main timber beams were robbed out.

Layers 26–29. Mortar, painted wallplaster, building rubble, clay and some peat. They represent the rubble from a building presumably further north. Most of the pottery is late second century, though some is a little later. The horizontal timbers were in these layers.

Layers 30–32. Layers of dark and light fine sand with some clay and gravel. The Roman pottery is a mixture of later second century types with some residual Flavian to early second century wares.

Layer 33. Thin layer of gravel and sand lying on the London clay at 1.5 metres O.D. Contains mainly late first–early second century pottery.

Layer 34. Natural London clay. This appears to have been cut away in the southern part of the trench, presumably when the Roman timber waterfront was built.

TRENCH II (see Fig. 24, Section f—f¹)

Layer 1. Posthole fill in the southern part of the trench.

Layers 2–20. Tips of sand, rubble, clay, gravel and peat disturbed during the robbing out of the medieval timbers (Groups A3 and B).

Layer 22. Thick peat layer (equivalent to Trench I, Layer 12) (Group C2).

Layer 21. Sand and gravel below medieval timber ground plate (equivalent to Trench I, Layer 15) (Group D).

CUSTOM HOUSE SITE 1973 TRENCH III WEST FACE

SOUTH NORTH

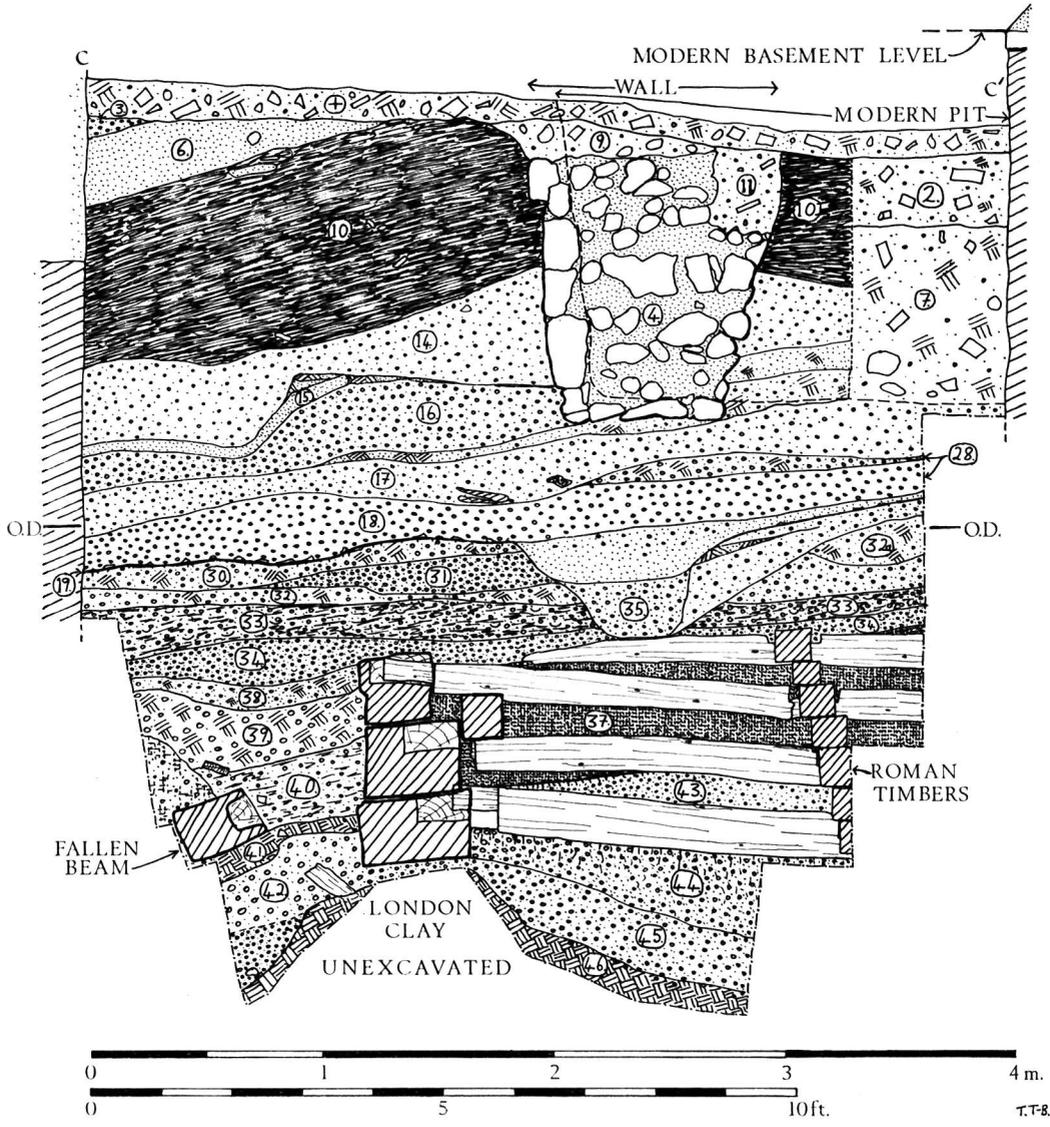


Fig. 25.—Custom House site; section of Trench III, c—c¹

TRENCH III (see Fig. 25. Section c—c¹)

Layers 2 and 7. Modern, rectangular pit filled with brick rubble, clay, etc.

Layer 3. Compacted gravel (equivalent to Trench I, Layers 1–8) (Group A3).

Layer 4. Chalk, ragstone and mortar wall foundation.

Layers 5, 9, 11 and 12. Wall construction trench fill (Group A2).

Layer 6. Clean yellow sand (probably water-lain) sloping south-eastwards (equivalent to Trench I, Layers 9 and 11).

Layers 8 and 13. Very thin occupation layer north of wall foundation.

Layer 10. Thick peat layer containing much organic material as well as leather, pottery, bones, and many small finds. Late thirteenth–mid-fourteenth century (Group C2).

Layers 14–19 and 28 and 36. Gravel with some clay and sand lenses. Also some peat. Late thirteenth–fourteenth century (Group D).

Layers 20 and 35. Fill of gully and postholes containing gravel with some wood chips and tree bark—? late thirteenth century.

Layers 21, 23, 25 and 30–34. Gravel with much rolled Roman material (equivalent to Layers 20–22 in Trench I). These are the foreshore gravels between the late fourth and thirteenth centuries.

Layers 24, 26 and 48. Mixed clay and gravel layers (equivalent to Trench I, Layers 23–24) overlying the robbed out Roman timbers. Mixed second–fourth century Roman pottery with even possibly some fifth century pottery.

Layers 27 and 29. Mortar, painted wallplaster, building rubble, clay and gravel (equivalent to Trench I, Layers 26–29). In this layer were the horizontal timber beams. There is some fourth century pottery as well as the late second century wares.

Layers 37 and 49. Grey-brown fine silt filling Roman timber boxes. This material was very uniform and darkened within a few seconds of being exposed to the air. In the very top part of the layer was a small quantity of fourth century pottery.

Layers 38–41. Grey-black sandy gravels with some clay and a very large quantity of molluscs in Layer 38. Layer 42. Sand and gravel above natural London clay in front of the Roman timber quay. Late second–early third century pottery.

Layer 43. Light sandy gravel below the box timber quay. Late first to later second century pottery. This layer definitely predates the Roman timber quay. At the bottom of the layer were small rootlets going down into Layer 44.

Layer 44. Light sandy gravel with some organic. Second century pottery.

Layers 45 and 47. Clean sandy gravel and London clay. No pottery.

Layer 46. Natural London clay—cut away north and south of the main Roman quay wall.

Layers 22, 50 and 51. Roman rubble, peat and sandy gravel north of the Roman quay (equivalent to Trench I, Layers 30–32).

TRENCH IV (see Fig. 17. Section c—c¹).

Layers 1 and 4. Modern clay and rubble foundation. The pit, however, produced a Cambridgeshire farthing of 1795.

Layers 2, 3, 5–8, 11–13, 30, 34–36 and 40. Gravel, sand, mortar, clay, etc. Trodden? Quay surfaces after the area in front of the medieval timbers had been filled in (Group A3).

Layers 9, 10, 14–22, 25–28. Tips of rubble, peat, etc., in the whole of the eastern part of the trench where the medieval upright timbers had been robbed out (equivalent to Trench II, Layers 2–20) (Group B. However, the majority of the material is redeposited from Group C1).

Layers 37–39, 41–47 and 50–60. Peat, clay, gravel, etc., mixed tip layers filling in the area south of and covering the medieval timbers (Group C1).

Layer 23. Clean yellow sand (equivalent to Trench I, Layer 11).

Layers 24 and 48. Very thick peat layer containing much organic material. The peat is water-laid and lies behind the planks (equivalent to Trench I, Layer 12 and Trench III, Layer 10). Late thirteenth century–mid-fourteenth century (Group C2).

Layers 37–39, 41–47 and 50–60. Peat, clay, gravel, etc., mixed tip layers filling in the area south of and covering the medieval timbers (Group C1).

TRENCH V (Fig. 20. Section b—b¹).

- Layers 1 and 4. Mortar, gravel, etc., with some occupation—perhaps a quay surface (Group A3).
 Layers 2 and 3. Chalk and mortar wall foundation with foundation trench (Group A2).
 Layers 5–7. Yellow sand layers (equivalent to Trench I, Layer 11, etc.).
 Layers 8–15. Thick peat and organic layers with much pottery, leather, tile, etc. (equivalent to Trench I, Layer 12, Trench III, Layer 10, and Trench IV, Layers 23 and 48). Late thirteenth–fourteenth century (Group C2).
 Layers 16 and 17. Mixed gravels (equivalent to Trench III, Layers 14–26). Late Roman–fourteenth century.
 Layer 18. Blue clay around Roman timber beams (equivalent to Trench III, Layer 37). Late Roman.

TRENCH VI (Fig. 20. Section b—b¹ and Fig. 21, Section a—a¹).

- Layers 6, 8, 10–13 and 27. Fill of foundation trench for addition to Custom House wall after the drain had been destroyed.
 Layer 9. Foundation trench for arched foundation.
 Layers 14, 15, 17, 23, 24, 29, 30 and 32. Fill of Custom House cellar (Group A4).
 Layer 31. Chalk rubble—? cellar floor.
 Layers 25 and 26. Thick peat and organic layers with thick lenses of shell, much pottery, leather (equivalent to Trench I, Layer 12, etc.). Late thirteenth–mid-fourteenth century (Group C2).
 Layer 28. Fill of timber drain construction trench (Group A1/A2).
 Layers 33–35. Mixed gravels. Late Roman–fourteenth century (Group D).
 Layer 38. Light brown clay—construction trench for south wall of Custom House (Group A1).
 Layer 40. Sticky wet blue clay above grey silty sand in the bottom few centimetres of the drain. The medieval buckler occurred between the two layers (see Section a—a¹). The clay also contained lime and a few bones, potsherds, etc.

TRENCH VII (Fig. 15. Section d—d¹).

- Layers 1–9. Sand, gravel, brick, chalk, slate, etc. (?hardcore for quay surfaces) (Group A3).
 Layer 10. Thick peat and organic material surrounding scissor braces.
 Layer 11. The fill of a post-medieval brick cellar, probably part of the Wren Custom House, c. late seventeenth century.

TRENCH VIII.

- Layer 1. Thick blue clay and horizontal timbers, c. eighteenth or nineteenth century.
 Layers 2–3. Clay and pebbly river gravel south of Roman posts (early waterfront).

TRENCH IX.

- Layer 1. Thick blue clay and horizontal timbers, c. eighteenth or nineteenth century.
 Layers 2–3. Clay, peat and pebbly river gravel south of Roman posts. Mainly early second century pottery, but with a few later sherds (early Roman waterfront—equivalent to Trench VIII, Layers 2–3).
 Layers 4–5. Clay, chalk lumps, etc., packed behind early Roman waterfront.

TRENCH X (Fig. 26).

- Layer 1. Thick blue clay and horizontal timbers, c. eighteenth or nineteenth century (equivalent to Trench VIII, Layer 1, and Trench IX, Layer 1).
 Layers 3–5. Chalk spread, clay, etc., packed behind early Roman waterfront. Late first–early second century pottery with a few late second century sherds in Layer 3 (equivalent to Trench IX, Layers 4–5).
 Layers 2 and 7. Gravel and clay overlying early waterfront and south of it—second century pottery.
 Layer 6. Gravel and clay above Roman timber beams and packed behind the early waterfront—late first–early second century pottery.

TRENCH XI (Fig. 26).

- Layer 3. Brick feature filled with rubble in north part of trench—c. eighteenth century.
 Layers 1, 2 and 4. Peat, sand and gravel (Group C2). Late thirteenth century–early fourteenth century.
 Layer 5. Pebbly gravel with organic material (Group D).
 Layer 6. Grey sand and gravel—mainly later Roman material.
 Layers 7–9. Sandy gravel, peat and clay—associated with timber posts, etc.—early second century with a few third–fourth century sherds mixed in the top.

TRENCH XII (Fig. 26).

Layers 1 and 6. Fill of brick cellar and wall foundations, c. seventeenth–early eighteenth century.

Layer 2. Compacted gravel layers (Group A3).

Layers 3–5. Gravel and peat layers around medieval timbers (Group C2).

Layer 7. Fine sandy gravel in front of medieval timbers and overlying plates and piles.

Layers 8–10. Very fine black sandy gravel—erosion surface with rolled pottery late Roman–thirteenth century (Group D).

Layers 11 and 14. Fill of post holes and gulley. Late thirteenth–fourteenth century.

Layers 12 and 16. Sandy clay and gravel in front of the Roman posts and planks—mainly second century pottery.

Layers 13 and 15. Brown peaty clay and gravel behind the Roman posts and planks.

TRENCH XIII.

Layer 1. Brick-lined rectangular pit or cellar in the eastern part of the trench. Contained later seventeenth–early eighteenth century pottery.

Layers 3–6. Peat, sand and gravel with much organic material (Groups C and D; late thirteenth–fourteenth century pottery).

Layers 7–10. Brown, peaty clay and gravel layers with some stone and mortar packed around horizontal Roman timbers—first quarter of second century—much Samian.

TRENCH XIV.

Layers 1 and 2. Mortar and compacted gravel (Group A3).

Layers 3–5. Peat, organic material and gravel with much pottery, leather, etc. (Group C2).

Layers 6, 7 and 11. Grey sandy gravel layers and post holes fill (Group D).

Layers 8–10. Black sandy gravel containing mainly worn Roman pottery.

TRENCH XV (Fig. 26).

Layers 1–6. Compacted gravel, mortar, etc. (Group A3).

Layers 7–22 and 25. Peaty organic material with gravel, etc. Much pottery and leather. Tips of material within the main layers (Group C2).

Layer 23. Sandy gravel south of the medieval timbers (Group C).

Layer 24. Rubbly fill of the lowest part of the late seventeenth–eighteenth-century cellar in the eastern part of the trench.

THE FINDS

For brevity, 1–22 in the individual reports equals Trench I, Layer 22 (see STRATIFICATION above) and the object number in brackets, e.g. (884), refers to a card index held with the excavation records in the Museum of London.

THE SAMIAN WARE (FIG. 27)

BY JOANNA BIRD

The information on potters' stamps has kindly been provided by Mr. B. R. Hartley

I 22 *Potter's Stamp*

1. Illegible on form 15/17 or 18. South Gaul, Neronian–early Flavian. (884). (Not illustrated).

I 23 *Potter's Stamps*

2. (D)RIPPINI on form 38. Die la, Drippinus of Lezoux. Antonine. (164).

3. ()M on form 38; burnt. Illegible; probably Central Gaulish. (885).

I 29 *Decorated*

4. Form 78, South Gaul. There is no exact parallel in O. for the lion; the grass and wavy lines are characteristically Flavian, c. A.D. 75–95.

- I 31 *Decorated*
5. Form 37 in the style attributed to Ioenalis of Les Martres de Veyre. He frequently used the beaded circle in place of an ovolo (S. & S. pl. 41, 475); for a similar vinescroll, cf. S. & S. pl. 41, 483. Perhaps slightly burnt, c. A.D. 100-125.
 6. Form 37, Martres ware. The ovolo is broken but may be the smaller one used by Druses I (X-3) and Igocatus (X-4): (S. & S. pl. 13, 155; 17, 218). c. A.D. 100-125. (Not illustrated).
 7. Form 37, Martres ware, c. A.D. 100-125. (Not illustrated).
- I 32 *Potter's Stamp*
8. ()IIAM on form 27. Probably an illiterate stamp; South Gaul. Flavian. (526).
Decorated
 9. Form 37. The ovolo is broken but is probably that used by Igocatus (X-4) of Martres (S. & S. pl. 17, 208.) c. A.D. 100-125. (Not illustrated).
- II 15 *Potter's Stamp*
10. (SE)VERIM on form 33. Die 3c, Severus IV of Lezoux, c. A.D. 160-195. (284).
- III 18 *Potter's Stamp*
11. NO(TTOC) on form 15/17 or 18. Die 5a, Cotto of La Graufesenque. Flavian. (827).
- III 22 *Decorated*
12. Form 37, South Gaul. Trident ovolo, tendrils in frieze, c. A.D. 80-100.
- III 23 *Decorated*
13. Form 37 in the style attributed to Donnaucus of Martres, who used the circle as ovolo (S. & S. pl. 44, 510), the pointed leaf (pl. 45, 518), and the feathery leaf (pl. 49, 588). There is no apparent parallel for the motif beneath the circles in the work of Donnaucus or that of his close associate Ioenalis, c. A.D. 100-125. (Not illustrated).
- III 39 *Potter's Stamp*
14. GALBINV (SF) on form 27. Die 3a, Galbinus of La Graufesenque, c. A.D. 70-90 (461).
- III 42
15. Form 37 in the style of the Sacer-Attianus group at Lezoux. The figures are too broken to identify, but are probably a panther/lion and a bear, c. A.D. 125-150.
 16. Form 37. East Gaul. The triple-banded ovolo is characteristic of Lavoye, and for others without a tongue, cf. Oswald 1945, fig. 6, xxvii and xlix. Antonine.
 17. Form 30, burnt, in the style of Cinnamus of Lezoux. The athlete (O.204), fine beads, astragalus and wreath medallion, are all on a bowl from Verulamiam (Hartley 1972, D 115), and this bowl may be from the same mould, c. A.D. 150-175.
- III 43 *Potters' Stamps*
18. IIVST on form 29, impressed into the mould. Die 15a, Iustus I of La Graufesenque, c. A.D. 70-85. (886).
 19. ()ISF on form 27. Illegible. South Gaul. (522). (Not illustrated).
Decorated
 20. Form 29 in the style of Passenus of La Graufesenque. The two sizes of leaf were used in a similar scroll on a bowl from Vechten (Knorr 1919, 6H), and the small circles and a similar wreath on bowls from London (Knorr 1952, 49E and F), c. A.D. 55-70.
 21. Form 29 stamped in the mould by Iustus of La Graufesenque (see above). Scroll with large serrated leaves, c. A.D. 70-85.
 22. Form 37, South Gaul. Neat leaf at base, c. A.D. 70-90.
 23. Form 37, South Gaul. Panel design with Victory (O.814), dog (no exact parallel in O), and arrowheads, c. A.D. 75-95.
- III 44 *Decorated*
24. Form 30. South Gaul. Saltire of wavy lines with tendrils, c. A.D. 70-95.
- III 48 *Decorated*
25. Form 37, Central Gaul. The ovolo is probably Cinnamus 3, which he shared with several other potters. A graffito (. . .]I LIIR[. . .) has been scratched on above the ovolo after firing. (Perhaps Celer), c. A.D. 140-170. (Not illustrated).
- IV 53 *Potter's Stamp*
26. BASSI on form 27g. Die 14f, Bassus of La Graufesenque, c. A.D. 45-60. (228).
- IV 60 *Potter's Stamp*
27. Illegible on form 27, probably. South Gaulish, Neronian-early Flavian. (882). (Not illustrated).

CUSTOM HOUSE SITE 1973

EAST BASEMENT, WEST FACES OF TRENCHES X-XII & XV

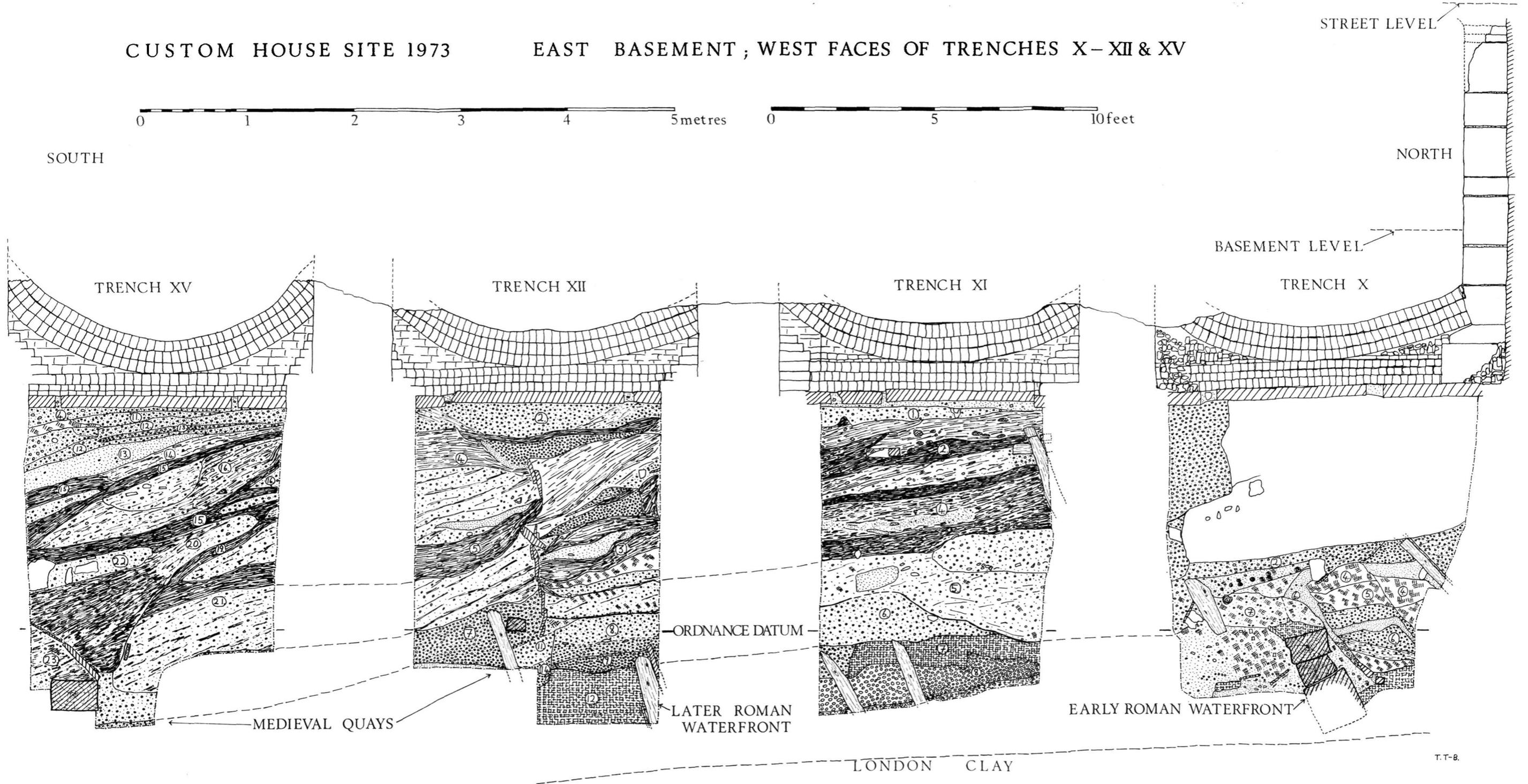


Fig. 26.—Custom House site; Section across Trenches X-XII and XV in the east basement

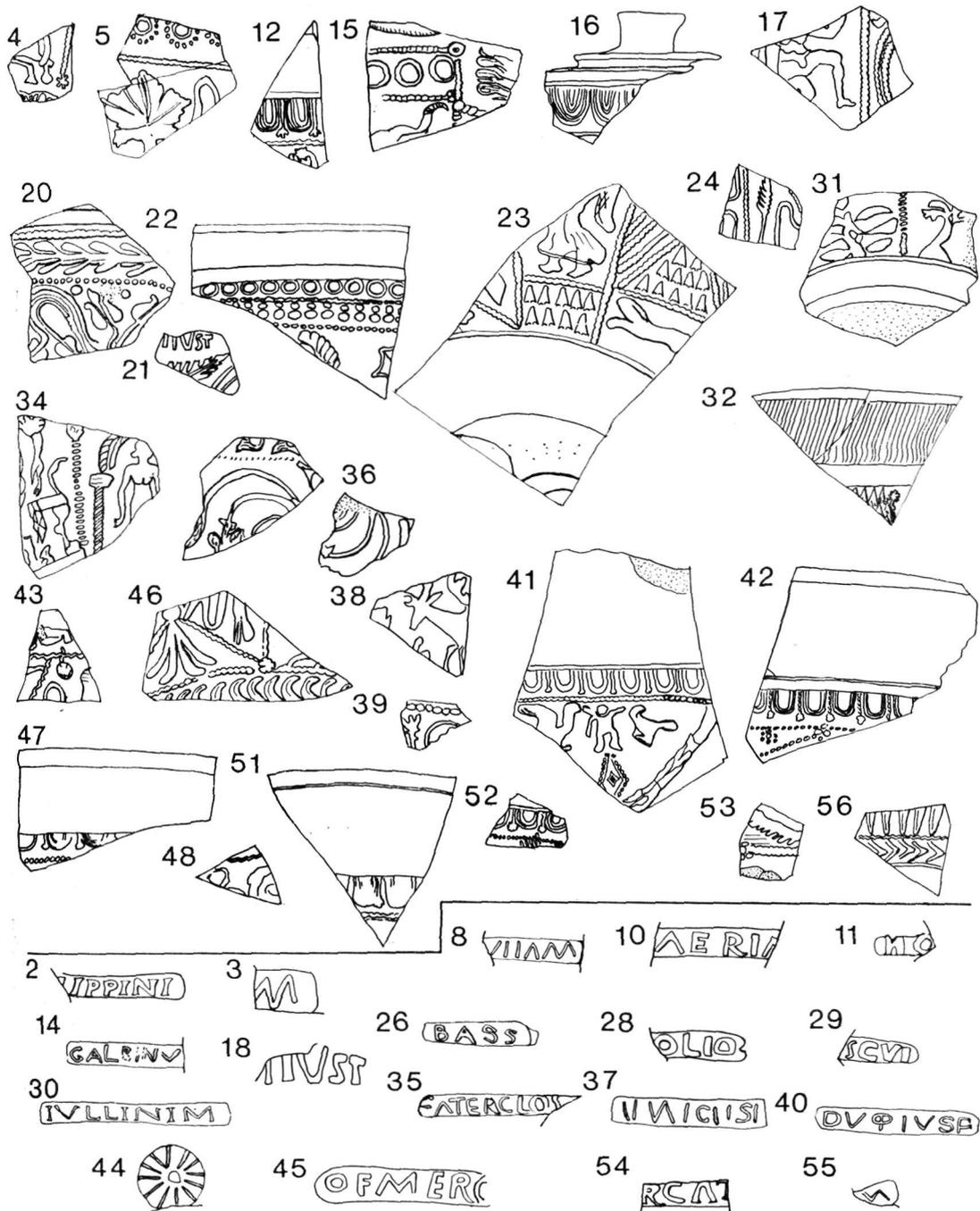


Fig. 27.—Custom House site; decorated samian (1/2) and stamps (1/1)

- VII + *Potter's Stamp*
28. (OFFP) *OLIO* on form 18. Die 2a', Pollio I of La Graufesenque. This broken version of die 2a was in use c. A.D. 75-95. (527).
- IX 2 *Potter's Stamp*
29. (OFMA) *SCVI* on form 15/17 or 18. Die 3b, Mascuus of South Gaul, c. A.D. 90-110. (856).
- X 2 *Potter's Stamp*
30. *IVLLINIM* on form 38. Die 3a, Iullinus II of Lezoux—this die was also used on decorated vessels, c. A.D. 160-190. (699).
- X 3 *Decorated*
31. Form 37, burnt, in the style of Cinnamus of Lezoux, who regularly used the cross motif (S. & S. pl. 160, 41). There is no apparent parallel for the tree, c. A.D. 150-180.
- X 6 *Decorated*
32. Form 29, South Gaul. Arrowheads in a panel, c. A.D. 60-75.
33. Form 29, South Gaul. Gadroons, c. A.D. 60-80. (Not illustrated).
34. Form 37 in the style attributed to Donnaucus of Les Martres de Veyre. He used the *Abundantia* (probably O.805, illustrated incomplete), the woman with scarf, and the arcade and corded column (S. & S. pl. 47, 549; 48, 576; and 49, 580), c. A.D. 100-125.
- X 6 & 7 *Potter's Stamp*
35. = *ATERCLO* (SFE) on form 33. Die 10a' or 10a'', Paterclus II of Les Martres de Veyre—both broken versions of die 10a, c. A.D. 110-130. (722).
- X 7 *Decorated*
36. Form 37 in the style of Drusus I (X-3) of Martres. For the anchor used as *ovolo*, and the same leaves and scroll, S. & S. pl. 15, 193, c. 100-125. (2 sherds illustrated).
- XI 2 *Potter's Stamp*
37. *IINICIISF* on form 33. Die 1a, Unicus of Lezoux. Mid-late Antonine. (998).
- XI 7 *Decorated*
38. Form 37 in the style of Cinnamus of Lezoux, who used the stag (O.1781) on S. & S. pl. 163, 66. For similar foliage, cf. S. & S. pl. 163, 66 and 70-71, c. A.D. 150-180.
39. Form 29, South Gaul. Scroll with small palmette, c. A.D. 55-75.
- XII 7 *Potter's Stamp*
40. *DVPPIVSF* on form 33. Die 1d, Duppius of Lezoux, c. A.D. 145-170. (721).
- XII 16 *Decorated*
41. Form 37 in the style of Docilis of Lezoux. The wreath and lozenge are used in the same arrangement on S. & S. pl. 92, 12, with similar birds; the cupid (O.408) has lost an arm on this piece. Hartley 1972, D 116 is attributed to Docilis, and probably has the same *ovolo*, though this one is too abraded to be certain; c. A.D. 130-155.
- XIII 8 *Decorated*
42. Form 37, in the style of Drusus I (X-3) of Les Martres de Veyre, with his *ovolo*, beadrow, and rosette (S. & S. pl. 13, 167). For a similar arrangement of beadrow, cf. Tétrisse 1968, pl. III; c. A.D. 100-125.
43. Form 37, Martres ware. The *ovolo* has been too damaged in the finishing to suggest attribution; the "Potter of the Rosette" tended to untidy over-running of wavy lines (S. & S. pl. 23, 286), and used a similar terminal rosette (pl. 21, 261), c. 100-125.
- XIII 9 *Potter's Stamp*
44. Rosette on form 46. Probably Central Gaul, and early second century. (841).
45. *OFMERC* on form 33. Die 1a, Mercato (r) I of La Graufesenque. This die was also used on decorated bowls; c. A.D. 90-110. (842).
- Decorated*
46. Form 37, South Gaul. A bowl from Verulamium (Hartley 1972, D 79) has all the motifs except the grass, and is attributed to M. Crestio, or possibly Memor; c. A.D. 75-95.
47. Form 37, South Gaul. Coarse fabric and badly modelled trident *ovolo* and border, c. A.D. 90-110.
48. Form 37, style of Igocatus (X-4) of Martres; badly burnt. His characteristic wavy line, with the crown, as S. & S. pl. 19, 241; c. A.D. 100-125.
49. Form 37. The tier of cups supporting an arcade was used by Igocatus (X-4) of Martres (S. & S. pl. 19, 241), c. A.D. 100-125. (Not illustrated).

50. Form 37, Martres. Fine beads with the backlegs of an animal, probably a deer, c. A.D. 100-125. (Not illustrated).
51. Form 37, Martres. The ovolo is smudged, but is probably one used with similar beads by Drusus I (X-3) on S. & S. pl. 13, 155-6, c. A.D. 100-125.
52. Form 37 with the small ovolo used by Iocnalis and Donnaucus of Martres—illustrated with a similar corded motif on S. & S. pl. 44, 513, c. A.D. 100-125.
53. Form 37, Central Gaul. The base is marked by a line of beads with a beaded rosette (cf. Dannel 1971, No. 95); above is a thick corded medallion. Probably Hadrianic or Antonine.
- XIV 7 *Potter's Stamp*
54. (ME)RCA(TOR) on form 31, probably. Die 5a or 5a', Mercator IV of Lezoux. This die was also used on decorated dowls; c. A.D. 160-190. (840).
- XIV 9 *Potter's Stamp*
55. (IVLLI)N on form 15/17 or 18. Die 7a, Iullinus I of La Graufesenque, c. A.D. 75-100. (881).
- XIV 10 *Decorated*
56. Form 37, South Gaul. Lance-gadroons and chevron wreath—cf. Atkinson 1914, Nos. 37 and 38, both by the "Potter of the Large Rosette", c. A.D. 70-85.

The plain Samian is not published here but is listed and lodged with the detailed records of the excavation.

ABBREVIATIONS:

- O: F. Oswald, *Index of Figure-types on Terra Sigillata* (Liverpool, 1936).
 S. & S.: J. A. Stanfield and G. Simpson, *Central Gaulish Potters* (Oxford, 1958).

OTHER REFERENCES:

- ATKINSON 1914: D. Atkinson, "A Hoard of Samian Ware from Pompeii" in *J. Roman Stud.* iv.
 DANNELL 1971: G. B. Dannel, "The Samian Pottery" in B. W. Cunliffe, *Excavations at Fishbourne II* (London).
 HARTLEY, 1972: B. R. Hartley, "The Samian Ware" in S. S. Frere, *Verulamium Excavations I* (London).
 KNORR, 1919: K. Knorr, *Töpfer und fabriken verzierter Terra-sigillata des Ersten Jahrhunderts* (Stuttgart).
 KNORR, 1952: R. Knorr, *Terra-sigillata-gefäße des ersten Jahrhunderts mit Töpfernamen*.
 OSWALD, 1945: F. Oswald, "Decorated Ware from Lavoye" in *J. Roman Stud.*, xxxv.
 TÉRRISSE, 1968: J.-R. Terrisse, *Les Céramiques Gallo-romaines des Martres de Veyre* (Gallia Supplement XIX).

ROMAN COARSE POTTERY (FIGS. 28-33)

BY WENDY McISAAC

Complete records of all the pottery are lodged with the finds themselves. In this report all the rims and important sherds from stratified Roman layers are published. The pottery on the whole was extremely fragmentary and only the better pieces are drawn.

Apart from a small group of pottery from the late first and early second century, the majority of Roman pottery is of a later second century or fourth century date.

Mr. Michael Fulford comments: "It seems to me that the assemblage may reflect the function of the wharf—the unloading and loading of ships. Without some statistics I may be wrong, but I was struck by the small number of 'cooking jars, flange bowls and dishes' which are common on an occupation site, and also by the variety of fabric and form of the pots represented. Many seem to be foreign to London; more may prove to be the case (accurate identification of the ?BB2). This variety and quantity of odd imports, making a very strange occupational assemblage, would fit very nicely for pots lost from either ships or the wharf."

We are extremely grateful to Mr. Fulford for his help and comments on the various wares and fabrics. Also Harvey Sheldon provided many helpful comments.

In the following report, the word "dish" has generally been used to indicate an absence of rim, rather than a shallow bowl. Also, the description "coarse sandy" indicates that a fair number of individual sand grains can be seen.

TRENCH I

(Fig. 28, 21-160)

LAYERS 20 AND 21 (Fourth century)

Fine Ware

1. Beaker. Soft micaceous red fabric, matt brown coat.
2. Wide rimmed bowl with hook formed by upturned outer edge. Hard micaceous red fabric, grey core, darker red coat. Oxfordshire.
3. Part of flanged bowl. Red micaceous fabric, darker red coat, slightly burnt. Oxfordshire.
4. Bowl. Worn sherd. Red micaceous fabric, darker red coat, roller-stamped decoration. Argonne ware. See Hübener (1968) perhaps groups 3-6.

Jars

5. Undercut rim. Hard sandy micaceous grey fabric.
6. Rim with groove or lid seat. Very worn. Coarse sandy buff fabric, traces of cream slip.

Bowls

7. Triangular rim profile. Coarse sandy micaceous grey fabric, burnished with lattice decoration. BB2 type. (Second-third century survival.) Similar to No. 141 below, but larger and heavier.
8. Bowl with short rounded flange. Very worn. Sandy micaceous light grey fabric, burnished. (Mid-third century plus.)
9. Bowl with raised bead and hooked flange, reminiscent of a mortaria. Sandy micaceous pink-buff fabric.
10. Bowl with raised bead and hooked flange, similar to mortaria types. Sandy micaceous orange-buff fabric, cream surfaces.

LAYER 22 (Fourth century)

Fine Ware

11. Beaker. Hard red fabric with dark brown coat.
12. Beaker. Worn. Light red fabric, traces of brown coat.
13. Cornice-rimmed beaker. Worn. Fine pasty light red fabric, brown coat.
14. Beaker. Fine micaceous red fabric, traces of brown coat, rouletted decoration. Burnt.
15. Beaker. Fine red fabric, lustrous brown coat.
16. Beaker sherd. Fine red fabric, lustrous dark brown coat, white paint decoration. Possibly a German import.
17. Bowl with flange. Fine white fabric, brown coat.
18. Bowl or dish. Fine micaceous red fabric, interior red coat, traces of brown coat on exterior.
19. Bowl. Imitation of Dr. 38. Sandy micaceous grey fabric, reddish exterior. Badly burnt. Similar to Gillam (1970) type 206, and to No. 61 below. (Late fourth century).
20. Bowl. Sandy micaceous red fabric, darker red coat.
21. Bowl. Hard fine micaceous red fabric, darker red coat with rouletted decoration. Oxfordshire. Similar to Frere (1972) No. 1200, but with a larger band of rouletting. (Late fourth century). (Illustrated).
22. Bowl sherd. Fine micaceous red fabric. Rosette stamp, similar to sherd No. 317 below.
23. Mortarium. Hard micaceous red fabric with grey core, dark brown coat, pink and white grits.

Jars

24. Squared, everted rim. Hard gritty micaceous grey-buff fabric.
25. Squared, everted rim. Hard gritty cream fabric. Form of rim similar to late Roman calcite-gritted types. Diameter 20 cm. Similar to Frere (1972) No. 1283. (Late fourth-fifth century).
26. Very small hooked rim. Coarse sandy micaceous grey fabric, burnished. (second-century survival).

Bowls

27. Rounded rim profile. Sandy micaceous grey fabric, burnished. BB2 type. Burnt. Similar to Gillam (1970) type 225. (Third century). Also see No. 267 below, but the latter is not as heavy.



Plate A.—The pottery kiln from the south-east (*Photo: S. A. Castle*)



Plate B.—Sesterterius of Vespasian. A.D. 71, x 2 linear (Photo: R. A. Gardner)

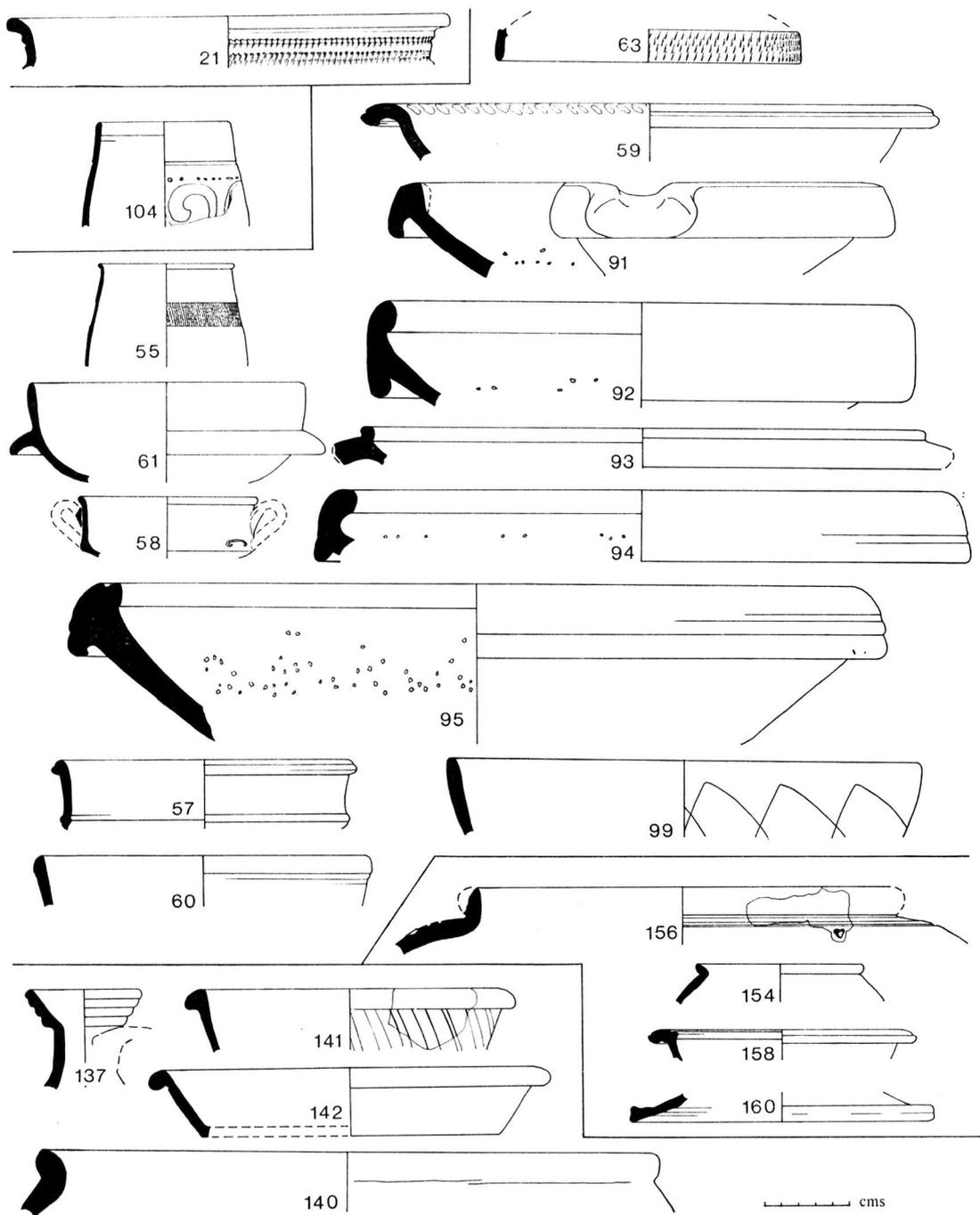


Fig. 28.—Custom House site; Roman pottery 21-160 ($\frac{1}{4}$)

28. Bowls (two rims) with slightly curved flanges. Coarse sandy micaceous grey fabric. Similar to Sheldon (1971) Fig. 7, No. 26 (fourth century) and to No. 328 below but thinner.
29. Bowl with short rounded flange. Very worn. Grey micaceous fabric, darker surfaces, burnished. Similar to No. 257 below.
30. Bowl with short rounded flange. Worn. Fabric as above, burnished.
31. Bowl with short rounded flange slightly undercut. Worn. Fabric as above, burnished. Similar to No. 237 below.
32. Bowl with small curved flange. Worn. Fabric as above, burnished.
33. Bowl with slightly upturned flange. Coarse sandy micaceous grey fabric, burnished.
34. Bowl with straight flange angled slightly downward. Fabric as above. Burnt.
35. Bowl with "parrot-beaked" flange. Hard sandy light grey fabric, burnished.
36. Bowl with curved flange. Coarse sandy black fabric, burnished. Burnt.
37. Small shallow bowl with small hooked flange. Fabric as above but micaceous. Burnished with intersecting arc decoration. BB1. Similar to Gillam (1970) type 227. (Third century).
38. Bowl with flange angled slightly downward. Sandy micaceous light grey fabric, black surfaces, burnished. Diameter 15 cm. Similar to Frere (1972) No. 1102 (late third century). Also see No. 327 below, but No. 38 is more square.
39. Imitation Dr. 38. Sandy micaceous grey fabric. Burnt. See Gillam (1970) types 205 or 206. (Late fourth century).
40. Tazza. Sandy red fabric with grey core.

Mortaria

41. Raised undercut bead and hooked flanged. Fine buff fabric, slipped, grits primarily brown and pink.
42. Wall-sided with a beaded lip. Gritty cream-buff fabric. Similar to Gillam (1970) type 272. A smaller version of No. 92 below.
43. Two hooked flanges. Coarse sandy fabric, one orange fabric with orange slip, the other buff.
44. Fragment of mortarium. Hard sandy buff-grey fabric.

Dishes

45. Two rims. Sandy micaceous grey fabric, burnished.
46. Sandy micaceous grey fabric slightly raised bands near rim probably once had some burnishing. See Frere (1972) No. 1267. (Late fourth-fifth century).

Lids

47. Sandy red fabric. Burnt.
48. Gritty grey fabric.
49. Gritty buff fabric.

LAYER 23 (Late third-fourth century)

Fine Ware

50. Beakers. Four sherds of rough-cast ware.
51. Beaker. Base and half of the body. Fine white fabric, matt dark brown coat. ?Nene Valley.
52. Beaker. Rim and sherd. Fine white fabric, matt dark brown coat, barbotine decoration under coat. Nene valley.
53. Beaker sherd. Fine white fabric, brown coat, white paint decoration. ?Nene Valley
54. Beaker. Two sherds. Fine white fabric, dark brown coat, rouletted decoration. ?Nene Valley.
55. Beaker. Fine red fabric, lustrous dark brown coat, rouletted decoration. Probably from Lezoux. (Illustrated).
56. Beaker sherd. Fine red fabric, lustrous metallic brown coat, scroll barbotine decoration. Lezoux.
57. Bowl. Fine white fabric, red paint on rim. Parchment ware. (Illustrated).
58. Two-handled cup. Fine red fabric, lustrous dark brown coat, barbotine scroll decoration. Lezoux. Cf. Wheeler (1930) pp. 144-45, Fig. 54, No. 7. (Illustrated).
59. Wide-rimmed bowl. Hard micaceous red fabric, darker red coat, white paint strokes on rim. (Illustrated).
60. Imitation Dr. 37. Hard micaceous orange-red fabric with shiny orange slip. Argonne ware. (Illustrated).
61. Bowl with flange. Hard sandy micaceous grey fabric, silky black surfaces, burnished. Sometimes known as London ware. (Illustrated).
62. Sherd. Fabric as above. Rouletted decoration.
63. "Castor-box" lid. Sandy white fabric, tan coat, rouletted decoration. ?Nene Valley. (Illustrated).

Amphora

64. Fairly small light rim with rounded profile. Fine micaceous buff fabric. See Hawkes and Hull (1947) No. 183.

Jars

65. Out-turned small oval profiled rim. Sandy micaceous buff fabric, grogged. Heavily mica coated. Rim similar in form to Frere (1972) Nos. 469 or 470. (Early second century).
66. Everted rim. Sandy micaceous grey fabric with brown core, darkened surfaces, burnished. (Late second–fourth century).
67. Everted rim. Sandy micaceous grey fabric with light grey core, darker surfaces, burnished. (Late second–fourth century).
68. Everted rim. Sandy micaceous grey fabric with dark grey core and surfaces, burnished.
69. Everted rim. Sandy micaceous light grey fabric, darker surfaces, burnished.
70. Everted rim. Sandy micaceous brown fabric with grey core and surfaces, burnished.
71. Large very everted rim. Coarse sandy micaceous grey fabric with light grey core, darker surfaces, burnished.
72. Poppy-head beaker. Sandy micaceous grey fabric with light grey core, metallic grey surface, burnished.
73. Poppy-head beaker. Sandy micaceous grey fabric, darker surfaces, burnished.
74. Necked jar. Sandy micaceous light grey fabric, darker slightly metallic surfaces, burnished with diagonal stroke decoration on shoulder. See Chapman (1973) No. 227. (Late first–early second century).
75. Necked jar. Sandy micaceous grey fabric, darker surfaces. Burnt deposit on exterior. Rim form similar to Frere (1972) No. 829. (Mid-second century).
76. Undercut bead rim. Sandy micaceous grey fabric, burnished. Similar to Cunliffe (1971) type 169.
77. Neckless jar with oval rim profile. Coarse sandy buff fabric. Similar in form but not as heavy as example in Sheldon (1971) Fig. 9, No. 3. See also No. 215 below, of which this is a smaller version.
78. Small storage jar. Sandy micaceous brown-grey fabric, darker grey surfaces.
79. Storage jar. Grey-brown micaceous fabric, shell tempered, dark grey surfaces, decorated. Similar to Chapman (1973) Nos. 194 and 195. Also similar in form to No. 165 below, but with different decoration.
80. Pedestal urn. Base. Fine sandy micaceous buff fabric, rouletted decoration. See Hull (1963) pp. 128–29. (Late second century).

Bowls

81. Reeded rim. Coarse sandy micaceous brown fabric, slipped white on upper rim surface. (Earlier second century).
82. Reeded rim. Sandy micaceous light grey fabric, darker surfaces, burnished. Diameter 21 cm. (Earlier second century).
83. Plain rim. Sandy micaceous grey fabric, darker grey surfaces, burnished.
84. Six rims with rounded or almost circular profiles. Sandy micaceous grey fabric, burnished. BB2 types. (Mid-second–mid-third century).
85. Two small shallow bowls with rounded rim profiles. Fabric as above, burnished. BB2 types.
86. Small shallow bowl with rounded rim profile, rim undercut. Fabric as above, burnished. BB2 type.
87. Small shallow bowl with very rounded rim profile. Fabric as above, burnished. BB2 type.
88. Small shallow bowl with rounded, almost square rim profile. Fabric as above, burnished. BB2 type.
89. Bowl with squarish rounded rim profile. Fabric as above, burnished with vertical or diagonal stroke decoration. BB2 type.
90. Bowl with rounded rim profile. Fabric as above, burnished with vertical or diagonal stroke decoration.

Mortaria

91. Pasty cream fabric containing some coarser sand, grogged, grits mainly white. (Illustrated).
92. Wall-sided with beaded lip. Coarse sandy micaceous white fabric, larger inclusions, grogged. See Gillam (1970) type 272. (Third–fourth century). (Illustrated).
93. Raised bead and drooping flange. Sandy white-cream fabric, coarser inclusions. (Illustrated).
94. Wall-sided with beaded lip. Coarse sandy micaceous cream fabric. See Gillam (1970) type 272. (Third–fourth century). (Illustrated).
95. Wall-sided. Pasty cream fabric with some coarse sand, white and grey grits. Similar to Frere (1972) No. 1095. (Third century). (Illustrated).

Dishes

96. Sandy white fabric, heavily mica coated.
 97. Five rims. Sandy micaceous grey fabric, black surfaces, burnished. Similar to Gillam (1970) type 330. (Fourth century).
 98. Coarse sandy dark grey fabric, black surfaces, burnished with intersecting arc decoration. BB1 type. Cf. Gillam (1970) type 329. (Third–fourth century). (Illustrated).
 99. Sandy micaceous grey-brown fabric, dark grey surface, burnished. (Illustrated).
 100. Fine sandy micaceous orange fabric.
 101. Sandy micaceous buff-brown fabric. Form similar to Frere (1972) No. 946. (Mid-second century).

Lids

102. Sandy micaceous grey fabric.
 103. Sandy micaceous buff fabric.

LAYER 24 (Late third-fourth century)

Several sherds from this layer were burnt; many were worn.

Fine Ware

104. Beaker. Sandy white fabric, brown coat, trailed white paint decoration ?Nene Valley. (Illustrated).
 105. Beaker. Sandy white micaceous fabric, light brown coat.
 106. Beaker. Fine white fabric, dark brown coat.
 107. Beaker. Fine red fabric, dark brown coat.
 108. Beaker. Hard fine red fabric, lustrous dark brown coat. Rhenish ware or perhaps Lezoux.
 109. Beaker. Two sherds. Fine white fabric, brown metallic coat with barbotine decoration under coat. ?Nene Valley.
 110. Bowl. Hard micaceous grey fabric, black coat, white paint decoration.
 111. Bowl. Worn. Red micaceous fabric, darker red coat, rouletted decoration. Oxfordshire.
 112. Mortarium. Very worn. Red micaceous fabric, traces of darker red coat. Oxfordshire.

Jars

113. Out-turned rim. Sandy micaceous grey fabric, burnished.
 114. Everted rim. Sandy micaceous grey fabric, surfaces slightly metallic in places, burnished.
 115. Small everted rim. Coarse sandy grey fabric, burnished with lattice decoration. ?BB1. Similar to Gillam (1970) type 123. (Second century).
 116. Small horizontal rim. Hard gritty micaceous grey fabric, grey surfaces.
 117. Everted rim. Gritty light grey fabric, bluish slip. Probably a local fabric.
 118. ?Poppy-head beaker. Hard sandy micaceous grey fabric, darker surfaces, burnished.
 119. Necked jar with heavy rounded rim. Hard sandy micaceous brown fabric, grey core and surfaces.
 120. Squared undercut rim. Hard gritty light grey fabric, buff surfaces. For similar rims see Sheldon (1971) Fig. 8, Nos. 29 and 31. (Fourth century).
 121. Rounded rim with lid seat. Heavily gritted micaceous pink fabric, yellow-bluish grey surfaces. Mayen ware import (fourth century). See Stamm (1962), No. 80.
 122. Sherd. Gritty white fabric, blue exterior surface. Mayen ware.

Bowls

123. Reeded rim. Worn. Hard coarse sandy grey-brown fabric, grogged. Similar to Frere (1972) Nos. 933, 934. (Mid-second century). Also see No. 184 below.
 124. Grooved rim. Hard coarse sandy micaceous brown fabric, dark grey surfaces, burnished.
 125. Grooved rim. Sandy micaceous grey fabric, darker surfaces, burnished. (Early second century).
 126. Bowl with flange. Worn. Sandy micaceous red fabric with grey core, grogged, red surfaces, burnished. Burnt.
 127. Bowl with flange. Coarse sandy micaceous red fabric with grey core, red surfaces, burnished. Burnt.
 128. Bowl with short rounded undercut flange. Worn. Sandy micaceous grey fabric, burnished. Similar to Frere (1972) No. 1256. (Later fourth–fifth century).
 129. Bowl with very small rounded flange. Hard coarse sandy micaceous red fabric, grey surfaces, burnished. Burnt.
 130. Bowl with small rounded flange. Fabric as above, burnished, burnt. Similar to No. 238 below.
 131. Bowl with very small flange. Sandy micaceous grey fabric, some coarser inclusions, darker surfaces, burnished. ?Burnt.

Dishes

132. Sandy micaceous grey fabric, darker surfaces, burnished.
 133. Coarse sandy brown fabric, grey surfaces, burnished.
 134. Hard sandy micaceous red fabric with grey core, red-brown surfaces, burnt. Similar to Frere (1972) No. 1272. (Later fourth–fifth century). Also see No. 243 below.
 135. Three rims. Coarse sandy grey fabric, darker surfaces, burnished with intersecting arc decoration. One sherd burnt. Similar to Gillam (1970) type 329 and Frere (1972) No. 1175. (Fourth century). Also see Nos. 259 below and 98 above.

LAYER 26 (Later second century).

Fine Ware

136. Beaker. Hard micaceous red fabric, darker red coat. Oxfordshire.

Flagon

137. Ring-necked. Coarse sandy micaceous red and grey fabric, greyish white slip. (Second century). (Illustrated).

Jars

138. Everted rim. Sandy micaceous brown fabric with grey core, darker surfaces, burnished. Diameter *c.* 15 cm. Similar to No. 251 below, but much larger.
 139. Necked jar. Gritty micaceous grey-brown fabric, some burnishing inside. Similar to No. 322 below.
 140. Out-turned rim. Very coarse gritty grey fabric, dark grey interior surface, light grey slipped exterior, hand made. (Illustrated).

Bowls

141. Rim with triangular profile. Sandy micaceous grey fabric, burnished with diagonal stroke decoration. Cf. Frere (1972) No. 721. (Later second century). (Illustrated).
 142. Bowl with almost circular rim profile, fabric as above, burnished. Cf. Frere (1972) No. 1083. (Illustrated).
 143. Rounded rim profile. Coarse sandy micaceous grey fabric, burnished. BB2 type.

LAYER 27 (Second century)

Fine Ware

144. Beaker base. Sandy micaceous red fabric, dark brown coat, rough cast surface. Rough-Cast ware.
 145. Beaker base. Fine white fabric, dark brown coat, rough cast surface. Rough-Cast ware.

Bowl

146. Triangular rim profile. Coarse sandy micaceous grey fabric, burnished with diagonal stroke decoration. BB2 type. Diameter *c.* 23 cm. Similar to Frere (1972) No. 984. (Mid-second century).

Dish

147. Coarse sandy micaceous red fabric, brown core, a few larger inclusions, buff surfaces, mica coated. Diameter 26 cm. Similar to Frere (1972) No. 526. (Early second century). Also see No. 302 below.

Lid

148. Sandy micaceous red fabric.

LAYER 29 (Second century)

Fine Ware

149. Sherd. Fine white fabric, burnished.

Jar

150. Necked jar with small rounded rim. Sandy micaceous light grey fabric, darker surfaces, dark grey slip. Diameter 12 cm. See Chapman (1973) Nos. 63 and 134. (Late first–early second century).

LAYER 30 (Early–mid-second century).

Fine Ware

151. Sherd. Fine white fabric, grogged, cream exterior. (Possibly late first–early second century).
 152. Two sherds. Fine buff fabric, containing coarser sand, white surfaces.
 153. Beaker sherd. Fine micaceous brown fabric with grey core, dark brown coat, rouletted decoration.

Jars

154. Out-turned rim. Fine sandy micaceous light grey fabric, dark grey slip, burnished. (Illustrated).
 155. Poppy-head beaker. Fine sandy micaceous light grey fabric, darker surfaces, burnished. Possibly Highgate Wood type.
 156. Storage jar. Fine grey fabric, shell tempered, black surfaces, traces of grey slip, decorated. Similar to Chapman (1973) Nos. 194, 195. (Latter part of first century). (Illustrated).

Bowls

157. Reeded rim. Coarse sandy grey-white fabric, grey surfaces.
 158. Grooved rim. Fine sandy micaceous light grey fabric, darker surfaces, burnished. See Chapman (1973) No. 150. (Early second century). Possible Highgate Wood type. (Illustrated).
 159. Rounded rim profile, slightly undercut. Coarse sandy micaceous dark grey fabric, darker surfaces, burnished with lattice decoration. BB2 type. Similar to No. 474 below.

Lid

160. Sandy micaceous red fabric, grey-brown slip. (Illustrated).

(Fig. 29, 162-193).

LAYER 3 I (Early-mid-second century).

Fine Ware

161. Two sherds. Fine white fabric, burnished.
 162. Beaker sherd. Fine white fabric, brown coat, rouletted decoration. ?Nene Valley. (Illustrated).

Jars

163. Everted rim. Coarse sandy black fabric, burnished. BB1 type.
 164. Coarse sandy buff fabric, light grey slip on surfaces. (Illustrated).
 165. Storage jar. Brown micaceous fabric, shell tempered, grey surfaces, brown slip, decorated burnished. Cf. Chapman (1973) Nos. 194, 195. (Latter part of first century). (Illustrated).

Bowls

166. Grooved rim. Fine sandy micaceous grey fabric, darker surfaces, burnished. (Illustrated).
 167. Hooked rim. Coarse sandy micaceous brown and grey fabric. (Illustrated).
 168. Triangular rim profile. Sandy micaceous grey fabric, darker surfaces, burnished. BB2 type.

Mortaria

169. Hooked flange. Coarse sandy buff fabric, grogged. ?Brockley Hill type. (Second century).
 170. Angled flange. Coarse sandy pink fabric, buff surfaces.

Dishes

171. Two rims. Hard sandy red fabric with grey core, buff surfaces. Diameter c. 23 cm. See No. 303 below.
 172. Coarse sandy micaceous grey fabric, interior surface brown-grey, exterior dark grey, burnished, burnt. (Illustrated).

Lids

173. Coarse sandy micaceous light buff fabric. (Illustrated).
 174. Coarse sandy micaceous red fabric with grey core and surfaces. (Illustrated).
 175 and 176. Coarse sandy micaceous red fabric with grey core. (Illustrated).

Lamp

177. Sandy very micaceous red fabric with grey core, probably mica coated. (Second century). See type III in Wheeler (1930), p. 67.

LAYER 3 2 (Early-mid-second century)

Fine Ware

178. Beaker sherd. Fine white fabric, dark brown coat, rough cast surface. Rough-Cast ware.

Flagons

179. Ring-necked. Coarse sandy buff fabric. Cf. Frere (1972) No. 409. (Early second century). (Illustrated).
 180. Ring-necked. Coarse sandy red fabric with grey core, yellow slip. Cf. Frere (1972) No. 802. (Second century). (Illustrated).

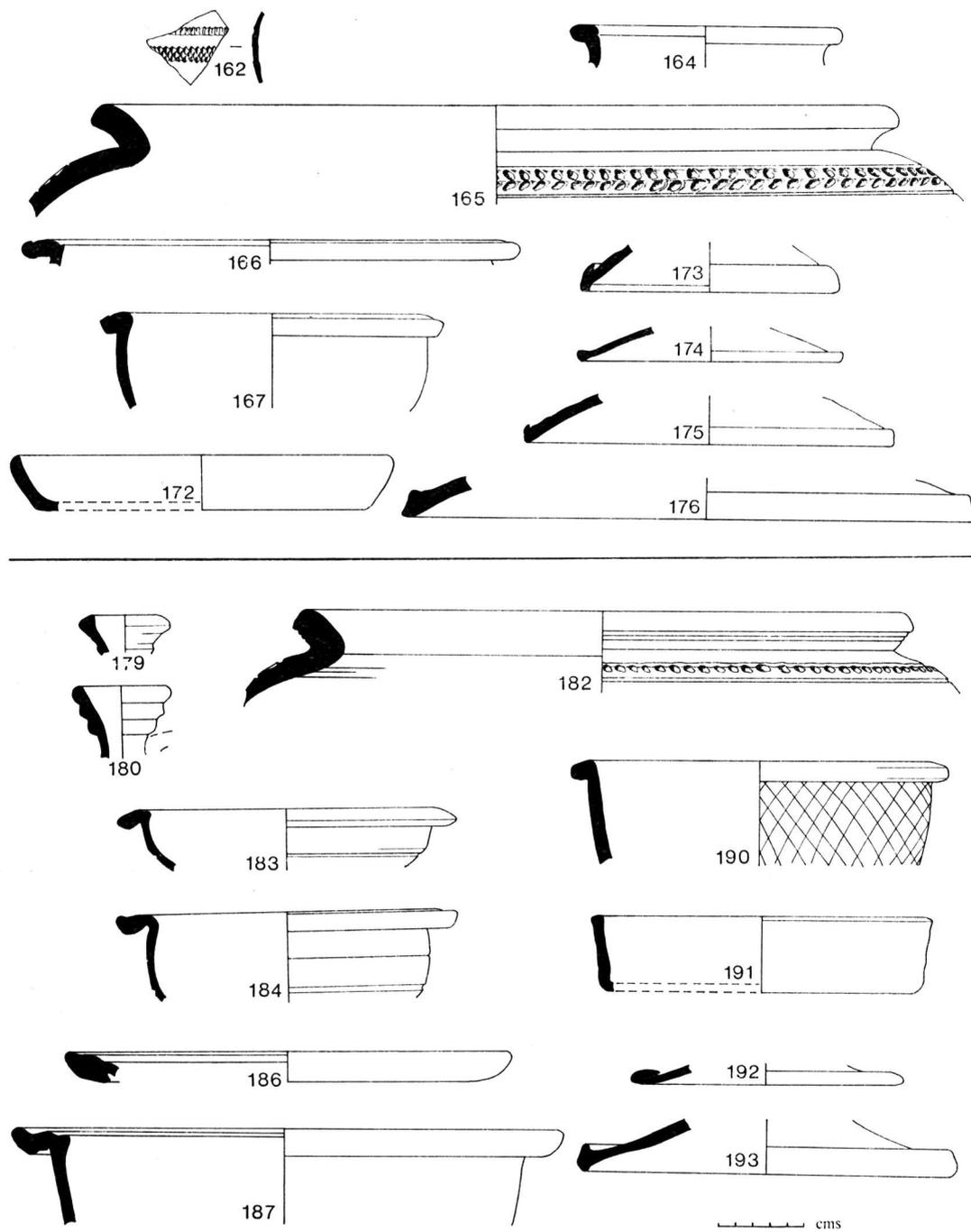


Fig. 29.—Custom House site; Roman pottery 162-193 ($\frac{1}{4}$)

Jars

181. Out-turned rim. Fine micaceous brown fabric, light grey core, dark grey surfaces.
 182. Storage jar. Fine micaceous grey fabric, shell tempered, brown surfaces, slipped, decorated and burnished. Cf. Chapman (1973) Nos. 194, 195. (Latter part of the first century). (Illustrated).

Bowls

183. Grooved rim. Sandy micaceous grey fabric, burnished. (c. early second century). Possible Highgate Wood type. (Illustrated).
 184. Reeded rim. Fine sandy micaceous grey fabric, darker surfaces, burnished. (Early second century). (Illustrated).
 185. Reeded rim. Coarse sandy orange fabric, grey surfaces. Diameter c. 19 cm. Similar to No. 187 below.
 186. Reeded rim. Coarse sandy light grey fabric, darker surfaces. Cf. Frere (1972) No. 669. (Early second century). (Illustrated).
 187. Reeded rim. Fabric as above. Cf. Frere (1972) No. 675. (Early-mid-second century). (Illustrated).
 188. Plain wide rim. Coarse sandy micaceous grey fabric, burnished. Diameter c. 15 cm. (Early-mid-second century).
 189. Plain wide rim. Sandy micaceous grey fabric, burnished. (Early-mid-second century).
 190. Sub-rectangular rim profile. Coarse sandy micaceous grey fabric, black surfaces, burnished with lattice decoration. BB2 type. (Illustrated).

Dish

191. Hard sandy micaceous red fabric with grey core. (Illustrated).

Lids

192. Hard sandy micaceous red fabric, buff surfaces. (Illustrated).
 193. Sandy micaceous grey fabric. (Illustrated).

Lamp

194. Fragment of a scallop shell relief decoration, probably from the discus of a Type I or II lamp. See Wheeler (1930), p. 66.

LAYER 33 (Early second century)

Bowl

195. Reeded rim. Sandy micaceous grey fabric, darker surfaces, burnished. Similar to forms from Highgate Wood kilns. (Early second century).

(Fig. 30, 196-270).

TRENCH III

LAYER 22

Fine Ware

196. Bowl. Very worn. Fine micaceous red fabric, traces of dark red coat, fragment of stamped rosette decoration. Oxfordshire. Cf. Frere (1972) No. 1290. (Late fourth century). (Illustrated).

Bowls

197. Rounded almost circular rim profile. Sandy micaceous grey fabric, burnished. BB2 type.
 198. Heavy rim with rounded profile. Coarse sandy micaceous grey-brown fabric, burnished with lattice decoration. BB2 type. Form similar to Frere (1972) Nos. 973 or 978. (Mid-second century).

Dish

199. Coarse sandy micaceous grey-buff fabric, buff surfaces, mica coated. Burnt. Form similar to Frere (1972) No. 141. (Mid-second century).

Lid

200. Sandy micaceous grey-brown fabric.

LAYER 24 (Fourth century).

Bowls

201. Triangular rim profile. Coarse sandy red fabric, interior surface partially grey, burnished with lattice decoration. Badly burnt. Similar to No. 141 above. (Second century survival).

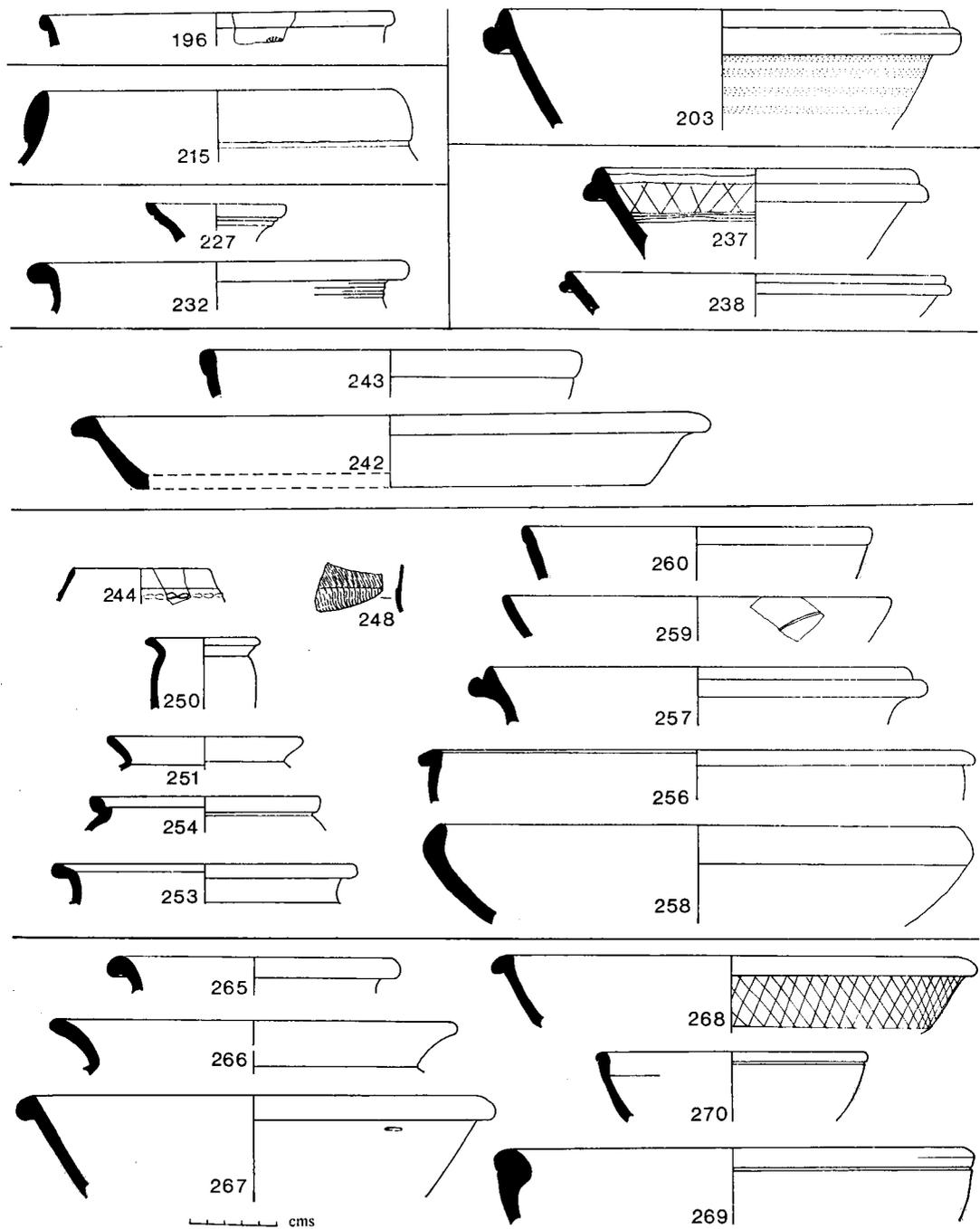


Fig. 30.—Custom House site; Roman pottery 196–270 ($\frac{1}{4}$)

202. Bowl with "parrot-beaked" flange. Sandy micaceous light grey fabric, darker surfaces, burnished.
 203. Bowl with flange which appears as a slightly flattened roll of clay. Sandy micaceous grey fabric, burnished. (Illustrated).

LAYER 25

Bowl

204. Gallo-Belgic bowl. Fine white fabric, burnished with rouletted decoration. Joins to a sherd from Trench III, Layer 26. For general type of vessel, see Hawkes and Hull (1947) No. 51, which is described as "bobbin-shaped bowl with strong basal kick".

LAYER 27 (Fourth century).

A number of sherds from this level have been either burnt or hardened by unusually high temperatures.

Fine Ware

205. Cornice-rimmed beaker, possibly part of a Hunt cup. Fine micaceous white fabric, dark brown coat, barbotine decoration under coat. Burnt. ?Nene Valley. Cf. Gillam (1970) type 85. (Late second-early third century).
 206. Bowl with flange. Fine white fabric, brown coat. Burnt. ?Nene Valley. Similar to Woods (undated) No. 310. (Later fourth century).
 207. Flange from bowl. Imitation 38. Fine white fabric, brown coat. Possibly Nene Valley.
 208. Bowl. Red micaceous fabric, traces of darker coat. Oxfordshire.
 209. Bowl. Two sherds. Worn. Red micaceous fabric, traces of darker red coat and burnishing, stamped and rouletted decoration. Oxfordshire. (Mid-fourth century plus).
 210. Bowl with flange. Hard micaceous red fabric with grey core, darker coat. Burnt. Probably Oxfordshire. (Late third century plus).

Amphora (or possibly part of a terra-cotta pipe)

211. Hard coarse sandy micaceous grey fabric, buff surface.

Jars

212. Everted rim. Sandy micaceous grey fabric, burnished.
 213. Necked jar with squared rim. Hard gritty micaceous red fabric with grey core, slipped. Burnt. (Probably fourth-fifth century).
 214. Large necked jar with rounded rim. Coarse sandy micaceous buff fabric. Similar to Frere (1972), No. 1240. (Late fourth century).
 215. Neckless jar with oval rim profile. Coarse sandy micaceous buff fabric with red-orange core. Form similar to Sheldon (1971) Fig. 9, No. 3. (Fourth century). (Illustrated).
 216. Storage jar. Brown micaceous fabric with grey core, shell tempered, dark brown surfaces. (A first or second century survival). Similar to Chapman (1973) Nos. 194, 195. (Late first century).

Bowls

217. Rounded rim profile. Coarse sandy micaceous dark grey fabric, burnished with lattice decoration. Burnt. Similar in form to No. 474, but without the undercut. Diameter 16 cm.
 218. Rounded rim profile. Sandy micaceous red-brown fabric with grey core, burnished. Burnt. BB2 type. Diameter c. 24.5 cm. Similar to No. 267 below. (Latter half of second-third century).
 219. Rounded rim profile. Sandy micaceous dark grey fabric, burnished. BB2 type.
 220. Circular rim profile. Sandy micaceous grey fabric, darker surfaces, burnished. BB2 type. Diameter c. 25 cm. (Probably third century).
 221. Rounded nearly circular rim profile. Coarse sandy micaceous grey fabric, darker surfaces, burnished. BB2 type. (Latter half of second-third century).
 222. Bowl with short straight flange angled slightly downward. Very hard micaceous grey fabric, burnished. Burnt. (Latter half of third-fourth century).
 223. Large heavy bowl with small rounded rim and vertical flange. Coarse sandy micaceous red fabric.

Mortaria

224. With high bead and drooping flange. Fine sandy white fabric, white and pink or brown grits.
 225. Coarse sandy micaceous grey-buff fabric, slipped exterior, mainly white grits. Burnt.

Lid

226. Coarse sandy micaceous dark grey and orange fabric, heat-cracked interior.

LAYER 37 (Fourth century).

Fine Ware

227. Jug. Hard fine red fabric, dark brown coat. Possibly from Lezoux. (?Late second-early third century). (Illustrated).
 228. Bowl sherd. Fine micaceous red fabric, darker red coat, rouletted decoration. Oxfordshire.
 229. Bowl with flange. Sherd. Fabric as above. Oxfordshire.
 230. Bowl with flange. Sherd. Hard fine micaceous red fabric with grey core, darker red coat. Burnt. Oxfordshire.

Flagon

231. Sandy micaceous red fabric with grey core.

Jar

232. Necked jar. Coarse sandy light grey fabric. Cf. Frere (1972) No. 1240. (Late fourth century). (Illustrated).

LAYER 38 (Fourth century - ?).

233. Beaker. Fine buff fabric, brown coat.
 234. Beaker sherd. Fine micaceous buff fabric, dark brown coat, barbotine decoration under coat.
 235. Bowl. Sandy micaceous orange fabric with grey core, burnished. Probably Oxfordshire.

Jar

236. Everted rim. Sandy micaceous grey fabric, darker surfaces.

Bowls

237. Bowl with short rounded flange. Sandy micaceous grey fabric, darker surfaces, burnished with lattice decoration on interior surface. Possibly Alice Holt ware. For examples of this general type, see Frere (1972) Nos. 1256, 1257. (Late fourth-fifth century); Hawkes and Hull (1947) No. 554; Sheldon (1972) Fig. 11, No. 1. (Late fourth-fifth century). (Illustrated).
 238. Small shallow bowl with short rounded undercut flange. Fabric as above, burnished. (Illustrated).

Dish

239. Coarse sandy grey fabric, burnished.

LAYER 39 (Fourth century - ?).

Fine Ware

240. Sherd. Fine sandy buff fabric, dark brown coat.

Amphora

241. Sherd. Sandy micaceous orange fabric, rilled inside. Late Roman in date, possibly from the Eastern Mediterranean.

Bowl

242. Rounded rim profile. Sandy micaceous grey-brown fabric, burnished. BB2 type. (Illustrated).

Dish

243. Hard sandy micaceous brown fabric with grey core, dark brown surfaces. Similar to Frere (1972) No. 1272. (Late fourth-fifth century). (Illustrated).

LAYER 40 (Fourth century)

Fine Ware

244. Beaker. Fine white fabric, dark brown coat, barbotine decoration under coat. Probably Nene Valley. (Illustrated).
 245. Beaker. Two sherds. Fine white-buff fabric, dark brown coat, rouletted decoration.
 246. Beaker. Two sherds. Fine white fabric, orange-brown coat, one with teardrop decoration.
 247. Beaker sherd. Fine light red or buff fabric, dark brown coat, white paint decoration.
 248. Beaker sherd. Fine micaceous red fabric with grey core, brown coat, rouletted decoration. (Illustrated).
 249. Bowl sherd. Worn. Hard sandy micaceous orange fabric, red-grey core, burnished. Argonne ware.

Jars

250. Small everted rim. Coarse sandy grey fabric, burnished. (Illustrated).
 251. Everted rim. Sandy micaceous grey fabric, darker surfaces, burnished. (Illustrated).

252. Everted rim. Hard micaceous dark grey fabric with lighter core. BB1 type. Similar to Gillam (1970) type 145. (Third–fourth century).
 253. Necked jar. Coarse sandy grey fabric with light grey core, metallic grey surface, burnished. (Illustrated).
 254. Rounded rim with groove or lid seat. Sandy micaceous grey-brown fabric, darker surfaces. (Illustrated).

Bowls

255. Rounded rim profile. Sandy micaceous grey fabric, darker surfaces, burnished. BB2 type. (Mid-second–third century). Similar to No. 267 below.
 256. Triangular rim profile. Sandy micaceous grey-brown fabric, grey surfaces, burnished. BB2 type. (Illustrated).
 257. Bowl with short rounded flange. Sandy grey fabric, burnished bands on interior surface. (Fourth–fifth century). (Illustrated).

Dishes

258. Coarse sandy red-orange fabric with grey core, orange-buff surfaces, mica coated. (Illustrated).
 259. Coarse sandy grey fabric, burnished intersecting arc decoration. BB1 type. Cf. Gillam (1970) type 329. (Third–fourth century). (Illustrated).
 260. Coarse sandy grey-brown fabric, grey surfaces, burnished. (Illustrated).

LAYER 42 (Late second–early third century)

Fine Ware

261. Hunt cup sherd. Fine white fabric, brown coat, barbotine decoration under coat. ?Nene Valley. (?Late second–third century).
 262. Beaker sherd. Fine white fabric, dark brown coat.
 263. Beaker sherd. Fine micaceous buff-orange fabric, cream-buff surfaces, barbotine decoration. Rusticated ware. (Late first–early second century).
 264. Bowl. Fine micaceous red fabric, darker red coat, white painted decoration. Oxfordshire. (Late fourth century). Possibly from layer above.

Jars

265. Sandy micaceous grey fabric, burnished. (Late second century plus). (Illustrated).
 266. Wide everted rim. Fabric as above. (Late second century plus). (Illustrated).

Bowls

267. Nine rims with rounded profiles. Sandy micaceous grey fabric, darker surfaces. Several burnished, most probably were at one time. BB2 type. (Mid-second–third century). Cf. Frere (1972) No. 960 (mid-second century). (One illustrated).
 268. Two rims with triangular profiles. Fabric as above. Burnished with lattice decoration. One has been slightly burnt, one has been badly burnt. Probably BB2. (Identified by Mr. R. A. H. Farrar). Mid-second century. (Illustrated).
 269. Bead-lipped bowl. Fine almost soapy red and white fabric containing grit. (Illustrated). Probably a German import from Speicher (mid-second century). See E. Gose, *Gefäßstypen der Römischen keramik in Rheinland* (Bonn 1950) type 451.

Dishes

270. Sandy micaceous grey fabric, light red surfaces, burnt. (Illustrated).
 271. Sandy micaceous grey-brown fabric. (Probably late first–second century).

(Fig. 31, 272–308).

Lids

272. Coarse sandy micaceous grey fabric. (Illustrated).
 273. Sandy micaceous buff-grey fabric.
 274. Coarse sandy micaceous grey fabric, burnished.

Chimney Pot

275. Two sherds. Sandy micaceous grey fabric, orange-buff surfaces. One has cut edges, punched holes and a frill. See A. W. G. Lowther, *Surrey Archaeol. Collect.*, XLII (1933), 61–66, plate XII. (Illustrated).

LAYER 43 (Mid-second century)

Fine Ware

276. Beaker sherd. Fine white fabric, brown coat, rough cast surface. Rough-Cast ware. Possibly Nene Valley. (Second century).

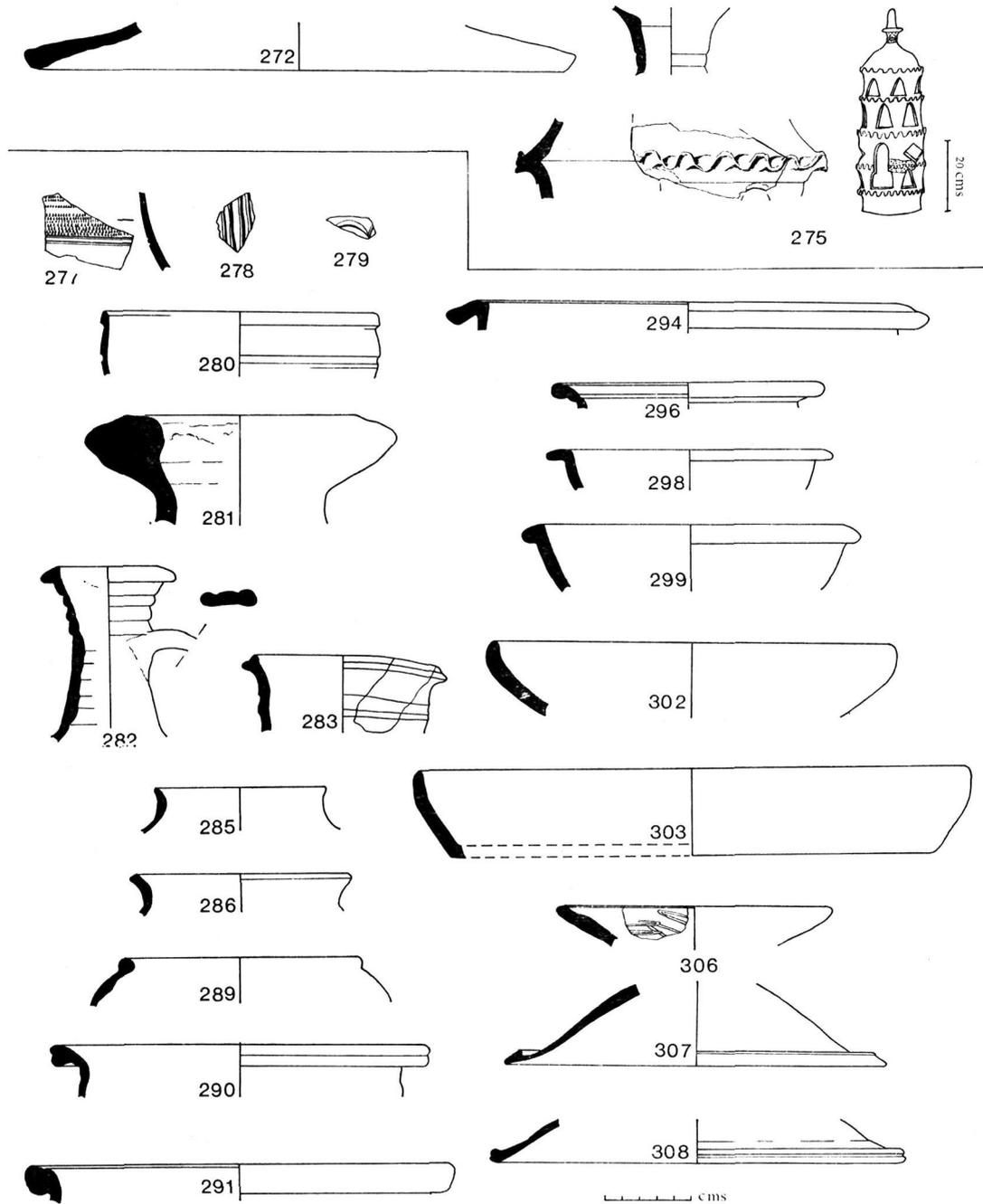


Fig. 31.—Custom House site; Roman pottery 272–308 ($\frac{1}{4}$)

277. Beaker sherd. Fine sandy micaceous red fabric, brown surfaces, rouletted decoration. (Illustrated).
 278. Beaker. Two sherds. Very thin fine white fabric, brown coat, vertical ridged decoration. (c. late first–early second century). (Illustrated).
 279. Beaker sherd. Fine pasty white fabric, orange-light brown coat. (c. late first–early second century). (Illustrated).
 280. Bowl. Hard fine sandy buff fabric, containing coarser sand grains. white coat, burnished. (2nd century). (Illustrated).

Amphora

281. Dressel 20. Spanish. Coarse sandy grey fabric, containing some larger grits. Cf. Chapman (1973) Nos. 210 and 211. (Late first century). (Illustrated).

Flacons

282. Ring-necked. Coarse sandy buff fabric. Cf. Frere (1972) No. 378. (Early second century). (Illustrated).
 283. Pinched mouth. Coarse sandy white fabric. Cf. Frere (1972) Nos. 580 and 821. (Mid-second century). (Illustrated).

Jars

284. Everted rim. Sandy micaceous grey fabric, burnished.
 285. Poppy-head beaker. Sandy micaceous light grey fabric, metallic grey surface, burnished. (First half of second century). (Illustrated).
 286. Possibly poppy-head beaker. Fabric as above. Black surfaces, burnished. (Illustrated).
 287. Necked jar. Coarse sandy micaceous grey fabric, darker surfaces, burnished. Form similar to No. 253 above but with thinner rim. Diameter 16 cm.
 188. Necked jar. Coarse sandy micaceous light grey fabric, dark grey surfaces, burnished. Form similar to No. 253 above but with thinner rim. Diameter 16 cm.
 289. Bead rim. Sandy micaceous grey fabric, burnished. Cf. Chapman (1973) No. 174. (Late first century). (Illustrated).
 290. Honey pot. Coarse sandy white fabric with buff core. (Illustrated).
 291. Storage jar. Sandy micaceous grey fabric. Cf. Frere (1972) No. 203. (Mid-late first century). (Illustrated).

Bowls

292. Reeded rim. Coarse sandy-orange fabric.
 293. Reeded rim. Coarse sandy micaceous grey-brown fabric. Cf. Frere (1972) No. 686. (Mid-second century).
 294. Reeded rim. Sandy micaceous light grey fabric, darker surfaces, burnished. Cf. Gillam (1970) type 215. (Late first–early second century). (Illustrated).
 295. Grooved rim. Sandy micaceous light grey fabric, darker surfaces, burnished. Somewhat similar to No. 348 below.
 296. Grooved rim. Sandy micaceous grey fabric, burnished. (First half of second century). This could be a jar. (Illustrated).
 297. Grooved rim. Fabric as above.
 298. Coarse sandy micaceous grey fabric, darker surfaces, burnished. BB1. (Identified by Mr. R. A. H. Farrar). (Illustrated).
 299. Fabric as above although slightly less coarse. Burnished with latic decoration. BB2. (Identified by Mr. R. A. H. Farrar). (Illustrated).

Mortaria

300. Flange. Coarse sandy white fabric. (Illustrated).
 301. Flange. Coarse sandy buff fabric. Cf. Gillam (1970) type 244. (Early–mid-second century).

Dishes

302. Hard coarse sandy grey fabric, orange surfaces, lightly mica coated. (Illustrated).
 303. Sandy micaceous grey fabric, brown surfaces, heavily mica coated inside. Burnt. (Illustrated).
 304. Coarse sandy orange-buff fabric with grey core, lightly mica coated. Burnt.
 305. Sandy micaceous red fabric, orange-buff surfaces, mica coated mainly inside. Similar to No. 258 above although No. 305 is smaller and lighter.
 306. Imitation Gallo-Belgic platter. Coarse sandy micaceous grey fabric, burnished. (Illustrated).

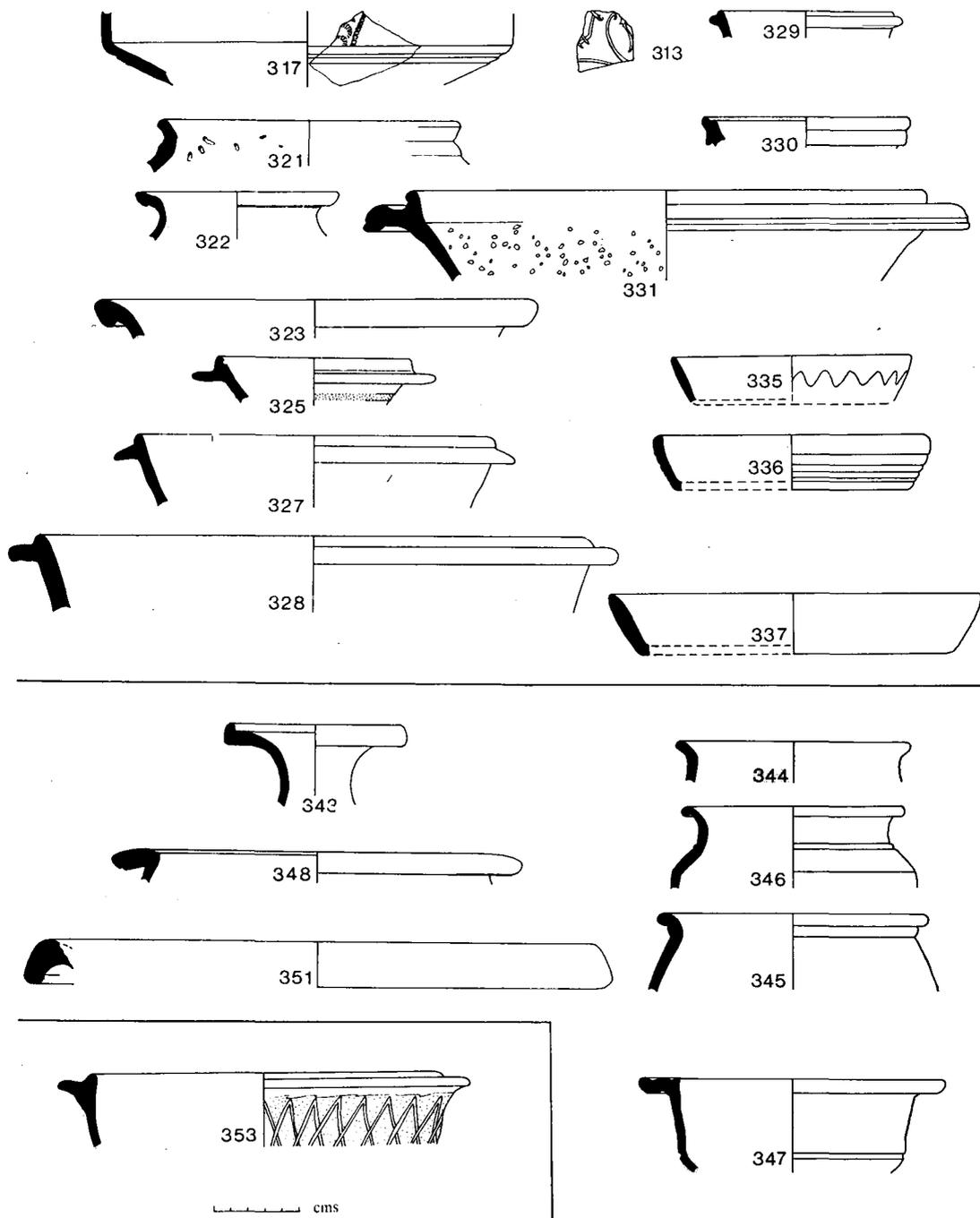


Fig. 32.—Custom House site; Roman pottery 313–353 ($\frac{1}{4}$)

Lids

307. Hard sandy micaceous red fabric with grey core and surfaces. (Illustrated).
 308. Sandy micaceous grey fabric. (Illustrated).

LAYER 44 (Second century)

Jar

309. Necked jar. Coarse sandy light grey fabric, grogged. (Mid-second century). For examples of this general type of vessel see Frere (1972) No. 654. (Mid-second century).

Dish

310. Fine micaceous orange fabric. Possibly of pre-Flavian date.

Lid

311. Coarse sandy micaceous grey-brown fabric.

LAYER 48 (Fourth century)

Fine Wear

312. Beaker. Three sherds. Fine white fabric, dark brown coat, rouletted decoration. (Fig. 32, 313-353).
 313. Beaker sherd. Hard sandy micaceous red fabric with grey core, brown coat, barbotine decoration. (Illustrated).
 314. Beaker. Fine light red fabric, brown coat.
 315. Beaker. Fabric as above, dark brown coat.
 316. Two bowls. Red micaceous fabric with grey core, darker red coat. Oxfordshire.
 317. Bowl sherd. Worn. Fine micaceous red fabric, darker red coat, stamped half rosette and rouletted decoration. Oxfordshire. (Post-mid-fourth century). (Illustrated).

Jars

318. Everted rim. Sandy micaceous grey fabric, white slip, burnished.
 319. Everted rim. Coarse sandy micaceous dark grey fabric, burnished.
 320. Everted rim. Gritty micaceous white fabric, grogged, dark grey surfaces, burnished.
 321. Out-turned rim. Gritty micaceous red-brown fabric, black core. Possibly a late Roman import. (Illustrated).
 322. Necked jar. Hard coarse sandy micaceous grey fabric. (Illustrated).
 323. Storage jar. Grey-brown micaceous fabric, densely shell-tempered. Brodrigg (1968) p. 142, B. (Late fourth-fifth century). (Illustrated).

Bowls

324. Bowl with short rounded flange. Sandy micaceous grey fabric, burnished decoration on interior. Similar to Frere (1972) Nos. 1256 and 1257. (Late fourth-fifth century); Hawkes and Hull (1947) No. 554; Sheldon (1972) Fig. 11, No. 1. (Late fourth-fifth century). Also similar to No. 237 above.
 325. Bowl with thin slightly upward curving flange. Coarse sandy micaceous brown fabric with grey core, dark grey surfaces, burnished. Similar to example from Guildhall Museum E.R. 1286. (Illustrated).
 326. Bowl with "parrot-beaked" flange. Sandy micaceous grey fabric, darker surfaces, burnished. Form similar to example from Guildhall Museum E.R. 1286; Sheldon (1972) Fig. 9, No. 21. (Late fourth-fifth century).
 327. Bowl with triangular profiled flange. Fine sandy micaceous grey-brown fabric, darker grey surfaces, burnished. Similar to examples from the Guildhall Museum E.R. 1286; Sheldon (1971) Fig 5, No. 22. (Fourth century). (Illustrated).
 328. Bowl with slightly curved flange. Coarse sandy micaceous dark grey fabric, burnished. (Fourth century). (Illustrated).
 329. Small bowl with short rounded flange. Sandy micaceous grey fabric, burnished. Similar to example from the Guildhall Museum E.R. 1286. (Illustrated).
 330. Bowl with flange. Gritty white fabric. (Illustrated).

Mortarium

331. With raised bead and drooping flange. Coarse sandy orange fabric, buff surfaces, reddish and grey grits. Cf. Frere (1972) No. 1028. (Mid-late second century). (Illustrated).

Dishes

332. Sandy micaceous grey fabric, burnished.
 333. Coarse sandy micaceous grey fabric, burnished.
 334. Sandy micaceous grey fabric, slipped, burnished.
 335. Coarse sandy micaceous grey fabric, burnished with wavy line decoration. Possibly BB2. Cf. Gillam (1970) type 328. (Late second–third century); Frere (1972) No. 1005. (Mid-second century). (Illustrated).
 336. Fine sandy grey fabric with red core, burnished with incised linear decoration. (Illustrated).
 337. Coarse sandy micaceous dark grey fabric, burnished. (Illustrated).

Lid

338. Gritty buff-red fabric with grey core.

LAYER 5 I (Early–mid-second century)

Fine Ware

339. Beaker. Two sherds. Fine white fabric, brown coat, rough cast surface. Rough–Cast ware. Possibly Nene Valley. (Second century).
 340. Beaker sherd. Fine micaceous buff fabric, cream surface, barbotine decoration. (?Late first–early second century).
 341. Probably beaker sherd. Fine buff fabric, dark brown coat.
 342. Probably beaker sherd. Fine micaceous buff fabric, dark brown coat, three ridges on surface.

Flagon

343. Hard sandy micaceous red fabric, buff surfaces, mica coated, more heavily on interior surface. (Illustrated).

Jars

344. Out-turned rim. Coarse sandy micaceous grey fabric, light grey core. (Illustrated).
 345. Everted rim. Hard coarse sandy micaceous grey fabric, slipped, burnished. (Illustrated).
 346. Necked jar. Sandy micaceous grey fabric with light grey core, burnished. Cf. Frere (1972) No. 445. (First half of second century). (Illustrated).

Bowls

347. Reeded rim. Hard coarse sandy micaceous red fabric with grey core. Burnt. (First half of second century). Cf. Bowl from Guildhall Museum 18620 from Walbrook Hadrianic fire level. (Illustrated).
 348. Grooved rim. Hard sandy micaceous grey fabric, darker surfaces, burnished. Cf. Frere (1972) No. 328. (Late first–early second century); Chapman (1973) No. 150. (Late first–second century). Possibly a Highgate Wood type. (Illustrated).
 349. Coarse sandy micaceous brown–grey fabric, black surfaces, burnished with lattice decoration. Possibly BB1. Similar to Gillam (1970) type 218. (Second century).
 350. Rounded almost rectangular rim profile. Coarse sandy micaceous grey fabric, burnished with lattice decoration. ?BB1. (?First half of second century). Similar to No. 190 above but smaller.

Mortarium

351. With hooked flange. Coarse sandy white fabric. Possibly Brockley Hill type. (Late first–early second century). (Illustrated).

Lids

352. Two rims. Sandy micaceous red–grey fabric.

TRENCH IV

LAYER 55

353. Bowl with flange. Coarse sandy micaceous dark grey fabric, burnished with decoration. Probably BB1. (Fourth century). Cf. Gillam (1970) type 227. (Third–fourth century). (Illustrated).

TRENCH X

LAYER 4

Amphora

354. Dressel 20. Spanish. Coarse sandy micaceous brown–grey fabric, dark buff surfaces. Similar to Chapman (1973) No. 211. (Mid–late first century).

Flagon

355. Coarse sandy buff fabric. (Late first–early second century).

Jars

356. Everted rim. Coarse sandy micaceous light grey fabric, black surfaces, burnished.
 357. Undercut bead rim. Sandy micaceous buff fabric with light grey core, darker grey surfaces, burnished. (Late first–early second century).

LAYER 6 (Early–mid-second century)

358. Coarse sandy micaceous grey–buff fabric. Similar in form to Frere (1972) No. 12. (Early–mid-second century).

(Fig. 33, 359–476).

Flagon

359. Ring-necked. Coarse sandy buff–white fabric, buff–cream surfaces. Cf. Frere (1972) No. 566. (Mid-second century). (Illustrated).
 360. Small flask. Coarse sandy orange fabric. For general type of vessel see Gillam (1970) No. 39. (Late second–third century).

Jars

361. Everted rim. Coarse sandy black fabric, burnished. Possibly a BB1 type.
 362. Poppy-head beaker. Fine sandy micaceous grey–brown fabric, burnished. Possibly a Highgate type.
 363. Necked jar. Sandy micaceous grey–brown fabric, burnished.
 364. Ovoid beaker. Pasty micaceous cream fabric containing some coarser grains, yellow slip. Chapman (1973) No. 75. (Mid–late first century).

Bowls

365. Reeded rim but lighter and thinner than most. Hard fine sandy micaceous grey fabric, orange slipped interior, buff exterior, lightly mica coated.
 366. Bowl with very short rim. Coarse sandy micaceous grey fabric, darker surfaces, burnished. (First half of second century).
 367. Coarse sandy micaceous fabric ranging from white to dark grey, burnished. Burnt. BB1 type. Diameter 20 cm. (First half of second century).
 368. Coarse sandy micaceous light grey fabric, dark grey surfaces, burnished. (First half of second century). (Illustrated).
 369. Coarse sandy micaceous grey fabric, darker surfaces, burnished with lattice decoration. ?BB1. Cf. Gillam (1970) type 219. (Early–mid-second century); Frere (1972) No. 708. (Mid-second century). (Illustrated).
 370. Bowl with very small rim. Coarse sandy micaceous grey fabric, lightly tempered with bits of shell, burnished.

Mortaria

371. Hooked flange. Coarse sandy light buff fabric. Possibly Brockley Hill type.
 372. Hooked flange. Fabric as above. Cream–yellow surfaces. Possibly Brockley Hill type.
 373. Hooked flange. Coarse sandy micaceous buff–cream fabric. Possibly Brockley Hill type. For stamped Mortaria from this Layer, see page 179.

Dishes

374. Sandy micaceous red–buff fabric with grey core, mica coated. Similar to Frere (1972) No. 740. (Mid-second century).
 375. Fabric as above. Similar to Frere (1972) No. 741. (Mid-second century).
 376. Coarse sandy micaceous grey fabric, darker surfaces, burnished. Burnt. (Illustrated).

Lids

377. Sandy micaceous buff–black fabric.
 378. Fine sandy micaceous red fabric, buff surfaces.
 379. Sandy micaceous grey fabric, buff surfaces.
 380. Hard fine sandy micaceous orange fabric with grey core.
 381. Sandy micaceous grey fabric, darker surfaces.

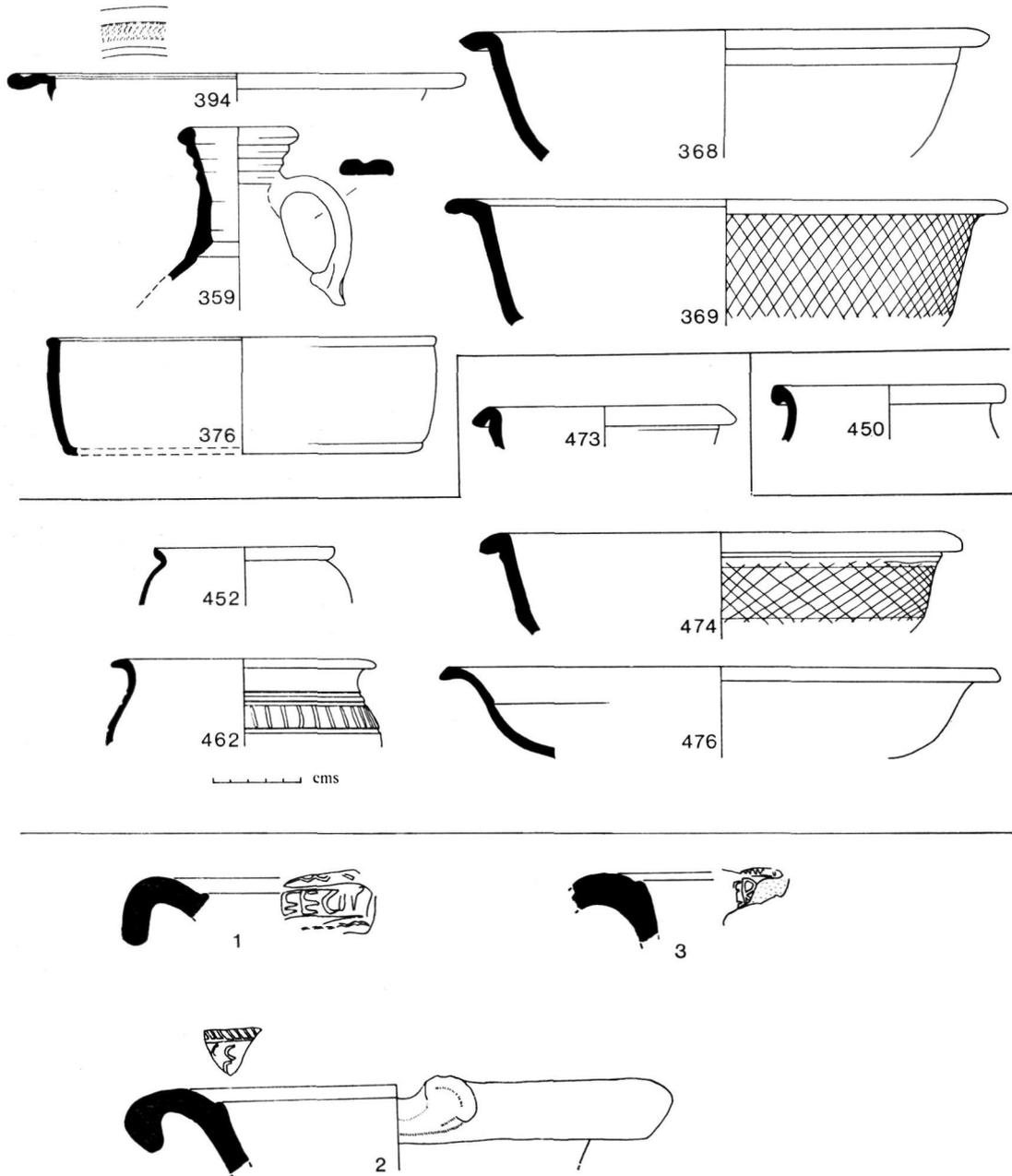


Fig. 33.—Custom House site; Roman pottery 359–476 ($\frac{1}{4}$), and stamped mortaria 1–3 ($\frac{1}{4}$)

LAYERS 6 AND 7 (Early-mid-second century)

Fine Ware

382. Beaker. Fine white fabric, brown coat. ?Nene Valley.
 383. Bowl. Fine micaceous light red fabric, red-brown coat. Imported ware, possibly from the Lower Rhineland. See Greene (1972), p. 24, No. 1.3.
 384. Bowl. Hard fine white fabric, buff core, white slipped surfaces, burnished.

Jars

385. Necked jar with small rounded rim. Sandy micaceous grey fabric, metallic grey surfaces, burnished. Diameter 10 cm. Form similar to Chapman (1973) No. 38. (Late first-early second century). Similar forms made at Highgate Wood kilns.
 386. Necked jar. Sandy micaceous grey fabric, black surfaces, burnished. Diameter 20 cm. Form similar to Chapman (1973) No. 185. (Mid-late first century).
 387. Necked jar. Coarse sandy buff fabric. Burnt. Diameter 11 cm. Form similar to Frere (1972) No. 82. (Late first century) and No. 483. (Early-mid-second century).
 388. Storage jar. Brown micaceous fabric containing some grits, shell tempered, grey surfaces, brown slip, burnished and decorated. Cf. Chapman (1973) Nos. 194 and 195. (Mid-late second century).

Bowls

389. Reeded rim. Coarse sandy micaceous buff fabric.
 390. Reeded rim. Sandy micaceous grey fabric, darker surfaces, burnished. Similar to Chapman (1972) No. 152. (Late first-early second century). Also see No. 166 above, but groove at outer edge of rim of No. 390 is not as pronounced.
 391. Grooved rim. Sandy micaceous grey fabric with brown core, burnished.
 392. Slightly drooping rim. Coarse sandy micaceous dark grey fabric, black surfaces, burnished with lattice decoration. Burnt.
 393. Coarse sandy micaceous dark grey fabric, black surfaces, burnished with lattice decoration. BB1 type. Similar to Gillam (1970) No. 219. (Early-mid-second century). Also see No. 369 above.
 394. Fine micaceous grey fabric, burnished with rouletted decoration on rim. For general type of vessel see Frere (1972) No. 214. (Late first century). (Illustrated).

Dishes

395. Fine micaceous grey fabric, buff surfaces. Burnt.
 396. Pasty white-buff fabric containing some coarser grains, mica coated.

Lids

397. Two rims. Sandy micaceous buff fabric.
 398. Two rims. Sandy micaceous grey fabric with red core.
 399. Fine micaceous grey fabric.
 400. Sandy micaceous orange fabric with buff-red core.

TRENCH XI

LAYER 7

Fine Ware

401. Beaker sherd. Fine white fabric, brown coat, rough cast. Rough-Cast ware.
 402. Beaker. Fine light grey fabric, dark brown coat.
 403. Bowl. Hard fine sandy white fabric with buff core, burnished.
 404. Bowl sherd. Fine micaceous red fabric with grey core, traces of dark red coat. ?Oxfordshire.

Jars

405. Necked jar. Sandy micaceous light grey-brown fabric, darker slightly metallic surfaces, burnished. Similar to Chapman (1973) No. 80. (First century).

Bowls

406. Grooved rim. Sandy micaceous light grey fabric, darker grey surfaces, burnished.

Mortarium

407. With downward curving flange. Fine sandy light buff fabric containing some white grits.

Lids

408. Fine micaceous light grey fabric, darker surfaces.
 409. Coarse sandy white fabric with buff-pink core.
 410. Sandy micaceous red fabric with grey core, buff surfaces.

LAYER 8

Bowl

411. Grooved rim. Sandy micaceous grey fabric, burnished. (First half of second century). Similar to No. 183 above.

Lid

412. Sandy micaceous buff fabric with grey core.

TRENCH XII

LAYER 12

Fine Ware

413. Two sherds. Fine sandy micaceous buff fabric, grogged, marblized orange-brown coat.
 414. Base. Fine sandy white fabric, marblized orange-brown coat.
 415. Bowl with flange. Hard micaceous red fabric with grey core, dark red-brown coat. Burnt. ?Oxfordshire.
 416. Bowl. Hard fine micaceous red fabric with grey core, dark red coat. ?Oxfordshire.
 417. Dish. Fine micaceous grey fabric, black surfaces, rouletted decoration inside, burnished.

Flagon

418. Coarse sandy white fabric, cream surfaces. For general type see Chapman (1973) No. 266. (Mid-second century).

Jars

419. Everted rim. Coarse sandy micaceous dark grey fabric, black surfaces, burnished.
 420. Fabric as above. Burnished with wavy line decoration. Probably BB1. See Gillam (1970) type 120. (Early-mid-second century).
 421. Necked jar with square rim. Sandy micaceous buff-grey fabric.

Bowls

422. Plain rim. Sandy micaceous grey fabric with light grey core, black surfaces.
 423. Bowl with flange angled slightly downward. Sandy micaceous light grey fabric, black surfaces, burnished.

Dish

424. Sandy micaceous red fabric, with grey core. Perhaps originally mica coated. Burnt.

Lids

425. Sandy micaceous buff fabric.
 426. Fabric as above with pink core, grogged.
 427. Sandy micaceous red fabric.
 428. Two rims. Sandy micaceous orange fabric with grey core.

LAYER 13

Fine Ware

429. Base. Sandy micaceous white fabric, olive-brown coat. ?Nene Valley.

Jars

430. Everted rim. Sandy micaceous grey-brown fabric, darker surfaces, burnished.
 431. Poppy-head beaker. Sandy grey-brown fabric, metallic grey surfaces, burnished.
 432. Necked jar with small round undercut rim. Sandy micaceous rust-brown fabric, grey surfaces, burnished.
 433. Necked jar. Sandy micaceous grey fabric, metallic grey surface, burnished. Form similar to Chapman (1973) No. 39. (Late second-early third century).

Bowls

434. Reeded rim. Coarse sandy micaceous grey fabric. (Late first-early second century).
 435. Coarse sandy micaceous grey fabric, black surfaces, burnished with vertical stroke decoration. BB1 type. Diameter 16 cm. (First half of second century). Similar to No. 369 above.

LAYERS 12 AND 13

Fine Ware

436. Beaker. Four sherds. Fine sandy red fabric, dark brown coat. Three of the above have rouletted decoration. All come from the same vessel.
437. Probably flanged bowl sherd. Hard fine micaceous red fabric with grey core, dark red coat. Burnt. :Oxfordshire.

Flagon

438. Ring neck. Coarse sandy micaceous buff fabric, grogged. (Early-mid-second century). For smaller version of the type see No. 179 above.

Jars

439. Everted rim. Coarse sandy micaceous grey fabric, burnished.
440. Jar with slightly undercut or hooked rim. Coarse sandy buff fabric with orange core, grogged. Form similar to Frere (1972) No. 835. (Mid-second century). Also see No. 450 below for smaller but basically similar type.
441. Necked jar with small rounded rim. Fine micaceous grey fabric with light grey core, darker surfaces, burnished.
442. Bead rim. Coarse sandy micaceous light grey fabric, grey slightly metallic surfaces, burnished. Similar to Chapman (1973) No. 217. (Mid-late first century).

Bowl

443. Bowl with short "parrot-beaked" flange. Coarse sandy micaceous grey fabric, darker surfaces, burnished. Diameter 22.5 cm. Similar to Sheldon (1972) Fig. 9 No. 21. (Fourth century).

Mortarium

444. With level bead and hooked flange. Gritty buff fabric. Form similar to Frere (1972) No. 743. (Late first-mid-second century).

Lid

445. Sandy micaceous buff-grey fabric.

LAYER 16

Bowl

446. Tazza. Coarse sandy micaceous cream-buff fabric.

Lid

447. Sandy micaceous light grey fabric, darker surfaces.

TRENCH XIII

LAYER 8 (Second century)

Jars

448. Everted rim. Coarse sandy micaceous dark grey fabric, burnished.
449. Everted rim. Sandy micaceous brown-grey fabric, darker surfaces, burnished.
450. Jar with squared undercut rim. Coarse sandy buff-cream fabric. Cf. Chapman (1973) No. 141. (Late first-early second century). (Illustrated).

Bowl

451. Reeded rim. Coarse sandy buff fabric. Similar to Frere (1972) No. 686. (Mid-second century). Also similar to No. 186 above.

LAYER 9 (First half of second century)

Fine Ware

452. Beaker. Fine red fabric, brown coat, possibly Colchester. (Late first-early second century). (Illustrated).
453. Three sherds. Fine white fabric, brown coat, rough cast surface. Rough-Cast ware. ?Nene Valley. (Second century).
454. Beaker sherd. Fine micaceous white fabric, brown coat, barbotine decoration under coat. Rusticated ware.

Jars

455. Short out-turned rim. Grey-brown micaceous fabric containing some grits, surfaces slipped black.
456. Everted rim. Coarse sandy micaceous black fabric, burnished with wavy line decoration. Possibly BBI. Similar to Gillam (1970) types 120 and 125. (Early-mid-second century).
457. Poppy-head beaker. Sandy micaceous light grey fabric with darker core, metallic grey surfaces, barbotine decoration, burnished. Similar to Chapman (1973) No. 199. (Latter part of first century). Possibly a Highgate Wood type.
458. Necked jar. Coarse sandy micaceous dark grey fabric.
459. Necked jar with small rounded rim. Hard coarse sandy micaceous light grey fabric with darker core and surfaces, burnished.
460. Necked jar with rounded rim. Sandy micaceous grey fabric, darker surfaces, bands of burnishing in interior.
461. Necked jar. Sandy micaceous grey-brown fabric, shiny black surfaces, burnished.
462. Necked jar. Fine micaceous light grey fabric with darker core and surfaces with metallic grey vertical stroke decoration on shoulder, burnished. (Late first-early second century). ?Possibly Highgate Wood type. (Illustrated).
463. Jar with squared rim. Coarse sandy pinkish-buff fabric, cream-white surfaces.

Bowls

464. Reeded rim. Coarse sandy micaceous grey-buff fabric. Similar to Frere (1972) No. 670. (Mid-second century). Also see No. 186 above.
465. Reeded rim. Coarse sandy micaceous reddish-buff-grey fabric.
466. Reeded rim. Coarse sandy micaceous grey fabric. Similar to but smaller than No. 186 above.
467. Reeded rim. Sandy micaceous orange fabric, burnished.
468. Grooved rim. Sandy micaceous grey-brown fabric.
469. Grooved rim. Sandy micaceous grey fabric with purplish-grey core, burnished.
470. Grooved rim. Sandy micaceous grey-brown fabric, burnished. Diameter 14 cm. Highgate Wood type.
471. Hooked rim. Fabric as above, burnished. Diameter 20 cm. Highgate Wood type.
472. Hooked rim. Sandy micaceous reddish-buff fabric with grey core. (Illustrated).
473. Coarse sandy micaceous grey fabric, darker surfaces, burnished.
474. Undercut rounded rim profile. Coarse sandy micaceous grey fabric, black surfaces, burnished with lattice decoration. (Illustrated).
475. Rounded rim profile with slight undercut. Sandy micaceous grey fabric, black surfaces, burnished with lattice decoration. (First half of second century). Similar to No. 474 above although smaller and more rounded.
476. Bowl with out-turned rim. Hard sandy micaceous buff fabric with grey core, interior slipped, burnished. Sometimes known as London ware. (Illustrated).

Mortaria

477. Hooked flange. Coarse sandy buff fabric. Possibly Brockley Hill type.
478. With level bead and slightly drooping flange. Fine sandy micaceous buff-brown fabric. For stamped mortaria from this Layer see page 180.

Dishes

479. Hard sandy micaceous red-buff fabric with grey core, lightly mica-coated surfaces. Burnt.
480. Fine soapy micaceous buff fabric, light grey surfaces, burnished.
481. Coarse sandy red-buff fabric with grey core. Similar to Frere (1972) No. 528. (Early-mid-first century). Also similar to No. 191 above.

Lids

482. Five rims. Sandy micaceous grey fabric, red or red-brown surfaces.

STAMPED MORTARIA (FIG. 33)

BY KATHARINE F. HARTLEY

1. (880. X-6). Two joining fragments of a mortarium in granular orange-brown fabric fired to a darker shade in parts. There is a retrograde counterstamp reading FECIT. Seven stamps from the same die are known from the potteries at Brockley Hill, Middlesex, where he worked and now four stamps from London. The

cable borders of these stamps are highly unusual and only one potter, Gissus (recorded from Baldock, Brentford, Brockley Hill (3), London, Towcester and Verulamium (2) (S. S. Frere, *Verulamium Excavations I*, 375, No. 21, and Fig. 145) is known to have used them; it seems, therefore, highly probably that this counterstamp should be attributed to him. Sufficiently large portions of three relevant mortaria have been found for the stamps on each side of the spout to survive but unfortunately none clear up the difficulty; one is stamped with Gissus' name on both sides, another with *Fecit* on both sides, and the third is stamped LALLAIUS//FECIT. The second presumably represents a mistake on the potter's part, while at least two other potters, Doinus and Saturninus, often stamped with name only though they had counterstamps for the dies. Lallaius or Lallaus is a well-known potter (*ibid.*, 376, No. 24 and Fig. 145), whose stamp has a totally different type of border from this *Fecit* stamp, and he normally impressed his name on both sides of his mortaria. The best explanation appears to be that Lallaius and Gissus were active in the same workshop.

Rim forms carrying all the stamps concerned fit well with manufacture within the period A.D. 100-140 and the stamp of Lallaius? from Verulamium was found in a deposit dated c. A.D. 90-105. The profile of the London mortarium is likely to be earlier than A.D. 130.

2. (920. X-6). In granular greyish fabric with orangy-brown slip; grey, white (flint) and brown tinturation grit. The fragmentary stamp preserves part of the lower line of a retrograde stamp of Melus which, when complete, reads MILUS//FICI. Melus worked at Brockley Hill where 23 of his stamps have been found (*Trans. L.M.S.* No. XI (1954), 261). Other stamps of his have been found from Canterbury; Eccles, Kent; Lincoln; London (10); Northchurch, Berks.; Richborough; Verulamium (3); Wanborough, Wilts.; Water Newton (2) and Withington, Glos. One of the Verulamium examples was found in a deposit dated A.D. 130-145 (S. S. Frere, *Verulamium Excavations I*, 376, 28) and the forms used indicate manufacture in the period A.D. 95/100-135/140.

3. (845. XIII-9). A heavily burnt rim fragment in granular fabric of the kind made at Brockley Hill. The fragmentary stamp is probably from an unknown die. The surviving profile suggests a Flavian-Trajanic date.

MEDIEVAL POTTERY

BY JAMES C. THORN

This interim report is a synopsis of the most significant aspects that have become clear from the analysis so far conducted. It should be noted that the location of the Custom House on the banks of the River Thames makes a natural threshold for illustrating through imported wares the extent of London's trading interests.

The ceramics as a whole were dominated by a wide range of provincial London wares. These were mostly red wares, white slipped West Kent wares, and a range of Surrey White wares. Small ranges of pottery also occurring were hard grey wares, mostly of Limpsfield type, with a few fragments of Hertfordshire reduced ware, a range of shell-tempered wares and isolated examples of wares such as a Scarborough-type knight jug and a jug with de-based stamped leaf motif cited by Rackham as a London-type stamped jug.

The range of imports from the site is mostly from South-western France. The most prevalent are Saintonge green glazed jugs, but there are also examples of Saintonge polychrome jugs with bird and shield and botanical motifs, and a few fragments of incised Saintonge jugs. In addition, there is a fragment of a Rouen-type jug from Normandy, a few examples of Siegburg and Langerwehe stonewares and lustreware Valencian bowls from Southern Spain. Earlier imports also occurred on the site and ranged from Pingsdorf, Andenne and handled ladles which are found in the Lower Rhineland.

These medieval ceramics fall into four main groups which are as follows:

GROUP A.

Layers associated with the stone foundations which were cut into the peat of Group C2. The structure is possibly the Churchman Custom House built in 1382. This foundation Group A1 (III-11 to 12) produced a small amount of provincial wares ranging from Surrey White, West Kent and Limpsfield Grey wares but contained no imports. The extension to the stone structure with arched foundations, Group A2 in III-5, showed a similar range of provincial wares, lacking Limpsfield Grey ware but containing a piece of Rhineland stoneware and fragments of a lobed cup from South-western France. The trodden gravel in front of the structure, Group A3, produced the largest range of provincial wares, in which Red wares and West Kent ware predominate with a few fragments of Limpsfield Grey ware and shell-tempered ware. This range also represents the material from the lower levels of Trench I, though a few imports (Saintonge polychrome, green glazed jugs and a piece of Langerwehe stoneware) were found in layers 10 and 11. Some of these gravels in IV-12 contained residual sherds of Roman pottery, implying that these gravels had been re-deposited. The filling of the post-hole found in the trodden gravels in Trench II produced pieces of Surrey White ware and a piece of a Saintonge polychrome jug. A later wall in Trench VI belonging to the stone structure extended over the destroyed drain, Group A2. This contained a similar range of provincial wares and imports as A3, but excluded shell-tempered wares and included instead fragments of earthenware roofing tiles. The cellar found in the stone structure in Trench VI contained a filling above the floor, Group A4. The early filling above the floor contained West Kent and Limpsfield Grey wares. On top of this was later filling, which at the bottom contained Surrey White, Red, and West Kent wares, and at the top the pottery content was similar but also included Limpsfield Grey ware.

GROUP B.

This is a robbing feature of the timber structure in Trenches II and IV which cut through the gravels of C1. The range of provincial wares is similar to C1 and C2 (see below), the only difference being that shell-tempered wares are only represented once in 11-12. The imports predominating are Saintonge polychrome and green glazed jugs. There were some pieces of Siegburg and Langerwehe stonewares from II-10, and from II-13 and 15 there were fragments of two lobed cups. It would seem that a high proportion of this robbing feature contained residual material from Group C.

GROUP C.

These are layers associated with the timber structure, peat layers forming behind as C2 and containing the largest range of provincial wares and imports found. There was a great increase in Surrey White wares, and a large range of shell-tempered wares (associated with London copies of Rouen jugs) from Trenches XI-XV, though the shell wares were lacking in Trenches I-VII. Amongst the imports Saintonge polychromes and green glazed wares predominated, though a wider range of imports with a Saintonge pegau type pitcher came from V-13. A fragment of Saintonge polychrome, which may be a lid from III-10, was associated with a Saintonge green glazed jug fragment, pieces of a lobed cup, and a piece of Rhineland stoneware. A fragment of a Rouen jug with rouletted strip decoration associated with Saintonge green glazed rilled jug occurred in XIV-4. A more squat jug showing a painted band of red slip under a clear yellow glaze on a white smooth fabric was recovered

from V-8. This was associated with a piece of Rhineland stoneware and fragments of a Saintonge green glazed jug. In VII-10 there was a sherd belonging to a small Valencian Hispano-Moresque bowl, which was associated with the upper portion of a South-western French-type jug (pale yellow/green glaze) and fragments of a Saintonge green glazed jug. A fragment of a Langerwehe rouletted jug was found in IV-24. Earlier, residual imports were Pingsdorf and Andenne wares, the most significant pieces coming from VI-26, VII-10 and XIII-3. The gravels C1 which formed in front of the timber structure showed a similar sequence of provincial wares and imports to that found in C2. Trench IV likewise contained a similar sequence and had Saintonge polychrome and green glazed wares as imports. The exception to this was IV-58 in which there was another fragment of a Valencian Hispano-Moresque bowl associated with a Saintonge polychrome jug and a Rhineland stoneware jug.

GROUP D.

The group represents the material from post-Roman gravels pre-dating the timber structure. In D2, the lowest and earliest levels, Red wares, West Kent wares and shell-tempered wares were prevalent, with a few fragments of Surrey White and reduced grey wares. In V-17 these were in association with Saintonge green glazed jug fragments and residual pieces of Pingsdorf and Andenne ware and a handled ladle, an import from the Rhineland. The upper gravels D1 were immediately below the timber structure and contained a similar range of wares to the lower gravels, but with an increase in the quantity of Surrey White wares and the number of imports. From III-15 came a wide range of Saintonge wares, including a wide-mouthed pitcher similar to the pegau type. Saintonge polychrome wares showing a botanical motif occurred in III-14 associated with the upper portion of a Siegburg jug and a residual piece of Pingsdorf. A further piece of Saintonge polychrome ware with an applied human mask came from I-15 together with early Siegburg jugs and a horse's head belonging to a Scarborough-type knight jug. Saintonge incised jug fragments occurred in I-14. Another handled ladle from the Rhineland was found as residual in III-18 with a piece of Andenne ware. It was noticed that Trenches XII-XIV showed a lack of the basic range of provincial wares and shell-tempered wares predominated often being associated with London copies of Rouen jugs. An unusual import was a Mediterranean amphora found in III-15 (Fig. 34). It is in a fine pink fairly soft fabric with red and black inclusions and cream-coloured surfaces. A thin dull terra-cotta red wash has been used mostly on the exterior, handles and partly inside the neck. This seems to contain a fine red granular substance which gives it a fine sand-paper texture.

The dating of the groups suggests that they generally contained wares which begin in the later thirteenth and carried through to possibly the early fifteenth century. In the gravels belonging to Group D there were some residual Roman wares and the late twelfth century imports. The dating for the construction of the timber structure could therefore be in the middle of the fourteenth century. It would seem that Group C echoes a similar date range as Group D although it extends to the early fifteenth century. In Groups A and B this date margin also applies to the redeposited wares which were identical to those found in Groups C and D. It is noticeable that most of the imports found in the Groups were in trenches in front of the Custom House and Wool Quay and there was a marked lack of them in Group A where, for example, the cellar filling contained none. This suggests that there was a change in the pattern of imports and exports at this site. In Trenches VIII-XV the peat and gravel

layers of Groups D and C were generally sparse in the volume of imports although there was a wider range of shell-tempered wares and London copies of Rouen jugs.

The full medieval pottery report will be published in Transactions, Vol. 26.

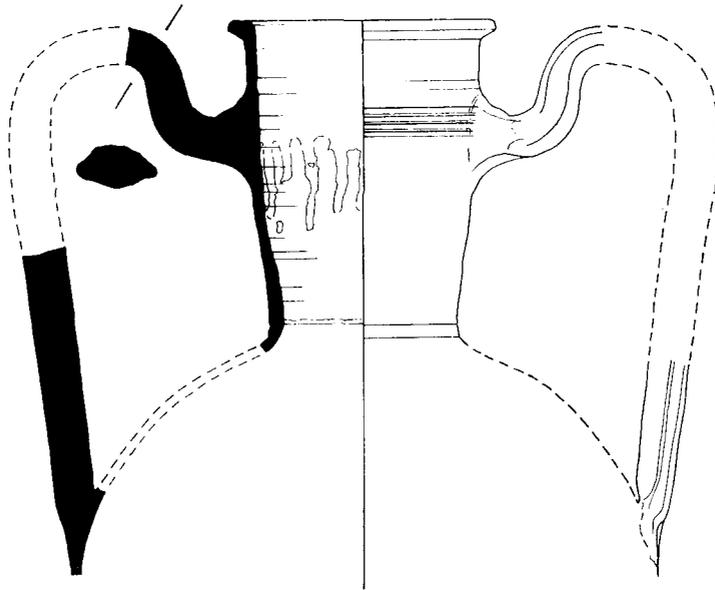


Fig. 34.—Custom House site. Medieval amphora ($\frac{1}{4}$)

THE GLASS (FIG. 35)

Roman

(241. I-23)

1. Rim of straight-sided bowl or dish, colourless, blown, slightly worn near rim; diameter 9 cm. (Illustrated).
- (242. I-23)
2. Fragments of matt/glossy window glass, bluish-green. Thicker piece has textured abrasion which runs in one direction.
3. Part of a footring, bluish-green, free blown and folded, weathered; diameter 6 cm.
4. Part of rim of globular jar, bluish-green, free blown with folded neck rim; diameter 7 cm. (Illustrated). Similar to Frere (1972) Fig. 76, No. 25, latter half of first century.
5. Fragment of largish globular bottle or jar, bluish-green, free blown, slightly weathered.
6. Fragment of pillar moulded bowl, clear bluish-green, blown. See Chapman (1973) Fig. 20, No. 4. (243. I-23)
7. Three fragments of rim of a thin-walled jar, free blown, brown flaking and iridescent; diameter 9 cm. (Illustrated).
- (239. I-24)
8. Rim of straight-sided bowl, colourless, blown with thickish rounded rim; diameter 12.5 cm. (Illustrated).

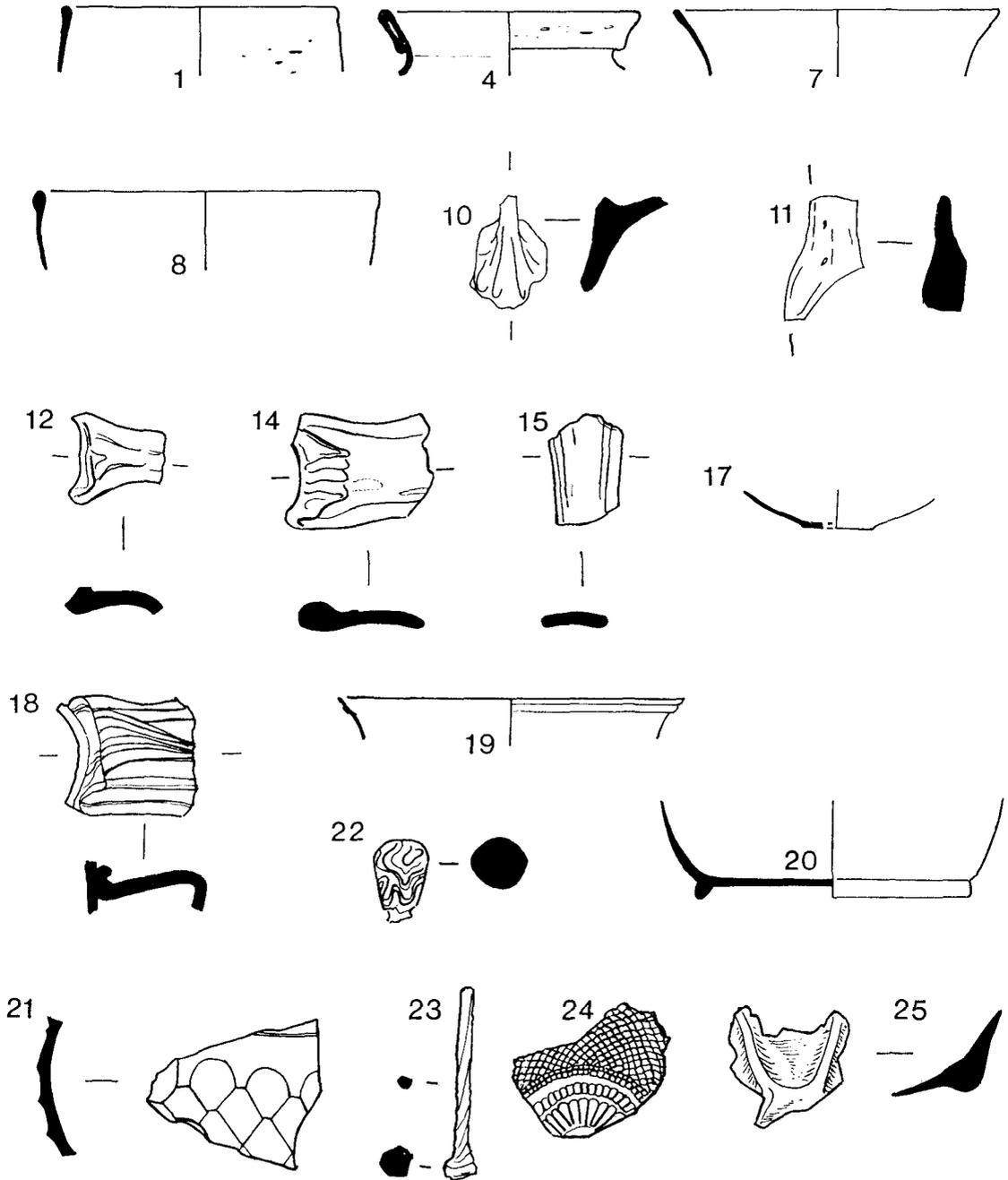


Fig. 35.—Custom House site; glass ($\frac{1}{2}$)



Plate 1.—Custom House site; Trench III, Roman quay looking south (scale in 0.5 m.)



Plate 2.—Custom House site; Trench III, Roman quay from the south-east (scale in 0.5 m.)



Plate 3.—Custom House site; Trench III, Roman posts and planks in front of quay as excavated (scale in 0.5 m.)

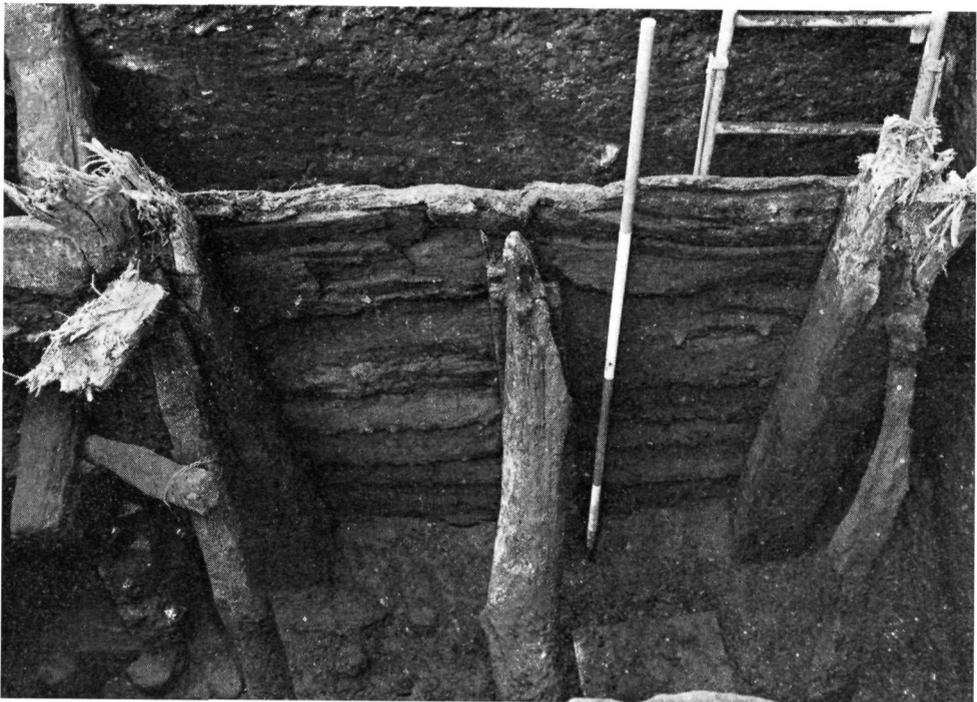


Plate 4.—Custom House site; Trench XII, earlier Medieval quay from the south (scale in 0.5 m.).
Photo: G. T. Denford



Plate 5.—Custom House site; Trench XII, boat timbers re-used in Medieval quay (scale in cm.)
Photo: G. T. Denford

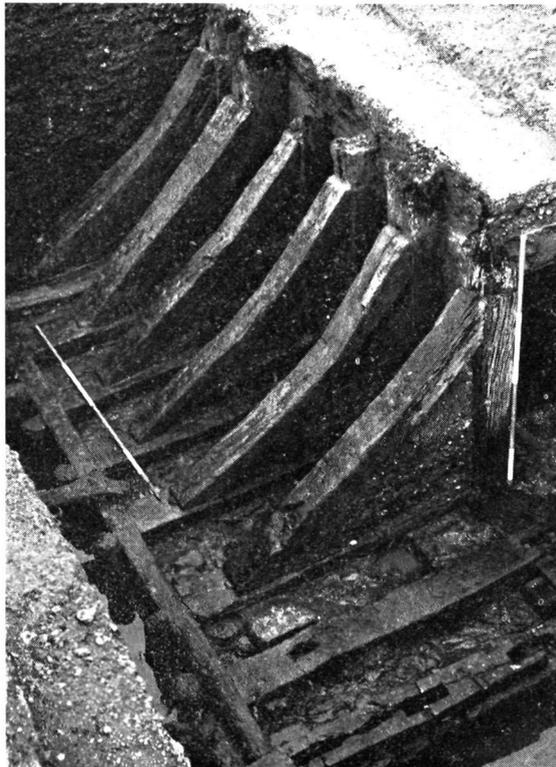


Plate 6.—Custom House site; Trench IV, later Medieval quay from the south-east (scale in 0.5 m.)



Plate 7.—Custom House site; Trench IV, elm and birch piles below ground plates of Medieval waterfront; note also the long pegs in the broken mortice holes (scale in 0.5 m.)



Plate 8.—Custom House site; Trench III, foundations to extension of Medieval Custom House. (Scale in 0.5 m.)

- (578. I-30)
9. Fragment of (?) globular bottle, bluish-green.
- (240. III-27)
10. Lower part of thin, circular flagon handle, drawn, part of shoulder attached, bluish-green, blown, weathered; length 3.2 cm., diameter c. 4 mm. Similar to Frere (1972) Fig. 77, No. 40. (Late first-early second century). (Illustrated).
- (231. IV-7)
11. Part of lower end of plain strap handle of bottle, bluish-green, slightly weathered. Similar to Chapman (1973) Fig. 20, No. 16. (Illustrated).
- (237. IV-32)
12. Upper end of strap handle from bottle, pale green, free blown, slightly weathered; length 2.5 cm., width 1.6 cm. (Illustrated).
- (238. IV-40)
13. Fragment of (?) side of panel moulded vessel, light bluish-green, weathered.
- (807. X-6)
14. Upper part of strap handle of rectangular bottle, pale green, free blown, slightly weathered; length 3.6 cm., width 3.0 cm. (Illustrated).
15. Part of a strap handle of conical bodied (?) jug, bluish-green, drawn; length 3 cm., width 2 cm. Similar to Chapman (1973) Fig. 20, No. 7, but Custom House piece has no rib. (Illustrated).
16. Fragment of window glass, glossy on one surface, bluish-green.
17. Fragment of base of (?) dish, colourless, slightly worn and weathered. (Illustrated).
- (785. X-6)
18. Upper part of ribbed strap handle from a square bottle, bluish-green, free blown; length 3.2 cm., width 3.2 cm. (Illustrated).
19. Two fragments of a rim of beaker, colourless, free blown with cut double ring around rim, slightly weathered; diameter 9-10 cm. For very similar vessel see Cunliffe (1971) Fig. 140, No. 60. (Illustrated).
- (784. X-6 and 7)
20. Part of base and footring of a bowl, colourless, possibly mould blown, abraded inner and outer surfaces, thickness of base is very uniform, weathered; diameter of base 8.5 cm. Similar to piece from Guildhall Museum 18544. (Illustrated).
- (942. X-6 and 7)
21. Fragment of faceted beaker, colourless, blown, cut and polished with several rows of shallow disc cutting to give shallow faceted honeycomb pattern; also has raised thread. For similar fragments see Cunliffe (1971) Fig. 139, Nos. 43, 44. (Illustrated).
- Medieval*
- (236. I-12)
22. Knob on end of bronze bottle stopper; length 2.5 cm., diameter 1.5 cm. at widest part.
- (235. I-13)
23. Worn part of glass stem, green. The glass has random twist marks and widens out at end to blown foot. Appears as though outer layers have been eroded. Probably stem of goblet; diameter 2 cm. Cf. Guildhall Museum 20569. (Illustrated).
- (234. II-10)
24. Miss Wendy Evans writes: Fragment of base of bowl of a large (?) goblet. Very pale green with much internal attack in the form of large rust-brown patches. Surfaces relatively clear and glossy but part of edge fracture has ragged "crystalline" form. An interesting fragment in that it has "hot" decoration on both sides of the glass, probably produced in the following manner. The gob of hot glass was blown into a ribbed mould, then removed, and further blown and smoothed. This had the effect of transferring the ribbed pattern to the inside of the bubble. (This technique is still used today. The effect produced is known as "optical".) The hot glass was then blown into another mould with the intricate pattern visible on the outer surface of the fragment. (This is, incidentally, very reminiscent of the decoration on a mould blown bowl of much earlier date from Cologne, illustrated in O. Doppelfeld, *Römisches und fränkisches Glas in Köln*, Köln, 1966.) The pattern suggests that there was a stem.

- (576. IV-48)
25. Part of bottom of a wine glass bowl, green, applied fins or lobes, glass attacked internally. (Probably fourteenth century). For similar vessels see Guildhall Museum 18425, 20569. Harden (1972), Pl. XIIB. (Illustrated).

SMALL FINDS (FIGS. 36-42)

BY DR. MARTIN HENIG

Note: Objects marked * are of uncertain date. They have been included in their most likely contexts.

The numbers in brackets are, first the index card number; then the Trench and Layer.

The remainder of the small finds, which are still being conserved, will be published next year.

ROMAN FINDS

Wallplaster

A considerable quantity of Roman wallplaster was found, providing evidence for panels in various colours as well as for the use of vegetal motifs. Items 2-4 are suggestive of a *schema* ultimately derived from the Third Pompeian Style (Hanfmann (1964, colour plate XII), second century, from Ostia. Davey (1972, 251-268) for similar panels in Britain).

The colours represented are red, purple, yellow, olive green, white and black.

The most noteworthy pieces are described below—all illustrated.

1. (III-40). Sprays of green vegetation on a black ground. This is clearly the upper area of a composition as the beginning of a white register could be observed above it.
2. (I-26). Greenish fruit with white highlights, on a black ground. Perhaps from a still-life composition.
3. (I-26). A black swag (possibly originally dark green) with white flowers on it, depicted against a red ground.
4. (I-26). A yellowish band with white and olive green vegetal pendentives, executed on a red ground.
5. (III-40). Curving black strokes with yellow colouring on one side and grey on the other.
6. (I-23). Curving yellow strokes on a red ground.
7. (I-23). Black and red registers separated by a white band.
8. (III-27). White plaster with red and black splashes on it as though the paint had been thrown.
9. (III-27). White and purple registers separated by a black line. This is part of a moulding as a sharp carination runs through the purple layer.

Iron

10. (709. XI-7). Bar of iron, tapering at one end. 2.57 cm. Cunliffe (1971, 139 and Fig. 63, No. 75).
11. (794. XI-8). Nail or hook. 9.5 cm. (Illustrated).
12. (645. I-26). Nail. 6.3 cm.

Copper Alloy

13. (792. XIII-9). Ligula with flat scoop at one end, used for extracting ointment from containers. 15 cm. Greenfield (1963, 147 and Fig. 6, No. 22; Brigstock, Northamptonshire). Cunliffe (1971, 107 and Fig. 42, No. 58). (Illustrated).
14. (24. I-23). Large needle or bodkin. 15.5 cm. Wheeler (1930, 105 and Pl. XLII, No. 2); Cunliffe (1971, 120 and Fig. 52, No. 177); Down and Rule (1971, 45, No. 3). (Illustrated).
15. (21. I-34). Needle (most of eye missing). 8 cm. Wheeler (1930, 105 and Pl. XLII, Nos. 3-5). *Small Finds from Walbrook 1954-1955*, 10-11, Pl. IV, No. 4. (Illustrated).
16. (23. I-23). Stud with hollow "domed" head. Drawing pin type. Diameter 2.8 cm. G. Webster in Butler (1971, 122 and Fig. 17, No. 97—Fremington Hagg). (Illustrated).
17. (22. I-23). Stud with slightly "domed" head. Type as last. Diameter 2.6 cm. (Illustrated).

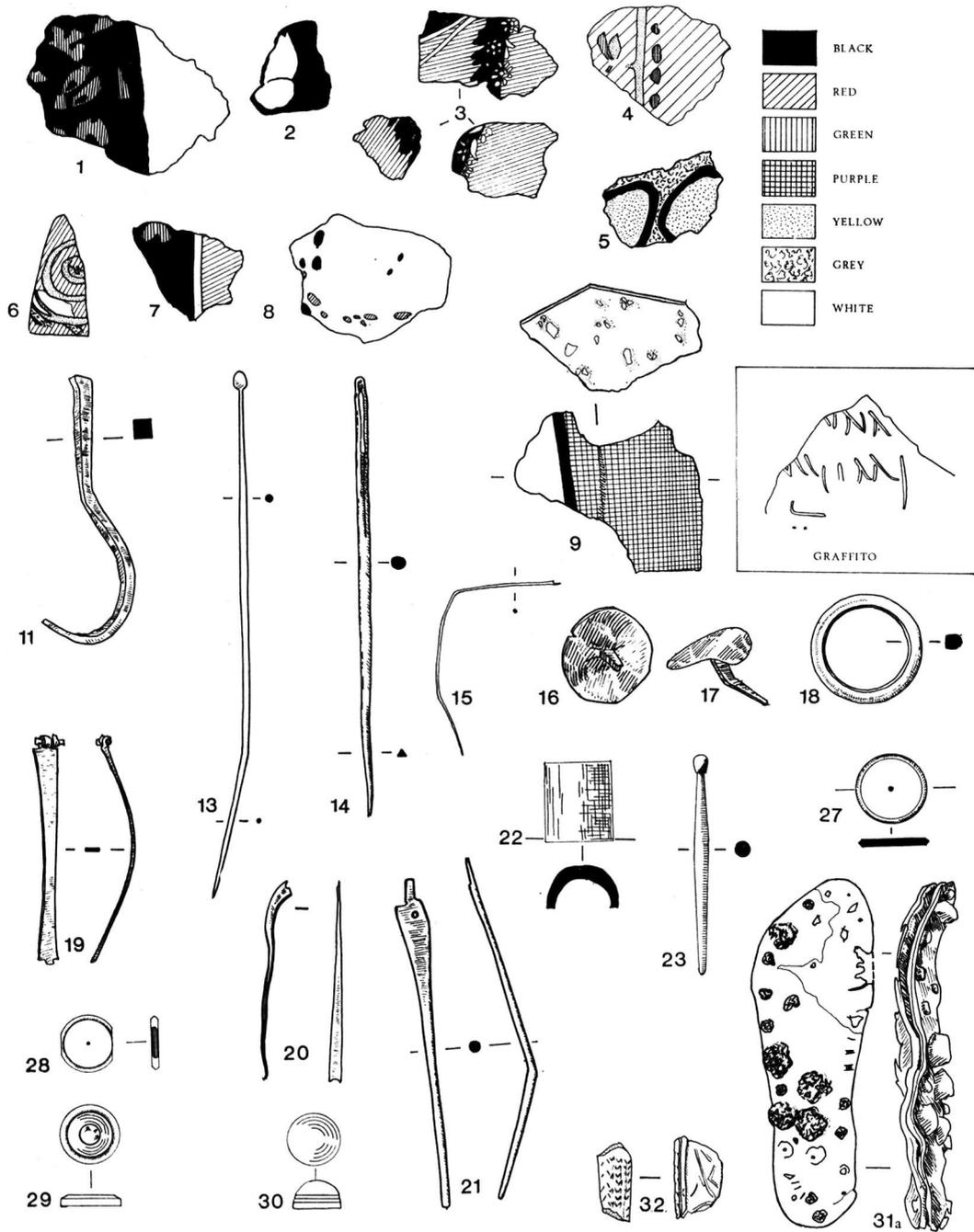


Fig. 36.—Custom House site; small finds 1-9 and 31-32 ($\frac{1}{4}$), and 11-30 ($\frac{1}{2}$)

18. (19. I-23). "Harness ring", rounded on outer face; flat within. Diameter 3.1 cm. Brodrigg, Hands and Walker (1968, II, Fig. 50, Nos. 106-110). Hobley (1966-7, 114 and Fig. 20, No. 9—Baginton, Warwickshire). (Illustrated).
- 19*. (76. IV-25). Piece of metal curved and expanding at each end. At one end is a hinge but whatever was attached at the other is now missing. Perhaps a fitting from the lid of a small coffer. *c.* 7.5 cm. Date uncertain (possibly Roman). (Illustrated).
- 20*. (103. I-15). ?Nail cleaner from a "châtelaine"; 5.7 cm. (Illustrated).
- 21*. (106. I-15). ?Probe from a "châtelaine". 9.9 cm. Kenyon (1948, 257, Fig. 86, No. 5). (Illustrated).
- Bone*
22. (814. XIII-10). Bone hinge, turned from a long bone. Part of side with perforations missing. 2.4 cm. Goodburn in Frere (1972, 149 f, Fig. 54, Nos. 188, 190). (Illustrated).
23. (274. I-24). Pin with ovoid head and shaft which swells in the centre. 6.3 cm. Kenyon (1948, 264 f, Fig. 91, No. 8). Cunliffe (1971, 147 f, Fig. 68, No. 24). Brodrigg, Hands and Walker (1968, I, 110 f, Fig. 37, No. 16). (Illustrated).
24. (252. III-23). Pin with groove around head which is partially broken away; the point is missing. 6.1 cm. Kenyon (1948, 264 f, Fig. 90, No. 1).
25. (378. I-24). Shank of pin. 1.8 cm. (fragment).
26. (535. I-31). Point of pin. 5 cm.
27. (247. III-43). Counter, flat disc with central hole made with a compass on one side. Diameter 1.9 cm. Kenyon (1948, 266 f, Fig. 91, No. 17). Down and Rule (1971, 83, and Fig. 5, 15A). (Illustrated).
28. (804. XIII-9). Counter. Type as last. Diameter 1.5 cm. (Illustrated).
29. (530. III-48). Counter, plain with slightly sunk centre. Scratch on base. Diameter 1.7 cm. Kenyon (1948, 266 f, Fig. 91, No. 9). Frere (1972, 152 and Fig. 56, No. 215). Down and Rule (1971, 83 and Fig. 5, 15F). (Illustrated).
30. (532. I-31). Counter, flat base and domed upper surface. Height 0.7 cm. Diameter 1.3 cm. For a glass counter of this type, Cunliffe (1971, 150 and Fig. 69, No. 6). (Illustrated).

THE ROMAN LEATHER SHOES

BY TIMOTHY AMBROSE

- 31a. (303. I-23). Right foot shoe—bottom unit. Middle sole and sole (illustrated) laminated and deteriorated around edges. Overall length 20 cm., width at waist 5.7 cm., width at ball 6.6 cm., width at heel 4.7 cm. The middle sole has a series of parallel thonging slots 0.6 cm. wide at 0.7 cm. intervals. These are set 0.9 cm. inside the edges and run from the waist to the toe end. There are further slots at 2 cm. intervals at the heel end. The sole has parallel thonging slots as above. The stud arrangement is straightforward, with an estimated 12 studs in the right-hand row, 10 in the left-hand row, five in the centre line row running from the heel end to the waist, and five at the ball. Some of the studs are heavily corroded and a number are missing. A badly deteriorated fragment of (?)insole was also found with this shoe. There are no traces of upper.
- 31b. (943. I-23). (?)Left-foot shoe—bottom unit. Sole, forepart of middle sole and middle sole filling section heavily deteriorated. Estimated original length 20 cm., present width at heel 4 cm., at waist 5.5 cm. The sole appears to have had a row of studs running around both edges and a centre line row. There is a diamond-shaped arrangement of studs at the ball, divided in two by the centre line. (Goodfellow and Thornton (1966, No. 34) for similar arrangement).
- 31c. (301. I-23). Fragments of (?)middle sole, badly deteriorated and contorted. One fragment from the (?)forepart has parallel rows of stud holes 1.7 cm. apart running from edge to edge (maximum number five). Another fragment of (?)insole has four incised lines running parallel to the edge, which is intact. These are some 0.6 cm. apart and 0.7 cm. from the edge. Their original length cannot be determined owing to deterioration at one end. This is perhaps a maker's mark, or part of one, although it may indicate re-use of leather or trial cutting.
- 31d. (304. I-24). Fragment. Possibly one end of a middle sole filling section.
- 31e. (304. I-24). Fragment of (?) middle sole.

There are no unusual features in this small sample. On the basis of size alone, both Shoe No. 31a and Shoe No. 31b are likely to have belonged to a woman or a child. Shoes of

similar size come from elsewhere in London (Goodfellow and Thornton, 1966, *e.g.* Nos. 2, 13 and 25) and have also been found in more military contexts at Portchester Castle (Ambrose, 1974, *e.g.* Nos. 264, 266 and 267) and Hardknott (Charlesworth and Thornton, 1973, No. 14). Although it does occur, the heavy nailing pattern seen on No. 31e is not particularly common on shoes from London, and may reflect the use of heavy-duty footwear which is, perhaps, to be expected in an area of docks.

White clay figurines

32. (165. I-23). Fragment of *Dea Nutrix* figurine, showing part of wicker-work of basket chair and drapery. 4.8 cm. Chapman (1973, 48 and Fig. 23, No. 20—and refs. cited); Rouvier-Jeanlin (1972, 166, Nos. 342-354). (Illustrated).
33. (861. I-32). Upper leg from a "Venus" figurine. 3.9 cm. Rouvier-Jeanlin (1972, 92 ff. *e.g.* 103 No. 43).

MEDIEVAL FINDS

Figurine

34. (1036. XV-17). Wendy McIsaac writes: A rather crudely made figurine of sandy red fabric with grey surfaces and an olive-green glaze. The middle of the figurine has been partially hollowed out. The small octagon is probably the base of a pedestal. Height 9.0 cm. (Illustrated).

Iron

35. (108. III-17). Small knife of "Scramasax" type. Blade of triangular section is set with three rivets of copper alloy; tanged handle. 10.2 cm. Ward-Perkins (1940, 52 and Pl. XI, 1 and 3). (Illustrated).
36. (496. IV-58). Knife of similar "Scramasax" form, but without the rivets. 9 cm. (Illustrated).
37. (63. I-12). "Scramasax" knife; tang set in remnant of wooden handle. 8.5 cm. (Illustrated).
38. (716. XV-15). "Scramasax" knife. 13 cm. Ward-Perkins (1940, 51 f. No. A310, Pl. XI, 2). Biddle (1959, 184, No. 33, Fig. 19—Manor of the More, Rickmansworth, Hertfordshire).
39. (1032. IV-48). "Scramasax" knife; tang inserted into complete wooden handle. 15 cm. Ward-Perkins (1940, 53, No. A3041, Pl. XI, 9). (Illustrated).
40. (69. IV-10). "Scramasax" knife, as last. 11.5 cm. (Illustrated).
41. (796. XV-21). "Scramasax" knife. End of blade missing. 12 cm.
42. (107. IV-28). Knife with broad blade, slightly convex in profile; tanged handle. 15.3 cm. Ward-Perkins (1940, 52 and Pl. XI, 6). (Illustrated).
43. (31. III-10). Blade of a knife with tang. Iron collar for handle. 17.5 cm. (blade 14.5 cm.). Blade is *c.* 3 cm. broad. (Illustrated).
44. (509. VI-26). Knife with strip tang that fans outwards; rivets of copper alloy survive in the two end holes of the handle. Two other holes have lost their rivets. 14.5 cm. Ward-Perkins (1940, 53 and Pl. XI, 12). (Illustrated).
45. (33. II-12). Knife with strip tang containing three rivet holes; most of blade is missing. Blade 3.5 cm. handle 8 cm. (Illustrated).
46. (59. IV-14). End of knife blade, single-edged and triangular in section. 8.4 cm.
47. (46. I-12). Section of knife blade (broken). 5.5 cm.
48. (82. I-12). Dagger, double-edged with tang. 14 cm. (Illustrated).
49. (13. IV-4). Barbed and socketed hunting arrow. 8 cm. Ward-Perkins (1940, 72 and Pl. XV, 29 and 31. Type XV). *G. M. Cat.* 276 No. 19, Pl. LXXXIX, 21. Ashmolean Museum 1920, 87 (Thame). (Illustrated).
50. (11. I-24). Arrow with head of quadrangular section, tapering to a point. Socketed. 7 cm. Ward-Perkins (1940, 68 f. Fig. 17, 7 and 71, Pl. XV, 22. Type VIII). Thompson (1957, 84 and Fig. 8B—Huttons Ambo, near Malton, Yorkshire), dated to the thirteenth century. (Illustrated).
51. (1. I-16). Fish-hook with barbed end. 5 cm. Dullely (1967, 28 and Fig. 65, 6—Pevensy, Sussex). (Illustrated).
52. (54. I-12). Fish-hook. Type as last. 3.5 cm. (Illustrated).
53. (29. III-10). Pair of shears. 9.5 cm. Ward-Perkins (1940, 55 and Pl. XXXII, 1 and 3. Type II). (Illustrated).

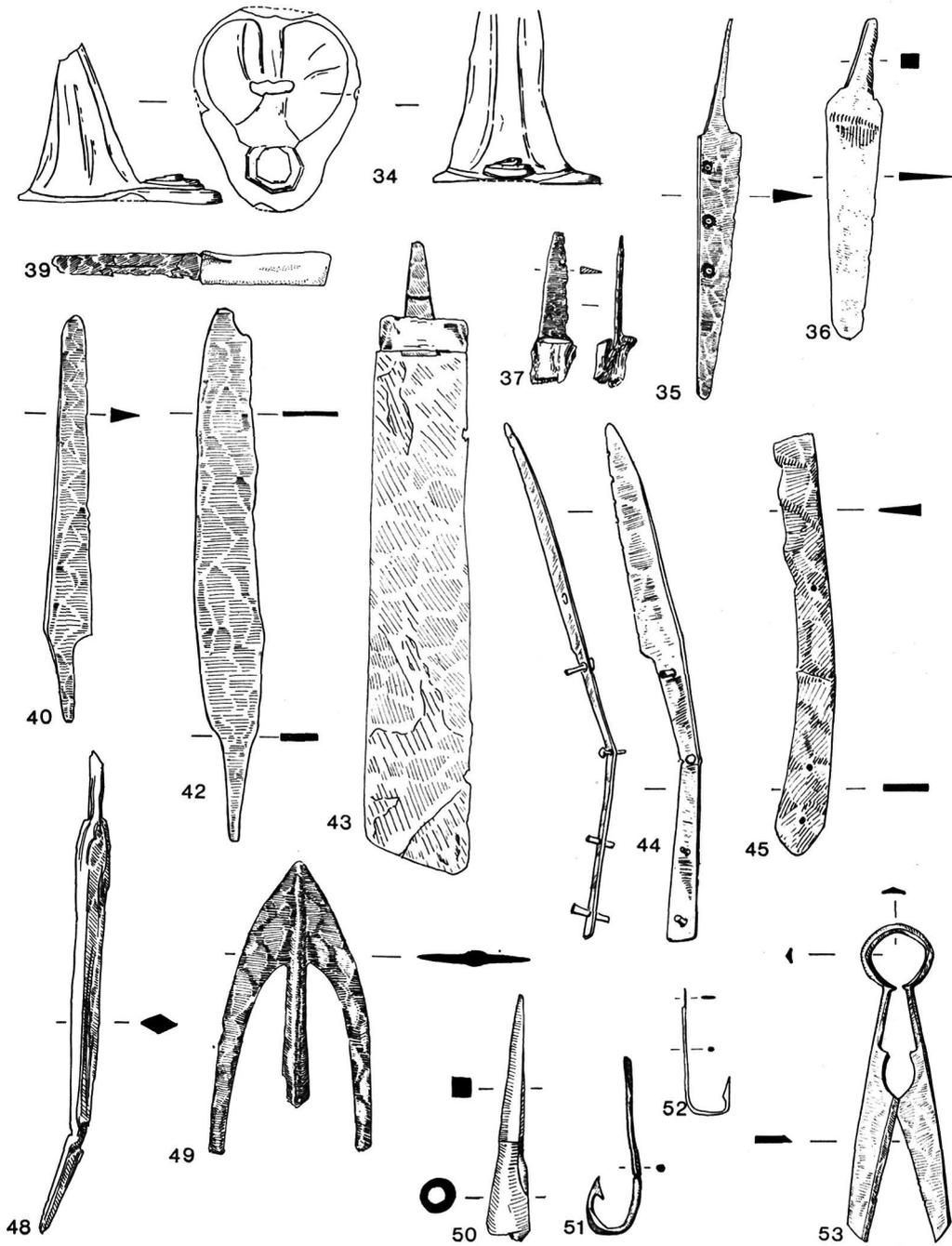


Fig. 37.—Custom House site; small finds 34–53 ($\frac{1}{2}$), except 37 and 39 ($\frac{1}{4}$)

54. (36. III-10). A fragment from a similar pair of shears, comprising a piece of the looped spring and the handle of one blade. 4.5 cm.
55. (109. III-17). Tweezers, looped at the centre and with spatulate arms. These each terminate in a trefoil device of which the outer points are rudimentary. The central projection is a pronounced claw which is designed to grip the opposing extension. 12 cm. Myres and Green (1973, 106-8, for iron looped tweezers from Anglo-Saxon contexts, which stand at the beginning of the tradition represented by the Custom House example). (Illustrated).
56. (7. IV-42). Spoon-bit. 9.3 cm. Biddle (1961-2, 177 and Fig. 30, 3.—Seacourt, Berkshire). Rahtz (1969, 87 and Fig. 48, No. 79). (Illustrated).
57. (61. III-14). Twist-bit from an auger. 7 cm. (Illustrated).
58. (88. I-12). Bit, tapered at both ends. 14 cm. (Illustrated).
59. (40. I-12). (?)Bit with tang. 6.6 cm. (Illustrated).
60. (628. V-16). (?)End of a bit. 8.5 cm.
61. (26. III-10). Horseshoe, complete, with four rivet holes on each side. 13.5 cm. For the type, Ward-Perkins (1940, 115 and Fig. 36, 12—Visby, Gotland, A.D. 1361). Biddle (1961-2, 180 and Fig. 30, 19—Seacourt, Berkshire). Huggins (1970, 144 and Fig. 56, 2 and 1972, 121-124, Fig. 32, 1-9—Waltham Abbey, Essex). Richardson (1959, 100 f, Fig. 28, 7—Hungate, York). (Illustrated).
62. (49+50. I-12). Two pieces of horseshoe, perhaps from the same artifact:
 (a) Over half a horseshoe with three rivet holes containing rivets. 11 cm. (Rivets 2.5 cm.).
 (b) Piece of horseshoe with one rivet hole. (Illustrated).
63. (987. XII-4). Horseshoe: half survives with three rivet holes, two with rivets surviving. 12 cm. (Rivet 3 cm.).
64. (701. XV-16). Piece of horseshoe (most of one side) with four rivet holes. 11 cm.
65. (224. II-19). Swivel attached to chain link from which two rings lead off to strap ends, each riveted to a piece of leather. Probably from horse harness. Link and swivel c. 9 cm. (Illustrated).
66. (79. I-12). Hook with three links of a chain (ovoid, but pinched inwards at the mid-point). 12 cm. (Length of hook 4 cm., length of each link c. 3 cm.). (Illustrated).
- 67*. (10. I-22). Spike with square section and hollow socket, perhaps a ferrule used as an ox-goad. 6.6 cm. Similar objects are found in Roman contexts (e.g. Frere, 1972, 188, Fig. 69, No. 120) and in medieval ones. (Bryant and Steane, 1971, 53 and Fig. 13b). (Illustrated).
- 68*. (9. I-23). T-shaped attachment with kink in upright arm. In each extremity is a rivet hole. Perhaps from a bucket. 6.5 cm. (Illustrated).
69. (677. XII-3). Pricket candle holder consisting of a spike between volutes and with vertical "spiked" base. 13 cm. (Illustrated).
70. (704. XIV-5). Pricket. Type as last. 14 cm. (Illustrated).
71. (486. IV-55). Pricket, as last, but spiked base is at right-angles. 7 cm. (Illustrated).
72. (643. VII-10). Candlestick with socketed holder and one volute. Spiked base at right-angles, as last. 10 cm. Richardson (1959, 100 and Fig. 28, No. 6—Hungate, York). (Illustrated).
73. (34. III-10). (?)Spike at base of candlestick. 4.5 cm. Ward-Perkins (1940, 182 and Fig. 56, 2). (Illustrated).
74. (55. I-12). Key. 5.8 cm. Note silvery colour of metal. Ward-Perkins (1940, 139 and Pl. XXX, 27, Type IV). Biddle (1961-2, 182 and Fig. 31, Nos. 8-10—Seacourt, Berkshire). (Illustrated).
75. (489. IV-56). Key (bow and part of stem). 6.5 cm. Richardson (1959, 100 f, Fig. 28, 1 and 2—Hungate, York) for moulding at top of stem below bow. (Illustrated).
76. (631. V-16). Handle (?)key of barrel padlock, but shank is circular in section. 8.3 cm. Ward-Perkins (1940, 149, Fig. 45). Biddle (1961-2, 180 and Fig. 31, No. 1—Seacourt, Berkshire). Rahtz (1969, 85 and Fig. 47, No. 45 f). (Illustrated).
77. (77. I-12). (?)Handle to key of barrel padlock. 6 cm. Ward-Perkins (1940, 148, Fig. 44, 2). (Illustrated).
- 78*. (8. I-24). (?)Plain buckle consisting of loop and pin. The pin consists of a strip of metal bent over and hammered together along its total length. Width 4.5 cm., pin 5 cm. Perhaps Roman, but more probably of medieval date.
79. (53. III-10). Buckle of plain type, with loop of pin bent over. Width 3.5 cm., pin 3.5 cm. Biddle (1961-2, 179 and Fig. 30, No. 15—Seacourt, Berkshire). (Illustrated).
80. (799. XV-21). Buckle with projecting "tongue". Pin missing. Width 6.3 cm. (depth including tongue 4.5 cm.). Fingerlin (1971, 455, No. 475 and Fig. 167—Visby, Gotland, A.D. 1361). Biddle (1961-2, 179 and Fig. 30, No. 17—Seacourt, Berkshire). Bryant and Steane (1971, 59 and Fig. 15, C5). (Illustrated).

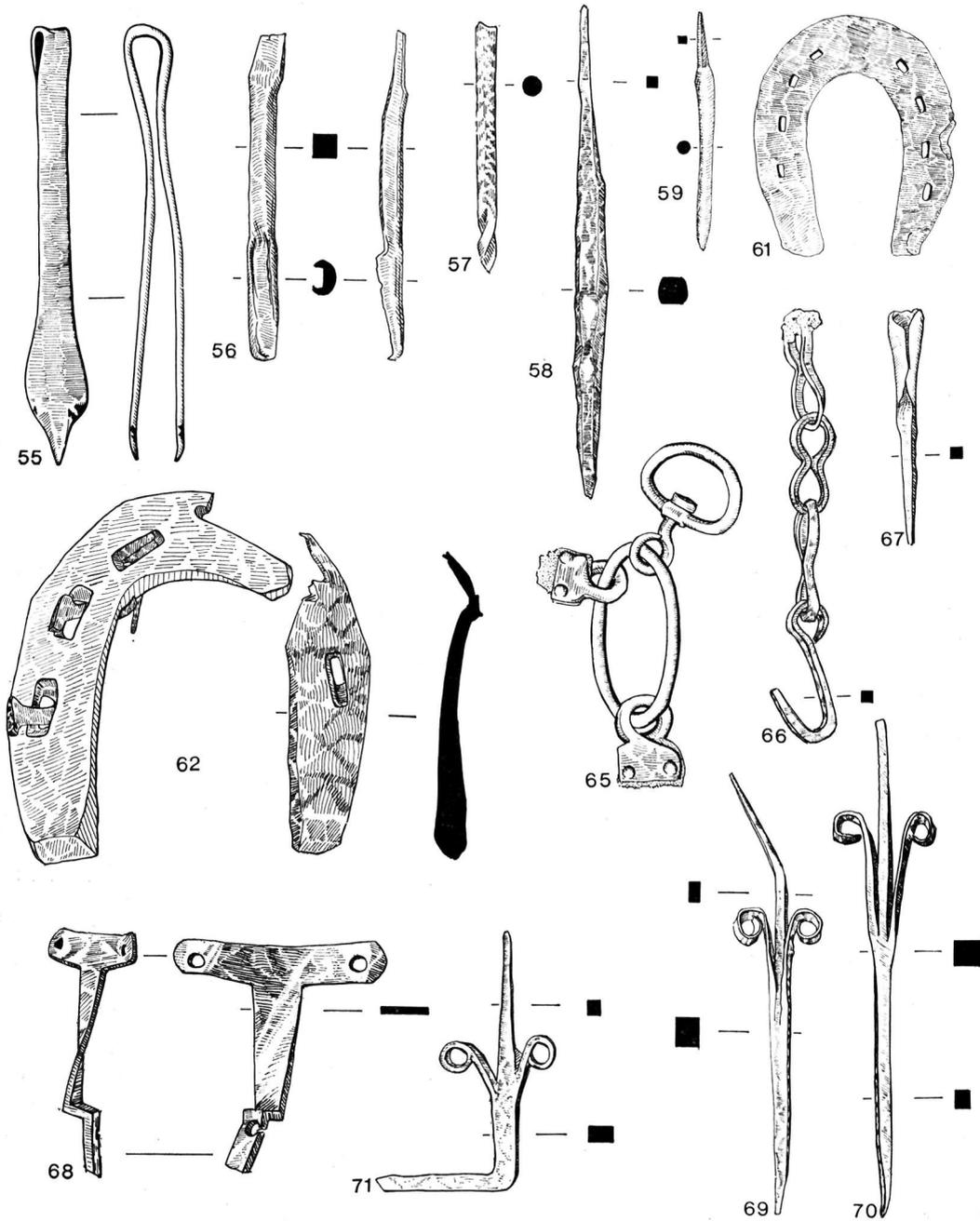


Fig. 38.—Custom House site; small finds 55-71 ($\frac{1}{2}$), except 61 ($\frac{1}{4}$)

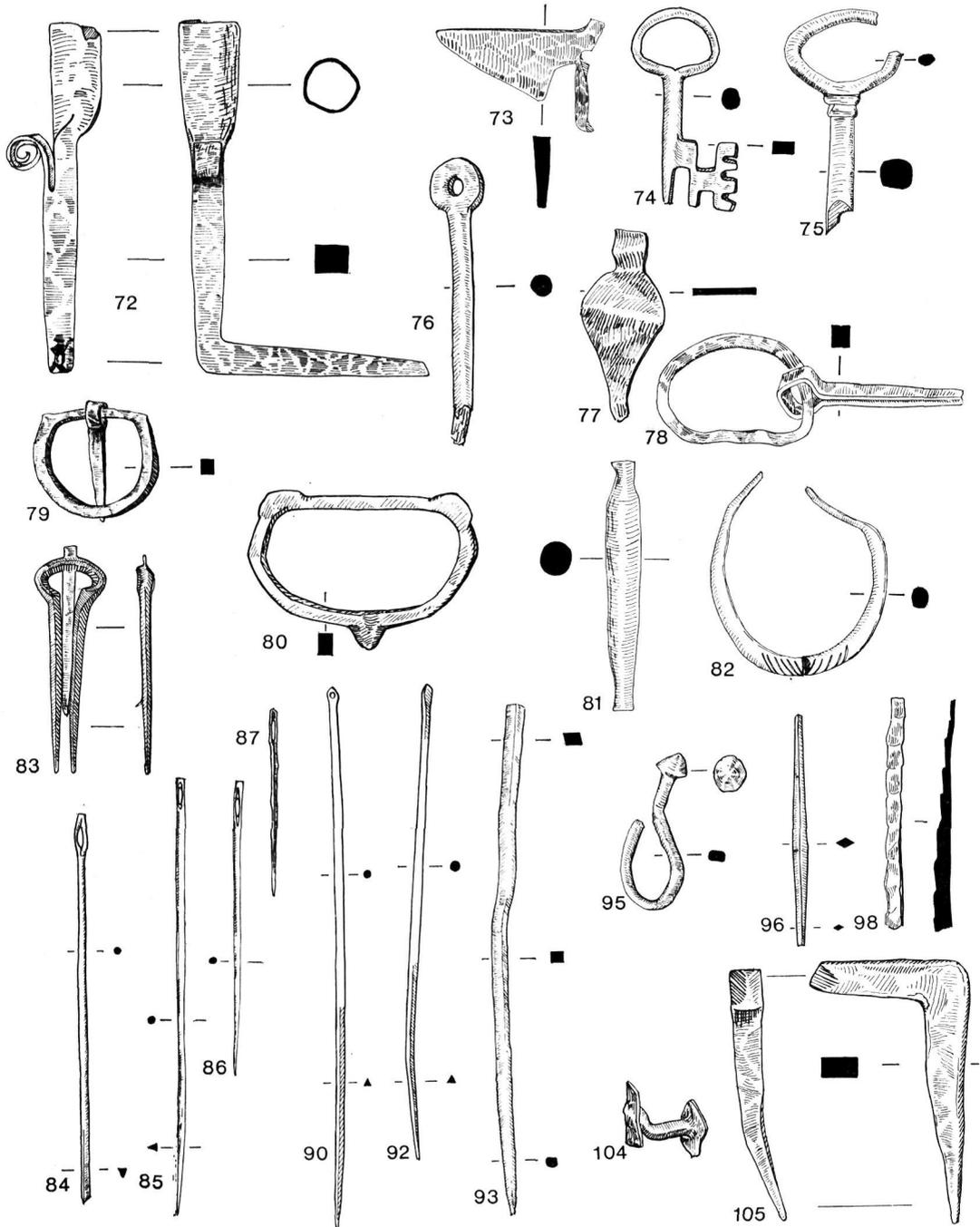


Fig. 39.—Custom House site; small finds 72-105 ($\frac{1}{2}$)

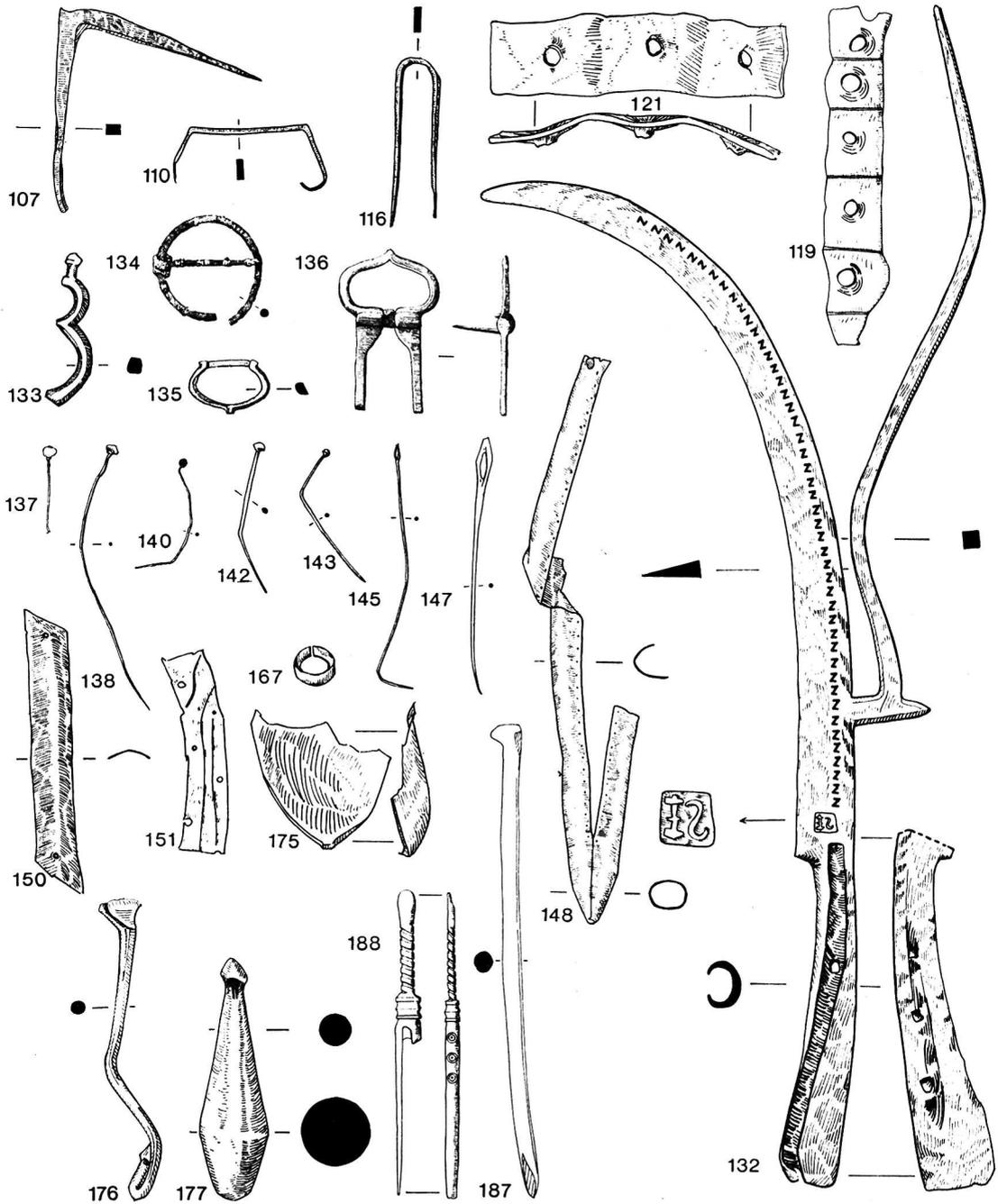


Fig. 40.—Custom House site; small finds 107–188 ($\frac{1}{2}$), except 132 ($\frac{1}{4}$)

81. (91. I-12). Cylindrical bar of iron from a harness-buckle. 7.1 cm. Ward-Perkins (1940, 277 and Pl. LXXIX, 1 and 2). (Illustrated).
82. (75. I-12). Loop of buckle of strap-end type, thickening towards centre. Filled decoration on either side of deeper grooves, where the pin is "bedded". External diameter 5 cm. (Illustrated).
83. (30. III-10). Jew's Harp consisting of a piece of metal fashioned with two prongs and with a tang welded between them. 6.5 cm. Note that end of tang is missing. Elliston-Erwood (1958, 200f—Lesnes Abbey, Erith) and other examples cited. All are of bronze and lack original tang. (Illustrated).
84. (64. IV-14). Needle or bodkin. The tip is triangular in section. 11.1 cm. (Illustrated).
85. (41. III-10). Needle. 12.7 cm. (Illustrated).
86. (41. III-10). Needle. 8.5 cm. (Illustrated).
87. (96. III-16). Needle. 5.5 cm. (Illustrated).
88. (16. XV-16). Needle. Most of the eye is missing. 13.2 cm.
89. (78. III-10). Needle. Most of the eye is missing. 5.3 cm.
90. (37. I-12). Needle or bodkin; splayed head and large eye. The tip is triangular in section (15.5 cm. Diameter of eye 0.2 cm.). (Illustrated).
91. (838. XV-25). Needle. 7.0 cm.
92. (58. I-12). Pin with flattened head. 13.9 cm. (Illustrated).
93. (97. III-16). Pin. 15.0 cm. (Diameter of head 0.5 cm.). (Illustrated).
94. (850. IV-48). Pin. 7.2 cm.
95. (67. III-10). Hook, with head in the form of a domed stud. 4.5 cm. (Illustrated).
96. (518. VI-26). Bar of iron, diamond-shaped section; tapering at each end. Perhaps part of a tool (awl or piercer). 8.7 cm. (Breadth 0.5 cm. at mid-point, 0.25 cm. at the ends). *G. M. Cat.* 53 f, Nos. 81, 82, 116. (Ac. Nos. 1584, 1585, 1619). Also Ac. No. 13404. (Illustrated).
97. (517. VI-26). Bar of iron, quadrangular section. 10.2 cm. (Breadth c. 0.5 cm. at one end and 0.2 cm. at the other).
98. (860. VI-26). Piece of iron, flattened by hammering for half of its length. 6.7 cm. (Illustrated).
99. (491. IV-60). Rod of iron, bent. 16 cm.
100. (110. III-17). Strip of iron, perhaps a handle. 8 cm. It tapers from 0.9 cm. in centre to 0.3 cm. at each end.
101. (32. III-10). Iron ring, rudely worked, with lapped ends. Diameter 3.0 cm.
102. (498. IV-56). Iron object, consisting of a tang with expanded head; lobe on each side. 4.2 cm.
103. (60. I-12). Rivet with circular head and diamond-shaped washer. 5 cm. The type was used in the construction of clinker-built boats. (See also Plate 5). Dullea (1967, 228, Nos. 7 and 8—Pevensy, Sussex). Ó'Riordáin (1971, 76 and 82, Fig. 24—Dublin).
104. (98. I-14). Rivet. Type as last. 1.8 cm. (Illustrated).
- 105-109. Angle brackets, with arms at right-angles one to the other. The length of each arm is given (86. I-12) 7.5 and 3.0 cm. (Illustrated); (86. I-12) 6.0 and 3.0 cm.; (90. I-12) 5.0 and 5.0 cm. (Illustrated); (185. IV-14) 5.0 and 3.0 cm.; (100. V-8) 5.5 and 3.0 cm.
- 110-118. Staples. (795. XV-18) 3.5 cm. (Illustrated); (519. IV-56) 3.0 cm.; (512. VI-26) 5.0 cm.; (727. XXI-7) 6.0 cm.; (84. II-16) 8.0 cm.; (83. III-16) 5.0 cm.; (72. I-12) 5.0 cm. (Illustrated); (836. XV-24) 4.0 cm.; (675. XV-+) 11.0 cm. The last two are respectively from seventeenth- and eighteenth-century levels and may be post-medieval.
- 119-128. Strips of iron with rivet holes in them. (719. XV-17) 5 rivet holes, 9.8 cm. (Illustrated); (57. III-10) 4 rivet holes 14.0 cm.; (793. XIII-5) 3 rivet holes 8.4 cm. (Illustrated); (627. VI-26) 2 rivet holes 8.0 cm.; (712. XII-5+7) 2 rivet holes 5.2 cm.; (500 IV-60) 2 rivet holes 9.0 cm.; (497. I-26)* rivet hole 2 cm.; (857. IV-58) rivet hole 7.0 cm.; (14. I+) rivet hole 5.6 cm.; (487. III-36)* 2 rivet holes 7.5 cm.
- 129-131. Nails. (798. XV-21) 10.5 cm.; (35. I-12) 12.2 cm.; (638. VI-26). 3.1 cm.
132. Welsh Hook; a bill with a scythe-shaped blade and a long vertical back spike now bent. On the blade the maker's initials and a decorative series of stamped or engraved Z-shaped marks. c. 68 cm. Dr. Borg of the Tower Armouries, who kindly supplied the references cited below, points out that the Welsh hook (or Forest bill) usually incorrectly identified as a guisarme, is in fact English. Bills with open or wrap-over sockets are an insular speciality.
- Datable examples from the site of the battle of Sedgemoor (Taunton Castle Museum. H. St. George Gray, "Some relics of the Monmouth Rebellion in Somerset", *Connoisseur*, Feb. 1903, 116-119), in the Ludlow Castle Museum (date 1688 on the blade) and in Salisbury Museum (from Amesbury. H. Shortt, *A Souvenir of Salisbury Museum*, 1957, 6. Date 1731 on the haft) were made in the seventeenth

or eighteenth centuries, but the type seems to have originated in the sixteenth, to which time the Custom House specimen may be assigned—at least tentatively. Unfortunately the Welsh Hook was retained by the finder and is not now available for examination. (Illustrated).

Copper Alloy

133. (39. I-12). Part of a drop-handle or a pendant with lobed sides. 4.4 cm. (Illustrated).
134. (28. III-10). Penannular brooch, hoop circular in section. Elaborately decorated with lateral grooving that alternates with groups of concentric bands on both hoop and pin. Diameter c. 3.0 cm. Ward-Perkins (1940, 273-276, especially No. A2667, Pl. LXXVII, 2). Evans (1953, 57 f and Pls. XII-XIII. "The fourteenth century witnessed a steady development of the ring-brooch towards a less utilitarian design."). (Illustrated).
135. (51. I-12). Strap-end buckle; pin missing. Width 2.1 cm. Ward-Perkins (1940, 272, No. A2564, Pl. LXXV, 8). Rahtz (1966, 71 and Fig. 6, No. 40—Kenilworth, Warwickshire). Fingerlin (1971, 114, Figs. 181-187). (Illustrated).
136. (697. XIII-2). Strap-end buckle of pronged type, with flattened pin. Length 4.7 cm. Width 2.8 cm. Ward-Perkins (1940, 272, No. A3150, Pl. LXXV, 2). Fingerlin (1971, 333 No. 63 (Fig. 198—Rischolm), 380 No. 185 (Fig. 186—London), 384 No. 205 (Fig. 202—Bury St. Edmunds), 386 No. 218 (Fig. 182—Dunwich), and 399 No. 296 (Fig. 185—London), all assigned to the second half of the fourteenth century). (Illustrated).
137. (95. V-8). Pin with stone (probably red jasper) head. 2.5 cm. (Illustrated).
138. (48. I-12). Pin with (?)red jasper head; type as last. 8 cm. (Illustrated).
139. (44. I-12). Pin with bead of (?)lead as head. 8 cm.
140. (4. I-20). Pin with bead of (?)lead as head. Type as last. 4 cm. (Illustrated).
141. (705. XIII-4). Pin. Head missing? Originally of lead. 3.2 cm.
142. (674. XI-5). Pin with bead of (?)lead as head. Type as last. 4.7 cm. (Illustrated).
143. (2. I-16). Pin with domed head. 4.5 cm. Kenyon (1948, 262, Fig. 89, No. 9). Rahtz (1969, 87 and Fig. 49, No. 97). (Illustrated).
144. (485. V-8). Pin with domed head. Type as last. 6.2 cm.
145. (62. III-10). Needle with "open" eye, perhaps a netting-needle. 8 cm. Wheeler (1930, 105, Pl. XLII, Nos. 11-14), but these have a head at each end. The Custom House example has only one (but possibly another has broken away). I see no reason to doubt its medieval dating. (Illustrated).
146. (490. IV-60). Needle. One side of eye missing. Very thin. 4.5 cm.
147. (918. XI-5). Needle; lozenge-shaped eye. 7.5 cm. Thompson (1957, 84 and Fig. 8C). (Illustrated).
148. (797. XV-18). Binding of scabbard chape; somewhat rough work. c. 17 cm. (Illustrated).
149. 791. XV-19). Bent strip of (?)scabbard binding with U-shaped end. Rivet hole in it; twisted. 5 cm.
150. (102. IV-26). Strip of metal with a raised spine running down it. A small hole at each end (?mounting from box). 8.5 cm. (Illustrated).
151. (715. XIII-3). Small strip of metal with six small rivet holes. Roughly etched decoration on one surface (?mounting). 6 cm. (Illustrated).
- 152*. (74. I-10). Washer. Diameter 0.8 cm.
153. (6. IV-45). Washer. Diameter 1.1 cm.
154. (43. III-10). Disc of brass with a small depression in the centre of one side. Diameter 2 cm.
- 155-166. A number of *off-cuts* from sheets of copper alloy suggest that metal-working was conducted on the site. (700. XIV-5); (17. I-20); (720. XII-7); (507. VI-26); (696. XII-12); (714. XIV-9); (504. V-8); (16. IV-54); (70. I-12) with rivet holes; (27. I-12); (713. XII-7); four *off-cuts*; (101. I-15).
167. (502. IV-48). A ring made by bending a piece of metal over onto itself. Diameter 1.2 cm. (Illustrated).
- 168-173. *Wire* (492. IV-58) 18 cm.; (56. I-12) c. 26 cm.; (42. I-12) c. 48 cm.; (18. I-20) c. 2.5 cm.; (5. I-14) c. 13 cm.; (20. II-16) c. 21 cm.
174. (501. VII-+). A (?)post-medieval buckle, which retained traces of silvering was also found. The pin had almost entirely disintegrated. Length 3.7 cm.; breadth 3 cm.

White Metal and Lead

175. (508. IV-60). Leaf-shaped bowl of spoon (part). White Metal. 4 cm. Breadth 4 cm. Ward-Perkins (1940, 133, No. A10165, Pl. XXVI, 1). (Illustrated).
176. (80. IV-25). Pewter handle of spoon. Diamond-knop. Most of the bowl is missing. 10 cm. Ward-Perkins (1940, 132 No. A38, 277, Pl. XXVII, 5). (Illustrated).
177. (111. I-12). Lead plumb-bob; elongated shape. 7 cm. (Illustrated).

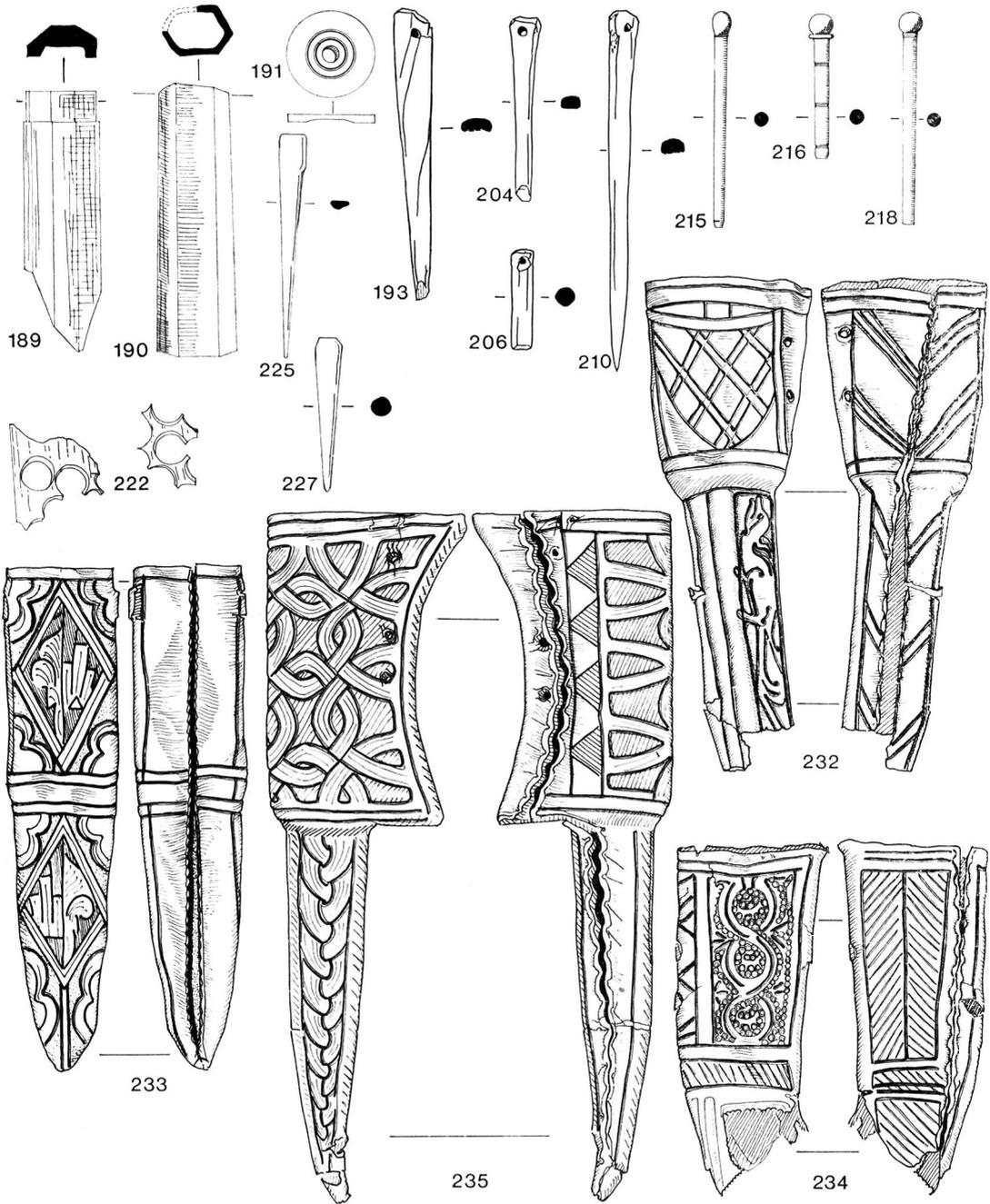


Fig. 41.—Custom House site; small finds 189–234 ($\frac{1}{2}$) except 193, 204, 206, 210 ($\frac{1}{4}$)

178. (86. V-8). (?) Lead disc with criss-cross decoration on both sides. On one side a shield seems to be intended. Perhaps a counter. Diameter 1.4 cm.
179. (45. I-12). Piece of lead sheet with rivet holes in it. 4 cm.
180. (94. I-12). Piece of very thin (?) lead sheet, folded over onto itself.
- 181-185. Note the following off-cuts of lead. (494. IV-58); (89. III-14); (93. I-12); (633. III-27); (675. XI-+).
186. (688. XIII-1). A lead weight made by rolling a sheet of lead round onto itself to form a cylinder. c. 5.5 cm. Diameter 3.5 cm. Probably eighteenth century.

Bone

187. (260. II-18). Right radius of goose (*Gallus domesticus*) with obliquely cut end; traces of black staining. 13 cm. Moorhouse (1972, 43 and Fig. 7, 12—Dominican Friary at Boston, thirteenth century. Examples from Coventry and Norwich cited). Perhaps used as a pen or—more probably—as an insertion into the broken end of a quill in order to lengthen it. (Illustrated).
188. (533. V-8). Toilet implement consisting of tweezers with a handle that ends in a shallow ear-scoop. Made in one piece from a metapodial of sheep or deer. A prong from the tweezers has broken away. Decoration consists of incised, concentric circles on the tweezers and corkscrew-cutting on the handle. 9 cm. *G. M. Cat.* 121, Nos. 97, 98, Pl. LII, 4 and 5. (Ac. Nos. 3999, 4000). (Illustrated).
189. (805. XIII-3). Knife handle with faceted sides and a groove around one end to take the collar. Only part survives (with traces of five facets); probably it was originally octagonal. (*Bos* long bone). 7.5 cm. (Illustrated).
190. (249. IV-54). Knife handle, roughly hexagonal in section. (*Bos* radius). 8 cm. (Illustrated).
191. (264. I-11). Button with central hole, surrounded by concentric grooves. Diameter 2.4 cm. Rigold (1971, 148 f. Fig. 11, 0.3.—Eynsford Castle). Kenyon (1948, 266 f. Fig. 91, No. 14). (Illustrated).
- 192-213. Bone awls used for coarse sewing, with perforation at one end, and a point at the other. (858. XV-19). *Ovis* radius 13 cm. (point broken away), diameter of perforation 0.3 cm.; (844. XV-25). *Bos* tibia 16.5 cm., perforation 0.3 cm. (Illustrated); (801. XV-15) *Dama* tibia, point only 10.5 cm.; (800. XV-22). *Dama* tibia, 16.5 cm., perforation 0.3 cm.; (695. XV-15). *Bos* tibia, 17 cm., perforation 0.3 cm.; (666. VI-26). *Bos* tibia, 13 cm. (point broken away), perforation 0.3 cm.; (277. II-6). metacarpal, 14.2 cm., perforation 0.3 cm.; (275. II-14). tibia, 12.5 cm., perforation 0.2 cm.; (272. II-12). Metapodial, 12.5 cm., perforation 0.4 cm.; (270. II-12). *Ovis* radius, 13.4 cm., perforation 0.3 cm.; (263. I-12). *Ovis* metatarsal, 12.7 cm., double perforation 0.3 and 0.15 cm.; (262. I-12). *Dama* metacarpal, 16 cm., perforation 0.5 cm.; (259. I-12). *Ovis* radius, 10.7 cm. (point broken away), perforation 0.5 cm. (Illustrated); (258. IV-23). *Ovis* tibia, 10.8 cm. (point broken away), perforation 0.3 cm.; (257. I-12). metapodial, 5.7 cm. (point broken away), perforation 0.4 cm. (Illustrated); (255. IV-14). *Bos* tibia, 14.8 cm., perforation 0.3 cm.; (254. I-14). *Bos* radius, 17.5 cm., perforation 0.5 cm.; (253. I-14), *Bos* metatarsal, 15.5 cm., perforation 0.7 cm.; (250. V-8). *Dama* metapodial, 21 cm., perforation 0.3 cm.; (246. IV-51). *Dama* tibia, 14.5 cm., perforation 0.5 cm.; (1033. V-8). *Dama* tibia, 16 cm. (point broken away), perforation 0.3 cm.; (1034. VI-26). Point only, 2.7 cm. Rahtz (1969, 81 and Fig. 43, No. 1). Haslam (1973, 84 and Fig. 3, No. 17—Aldersgate Street).
214. (534. V-8). Bodkin or "stylus". Spherical head with groove below. Small hole in end for iron pin. 7.3 cm. For "styli", Knocker (1959, 145—Clare Castle). Rigold (1971, 148 f. Fig. 11, 0.2—Eynsford Castle).
215. (271. III-2). Bodkin or "stylus". Type as last. 6.2 cm. (Illustrated).
216. (265. I-12). Bodkin or "stylus". A triple groove appears at three places on the shank; end broken away. 4 cm. (Illustrated).
217. (268. III-10). Bodkin or "stylus" with sub-spherical head, two grooves below; end broken away. 4.7 cm.
218. (256. I-12). Bodkin or "stylus" (from femur of domestic fowl) with spherical head and two grooves below; remains of iron pin at end. 6.2 cm. (Illustrated).
219. (269. III-10). Bodkin or "stylus" with onion-shaped head; small hole at end for pin. 7.7 cm.
- 220*. (244. I-20). Small piece of worked bone (domestic fowl); from the shank of a pin. 4.4 cm.
221. (266. II-12). Piece of rib with perforation in it. 4.5 cm.; perforation 0.4 cm.
222. (803. XV-17). Two pieces of bone from which discs (? buttons), diameter 0.9 cm., have been cut. (Illustrated).
223. (802. XIII-3). Peg of bone, roughly circular in section, with a point. 7.3 cm.
224. (245. V-8). Piece of bone roughly cut down to a point. 11 cm.

225. (536. IV-58). Similar (from *Sus*, ulna). 6.5 cm. (Illustrated).
 226. (276. I-4A). Similar. 5.3 cm.
 227. (267. III-10). Similar. 4.5 cm. (Illustrated).
 228. (862. XII-3). Tine of antler (*Capreolus capreolus*) sharpened to a point. 13 cm.
 229. (684. XI-4). Offcut of brow tine of antler. 13 cm.
 230. (248. III-36). Bone off-cut. 9.7 cm.
 231. (273. II-9). Bone off-cut. 7.2 cm.
 231a. (1035. XV-14). Bone off-cut (rib). 10.8 cm.

Alison Fleck-Abbey writes: Long bones from *Bos*, *Dama* and *Ovis* were used for the manufacture of many of these objects listed above. Where identification is not specific (e.g. "metapodial") it is probable that the bone is from *Dama*.

Leather

The following are sheaths, engraved or stamped with ornamental devices

232. (829. VI-26). Upper part, widened to take knife handle, engraved with a shield; a dragon is shown on the longer lower zone. On the back is a shield (also note two holes for rivets). End missing. 14.3 cm. For monsters engraved on sheaths see Richardson (1959, 102 f, Fig. 29 and Pl. VII No. 1—Hungate, York). *G. M. Cat.* 145, No. 78 (Ac. No. 4643). (Illustrated).
 233. (299. VI-25). Sheath in light-coloured leather with heraldic device. 14.5 cm. Type as Ward-Perkins (1940, 193 and Fig. 60 No. 1—fourteenth century, engraved with a blunt tool). (Illustrated).
 234. (227. I-12). In the upper register a stamped pattern showing lions against a background of dots. The lower zone almost completely vanished but the outline of a shield remains. 9 cm. On the back of the sheath is some simple herring-bone decoration. Cf. Ward-Perkins (1940, 191 and Pl. L, 3, No. A3682); also Richardson (1959, 103, Fig. 29 and Pl. VII No. 4—Hungate, York). Both are referred to the fifteenth century, but our example suggests a somewhat earlier dating. (Illustrated).
 235. (835. Pile Hole 1). Sheath engraved with interlace pattern in two zones. 19 cm. Ward-Perkins (1940, 191 and Pl. XL, 1, No. A3684—scribed to the fourteenth century). Ó'Ríordáin (1971, 75 and Pl. VI D—assigned to the late twelfth or early thirteenth centuries, probably incorrectly. Dublin). (Illustrated).
 236. (226. III-10). Fragment of sheath, type as above. 6 cm. (Illustrated).
 237. (513. III-17). Sheath with stamped decoration of rosettes. 15.5 cm. Ward-Perkins (1940, 191 and Pl. XLII, 1, No. A3666 (with *fleurs-de-lis*) ascribed to the fifteenth century). (Illustrated).
 238. (300. IV-55). Strap set with rectangular studs of copper alloy. Length 18 cm., width 0.7 cm. Studs 2.7 cm. apart. Ward-Perkins (1940, 195 and Fig. 63, No. 10). (Illustrated).
 239. (859. I-12). Strap set with studs of copper alloy. Length 21 cm.; width 0.9 cm. Type as last but studs are closer together. (Illustrated).
 240. (515. II-14). Strap with iron handle. Length 17 cm. (buckle and plate 2.0 cm.); width 0.7 cm. Ward-Perkins (1940, 198 and Fig. 63, No. 7, A3691). (Illustrated).
 241. (514. I-12). Pieces of leather with studs in edges, perhaps from shoe-uppers.
 242. (846. XIII-3). Pieces of thin leather with slight traces of gilding.

N.B. All other medieval leather objects will be published next year. This includes a very large number of cobblers' off-cuts and shoes.

Wood

243. (157. I-12). Wooden chessman, with moulding running horizontally around "waist" and vertically up sides. Probably a bishop. Height 3.3 cm.; diameter at base 2.6 cm. For bone examples cf. Wheeler (1927, 46 f and Fig. 26, 1 and 2, "included in the Viking period with all reserve"). Bryant and Steane (1971, 67 f, Fig. 19a and Pl. 18—Lyveden and examples cited). (Illustrated).
 244. (852. III-17). Conical object with slightly convex base. Probably a gaming-piece. Height 5.2 cm.; diameter at base 2.3 cm. For stone and shale examples cf. Eogan (1967-8, 366 and Pl. LVIIIa - Knowth, Co. Meath. He cites examples from Birka, also of the Viking period). (Illustrated).
 245. (149. I-12). End of a comb decorated in fretwork. The teeth of the comb are cut on two modules. 4 cm. Width 6.4 cm. (Illustrated).

Several other wooden combs will be published next year.

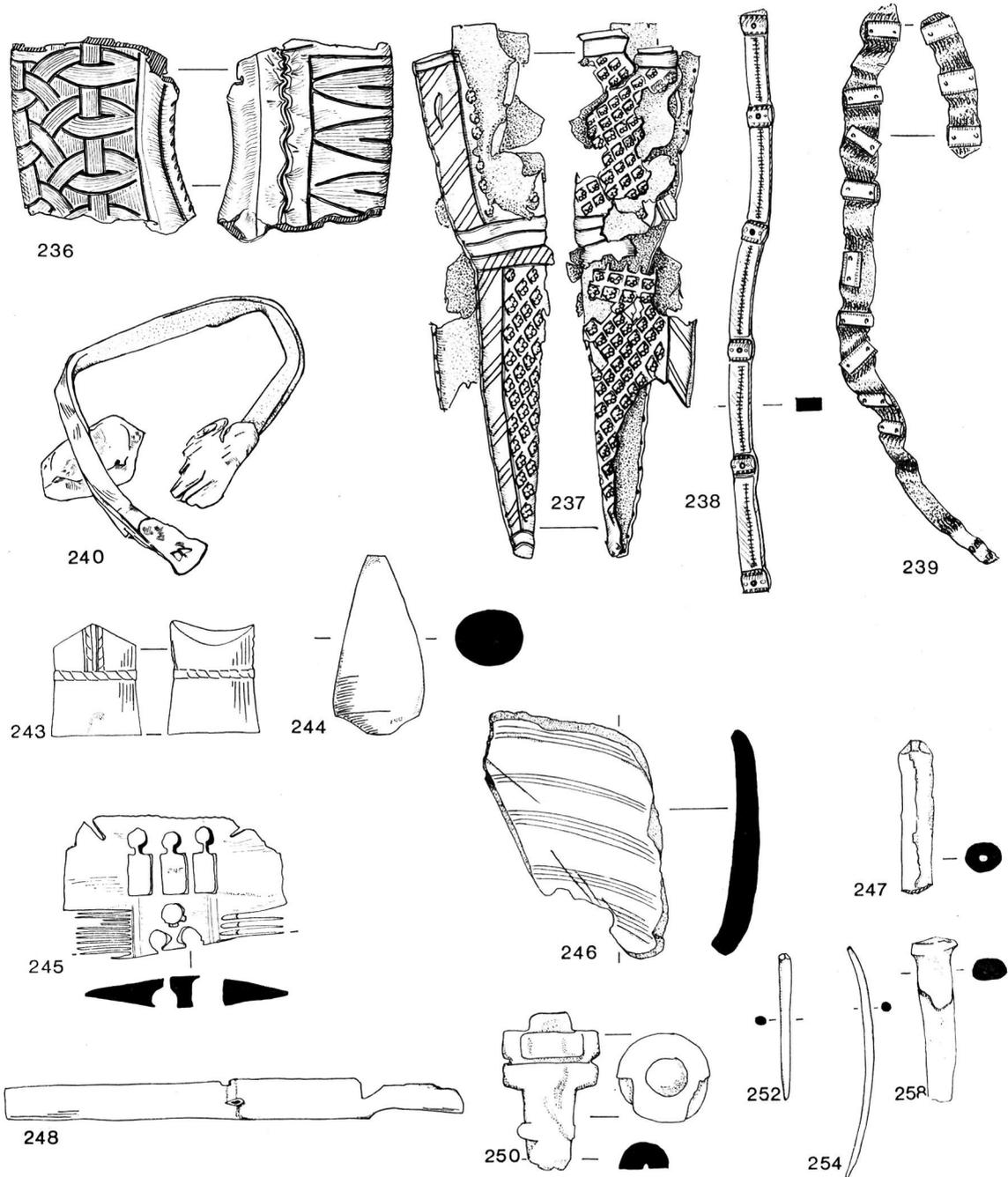


Fig. 42.—Custom House site; small finds 236–246 ($\frac{1}{2}$), and 247–258 ($\frac{1}{4}$)

246. (818. XIII-4). Piece of turned bowl. 6 cm. Biddle (1959, 182 and Fig. 18, 23 and 24—Manor of the More, Rickmansworth). (Illustrated).
247. (122. I-12). Handle for knife; at one end is a hole for the tang. 8.3 cm. (Illustrated).
248. (112. III-10). Label or tally. A strip of wood with a notch at the handle end, and thinned down at the other end of the stave. 27 cm. Thickness 0.4 cm. at one end; 0.2 cm. at the other. For the use of tallies, Dalton (1924, 133 f). (Illustrated).
249. (616. IV-58). Flat strip of wood with a hole cut through it. 12 cm. Possible from a similar label.
250. (669. VII-10). A cylinder with horizontal groove through which runs a cylindrical shaft or axle. Perhaps a piece of tackle or part of a hawser. 9.5 cm. (Illustrated).
- 251-256. Thin pins or pegs, all from a fourteenth-century context. (124. I-12) 5.3 cm.; (125. I-12). 8.8 cm. (illustrated); (261. III-10) 7.0 cm.; (673. VI-26) 15.0 cm. (illustrated); (819. XV-16) 15.5 cm.; (671. IV-48) 8.5 cm.
257. (617. III-38). Peg, somewhat thicker than above. 6 cm.
258. (816. XV-13). Peg, roughly cut. 9.5 cm. (Illustrated).
259. (851. I-14). Peg, roughly cut. 22 cm. A small strip of leather found wedged through its split end appears to be an accidental intrusion. 14 cm.
260. (159. I-12). Roughly-cut piece of wood. 14 cm.
261. (142. III-10). Roughly-cut piece of wood. 4.5 cm.

The finds from the medieval levels (thirteenth and fourteenth centuries) are particularly revealing about life on the waterfront in the High Middle Ages. Alongside fishing (fish-hooks) and (?)fowling (hunting arrow), there is evidence for industrial activity in the various tools, off-cuts of copper alloy and the bone awls (although these may have been used to make or repair fishing-nets). Sewing of finer quality is represented by the bodkins and needles from the site. The turbulence of the period is suggested by the dagger and the sheaths, but the lighter side of medieval life is also represented—in the Jew's Harp and wooden gaming-pieces. Amongst other objects, the candlesticks call for special mention. At night the area would have been dark, forbidding and dangerous, and such means of artificial lighting as existed must surely have taken a high priority amongst the possessions of those who dwelt there.

THE MEDIEVAL BUCKLER (FIGS. 43—44)

BY DR. G. C. DUNNING

As far as I know, this is the first reasonably complete buckler of medieval date to be found in this country. There are three points about it that require comment:

1. Its small size, only about 11 in. in diameter. The ones that I have seen in Norway range from 14 to 20 in. across. So the iron boss on the London buckler seems to be disproportionately large for the size of the shield.
2. The boss itself is very similar to that of the thirteenth century from the Wallingstones homestead, Llangarron, Herefordshire (see *Transactions of the Woolhope Naturalists' Field Club*, Vol. XL (1970), Pt. 1, p. 105 and Fig. 17A). There are, of course, slight differences in detail. The London one has a rather higher and more conical shape, and the terminal spike is of heavier make.
3. The three concentric circles of iron strips on the London buckler are exactly matched on one of the Norwegian shields (see Grieg's book, Fig. 292 and 293). It also has radial strips extending inwards. In Norway these are usually curvilinear or shaped like C scrolls.

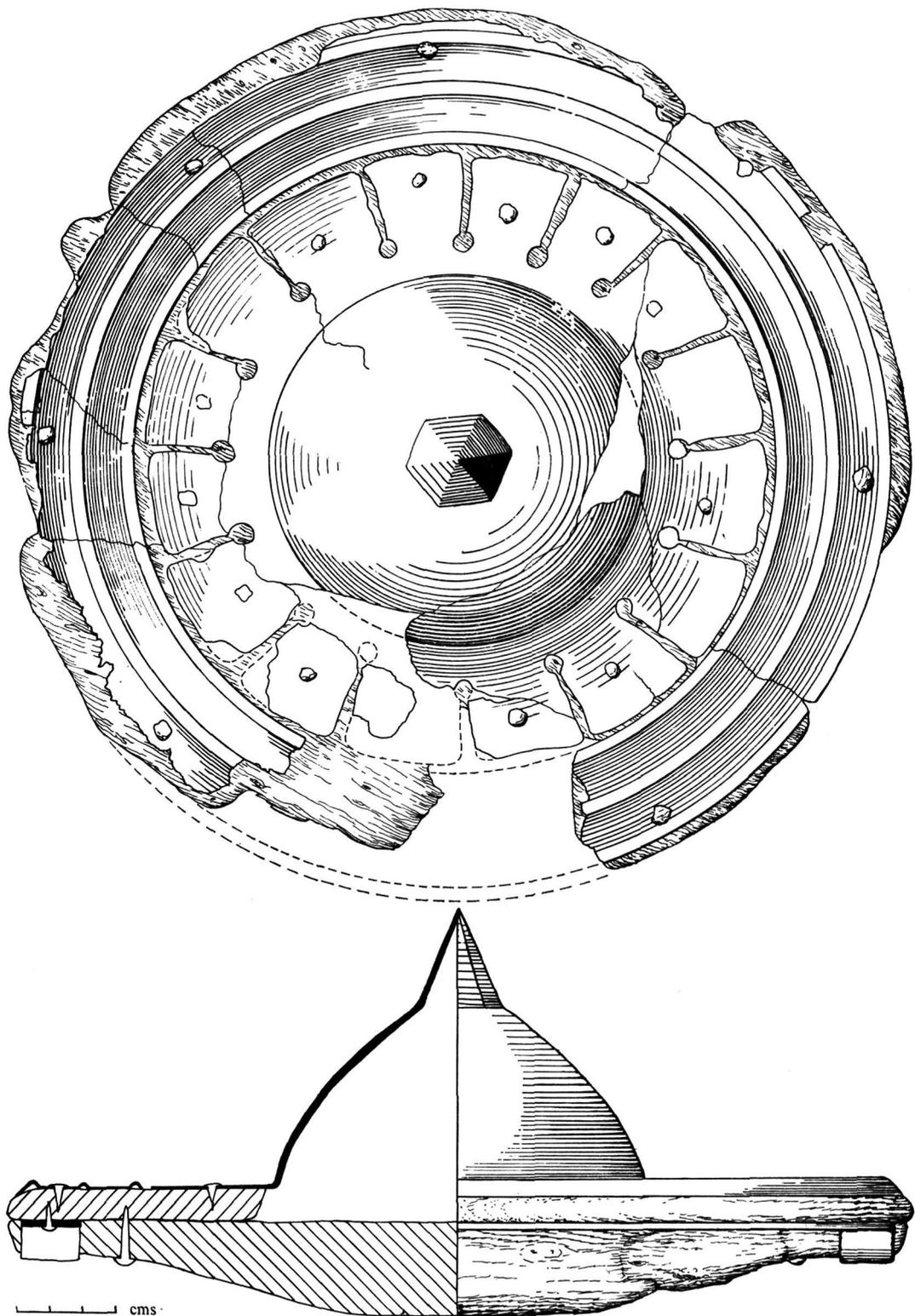
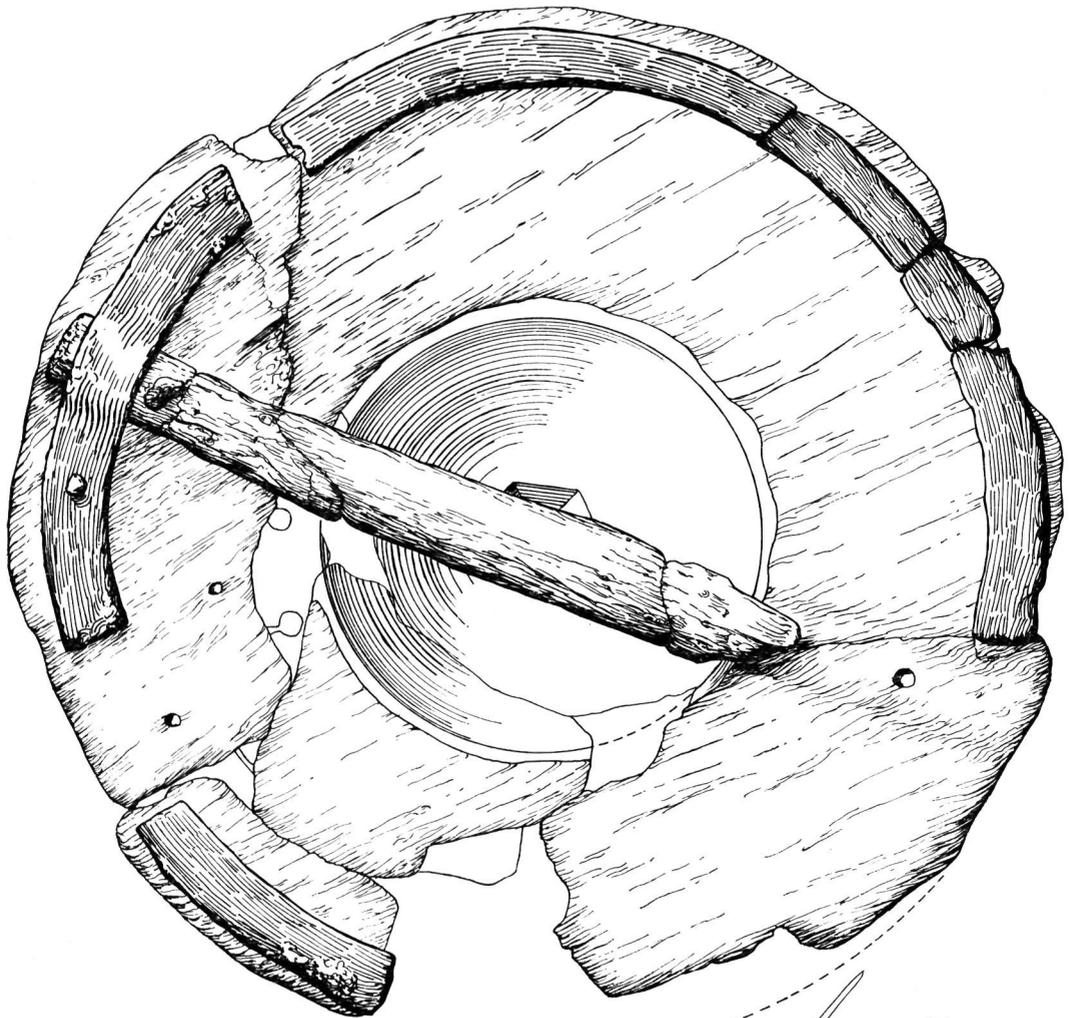


Fig. 43.—Custom House site; Medieval buckler: front and transverse section ($\frac{1}{2}$)



_____ cms

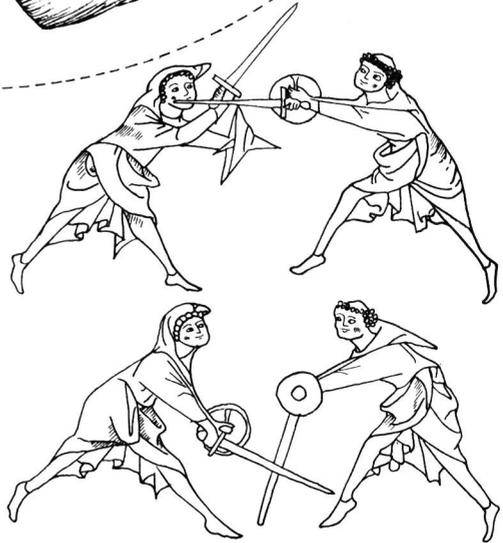
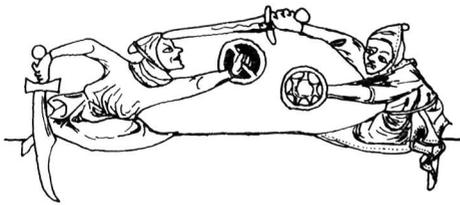


Fig. 44.—Custom House site; Medieval buckler: back ($\frac{1}{2}$), and contemporary illustrations of use from *The Luttrell Psalter* (left) and a late thirteenth century manuscript (right)

Mr. Claud Blair, Keeper of the Department of Metalwork, Victoria and Albert Museum, remarks that such small bucklers were used in fencing, not in battle, for parrying sword thrusts. He also refers to a marginal illustration in the Luttrell Psalter, *c.* 1340 (see Fig. 44). and Sir Eric Millar, *The Luttrell Psalter* (1932), p. 27, Pl. 6A (Folio 49). The drawing shows a combat between two grotesque men, the one on the left with a falchion, and the other with a sword. Both men have small circular fist-shields, showing the back (left) and front (right) respectively. The decorations on the front is very like the scrolls on some of the bucklers.

THE GRAFFITI

BY MARK HASSALL

Institute of Archaeology, University of London

- (525. I-26). Body sherd of an amphora, with a graffito cut onto it when it was in the leather-hard state. The end of the first line may be complete; it reads:
...]VNA ... / ...] NIISIMI
In line 2 the S is represented by a single vertical stroke and a second, detached, hook-shaped stroke below the line. If this reading is correct O]nesimi would be a possible restoration. (Fig. 36. Graffito).
- (I-26). A fragment of red wall plaster. The surface has been lightly scored with random markings and at least one deliberate graffito. This appears to read:
...]Λ.MΛ.XI.O[...
The final letter might be a C or an S followed by a second letter.
- (528. III-48). A sherd of Drag. 37 (style of Cinnamus). A graffito cut above the ovolo reads:
...]ILIR ... perhaps C]eler.

THE COINS

BY RALPH MERRIFIELD, *Guildhall Museum*

- I-24 (25). Dupondius of Antoninus Pius, as R.I.C. 894 but figure of Salus holds cornucopiae (A.D. 151-2).
- III-22 (506) :As of Germanicus issued under Caligula—struck off flan and possibly an imitation. (*Cf. B.M.C. I*, p. 155, 53). Very worn and with reverse illegible.
- III-42 (505). As of Antoninus Pius—illegible, and identifiable from portrait only. Rev. Female figure standing l., holding cornucopiae.
- IV-1 (52). *Cambridgeshire Farthing token, dated 1795 (D+H. 36). Obverse: Industry has its sure reward (Beehive). Reverse: Current in the countries of — 1795 (Druid's Head r.)*.
- XII-+ (670). Post-medieval AE (diameter 20.05 mm.). Worn and illegible.
- XIII-+ (676). Farthing of George IV—first issue 1822.

BUILDING MATERIALS AND SAMPLES

Among the large number of samples of building materials, mortar, etc., that were recovered from the excavation, the following selection are listed because of their importance in relation to medieval trade with London.

(a) SLATE:

Many large and small fragments of blue slate were recovered from the fourteenth century layers (Groups A, B and C). One layer in particular (VII-6) had a very large number of fragments crushed together in a large spread. This layer was right in front of the Custom

House and may represent the working surface for the slate roof of the building. The slates themselves are of standard size (see E. M. Jope and G. C. Dunning, "The use of blue slate for roofing in medieval England", *Antiq. J.*, 24 (1954), 209ff.) and usually had a single hole. It is surprising to see that in the above-mentioned article, London is not shown on the map as having received slates from Devon and elsewhere in the medieval period.

(b) COAL:

Many lumps of coal were found in the peat and gravel layers of the fourteenth century. The coal, which presumably was imported from Newcastle by sea, may have been unloaded near here. We know that by 1369 at least, coal meters were appointed in the City of London (*Cal. Letter Book G*, f.230).

(c) BRICKS:

Rough fragments of bricks of various sizes and colours were found in the fourteenth-century layers, particularly in Group C1.

(d) ROOFING TILES:

Many fragments of the usual rectangular two-holed medieval roofing tiles were found, but only one whole one. This tile from III-II was 26 cm. long by 15.5 cm. wide and had a small blob of glaze on the bottom.

(e) STONE:

Apart from the large quantities of chalk and ragstone occurring in the medieval foundations and fourteenth century layers, a few other types of stones were found. These have not yet been identified, except for a fragment of a Purbeck marble basin and part of a small column drum of Purbeck marble 8 cm. in diameter.

(f) SCHIST HONESTONES:

Sixteen mica-schist honestones were found in the fourteenth century layers of the excavations. These have not yet been sectioned.

POST-MEDIEVAL FINDS
(INCLUDING POTTERY) (FIG. 45)

Miss Naomi Tarrant provided many helpful comments.

TRENCH VII

LAYER II

1. Two sherds. Soft fine red fabric, black iron glaze.
2. Probably cup. Sherd. Fine white fabric, blue tinted glaze on interior, flower and leaf pattern in blue and white on exterior. Nineteenth century transfer ware.
3. Bellarmine. Sherd. Hard grey fabric, interior yellow, exterior surface covered with iron wash and salt glaze giving fairly even brown colour. Lines of beard in one corner. Stone ware. Probably fairly late in date.

(For clay pipes in this Layer see page 208).

TRENCH XIII

LAYER +

4. Probably sides of a cup. Two sherds. Fine white fabric, blue tinted glazed interior, trees and goats or sheep in blue and white on exterior. Nineteenth century.
5. Plate. Base. Fine white fabric lightly tinted blue glazed exterior, interior has Chinese landscape in dark blue and white. Willow pattern. Nineteenth century.
6. Plate. Rim. Fine white fabric, pattern on both surfaces in blue on blue tinted background, glazed.
7. Dish. Fine sandy-red fabric, haematite slipped surfaces, lead glazed interior. (Illustrated).
8. Bottle. Rim. Hard, sharp light grey fabric, iron washed and salt glazed light brown surfaces. Stoneware, Nineteenth century (*cf.* Guildhall Museum 20751).

Also several small fragments of clay pipe stems.

LAYER I

9. Drug Jar. Fine pasty cream-buff fabric, white fine glaze with design in blue on exterior surface. Probably made at Southwark, or Lambeth, the latter being more likely. For similar type of vessel, see Guildhall Museum 24391, 24, 164. Also Bloice (1971), Fig. 55, 81. (Illustrated).
10. Dish or Plate. Fine pasty cream fabric, white tinglaze with degenerate Chinese landscape in blue. Possibly made at Lambeth. Possible parallel from Bloice (1971), Fig. 53, 38. Custom House example has shorter footring and base is of a fairly even thickness. (Illustrated).
11. Milk Pan. Fine sandy light red fabric, covered with a haematite slip, lead glazed interior. (Illustrated).
12. Bowl. Fine sandy cream-buff fabric, yellow glazed interior. Surrey Ware. Possible seventeenth century. (Illustrated).
13. Flagon of Bellarmine type. Sherd. Hard cream fabric, iron washed and salt glazed exterior giving lightish brown colour. Oval body plaque with beasts, possibly lions. Stoneware for plaques with similar animals, see Guildhall Museum 25138, 25139, 25181. (Illustrated).
14. Small Flagon of Bellarmine type. Hard grey fabric, iron washed and salt glazed with brown "tiger skin" exterior. Half of face mask missing. Oval body plaque with crown and heart. This motif is usually attributed to the last quarter of the seventeenth century. Stoneware, see Guildhall Museum 18718 and others. (Illustrated).
15. Large Flagon of Bellarmine type. Hard light grey fabric, iron washed and salt-glazed with brown "tiger skin" exterior. Grotesque face mask and two round body plaques—one missing. The remaining one contains floral design. Stoneware. This type of plaque seems common; for examples, see Guildhall Museum 25147, and others. (Illustrated).

(*For clay pipes from this Layer see page 208*).

TRENCH XIV

LAYER +

16. Rim of large bowl or basin. Fine white fabric, covered in blue tinted glaze.
17. Bottle. Base. Hard lightish grey fabric, iron wash and salt glaze, light brown surfaces. Stamped with the words "Blacking Bottle". Stoneware, nineteenth century. Similar bottle from Trench XV, Layer 24. (*For clay pipes from this Layer see page 208*).

TRENCH XV

LAYER 24

18. Drug Jar. Base fine cream fabric, discoloured white tin glazed surfaces. Possibly made locally—*i.e.* at Lambeth. Eighteenth century. For general type of vessel, see Bloice (1971), Fig. 55, 93–96.
19. Sherd. Hard grey fabric, salt glazed, pale green surface.
20. Bottle. Base. Hard, sharp blue-grey fabric, iron wash and salt glaze giving uneven brown exterior surface, light brown interior. Stamped with the words "Blacking Bottle". Stoneware. Nineteenth century.

Also several small fragments of clay pipe stems.

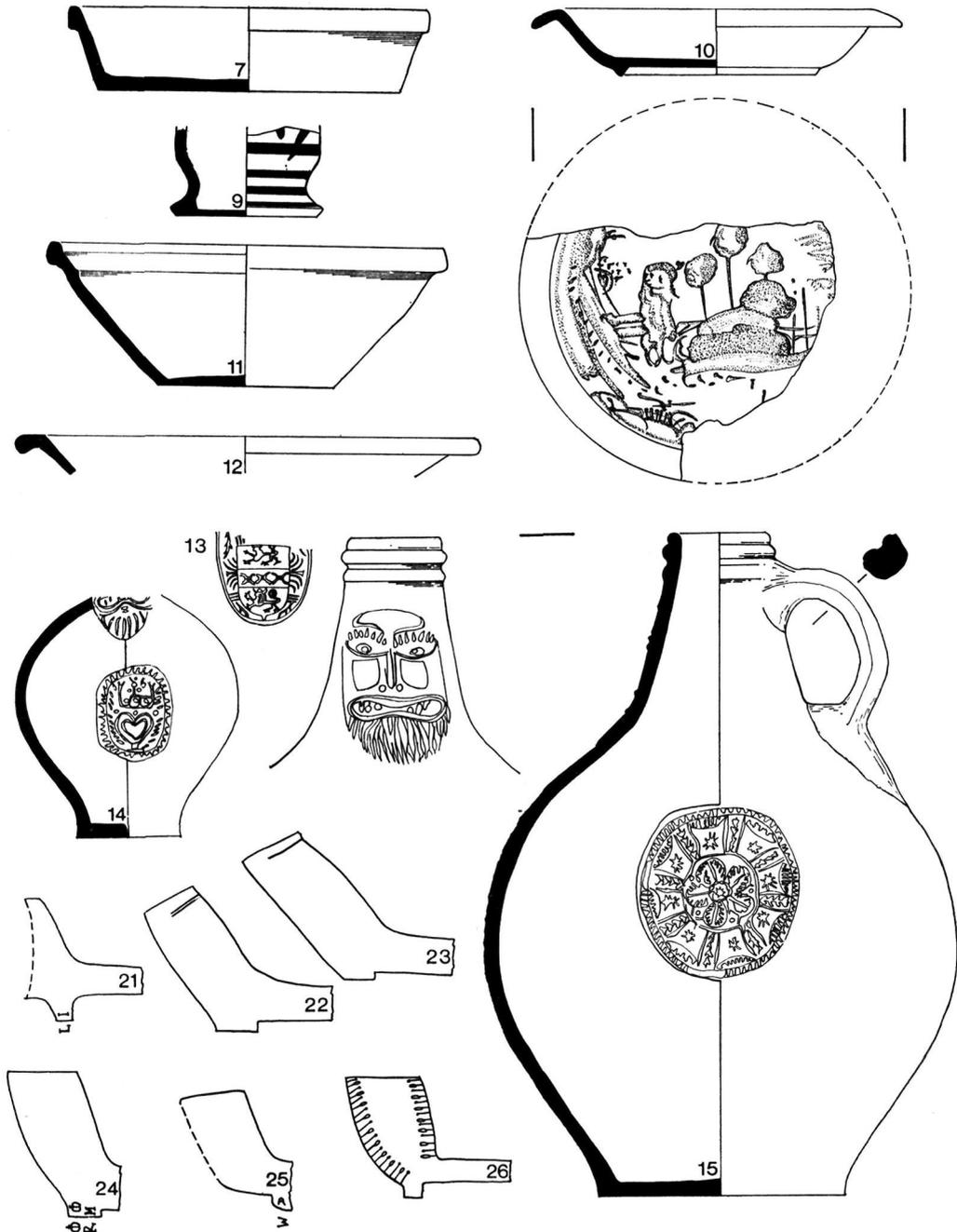


Fig. 45.—Custom House site; post-Medieval finds ($\frac{1}{4}$), except pipes ($\frac{1}{2}$) and bowl No. 11 ($\frac{1}{8}$)

THE CLAY PIPES (FIG. 45, Nos. 21-6)

BY STEPHEN WALKER

N.B. Typology used is as in "London Clay Tobacco Pipes" by D. Atkinson and A. Oswald

- (IV-+). One heel (c. mid-eighteenth century) with illegible initials.
One bulbous pipe (florally decorated), c. 1840 (No. 26).
- (XIII-I). Type 22 - 1680-1710 x 1.
Type 20 - 1680-1710 x 1.
Long Bowls - 1680-1710 x 12 (No. 22).
18 - 1660-80 x 11. (No. 23 drawing of a variation).
15 - 1660-80 x 1, and one stem—late seventeenth century.
Date of Layer—late seventeenth century—early eighteenth century.
- (VII-II). Fragment of type 18 - 1660-80 x 1.
Type 15 - 1660-80 x 6.
- (XIV-+). Type 25 of early eighteenth century with crowned initials M.R. This might be Mary Robins working c. 1686, but this is only a possibility (No. 24).
- (VII-+). Type 25 of c. 1730 and two stems of early eighteenth century.
- (XI-+). Type 18 - 1660-80 x 2, and seven stems of late seventeenth century.
- (XV-+). One spur with initials LL., probably James Lawrence of West Smithfield - 1805-11 (No. 21).
One Victorian bowl with initials D.W., probably David Wilson of Little Arthur Street, Golden Lane, c. 1828 (No. 25).
- (IX-+). One bowl fragment, possible type 28, 1820-40.

BIBLIOGRAPHY

(with abbreviations used in the Finds Report)

- AMBROSE (1974). T. M. Ambrose, "The Leather" forthcoming in Barry Cunliffe, *Excavations at Portchester Castle I; The Roman Period* (Oxford, 1974).
- BIDDLE (1959). M. Biddle, L. Barfield and A. Millard, "The Excavation of the Manor of the More, Rickmansworth, Hertfordshire", *Archaeol. J.* CXVI (1959), 136-199.
- BLOICE (1971). B. Bloice, "Norfolk House, Lambeth: Excavations at a Delftware kiln site, 1968". *Post-Medieval Archaeol.* V (1971), 99-159.
- BRODRIBB, HANDS AND WALKER (1968). A. C. C. Brodrigg, A. R. Hands and D. R. Walker, *Excavations at Shakenoak Farm, near Wilcote, Oxfordshire*, privately printed I-III (1968-72).
- BRYANT and STEANE (1971). G. Bryant and J. Steane "Excavations at the Deserted Mediaeval Settlement at Lyveden. Third Interim Report", *Northampton Museums Journal* IX (1971), 3-93.
- BUSHE-FOX (1926). J. P. Bushe-Fox, Report on the Excavations of the Roman Fort at Richborough, Kent. Reports I-IV (Oxford 1926).
- BUTLER (1971). R. M. Butler (ed.), *Soldier and Civilian in Roman Yorkshire* (Leicester, 1971).
- CHAPMAN (1973). H. Chapman and T. Johnson, "Excavations at Aldgate and Bush Lane House, 1972", *Trans. London Middlesex Archaeol. Soc.* XXIV (1973), 1-73.
- CHARLESWORTH and THORNTON (1973). D. Charlesworth and J. H. Thornton, "Leather found in Mediobogdum, the Roman Fort of Hardknott", *Britannia* IV (1973), 141-152.
- CUNLIFFE (1971). B. Cunliffe, *Excavations at Fishbourne 1961-1969*, II (Leeds, 1971).
- DALTON (1924). O. M. Dalton, *A Guide to the Mediaeval antiquities . . . in the Department of British and Mediaeval Antiquities* (British Museum 1924).
- DAVEY (1972). H. Davey, "The Conservation of Romano-British Painted Plaster", *Britannia* III (1972), 251-268.
- DOWN and RULE (1971). A. Down and M. Rule, *Chichester Excavations I* (Chichester, 1971).
- DULLEY (1967). A. J. F. Dulley, "Excavations at Pevensy, Sussex, 1962-6", *Medieval Archaeol.* XI (1967), 209-232.
- ELLISTON-ERWOOD (1958). F. C. Elliston-Erwood, "Another 'Jew's Harp' from Kent", *Archaeol. Cantiana* LXXII (1958), 200-202.
- EOGAN (1968). G. Eogan, "Excavations at Knowth, Co. Meath 1962-1965", *Proc. Roy. Irish Acad.* LXVI (1968), 299-400.

- EVANS (1953). J. Evans, *A History of Jewellery 1100-1870* (London, 1953).
- FINGERLIN (1971). I. Fingerlin, *Gürtel des hohen und späten Mittelalters* (Berlin, 1971).
- FREERE (1972). S. Freere, *Verulamium Excavations I* (Oxford, 1972).
- GILLAM (1970). J. P. Gillam, *Types of Roman Coarse Pottery vessels in Northern Britain*, Oriel Press Ltd. (Newcastle-upon-Tyne, 3rd edition, 1970).
- GOODFELLOW and THORNTON (1966). J. H. Thornton and A. V. Goodfellow, *Romano-British shoes in Guildhall Museum* (1966). A typescript and set of sketches held by the Guildhall Museum, London.
- GREENE (1972). K. Greene, *Guide to Pre-Flavian Fine Ware ca. A.D. 40-70*, privately printed (Cardiff, 1972).
- GREENFIELD (1963). E. Greenfield, "The Romano-British Shrines at Brigstock, Northants", *Antiq. J.* XLIII (1963), 228-263.
- G. M. CAT. *Catalogue of the Collection of London Antiquities in the Guildhall Museum* (London, 1908).
- HANFMANN (1964). G. H. A. Hanfmann, *Roman Art* (London, 1964).
- HARDEN (1972). D. B. Harden, *Ancient Glass*, Royal Archaeological Institute, London (1972).
- HASLAM (1973). J. Haslam, "The Excavation of a Section across Aldersgate Street, City of London", *Trans. London Middlesex Archaeol. Soc.* XXIV (1973), 74-84.
- HAWKES and HULL (1947). C. F. C. Hawkes and M. R. Hull, *Camulodunum* (Oxford, 1947).
- HOBLEY (1966-7). B. Hobley, "A Neronian-Vespasianic Military Site at 'The Lunt', Baginton, Warwickshire", *Trans. Birmingham Archaeol. Soc.* LXXXIII (1966/1967), 65-129.
- HÜBENER (1968). W. Hübener, "Eine studie zur spätromischen Rädchensigillata (Argonnen Sigillata)", *Bonner Jahrbüch.* (1968), 241-298.
- HUGGINS (1970). P. J. Huggins, "Excavation of a Mediaeval Bridge at Waltham Abbey, Essex, in 1968", *Mediaeval Archaeol.* XIV (1970), 30-127.
- HUGGINS (1972). P. J. Huggins, "Monastic Grange and outer Close Excavations, Waltham Abbey, Essex, 1970-1972", *Trans. Essex Archaeol. Soc.*, third series IV (1972), 30-127.
- HULL (1963). M. R. Hull, *The Roman Potter's Kilns at Colchester* (Oxford, 1963).
- KENYON (1948). K. M. Kenyon, *Excavations at the Jewry Wall Site, Leicester* (Oxford, 1948).
- KNOCKER (1959). G. M. Knocker, "Clare Castle Excavations 1955", *Proc. Suff. Inst. Arch.* XXVIII (1959), 136-152.
- MOORHOUSE (1972). S. Moorhouse, "Finds from Excavations in the Refectory at the Dominican Friary, Boston", *Lincolnshire Hist. Archaeol.* VII (1972), 21-53.
- MYRES and GREEN (1973). J. N. L. Myres and B. Green, *The Anglo-Saxon Cemeteries of Caistor-by-Norwich and Marshall, Norfolk* (London, 1973).
- Ó'RÍORDÁIN (1971). B. Ó'Ríordáin, "Excavations at High Street and Winetavern Street, Dublin", *Mediaeval Archaeol.* XV (1971), 73-85.
- RAHTZ (1963-4). P. Rahtz, "Kenilworth Castle," 1960, *Trans. Birmingham Archaeol. Soc.* LXXXI (1963/1964), 54-73.
- RAHTZ (1969). P. Rahtz, *Excavations at King John's Hunting Lodge, Writtle, Essex, 1955-1957* (London, 1969).
- RICHARDSON (1959). K. M. Richardson, "Excavations in Hungate, York", *Archaeol. J.* CXVI (1959), 51-114.
- RIGOLD (1971). S. E. Rigold, "Eynsford Castle and its Excavation," *Archaeol. Cantiana* LXXXVI (1971) 109-171.
- ROUVIER-JEANLIN (1972). M. Rouvier-Jeanlin, "Les Figurines Gallo-Romaines en Terre Cuite au Musée des Antiquités Nationales", XXIV^c supplement to *Gallia* (Paris, 1972).
- SHELDON (1971). H. L. Sheldon, "Excavations at Lefevre Road, Old Ford, E.3, September 1969-June 1970", *Trans. London Middlesex Archaeol. Soc.* XXIII Part I (1971), 42-72.
- SHELDON (1972). H. L. Sheldon, "Excavations at Parnell Road and Appian Road, Old Ford, E.3, February-April 1971", *Trans. London Middlesex Archaeol. Soc.* XXIII Part II (1972), 101-147.
- Small Finds from Walbrook, 1954-1955.* (Guildhall Museum), *Small Finds from Walbrook, 1954-1955* (undated).
- STAMM (1962). O. Stamm, *Spätromische und frühmittelalterliche Keramik der Altstadt Frankfurt am Main.* Schriften des Frankfurter Museums für Vor und Frühgeschichte (Frankfurt am Main, 1962).
- THOMPSON (1957). M. W. Thompson, "Excavation of the Fortified Mediaeval Hall of Hutton Colswain at Huttons Ambo, near Malton, Yorkshshire", *Archaeol. J.* CXIV (1957), 69-91.
- WARD-PERKINS (1940). J. B. Ward-Perkins, *London Museum Mediaeval Catalogue* (London Museum, 1940).
- WHEELER (1927). R. E. M. Wheeler (Sir Mortimer), *London and the Vikings* (London Museum, 1927).
- WHEELER (1930). R. E. M. Wheeler (Sir Mortimer), *London in Roman Times* (London Museum, 1930).
- WOODS (undated). P. J. Woods, *Excavations at Brixworth, Northants., 1965-1970.* Journal of the Northampton Museums and Art Gallery (8).

ANALYSIS OF ORGANIC REMAINS¹

BY PROFESSOR G. W. DIMBLEBY

Institute of Archaeology, University of London

In a waterlogged site of this nature organic remains are likely to be preserved. It is tempting to regard such remains as of environmental significance, in much the same way as in other wet deposits such as well-fillings or accumulating peat. In a town site, however, such is not likely to be the case; an urban situation produces a wealth of discarded or misplaced organic material which is no sense representative of the local environment. At the same time, there may be contributions of an adventitious nature from the environment, but they may be so disjunct that it is not possible to frame any useful picture of the surroundings. These limitations apply with some force to these particular investigations. The fact that it is a riverside site means that material may have been carried by water from well beyond the immediate locality

The evidence from the two periods, Roman and thirteenth or fourteenth century, will be presented separately, and commented on in the light of the above considerations.

A. ROMAN²

MOSS:

Large quantity of *Rhynchostegiella pumila* (Wils.) E. F. Warb.³ This moss can probably be dismissed as an introduction by man. This species is characteristic of deeply shaded basic soil, stones or rocks. It seems most unlikely that such conditions could have existed at this stretch of the course of the Thames, even if there were no disruption of the environment by the Roman shore works. This species of moss grows in tufts and so might lend itself to collection for a variety of purposes for which we have other materials today.

SEEDS:

Cyperaceae (sedges)—3 seeds.

Rumex (dock)—2 seeds (not species of wet places).

Ranunculus (buttercup)—1 seed. Probably *R. bulbosus* or *R. acris*.

Leguminosae—1 seed.

Sambucus nigra (elder)—1 seed.

The number of seeds was small. The sedge seeds could have been water-carried or they could have been of local origin. The other species could all be weeds of local origin. They are all plants of dry ground; though the species in most cases was not established for certain it was possible to exclude the docks from wet places, and the aquatic *Ranunculus* species. Apart from elder (only one seed) none of these could be regarded as food species. The most likely explanation for all of them except the sedges is that they were casual weeds of roadsides and waste places.

B. THIRTEENTH-FOURTEENTH CENTURIES⁴

MOSESSES:

Two species of moss were identified: *Cratoneuron commutatum* (Hedw.) Roth., probably var. *falcatum* (Brid.) Moedk. and *Acrocladium giganteum* (Schimp.) Rich. and Wall.

Acrocladium giganteum is a plant of marshes and fens and might have grown locally. The same could apply to *Cratoneuron commutatum*, but if it is indeed var. *falcatum*, then it is more characteristic of wet moorlands and moderately acid bogs. *Acrocladium giganteum* is a some-

what local plant and had suitable habitats occurred in this neighbourhood there are commoner species that one might have expected to find in this context.

As with the Roman moss it seems likely that it was deliberately collected and used in this urban situation. It is perhaps significant that both these mosses are robust, freely-branching forms.

SEEDS:

Cyperaceae (sedges)—27 seeds fall in this category; probably 2 species.

Juncus sp. (rush)—2 seeds.

Compositae—*Anthemis* sp. (mayweed or chamomile)—1 seed.

Chrysanthemum cf. *segetum* (Corn Marigold)—2 seeds.

One unidentified seed in the same family.

Rumex acetosa (sorrel)—9 seeds.

Ranunculus (buttercup) (cg. *R. bulbosus* or *R. acris*; not an aquatic *Ranunculus*)—3 seeds.

The species from which these seeds are derived fall into two categories: those from wet habitats (sedges and rushes) and those from freely-drained sites (*Compositae*, sorrel and buttercups).

The sedges and rushes probably reflect riparian vegetation, not necessarily local. The remainder are a collection of weeds of waste land and roadsides, but it is not possible to infer the communities with any greater precision. There has clearly been some selection of species: the absence of grass fruits (but see below) which would surely have been abundant, is remarkable. As with the Roman material, there is no evidence of food plants in this assemblage. Nor is there any indication from any of the botanical material that the locality was saline or even brackish.

OTHER MATERIALS:

Fish bones: a large quantity, mainly from fins or tails.

Plant material: some grass-like fragments and some pieces of stem, probably *Urtica* (nettle).

Fabric: not of vegetable fibre; almost certainly silk.

This assemblage seems to be an assortment of waste fragments from everyday life. The nettle might indicate local weed growth, but it was used as a fibre plant and may therefore have no relation to the local environment.

NOTES

¹ Mr. P. Porter kindly prepared and examined the samples.

² Taken from Trench III, Layer 37, inside the timber box of the Roman quay. The sediment in this layer probably formed in the third and fourth centuries.

³ All the mosses were kindly identified by Mr. Eddy of the British Museum (Natural History).

⁴ Taken from the "peat" layer (I-12 and II-10).

THE DENDROCHRONOLOGY

BY JOHN FLETCHER

Research Laboratory for Archaeology and the History of Art, Oxford University

OBJECT:

Samples from oak timbers were taken to determine, if possible, approximate construction dates¹ by dendrochronology.

SAMPLES:

Slices (about 4 in. thick) of various oak beams, posts and planking were cut *in situ* by a power-driven saw and brought to Oxford in the wet state. For convenience in freezing and subsequent handling, wedge-shaped pieces (two per sample) between the pith and sapwood were split from the wet beams and posts in such a way as to include as many annual rings as possible of typical growth.

METHOD:

After a day or so in a deep-freeze, the pieces were prepared for ring-width measurements by using a gouge-chisel on the top surface, or a knife or razor-blade on the edge. After partial drying the rings were marked and their widths measured by an $\times 10$ eyepiece which incorporated a scale. Measurements were made along two lines for each piece and the widths plotted on transparent semi-logarithmic paper.² For the planks measurements were made on their edges.

RESULTS

A. ROMAN:

Details about the beams sampled and about their annual rings (none of which were sapwood) are given in Table 1.

TABLE 1. ROMAN SAMPLES

Sample	Cross-section	Type of Timber	No.	Annual Rings	
				Av. Width	Final Width
Trench No.				mm.	mm.
III 4	12in. x 18in.	Pith boxed	213	1.6	2.5
III H	12in. x 12in.	Pith central	178	1.3	V. Variable
III 3	14in. x 14in.	Pith boxed	160	1.8	1.2
III 2	11in. x 6in.	Halved	100	1.7	1 to 1.5
XII 3	8in. x 8in.	Pith central	68	2.2	V. Variable
III I	9in. x 8in.	Pith boxed	39	4	3.5
VIII I	12in. x 9in.	Pith central	55	4	2 to 3
IX I	9in. x 9in.	Pith central	46	3.5	1.6

In addition, slices were taken from four posts, a plank and a beam in Tranches II or I. The number of their annual rings lay between 35 and 70. Three of them had an almost full complement of sapwood.

The ring-width sequences were compared with one another both visually and by our computer programme (Ref. 1b gives details). There was a position (Fig. 46 inset) with good agreement ($W=67\%$ between the charts for III-2 and XII-3, and a mean curve was made from them). The chart for III-3 was matched with this and a mean curve (MC₃) for the three trees made. The charts for the two largest beams, III-4 and H, were matched not directly versus one another, but by the agreement they each gave with MC₃ and Hollstein's mean curve for the Roman well at Wederath.³ Some of the agreement values obtained in building up the 218-year mean curve for all five trees (MC₅) are given in Table 2.

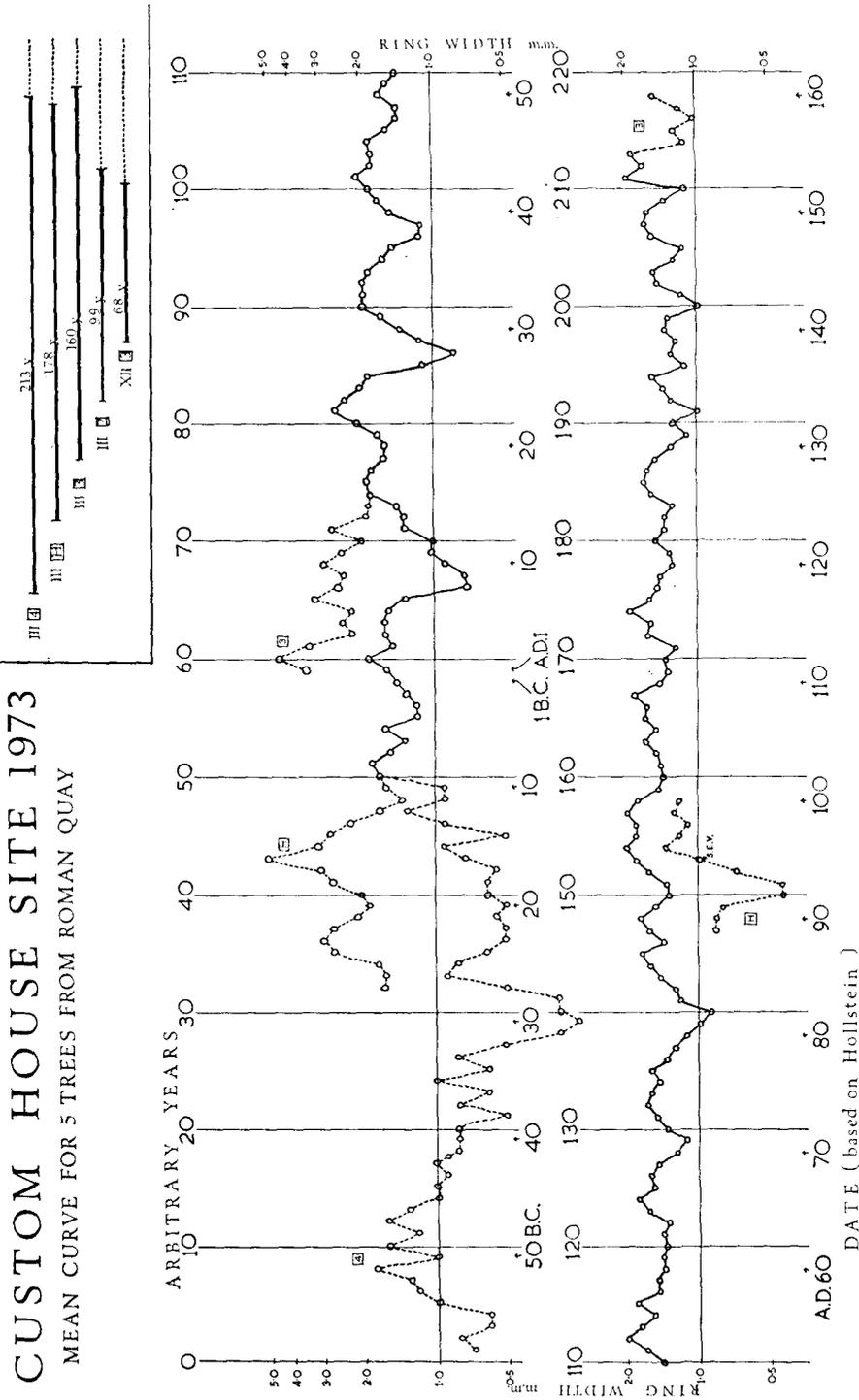


Fig. 46.—Custom House site; mean curve (MC5) giving ring-widths derived from Roman beams of Trenches III and XII, and (inset) relative positions of the tree-ring sequences for the Roman beams used to compile MC5

TABLE 2. AGREEMENT VALUES (W) FOR CHARTS OF THE FIVE LARGEST ROMAN BEAMS

Curve	Trees	No. of Rings	With Mean Curve for Wederath Well 50-201 A.D.		With MC3	
			W	Overlap	W	Overlap
MC2	4+H	155	67%	105 yrs.	67%	98 yrs.
MC3	3+2 + XIII 3	100	62	73	—	—
MC5	All 5 above	161	65	101	—	—

The 218-year mean curve, MC5, is shown in Fig. 46. By cross-dating from the Rhineland curve for a well at Wederath this spans the years 58 B.C. to A.D. 160, the final rings for the five beams being A.D. 114, 124, 151, 155 and 160 respectively.

With an allowance of 20 ± 6 rings of sapwood (this being appropriate to the widths of the last annual rings and the age of the trees), and subject to confirmation of the Wederath dates,³ the likely period for the use of the beams lies between A.D. 178-192 and almost certainly in the last quarter of the 2nd century.

B. MEDIEVAL:

Samples were taken:

In Trench IV (i) from the vertical planking behind the posts
(ii) from a ground plate

In Trench XII from the bottoms of two vertical posts.

In Trench XIV from the bottom of a post.

Except for one of the posts in Trench XII, the planks and posts were derived from fast-grown trees, the samples containing less than 75 rings, thereby making dating by dendrochronology almost impossible.

However, sample XII-1, from a post 9 in. x 8 in. with pith central, was slow-grown and contained about 150 annual rings, all but the first thirty being < 1 mm. wide. The chart for this post has not yet been dated reliably, though a possible match has been found with two of our curves derived from panel paintings.

DISCUSSION:

The largest timbers are remarkable for their size and for having been planed or otherwise shaped to perfect rectangular cross-section. To obtain the largest beams (about 24 ft. long) the Romans used the trunks of slow-grown oaks, aged 200 to 250 years with a diameter of the order of 2 to 3 ft. In making the beams all the sapwood was removed.

There is no reference curve for English oaks of the Roman period but we have already found similarities between mean curves for oaks grown in the London region with those grown in hilly ground in west Germany. It was therefore an obvious step to try to date these curves relating to Roman London against those available for the same period in Germany. However, it is important to emphasise that matching by a German curve was only feasible in this case for the following reasons:

- the trees used for the four largest beams maintained average to slow growth (average width between 1.2 and 2 mm.) for 100 years or more.
- It was known by other evidence from the site that they were used in the second half of the second century A.D.

- (c) Similar Roman beams are known, from the research by Hollstein in Germany, to have been shaped and used within a year or two of being felled.
- (d) A computer programme was available to calculate the agreement values between the charts for the London beams and appropriate German reference curves in hundreds of positions.

In Table 3 of the paper referred to in Ref. 1(b), reliable cross-dating with probability $P < 0.001$, was achieved by matching mean curves for sixteenth-century panel paintings in England with a German reference curve for oaks growing in hilly areas of Hesse to the east of the Rhine. Its reliability and that now obtained between the Roman beams and the mean curve for Wederath are of the same order.

An important outcome of this tree-ring study is that it provides a reference curve based on two or more trees for the period from about A.D. 1 to 160 which may be useful both for dating floating chronologies already derived from Roman timbers by Lowther⁴ as well as others that may be obtained in the future from archaeological excavations on Roman sites in southern England.

NOTES

¹ References to papers on dating by dendrochronology from this laboratory are:

(a) John Fletcher, North Elmham, *Current Archaeology*, No. 36, Jan. 1973, 25-28.

(b) J. M. Fletcher, M. C. Tapper and F. S. Walker, "Dendrochronology—a Reference Curve for Slow Grown Oaks A.D. 1230-1546, *Archaeometry* 16 (1974), 31-40.

(c) John Fletcher, "Tree Ring Dates for Some Panel Paintings in England, *Burlington Magazine*, CXVI (May 1974), 250-8.

² The method follows that developed in the Forestry Depts. at Munich and Hamburg.

³ E. Hollstein, "Dendrochronologische Datierung von Hölzern aus Wederath" (Belgium), *Trierer Zeitschrift* (1972), p. 123. Hollstein mentions in a footnote to this paper that his dating of the chart of the Wederath well is conditional upon the dating of the Roman bridge at Trier being the year 310 A.D.; this means there is an element of doubt in our date of the Roman frontage at London until such time as Hollstein's dates are certain.

⁴ A. G. W. Lowther and D. J. Schove, *Medieval Archaeol.*, 1 (1957), 79.

THE MOLLUSCA

BY DR. JOYCE E. RIGBY

Biology Department, Queen Elizabeth College

Edible molluscs dominate this collection.

The bivalves, *Ostrea edulis* (oyster), *Cardium edule* (cockle), *Mytilus edulis* (mussel) form the bulk of the collection and they occur in the seaward parts of the Thames estuary. *Unio pictorum*, a freshwater mussel, is abundant in some reaches of the River Thames and though not normally eaten, it may well have been sampled for its shells to appear here along with shells of *Mytilus edulis*.

Buccinum undatum (whelk) and *Littorina littorea* (winkle) are edible prosobranch gastropods and these whelks must have been dredged from lower parts of the Thames estuary. In the last 5,000 years sufficiently saline conditions have never extended up to Tower Bridge to allow for their natural deposition in this area.

Ecologically, the specimens of the calcifile, freshwater prosobranch gastropods, *Bithynia tentaculata* and *Theodoxus fluviatilis* are likely to be significant and suggest the occurrence of hard water courses or the expanse of the River Thames. Similarly, the specimens of terrestrial pulmonate gastropods *Helix aspersa* (common garden snail) and *Cepaea nemoralis* (banded snail) suggest the occurrence of dry land with mixed vegetation of higher plants. Most shells of members of these four species are in very good condition regarding texture, colour and contour (especially the mediaval ones) and are unlikely to have been transported to such sites.

MOLLUSCA

Trench	Layer	Sample No.	Dating	Identification	Condition	Habitat	
I	II	415	Fourteenth century	3 <i>Mytilus edulis</i>	Valves	M (Marine)	
		416	Fourteenth century	7 <i>Unio pictorum</i>	Valves	F.W. (Freshwater)	
		417	Fourteenth century	<i>Ostrea edulis</i>	Valves	M.	
		418	Fourteenth century	<i>Cardium edule</i>	1 entire 4 valves	M.	
	II	II	419	Fourteenth century	<i>Buccinum undatum</i>	Sizes range 20-75 mm. length	M.
			420	Fourteenth century	1 <i>Nassarius reticulatus</i> 1 <i>Littorina littorea</i>	Mainly 6-8 mm. but very good condition	M. M. F.W.
			421	Fourteenth century	<i>Bithynia tentaculata</i>	Ditto	F.W.
			422	Fourteenth century	<i>Helix aspersa</i>	Fragment	T. (Terrestrial)
			889	Fourteenth century	1 <i>Buccinum undatum</i>	77 mm.	M.
			423	Fourteenth century	1 <i>Buccinum undatum</i>	80 mm.	M.
I	II	424	Fourteenth century	1 <i>Buccinum undatum</i>	70 mm.	M.	
		320	Roman	<i>Cepaea nemoralis</i>	Fragments	T.	
		314	Third century	<i>Helix aspersa</i>	Fragments	T.	
		323	Roman	Large marine bivalve— <i>Venerupis?</i> or <i>Cyprina?</i>	Fragment	M.	
	II	II	308	Third-fourth century	<i>Ostrea edulis</i>		M.
			439	Fourteenth century	<i>Ostrea edulis</i>	3 small valves	M.
			425	Fourteenth century	<i>Bithynia tentaculata</i>	6.0-9.0 mm.	F.W.
			426	Fourteenth century	1 <i>Buccinum undatum</i>	Small 55 mm.	M.
			427	Fourteenth century	1 <i>Theodoxus fluviatilis</i>		F.W.
			441	Fourteenth century	<i>Ostrea edulis</i>		M.
III	II	428	Fourteenth century	<i>Bithynia tentaculata</i>	In reddish sand 6.0-9.0 mm.	F.W.	
		429	Fourteenth century	<i>Bithynia tentaculata</i>	In blackish sand 6.0-9.0 mm.	F.W.	

Trench	Layer	Sample No.	Dating	Identification	Condition	Habitat
	58	568	Fourteenth century	<i>Ostrea edulis</i>	1 valve, length 110 mm.	M.
	60		Fourteenth century	<i>Cardium edule</i> <i>Ostra edulis</i> <i>Cardium</i>	1 valve 6 valves, 45-80 mm. 1 valve	M. M. M.
XI	1	978	Fourteenth century	<i>Buccinum undatum</i>	4 excellent condition length 60-70 mm.	M.
	2	692	Fourteenth century	<i>Buccinum undatum</i>	5, sizes 44-70 mm.	M.
	4	976	Fourteenth century	<i>Buccinum undatum</i>	2, approx. 65 mm.	M.
XII	3	980	Fourteenth century	<i>Buccinum undatum</i>	Broken	M.
	4	974	Fourteenth century	<i>Buccinum undatum</i>	Young—33 mm.	M.
	7	759	Fourteenth century	<i>Buccinum undatum</i>	Approx. 54 mm.	M.
XIV	7	809	Fourteenth century	<i>Buccinum undatum</i>	Broken	M.
XV	18	808	Fourteenth century	<i>Buccinum undatum</i>	Broken	M.
	21	810	Fourteenth century	<i>Buccinum undatum</i>	Several damaged approx. 30.0-60.0 mm.	M.
XIII	10	813	Roman	<i>Helix aspersa</i>	Good condition and colour	T.
	8	815	Roman	<i>Buccinum undatum</i>	75 mm. approx.	M.

ANCIENT BOATS FROM THE CUSTOM HOUSE SITE

BY PETER MARSDEN

Department of Urban Archaeology, Guildhall Museum

One of the early medieval timber waterfront constructions on this site was partly constructed from pieces of at least two ancient vessels. One of these, possibly a sea-going ship, was represented only by a short length of a large rib. The other vessel was represented by a considerable length of clinker built planking from the bottom and side of a boat. Judging from the scarf joints in the planking it is clear that the lower part of the stern of the boat is particularly well preserved, though the keel and sternpost were not re-used.

On preliminary analysis there seems to be some close similarities between this vessel and the more complete late Saxon boat of the ninth century found recently in Graveney Marsh, near Whitstable, Kent. The Graveney boat is under careful study and will be preserved at the National Maritime Museum, Greenwich. The Custom House boat fragments were removed from the excavation, and a detailed report describing them will be published in due course in the *International Journal of Nautical Archaeology*.

ACKNOWLEDGEMENTS

The excavations were commissioned by the Guildhall Museum of London assisted by grants from the Department of the Environment. It is a pleasure to thank Mr. Lionel Leighton of Cressdene Ltd; also Mr. Donald Stewart, and the site architect, of Fitzroy Robinson and Partners for much help in allowing the maximum possible time for excavation and the provision of help in kind.

Thanks must go to the many people who helped on the excavations, particularly the supervisors, Andy Cauldwell, Brian Yule, Gerald Clewley and Gil Burrell. Geoff Denford helped with the photography and Peter Muir, Martin O'Connell, Peter Ellis, Lee Gillibrand, Peter Leach and Alex Campbell assisted by drawing plans and sections. Iris Furlong, Sioned Alban-Jones, and Wendy McIsaac were successively in charge of the finds, and Wendy McIsaac sorted and indexed all the pottery and finds. She also prepared the Roman coarse pottery, the post-medieval finds and the glass for the report. The finds and pottery were drawn by Vanessa K. Mead, Mrs. Jennifer Gill and Mrs. Hilary Guise. Bill Rector and Joyce Andrews conserved the finds.

I would particularly like to thank the many people who provided specialist reports. They are: Dr. John Fletcher of the Research Laboratory for Archaeology and the History of Art, University of Oxford; Joanna Bird; Mr. Brian Hartley; Mrs. K. F. Hartley; James Thorn; Professor Dumbleby, Mr. P. Porter and Mark Hassall of the Institute of Archaeology, London; Alison Fleck-Abbey; Dr. Martin Henig and Tim Ambrose of the Institute of Archaeology, Oxford; Mr. S. Walker; Tony Dyson, Peter Marsden and Ralph Merrifield of the Guildhall Museum; Dr. G. C. Dunning; Dr. Joyce Rigby of Queen Elizabeth College, University of London; Miss Wendy Evans of the Museum of London. The report was typed by Diana Twells, Sioned Alban-Jones and Penny Wyatt, and much help was received throughout the excavation and during the writing of this report from the Director and staff of the Guildhall Museum, particularly John Clark and Ralph Merrifield. Finally, my thanks must go above all to Hugh Chapman, who has helped at every stage with constant advice and encouragement.

The Editors and Author are grateful to the Corporation of London, the Department of the Environment and especially Wilson Peck Ltd., and Cressdene Ltd., for generous grants towards the cost of publishing this paper.

EXCAVATIONS AT CHRIST CHURCH, NEWGATE STREET, 1973

TONY JOHNSON

HISTORICAL OUTLINE:

The parish church of Christ Church, Newgate, stands on the site of the choir of the great church of the Franciscans (the Grey Friars).¹ It was originally founded *c.* 1240 in the form of a small chapel, and probably occupied the area which subsequently became the chapel of All Hallows in the fourteenth-century church (Fig. 3). Work began on the conventual church in 1306 and was finally completed in 1350. During this period many gifts of materials and money were made. A notable benefactress was Queen Margaret, the second wife of Edward I, who financed the building of the choir and is recorded to have donated a pavement of Purbeck marble. The burial place of Queen Margaret occupied a position before the High Altar of the Medieval church.²

GREYFRIARS. 1973.

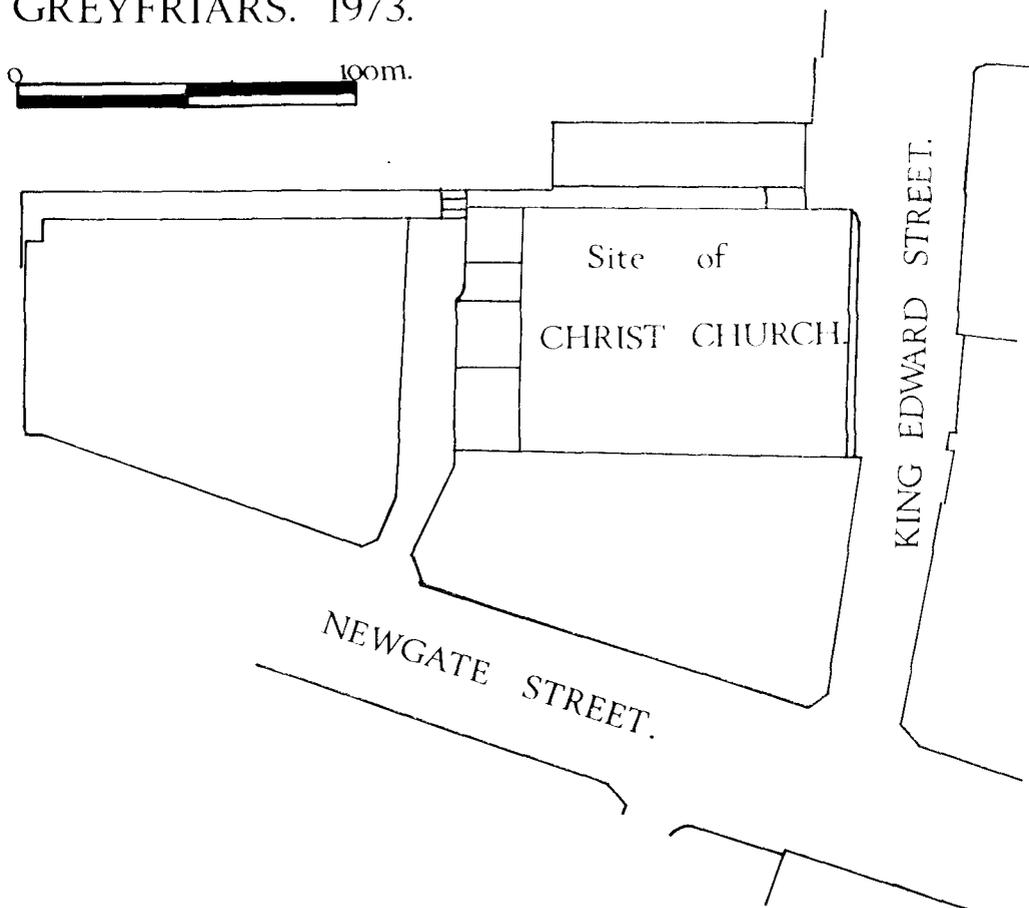


Fig. 1. Greyfriars; Site Plan

After the Dissolution the convent was surrendered on 12th November 1538, and the ornaments and goods were made over to the King's use. The church was shut up and used as a storhouse.³ In 1546 the east end of the church was re-opened as a parish church incorporating the two small parishes of St. Nicholas in the Shambles and St. Ewens, Newgate Market. In the same year the monuments were sold for the sum of £50. The Greyfriars Chronicle relates that "all the tombs, great stones were pulled up and sold".⁴

The east end of the great church continued its life as a parish church until the Great Fire of 1666. Although the roof of the church and much of its interior were destroyed by the fire, a considerable amount of the fabric of the Medieval church escaped with little or no damage. W. G. Bell tells us that even some of the stained glass windows remained intact and suggests contemporary opinion felt that the church should have been restored.⁵

In 1687 Wren commenced to rebuild the east end, using the foundations and pillar bases of the Medieval church. The new building was not completed until 1704.⁶ In December 1940 the church was severely damaged by fire during the blitz.

The Corporation of London purchased the site in 1962, and the church remained as a shell with the walls standing to their full height. Early in 1973 the Department of the Environment approved a plan to demolish the east, and part of the south walls to facilitate road improvements. The interior of the church is to be turned into a public garden, and the remaining walls repaired and consolidated.

SUMMARY:

An area to the east end of the Wren church was excavated for the Guildhall Museum in June, 1973, prior to the road improvements. The excavation was confined to the area directly threatened (Fig. 2), and was restricted to a depth of 2 m., which was to be the maximum depth of the new road foundations and services. The north and south aisles were found to contain large brick-built burial vaults, some over 3 m. deep. Because of the disturbance caused by these vaults it was decided to concentrate archaeological investigation in the area surrounding the High Altar.

Prior to excavation, contemporary reports suggested that the floors of the Medieval and Wren churches occupied the same level. However, excavation proved that there was a difference of 2 m. between the two floor levels. Below the earlier floor was found a uniform deposit of apparently thirteenth century material which pre-dated the construction of the church. The homogenous nature of this deposit suggested that the area may have been used as a rubbish dump over a considerable period.

Only two structural features were observed which were conclusively earlier than the Medieval church, although it must be remembered that the restriction of 2 m. in the depth of the excavation was barely sufficient to clear the make-up of the seventeenth century rebuild.

A portion of the original Medieval east wall and three of the original pillar bases were found, together with an interesting trench-built arch foundation situated along the line of the south aisle (Fig. 4). If a similar structure existed along the line of the north aisle it would have been destroyed by later vault construction.

The Medieval deposits pre-dating the church were found below the 2 m. depth restriction and were not excavated but observed in the sides of the deeper burials.

THE EXCAVATION:

The visible grave flags at the east end of the church were recorded⁷ and moved west out of the area of excavation, and the area reduced to the floor level of the pre-1666 church.

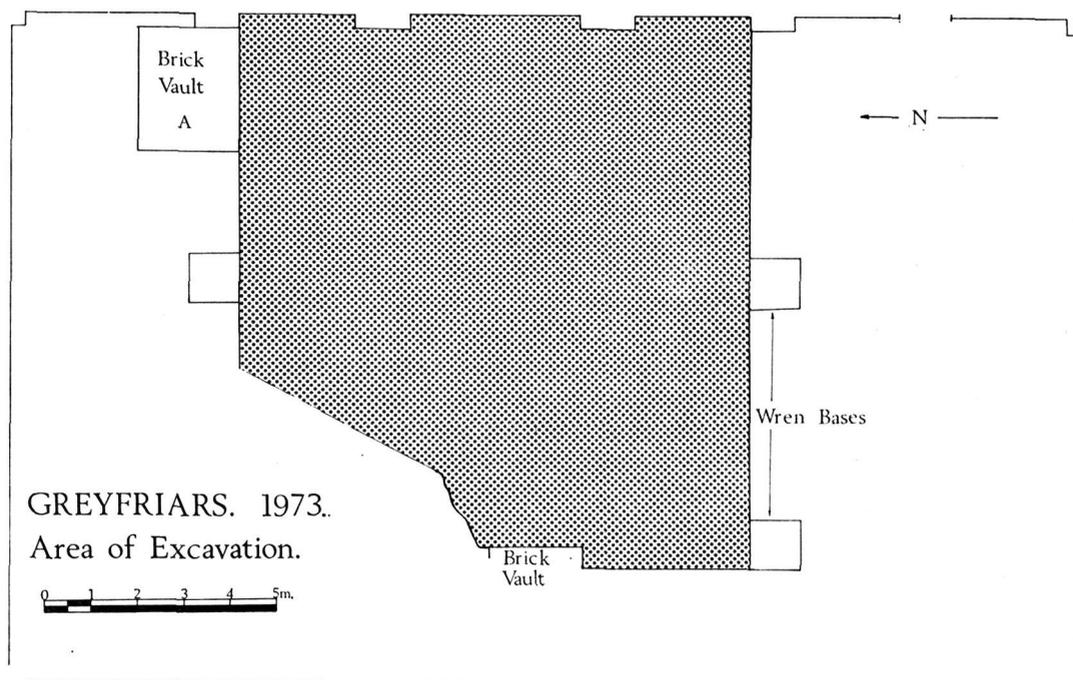


Fig. 2. Greyfriars; area of excavation

Most of the original deposits laid down by Wren had been disturbed by the intrusion of later burials. Only against the east wall and against one of the pillar bases did pockets of this material survive from the level of the pre-Fire church to the present day.

The dump of material used to raise the floor to its present height after the Great Fire consisted mainly of debris derived from the demolition of the Medieval structure, but included fragments of worked stone dating up to and including the seventeenth century. All the Medieval tile fragments published here were retrieved from this deposit. Together with the infill of the graves the bulk of material excavated produced finds which were unstratified.

The removal of this level exposed three of the square bases of the Wren pillars which had been constructed from re-used masonry around a mortar and rubble core. It also became apparent that these bases had been sited upon the foundations of the original octagonal Medieval columns (Figs. 4 and 6). When this level was removed against the face of the seventeenth century east wall two distinct builds could be seen below the modern floor level. Firstly, starting just below, and extending to a depth of over 1 m. was the foundation wall of the Wren church built of large well-faced re-used blocks. An interesting feature of this wall is that two shallow internal buttresses which are visible below and to either side of the east window were not carried upwards above the seventeenth century floor level (Fig. 5). The most likely explanation is that this portion of wall was built partly to retain the greater quantity of the immense amount of debris left over from the demolition of the Greyfriars church, perhaps before any clear design for the rebuild had been formulated.⁸ The fact that the rubble was spread before major construction work was begun is illustrated by the seventeenth century pillar base which cuts through the debris shown in Section 1.

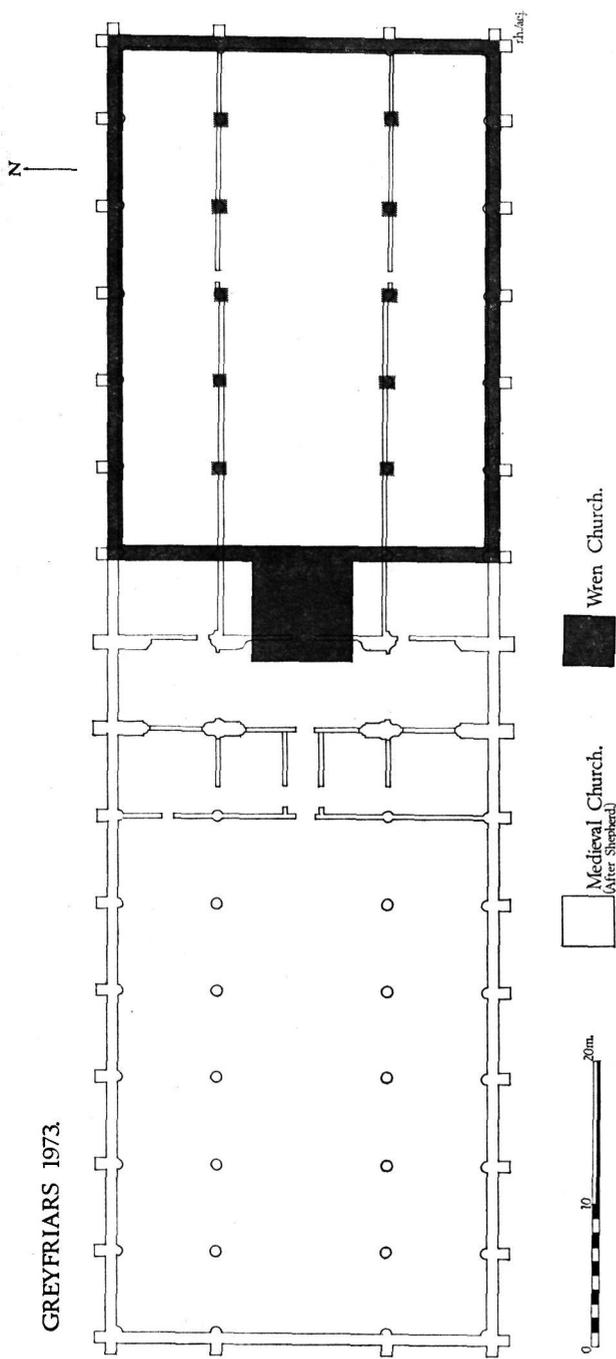


Fig. 3. Greyfriars; Wren's Christchurch and the Medieval church

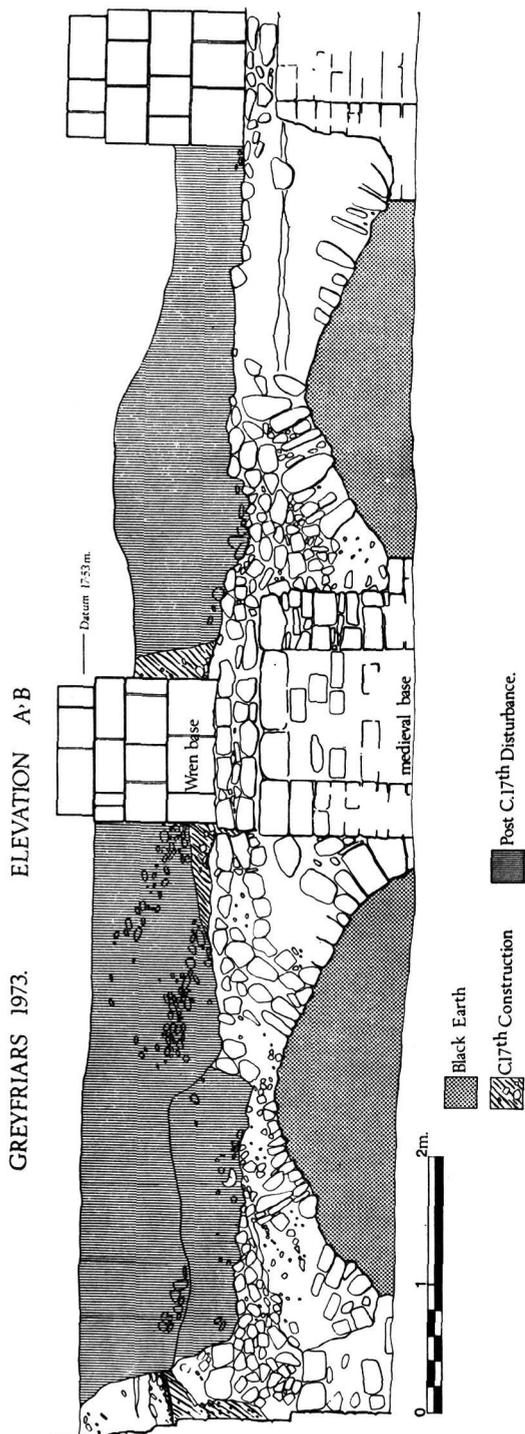


Fig. 4. Greyfriars; elevation A-B

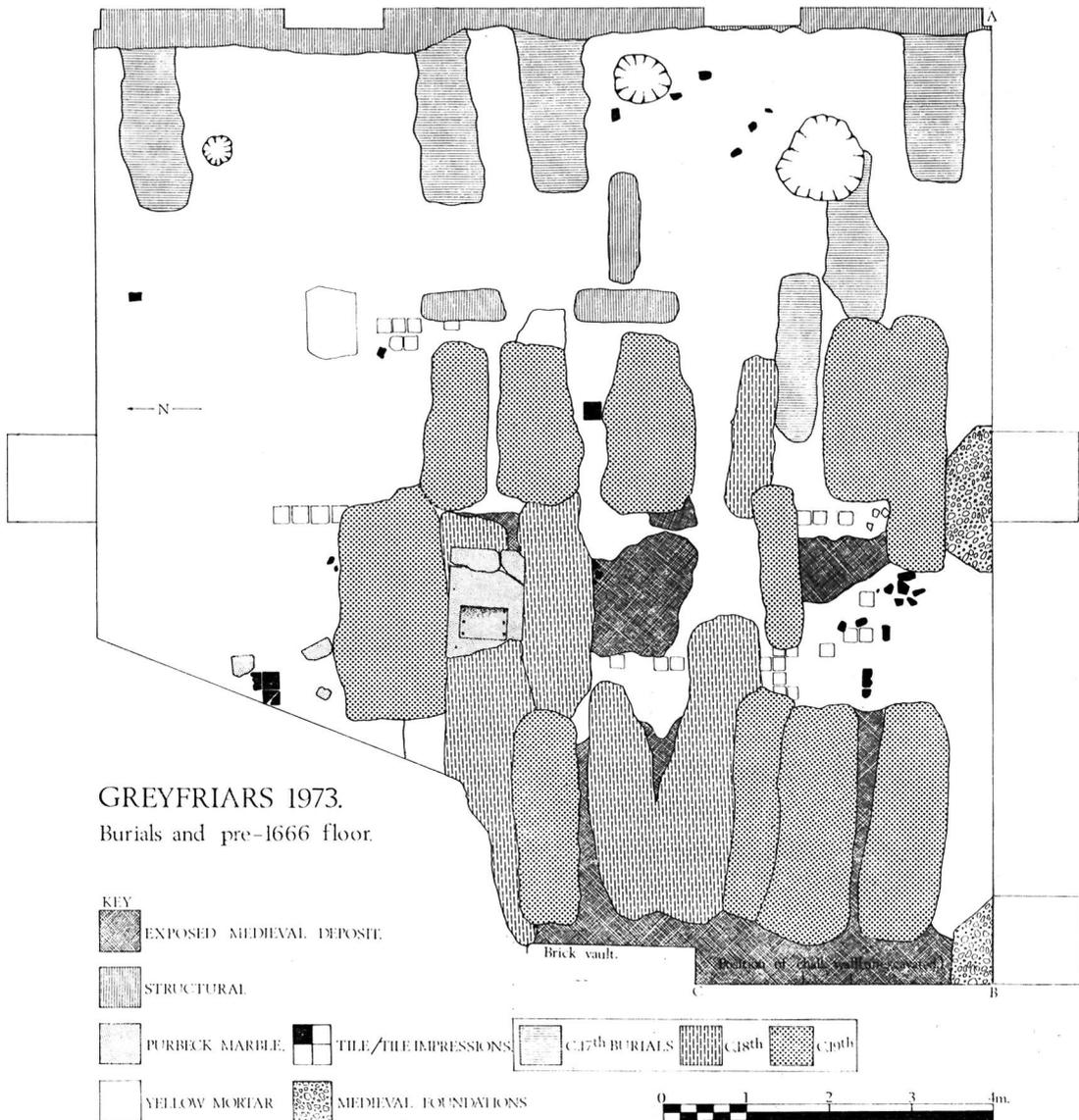


Fig. 5. Greyfriars; burials and pre-1666 floor

Immediately below Wren's foundation wall a small part of the original Medieval foundations were revealed, consisting of relatively small faced ragstone blocks and apparently extending to a great depth (only a narrow cut was visible, the wall being built tight into its foundation trench. The observation of the foundations at depth comes from the removal of graves dug up to the edge of the wall).

Between the first two Medieval pillar bases of the south aisle a trench-built arched wall was found (Fig. 4). This structure was not constructed at the same time as the pillar bases but was inserted between the completed foundations, perhaps to carry the original chapel

screens. This could have been incorporated within the fourteenth century build, or have been a later addition. Arched built foundations are not uncommon in Medieval London churches.⁹ The Medieval pillar foundation had been dug to a depth of over 2.5 m. (observed in a grave cut alongside).

Below the post-Fire dump a uniform level of coarse yellow mortar was found. This level also included the platform of the pre-Fire altar, on which survived two grave slabs of mid-seventeenth century date. To the west of the altar the mortar bore the impressions of floor tiles, and larger, presumably Purbeck slabs. One group of four plain red tiles remained in position. This mortar level, together with its floor tiles and grave slabs, represented the floor of Christchurch at the time of the Great Fire. Some areas of burning and small amounts of charcoal were observed. The uppermost level of mortar produced a Charles I Rose farthing dated 1635-40. It appears, therefore, that this level had been inserted not long before the Fire and may account for the cut for the mortar levels shown in Section 1.

GREYFRIARS 1973.

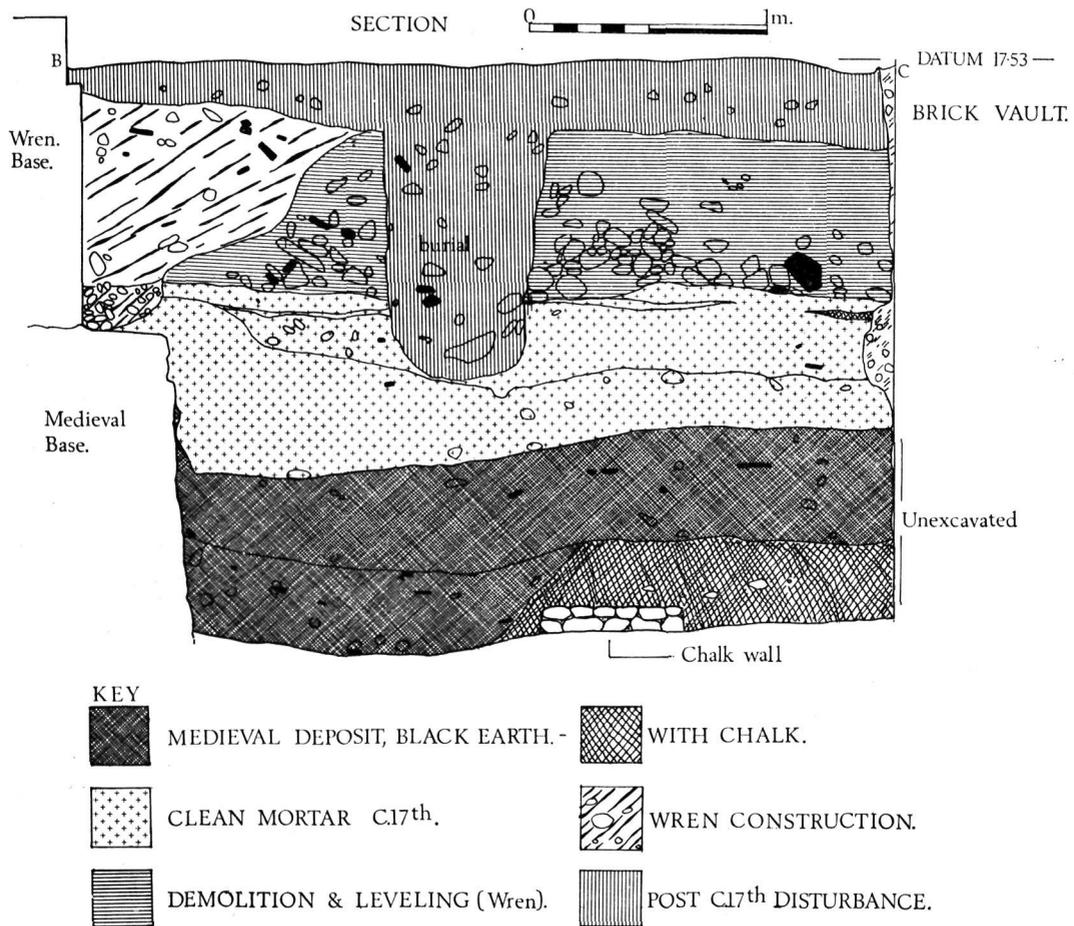


Fig. 6. Greyfriars; section through deposits B-C

Only in one corner of the excavated area, against the second pillar of the south aisle, did a continuous undisturbed stratigraphic record of the church survive (Fig. 6). This is interpreted as follows: firstly, a black, homogeneous deposit of earth and rubbish, predating the church construction and therefore dating *c.* 1300 or earlier (excluding the site of the 1240 chapel which was not within the area of excavation). Through this level the original east wall and pillar bases were seen to have been constructed.

Secondly, a level of thick, clean mortar directly overlying the black earth, but founded *below* the level from which the pillar bases had been cut. This is apparent from the black "tide mark" against the side of the pillar base foundations, the top of which must represent the original level of the black earth at the time of the construction of the bases. Some time after their construction a quantity of earth (or an original floor) was removed in order to insert the deposit of clean mortar. The clean mortar level can also be seen to partly overlie the bases before being cut through for the Wren foundations. The deposits above the mortar simply represent the previously mentioned seventeenth century levelling.

THE PRE-CHURCH DEPOSITS:

Before moving on to a discussion of the Medieval church, a brief mention should be made of the unexcavated features which were seen to exist below the threatened 2 m. depth.

Only two actual structural features were observed in the sections cut by the deepest burials. Both consisted of the remains of chalk and mortar walls, most probably belonging to the same structure. The first was found running on a north-south axis directly below the second foundation arch (Fig. 4). This section of wall running southwards beyond the area of excavation was constructed of roughly-faced chalk blocks set in a deep yellow mortar, with a thickness of almost 0.5 m. The second section of wall, built in the same manner was found on an east-west alignment in the west end of a nineteenth century burial (Fig. 5). This wall had an associated destruction level tailing north across one of the pre-church levels. The walls appear to have accumulated a heavy deposit of material (the rubbish levels) against both faces, and were probably demolished immediately prior to the construction of the Medieval church. It seems unlikely, however, that at the time of their demolition, they formed part of a contemporary structure. The foundation depth of neither of the walls was established but both appear to have been faced to a depth of at least 1.5 m., suggesting a build-up of rubbish to at least this height over a wide area.

Inspection of the sides of the deeper burials (some almost 2 m. below the mortar floor) confirmed a massive accumulation of material apparently of thirteenth century date, together with other mixed Medieval and Roman sherds. It would appear, therefore, that not only rubbish but earth bearing earlier material had been dumped on the site in this period.

In order to confirm the uniform nature of this material and to attempt to establish the full depth of archaeological deposits, the opportunity was taken to remove the base from one of the deeper brick-built vaults in the north aisle (brick vault A, Fig. 2), which was already over 3 m. below the Wren church floor. The inside area of the vault measured only 2.5 x 2 m. and proved difficult to excavate. The "dump" of Medieval deposit was found, however, to continue to a depth of 4 m. below the mortar floor level of the pre-Fire church. Below the rubbish level a light-brown brickearth with oyster shell, charcoal and pottery indicated the beginning of the Roman deposits, which were not excavated.

Only a few sherds of mixed Roman and Medieval pottery were recovered from the deposits below the vault. There appeared to be no transition between the Medieval and the

top of the Roman levels, and certainly no structures, but the restrictions of such a small area means that this information can only serve as a guide to future work in the vicinity.

DISCUSSION:

The archaeological problems of the Church of the Greyfriars are twofold. Firstly, the extensive disturbance caused by burials within the church, together with that caused by the Wren rebuilding, have removed important junctions between surviving deposits and existing masonry; burials had almost invariably been dug alongside the pillar bases at archaeologically crucial spots, leaving small pockets of material isolated from contemporary structures.

The second problem is not so tangible, but nevertheless equally frustrating. There is no shortage of documentary evidence for the church, but its literal interpretation has often led to misconceptions about the structure. The most obvious being, perhaps, the identification of the slabs laid on the twentieth century floor as those donated by Queen Margaret in *c.* 1410, and the ensuing assumption that this was in fact the Medieval floor.¹⁰

Another problem arising from the literal interpretation of the documentary evidence concerns the positions of the royal burials within the Medieval church. A list of burials¹¹ which recorded only the monuments visible in the early sixteenth century had been used by E. B. S. Shepherd to produce a plan of the burials within the Great Church.¹² The earliest plan dates to 1617,¹³ (after the monuments had all been demolished) and is at best only a representation of the Grey Friars' Church. None of the burials found within the vicinity of the high altar actually agreed with the published plan and the only grave situated in the centre of the aisle before the High Altar produced two early nineteenth century lead coffins.

The term "before the altar" in relation to the Medieval burials must, therefore, be taken to mean simply on an east-west axis. It is interesting to note that Birch,¹⁴ working from the same two sources as are available today (the 1616 survey and the Cotton MS), produces a different arrangement for the burials, moving those in the aisle a whole bay westwards by the introduction of a retro altar across the first two pillars. Of the two arrangements, the plan presented by Shepherd is preferable, and is the one cited by G. H. Cook in a more recent work.¹⁵

It is still possible that Queen Margaret was buried immediately before the High Altar of the Medieval church, perhaps in a coffin whose lid formed the ledger stone. Such a structure would have been easy to remove, possibly at the time of the Dissolution, and little trace would have been left. Any signs of such a grave would have been obliterated by the subsequent deeper burials within the Wren church. The general absence of Medieval burials within the first two bays of the choir agrees well with Shepherd's interpretation. The two which he does place within this area would not have been likely to have survived later disturbance.

In reality, the documentary sources tell us very little either about the actual structure of the Greyfriars' Church or its internal layout. What we are told is undoubtedly explicit historical fact; that the persons listed in the register were buried in the Medieval church is beyond dispute, that Queen Margaret donated a pavement and that the Conventual church was built on the site of the original thirteenth century chapel can also be accepted. The problems arise from our interpretation of the evidence and its application to the modern structure. The shell of the Wren Christchurch occupied the site of and incorporates the foundations of, the east end of the Franciscan church; there the similarities end. The survival of a seventeenth century floor almost 2 m. below the modern floor level illustrates the final and positive disruption in the history of the Medieval structure.

The life of the Greyfriars' Church, from its final completion *c.* 1350 to its destruction after the Great Fire was not uneventful. Between 1538 and 1546 the church was shut up and used as a storehouse, until it was finally re-opened as a parish church, by which time it had been thoroughly rifled and its fine monuments dispersed. Also at this date many of the internal screens were demolished. In 1628 a gallery was added so that by the time of the Fire much of the original internal Medieval fabric would have been already destroyed.

Archaeologically the excavation has shown that within the structure the Medieval deposits pre-dating the church survive almost intact (apart from intrusive burials). The potential worth of this material dated by the building of the church need not be stressed, and the accumulative depth of deposits suggests also that the area in proximity to Christchurch is worth further investigation, even below the deeper basements and cellars of buildings due for re-development.

NOTES

- ¹ E. B. S. Shepherd, "History of the Church of the Franciscans", *Archaeol. J.*, 59 (1902), 238-87.
- ² The Register of the Greyfriars of London Cotton MS (after E. B. S. Shepherd "The Church of the Greyfriars", *Archaeol. J.*, 59 (1902), opposite 238).
- ³ Sir G. Buck, *Third Universitie* (1615), Chap. 34.
- ⁴ *Monumenta Franciscana* ii, 215. See also Stowe, *Survey of London*, Vol. I, 322.
- ⁵ W. G. Bell, *The Great Fire of London* (1920).
- ⁶ For a description of the inside of the Wren Church. See *Trans. of St. Paul's Ecclesiological Society* 8 (1911-15). Also Royal Com. Hist. Mon., *London (The City)*, Vol. IV (1929), 104-107.
- ⁷ A list of the recorded burials is lodged with the excavation records to be held in the new Museum of London.
- ⁸ Approximately 15,000 cu. metres of rubble must have been disposed of by Wren in this way.
- ⁹ W. F. Grimes, "The Church of St. Bride, Fleet Street", *The Excavation of Roman and Medieval London* (1968), 207, and Pl. 95. See also F. C. Eeles, "Discoveries during the demolition of St. Michael Bassishaw", *Trans. London and Middlesex Archaeol. Soc.*, N.S. 2, Pt. I (1910), 164-78.
- ¹⁰ Royal Com. Hist. Mon., *London (The City)*, Vol. IV (1929), 104.
- ¹¹ Cotton M.S., *op. cit.*, Note 2.
- ¹² E. B. S. Shepherd, *op. cit.*, esp. illustration opposite p. 248.
- ¹³ J. E. Price, "On Recent Discoveries in Newgate Street", *Trans. London and Middlesex Archaeol. Soc.*, 5 (1881) 420. This includes the 1617 map, also a note on the Medieval external buttress of the Greyfriars Church revealed during building work in 1874.
- ¹⁴ J. H. Birch, "The Franciscan Monasteries of the Greyfriars Newgate", *Newberry House Magazine* (1884), 207-19.
- ¹⁵ G. H. Cook, *English Monasteries in the Middle Ages* (1953).

THE WORKED STONE (Figs. 7 and 8)

BY J. W. S. LITTEN

No.	Type of Stone	Description	Date
1	Derby Alabaster (white)	Scroll work. Portion of a decorative border of a sepulchral monument	English; first quarter of seventeenth century
2	Derby Alabaster (white)	Portion of a border of an inscription panel of a sepulchral monument	English; first or second quarter of seventeenth century
3	Derby Alabaster (white)	Portion of a lace neck ruff from an effigy, but more probably a kneeling figure, of a sepulchral monument	English; first or second quarter of the seventeenth century
4	Derby Alabaster	Portion of border of a sepulchral monument. Gesso on the two innermost orders	English; last quarter sixteenth century, or first quarter of seventeenth century

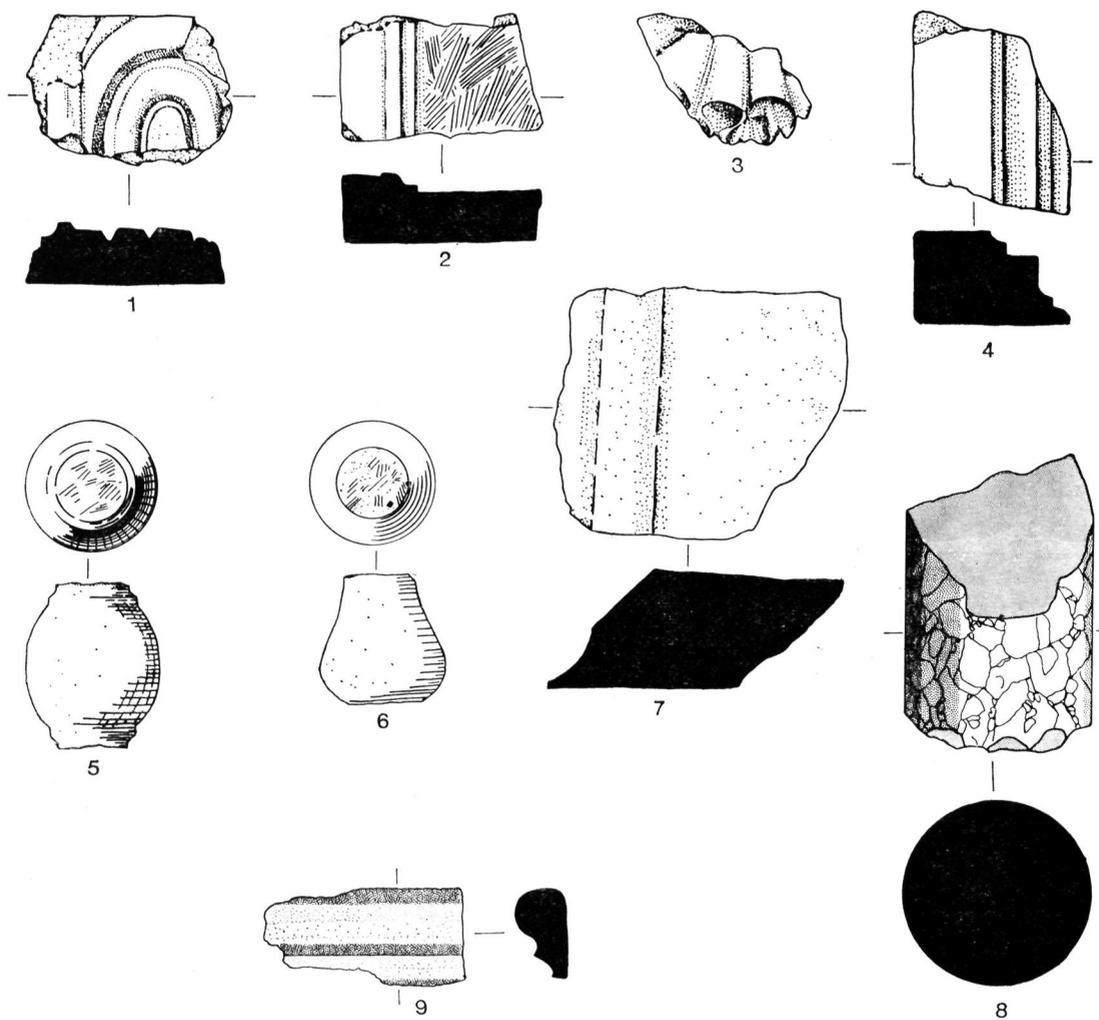


Fig. 7. Greyfriars; worked stone 1-9 ($\frac{1}{4}$)

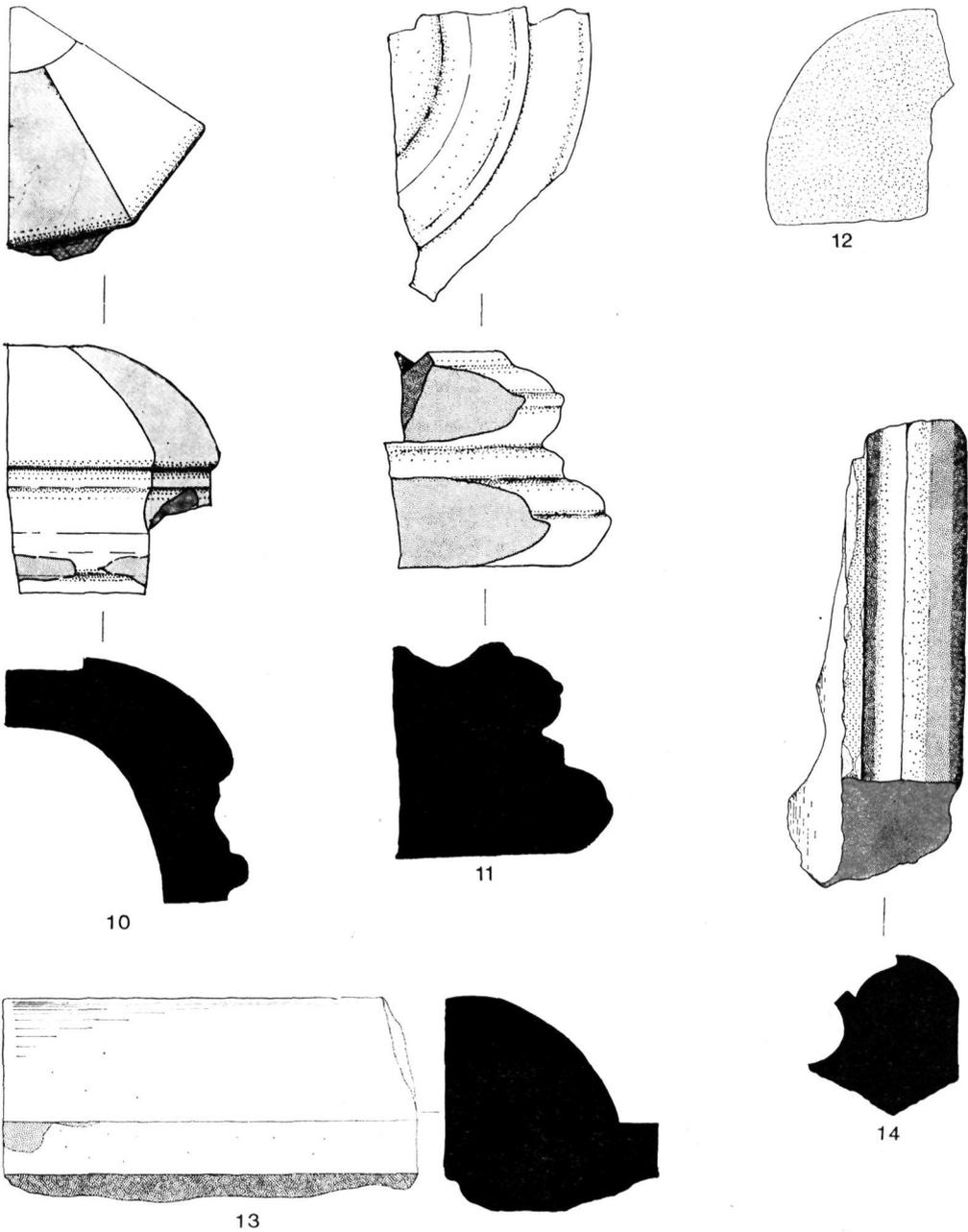


Fig. 8. Greyfriars; worked stone 10-14 ($\frac{1}{2}$)

No.	Type of Stone	Description	Date
5	Grey Marble	Baluster shaft of a small sepulchral monument	English; second quarter of seven-teenth century
6	Ditto. (two fragments)	Ditto. (Certainly from the same monument as 5)	Ditto.
7	Sandstone?	Facing of a column?	English; late four-teenth/early fifteenth century
8	Unidentified	Column flanking a sepulchral monument	English; last quarter of sixteenth/first quarter of seventeenth century
9	Belgian Black Marble —touchstone	Portion of an inscription border of a sepulchral monument	English; last quarter of sixteenth/first quarter of seventeenth century
10	Marble (white)	Portion of a four-sided pendant corbel of a sepulchral monument	English; second quarter of seventeenth century
11	Purbeck Marble?	Base of a capital shaft. Of six orders. (Roughly quarter of total circumference)	English; second half of fourteenth (Conceivably a little earlier—first half of fourteenth century)
12	Purbeck Marble	Portion of a capital shaft. (Roughly quarter of total circumference)	English; second half fourteenth century. Possibly couples with previous entry
13	Unidentified	Probably a shaft and return for a window. At the outer extremities of the window where it meets the wall	English; first half of fifteenth century
14	Clunch Stone	Portion of a fitting rather than of the structural fabric; possibly of a Pulpitum or Reredos. Painted in yellow; overpainted in red on the two external mouldings	English; fourteenth century. The paint contemporary, the red possibly later, yet not after second quarter of sixteenth century (<i>i.e.</i> 1540 Dissolution)

DECORATED FLOOR-TILES (Fig. 9)

BY LAURENCE KEEN

A small group of tiles was recovered from levels associated with Wren's rebuilding of the church: five groups are represented among the 37 fragments submitted for examination.

- I. (Fig. 9, 1 and 2). The 20 fragments of No. 1 are all about 25 mm. thick with a slight bevel. The design is inlaid and where the inlay has fallen out the depression is about 1 mm. thick. A similar tile from this site is located in Taunton Museum, Somerset, and is recorded by J. B. Ward-Perkins.¹ The same design is recorded among tiles from Chertsey Abbey, Surrey.² The tiles at Chertsey belong to the second half of the thirteenth century. The use of the same design for tiles to floor the early thirteenth century chancel of the Greyfriars demonstrates that the block was still being used then. The design seems to have



1



2



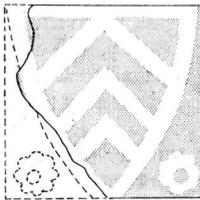
3



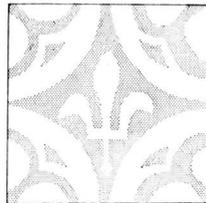
4



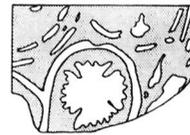
5



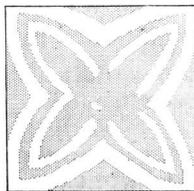
6



7



8



9



10

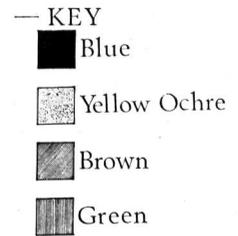


Fig. 9. Greyfriars; decorated floor tiles Nos. 1-9; two-colour Medieval tiles. No. 10, seventeenth-century Dutch polychrome ($\frac{1}{4}$)



Greyfriars; view from west showing area of excavation and east end of the Wren church

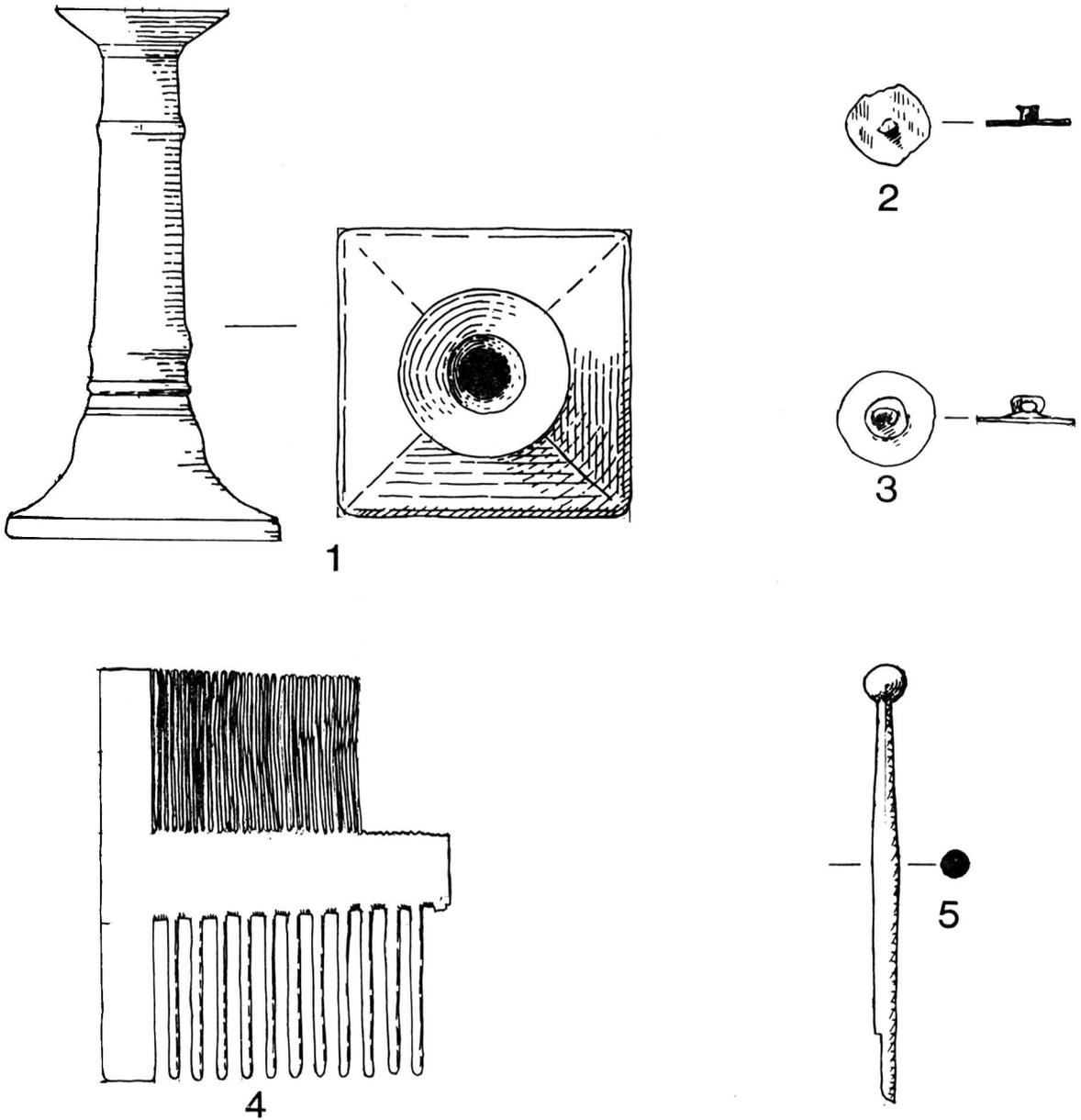


Fig. 10. Greyfriars; small finds, all (1/1) except No. 1 ($\frac{1}{2}$)

formed the basis for at least one other smaller block which was used for tiles in Hampshire.³ There was only one piece of No. 2 and the design is too worn to identify with certainty; it would seem to belong to the Chertsey series too.

- II. No. 3. Five fragments 23–25 mm. thick. The design is two-colour but the white clay does not fill the depressions entirely. No. 4 a slightly smaller variety of the same design about 16 cm. square, which may have been the model for No. 3 since the inlay is better. One piece only.
No. 5. Three pieces about 22 mm. thick with poor inlay.
The design No. 3 is already recorded from London, Wilson Street,⁴ and from Hyde Abbey, Winchester. The group is probably fourteenth century in date.
- III. No. 6. Two fragments only. Similar examples are in the Guildhall Museum collections (Acc. No. 6870); the provenance is the City of London. The tiles probably belong to the "Westminster" series.⁵
- IV. Nos. 7 8 and 9. One fragment of each design. The tiles vary in thickness between 15 and 22 mm. The designs are printed and belong to the Penn series. No. 7 is already recorded from London, from Penn, Buckinghamshire, where the tile was probably made, Missenden, Whitchurch and Saunderton.⁶ Nos. 8 and 9 are too worn to identify with certainty; fourteenth century.
- V. No. 10. Polychrome seventeenth century Dutch tile, 18 mm. thick with buff-coloured fabric. This tile was sealed by Wren's building, so has a useful *terminus antequem* of 1704 (see p. 221).

NOTES

¹ London Museum, *Medieval Catalogue* (London, 1954), 234, Fig. 83, 81.

² British Museum, Rutland Collection Nos. 8178–83. I am grateful to Mrs. Elizabeth Eames who kindly provided details of the Chertsey tiles.

³ Selbourne and the Broadway, Winchester. G. E. C. Knapp, "The Medieval paving tiles of the Alton area of N.E. Hampshire", *Proceedings of the Hampshire Field Club*, XVIII (1954), 308, No. 58; and J. B. Ward-Perkins, "Medieval tiles found beneath the Broadway, Winchester, 1937", *ibid.*, XIV (1940), 42, Fig. 5.

⁴ *Medieval Catalogue*, 246, No. 61.

⁵ For a recent discussion, see Laurence Keen, "Medieval floor-tiles of the "Westminster" tiler at Bengoe, Hertfordshire", *Hertfordshire Archaeology*, III (1973), 90–93.

⁶ *Medieval Catalogue*, 239, No. 18; and C. Höhler, "Medieval paving-tiles in Buckinghamshire", *Records of Buckinghamshire*, XIV (1942), 108, P. 48.

THE SMALL FINDS (Fig. 10)

1. Brass candlestick, worn thin at base by polishing, the shaft is attached to the base by one large rivet. From the fill of a late eighteenth century grave.
2. Bronze fastener, single small rivet, from seventeenth century rubble levelling.
3. Bronze button, small eyelet no decoration, from seventeenth century rubble levelling.
4. Bone comb, from seventeenth century rubble levelling.
5. Bone pin, from backfill of eighteenth century grave—probably Roman.

THE COINS

BY RALPH MERRIFIELD

1. Nuremberg jeton of Hans Schultes. 1550–74. From seventeenth century levelling.
2. Nuremberg jeton of Hans Krauwinkel. 1586–1635. From seventeenth century levelling.
3. Fragmentary Nuremberg jeton by one of the Laufer family. Seventeenth century. From seventeenth century levelling.
4. Charles I Rose Farthing Token—type 1d. (First part of period of issue, *i.e.* c. 1635–40). From mortar floor below seventeenth century levelling.

ACKNOWLEDGEMENTS

Thanks are due to the City Engineer's Department for their active interest in the excavation; also to St. Marys Demolition, who were engaged to remove the east wall of the Wren Church and contributed workmen to assist in the removal of modern brick and concrete.

Special thanks are due to Julian S. Litten and Laurence Keen for the specialist stone and tile reports, and to Ralph Merrifield of the Guildhall Museum for the coin report; also John Clark for his assistance with the documents.

The Editors and the Author are extremely grateful to both the Department of the Environment and the Corporation of London for grants towards the cost of publishing this paper

EXCAVATIONS FOR STANE STREET IN THE CLAPHAM AREA 1966-71

DONALD IMBER

INTRODUCTION:

Three long parts of the present A3/A24 main road from London Bridge to Ewell, in Surrey, lie nearly upon a straight line. In the past, it has been accepted that this follows part of the route of a Roman road. Known as *Stanstret* as early as A.D. 1270,¹ surface indications remain in Surrey and Sussex.

Since Captain W. A. Grant's critical review of Hillaire Belloc's excursions on Stane Street, notable investigators in the field have been S. E. Winbolt and Ivan D. Margary.² It has been considered that Stane Street (no. 15 in Margary's route system) would have been built for essentially military purposes, and that work on it may have drawn to a close by about A.D. 70, forming a link between Chichester (*Noviomagus*) and London.

Captain Grant calculated its *alignments*, of which the major one, that is between termini, appears to form a basis for the *actual course* of the Roman road from Ewell to London.

However, the northern point at London, through which an alignment would pass, is not yet known. No matter how accurately the Roman engineers were able to peg out this line upon the ground, advantages and disadvantages in the local terrain must have necessitated occasional minor deviations from the intended route. Practically speaking, therefore, we must look to our research and fieldwork to find the *course* which was *actually followed*.

The collected map evidence in Clapham, by the line suggested by Margary, has justified "trial by trowel". The following sites, one in Stockwell and the other two in Clapham, were excavated prior to re-development (see Fig. 1):

281-83 CLAPHAM ROAD, STOCKWELL, S.W.9, in 1971.

On the east side, in front gardens, between Lingham Street and Grantham Road, at O.S. grid reference TQ 3038.7627.

HENRY THORNTON SCHOOL, ELMS ROAD, CLAPHAM, S.W.4, 1966-68.

In the School playing field, north side of Elms Road at TQ 2945.7470.

82 GASKARTH ROAD (AND 81 HAZELBOURNE ROAD), CLAPHAM SOUTH, S.W.12, in 1970.

The addresses are of prefabricated houses erected after World War II. The site lay on the west side of Westlands Terrace at TQ 2905.7409.³

A road appears to have been located on these sites, though it was associated with Roman finds only at Stockwell. No Roman material was discovered on either of the two Clapham sites. Details are given later of several roadworks trenches which were successfully examined in the area. The evidence for the other, clearly post-medieval site features from the excavations listed above are recorded in the full report, deposited elsewhere.⁴

HISTORY:

DOCUMENTARY:

A thirteenth century copy (c. A.D. 1250) of a Charter dated A.D. 1062⁵ appears to refer to local Roman roads when briefly describing boundaries as follows:

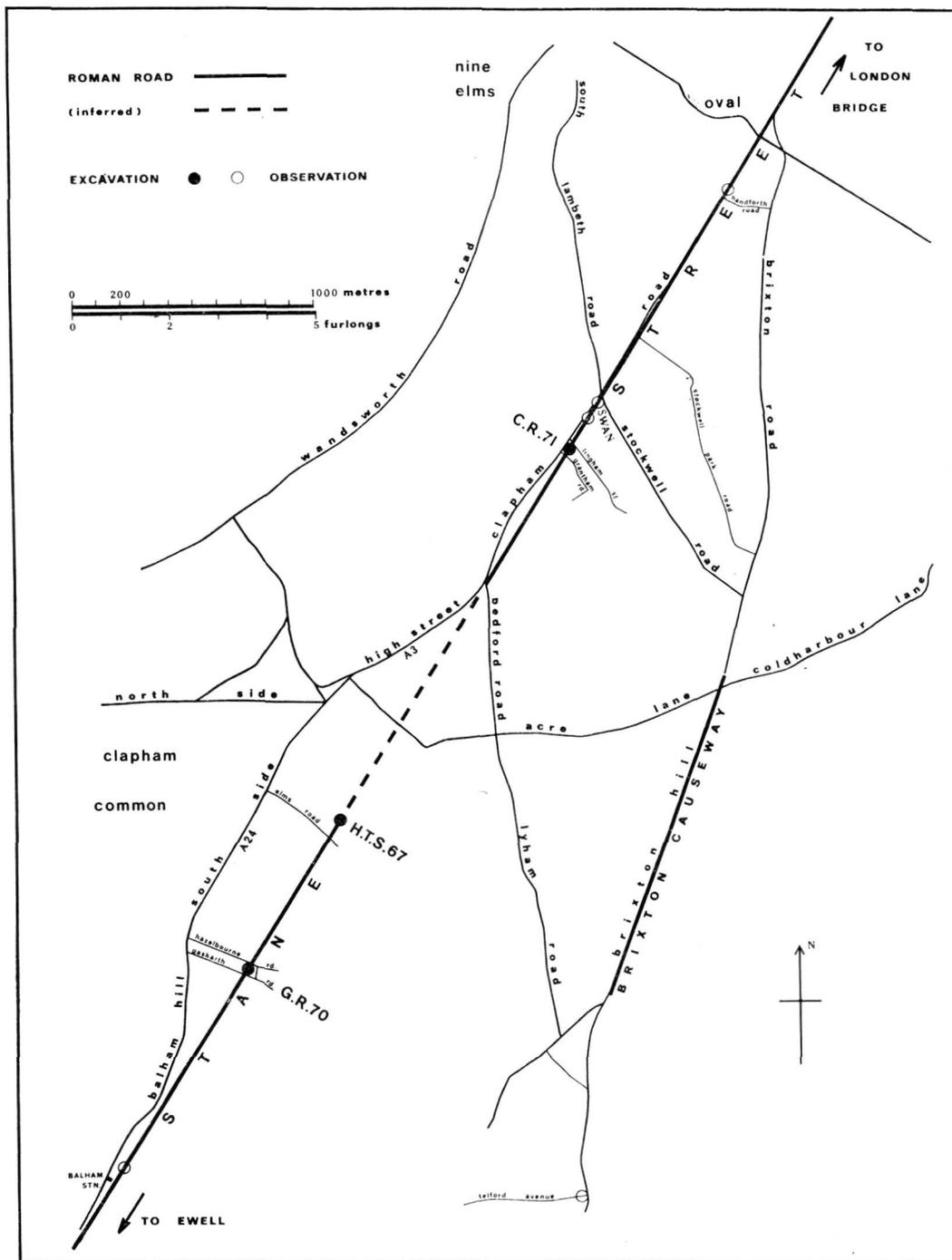


Fig. 1. Excavations for Stane Street; site location map

*This synd tha landgemaere into Lambelhythe.
 Aerest aet brixges stane;
 and swa ford thurwih thane graf to tham maercedice;
 and swa to bulce treo;
 and fram bulce treo to hyse;
 and fram hyse to Aelsyges haecce;
 and swa est to thare strate;
 and swa andlang strete est to brixes stan.*

The translation runs as follows:

These are the land-boundaries of Lambeth.⁵
 Start at Brixton;⁷
 and so onward through the small wood to the boundary-ditch;⁸
 and so to *bulce treo* (twisted tree);⁹
 and from *bulce treo* to Hese;¹⁰
 and from Hese to *Aelsyge's Haecce* (enclosure);
 and so east to the Street;
 and so along the eastern Street to Brixton.

For the most part, the bounds appear to follow the early nineteenth century form of Stockwell and Vauxhall Manors, starting near the top of Brixton Hill and going downhill northward along Lyham and Bedford Roads to Clapham North, possibly along Stane Street towards "The Swan" at Stockwell, turning north at some point near the latter (*bulce treo*) to meet the Heathbrook or Hesevall Sewer beyond Wandsworth Road and thereby to Hese near the present Nine Elms (Figs. 1 and 2).

The next part is not clear, since *Aelsyge's Haecce* seems to have left no trace, but the bounds next go east to the Street (probably Stane Street), perhaps along the Effra river to the Oval area. The syntax of the Charter seems to refer to two distinct "Streets" at this point, the term usually being interpreted as a Roman road. Margary's route no. 150, the "London-Brighton Way", presumably joined Stane Street near the Oval; he considers that Brixton Road represents the first portion of that route. Whatever is in fact meant by "Street" in the Charter we are at any rate told that one of them leads to Brixton. I have translated this to be the "eastern Street" although one is not at any time facing east. Stane Street would be nearly followed by Clapham Road and Kennington Park Road at the Oval, and with respect to that turnpike road, in the eighteenth century, Brixton Road is called the "Eastern Road". Brixton Hill is called "*Bristol Causeway*" in the seventeenth century.¹¹ A little further south, this route passes through Streatham, a significant village-name.¹²

The clay sub-soil outlined in Fig. 2 undoubtedly supported a quantity of natural woodland along the line for Stane Street in Roman times (see map list below, no. 10). There is evidence of wood on that side of Brixton Hill at least, from the mention of "*graf*", "through" which one must go in the Charter.

A later medieval document gives more detailed information on this topic, in the words of a partition of lands of Stockwell and Clapham Manors in A.D. 1326:

There is also assigned to the said Roesia a moiety of wood of Clopham (Clapham), to wit, on the east side, towards Stokwell (Stockwell) . . . and the said moiety contains 70 acres.¹³

MAP EVIDENCE:

Indications which may be of Stane Street suggested by modern maps of the A3 and A24 route from London to Ewell are borne out by the earliest maps drawn with any reliability.¹⁴ They concur in showing the deviation of the present main route westward of Margary's line, between Stockwell and Balham. A map has already been published showing features from old

maps which tend to confirm this line in Clapham.¹⁵ A number of maps exist which show buildings formerly standing on the sites excavated.¹⁶

PREVIOUS FIELDWORK:

North of the Elephant and Castle, several sites have now been examined which throw light on the approach of Stane Street to the Roman crossing into London.¹⁷

Proceeding southwards; the author, in March, 1974, recorded stratigraphy in a roadworks trench in Clapham Road, just south of the Oval. The small trench had been cut just east of the western gutter, directly opposite the gate of No. 37 Clapham Road, S.W. 9, grid ref. TQ 3103.7736. The possible remains of Stane Street were seen as a layer of gravel mixtures 0.3 m. deep, the top of which lay about 1.42 m. below the present road surface. It was compacted fairly hard in four layers as follows: the top layer, 0.06 m. of very small, angular gravel; below this, 0.05 m. of pebbly gravel with some sandy clay; under this, 0.1 m. of very sandy mix with a little gravel; beneath that, 0.08 m. of pebbles, some palm-sized, mixed in brown clay and resting on the brown clay sub-soil. Several soil horizons separated the modern road from this feature, though none could be interpreted as road make-up. The general soil sequence was the same as on all of the other sites.

At Stockwell, outside "The Swan" public house, on the eastern pavement of Clapham Road, S.W. 9, the author recently recorded similar features at grid Ref. TQ 3050.7648, but here, about 0.075 m. of mixed, pebbly gravel, darkish in colour, with small and large gravel stones, overlay another level of yellow, sandy clay. The top of the feature lay about 1.37 m. below the pavement surface of the present time. A little further south, another trench was cut, again on the eastern pavement of Clapham Road at TQ 3046.7641. The feature there was of a similar depth and texture of pebbly gravel, except that it overlay two other layers of somewhat greater depth: fine gravel and grey-brown clay, then grey clay mixed with brown clay beneath. A dip in the pebbly gravel on the west there corresponds well with the edge of the ditch to the road discovered at 281–283 Clapham Road, a little south of these roadworks. The general sequence of deposition is again consistent with the findings elsewhere on the Stane Street line.

Some years ago, contractors laid trenches on the site of a former convent in Crescent Lane, Clapham, S.W. 4, which were "cut across both the possible lines of the road¹⁸ but with completely negative results as far as the finding of a road are concerned." At about 35 yards from the western boundary wall, at the west end of the plot, Mr. Margary investigated a section of gravel overlain "by miscellaneous pottery some Roman and early medieval" but came to the conclusion that the gravel was natural.

Still more to the south, a building site was examined by the author about 64 m. north of Balham British Rail Station, on the east side of Balham High Road, S.W. 12, at TQ 2854.7325. Beneath the top-soil was a heavily disturbed layer of large flints with mortared gravel lying across Margary's line.¹⁹

Much further southwards, work has been undertaken on Stane Street in Morden and in Ewell.²⁰

With regard to Margary's route No. 150, which has already been introduced, some interesting observations have been recorded along this line in Brixton and Streatham. A large number of the observations of roadworks are inconclusive owing to the considerable modern disturbances. However, in Telford Avenue, S.W. 2, some 10 m. west of the junction with Streatham Hill, at TQ 3038.7326 a long trench was cut from the centre of the road to the north edge of the northern pavement. It revealed a remarkable series of hard gravel layers,

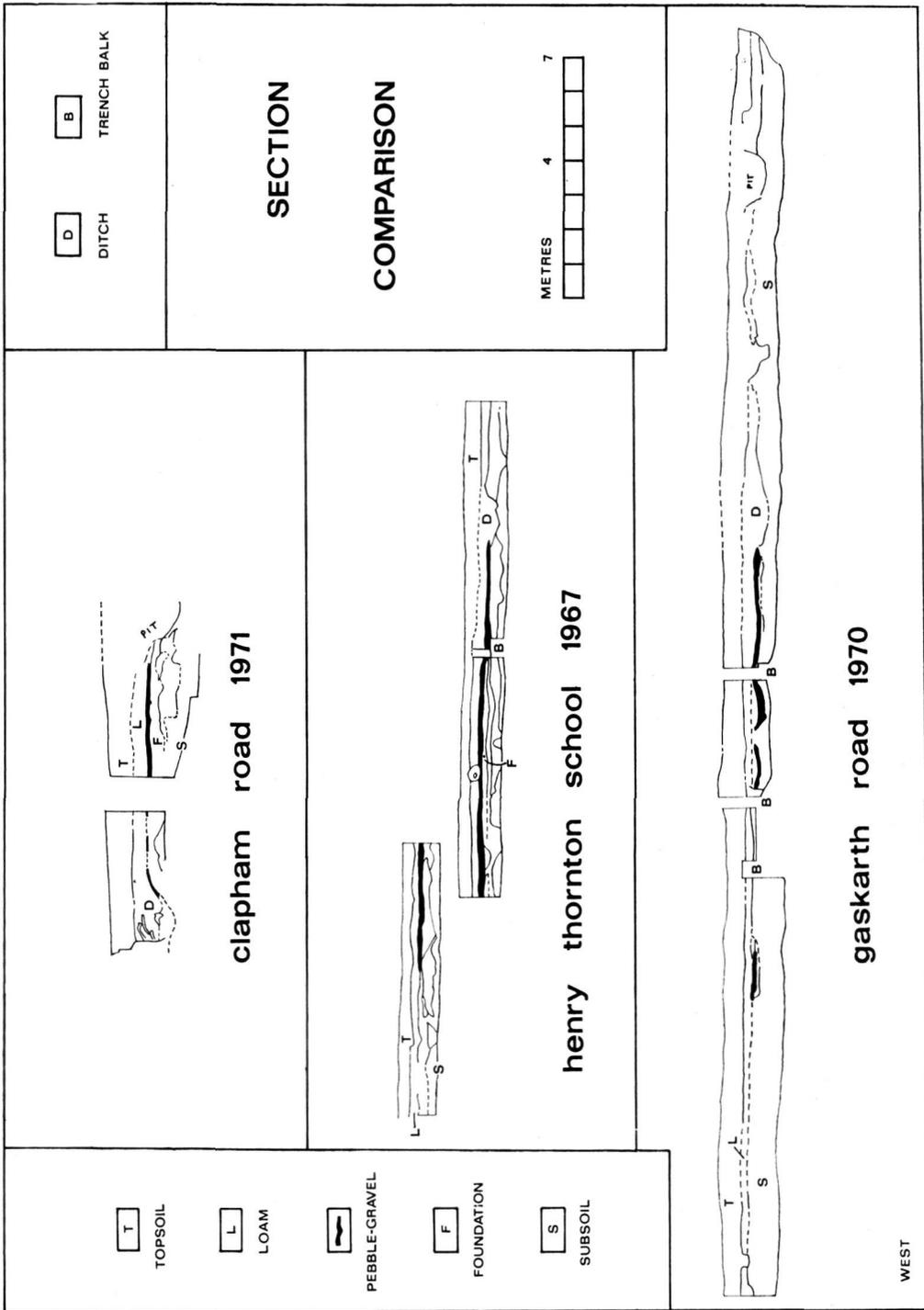


Fig. 3. Excavations for Stane Street

undoubtedly road-metal. Modern road levels were betrayed by stoneware inclusions. These were separated from gravels beneath by a thin band of grey soil. The sealed gravels were in two layers totalling 0.43 m. depth. The upper one was pale buff, with black flints (broken in half in the section where they were rammed very tight), whilst the lower layer was of bright orange-red colour lying neatly on natural brown clay. The top of these two layers was about 1.10 m. below the main road surface of August 1967. The adjacent corner site to the north of this trench was examined, but contractors' trenches there did not confirm that the gravels continued northward; indeed the subsoil levels there excluded it, even though the gravels were on Margary's line. If it represented a Roman road, it would have a different direction.²¹

Thick road metal was also observed many years ago beneath Leigham Avenue—the straight road which led to the assumed site of the former Manor House of Leigham Court, uphill and westward of Streatham High Road, S.W. 16. The exact locations in Leigham Avenue are uncertain.²²

The foundations of houses near the Bedford Park Hotel, Stanthorpe Road, Streatham, S.W. 16, built in A.D. 1882, were said to have been cut through a hard-packed Roman "pavement".²³

STOCKWELL—281-283 CLAPHAM ROAD, 1971

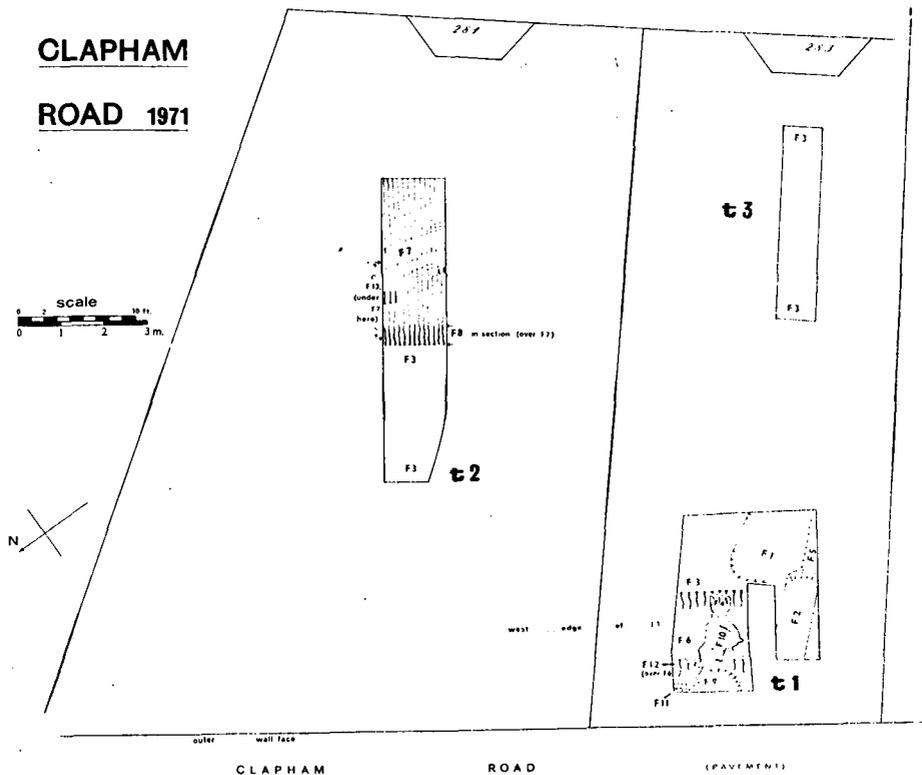


Fig. 4. Excavations for Stane Street, Clapham Road, 1971. Site plan

SIGNIFICANT FEATURES:

The position of the trenches is shown on the site plan (Fig. 4). Trench 2 was laid initially

by machine, whilst the latter was used to remove much of the top-soil and loam of trench 1 and the whole of trench 3. The north sections of trenches 1 and 2 are shown on Fig. 7.

With reference to this illustration, occupation levels appeared to commence with the pale buff sand and its overlying "surface" of darkish pebbly gravel, F3. The latter sloped at its western edge into a ditch, F6, forming its apparently initial fill. As found, F3 varied in thickness from about 0.03 to 0.13 m. Its eastern edge was rather ragged where observed later in contractors trenches, the overall width of the feature being approximately 15.25 m. F6 was about 0.72 m. deep and rather more than 2 metres wide.²⁴

The second fill of the ditch was of dark silt, mottled ginger and grey, a little loamy and lying between and above the stones of the first fill. It seemed possible that the stones may have sunk through the early silt accumulation to invert the apparent stratigraphy.

Water had eroded a channel, F5, through the pale buff sand towards F6, carrying the stones down from F3 to lie in a pocket. Coarse fawn sand lay a few centimetres deep over F3, sloping down to become indistinct in F6.

In trench 1, this was succeeded by brown sand (yellow loam elsewhere) where it was in turn cut by a silty layer of much pea-grit, cutting down to the western edge of F3 and flowing into F6, re-cutting it and depositing the third ditch fill there. It left F4, a band of very hard, black pea-grit and gravel along the edge of F3. Sandy, yellow loam (sealed by a thin band of ginger sand) formed the fourth and final distinctive ditch fill, taking within it several tips of gravel, F12.

F10 was a feature containing animal bones in a soil of mottled ginger and grey silt which was sunk down into the fourth fill of F6, from an unknown level above. F7, only partly shown in Fig. 7, was a large pit, perhaps a gravel quarry, or a ditch, cut from about mid-way in the yellow loam in trench 2, down through F3 to the top of a probable ice-wedge, F13. (See Fig. 4; it is not shown on the section, Fig. 7.)

Black topsoil covered the loam over the entire site.

The post-medieval site features are described in the full report deposited elsewhere.

THE FINDS:

Finds from the foregoing are listed below in the apparent order of deposition. The list includes all material from the Roman period and earlier, discovered on the site. Other, medieval and later material was found, following the fourth ditch-fill, but it has been omitted here:

RED SAND. The Samian sherd, catalogue No. 8, may have come from either this layer or the bottom of the much later pit F7. It was recovered in machine spoil from Trench 2, with red sand adhering to it.

PALE BUFF SAND. Two sherds of ceramic material were found. One is possibly of tile but neither is identifiable. One piece came from over 0.12 m. down in this sand.

PEBBLE-GRAVEL F3. Six sherds. One of coarse, grey, sandy fabric, very abraded, is part of a pot, vessel and fabric unknown. Three sherds were in the primary ditch-fill and may be related to the second fill. One sherd of coarse, red, unknown fabric came from F3 in Trench 2.

SECOND DITCH-FILL F6. Eight sherds. One is Samian catalogue No. 65. Another may be clay from wattle and daub or tile. Again, the rest are unidentifiable.

CHANNEL F5. Three sherds. One of them is Samian catalogue No. 47. The others are too fragmentary to identify.

COARSE FAWN SAND. Eight small sherds, one of them is Samian, catalogue No. 12. Several lumps of decayed wood were found, one of them resembling a tree-root.

THIRD DITCH-FILL F6. Contiguous with this layer, F4, produced a single sherd of coarse, red, unknown fabric of the same material at that described in F3, Trench 2, above.

FOURTH DITCH-FILL, F.6. Four sherds. Two are Samian, catalogue Nos. 1 and 19. Another sherd is apparently of medieval Surrey ware, which would not have been made before *circa* A.D. 1280, but is probably fourteenth or fifteenth century in date.

YELLOW LOAM. A residual flint flake was recovered in Trench 1.

A crumbled fragment, probably Samian, catalogue No. 71, was found as well as a tiny sherd of brown, colour-coated fabric with a slight possibility of it being Colchester-made, third or fourth century A.D. in date. From the eighteenth century onwards, the earlier levels were much disturbed by intrusions from this layer in the form of pits.

F10. The bones appeared jumbled, including a number of rib bones, all of an animal(s). Those recognisable are the mandible of a horse having the first and second premolars intact and a probable femur (probably cattle). All bones and ceramics in Trench 1 below a certain level were softened and decayed by chemical action.

F7. The primary fill yielded a sherd of Surrey ware, catalogue No. 22 and a sherd of Samian, catalogue No. 21A. A piece of a jug in red ware of the thirteenth or perhaps early fourteenth century A.D. was found with post-medieval pottery in the upper fill.

F2. About half of a Samian base and footring, catalogue No. 9, was found here in a late-eighteenth or early-nineteenth century context.

BLACK TOPSOIL. Part of a Roman roof-tile (tegula) and a Samian sherd, catalogue No. 10, came from this humus.

THE SAMIAN WARE

BY JOANNA BIRD

Trench	Layer	Cat. No.	Vessel Type and Remarks
1	Second fill, F6	65	South Gaulish fragment, later first century A.D.
1	F5	47	Dr. 18, probably, South Gaul, Flavian.
1	Coarse fawn sand	12	Fragment, probably South Gaulish.
1	Fourth fill, F6	19	South Gaulish fragment, later first century A.D.
1	Fourth fill, F6	1	South Gaulish fragment, later first century A.D.
1	(Upper) yellow loam	71	Crumbled fragment, probably Samian.
1	F2	9	Dr. 18, probably, with edge of stamp; South Gaul, Flavian-early Trajanic.
1	Topsoil	10	Dr. 37, South Gaul, Flavian.
2	First fill, F7	21A	South Gaulish fragment, later first century A.D.
2?	Machined spoil	8	Dr. 18, South Gaul, Flavian-early Trajanic.

The pieces recovered from the site are almost all too small and abraded to date closely, but would all fit a date range of *circa* A.D. 70-100.

The remaining fragments, catalogue Nos. 68, 18, 14 (Trench 1) and 21B, 37 and 36 (Trench 2) are apparently bits of clay from wattle and daub. or possibly abraded tile.

STOCKWELL:

THE MAIN RESULTS:

The pale buff sand, together with the overlying pebble gravel feature F3 and the associated ditch F6, appear to represent the initial phase in the construction of a road of suggested first century A.D. date, though it could be much later. None of the associated finds, even where unidentifiable, would be excluded from a Roman context. The road lay along the east side of Margary's line.

The second, or destructive phase of the road comprised the surface erosion of the west side of F3 in trench one and the deposit of water-borne material in F5, the coarse, fawn sand sealing F3 and the more advanced filling of the ditch. These features carried identifiable Roman pottery, of the period *circa* A.D. 70-100. It seems likely that the other samian pottery finds, all from within this time period and found in various site features, were dug up from these levels.

There were no positive signs of any attempt to re-surface this road, at least in Roman times. The bands of gravel, F12, sloping down into the final fill of the ditch overlay a sizeable sherd of Surrey ware in circumstances showing no intrusion, and are therefore later than *c.* A.D. 1280. Part of the surface of F3 in trench 2 showed a sandwich effect of fine alternating bands of sand and pea-grit. This, and the pea-grit sloping into the road ditch may be the remains of fine road dressings, but it is difficult to surmise from destruction. The local brown sand seen over F3 in trench 1 contained very hard ferrous-like bands and appeared to be water-laid. The stones trailing into the bottom of the ditch may have sunk through the silt there over a fair period of time.

The large pit or ditch F7, which cuts through all road levels is something of a puzzle. It may be a gravel-pit; clearly, it would be related to a shifting in the axis here of Clapham Road away from the Roman line. Early nineteenth century maps show Clapham Road where it lies today.

The relationship of this site with the other sites and the line of the Roman road is discussed below, p. 247.

CLAPHAM—HENRY THORNTON SCHOOL, 1966–68

SIGNIFICANT FEATURES:

Trenches A, B, C, D and E were commenced in 1966 by a party at Henry Thornton School, but were discontinued. Trenches D and E are not shown on the site plan, Fig. 5, but A, B and C were further developed throughout 1967. Other trenches were cut, again so as to bisect the suggested line of Stane Street (Fig. 8). Trench F was made by machine, but unfortunately due to the pressures it exerted and the continual seepage of ground-water, it soon collapsed, though not before a gravel layer, F1, and ditch, F2, were recorded. The gravel feature and ditch were presumed to be the same as those recorded in trenches A, B, C and, later, H. Trench G was laid on the further (north) side of the field to try to locate them there, but this was unsuccessful. The western 6.7 m. of a well-cambered gravel layer, F3, was found there, under a similar sequence of deposits. It, and the cutting or ditch on its western side were overlain by an irregular band of pebbly gravel not unlike that of F1. Fig. 7 illustrates the features F1 and F2 in a section of the north side of trench A and the reversed south sections of trenches B and C.

The sides of F1 diverged slightly northwards, having the ditch F2 along its eastern side. Of pebbly gravel, F1 varied in thickness from about 0.08 to 0.20 m., thinning out towards the north, with an average width of 12.52 m²⁵. Its greatest observed length was 24.4 m. It lay along the east side of Margary's line. There was a slight "camber" down to the ditch in trench C, apparently retaining an original surface. F2 varied considerably in profile, but was about 0.35 m. deep and about 1.37 m. wide. Its fill varied too, from gritty yellow loam to various gravels.

Clay-gravels existed to the east in the abandoned trenches, but this was not investigated in detail. It was generally much lower down than F3 and more resembled the apparently natural gravels beneath F3. These gravels did not extend in trench A beyond the western edge of F3 and so are perhaps to be connected with it. Brown clay formed the basic sub-soil here, whilst all the features described were overlain by yellow loam, yellower just over F3 and F1. Black top-soil covered the entire site, much deeper over the north of the field.

The same basic soil sequence was found as at Stockwell and the yellower loam over F1 would correspond to the coarse fawn sand there.

No Roman material came to light at Henry Thornton School and the lowest layer to yield any finds was the upper part of the yellow loam, with material from the seventeenth century onwards. These layers and features are described in the full report deposited elsewhere.

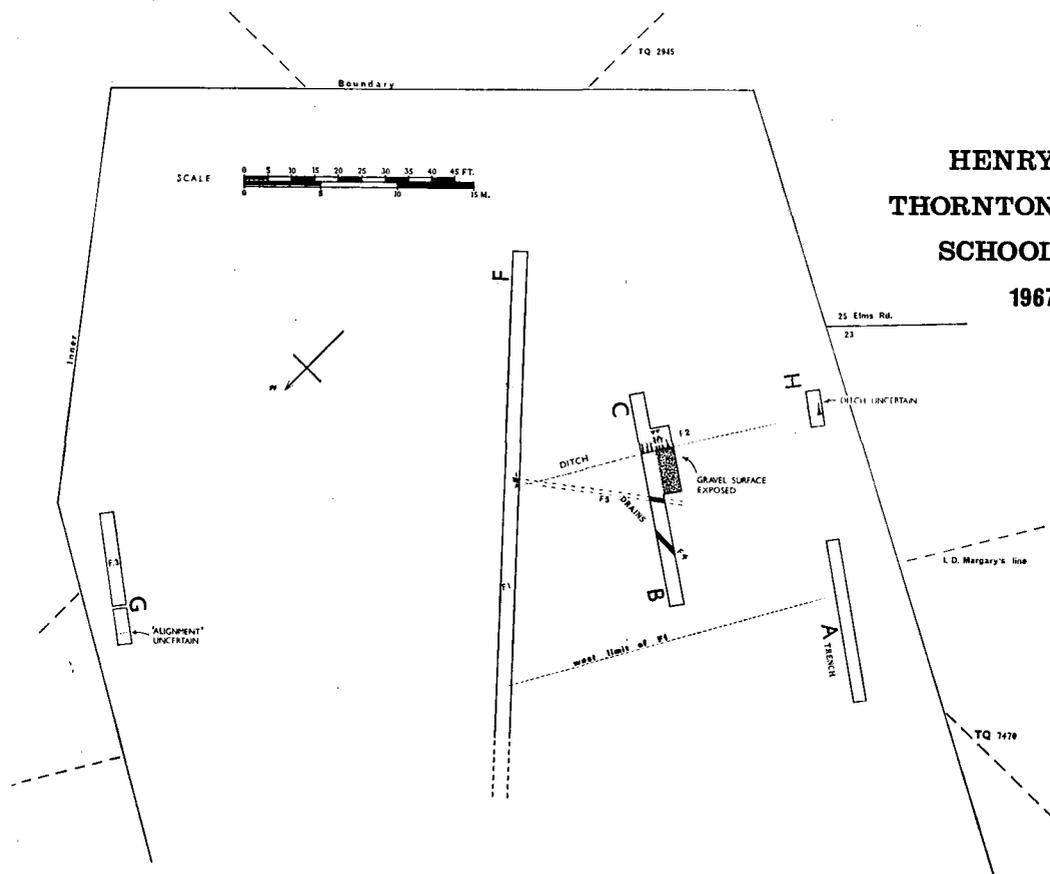


Fig. 5. Excavations for Stane Street, Henry Thornton School, 1967. Site plan

CLAPHAM—82 GASKARTH ROAD, 1970

SIGNIFICANT FEATURES:

The site plan, Fig. 6, shows the very long trench system which was established for over 36 metres across Margary's line. Trenches 2 and 3, and later at the close of work, 4 and 5, were machine-dug whilst trenches 1, 2A and 2B were entirely worked by hand. A pebble-gravel surface, F3 and a shallow ditch along its eastern side, F7, were discovered in similar circumstances, beneath similar deposits to those of the other sites. Only a simplified section is shown here, in Fig. 3.

F3 was again of pebbly gravel, with ragged edges on the west, in parts missing elsewhere; it survived better where it lay in hollows. Two of these adjacent hollows in trench 2A (north and south sections) were spaced 1.8 m. apart, as measured from the centres of the troughs. The gravel feature was generally some 0.1 m. thick but where the machine had cut the western

edge through in trench 4 it was about 0.25 m. thick. Here the feature was composed of three basic levels: a string of large, spaced-out pebbles and gravel stones on the clay sub-soil; this was overlain in two ways: on the north side by large, angular gravel lying on gravel-with-clay, whilst on the south side it was a surface of very small pebbles and angular gravel on sandy clay. A patch of very large stones indeed lay under the pebbly gravel surface in the middle of trench 2A. F3 was about 12.75 m. wide²⁵. It was exposed over a "length" of only 5.25 m. but it lay along the west side of Margary's line, approximately in that direction.

The ditch F7, discovered along its eastern side was very shallow in form, scarcely like a ditch at all, some 0.35 m. deep and 2.5 m. across.

The yellow loam which lay next all over the site was more yellow (as at Henry Thornton School) just over the surface of the gravel feature, F3, except where ploughing had removed high spots in the gravel. Black top-soil finally covered the whole site, but the back gardens of Hazelbourne Road had evidently very recently been deliberately terraced with the addition of clay, rubble and top-soil to take account of the considerable slope in the ground down to the south.

As at Henry Thornton School, no Roman material was found, and the earliest level to produce any finds was the yellow loam which had evidently been ploughed very thoroughly, yielding pottery from the early middle ages onward. These later layers and features are described in the full report deposited elsewhere.

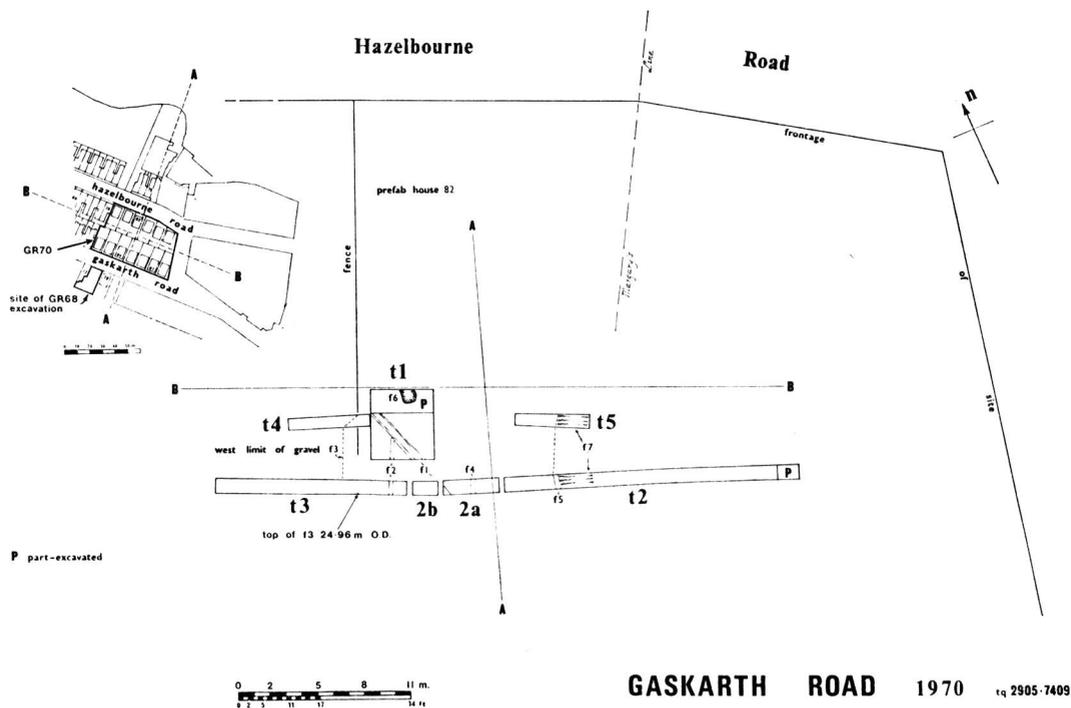


Fig. 6. Excavations for Stane Street, Gaskarth Road, 1970. Site plan

THE CLAPHAM SITES

THE MAIN RESULTS:

Since a road has considerable length, when searching for one that has become buried it is desirable to reveal as many sections as possible. The undated gravel features and ditches on the Clapham sites should not therefore be considered in isolation from the similar, dated features at Stockwell.

Their coincidence in a line (indeed that latterly suggested by Margary), seen on three excavations and in three roadworks trenches, is remarkable. The general line, position and direction, in the light of present knowledge, imply a Roman origin. None of the Stockwell features, on a site producing Roman material, showed that the gravel feature there could not be Roman. However, various difficulties arise in accepting certain statements, *e.g.*:

- (a) that it is a road, and
- (b) that it is Roman. These become apparent when examining the nature of the evidence. They are considered below.

INTERPRETATION:

The principle results of these excavations appear to show that a road follows the line suggested for Stane Street, *e.g.*, Margary's line. The associated finds from 281-283 Clapham Road, Stockwell permit a feasible Roman interpretation. The following points tend to show the evidence for a road:

- (1) All three sites revealed a gravel feature of suitable dimensions along the suggested line. Position and direction are thereby established.
- (2) Features on old maps confirm the line where the modern road does not follow it.
- (3) Over 24 m. of length were observed at Henry Thornton School, Clapham, and the feature was unique in the long section at Gaskarth Road.
- (4) All features were associated with a single ditch along one side (both on the same side at Clapham).
- (5) There was evidence of foundation material as sand at Stockwell and of clay, or sandy clay over gravel stones at Clapham (82 Gaskarth Road). The lense of clay under the gravel feature at Clapham (Henry Thornton School) may fulfil a similar function, perhaps as embanking.

(6) Almost 1.5 miles (about 2.5 km.) separate the furthest sites. To include the roadworks feature at the Oval brings this to nearly 2.5 miles (about 3.75 km.).

Other aspects, however, should be weighed before reaching any conclusions:

- (7) There was no evidence for associated Roman building, even at Stockwell, which produced Roman finds. There is a complete lack of Roman finds on the Clapham sites.
- (8) The single ditch on the Clapham sites is along the downhill side of the road, hardly an arrangement that would prevent damage from flooding rainwater.
- (9) No obvious camber is present, except perhaps in trench C at Clapham (Henry Thornton School).
- (10) Finally, the most serious objection of all must surely be the dearth of metallurgy and conspicuous lack of attempts at re-surfacing.

The substantial section observed at the Oval and resembling a local aspect in trench 4 at Clapham (Gaskarth Road), is a redeeming factor to this objection, but does little to amend the general picture. The pale buff sand at Stockwell (281-283 Clapham Road) must however be seen as foundation material, and here it does resemble the make-up recently recorded in

the new churchyard at Ewell in Surrey, further south on the line for Stane Street.²⁰ The surfacing there (at least 20 m. wide), although more substantial, is considered not to be later than early second century with no evidence for subsequent re-surfacing. A scatter of later Roman pottery nevertheless confirmed some sort of continuity. The Stockwell site produced only one (probable) late Roman sherd from the overlying loam, though it may be derived. There was a lack of camber at the Ewell site.

Sections for Stane Street at Morden²⁰ produced one section with an ill-defined gravel layer 3.6 m. wide and up to 0.3 m. thick resting on undisturbed London Clay with a shallow ditch some 0.9 m. wide at its north-western edge. The single ditch is interesting. Elsewhere, this ditch was not discovered; another section some 15 m. away was limited, but showed a well-defined rut in the road, which was of first-sized flints resting on gravel. Two other sections at Morden showed the road to be of loamy gravel, one of them some 6.4 m. wide and the other some 8 m. wide and 0.33 m. thick at its thickest point (presumably cambered). Humus and ploughsoil covered the road on two of these sites, a similar sequence to that present at the Stockwell and Clapham sites. None of the foregoing produced such a substantial road structure as that recorded recently at Bow.²⁶

The lack of finds along the road in the Clapham area may not be the problem that it seems at first to be. Reason dictates that a relatively narrow section placed across a rural stretch of Roman road is scarcely likely to produce any finds at all.

A single layer of pebbles formed the surfacing at Bow, with much clay in the foundation of the road. It may be that a thin pebble-dressing onto the clay sub-soil at Clapham was locally deemed sufficient.

Is the evidence from the Oval and Stockwell a case-in-point illustrating perfect continuity in the line of the road over some 1900 years even though about a metre of undisturbed soils separate it from the modern roadway above? Such a process may be helped by property boundaries "fossilising" the line, but no camber was found at Stockwell.

Perhaps we now know what to expect.

It is unlikely that the excavations had encountered only a side track to the main Roman route at Stockwell, where contractor's trenches over the eastern area of the site refuted the idea, whilst the large ditch to the road would surely exclude it to the west. The very long section at Clapham (Gaskarth Road) made the matter clear there, though it is possible that the gravels, unexcavated, to the east at Clapham (Henry Thornton School) were not natural.

Geological boreholes in the Clapham area confirm site observations by the author that there is a downwash in the region of Clapham Common, south side, as alternate layers of gravels, sand and clay. Some of these resemble a lense of a road in section. There the resemblance ends, for they are usually of bright, clean colours with a "washed" look and are not normally found alongside ditches in a common line.²⁷

Observations on the Convent side at Crescent Lane did not identify the Roman road there. Perhaps F3 at Henry Thornton School was a sharp turn in direction to take the road across a stream such as that now shown "underground" on the geological mapsheet. Archaeologically speaking though, confirmation was lacking.

Whilst there is a deeper soil accumulation over the recorded gravel features as one proceeds north from Henry Thornton School, there was a sudden drop in old level commencing at the Stockwell site itself (Fig. 7). The trenches at "The Swan" and the Oval roadworks tend to confirm this, probably a natural terracing towards the Thames. A ford or bridge would seem to have been required over the Effra at the Oval.

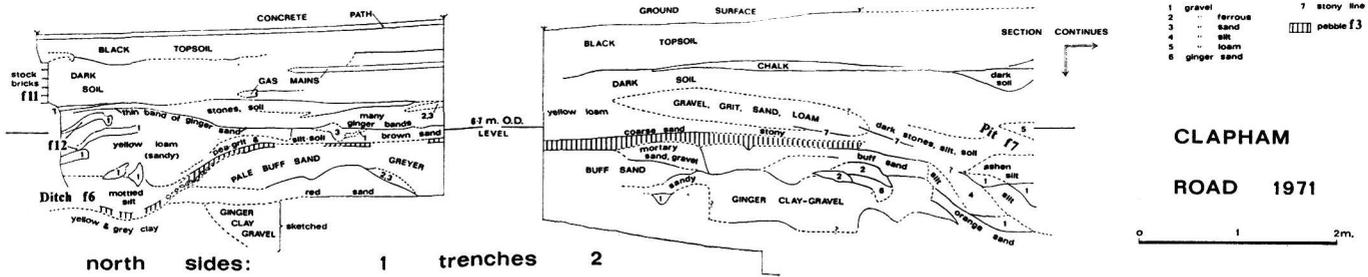


Fig. 7. Excavations, Stane Street

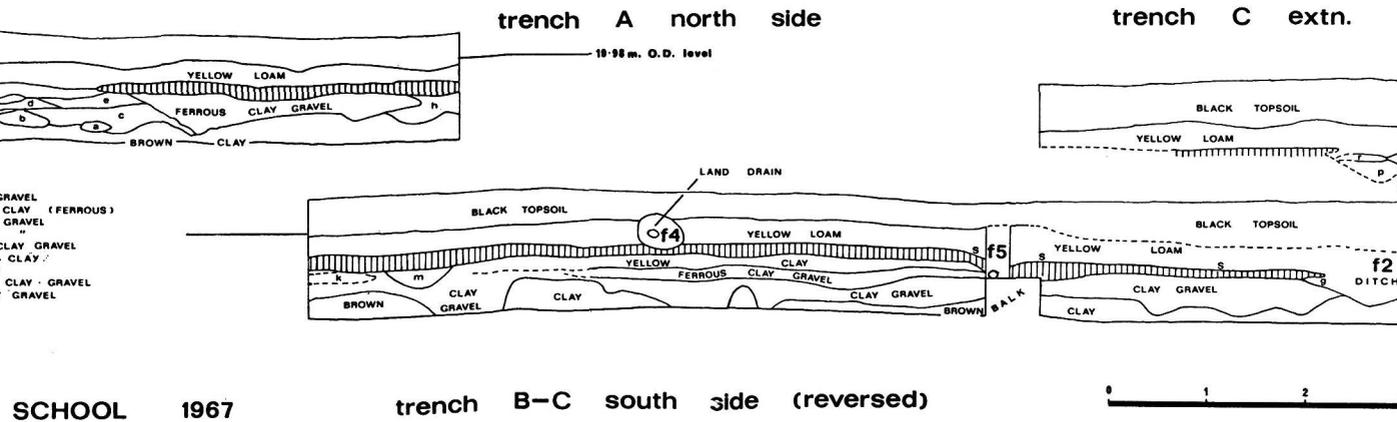


Fig. 8. Excavations for Stane Street

Finally, there are the observations on the “London–Brighton Way” through Brixton. The Charter seems to confirm the existence of such a route and indeed, as Fig 2 shows, both the line for Stane Street and the long straight portion of Brixton Hill suggest a Thames crossing just east of New London Bridge, at or close to the site of the medieval stone bridge (X and Y, Fig. 2). Brixton Road was known as *The Wash Way*²⁸ on account of the river Effra. The ground rises in parts on both sides of the road and it seems unlikely that it represents a Roman route. To save a river-crossing and unnecessary road-making, it may have passed by Stockwell Road to join Stane Street. Alternatively, it may have crossed the Effra conveniently at the bottom of Brixton Hill (Fig. 2) to join with Stane Street beyond the Oval. The course of this route through Streatham is not clear.

ACKNOWLEDGEMENTS

My sincere thanks are due, firstly, to the tireless volunteers who spent so many hours on site in all weathers. It would be unfair to single out a few of them, but I would mention those who gave me the benefit of their special skills: George Wilson, Doug and Nigel Moncrieff of Pen Photographic, and Keith Heatherley for their photography; Sarah Lemmon for her fine geological report on Clapham, Joanna Bird for her patience with the Samian fragments; John Hurst and Jeremy Haslam for examining medieval pottery; Derrick Rixson for bones; Brian Bloice for clay pipes and Dorothy Griffiths who studied all the post-medieval pottery.

In particular, let me thank those who gave valuable time to come to the sites, and to discuss problems: Ralph Merrifield, Roy Canham, Harvey Sheldon, Dr. Graham Dawson, Nicholas Farrant and Frank Pemberton. I am very grateful to Roy Canham, Hugh Chapman and Harvey Sheldon for suggestions on the format of the report and especially to James Thorne for taking me to task on presentation. My grateful thanks, also, to Geraldine Kelly for typing the final report.

I would like to thank the I.L.E.A., the Lambeth and Wandsworth Borough Councils for providing the sites and facilities and the Wandsworth Historical Society for right to trespass. I appreciate the staff of the several record offices who allowed me to come and pester them.

Lastly, but by no means least, may I thank Dr. Francis Celoria for his infectious enthusiasm, without which I feel much of my interest in archaeology and local history would not have developed; and Roy Canham, Sally Petchey, Maitland Muller and Ralph Merrifield for their encouragement.

NOTES

- ¹ “Feet of Fines”, Surrey (Ivan D. Margary, *Roman Ways in the Weald* (1968), 45); *Stanstrete*, A.D. 1279, Assize Rolls (*Place-Names of Surrey*, English Place-Name Society, Vol. xi (1934), 8).
- ² Captain W. A. Grant, *The Topography of Stane Street*, 1922; a critical review of Hillaire Belloc, *The Stane Street*, 1913. S. E. Winbolt, *With a spade on Stane Street*, 1936. I. D. Margary, *op. cit.*
- ³ Limited excavation for Stane Street, undertaken in 1968 on the vacant site of 74/76 Gaskarth Road, S.W.12, at TQ 2899.7400, was abandoned at an early stage due to flooding ground-water and the restrictions from buried rubble of World War II. Dragmire Lane was the eighteenth century name for Cavendish Road which has a history of severe flooding, the most recent in 1973. Ground-water hampered the work at Henry Thornton School, 1966–68. See Note 4 below.
- ⁴ The complete sites report, together with the individual preliminary reports, are deposited with the Cuming Museum, 155/157 Walworth Road, S.E.17.
- ⁵ B. M., Cott. Tib. C ix, fos. 48–49 (s.xiii); P.R.O., Cart. Ant. R.12, No. 1 (s.xiii). Both are printed in Mon. Angl. vi, 61–62 (No. 1). See also *Anglo-Saxon Charters—an annotated list and bibliography*, Royal Historical Society, Guides and Handbooks, No. 8, (1968), 307–08, No. 1036; most authorities consider it spurious. The land-boundaries appear from my research to be correct for the most part, though perhaps abridged in the extant Charter copies.
- ⁶ “Lambeth” is a direct translation; later evidence would equate it with the Manor of South Lambeth; see P.R.O., *Cal. of Inquisitions*, Vol. I, 50, 564; *Cal. of Charter Rolls*, 1261–64, 178; *Cal. of Patent Rolls*, 1247–48, 88, etc. It appears to have devolved into the Manors of Stockwell and Vauxhall soon after A.D. 1293.
- ⁷ Brixton has two spellings in the Charter; literally, “(at) the stone of Beorhtsige (Brihtsige)”; rendered as *Brixistane*, B.M., Cott. vi, 3 (A.D. 1067), see *Place-Names of Surrey*, *op. cit.*, 11 and 23. Brixton was in the Hundred of that name.
- ⁸ A ditch or dyke implies an artificial course, perhaps along Stane Street itself towards Stockwell. Such an interpretation fits a later change in boundaries between this part of Clapham and Lambeth Parishes; see *Key to the Plan of Clapham*, (1827), 147, entry for A.D. 1791 (Minet Library, Knatchbull Road, London, S.W.9). The re-formed bounds are shown in Map 1, A.D. 1808. See list below.
- ⁹ A field called *bolketrowefeld* is listed in the MS in Note 13 below.
- ¹⁰ Hese was close to Nine Elms, by Vauxhall. See *Place-Names of Surrey*, *op. cit.*, 14; it recurs as *Hese*, A.D. 1134, Cott. Claud. A viii; it had devolved into *Hesefeld*, A.D. 1456 and *Hesewall* by A.D. 1474, Westminster Abbey Muniments. The present Heathbrook sewer takes its name from the Heathwall or Hesewall (Sewer), the ancient boundary with Battersea. See Fig. 2.

- ¹¹ *Cal. of Surrey Deeds*, 5208 (Minet Library). See also Map 11 listed below.
- ¹² *Place-Names of Surrey*, *op. cit.*, 33.
- ¹³ P.R.O., *Cal. of the Close Rolls*, 1323-27, Vol. 18, 582-85, *Partition of lands that belonged to Juliana Romayne, deceased*.
- ¹⁴ Principally, Maps 2, 3, 4, 5, 6 and 11; see list below.
- ¹⁵ *The London Archaeologist*, Vol. 1, 12-15. The introductory paragraph in heavy type was not written by, or with the knowledge of, the author. See Map 7, listed below.
- ¹⁶ Maps 3, 6, 8 and 9; see list below. Refer also to the early 25-in. and 60-in. O.S. maps, A.D. 1865-78 (Minet Library).
- ¹⁷ Articles by Ralph Merrifield and Dr. Graham Dawson in *The London Archaeologist*, Vol. 1, 114-17, 156-60, 186-87, 224-25, 261. See also Vol. 2, 106-13 by Judith Plouviez, and Kathleen Kenyon, *Excavations in Southwark*, S.A.S. Research Paper No. 5, 1959. For evidence of Stane Street in the Elephant and Castle area see the *Survey of Archaeology in Lambeth* (The Southwark Archaeological Excavation Committee), forthcoming, 1974.
- ¹⁸ C. T. Wetherby, in *Surrey Archaeol. Collect.*, L (1949), 151-52. He means both the hypothetical "direct" Chichester to London line and also the practical one of Winbolt and Margary. His site drawings appear to be lost.
- ¹⁹ Reported in *The Southwark and Lambeth Archaeological Society Newsletter*, No. 13 (September/October, 1968), 7. Note also that the portion of Stane Street in Tooting Bec may be that referred to as Upstrete in the *Court Rolls of Tooting Beck Manor*, L.C.C., Vol. 1, 1909, 55; (A.D. 1401) presents that the King's highway, called Upstrete is flooded by default of the scouring of Thomas Hauldone's ditch . . . ; by A.D. 1422 (p. 221), the King's highway in the Uppestrete had become exceedingly foundrous. Three acres at Hauldone (Hauldonecroft) are said to lie in Totynge. (Minet Library).
- ²⁰ D. J. Turner, *The London Naturalist*, No. 38 (1959), 22-23 and No. 39, 130-32. See also *Surrey Archaeological Society Bulletin*, No. 43 (July, 1968), and F. Pemberton's report on recent excavations for Stane Street at Ewell, forthcoming in *Surrey Archaeol. Collect.* In addition, *The London Archaeologist*, Vol. 2, 84-86.
- ²¹ These fieldwork notes are deposited with the Southwark Archaeological Excavation Committee's Files; refer to the Cuming Museum.
- ²² Col. Sir Gordon Hearn, C.I.E., D.S.O., *Itinerary of Streatham*, 13. (Minet Library).
- ²³ Herbert Baldwin, *Streatham Old and New*, (1912), 7-8. This reference is quoted incorrectly on p. 40 of the *Itinerary of Streatham*. Note also *sothe Strete et alia jacet apud Holiwelle* (A.D. 1312), described on p. 247, *Court Rolls of Tooting Bec Manor*, *op. cit.* These places, with *Sohldone*, seem to have lain near *Suhteforlang* which is said to lie in Streatham.
- ²⁴ The western side of the ditch was not available for excavation.
- ²⁵ At right-angles to Margary's line.
- ²⁶ Harvey Sheldon, "Excavations at Lefevre Road, Old Ford, E.3, September 1969-June 1970", *Trans. London Middlesex Archaeol. Soc.*, 23, Pt. 1 (1971), 42-77. Also at "Parnell and Appian Roads, E.3, February-April, 1971", *Trans. London Middlesex Archaeol. Soc.*, 23, Pt. 2 (1972), 101-47.
- ²⁷ Map 10; see list below.
- ²⁸ Map 2; see list below.

MAP LIST

1. "A perambulation of the Parish boundaries of Lambeth", A.D. 1808. (Minet Library).
2. "Manor of Lambeth (Enclosure Map)", A.D. 1806. (Minet Library).
3. "Plan of the Parish of St. Mary, Lambeth, 1838, completed to 1841 A.D.". (Minet Library).
4. "Map of Surrey", John Rocque, A.D. 1741-45. A large scale for its time, but some of its detail should be treated with caution. (Minet Library).
5. "A journey from London to Brighthelmstone", edition of A.D. 1789. (There is another edition of 1800.) (Minet Library and Members' Library, County Hall, S.E.1).
6. "Estate Map of Clapham, 1849". A very large scale, exceptionally clear and accurate. (Minet Library).
7. "Plan of the Clock House Estate", Cavendish Road, Clapham. (West Hill Library, Wandsworth, London, S.W.11).
8. Bryant's Map, A.D. 1823. (Guildhall Library, Folded Maps).
9. Crutchley's Map, A.D. 1833. (Guildhall Library, Folded Maps).
10. Geological 6-in. Mapsheet, London, N. IX S.W., 1920 edition (it is included in 1-in. Map 270).
11. "Roads out of London: being photographic reprints extracted from 'Ogilby's Britannia', 1675, with so much of his text as relates to them", by T. Fairman Ordish, *London Topographical Society*, (1911). Generally, it appears locally reliable but contains at least two gross errors.

The Society and the Editor are grateful to both the Southwark Archaeological Excavation Committee and the Southwark and Lambeth Archaeological Society for grants towards the cost of printing this article.

EXCAVATIONS AT BROCKLEY HILL, MIDDLESEX, MARCH–MAY 1972

STEPHEN A. CASTLE

In March 1972 the Brockley Hill Excavation and Field-work Group was given permission to excavate at the then vacant Hilltop Cafe site on the east side of modern Watling Street. The site (N.G.R. TQ 175939) comprised the strip of marginal land immediately to the north-west of the cafe and sites excavated in 1937, 1947 and 1952.¹ The aim of this excavation was to obtain a clearer picture of the nature of the Roman pottery manufacturing complex excavated during those years. Yet another pottery kiln was disclosed, together with a clay pit, which was partly excavated in 1947.²

THE EXCAVATION (FIG. 1):

Trench I, the one nearest to modern Watling Street, showed that much of this area was disturbed during the nineteenth century. A George III farthing of 1806/07 was found at a depth of 1 ft. 2 ins. and in the same layer was much Roman kiln ware, including notably the flange of a mortarium of Sollus (Fig. 6, MS5). Part of a shallow pit was located at the south-west corner of the trench and it contained a few weathered sherds of kiln ware.

To the east and in the natural yellow clay, were seven parallel timber slots. All seven contained a few weathered sherds of kiln ware; Slot 1, a coin which is possibly of Claudius I, but also a sherd of post-medieval glazed pottery. In addition Slots 2 and 5 contained fragments of wine bottles. As the slots are contemporary they may represent part of a building. If so, there must presumably have been corresponding slots further to the west under the verge of modern Watling Street.

A post-hole with Roman tile packing was excavated to the east of Slots 1 and 2. Its fill consisted of dark brown soil containing a third century mortarium flange fragment (Fig. 5, M6). A shallow hole nearby without tile packing may also be a post-hole.

THE KILN (FIG. 1 AND PLATE A):

Between trenches 1 and 2 was found the remains of a pottery kiln with part of the stoke-hole on the south side. Both were partly destroyed by an eighteenth century field ditch which was recut in *c.* 1900,³ thus resulting in further destruction. All that remained of the kiln was the floor of the furnace, which consisted of fragments of burnt clay daub, presumably from an earlier kiln, fused together with softer burnt clay daub and reinforced with coarse-ware sherds. Included among these were sherds of a mortarium of Secundus, *c.* A.D. 65–95 (Fig. 6, MS4) and a number of ring-necked flagons. The furnace was an estimated 6 ft. in diameter and was constructed in an earlier pit, in which was an accumulation of greyish-white potters' clay, containing sherds of a lid and flagons (Fig. 3, 1). The stoke-hole, which contained ash and charcoal, was at least 1 ft. 3 in. deep.

Since most of the sherds from the stoke-hole and disturbed soil immediately above the kiln were from ring-necked flagons, there can be little doubt that they were its staple products. The kiln dates from sometime in the period *c.* A.D. 65–100.

THE CLAY PIT (FIGS. 1 AND 2):

To the east of the kiln and partly destroyed by the field ditch was an irregularly shaped clay pit, part of which was excavated in 1947. Its upper fill, layer 1, which consisted of ashy

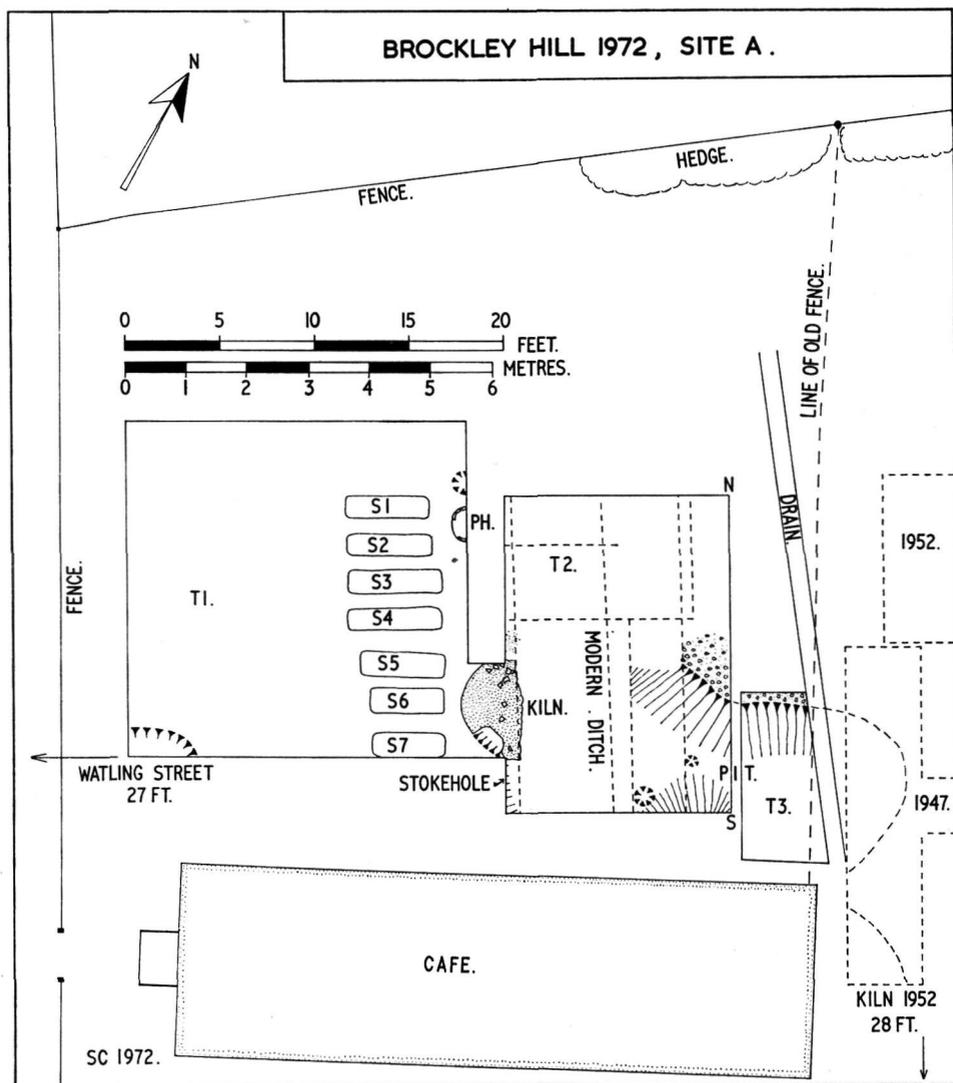


Fig. 1.—Plan of Site A

soil mixed with burnt clay daub, potters' clay and charcoal, contained a considerable quantity of waste pottery. Pottery types include ring-necked flagons, two-handled flagons, reed-rimmed bowls, mortaria, pinch-mouthed flagons, disc-mouthed flagons, lids and honey jars (Figs. 3 and 4, 14-32), all typical of the second half of the first century. South Gaulish samian and mortarium stamps of Ripanus, *c.* A.D. 65-95 (Fig. 6, MS2-3), suggest a Flavian date and this is supported by an unworn sestertius of Vespasian, A.D. 71 (Pl. B) from near the bottom of this layer. Earlier in date and lining the edge of the pit, was a layer of potters' clay containing sherds of kiln ware and a Neolithic stone adze (Fig. 6, A1). Below the two was a layer of yellow sand 9 in. thick, containing sherds of waste pottery and the greater part of a cordoned jar of Belgic type (Fig. 3, N1). There was also a mortarium stamp of Ripanus (Fig. 6, MS1).

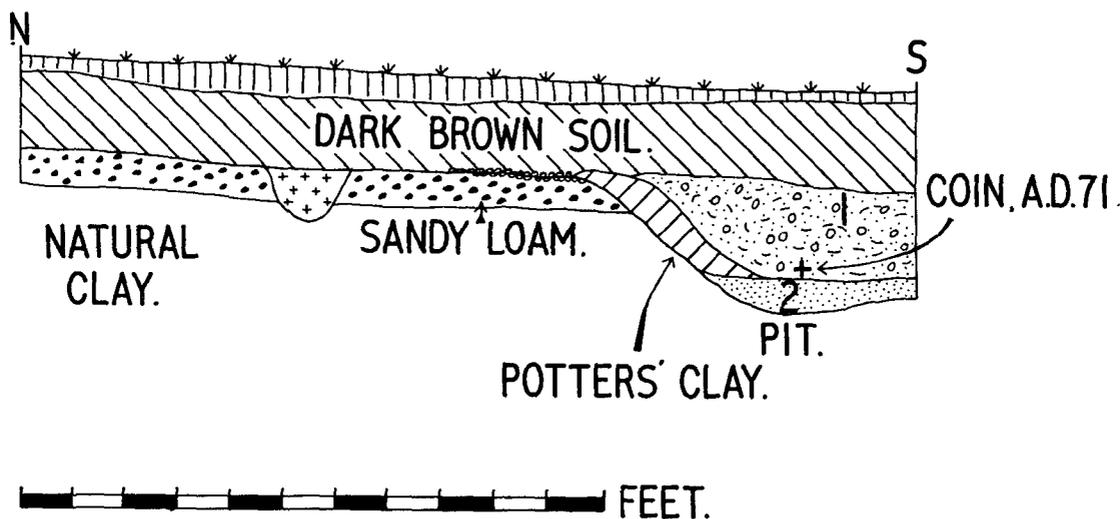


Fig. 2.—Section through the clay pit

It seems likely that the pottery group from the yellow sand includes at least some vessels of the Neronian period and this is perhaps supported by the presence of a sherd of a South Gaulish, Dr. 18 samian platter, of pre or early Flavian date. The earlier yellow sandy loam (Fig. 2) bounding the pit on the north side, was found to contain not a single artifact; thus suggesting that the pit is the earliest feature on the site.

In the top of the infill of the pit were found a sestertius of Hadrian, A.D. 117–138, two third-century antoniniani and a few sherds of third–fourth century pottery. Layer 2, immediately above, was probably originally plough soil and contained in addition to Roman sherds and a sestertius of Septimius Severus, A.D. 195, a halfpenny of George III, 1806, and post-medieval pottery.

SUMMARY OF RESULTS:

These excavations have provided further evidence of large-scale pottery manufacture at Brockley Hill in the Flavian period. Furthermore, the pottery from the yellow sand at the bottom of the pit suggests pottery manufacture at Brockley Hill in the 60's of the first century. Excavation of the earlier layer bounding the pit produced no evidence of earlier activity.

Mr. Suggett has suggested that the growth of pottery manufacture at Brockley Hill may be linked with the shift of emphasis from Colchester to London as capital of the province following Boudicca's rebellion in A.D. 61.⁴ It should be stressed, however, that Verulamium was also an important market for pottery produced at Brockley Hill. A large number of mortaria stamped from the dies used by Brockley Hill potters have been found at both London and Verulamium.⁵ These mortaria are in the fabrics typical of vessels produced at the Brockley Hill, Radlett and Verulamium potteries. With the other types of vessels mentioned, when found on domestic sites, their place of manufacture can presumably only be determined with any certainty by scientific analysis, in particular thin sectioning, a time consuming method which is only gradually being applied. Thin sectioning of the stamped mortaria should also provide some interesting results. Similarly comprehensive analysis of the local clays and the various potters' clays is clearly desirable.

Most of the pottery-types from this excavation are identical with those from the excavations conducted in the area to the east in 1947. As a number of the 1947 vessels are adequately described and illustrated⁶ reference has been made to them in order to parallel the types found in 1972.

DATING EVIDENCE I: THE COINS

ROMAN:

1. T.1, Slot 1. Fragmentary bronze coin, possibly an imitation as of Claudius I; reverse, Minerva type.
2. T.2, Pit, Layer 1. Ae sestertius of Vespasian, A.D. 71 (Pl. B). Obv. IMP. CAES. VESPASIAN. AVG. P.M. TR. P.P.P. COS III, head right. Rev. S.P.Q.R. P.P. OB CIVES SERVATOS, in oak-wreath. B.M.C. II p. 198† Condition, fresh and unworn.
3. T.2, top of pit. Ae sestertius of Hadrian, A.D. 117-38. Obv. Head of Hadrian right. Rev. Illegible.
4. T.2, Layer 2. Ae sestertius of Septimius Severus, A.D. 195. As B.M.C. 562.
5. T.2, top of pit. Ae antoninianus of Claudius II, commemorative coin of A.D. 270. Obv. DIVO CLAUDIO. Rev. CONSECRATIO L. R.I.C. 266.
6. T.3, top of pit. Fragments of an antoninianus, radiate head right, c. A.D. 270.

ENGLISH:

7. T.1, Layer 2. George III farthing 1806 or 1807.
8. T.3, Layer 2. George III halfpenny 1806.
9. Recut of field ditch. George V shilling 1914.

COINS FROM THE 1954 EXCAVATIONS (NOT LISTED IN RELEVANT REPORT)

FROM BROWN SOIL BELOW COBBLES:

10. T.D. Ae as or dupondius of Faustina I. Obv. Head of Faustina right. Rev. Female figure standing, facing left, and SC.
11. T.F. Ae as, probably of Nero, A.D. 54-68. Obv. Head right. Rev. Illegible.

DATING EVIDENCE II: THE POTTERY; NATIVE, SAMIAN AND BROCKLEY HILL WARE. (FIGS. 3-6).

With all flagons, except those of pinch-mouthed type, the following applies:

- | | | |
|----|-------------------------|---------------|
| A. | Diameter at top of neck | = 20-40 mm. |
| B. | " " " | = 40-60 mm. |
| C. | " " " | = 60-80 mm. |
| D. | " " " | = 80-100 mm. |
| E. | " " " | = 100-120 mm. |
| F. | " " " | = 120-140 mm. |
| G. | " " " | = 140-160 mm. |
| H. | " " " | = 160-180 mm. |
| I. | " " " | = 180-200 mm. |

With handles of flagons:

X=2 ribs; Y=3 ribs; and Z=4 ribs.

Thus, for example, 3BY=three vessels with rim diameters of 40-60 mm. and three ribbed handles.

REPRESENTATIVE SELECTION OF COARSE-WARE:

TRENCH 1/2, WHITISH-GREY POTTERS' CLAY BELOW KILN:

1. Ring-necked flagon with five rings, type BX, in granular cream ware.

T.1/2. FLOOR OF THE KILN FURNACE:

STAMPED MORTARIA (see detailed report):

MS4. Secundus. c. A.D. 65-95. (Also part of this vessel from field ditch.)

T.1/2. DISTURBED DARK-BROWN ASHY SOIL ABOVE THE KILN:

2. Ring-necked flagon with five rings, type CY, in granular cream ware. This example is distorted and the top ring is badly finished. A waster.
3. Ring-necked flagon with five rings, type DZ, in granular buff ware. Similar to Richardson 35.

SAMIAN WARE:

- St. South Gaulish, form ?. c. A.D. 70-100.

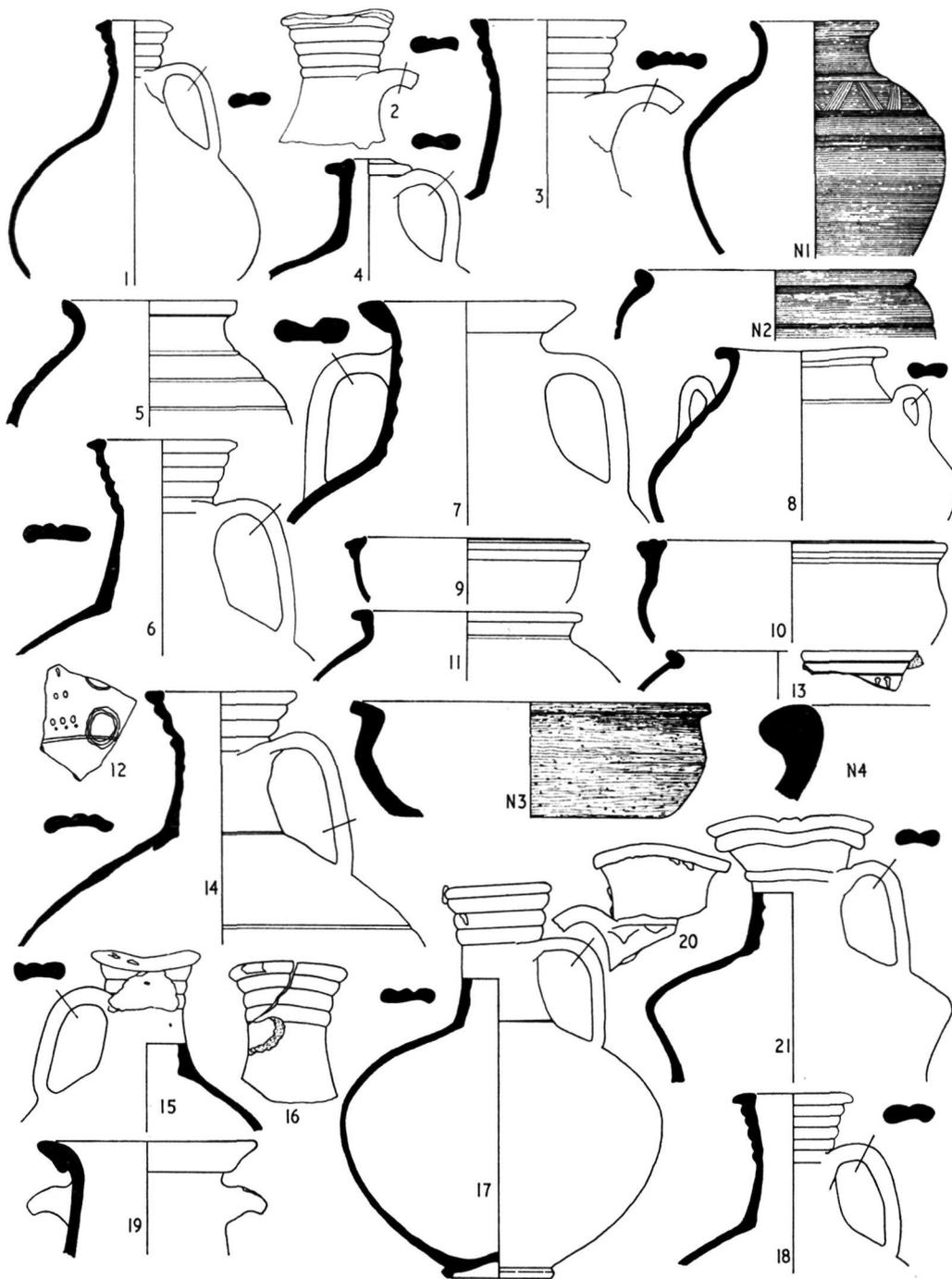


Fig. 3.—The coarse pottery, including native ware ($\frac{1}{4}$ linear)

T.2. STOKE-HOLE:

SAMIAN WARE:

S.2. S.G., form 2, c. A.D. 70-100.

4. Disc-mouthed flagon, type BX, in granular buff ware overfired to bluish-grey with traces of heat glaze. The overfiring is suggestive of a waster. Cf. Richardson 44.

T.1. STOKE-HOLE:

MORTARIUM (Fig. 5). (Notes from Mrs. K. F. Hartley):

M.6. In slightly sandy cream ware with pink core and translucent pinkish trituration grit. It is slightly burnt on the flange. The form, ware and grit are typical of coarse-ware mortaria made in the extensive potteries in the vicinity of Oxford. A parallel for the rim is recorded from a kiln at Cowley (*Oxonienisia VI* (1941), Fig. 5, 63). These potteries, beginning in the early second century, had very wide markets in the third and fourth centuries. This example could well belong to the period c. A.D. 200-250.

T.1. LAYER 2, DARK BROWN SOIL:

STAMPED MORTARIA:

MS5. Sollus, c. A.D. 70-100.

T.2. RECUT OF FIELD DITCH:

STAMPED MORTARIA:

MS4. Secundus. c. A.D. 65-95.

T.2/3. PIT, LAYER 2, YELLOW SAND:

SAMIAN WARE:

S3. S.G., Dr. 18, pre-early Flavian.

STAMPED MORTARIA:

MS1. Ripanus, c. A.D. 65-95.

MORTARIA (without stamps):

M1. In granular cream ware with pink core and no grits.

M2. As M2 (same vessel, separate sherd).

NATIVE WARE:

N1. Cordoned jar with chevron decoration, in gritty grey ware with reddish-brown burnished exterior.

The chevron decoration below the cordon is a fairly common feature of Belgic jars and is present on a vessel from Little Hallingbury, Essex, cf. Birchall 1965, 308, 144; Welwyn Garden City cf. Rook (1970), 33, 5; and also Camulodunum 232 Ab. This 1972 vessel is similar in form to vessel No. 28 from Brockley Hill in 1968.

N2. Bead-rimmed jar with groove in gritty grey ware with brownish-black burnished exterior.

NON-LOCAL COARSE-WARE?:

5. Narrow-necked jar in fine-textured grey ware with smooth exterior. The fabric is not certainly local. Cf. Verulamium, 274-75, 124, Period 11a, A.D. 60-75.

KILN WARE:

6. Ring-necked flagon with five rings, type DY, in granular cream ware. Cf. Verulamium, 273-74, 104, A.D. 60-75. Cf. Richardson 36.
7. Two-handled Hofheim-type flagon, type FX, in hard cream ware. Similar to Camulodunum 140/161b.
8. Honey jar in granular cream ware with pink core. The rim is buckled and the handles are of different size and shape. Such anomalies suggest a waster. Cf. Richardson 55.
9. Reed-rimmed bowl in granular light grey ware.
10. Vessel of similar type in granular buff ware with blackened exterior. Part of this vessel from Layer 1.
11. Wide-mouthed jar in granular cream ware burnt black.
12. Body sherd of a beaker in hard fine-textured pinkish-orange ware with cream barbotine decoration consisting of dots and circles. The exterior is smooth. Cf. Verulamium, 275-76, 130, A.D. 60-75. Not certainly local.
13. Everted-rimmed beaker in hard fine-textured pinkish-orange ware.

T.2/3. PIT, LAYER 1:

SAMIAN WARE:

S4. S.G. Dr. 15/17. c. A.D. 70-100.

S5. S.G. Dr. 18, with rouletting, pre-early Flavian.

S6. S.G. Dr. 18, pre-early Flavian.

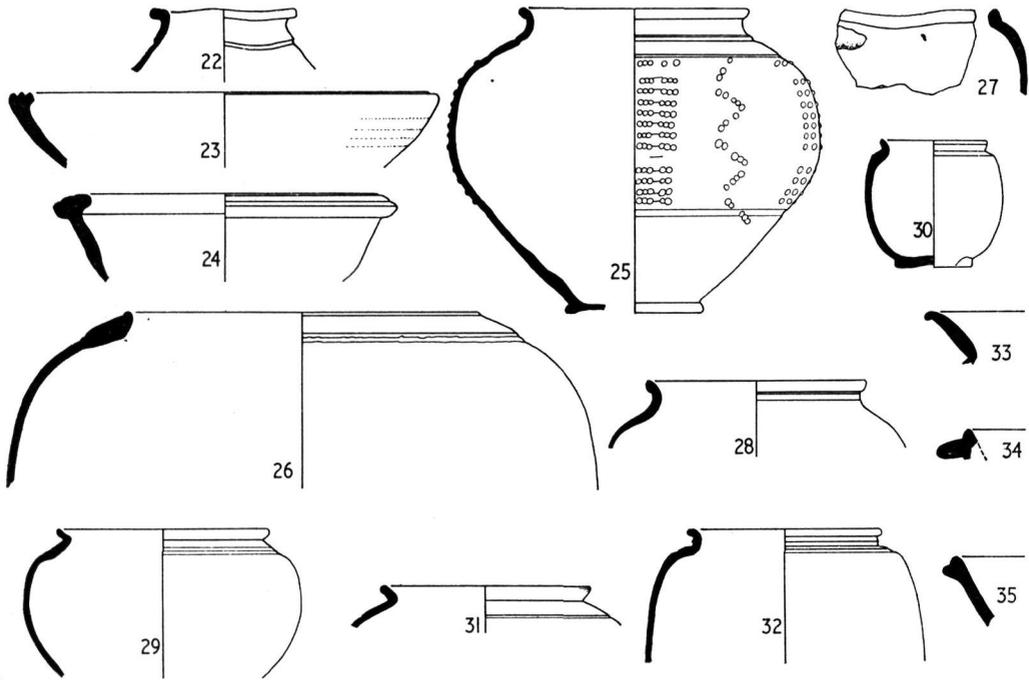


Fig. 4.—The coarse pottery ($\frac{1}{4}$ linear)

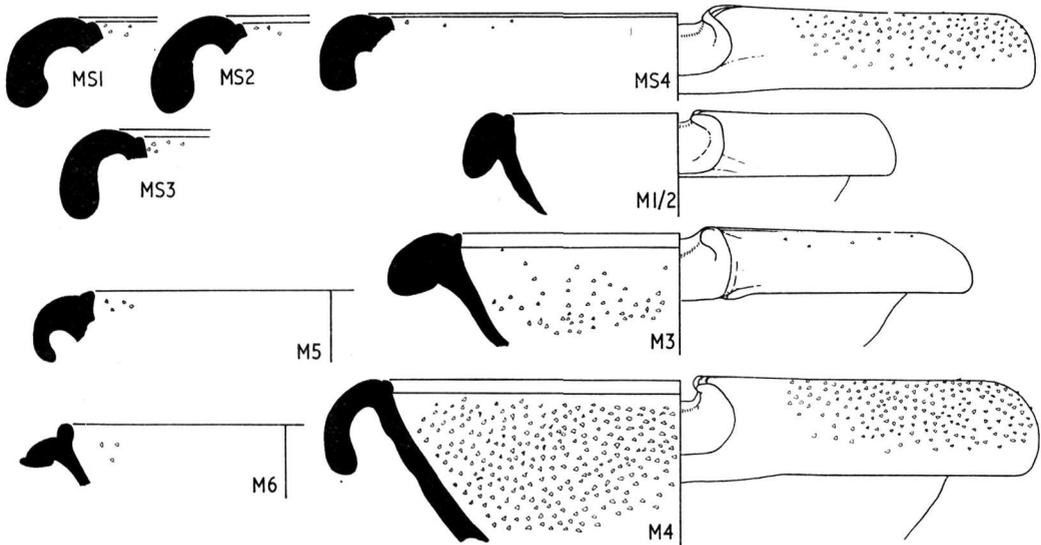


Fig. 5.—Mortaria ($\frac{1}{4}$ linear)

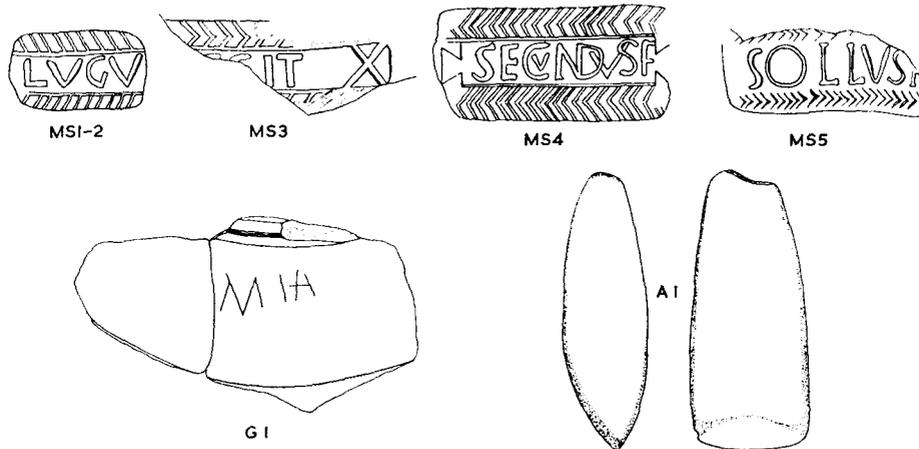


Fig. 6.—Mortarium stamps, the graffito and Neolithic stone adze ($\frac{1}{2}$ linear)

S7. S.G. Dr. 27, with graffito MIA, *c.* A.D. 70–80 (Fig. 6, G1).

S8. S.G. Dr. 29, severely burnt, with decoration too abraded for close identification, *c.* A.D. 70–100.

S9. S.G. Dr. 33, *c.* A.D. 70–100.

STAMPED MORTARIA:

MS2–3. Ripanus, *c.* A.D. 65–95.

MORTARIA (without stamps):

M3. In granular cream ware with unworn grey and white flint grits. M1–3 are unexpected types for a Brockley Hill context; I know of no close parallels. They are both, however, in fabric typical of the regional potteries and neither show trace of wear. A pre-Flavian date is possible, since apparently non-standard forms certainly tend to be early; presumably because mass production had not yet set in with its tendency towards uniformity.

M4. In granular creamish-buff ware with surface overfired to grey and with abundant unworn grey and white flint grits. The rim is early and could be best paralleled in the work of Ripanus; however, a few other potters like Oastrius also used this form.

M5. Overfired to bluish-grey and with grey and white flint grits on the flange. The form is again similar to ones made by Ripanus.

NATIVE WARE:

N2. Also from Layer 2.

N3. Roughly-made bowl with rectangular rim in gritty orange-brown ware, blackened externally and internally at the base.

N4. Large storage jar (possibly for water) in gritty reddish-brown ware with dark brown smooth exterior. *Cf.* Park Street, 80, 20, from a Belgic level.

KILN WARE:

14. Ring-necked flagon with four rings, type DY, in granular cream ware.

15. Ring-necked flagon with four rings, type DY, in granular cream ware. The top ring is badly buckled and there is excess fired clay adhering to the other three rings. This vessel is clearly a waster.

16. Ring-necked flagon with four rings, type C, ware overfired to dark bluish-grey. This distorted vessel has a severe crack and is clearly a waster.

17. Ring-necked flagon with four rings, type CY, in granular cream ware. The neck of this vessel tilts to one side and there is excess fired clay adhering to the top ring. These factors, coupled with fresh unused appearance, indicate a waster.

18. Ring-necked flagon with six rings, type CX, in granular buff ware.

19. Two-handled Hofheim-type flagon, type FX, in hard granular cream ware. Camulodunum 140/161b.

20. Two-handled flagon, type CY, overfired to bluish-purple and with grey core. This badly buckled vessel is clearly a waster. *Cf.* Richardson 45.

21. Pinch-mouthed flagon in granular reddish-buff ware; the mouth and handle are blackened. *Cf.* Richardson 46/47, though the body of this vessel is carinated.
22. Honey jar, overfired to bluish-grey, the exterior surface is rough and both rim and cordon are badly distorted. This vessel is clearly a waster. *Cf.* Richardson 55.
23. Reed-rimmed bowl with inturned rim in granular cream ware with pink core. B.H. 1952, 273, 28-30.
24. Reed-rimmed bowl in granular light buff ware.
25. Globular cordoned jar in granular drab cream ware with barbotine decoration similar to that found on poppy-head beakers. Shape similar to Verulamium, 270-71, 64, A.D. 49-60.
26. Large wide-mouthed jar with moulded bead rim in granular cream ware.
27. Bead-rimmed jar in granular buff ware with blackened exterior. The sherd is badly distorted, thus indicating that the vessel from which it came is a waster.
28. Small jar in grey micaceous ware with black sandy exterior.
29. Small globular jar in granular cream ware.
30. Small jar in granular white ware with smooth bluish-grey slip.
31. Beaker in hard fine-textured pink ware with lighter pink slip. Not certainly a local type.
32. Beaker or small jar in granular cream ware.

T.3. TOP OF PIT :

SAMIAN WARE :

- S10. Central Gaulish, Dr. 18, c. A.D. 100-120.
 S11. Two C.G. sherds, Dr. 18/31, c. A.D. 100-150.
 S12. Two C.G. sherds, form?, c. A.D. 100-120.

NON-LOCAL COARSE-WARE :

33. Cavetto-rimmed jar in reddish-grey ware with black-burnished exterior. *Cf.* Old Ford, 50, 7. A third to fourth-century date is suggested.

T.2/3. LAYER 2 :

34. Flanged bowl in sandy reddish-grey ware with black-burnished surface. *Cf.* Park Street, 86, 12; fourth century.
 35. Bowl with small rounded flange in sandy grey ware with black-burnished exterior. *Cf.* Old Ford, 57, 20; fourth century.

SUMMARY :

Most of the vessels described above are in the granular sandy fabric typical of pottery manufactured at the Brockley Hill, Radlett and Verulamium potteries. This fabric is adequately described by the late Dr. Philip Corder.⁷

A number of the vessels described in detail are self-evident wasters and in addition to having severe buckling and heat-cracking, are fired, completely or partially, to an unattractive bluish-grey colour. Other vessels (Fig. 3, 15 and 17) are poorly finished and have excess fired clay adhering to them. Others have excessive pebble and flint flake inclusions which would have rendered them useless. There can be little doubt, however, that some represent breakages caused by clumsy handling. Furthermore, the potters working at this site needed refreshment and were presumably using at least some of their own vessels for the purpose. The difficulty with a group such as this, is that the sherds of vessels when broken in antiquity were scattered far and wide. Indeed only one ring-necked flagon could be restored to its full profile (Fig. 3, 17). With the majority of ring-necked flagons only the necks, some with handles, remain intact and even if these fragments show no obvious signs of being wasters it doesn't necessarily imply that the remainder of each vessel was not faulty.

Duplication of types in identical fabric coupled with the presence of wasters, indicates quite clearly, that most, if not all of these vessels were produced at the kiln or kilns in this area. Some, (Fig. 3, 2-4) are very likely the products of the kiln excavated. However, the 1952 kiln appears to be of later date.⁸ It is possible that other kilns await discovery fairly close by. There

is, however, no evidence as yet to indicate that any of the native ware vessels (Fig. 3, N1-4) were manufactured in the locality.

There was a notable absence of sherds in fine-textured red ware with cream slip, such as were found on the west side of modern Watling Street.⁹ This fabric appears to have been introduced in *c.* A.D. 110-120 and was used by the potter Driccius, *c.* A.D. 110-150, for some of his mortaria.¹⁰ There were, however, three beakers in fine-textured pink ware (Figs. 3 and 4, 12-13 and 31).

A date in the period *c.* A.D. 65-100 is indicated for all the vessels in local fabric from deposits on this site. Ring-necked flagons were the commonest types produced.

RING-NECKED FLAGONS:

At least 462 vessels are represented. Despite variation in size and shape all are of long-necked type; most have four or five rings, while only three vessels have six rings. Most of the handles have two or three ribs, while only three handles have four ribs. The rim diameter ranges from 20-120 mm.

Ring-necked flagons with four and five rings and three-ribbed handles were being produced at Kilns 23 and 26 at Camulodunum prior to A.D. 61.¹¹ Furthermore, ring-necked flagons similar to those described were in use at Verulamium in Period 11a, A.D. 60-75.¹² These long-necked flagons were superseded at Brockley Hill by flagons of short-expanding neck type in *c.* A.D. 110-120.¹³

RING-NECKED FLAGON STATISTICS:

	<i>Total</i>
T.1/2. Whitish-grey potters' clay below kiln:	
5 rings. 1 BX	1
No. of rings? 1 C	1
	—
	2
Floor of kiln furnace:	
5 rings. 2 CY, 1 C	3
No. of rings? 1 Z	1
	—
	4
Disturbed ashy soil above kiln:	
4 rings. 5 C, 1 D	6
5 rings. 1 CX, 2 CY, 5 C, 1 DZ, 5 D	14
6 rings. 1 D	1
No. of rings? 13 C, 5 D, 2 F, 1 X, 1 Y, 3	25
	—
	46
Stoke-hole:	
4 rings. 1 B, 1 CY, 8 C, 1 DY, 1 D	12
5 rings. 1 CY, 4 C, 2 D	7
No. of rings? 1 C, 2 D, 1 Y, 1	6
	—
	25
Flue of the kiln:	
4 rings. 1 C, 1 DY	2
No. of rings? 3 C, 1 D	4
	—
	6

T.2/3. Pit, Layer 2:		
4 rings.	2 B, 1 CX, 1 CY, 1 DY, 3 D	8
5 rings.	1 BY, 1 CY, 1 CZ, 1 DY, 1 DZ	5
No. of rings?	3 B, 2 D, 1 Y, 2	8
		—
		21
Pit, Layer 1:		
4 rings.	1 BX, 3 BY, 10 B, 2 CX, 27 CY, 55 C, 13 DY, 31 D, 2 E	144
5 rings.	1 BY, 11 CY, 21 C, 6 DY, 11 D, 1 EY, 3 E	54
6 rings.	1 CX, 1 D	2
No. of rings?	1 A, 4 B, 45 C, 51 D, 6 E, 1 X, 28 Y, 1 Z, 21	158
		—
		358
	Total number of vessels	462
There were in addition:		
Type:	Rim diameter (flagons only)	Total
	Two-handled flagons (Richardson 84) E-G	22
	Mortaria	21
	Two-handled flagons (Richardson 45) B-D	19
	Disc-mouthed flagons (Richardson 44) B-D	17
	Honey jars (Richardson 55)	17
	Reed-rimmed bowls	15
	Lids	9
	Tazze (Richardson 53)	9
	Two-handled flagons of Hofheim Type F (Camulodunum 140b/161b)	9
	Jars	8
	Pinched-mouthed flagons (Richardson 47)	7
	Two-handled flagons (Richardson 41) C-D	4
	Two-handled bowls (Richardson 10)	3
	Cordoned jars	1
	Small jars	1
	Lamp (Richardson 83)	1
		—
		163
Non-local types:		
	Native ware	6
	Beakers	3
	Flanged bowls	2
	Mortaria	1
	Cavetto-rimmed jar	1
		—
		13
	Total number of identifiable vessels represented	638

THE STAMPED MORTARIA (Figs. 5 and 6)

BY MRS. K. F. HARTLEY

RIPANVS.

MS1 T.2/3. Pit, Layer 2, yellow sand. In granular cream ware with pink core and with unworn red, white and grey flint grits on the flange.

MS2 T.2/3. Pit, Layer 1. In granular pinkish-ware with red, white and grey flint grits on the flange.

MS3 T.2/3. Pit, Layer 1. In granular cream ware with pink core and a few red and grey flint grits on the flange. A broken FECIT stamp of Ripanus is impressed diagonally across the flange.

MS1 and MS2 each have a complete stamp reading LVGV, which is a counterstamp used by Ripanus. All three stamps are probably from different vessels. In view of the identical fabric and forms used, as well as the LVGV counterstamp, it is possible that this Ripanus is to be identified with Q. Rutilius Ripanus who used a counterstamp reading LVGV DV/FACTVS. Two of his namestamps, three of his FECIT counterstamps and one of his LVGV counterstamps have been found at Brockley Hill in earlier excavations and the total of nine mortaria does suggest that he worked at Brockley Hill at some time in his career. Assuming that Brockley Hill is the site of Sulloniaca it is not clear why he should have used a place-name counterstamp reading LVGV there; further discoveries should clarify this. However, no other potter so far attributed to Brockley Hill used such a counterstamp. His rims point to a date of c. A.D. 65-95.

SECUNDVS.

MS4 T.1/2. Floor of kiln furnace and silt infill of the field ditch. In granular buff ware with unworn grey, white and red flint grits on the flange. A stamp from the only die used by Secundus. The treatment of the stamp is very reminiscent of two of Ripanus' stamp-types and at least five of his mortaria have now been found at Brockley Hill. Twenty-four stamps have now been found on other sites throughout England and one in Scotland, at Camelon. The rims point to a date of c. A.D. 65-95.

SOLLVS.

MS5 T.1. Layer 2, dark brown soil. A fragment in granular cream ware with a few grey and white flint grits on the flange. The stamp is from the most commonly used die of Sollus. Over 70 stamps of his die are known from sites throughout England, including 32 from London and three from Flavian forts in Scotland. So far only three of his stamps are recorded from Brockley Hill but the fabric and forms of his mortaria and their distribution are typical of the potteries south of Verulamium in the Flavian period and it is likely enough that he had kilns at Brockley Hill. A date of c. A.D. 70-100 is indicated.

THE GRAFFITO (Fig. 6, G.1)

BY MR. R. P. WRIGHT, F.S.A.

T.2. CLAY PIT, LAYER 1:

A graffito inscribed on a South Gaulish samian Dr. 27 cup (S.7), which is of early Flavian date. It was cut while the cup was inverted and reads MIA, *Mia* (complete), which is probably a personal name.

THE CHARCOAL FRAGMENTS

BY DR. D. F. CUTLER

Royal Botanic Gardens, Kew

T.2. stoke-hole of the kiln:

Fragments of oak, *quercus robur* type.

T.2. clay pit. Layer 1:

Fragments of oak, *quercus robur* type; also two fragments of beech, *fagus sylvatica*.

STONE ADZE¹⁴ (Fig. 6, A.1):

T.3, potters' clay lining edge of pit:

A fine example of a Neolithic polished stone adze. Examination by hand-lens suggests that the rock from which it was made is either a hornblende-schist or possibly a sheared diabase. Metamorphic rocks similar to this material occur in Cornwall and were used extensively for the manufacture of stone implements.

The presence of this adze does not necessarily imply Neolithic occupation in the locality, for the object has an attractive appearance and may well have been picked up elsewhere and introduced to the site in the first century A.D.

NOTES

- ¹ F. Cottrill, "Note on the trial excavation at Brockley Hill, 1937", *T.L.M.A.S.* (1937), 686-87. K. M. Richardson, "Report on the excavations at Brockley Hill, Middlesex, August-September 1947", *T.L.M.A.S.* (1948), 1-23. P. G. Suggett, "Excavations at Brockley Hill, Middlesex, 1952-53", *T.L.M.A.S.* (1954), 259-76.
- ² Richardson, *op. cit.*, 5.
- ³ A 1914 shilling was found in the fill of this recut ditch. The ditch is clearly a continuation of the one excavated at Site B, to the south of the cafe, in 1952. See P. G. Suggett, "Excavations at Brockley Hill, Middlesex, 1952-53", *T.L.M.A.S.* (1954) 263. In view of the findings at Site A, 1972, it cannot be the east ditch of Roman Watling Street.
- ⁴ P. G. Suggett, "Excavations at Brockley Hill, Middlesex, 1951", *T.L.M.A.S.* (1953), 180.
- ⁵ There are large collections of stamped mortaria from London in the British Museum, Guildhall and London Museum collections. See also, S. S. Frere, *Verulamium Excavations*, Vol. 1 (London, 1972). The Mortarium Stamps by Mrs. K. F. Hartley, 371-81.
- ⁶ Richardson, *op. cit.*, 7-19.
- ⁷ P. Corder, "A Roman pottery of the Hadrian-Antonine period at Verulamium", *Ant. J.*, XXI (1941), 272.
- ⁸ Suggett, *op. cit.*, 261.
- ⁹ S. A. Castle, "Excavations at Brockley Hill, Middlesex, Sulloniaca, 1970", *T.L.M.A.S.* (1972), 155, 18 and 34.
- ¹⁰ Information from Mrs. K. F. Hartley. The writer has since excavated kilns at Site C (N.G.R. TQ 174940). Associated with these kilns were quantities of stamped mortarium sherds of Driccius, including wasters.
- ¹¹ M. R. Hull, *The Roman potters' kilns at Colchester* (London, 1963), 147-49 and 158-61.
- ¹² Frere, *op. cit.*, 272-73, c. A.D. 60-75.
- ¹³ As 9, however, quantities of ring-necked flagons of this type, including wasters, were found at Site C (N.G.R. TQ 174940).
- ¹⁴ Information from Dr. I. H. Longworth of the British Museum, and Mr. R. W. Sanderson of the Institute of Geological Sciences.

BIBLIOGRAPHY

- | | |
|----------------|--|
| B.H., 1952 | P. G. Suggett, "Excavations at Brockley Hill, Middlesex, 1952-53" <i>T.L.M.A.S.</i> (1954). |
| Birchall, 1965 | A. Birchall, "The Aylesford-Swarling Culture: The problem of the Belgae reconsidered" <i>Proceedings of the Prehistoric Society</i> , Vol. XXXI (1965), 241-367. |
| Camulodunum | C. Hawkes and M. Hull <i>Camulodunum</i> (London, 1947). |
| Old Ford | H. Sheldon, "Excavations at Lefevre Road, Old Ford, E.3., September, 1969-June, 1970", <i>T.L.M.A.S.</i> (1971). |
| Park Street | H. E. O'Neil, "The Roman Villa at Park Street, near St. Albans, Hertfordshire", <i>Archaeol. J.</i> , 102 (1945). |
| Rook, 1970 | A. G. Rook, "Investigation of a Belgic site at Grubs Barn, Welwyn Garden City", <i>Hertfordshire Archaeology</i> , Vol. 2 (1970), 31-36. |
| Verulamium | S. S. Frere, <i>Verulamium Excavations</i> , Vol. I (London, 1972). |

ACKNOWLEDGEMENTS

I am especially grateful to Daniel Smith, Briant and Done, estate agents to the owners, All Souls College, Oxford, for permission to excavate this site. All Souls College are thanked for kindly donating the coin of Vespasian to the British Museum and the remainder of the finds to the London Museum. In connection with this, thanks are due to Prof. S. S. Frere, F.S.A. Mr. J. Upton, of the Royal National Orthopaedic Hospital, is thanked for help with storing the tools.

Once again I am indebted to Mrs. K. F. Hartley for reporting on the stamped mortaria, and Miss C. Johns, of the British Museum, for notes on the samian ware. In addition Mr. R. P. Wright, F.S.A., reported on the graffito, Dr. I. H. Longworth, F.S.A., and Mr. R. W. Sanderson on the adze; and Dr. D. F. Cutler on the charcoal fragments. Mr. K. A. Howes, of the British Museum, kindly cleaned the coins.

Lastly, thanks are due to Mr. K. Bailey, Mr. M. Coles, Mr. L. Gray, Mr. I. Mackay, Mr. J. Reeves, Mr. G. Robinson, Mrs. M. Tisdall, Mr. B. Wedmore and Mr. J. Warbis, without whose help this excavation could not have been conducted.

Mr. Ralph Merrifield, F.S.A., of the Guildhall Museum, kindly read this report in typescript.

Both the Author and the Editors wish to express their thanks for the generous grants from the London Borough of Barnet and All Souls College, Oxford, which made publication of this report possible.

A MEDIEVAL DEPOSIT FROM 244-246 BOROUGH HIGH STREET, SOUTHWARK (TQ3234 7967) LONDON

F. S. C. CELORIA AND J. C. THORN

SUMMARY:

Emergency excavations in the parish of St. George the Martyr, on the west side of Borough High Street, Southwark, just south of Lant Street (TQ 3234 7967) revealed below eighteenth- and nineteenth century levels what appeared to be a shallow, silt-filled ditch containing a medieval deposit, mainly of pottery which had been deposited at one moment in time, though its constituents may have been accumulated over a longer period. The date-range of the pottery depends on suggested associations at other sites of similar vessels and may tentatively be put inside the period 1275-1325, with the possibility—if the group consists of contemporaneous pieces—of a date centring on 1300 or just after.

THE SITE

The site (see Summary) lay under the rubble of recently demolished shops (see Fig. 1 and Maps A and B). The first area excavated was in the cellar of No. 240 Borough High Street and the second was between the cellars of Nos. 244 and 246 directly where there had been an alley which led from the street. The areas investigated had perforce to be set back 7 ft. (c. 2.1 m.) from the street.

NATURE OF DEPOSITS UNDER NO. 240 AND NOS. 244 AND 246:

The deposits in the cellar of No. 240 are listed below in downward order:

- (1) Concrete cellar floor 6 in. (152 mm.) thick.
- (2) Decomposed floor joists with coal dust, china and an 1863 penny in poor condition.
- (3) Clean sandy gravel directly under (2).

The deposits found between the cellars of Nos. 244 and 246 Borough High Street were more complex. They were found under an alley flanked at cellar level by mixed-bond brick footings some 3 ft. 6 in. (c. 1.07 m.) apart. Dark grey silt (Fig. 1, Section C-D) lay between the walls. In this silt had been laid a sewer pipe some 11 in. (c. 280 mm.) in diameter. The trench for this was about 15 in. (c. 380 mm.) wide.

The north footings of No. 244 rested on decomposed sleeper beams resting on the grey silt (Fig. 1, Section A-B) which covered the medieval deposit. A clay pipe (Fig. 3) of c. 1710-40 was found embedded in one of the bricks of the footings.

The deposits and features below the footings are as follows:

- (1) The width and direction of the alley was the same as a sloping-sided "ditch" which had been cut into natural sandy, red-flecked gravels (similar to the Flood Plain Terrace gravels under No. 240). The base of the ditch was only about one foot (c. 300 mm.) above Ordnance Datum.
- (2) The *medieval deposit* was a small (c. 1 ft. or c. 300 mm. high) heap of light and dark sand. The deposit lay on the slope of the ditch and it was possible to suggest that the medieval deposit was the result of dumping from a cart carrying scourings from a ditch or drain. The medieval deposit was covered by the dark "silt" referred to earlier.

244 BOROUGH HIGH STREET SOUTHWARK TQ32347967

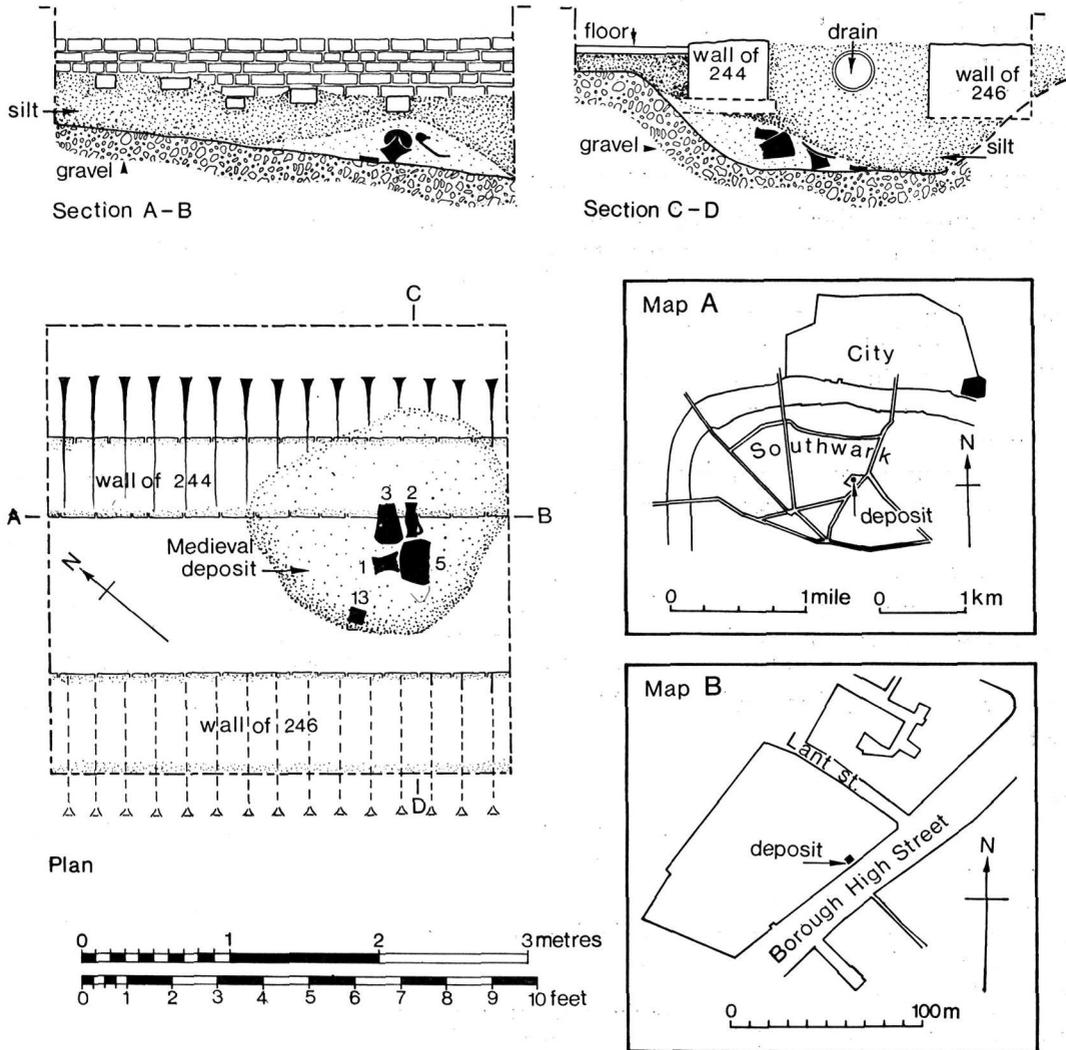


Fig. 1. Site plans and sections

INTERPRETATION OF THE MEDIEVAL DEPOSIT :

Before the contents of this small (c. 0.4 cu. ft. or 0.28 cu. m.) deposit are described in detail, it is necessary to define terms. An *association* of objects is said to have been ascertained if the excavator can show or prove that *the objects were deposited together at the same time*.

This deposit, perhaps a small cartload, does indeed contain "associated" objects in the sense used above. But this does not prove that the objects are synchronous. Thus the closely packed pots in the medieval deposit might have been got out of a ditch or well where they

had been dumped piecemeal over an indefinite period. The details below of the contents and nature of the medieval deposits and the stylistic datings of the pots may suggest the possibility that most of the vessels might be contemporary with each other.

Southwark, a relatively low-lying area, has been criss-crossed by various drains and ditches as excavations have shown. These may be exemplified by one located at Newcomen Street¹ and another at 207-211 Borough High Street.² Both ran east-west and were filled with medieval and later sherds. These ditches do not throw much light on the ditch which contained the deposit.

CONTENTS AND NATURE OF THE MEDIEVAL DEPOSIT:

The deposit contained an assemblage of medieval jugs and cooking pots (Figs. 2 and 3) which tended to cluster near the top of the sandy heap (see Fig. 1, Sections A-B and C-D for arrangement of larger pieces. The vessels were close and had collapsed inwards, the biconical "jug" (MD.2) and the figured "jug" (MD.3) showing most damage, being affected by weathering and spalling.

The "baluster jug" (MD.1) in the lowest part of the heap had its girth telescoped into its base and the fragments lying around it. On the outside of this vessel was a greenish organic encrustation.

The different environments that affected the surfaces of vessels MD.1 and MD.3 should be noted in discussions regarding the synchrony of the wares.

OTHER FINDS:

The remaining finds were isolated fragments from a total of five "jugs", seven cooking pots, a bowl and an unidentified vessel, one floor tile, six pieces of roofing tile, two pieces of iron, bones of sheep and oxen and a small piece of human skull that seemed to be slightly mineralized. A detailed report by Prof. M. H. Day is with the bone in the Cuming Museum, Southwark.

THE FINDS (Figs. 2-3):

The abbreviation MD stands for medieval deposit. Objects are illustrated unless stated otherwise:

MD.1:

Baluster jug, lower part (the upper part of the drawing has been supplied from a complete example from St. Martin-le-Grand).³ It should be noted that the vessel has a slight foot as is the case with many London examples of balusters.

The fine fabric of the vessel has a grey core, the outer surface tending to be red and the interior surface brown. White slip streaked on the outside to about 2 in. (50 mm.) of the base, was partly covered with patchy olive green glaze terminating 5 in. (c. 127 mm.) from the base. There are greenish organic deposits on the outside, especially under the belly. (Cuming Mus. Nos. 64/8/15924 + 15930 + 15866 + 15953).

The time range for such vessels is c. 1280 to perhaps the decade after 1320.

This baluster jug would have held, on computation from the reconstruction, about 3.9 litres or 6.8 pints. Such a figure by itself is not of much use, but since potters could be extremely skilled at producing a vessel of determinate capacity, it is suggested that some attention be given to the capacities of complete vessels in museums. As a contribution to such a study, we include here a list of capacities (to the brim) of baluster vessels in London museums. Acknowledgements are due to the staffs of these museums for courteous facilities. A litre is 1.76 pints.

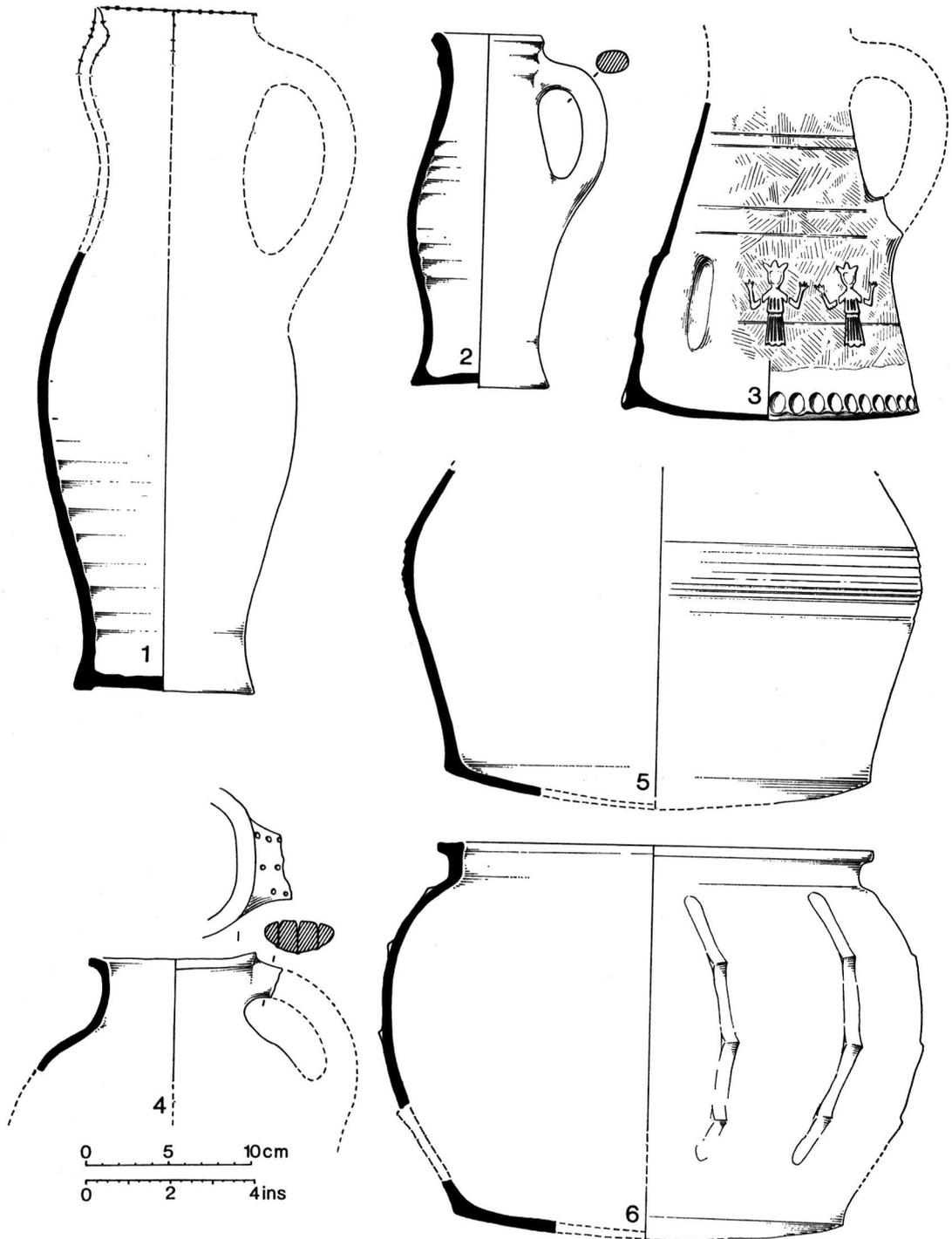


Fig. 2. 244 Borough High Street, Southwark; Medieval pottery ($\frac{1}{4}$)

BRITISH MUSEUM COLLECTIONS:

B8	3.25 litres	Unprovenanced
B8A	3.50 litres	Farringdon St. Railway Stn., 1875
B9	3.63 litres	Cannon Street

VICTORIA AND ALBERT MUSEUM COLLECTION:

2016-1901	3.42 litres	Cannon Street ⁴
-----------	-------------	----------------------------

GUILDHALL MUSEUM COLLECTIONS:

M.IX.1 (5568)	3.24 litres	City of London
M.IX.2 (5569)	3.20 litres	Bartholomew Lane
M.IX.10 (5577)	3.60 litres	Basinghall Street
M.IX.12 (5579)	3.62 litres	Old Broad Street
No number	3.28 litres	Unprovenanced
E.R. 417A	4.20 litres	Gresham Street, 1959
E.R. 146 (21186)	2.98 litres	Gateway House, 1954
E.R. 524	3.42 litres	Midland Bank, Gracechurch Street
1930.108 (12396)	3.51 litres	Blossoms Inn
M.IX.11 (5578)	3.00 litres	Basinghall Street

MD.2:

Biconical jug (the lip is conjectural). The fine reddish fabric has splashes of lead glaze appearing as brown on the upper front and on one side. The lower end of the rod handle was applied to a perforation in the body wall. A handle of a similar vessel, represented as MD.12A, with smaller cross-section (11 mm.) was also found in the deposit. (Cuming Mus. No. 64/8/15929).

The date range is inside the period c. 1200-1320.

The volume calculated by computer from the drawing is 0.75 litre or 1.32 pints (or 45.8 cu. in.). These figures should be allowed an error of $\pm 5\%$. These volumes come to two-thirds of an imperial quart. Since the "reputed quart", which is the size of a present-day wine bottle, comes to 46.24 cu. in., the capacity of this vessel, 45.8 cu. in., is worthy of comment. Before 1527 the Tower or London wine gallon was 172.8 cu. in., producing a small quart of 43.2 cu. in. The problem is discussed in some detail by B. E. Moody.⁵

Such figures are not of much value in isolation and more data should be accumulated before any conclusions are attempted about intended measures. The capacities of similar biconical vessels in the Guildhall Museum are listed below:

GUILDHALL MUSEUM COLLECTIONS:

E.R. III	1.60 litres	40-66 Queen Victoria Street
M.IX.22 (5589)	1.22 litres	Fore Street
M.IX.78 (5645)	0.85 litres	St. Martin-le-Grand
1930.109 (12397)	0.80 litres	Blossoms Inn Yard ⁶
M.IX.76 (5643)	0.40 litres	St. Martin-le-Grand
17,753	0.39 litres	
M.IX.79 (5646)	0.22 litres	Liverpool Street
M.IX.75 (5642)	0.19 litres	Steelyard

It would be a bold soul who can recognise the above figures as being proportions of the wine gallon of, say, the reign of Henry III. Further examples are needed for promoting the study of an important aspect of pottery description and classification, namely vessel capacity.

It should be mentioned that though the above examples are from the City, other biconical vessels of this kind have been found in the London region. R. E. M. Wheeler published one from the foreshore of "Old England" at Brentford.⁷

MD.3:

Figured jug: lower portion. The fine red fabric is streaked with white slip; the outside is covered by clear glaze with green specks and occasional reddish-brown patches. There are lightly-brushed diagonal grooves at various levels. Traces of the base of a handle can be discerned. There are finger impressions round the base.

There is a “sagging” bottom, and evidence of knife-trimming. Below two horizontal girth grooves are spaced eight embossed, crowned (or hooded?) human figures (see Fig. 3A). These blurred figures are all damaged. (Cuming Mus. No. 64/8/15868).

No precise analogy can be found for the decorations which should not be too readily described as referring to “praying” or “dancing” figures. Figures on jugs and similar vessels form a long-lived complex tradition with connections across both the Channel and the North Sea. If the uplifted arms were to be regarded as a significant feature, then the nearest analogies would be two figured jugs from Nottingham. One⁸ has s-shaped arms while the other (in the Champion Collection, our Fig. 3B) has paw-like hands uplifted and a head with trilobate top.⁹ Such figures are considered to date to *c.* 1300–50.

Other figures on pots found in this country (*e.g.* Audlem,¹⁰ Coventry,¹¹ Cardiff, Kingston-on-Thames¹²) show only partial similarities, though one would like to call attention to examples in Scandinavia¹³ where the tradition of such figures can be noted.

It is possible to broaden the discussion a little by bringing in examples of tiles with crowned figures having upraised arms. These might include a tile from Chinnor, Oxon.¹⁴ (our Fig. 3C) and “Penn”-type tiles¹⁵ such as that from Union Court, Broad Street, City (our Fig. 3D)¹⁶ and tiles from Thame Park Abbey, Oxon.¹⁷ (our Fig. 3E), Chastleton, Oxon., and others from Warwickshire (our Fig. 3F).¹⁸ Such floor tiles may not be much earlier than the last quarter of the thirteenth century, though the Penn tiles referred to might be of the first decades of the fourteenth century.

MD.4:

Jug neck, the fabric is a hard-fired grey. The handle is stabbed. (Cuming Mus. No. 64/9/15900).

The fabric and shape of this vessel (and MD.6) are similar to the wares found in the kiln dump at Titsey in Surrey.¹⁹ Future consideration of the date of this fragment will depend on the increasing amount of work now being done on the wares of Limpsfield.

The tentative date range is 1280–1320.

MD.5:

Cooking pot: fragments from base to shoulder. The slightly sandy fabric is red with a grey core. There is a white encrustation on the inside, while the outside is coated with soot. On the base are pot lid fractures that may have been caused by extremes of temperature. There is a pattern round the belly formed by five turns of a single incised line. (Cuming Mus. Nos. 64/8/15026 + 15814 + 15945 + 15936 + 15938 + 15824). Date *c.* 1300.

MD.6:

Decorated cooking pot: profile reconstructed from fragments. The fabric is a gritty grey-black. There is a flanged square-section rim and a “sagging” base. The applied vertical strips are trailed so thinly that the peakings are not joined. (Cuming Mus. No. 64/8/15908).

Suggested dates are: *c.* 1300 and late thirteenth century–mid-fourteenth century. The approximate capacity of the vessel would be about 14.25 litres (or about 25 pints).

MD.7:

Plain cooking pot: upper portion only. The rim is similar to MD.6; the fabric is slightly redder. (Cuming Mus. No. 64/8/15901).

Date *c.* 1300.

MD.8:

Plain cooking pot: upper portion only. The gritty fabric is dark grey. The rim is more rounded in section than the squared rim of MD.6 and MD.7. (Cuming Mus. No. 64/8/15897).

MD.9:

Plain cooking pot. The fabric is dark grey to black. There are traces of brownish glaze inside with sooty encrustations over it. (Cuming Mus. No. 64/8/15927).

MD.10:

Cooking pot: almost complete sagging base. The hard grey gritty fabric is reddish with a dark-grey to black core. Inside there is a pale faintly mottled olive-grey glaze. (Cuming Mus. No. 64/8/15928).

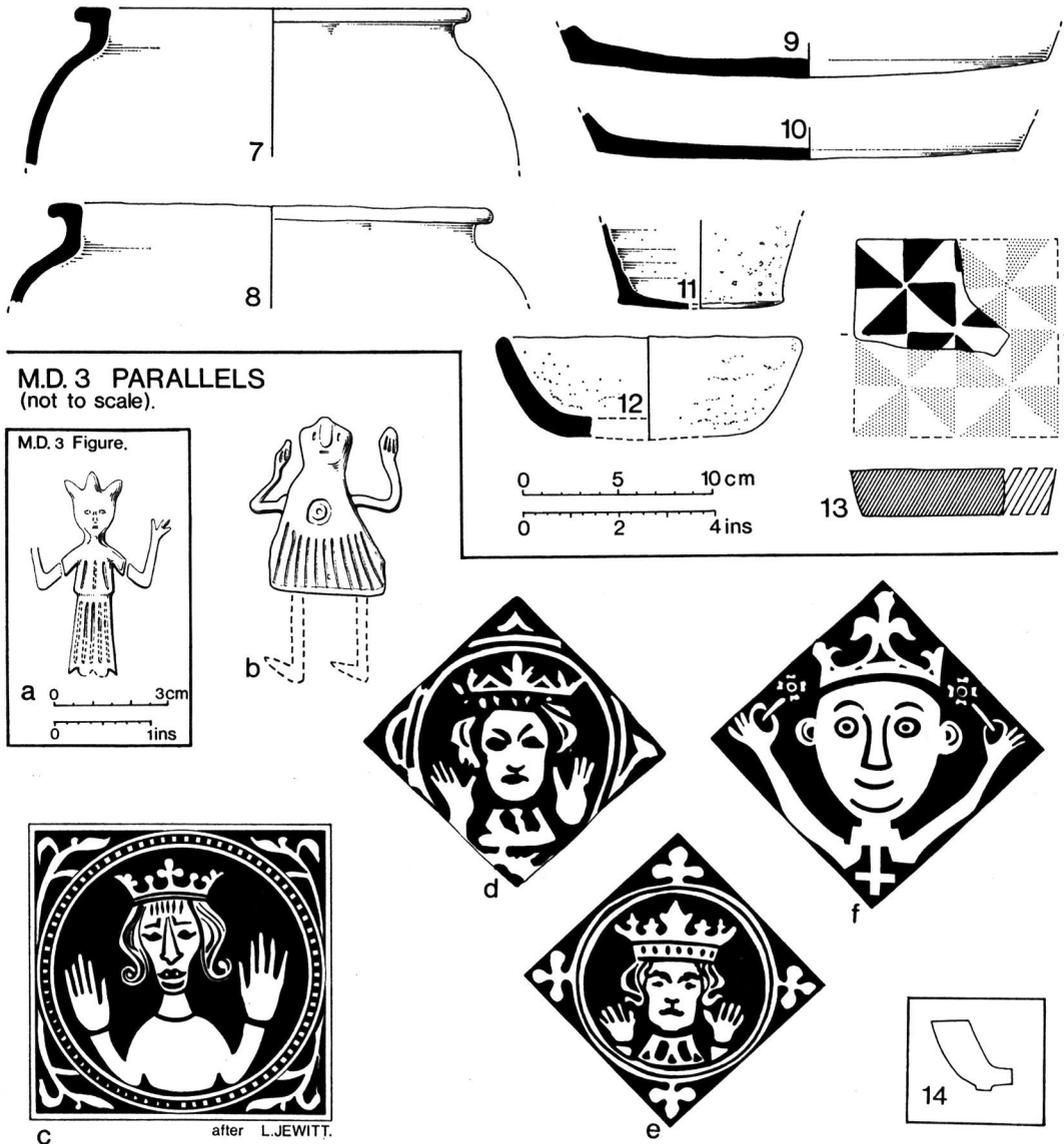


Fig. 3. 244 Borough High Street, Southwark; Medieval pottery and tile (½).

MD.II:

Cooking(?) pot: lower portion: flat base. The shell-gritted fabric is dark grey. (Cuming Mus. Nos. 64/8/15813+15889).

MD.I2:

Hemispherical vessel or bowl. The fabric is reddish grey. This rough vessel shows no evidence of being thrown on a wheel. (Cuming Mus. No. 64/8/15935).

The date is uncertain.

MD.I2A (not illustrated):

Rod handle in reddish fabric, similar to MD.2 but with smaller (c. 0.48 in. or 12 mm.) cross-section. (Cuming Mus. No. 64/8/15845).

MD.12B (not illustrated):

"Jug" fragment of body. The gritty white fabric is covered with clear green-mottled glaze on the outside.

SILT LAYER:

Jug, body fragment. The fine red fabric is covered with clear green-brown lead glaze over parallel vertical 0.25 in. (c. 6 mm.) wide bands of white slip 0.75 in. (c. 19 mm.) apart, appearing as yellow under the glaze.

SILT LAYER:

Cooking pot body fragment, soot on outside. Gritty red fabric.

DATING OF VESSELS:

The dating of the vessels hinges on associations that occur elsewhere,²⁰ which are linked with Saintonge polychrome jugs that have been found in deposits of c. 1270-1325 dated by castle-building activity. At Lesnes Abbey a baluster jug not unlike MD.I was associated with a Saintonge polychrome jug. A similar association occurred at the Ingledeu and Davenport site in Southwark.²¹

Cooking pots MD.5-7 can be compared on partial rim similarities with an example from Regis House, King William Street, City, found in a well in alleged association with a polychrome jug.²²

Coin evidence,²³ from hoards in jugs found many years ago should be treated with great caution, though a penny of Edward III (d. 1377) was found at Windsor Court, City, in good association with a baluster jug, a cooking pot (similar to MD.6) and a bowl similar to the small bowl MD.12.²⁴

TILES:

MD.13:

Decorated floor tile. Hard fabric, dark grey core, red nearer surface. There is the common heraldic gyronny design "printed" on top in white slip which appears yellow where covered with clear lead glaze. The base bears impression of sand and adhering grains of grit. The type is often found in City of London sites.²⁵

MD.13A-F (not illustrated):

Roofing tiles. Six pieces. Rough red fabric. The base bears sandy impressions. The approximate thickness of tiles is 0.625 in. (c. 16 mm.). Three of these pieces show evidence of round cone-shaped holes about 0.625 in. (c. 16 mm.) in diameter.

IRON FROM MEDIEVAL DEPOSIT:

Nail? Fragment of rod 2.38 in. (60 mm.) long with both ends broken 0.38 in. (c. 8 mm.) square section.

Strip? Fragment 2.1 in. (54 mm.) long with broken ends 0.98 in. (c. 25 mm.) wide and 0.1 in. (c. 2.5 mm.) thick.

CLAY TOBACCO PIPE (see 14, Fig. 3):

This was found embedded in a brick in the wall of No. 244 Borough High Street. Mr. Adrian Oswald suggests a date-range of c. 1710-40.

ANIMAL BONES:

The medieval deposit contained the lower right jaw of a sheep, with four teeth (P2 to M1) in place, and the left first phalanx (fully developed) of an ox (*Bos*).

Sheep and ox fragments from the silt layer are reported in detail in a report in the Cuming Museum. The silt layer, being any time between c. 1300 and the eighteenth century, cannot help date bones from it.

LOCATION OF FINDS:

The finds were deposited in the Cuming Museum, Southwark, under the registration number 64/8. A few pieces were stolen from warehouses in which they were stored. Should they turn up, the pieces will be coded as follows: LANT St T9/L2/PitH.

NOTES

- ¹ Kenyon, K. M., *Excavations in Southwark* being *Research Papers of the Surrey Archaeol. Soc.*, No. 5 (1959), pp. 21, 32-33, 93.
- ² Information from Harvey Sheldon
- ³ *Medieval Catalogue* of London Museum (1940), Fig. 69, No. 5, and p. 215.
- ⁴ Rackham, B., (ed. J. G. Hurst), *English Medieval Pottery* (London 1972), Pl. 16, and p. 12.
- ⁵ Moody, B. E., "The origin of the 'reputed quart' and other measures", *Glass Technology*, Vol. 1, No. 2 (Sheffield, April 1960), pp. 55-68.
- ⁶ Dunning, G. C., "Medieval Finds in London", *Antiquaries J.*, XII (1932), p. 178 and Fig. 3.
- ⁷ Wheeler, R. E. M., *Antiquity*, III (1929), p. 29, Fig. 5.
- ⁸ Parker, A., "Nottingham Priory", *Trans. Thoroton Soc.*, XXXVI (1932), pp. 79-124, esp. Pl. V. Figs. 4 and 7, and p. 87.
- ⁹ Dunning, G. C., *A medieval jug found in London, decorated with human and animal figures* (Offprint of paper presented to C. F. A. Schaeffer, Paris 1971).
- ¹⁰ Webster G. and Dunning, G. C., "A medieval pottery kiln at Audlem, Cheshire", *Medieval Archaeol.*, IV (1960), pp. 109-125, esp. Fig. 40, No. 6, and p. 113.
- ¹¹ *Ibid.*, Figs. 45-46, pp. 121, 122.
- ¹² Information from Marion Smith, Kingston Museum.
- ¹³ Barton, K. J., "Anthropomorphic decoration on Medieval jugs: some regional variations, with special reference to Swedish examples", *Särtryck ur Res Medievaales*, pp. 43-52. Cf. Barton, K. J., "Some examples of Medieval glazed earthenware in Sweden", *Antikvariskt Arkiv*, 33 (1968), Pl. I (Nos. 12-14), p. 41 and p. 37.
- ¹⁴ *Journal Brit. Archaeol. Assoc.*, VIII (1852), Pl. 25, opp. p. 151.
- ¹⁵ Hohler, C., "Medieval Paving Tiles in Buckinghamshire", *Records of Buckinghamshire*, XIV (1941-42) pp. 1-49, and pp. 99-132, esp. Tile P18, and pp. 30 and 106.
- ¹⁶ *Guildhall Museum Catalogue* (1908), No. 61, p. 241 (Accession No. 6847).
- ¹⁷ Haberly, L., *Medieval English Pavingtiles* (1937), Pl. CXXI, p. 189.
- ¹⁸ Chatwin, P. B., "The Medieval patterned tiles of Warwickshire", *Trans. Birmingham Archaeol. Soc.*, LX (for 1936), Fig. 20(15).
- ¹⁹ Tester, P. J., and Caiger, J. E. L., "Medieval buildings in the Joyden's Wood Square Earthwork", *Archaeologia Cantiana*, Vol. LXXII for 1958 (1959), pp. 18-40 (Pottery report by G. C. Dunning, pp. 31-39). "Limpsfield" pottery has been found in great quantities at Eynsford Castle. Cf. G. Leveson-Gower, "On a Roman Villa discovered at Titsey", *Surrey Archaeol. Coll.*, IV (1869) pp. 235-36n. This is one of the earliest references which should be supplemented by more recent ones like: Prendergast, Martin D., *The coarse-ware pottery of medieval Limpsfield* (Jan. 1973).
- ²⁰ Dunning, G. C., "A group of English and imported medieval pottery from Lesnes Abbey, Kent . . ." *Antiquaries J.*, XLI (1961), pp. 1-12, esp. 4-5 and Figs. 1 and 4.
- ²¹ Kenyon (as Note 1), Fig. 27 and pp. 88-92 (Pottery report by G. C. Dunning).
- ²² Fox, C. F., Radford, C. A. R., and (Pottery) Dunning, G. C., "Kidwelly Castle, Carmarthenshire: including a survey of the Polychrome Pottery found there and elsewhere in Britain", *Archaeologia*, LXXXIII (1933), pp. 93-138, esp. Fig. 14C on p. 129, and p. 130.
- ²³ Thorn J. C. "Two Medieval pots from Friday Street", *The London Archaeologist*, Vol. 2, Pt. 3 (Summer 1973), pp. 62-63.
- ²⁴ Grimes, W. F., in Bruce-Mitford R. (ed.) *Recent Archaeological Excavations in Britain* (London 1956), Pl. XX(a) and p. 119.
- ²⁵ Ponsoby (Lord) and Ponsoby, M., "Monastic paving tiles", *Sussex Archaeol. Coll.*, LXXV (1934), Pl. VI, No. 37, and p. 60.

ACKNOWLEDGEMENTS

Dorothy Thorn, Joan Walley and Ruth Parker typed the various versions. Others who helped with advice are listed below in alphabetical order. They should be exempt from responsibility for errors: K. J. Barton; J. Cherry; G. Copack; M. H. Day; G. C. Dunning; Elizabeth Eames; F. Holling; R. Hurst; A. G. MacCormick; R. Merrifield; M. R. Maitland Muller; A. Oswald; H. Sheldon; Marion Smith.

The excavation was conducted under the auspices of the Southwark Archaeological Excavation Committee.

Acknowledgement should also be made to the London Museum for supplying tools, storage boxes and stationery for the operation.

The Society and the Editors are grateful to the Southwark Archaeological Excavation Committee for a grant towards the cost of publishing this article.



Roman gold finger-ring with garnet, from the City (x2) *Photo: M. Freeman*



Roman amber necklace from the City (approx. actual size; see text for measurements). *Photo: M. Freeman*

NOTES

This series of notes is used to provide a place to publish important individual objects or finds that would otherwise remain unpublished.—*Editor*.

THREE ROMAN OBJECTS FROM THE CITY OF LONDON

HUGH CHAPMAN

The three objects described in this note passed through or were recently acquired by the Guildhall Museum, and in each case they have sufficient intrinsic importance to make their publication worthwhile, though they are all in the technical sense “unstratified”.

NO. I PART OF A NECKLACE OF AMBER BEADS (ACCESSION NUMBER 25869)

In 1973 the Museum had the opportunity to purchase a collection of Roman antiquities found in the City of London in the period between 1920–1935. As a result several objects were bought and accessioned into the collection, including the amber necklace and the gold ring described below.

The recorded provenance, on a card attached to the necklace, is “From excavations in Old Jewry, London. (The bed of the River Walbrook) January 1934”. The surviving length of the necklace consists of 70 beads closely threaded on a string measuring (not including the loop) 439 mm. The beads themselves are of two different shapes, 64 of them being “ellipsoid” beads (Beck’s classification)¹ of great uniformity, measuring on average 5.49 mm. in length, 3.9 mm. at the greatest diameter, with a hole through their length of c. 0.93 mm. diameter. These 64 smaller beads are divided into seven groups (4–10–9–12–10–11–8) by 6 “barrel disc”² spacer beads, diameter 8.90 mm., width 3.95 mm. and with a central hole of c. 0.95 mm. The spacing has no apparent significance.

The beads vary in colour from pale orange-yellow to light tawny brown and are, with three exceptions, translucent, it being possible in the case of most of the beads to see the string passing through. The amber is, therefore, lighter in colour than the majority of ancient amber, and does not have the cracked and crinkled patination that is so often present on amber from ancient deposits. The beads still in fact exhibit their original polished surface.

Given the waterlogged nature of the find-spot, there is no reason to doubt that the string is original. It too is encrusted and matted in places with the fine-grained silt that still clings to some of the beads. The string, which is of flax,³ consists of three main strands plaited together to produce a single cord. At one point it is looped round and doubled through one of the spacer beads to form a separate loop some 64 mm. long, with a knot (type unidentifiable) tying the two original ends of the string together near the bead. The purpose of this loop is not clear but it could have provided a method by which the total length of the necklace was adjusted.

Before discussing the necklace in the context of other Roman amber from Britain, it is important to state the grounds for ascribing the necklace to the Roman period.

The find-spot is important. The group of objects to which the necklace and the ring (below) belonged had originally formed part of the collection amassed by the dealer G. F. Lawrence⁴ whose activities in the City in the early decades of this century are well known. At one time he acted as “Inspector of Excavations” for the then recently formed London Museum to help increase the new collections, but he resigned this position in 1928.

There is no doubt that he had a good eye for objects and when possible recorded their provenance and detailed site location.

The provenance is, therefore, accepted, though the "bed of the River Walbrook" that Lawrence observed is likely to belong to one of the stream's western tributaries rather than the main course, which lies some 90 m. to the east of Old Jewry. Though perhaps a circular argument, confirmation is offered by the necklace itself. The survival of the string from a waterlogged deposit is no surprise and the colour and condition of the amber beads also indicates a similar environment. Amber when exposed to the atmosphere slowly changes its colour, becoming darker and deeper red, and the surface weathers, developing the characteristic cracked and crinkled patina so often found. Amber, on the other hand, which has been kept in water or a waterlogged deposit and excluded from contact with air, retains its original colour and surface patination.⁵

In all probability, therefore, the necklace is of Roman date⁶ and likely, as it is a Walbrook deposit, to belong to the period A.D. 50-150.⁷ Further confirmation of this date and identification is provided by the shape of the two types of the beads, both of which are paralleled by beads of glass and other materials of the period.⁸ It is also during the Flavian-Antonine period that amber was most popular in the Roman world.⁹ The greatest difficulty with the necklace is that amber from stratified Roman contexts in Britain is rare and the few examples that have been noted do not include beads of this type and in general do not match the quality and richness that is represented here. Amber imports before the Roman occupation are, of course, known,¹⁰ and prolific afterwards but during the actual period of Roman occupation they are remarkably scarce. A quick, and far from complete survey of Roman Britain produced only 14 pieces of amber from known Roman contexts and none of those are comparable to the beads under discussion.¹¹

The reason for the scarcity is not hard to find. The main source of amber in the Roman world was the coasts of the east Baltic from where it came overland to the head of the Adriatic and to *Aquileia* in particular. Here it was carved and manufactured into articles of jewellery and other small luxury goods before being re-exported to other parts of the Empire. Though highly prized before the opening up of the trade route in Nero's reign, after which it became more available, amber never ceased to be a precious material used for the manufacture of luxury goods and prized for its amuletic virtues as well as its decorative qualities.¹² Considering its general rarity and the errant route required for its arrival in Britain, a province on the extreme edge of the Empire, its scarcity is not surprising. Its proliferation in the post-Roman period is readily explained by the replacement of the Mediterranean based trade-route with direct contact, through migrating groups, with north-west Europe and the amber-producing coasts of the Baltic, west Jutland and Schleswig Holstein.

Finally, it is perhaps worth noting that Pliny (*N.H.*, XXXVII, 30) tells us that articles of adornment made of amber were exclusively worn by women. The reasons for its loss can, of course, only be guessed at, but with an object of such obvious value, deliberate deposition as a votive offering is most likely and perhaps the magical virtues attributed to amber in the Roman period have some significance here.

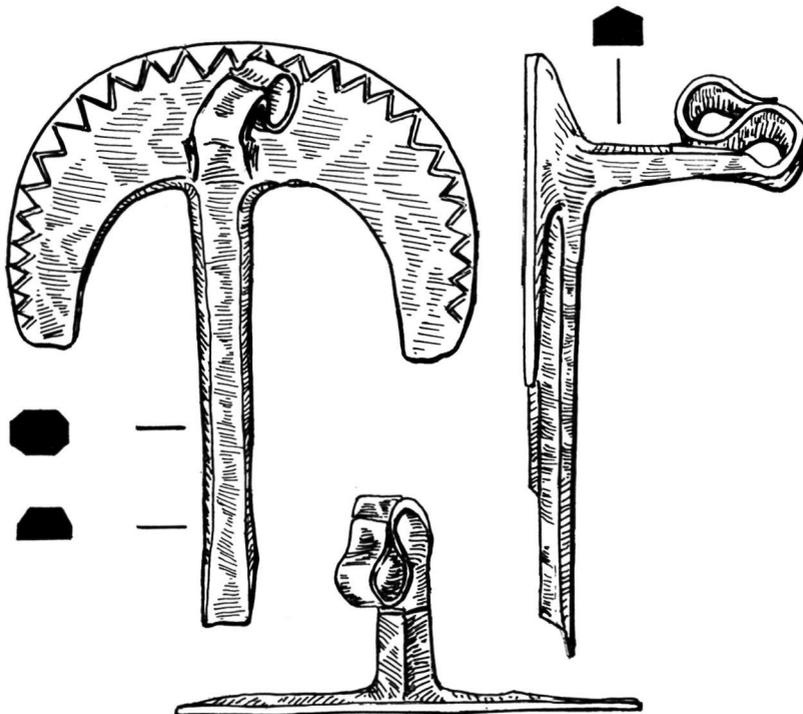
NO. 2 GOLD FINGER-RING SET WITH A GARNET (ACCESSION NUMBER 25868)

The ring was acquired together with and from the same collection as the amber necklace described above. It also comes from the same site, the written information with it giving "From excavations in the bed of the old Walbrook River, Old Jewry, London, 1934".

Therefore, the comments above referring to the original collector, site and likely date range (A.D. 50–150) of the necklace, apply also to the gold ring.

The ring has an internal diameter of 16.11 mm., and 19.08 mm. externally. The width of the bezel is 5.35 mm., and the garnet *en cabochon* has a height above the bezel of 2 mm., and the greatest measurement across its base, which is oval, is 5 mm. The shape of the ring indicates a date in the first or early second century A.D.¹³ and thus agrees with the date range suggested by the provenance. Gold rings with garnets in comparable settings are known from Britain and Germany.¹⁴

The sumptuary laws and the right of free-born men of equestrian and higher orders to wear a gold ring have recently been commented on in the context of several gold rings from Roman Britain,¹⁵ so no addition is needed here, except that the small size of the London ring suggests that it belonged to a woman or child. If the restrictions imposed by the laws were still being enforced, then presumably we have here another indication that wives or children were allowed to wear a gold ring to reflect their husband's or father's respective rank. It is likely, however, that by the end of the first century and certainly by the end of the next, the significance of the gold ring had diminished and its presence was no longer a reliable indication of rank.¹⁶



Roman linch pin from the City ($\frac{1}{2}$)

NO. 3 IRON LINCH PIN

The linch pin was brought in for identification in 1972, but, unfortunately, it proved impossible to retain it for the Museum's collection.

The area of the find was Upper Thames Street near the north end of Southwark Bridge where public service trenches were being dug at the time. It was clear that it was found in a Roman deposit, closely associated with Roman pottery, including sherds of samian. Patches of blue coloured surface patination suggested a waterlogged deposit.

The iron linch pin had a length of 155 mm., and a maximum width across the arms of 123 mm. The length, however, is not complete, the bottom tip of the shaft having been broken off. The crescentic shape head had a zig-zag decoration punched around its outer edge.

The linch pin belongs to a well-known group of iron or bronze and iron crescentic headed linch pins, whose origin Ward Perkins claimed to be Belgic.¹⁷ However, as Manning has pointed out,¹⁸ there is no real evidence for this and all of the known examples either are or could be of Roman date, and therefore the type is likely to owe its origin in Britain to the Roman conquest. Their presence at Pompeii (*i.e.* before A.D. 79)¹⁹ and as far away as Thrace²⁰ (modern Bulgaria) also seems to preclude a Belgic origin. The very different highly decorated linch pins with crescentic heads from Kings Langley, Herts., and Colne Fen, Hunts.,²¹ which are pre-Roman in date, must, therefore, reflect another tradition which does have its roots in pre-Roman Britain.

It is difficult to date the London example, but by comparison with the late third century types from Verulamium²² and the even more developed 4th century examples from Sandy and elsewhere,²³ an earlier date in the late second century could perhaps be suggested.

ACKNOWLEDGEMENT

I have to thank Mrs. Hilary Guise for the drawing of the linch pin.

NOTES

- ¹ H. C. Beck, "Classification and Nomenclature of Beads and Pendants", *Archaeologia* 77 (1927), Pl. II, Long Beads Group 1 D1 a.
- ² H. C. Beck, *op. cit.*, Pl. II, Disc Beads Group 1 A1 b.
- ³ I have to thank Mr. Henry Hodges and Miss Elizabeth Pye of the Institute of Archaeology, London, for identifying the material of the string.
- ⁴ R. Merrifield, *The Roman City of London*, 1965, 9-10, and the *Daily Express*, June 27th, 1928. For a less complimentary assessment see W. F. Grimes, *The Excavation of Roman and Medieval London*, 1968, 220.
- ⁵ D. E. Strong, *Catalogue of the Carved Amber in the Department of Greek and Roman Antiquities*, British Museum, 1966, 14-15. For the most extensive recent bibliography on amber in antiquity see "The Provenience of Archaeological Amber Artifacts", *Art and Archaeology Technical Abstracts*, 6 (1966), No. 2, and (1967), No. 3.
- ⁶ The late Professor D. E. Strong kindly examined the necklace and identified the beads as amber, and he too thought that they were of Roman date. Mrs. M. Guido also saw a photograph of the beads and agreed that "in all probability" they were Roman and that the shape of the beads suggests that they are pre-third century A.D. and probably earlier.
- ⁷ R. Merrifield, "Coins from the bed of the Walbrook and their significance", *Antiq. J.* 42 (1962), 38-52.
- ⁸ *e.g.* R. E. M. Wheeler, *Maiden Castle, Dorset*, Oxford, 1943, 292-93 and Fig. 98, Nos. 13-16. Also B. Cunliffe, *Excavations at Fishbourne II*, Leeds, 1971, 148 and Fig. 69, Nos. 1-2.
- ⁹ D. E. Strong, *op. cit.* 33.
- ¹⁰ *e.g.* the necklace with the Birdlip mirror see J. Bellows, "On some bronze and other articles found near Birdlip", *Trans. Bristol Gloucestershire Archaeol. Soc.* 5 (1880-81) 139 and Pl. 14.
- ¹¹ (i) M. Rostovtseff, "Commodus—Hercules in Britain", *J. Roman Stud.* 13 (1923), 94, and Fig. 4 No. 2, a large circular bead. (ii) J. P. Bushe-Fox *Excavations of the Roman Fort at Richborough, Kent*, II, Oxford, 1928, 31, and Pl. 14, Fig. 2, No. 11, a large circular bead. (iii) R. E. M. Wheeler, *Report on the Excavations . . . Lydney Park, Gloucestershire*, Oxford, 1932, 84, and Fig. 18, No. 81, a rectangular bead. (iv) K. Kenyon, *Excavations at the Jewry Wall Site, Leicester*, Oxford, 1948, 271, and Fig. 94, No. 10, an ear-ring (unstratified). (v) G. F. Beaumont, "A Roman Coffin found at Braintree", *Trans. Essex Archaeol. Soc. N.S.* 7 (1898-99), 401-2, "some small amber beads". (vi) T. May, *Catalogue of the Roman Pottery in the Colchester and Essex Museum*, 1930; 280, Grave 97/12, No. 59, armet of amber, and No. 64, a bead; 260, Grave 29/47, No. 275, two armlets. (vii) T. May, *The Roman Fort of Templeborough near Rotherham*, 1922, 54, and Pl. 40, No. 1, small amorphous lump of amber. (viii) *Catalogue of Antiquities in the Museum . . . at Devizes*, Pt. II, 1934, 177, and Pl. 55, No. 5, a large amber bead; 193-94, No. 491, an amber bead. (ix) J. Liversidge, *Britain in the Roman Empire*, 1968, 139, Fig. 52, bead (a). (x) V.C.H., *Shropshire I*, 1908, 255, No. 4, a ring.

- ¹² D. E. Strong, *op. cit.* 33–34, and Pliny *N.H.*, XXXVII, 45.
- ¹³ F. Henkel, *Die Römischen Fingerringe der Rheinlande*, 1913, 24, No. 154; also A. Maiuri, *La Casa del Menandro*, 1932, Pl. 65.
- ¹⁴ F. Henkel, *op. cit.* No. 163. For a ring from Southfleet, Kent, and now in the British Museum (1912. 6–20. 4) see P. Rashleigh, “Account of . . . Southfleet in Kent”, *Archaeologia* 14 (1803), 39, and Pl. 8, No. 5. For a similar ring from farther afield see F. H. Marshall, “Catalogue of the Finger Rings . . . Department of Antiquities”, British Museum, 1968 (Reprint), 120, No. 722.
- ¹⁵ M. Henig in B. Cunliffe, *Fishbourne II*, *op. cit.* 88, and esp. note 6. Also D. Charlesworth, “Roman Jewellery found in Northumberland and Durham”, *Archaeol. Aeliana* 4th Ser., 39 (1961), 8; and “A Gold Signet Ring from Housesteads”, *Archaeol. Aeliana* 4th Ser., 47 (1969), 39.
- ¹⁶ I have to thank Dr. M. Henig for several very helpful comments concerning the ring.
- ¹⁷ J. B. Ward-Perkins, “Two early linch-pins, from Kings Langley, Herts . . .”, *Antiq. J.*, 20 (1940), 357–367. See also Sir Cyril Fox, *Pattern and Purpose*, 1958, 120–21.
- ¹⁸ W. H. Manning, “A Roman hoard . . . Sandy, Bedfordshire”, *Bedfordshire Archaeol. J.*, 2 (1964), 50–52.
- ¹⁹ W. H. Manning, *loc. cit.*
- ²⁰ I. Venedikov, *Le Char Thrace*, 1960, Pl. 13, No. 39 *et passim*.
- ²¹ For Kings Langley, J. B. Ward-Perkins *op. cit.*; for Colne Fen, a note by Sir Cyril Fox in *Antiq. J.* 51 (1961), 236–38.
- ²² R. E. M. Wheeler, *Verulamium: A Belgic and Two Roman Cities*, 1936, 217–218, and Pl. 62.
- ²³ W. H. Manning, *loc. cit.* and in S. Frere, *Verulamium Excavations I*, 1972, 174.

The Editors wish to thank the Corporation of London for a grant towards the cost of printing this note.

A LATE BRONZE AGE PIN FROM BRENTFORD

FRANCIS CELORIA, UNIVERSITY OF KEELE

SUMMARY

A "wart-headed" copper alloy pin found by the Thames at Brentford (TQ 17745 76655) in 1963 is found to be of the Late Bronze Age (probably Hallstatt B or tenth to eighth century B.C.) and to share affinities with similar pins from North Germany, Denmark and South Sweden. The cultural background of the pin is examined by discussing items from other parts of Europe that show analogies.

The pin is in the London Museum.

The pin (London Museum 64.50) was picked up early one morning in October 1963 by the water's edge at low tide on the north or left bank of the Thames at a spot (TQ 17745 76655) in front of the grounds of Syon House, Brentford. The place is a few hundred feet west of Old England, a location famous for Late Bronze Age, Iron Age and other finds.

The find was made during an underwater survey with aqualung equipment at an especially low tide. The author was present when Mr. George Southall, a member of the group, spotted the pin in dirty gravel by the water's edge and handed it over immediately. An authenticated find of this kind is welcome because so many of the Old England finds in museums are without information about circumstances of discovery.

This copper alloy pin (144 mm or 5.63 in long) has many features in common with Late Bronze Age (or "Hallstatt") pins from the Continent. Keywords that might be used to describe features for a systematic classification would include: *ball-headed, five-warted; biconical; plain, straight shaft of circular cross-section.*

The Continental analogues are first, and closest of all, the German and Danish *Warzenkopfnadeln* and, second, hollow-headed pins with holes instead of warts. The solid pins have a concentrated northern distribution while the hollow ones are generally more southern.

The Danish and German pins which show the closest analogies with the Brentford pin have been most conveniently described by H. C. Broholm.¹ The Danish pins often have bent necks² whilst the German ones tend to be straight-shafted with a round cross-section. One may note a greater variety in the Danish stem-sections which can be flat or square or triangular or rhombic, with frequent scored or punched decoration. The pins with "wart" heads of Brentford type tend to be earlier, being followed by an enlargement and cylindrical development of the warts at the expense of the head³ to create a cruciform effect. Danish scholars have remarked on the variety of the Danish types and have argued that once the type was imported it underwent several local developments.

E. Baudou in his highly systematic account of the Late Bronze Age in northern Europe⁴ lists the *Warzenkopfnadeln* from Denmark, Scania, Schleswig-Holstein and other parts of north Germany. He places them in "Period IV" (tenth and ninth centuries B.C. or Hallstatt B1 and B2) and "Period V" (eighth century or Hallstatt B3).



GM

Scale: 1/1

He classifies these pins into two sub-classes: (a) those with bent necks (about 80–110 mm. long) which turn up in mainland Denmark, and the isles of Fünen, Seeland and Bornholm, as well as southern Sweden and Germany (Schleswig-Holstein). Some 32, from Danish graves, are datable, a few being “Period V” as above, and a few “Period IV”, though there are some difficulties in chronology. The grand total is around 149, nine being from Germany and ten from Sweden.

The other sub-class (b) of which the Brentford pin is a representative, are *straight-shafted* and generally longer than (a), being generally 150–170 mm. long. They have been found, besides in Denmark, in Germany on both sides of the Elbe, with a few examples further east, though still west of the Oder. The chronology is not as good as for sub-class (a) since only two dated finds could be noted, one from Holstein and one from Brandenburg. The suggestion is “Period V” though Baudouin admits a case could be made for “Period IV”.

The Brentford pin thus can be said to have an origin, either in manufacture or style, which lay in an area between the Waal and the Oder. The matter can be left there but something should be said about the broader background of these pins, thereby revealing the strength as well as the frailties of stylistic trans-regional chronologies. This may be discussed by tentatively considering *hollow* ball-headed pins which have *holes* corresponding to the warts. These pins are found much further south.

The museum at Lausanne has many of these hollow-headed pins. One, from Corcelet⁵ has some of its holes in the head *garnis de perles en verre bleu*.⁶ If the holes represent lost, coloured beads of glass or “enamel” then it is possible to envisage the solid-warted pin from Brentford as a variant or even as an “imitation” produced by a simpler technique.

The Museum für Völkerkunde⁷ at Basel has 17 specimens of such pins which are said to be of the Urnfield or Early Hallstatt period or about 1200–800 B.C., being thus likely to be earlier than the German or Danish wart-headed pins. The Basel examples came from the shores of Swiss lakes;⁸ others come from neighbouring parts of France.

Such hollow pins, made by a *cire-perdue* process rather than by two-piece mould casting, sometimes have concentric groovings round the holes and sometimes the groovings exist without a hole.⁹

While it is suggested that the hollow-headed pins with perforations represent a tradition which is earlier than that of the wart-headed pins, it should be said that both types were components of a European culture which could house not only these pins but also the thistle-headed (or vase-headed) pins and those with biconical heads. A wart-headed pin from such a cultural context was found at Garlstorf (Kreis, Harburg) in North Germany.¹⁰

Perforated pins of this kind have occasionally been found in the early Terremare (IB) cultures of northern Italy. Gösta Säflund¹¹ discusses Únětice parallels and warns that analogues could be found at Alishar I in the third millennium B.C.

The most detailed account of the finding of two hollow-headed pins, with perforations in the head, is that dealing with a hoard found in 1949 in Gelderland Province in the Netherlands.¹² The pins were associated with a spearhead which G. Elzinga dates to the end of the Bronze Age, around 750–650 B.C. One of the hollow heads is globular while the other is biconical and not dissimilar to the Brentford one in silhouette. It is to be noted that, despite similarities shared with Swiss and French examples, there are quantitative and qualitative differences. It is also clear that the Dutch examples required the skill that goes with the *cire-perdue* process, whereas the Brentford pin could have been cast solid without elaborate techniques. It is important to note that the Gelderland pin could well be later than the Brentford one.

One should mention in passing a generally much earlier type of ball-head pin with a thin transverse hole running from near the top to near the junction of the ball with the stem. A variant has a horizontal or near-horizontal perforation and heads may be biconical rather than globular. They have been found in Czechoslovakia, Hungary, Romania, Poland, Germany, France and Switzerland. Though they are nearer to the beginning of the Bronze Age than that of the Iron Age, they do continue well into the Hallstatt period. One was found at Tinsdahl in Holstein, territory of the wart-headed pin. Such examples are brought forward to show how diffused in time and distance a simple ornament type can be. Dating is difficult but they can be of the early Hallstatt period, *i.e.* the Late Bronze Age (*c.* 1000–750 B.C.).¹³

To summarise: pins with some sort of spherical head are known from throughout the Bronze Age of Europe. Their function can only occasionally be hinted at. The Brentford pin was inadequate and dangerous for holding a wool cloak together. Many pins of this kind could have been used for fixing coils or knots in hair. Only with some later pins, such as the plain ball-head pins of *c.* 600–400 B.C. (or Hallstatt D) from the area between the headwaters of the Danube and the Rhine, can definite correlation be found with female burials.¹⁴

The earliest “species” of the ball-head pin “genus”¹⁵ we can consider here is a solid plain head with or without transverse piercing. They range from Romania to the Midi and can be found in north Germany. They are a feature of the Únětice culture or contemporary cultures (*c.* 1900–1500 B.C.) or even earlier if recalibrations of some C14 datings are accepted. The transverse-hole type persisted, *e.g.* in Romania, to the end of the Bronze Age.

Next in time and overlapping in place and chronology with the transverse-hole type as well as the wart-head type is the “species” with a hollow head and holes instead of warts. These are mainly found in Switzerland and France, though specimens have been found in the Netherlands.

Finally, there is the wart-headed pin, a “species” that overlaps mainly in time with the hollow-headed pins but is generally a little later. Such pins are mainly from northern Germany, the Brentford pin being an outlier of this species or type.

It should be recalled that some bronze finds of approximately the same date were excavated at Brentford by R. E. M. Wheeler¹⁶ and it has been subsequently suggested that Old England was like an “Alpine Lake Village”. But a direct connection with Switzerland is discounted by most scholars and it is more appropriate to see the presence of a single wart-headed pin as an unremarkable example of the considerable relations across the North Sea that occurred in the Bronze Age. J. J. Butler has fully documented this.¹⁷

NOTES

- ¹ H. C. Broholm, *Danmarks Bronzealder*, Vol. 4: *Danmarks Kultur i den Yngre Bronzealder* (Copenhagen 1949), p. 49, and Plate 9, Figs. 1-4. Broholm gives fuller pictorial details and associations in the third vol. of his *Danmarks Bronzealder . . . Samlede Fund fra der Yngre Bronzealder* (Copenhagen 1946); 4th period, pp. 10, 21, 23, 45, 57; 5th period, pp. 88, 89, 97.
- ² The obtuse angle in the neck of the stem tends with time to become a right angle. Cf. Hugo Hoffman, *Die Gräber der jüngeren Bronzezeit in Holstein being Vor- und frühgeschichtliche Untersuchungen aus dem Museum vorgeschichtlicher Altertümer in Kiel* (Neue Folge) 2 (Neumünster 1938) e.g. Tafel II, No. 580, Tafel X, No. 665, and text pp. 4, 98. He notes that the angled pins from Holstein are "Montelius IV" (tenth-ninth century B.C.) in date and the straight ones "Montelius V" (eighth century B.C.).
- ³ As noted by Hoffman (see Note 2).
- ⁴ Evert Baudou, *Die regionale und chronologische Einteilung der jüngeren Bronzezeit im Nordischen Kreis being Acta Universitatis Stockholmiensis: Studies in North-European Archaeology I* (Stockholm etc., 1960) pp. 77-78, 260-262, plate XVI, map 38.
- ⁵ No. 15352.
- ⁶ Adrien Colomb & Berthold van Muyden, *Musée cantonal Vaudois | Antiquités lacustres . . .* (Lausanne, 1896) plate XXII and p. 16.
- ⁷ All inventories under 1/2/12/08. For a more recently documented site see J. Speck, "Die spätbronzezeitliche Siedlung Zug-Sumf", *Ergebnisse der Sommergrabung 1952" Ur-Schweiz-La Suisse Primitive . . . XVII, 3/4* (Basel, Dec. 1953) pp. 51-67, esp. Fig. 38 on p. 57.
- ⁸ e.g. Aimé Bocquet, *Catalogue des collections préhistoriques et protohistoriques* (Musée Dauphinois, Grenoble, 1969), text, and 1970, plates), Nos. 974, 982 (Plate 61). They are posited as Hallstatt A-B or Dechêlette Bronze IV.
- ⁹ See also F. Audouze and J.-C. Courtois, *Les Epingles du Sud-Est de la France . . . being Prähistorische Bronzefunde* Abt. XIII, Band I (Munich, 1970) pp. 33-34. These pins are Group M of these authors.
- ¹⁰ Cf. E. Sprockhoff, *Jungbronzezeitliche Hortfunde der Südzone des nordischen Kreises* (Periode V) Bänder I and II, being *Römisch-Germanisches Zentralmuseum zu Mainz Katalog 16* (Mainz, 1950) I, pp. 227 and II, p. 131 and plate 19. His Kat. No 12 for period IV (1937) also furnishes other parallels, Cf. H. H. Jacob-Friesen in *Einführung in Niedersachsens Urgeschichte*, pt. 2 *Bronzezeit* (Hildesheim, 1963), pp. 326, 328 and Fig. 312.
- ¹¹ Gösta Säfvald, *Le Terremare delle provincie di Modena, Reggio Emilia, Parma, Piacenza*, being *Skrifter utgivna av Svenska Institutet i Rom . . . VII* (Lund and Leipzig, 1939) pp. 177-180 and plate 58, Nos. 11 and 12; 61, Nos. 14, 15, 16.
- ¹² G. Elzinga, "Een bronsdepot op de Veluwe in de gemeente Heerde, Gelderland", *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek*, Jaargang 8 (Amersfoort, 1957-58) pp. 11-25.
- ¹³ For French examples with horizontal holes see H. Rolland, "Grottes sépulcrales des Alpilles à Saint-Rémy de Provence" *Bulletin de la Société Préhistorique Française XXX* (Paris, 1933), pp. 368-369 and pl. III (p. 369), Fig. 1, a ring of wire goes through the perforation, as well as his "Quelques vases de Hallstatt I à Saint-Rémy de Provence", *Gallia* 4 (1946), pp. 316-320 and Fig. 1, No. 6. To this may be added G. Bailloud's "Note sur une épingle d'argent de la Lozère" *Bull. de la Soc. Préhist. Fr.* for Oct. 1956, LIII, fasc. 3 (Paris 1957), pp. 568, 570, 571 which has a distribution map; and for German occurrences, R. Hachmann, *Die frühe Bronzezeit im westlichen Ostseegebiet und ihre mittel- und südosteuropäischen Beziehungen . . .*, being *Beihfte zum Atlas der Urgeschichte im Auftrage des Direktors des Hamburgischen Museums . . . Heft 6* (Hamburg, 1957), Tables 55, 56 and pp. 212, 224, 227. V. G. Childe in *The Danube in Prehistory* (Clarendon, Oxf. 1928), Plate IX, No. A4 and p. 230, note 2, says that Unětice pins with almost vertically perforated heads are imitated in Danish passage-graves and that later specimens have hollow decorated heads. Cf. J. Schráníl, *Studie o v̇zniku kultury bronzové v Cechách* (Prague 1921), pp. 41, 45 for claims that the type is indigenous.
- The Romanian example with a near-horizontal perforation is from Baleni and can be anywhere between 800 and 500 B.C. See I. T. Dragomir "Le dépôt de l'âge de bronze tardif de Baleni", *Card R18e of Inventaria Archaeologica Romaniae*, Fasc. 4 (1967).
- ¹⁴ G. Mansfeld, "Späthallstattzeitliche Kleinfunde von Indelhausen (Kr. Münsingen)", *Fundberichte aus Schwaben*, New Series 19 (Stuttgart 1971), pp. 89-117.
- ¹⁵ This is a classification based on observed similarity, with no necessary implication of ancestry.
- ¹⁶ R. E. M. Wheeler, "Old England', Brentford", *Antiquity*, vol. III (1929), pp. 20-32 and plates I-V.
- ¹⁷ J. J. Butler, *Bronze Age connections across the North Sea . . . being Palaeohistoria*, vol. IX (Groningen, 1963) *passim*.

ACKNOWLEDGEMENTS

I have had the privilege of discussion or correspondence with several persons who must be exempted from complicity in any error of interpretation on my part: Colin Burgess (Newcastle); J. J. Butler (Groningen); Mary D. Cra'ster (Cambridge); G. Elzinga (Lecuwarden); Christopher F. C. Hawkes (Oxford); Marion Itten (Zurich); Jean Macdonald (Museum of London); Etienne Rynne (Dublin); Elisabeth Schmid (Basel).

Mr. George Manchester drew the pin. The University of Keele helped with small travel grants for the examination of parallels.

The Editors are extremely grateful to the Trustees of the London Museum for a grant towards the cost of publishing this article.

TWO PIT GROUPS IN THE CITY OF LONDON

PETER MARSDEN

As part of the programme of publishing pre-1974 archaeological excavations in the City of London, two small pit groups excavated by Ivor Noël Hume and myself on different building sites in 1956, are published here (Fig. 2). As both pits were discovered during building operations no detailed record could be made of the construction, form and stratigraphical associations of the pits.

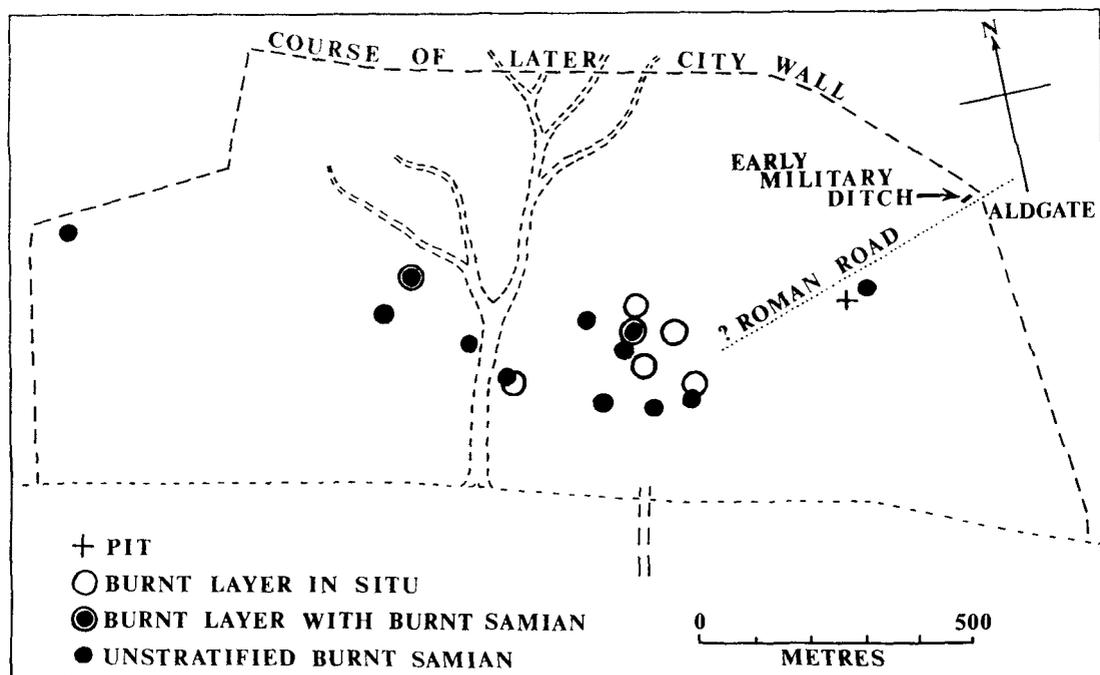


Fig. 1.—Distribution of mid-first century pottery and burnt deposits in London

SITE I: 28-35 MINORIES

A brick-lined rubbish pit or cess-pit was investigated by I. Noël Hume on this site, and unfortunately, its location on the site was not recorded. The pit produced sherds dateable to the period 1725-50, and the Museum reference to the group is ER.371.

1. Green glass wine bottle neck, with a blown glass top which has not been cut off.
2. Two white pipe clay wig curlers, each stamped WB at the ends. A total of seven wig curlers was found in the pit all similarly stamped. For similar curlers with WB stamps see Hume (1969), pp. 321-23.
3. White saltglazed plate rim, undecorated and therefore unlikely to be later than the mid-eighteenth century (Hume (1969), p. 117).
4. Rim of lead-glazed slipware dish. Hard pale pink ware, with a buff slip on which are applied lines of iron oxide.
5. Cup of Chinese porcelain, white ware and glaze and a blue decoration.

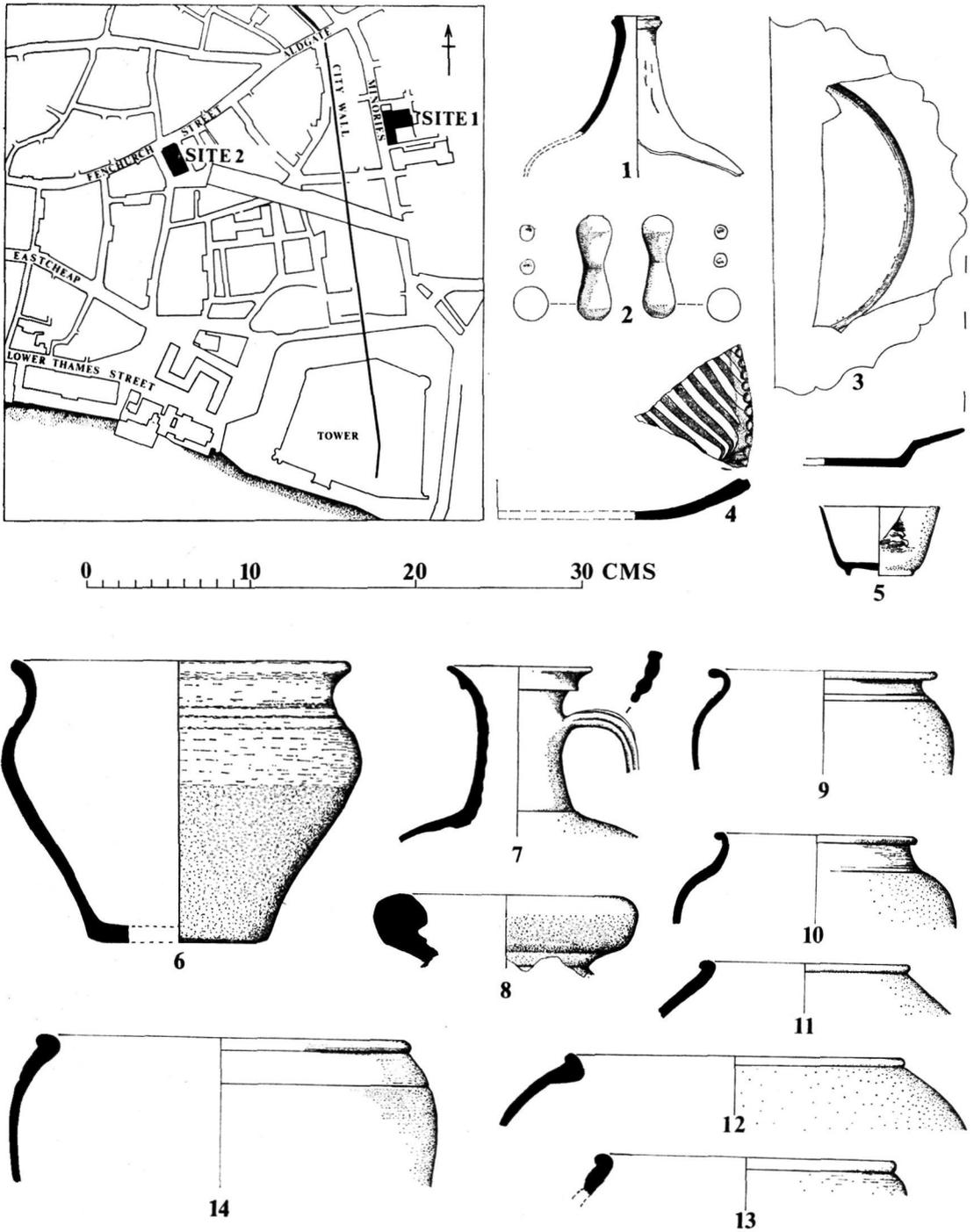


Fig. 2.—Finds from 28-35 Minories (Site 1), and from 56-59 Fenchurch Street (Site 2)

SITE 2: 56-59 FENCHURCH STREET

A rubbish pit of Claudian–Neronian date was found dug into the natural subsoil on the east side of the site (marked with a + on the plan in Fig. 1), and included the following objects which are recorded under the Muscum excavation reference ER.372.

6. Belgic ware jar with an outcurved rim, and a corrugated shoulder, the upper part of the body only being smoothed. This is of a soft pale grey coarseware, soapy to touch (*cf.* Hawkes and Hull (1947), Pl. LXXVIII, type 229c, which is dated to the first half of the first century).
7. Flagon neck, of a hard pale pink coarse ware, with a strap handle. This is a well-known type of the first century which is frequently found in Claudian and Neronian deposits (*cf.* Hawkes and Hull (1947), Pl. LX, LXI, type 140, dated to before c. A.D. 65; *Richborough IV*, Pl. LXXXV, No. 368, dated to the Claudian period; Chapman (1973), Fig. 8, No. 25, dated Neronian).
8. Amphora neck with an internally undercut lip; of a sandy buff ware (*cf.* Cunliffe (1971), Fig. 99, No. 145, which is common at Fishbourne during the earliest Roman phase).
9. Necked jar with a cordon at the junction of the neck and the shoulder. A fine grey sandy coarse ware. This is a characteristic first-century type which is difficult to parallel exactly (see Cunliffe (1971), Fig. 103, type 180).
10. Jar with an outcurved rim, of a hard grey sandy coarse ware. The type is typical of the first century A.D. (see Cunliffe (1971), Fig. 101, type 161).
11. Rim of jar, of a hard pale grey coarse ware. Smooth outer surface, and a slightly sandy inner surface.
12. Bead rim jar, of soft grey Belgic coarse ware (*cf.* Hawkes and Hull (1947), Fig. 56, No. 3, for a bead rim jar of similar form, dated before A.D. 43; Chapman (1973), Fig. 8, No. 19, dated Neronian; the type is also very common at Fishbourne during the pre-Flavian period, Cunliffe (1971), Fig. 102, type 166).
13. Rim of jar of soft flakey black coarse ware with a grey core. The outer surface has been burnished (*cf.* Hawkes and Hull (1947), Pl. LXXXIII, type 225B, dated to pre-A.D. 65 in the first century A.D.; *Richborough III*, Pl. XXXV, No. 246, dated Nero–Vespasian).
14. Bead rim jar of hard grey-buff coloured coarse ware (*cf.* Chapman (1973), Fig. 8, No. 8, dated Nero–Vespasian).

REFERENCES

- Hawkes and Hull, 1947: C. F. C. Hawkes and M. R. Hull, *Camulodunum*. Research Report XIV, Society of Antiquaries of London, 1947.
- Cunliffe, 1971: B. Cunliffe, *Excavations at Fishbourne 1961-9*. Research Report XXVII, Society of Antiquaries of London, 1971.
- Chapman, 1973: H. Chapman, "Excavations at Aldgate 1972", *Trans. London and Middlesex Archaeological Society*, Vol. 24, 1973.
- Hume, 1969: I. Noël Hume, *A guide to the artifacts of colonial America*, Knopf, 1969.
- Richborough I-IV*: J. P. Bush-Fox, *Excavations of the Roman fort at Richborough, Kent*. Research reports VI, VII, X, XVI of the Society of Antiquaries of London, 1926-49.

SIGNIFICANCE OF THE PIT IN FENCHURCH STREET

By adding the position of this pit to a distribution map of find spots of mid-first century burnt layers and burnt Samian ware in London (Fig. 1), it is clear that the pit was situated to the east of the main settlement area of the embryo city, and close to a site where burnt Samian of the same period has been recovered (see G. C. Dunning, "Two Fires of Roman London", *Antiquaries Journal*, Vol. XXV (1945), 48-52; also R. Merrifield, *The Roman City of London*, Benn (1965), 90). This suggests that there may have been some ribbon development along the early Roman road which presumably linked *Londinium* and *Camulodunum*, the latter initially being the political centre of the new province. The Roman road itself has not been discovered within the course of the city defences, but its existence at an early date is also possibly indicated by an early Roman ditch of military type found at Aldgate, though Chapman suggests that it lay further south (H. Chapman, "Excavations at Aldgate, 1972", *Trans. London and Middlesex Archaeological Society*, Vol. 24 (1973), 5-7, 13).

The Society is grateful to the Corporation of London for a grant towards the cost of publishing this note.

A FIFTEENTH-CENTURY MIDDLESEX TERRIER

DOUGLAS MOSS AND IAN MURRAY

The London Borough of Haringey preserves in its Bruce Castle Museum a large collection of documents relating to the past history of Tottenham. One of the most interesting of these forms the subject of this essay; its full title is *Terrarium de Omnibus Terris Separatim vel Coniuntim Incentibus in Omnibus Campis Totius Parochie de Tottenham Factum Anno Rr. Henrici Sexti Post Conquestum Anglie Tricesimo Quarto*.¹

I

Since the recent changes in local government boundaries Tottenham forms part of the London Borough of Haringey. Tottenham is situated in the northern part of the Greater London area, astride the A10, the Roman Ermine Street, and stretches from Highgate and Muswell Hills on the west down to the River Lea on the east. The Lea forms the boundary with Essex; beyond is the borough of Walthamstow. Medieval Tottenham also included modern Wood Green, covering a total area of 4642 acres. Originally it had been forest; in 1459 a large wooded area still remained in the north-west quarter (the present-day Wood Green). The soil is basically London clay to the west of the A10, apart from an area of Taplow gravel round Bruce Castle. On the east side of the highway brick earth predominates until the alluvial soil of the Lea Valley is reached.

Until 1254 the township had long been a possession of the Scottish crown. In that year there was no direct succession and the manor was divided into three parts, owned respectively by Robert de Brus, John de Balliol and Henry de Hastings, Earl of Pembroke. The Balliol manor, in 1295, and the Brus manor, in 1306, were forfeited to the English crown in consequence of the rebellion of their lords. By mid-fourteenth century the Balliol manor was in the possession of the Daubenev family, the Brus manor was in the hands of the Fawkoners. In the course of years several sub-manors appeared, chief of which were Mocking and Twyford. Between 1427 and 1449, the year of his death, all were re-united in the hands of John Gedenev, a London alderman and member of the Drapers Company. Subsequent to Gedenev's decease his widow, Joan, became "the Lady" of the combined manors, and she it was who, in 1459, instigated the preparation of the document which is now to be discussed.

II

Before proceeding, it is necessary to state that the terrier has considerable imperfections. After about a quarter of the work had been completed omission of details became fairly frequent; failure to state the manor or the field to which a parcel of land belonged or, more annoying, the area of the parcel. The omission of areas is particularly frustrating as it occurs most frequently when referring to land belonging to the demesne and the large ecclesiastical landholders. It must be borne in mind, in consequence, that all the calculations which follow can only be approximate.

Tottenham demesne was a large one, in 1254 containing 527 acres of arable land. The inventory of manorial property compiled by Gedenev in 5 Henry VI,² before leasing the demesne, mentioned 452 acres of "lord's land and pasture" but this did not include the Mocking demesne, not yet in Gedenev's hands. The enumerated demesne parcels in the

terrier, 45 in number, total only $207\frac{3}{4}$ acres, but no area is stated for 24 of the parcels, this doubtless accounting for the difference. The whole area was, in the main, consolidated, concentrated in the centre of the western half of the manor (adjoining areas H and Q on the map), with sizeable portions in areas A (Twyford's demesne) and V (Mocking demesne). The H, Q and V sectors included the fertile land and meadow on the banks of the little river Moselle, which followed a circuitous path through the township till it reached the Lea. There were a very few scattered demesne parcels intermingled with the land of the tenants.

There is nothing in the terrier to indicate whether the demesne was leased or in the Lady's hands. Court rolls and bailiff's accounts show that in the previous century much of it had been leased in small parcels to diverse tenants. This seems to have continued till Gedeney's arrival, when, from 1429, farming of the demesne by, at first, one individual and later, by three or four, became the practice.

Turning to the tenants, it is seen that there were 120, holding their land in 693 parcels. (Tottenham's population remained remarkably constant; in the 1390s their number was almost exactly the same.) These 693 parcels were made up as follows:

TABLE 1	
"Land" (presumably arable)	2080 $\frac{7}{8}$ acres
Grove and wood	208 $\frac{1}{4}$ acres
Meadow	62 $\frac{3}{4}$ acres
Pasture	5 acres
Marsh	16 $\frac{1}{2}$ acres
Total	2373 $\frac{3}{8}$ acres

Of this, 1215 acres were customary, 1021 $\frac{1}{2}$ acres customary arable. The figure is slightly smaller than the villein arable in the previous century, but the omissions in the terrier could account for this, and also for the gap between all the recorded acreages and the overall area of Tottenham and Wood Green.

Thirty-six occupiers held free land only, 30 had both free and customary holdings, the remainder solely occupied customary land. Seventeen, of whom 12 were free, were cottagers; 52, 25 of them free, possessed less than five acres. At the other extreme were six tenants with very considerable holdings.

TABLE 2	
Prioress of Clerkenwell (free)	260 acres
Dean and Chapter of St. Pauls (free)	220 acres
John Drayton (customary)	181 $\frac{3}{4}$ acres
Also 4 acres of free land	
John Pye (customary)	86 $\frac{1}{2}$ acres
Also 9 $\frac{1}{2}$ acres of free land	
Robert Stubbe (customary)	79 $\frac{1}{4}$ acres
Also 2 acres of free land	
John Fowler (customary)	61 $\frac{1}{2}$ acres

In actual fact, the inequality of distribution must have been greater, as in many of the holdings of St. Pauls, the Charterhouse and the Prior of Holy Trinity, London, no area was stated.

Two of the four large customary tenants were in fact freemen. John Drayton, who had been clerk to Gedeney's predecessor, John Walden, was cited in many court rolls earlier in the century, acquiring numerous villein holdings and frequently being excused payment of all or part of the entry fine: "*finis nullus quia serviens domini et pardonatur per dominum*". And

Robert Stubbe appears in the close rolls for 1452 witnessing a land transfer. All labour services had been commuted since the 1420s and had always been light. In such circumstances frequent purchase of customary land by freemen was to be expected.

If it were possible it would be interesting to compare the distribution of holdings as revealed by the terrier with that obtaining in the previous century. This cannot be done adequately; prior to 1429 no record exists showing how much of the land was classified as free. One basis for comparison does exist. A Pembroke manor rental, dated 1368, survives,³ giving details of the customary holdings in that year. In Table 3 the spread of occupation in this rental is compared with that of the 75 tenants who, in 1459, mainly held customary land.

TABLE 3

Size of holding	1368		1459	
	Tenants	Area	Tenants	Area
Under 5 acres	19(48%)	37 acres(8%)	27(36%)	41½ acres(4%)
5 – 15 acres	12(30%)	110¼ acres(25%)	25(33⅓%)	190 acres(18%)
15 – 30 acres	3(7½%)	69½ acres(17%)	13(17%)	235 acres(23%)
Over 30 acres	6(15%)	216¾ acres(50%)	10(14%)	555 acres(55%)
	40	433½ acres	75	1021½ acres

In 1368 the most considerable villein was Thomas Harding with, in Pembroke, 54¾ acres.

So far as this limited comparison provides us with evidence it demonstrates that polarisation appears to have increased: the same upward trend in ownership was present in Tottenham which Prof. M. M. Postan believes took place in the country as a whole during the century after the Black Death. There were fewer very small tenants, more in the middle range of 15 to 30 acres and a few peasants had amassed considerable holdings. If the comparison is made between the percentages of land owned by the respective groups the movement revealed is even more striking.

III

The nature of the field system in Tottenham has so far eluded those historians who have given it consideration. The township was part of the east Middlesex region, described by H. L. Gray as possessing a "hybrid system difficult to follow in its origins. . . . Scarcely any part of England is so dependent upon conjecture for the writing of its early field history".⁴ Fourteenth-century court rolls referred to over 50 fields in Tottenham, fields specifically so named and ignoring those numerous crofts and pytels which are also mentioned. The terrier enumerates 217 named parcels, of which 82 are termed fields. A local historian, C. H. Rock, doubted whether, in the light of facts such as these, common field cultivation ever existed in the vill.⁵ The very large number of fields would at first glance seem to support this speculation were it not for the fact that we now know that holdings divided into strips were distributed through most of these fields.

Obviously, no simple three-field system of the midland type existed here. The explanation of the field system which is to be suggested depends on a comparison of the terrier with a field map prepared in 1619 at the time of the Earl of Dorset's survey of the parish.⁶

In 1619 Tottenham was almost completely enclosed. The map shows a large number of small fields, some by their shape betraying their origin in strip cultivation. About half of the fields bear names. Joan Gedeney's terrier is divided by gaps into 24 sections, each one containing a number of fields, crofts and pitels. In a reasonable proportion of instances the names of these fields and crofts correspond to names on the Dorset map, sufficiently so to identify,

in most cases, the areas which each terrier section occupied. It was apparent that the 1459 surveyors proceeded systematically from south to north, first on the west side of the highway, then on its east side. On examination of the map it became clear that most of the terrier's 24 divisions correspond to an area on the map clearly separated from its neighbours, either by the Moselle, or by the several intersecting lanes ramifying through the manor. The exceptions are areas J, L, M, N and O; here insufficient details are present to be precise as to the exact boundaries, though it seems certain all were in North Tottenham and west of the high road.

The congruity would appear too close to be fortuitous. Therefore it is tentatively suggested that the lanes in the Dorset map already existed in 1459 and the 24 divisions of the terrier correspond to 24 fields bounded by these lanes or the Moselle, and hereinafter to be referred to as sectors. This will distinguish them from the many other fields whose names appear. The other fields, separate parts of the 24 sections, now rather resemble the furlongs of the midland region. In support of this theory it must be pointed out that the first section of the terrier, a complex containing six fields, bears the name "Hanger" in the margin, applying to the whole. If this theory is correct there appears a field system typical of the lower Thames basin as H. L. Gray described it. On the accompanying map this field system, if such it is, is made clear, each sector being given a letter corresponding to its place in the terrier. The areas of the 24 sectors, so far as it is possible to calculate them, are set out below:

TABLE 4

<i>Sector</i>	<i>Area in acres</i>	<i>Sector</i>	<i>Area in acres</i>
A	$321\frac{1}{2}$ plus	N	$136\frac{1}{4}$ plus
B	$106\frac{3}{4}$	O	$50\frac{1}{2}$ plus
C	$83\frac{1}{2}$	P	21
D	$92\frac{1}{2}$ plus	Q	91 plus (ten demesne fields with no area given)
E	43 plus	R	$135\frac{5}{8}$ plus
F	$108\frac{1}{2}$	S	$41\frac{1}{2}$
G	$61\frac{1}{2}$	T	$64\frac{3}{8}$
H	$107\frac{1}{2}$ plus (five demesne fields with no area stated)	U	80 plus
I	291 plus	V	$144\frac{1}{2}$ plus (eight demesne fields with no area stated)
J	$92\frac{1}{4}$ plus	W	$11\frac{1}{2}$
K	18	X	$78\frac{3}{4}$ plus
L	$67\frac{1}{2}$	Y	$36\frac{1}{2}$ plus
M	$67\frac{5}{8}$ plus		

IV

An attempt will now be made to solve another hitherto unexplained problem: how the division of the manor into three parts, made in the year 1254, was effected. Mr. F. L. Fenton considered this in his introduction to Volume 2 of the Tottenham Manorial Rolls.⁷ He examined the possibility of division into three homogeneous blocks, only to reject this explanation. Then he explored the likelihood of partition by dividing the tenants into three groups, but finally felt the available evidence insufficient to justify any definite conclusion.

As sub-division of manors is often found, and has often presented difficulties, throwing light on the matter by describing what appears to have happened in Tottenham should be of some value. Fortunately, in the vast majority of instances, each parcel of land mentioned in the terrier was ascribed to one or other of the manors which had been created in 1254, Fawkoner, Daubency and Pembroke, or to one of the sub-manors which had appeared subsequently. The situation revealed is by no means a straightforward one. It can best be explained by first setting out all the 24 sectors showing the relationship between the various manors in each. Mocking and Twyford, being sub-manors of Fawkoner's, are allotted to Fawkoner; minor sub-manors, of negligible area, are ignored. So, also, are demesne and monastic lands, as generally there is no indication as to which manor these belonged.

TABLE 5

Sector	Fawkoner	Daubency	Pembroke	Sector	Fawkoner	Daubency	Pembroke
A	Approx. 100%			M	37%	23%	30%
B	20%	80%		N			100%
C	22%	66%	12%	O			100%
D		approx. 100%		P			100%
E	58%	21%	21%	Q	Mainly demesne or monastic		
F	75%		25%	R	approx. 100%		
G	34%		66%	S	30%	70%	
H	nearly all demesne			T	50%	36%	14%
I		40%	60%	U	58%	19%	23%
J	25%		75%	V	34%		66%
K		Very small		W		Village site	
L	mainly sub manor			X	30%	20%	50%
				Y		44%	56%

The total areas of the principal manors, so far as these were written down, were: Pembroke $549\frac{1}{4}$ acres, Daubency $513\frac{1}{2}$ acres, Fawkoner, Mockings and Twyford combined 624 acres.

Disregarding sectors H, K, L and W, of the remaining 20 one manor predominated in seven and occupied two thirds or more in a further five. On examination a pattern emerges. Apart from Fawkoner predominating in Hanger (A), Daubency lands are largest in the south, Fawkoner in the centre, and Pembroke comes to the fore as one proceeds north. The picture is obviously not clear cut, yet a division by areas would appear to have been an important factor in the making of the necessary decisions in 1254. But sectors T, U and X,

the more fertile land near the Lea, were more equally divided; so, too, for reasons not clear, were sectors E and M. It seems that division by area was the guiding principle, to be departed from where the more fertile parts of the township lay. This would, after all, be an eminently sensible procedure.

V

How far had enclosure progressed in mid-fifteenth-century Tottenham? There are no references in the terrier to enclosed land, or to closes, but many parcels of land were large, occasionally containing 20 acres or more. There are references in the court rolls to the purchase of adjacent strips so as to create a larger block of land; this process of consolidation would in time produce such large parcels. Many parcels are called crofts, which may imply they were cultivated in severalty, as an independent unit of cultivation. Small parcels predominated completely in seven sectors only, namely: D, E, N, O, S, T and V. It is reasonable to suggest that in the remainder enclosure was under way.

The holdings of individual tenants were not distributed throughout all the fields, as they would have been in regions where two, three or four field systems prevailed. Most seem to have had their land in a particular part of the fields. St. Paul's lands were mainly in sectors I, J and N; John Pyc had his in M, N and P; Robert Stubbe in B, C and V; John Fowler in A, B and C; John Newman senior in Q, V and W; the Edrich family in J and M; John Lukyn in T and V; Robert Hale in A, B, S, T and V. These are typical examples. The question at once arises: how did common agriculture operate without even distribution of land? An hypothesis will be put forward which attempts to answer the question.

It would be valuable if records existed showing how the fields were sown, but no information appears to have survived. In the year 5 Henry VI John Gedeney, having purchased the three main manors, decided to lease the demesne, in its entirety, to one William Drake: these facts probably explain why in that year an inventory of the contents of the lord's grange was made.⁸ This document is the sole provider of any detailed knowledge of late medieval cropping in the locality. The barn contained 84 quarters of corn (presumably wheat), 20 quarters of maslin and "offcorn", 67 quarters 2 bushels of oats, 4 bushels of beans and 3 of peas. Wheat was the autumn-sown crop, oats the spring-sown. There was no mention of barley, in spite of the large number of ale houses.

It has already been made clear that there could not have been a "typical" three-field system in this locality. Nevertheless it would seem obvious that, under medieval conditions, in the absence of clover and root crops, some kind of communally managed rotation, including a fallow course at some stage, must have been inevitable. The Pembroke rental of 1368 refers to a fallow course on the demesne. Several court rolls speak of crofts which were common every third year; possibly implying fields cultivated by a single occupier but which nevertheless had to comply with the general rotation when the fallow course was necessary.

Bearing in mind all the foregoing facts an examination of Dr. David Roden's work on late medieval agriculture in the Chilterns⁹ may provide a clue to the methods used in Tottenham. The Chiltern townships also formed part of the lower Thames basin. They each comprised a large number of separate common fields, ten, 20, even sometimes as many as 30. In those townships, too, the holdings of individual tenants in the common arable were confined to one section of the total area. Dr. Roden found evidence showing how the fields were sown, proving that in the later Middle Ages extremely complex systems had developed. Several different rotations existed side by side, each individual field providing a unit of cultivation, as did the furlongs in the Midlands. Complicated permutations of the rotations,

varying over the years, ensured that no peasant, however localised his holding, would have all his land fallow in any one year. And all this activity had to be co-ordinated so that there was uniformity in the throwing open of the fields to pasture.

In Tottenham there are no cropping records to be examined. Yet a similar field system, we believe, is found there to those obtaining in the Chilterns; a similar confining of the land of peasants to a particular section of the fields. If it is accepted that a rotation, including a fallow course, was inevitable in normal medieval arable cultivation, then one cannot avoid the hypothesis that several different rotations existed simultaneously in different parts of the fields of Tottenham. The presence of the various fields and crofts within what we have called sectors would provide flexibility; it would be possible to have a complete rotation within one sector, if necessary. Dr. Roden has said of the Chiltern townships: "the large number of relatively small fields in many townships apparently provided the flexibility that could only be obtained in the great common fields of the Midlands and elsewhere by basing rotation on the furlong".¹⁰ The many sub-divisions of the Tottenham fields would assist in obtaining the required flexibility.

In the absence of cropping records these observations must remain purely speculative. It might be objected that the complicated collective operation would have been too much for medieval peasants. Yet it would be unwise to assume that because they were illiterate these peasants were necessarily unintelligent. It has been pointed out that uninstructed reeves could achieve elaborate calculations with the aid of memory, tallies and notched sticks. Prof. M. Postan believes that local organisation of peasants for control of common agriculture, and other purposes, frequently existed, even if it left little or no impression on the records.¹¹

In Tottenham, a township for two centuries divided in the elaborate way that has been described, and furthermore, with many tenants occupying land in more than one manor, some such extra manorial body would appear to have been necessary. No individual lord could have singly regulated his share of the fields. So the villagers would not have been lacking in experience and doubtless could have achieved the skill required to manage a system as sophisticated as that obtaining in the Chilterns.

It is necessary to say that, as always, there are no records of such a peasant society. There are no laws of autumn, even. The most to be found are a few references in court rolls to negotiations between lords and the whole body of their peasants and vague hints of some concerted action prior to the 1381 revolt.¹² These, too, only imply joint action by peasants on one manor.

There we would let the matter rest. But is it too adventurous to carry speculation further? If two such widely separated localities as Tottenham, in eastern Middlesex, and the Chiltern Hills, did have similar elaborate agricultural systems could this, perhaps, solve the difficulties H. L. Gray encountered when investigating the irregular field system of the lower Thames basin? Before such a question can be answered much more research on townships throughout the region will have to be undertaken. Yet we feel that here may lie the solution to the problem.

VI

Examining the terrier tells us much about the fifteenth-century township. The bulk of the villagers' cottages are seen to have been concentrated in sectors O, V and W, apparently in the same position as that occupied by the main village in the Dorset map. There, too, were the village's ale houses, six of them, bearing the names Tabard, Crown, George, Bell, Ramme

and Swan. A secondary assemblage of cottages and messuages was located near the High Cross, in sectors E, F and S, and in V, near the Hale; again, there were similar groups in 1619. Out of a total of 124 cottages,¹³ messuages and tenements mentioned 34 were scattered, spread over the whole area

As for those who lived in these dwellings, a very noticeable change revealed is the disappearance of most of the families whose names constantly recur throughout the series of court rolls covering the years 1318 to 1413. Over this period certain names continually appear. Of them, Attegor, Baker, Denys, Deyere, Drake, Ede, Egepole, Fournier, Fynch, Godhewe, Harding, Hawte, Horspole, Mersshe, Mayhew, Page, Pappé, atte Stone, and Webbe have in 1459 all vanished; the Abrahams were represented by a single tenant with a toft and four acres; the Bussh family by a solitary cottager. There were a few exceptions. Hales, Malgers, Hoods and Brocks remained and, notably, the six members of the Edrich family had risen in the world, occupying some 156 acres in the northern part of the fields.

What had happened? Records show that in the time of Henry IV 24 acres belonging to the Mersshe family, 21 acres of Mayhew land and much besides had passed to John Drayton. John and William Drayton, Pyc, Stubbe, Newman and Croydon were prominent among the new village names.¹⁴ These had all at some time replaced the older families. All had doubtless made purchases similar to those of John Drayton. London was very close. On the one hand it must have exerted a pull on Middlesex villagers who may have sought their fortune in the metropolis, with or without the lord's permission. On the other hand, as early as the reign of Edward III London citizens were mentioned as buying Tottenham land; very likely some of the newcomers named above were also from the Capital. Whatever the reason, the contrast between the earlier stability and the great changes between 1413 and 1459 is remarkable. It suggests that there had been a great upheaval in the community and it is very likely that this was associated with Gedeney's arrival in the 1420 decade.

To begin with, he had leased the demesne for the first time as a unit, at a rent of 2/- an acre, compared with the 4d an acre charged for demesne which had been previously rented out. Then, in the accounts for 7/8 Henry VI, there appears the first mention of a fulling mill.¹⁵ The manufacture of bricks was first recorded in the account roll of 16/17 Henry VI when 22,000 were sold,¹⁶ a figure to rise later to 50,000 annually. It would appear that by then Tottenham might almost have been called an industrial village. It can well be imagined that such innovation would have a disturbing effect on village life and that the mid-fifteenth-century township was something very different from what it had been in past centuries.

One further matter that the presence of local industry might explain is how the large number of tenants, 52 in all, with less than five acres of land, managed to exist. In addition to possible employment by wealthier tenants there were the opportunities provided by the farmed demesne and by this new industry

VII

At the time of the Dorset survey over half the fields were devoted to pastoral activity. How far was this the position in 1459? Frankly, it is impossible to say. The soil did not provide very good arable. London was near and then, as in later centuries, would have ensured a good market for dairy produce and meat. Yet the 1254 *inquisition post mortem* mentions only 16 acres of pasture, while the terrier lists only five acres. All through land, "terra", is referred to, and in medieval documents one assumes this always means arable land. There

are frequent references in the court rolls to cows and bullocks belonging to the tenants overburdening the common or trespassing on the lord's land. But the numbers mentioned were nearly always small; indeed, rather surprisingly, far more sheep are cited, as one would not think Tottenham soil particularly good for rearing sheep. Yet even small numbers of cows and bullocks would need more than five acres of pasture, even making all allowances for feeding on the stubble. One clue exists in the inventory made by Gedeney in 5 Henry VI. It states that there are "452 acres of lord's land and pasture . . . in the lord's hands by estimation 329 acres of land and pasture for all the lord's cows and horses to be pastured".¹⁸

Therefore an indefinite proportion of the demesne was pasture at that time. References in the terrier to the demesne land are remarkably uninformative. Typical is "the Lady of Tottenham holds in Longfordland, the same Lady holds in Buryfield". And that is all. It is fair to assume that much of the demesne was pasture; as for the tenants' lands, we just do not know the position. Yet perhaps some of the larger parcels of land found in the fields may have been devoted to animal husbandry.

VIII

The 1459 Tottenham terrier has been examined. The form taken by the tripartite division of the manor in 1254 has been described and an attempt has been made to recreate the medieval field system. A hypothesis has been suggested, no doubt based on insufficient evidence, as to how medieval crop rotations could adjust to a large number of fairly small fields, such as existed here. Something has been said on the changes in the inhabitants of the village community and possible explanations given for this. Finally, a few remarks, admittedly inadequate, have been made on pastoral activities. From a single document more light may thus have been shed on our country's past economic history

ACKNOWLEDGEMENTS

Thanks for advice and encouragement are due to Dr. R. Timson and Mr. B. Benjamin, and to Mrs. Hilda Massie for typing the manuscript. The views expressed in this article are, of course, solely those of the authors.

NOTES

- ¹ *Bruce Castle Collection*, M.R. 75.
- ² *Bruce Castle Collection*, M.R. 10 mem. 12a.
- ³ *Bruce Castle Collection*, M.R. 9a.
- ⁴ *English Field Systems* (1959), p. 402.
- ⁵ *Tottenham Manorial Rolls* (Borough of Tottenham, Libraries and Museum, 1956), I, p. xi.
- ⁶ *The Dorset Survey Field Book*. Greater London Record Office (Middlesex Records) Accession 695/9.
- ⁷ *Tottenham Manorial Rolls* (Borough of Tottenham Libraries and Museum, 1961), II, p. iv.
- ⁸ *Bruce Castle Collection*, M.R. 10, mem. 12a.
- ⁹ David Roden, *Demesne Farming in the Chiltern Hills*. *Agricultural History Review* 1969, XVII, pp. 10-23.
- ¹⁰ D. Roden; *op. cit.*, p. 22.
- ¹¹ *Cambridge Economic History of Europe, I: The Agrarian Life of the Middle Ages*. Medieval Agrarian Society in its Prime, p. 574.
- ¹² M.R. 10, mem. 29 (negotiation of new rents).
M.R. 21, mem. 11a (local custom as to payment of heriot).
M.R. 21, mem. 18 (tenants' rights over trees on common).
M.R. 10, mem. 56.
- ¹³ The possession of 14 of these by John Pye provides evidence of purchase for investment.
- ¹⁴ One unexpected name was William Bouthe, Archbishop of York, with 17 acres of free land in two parcels.
- ¹⁵ M.R. 10, mem. 11.
- ¹⁶ M.R. 10, mem. 3.
- ¹⁷ M.R. 10, mem. 12a.

THE EDWARDIAN INVENTORIES OF MIDDLESEX

LAWRENCE S. SNELL, M.A., F.S.A., F.R.HIST.S., F.R.S.A.

Newman College, Birmingham

The political exigencies of Henry VIII's breach with Rome caused him to suppress the English monastic houses, with the two-fold purpose of crushing the monks who were, perhaps, the strongest bulwark of papal power in England, and of taking possession of their great wealth. Begun in 1536, under the pretext of suppressing some of the lesser houses on account of their corruption, this policy was pursued until, by 1540, every religious house had gone, and in 1545 it was extended to colleges, chantries, fraternities, guilds and free chapels, although their actual seizure did not take place until early in the reign of Edward VI.

In Edward's reign it became clear that the work of confiscation was to be extended even to the parish churches, and in 1549 a commission for making inventories was issued to sheriffs and justices of the peace. On 3rd March 1551, an order was issued by the Privy Council "that for as muche as the King's Majestie had neede presently of a masse of mooney, therefore Commissions shulde be addressed into all shires of Englande to take into the kinges handes suche church plate as remaigneth, to be employed unto his highnes use".¹ This was not done immediately but on 29th January 1552 a letter was addressed to each *custos rotulorum* requiring the delivery of the inventories which had been made under the commissions of 1549. A further commission was issued on 16th May 1552² to make new inventories and to stop all private embezzlement, and again on 16th January 1553, yet another commission directed the actual seizure of all the valuables, only the barest essentials being left for the use of each parish church. All plate was to be sent to the Jewel House in the Tower of London and melted down, the vestments and inferior metal work were to be sold locally, and the linen given to the poor.³ Edward died whilst the collection was proceeding and one of the first orders by Mary I on her accession provided for the return of the plate to the churches, and only that which had been defaced was to be sent to the Jewel House.

The Edwardian Inventories for Middlesex are bound together in one volume in the Public Record Office (E315/498). First a series of seven: Chelsea, Kensington, Fulham, Chiswick, Ealing, Acton and Marylebone. Then the inventories for the Hundred of Ossulstone: Edmonton, Enfield, Whitchurch, Hendon, Hadley, Tottenham, Edgware, Harrow, South Mimms, Pinner, St. Giles, Stratford at Bow, Hornsey, St. Pancras, Paddington, Finchley, Hampstead, Willesden, West Twyford and Clerkenwell.

A former editor, Dr. F. W. M. Draper, began the publication of these Inventories in *Transactions* but, unfortunately, only managed to print those for Chelsea and Kensington (*Transactions*, L.M.A.S., Vol. 20, Pt. 2, pp. 89-93 and Vol. 20, Pt. 4, pp. 218-219). Transcribed below are the Inventories for Fulham, Chiswick, Ealing, Acton and Marylebone. The Inventories for the Hundred of Ossulstone will appear in the next volume of *Transactions*.

ffulham

We the jury doo present and sertyfy the goodes, plate, ornamentes, jewelles, and belles belongynge and apertenynge to the church of ffulham in the countie of Midd' as well wt in the Inventory takyn by the Kynges Maiestes Comessioners as also other goodes belongynge to the same church not beyng in the kynges Inventory wt Rerages and other deptes belongynge to the same church as aperythe hereafter more playnly. Sertyfyed by us the same jury the fyft daye of Awgoost in the yere of owr Lorde God a thowsande, fyve houndryth, fyfty and two, and in the Sexte yere of the Reigne of owr Sovereigne

Lorde Edwarde the sext by the grace of God of England, ffrance and Ierlande, kynge, defendor of the faith, and of the churche of Englande and Ierland the suprem hede Emedyatly under God.

This Inventory made the Tenth Daye of Marche in the thurde yere of the Reigne of owr dread Sovereigne Lorde kynge Edwarde the syxt of all suche goodes as remanyth in the church of ffulham in the countie of Midd' Sertyfyed then unto the commessioners by Nycholas Smythe, curate there, John Mychele and John Typpying, churche wardens, John Burtton and William Holden consentynge to the same.

Inprinis three challices of sylver w^t pattentes⁴ whereof to of them parsell gylte and a lyttell pyxe of sylver p'sell gylte.

Itm one crosse of copper and gylte and two owlde crosses of Latten, two payre of sensors⁵ of Latten and a shype⁶ & a sponne of Latten.

ffulham

The Inventory

Itm two lyttell basons of pewter and vj lyttell Candellstyckes of Brasc

Itm iiij greate candelstyckes of Latten and two basons of Latten and a Ewer of Latten and a holly watter stocke of Latten.

Itm fyve coopes one of Crymessen vellett, one of whytt satten, one of blacke chamblett, one of grene sarsnett, and one of whytt fustyan.

Itm a vestment of grene vellett, a deakon and a subdekon of grene damaske.⁷

Itm a vestment of whytt satten w^t a deakon and subdekon of the same.

Itm a vestment of blacke chamblett w^t a deakon and subdekon of ye same.

Itm a vestment of blacke damaske and one vestment of dyv' colored sylkes.

Itm one vestment of Russett Satten of Brydges and one vestment of Redd Satten of Brydges and a vestment of grene satten and one vestment of whytt fustyan and one vestment of Redde vellett.

Itm one frount for an aultor of vellett yellow and Redd and two frountes of tawny satten of Brydges and too frountes of whytt satten of Brydges and three owlde frountes of tawny sylke of dyvers collors.

Itm one hearse clothe of black vellett.

Itm a vestment of bustyon w^t owt amas or albe and a vestment of sangnyne satten of Brydges w^t owt albe⁸ or amas.⁹

Itm a vestment of tawney chamblett w^t owt albe or amas and a vestment of Dorney w^t owt albe or amas.

Itm vj aultor clothes of linen clothe and one owld vestment of blacke saye w^t owt albe or amas.

Itm xx^{ti} pecyes of owld paynted clothes that dyd kever the images in ye church.

Itm a clothe cawled a Cannapy clothe of Redd & grene satten of Brydges and tenn owlde banner clothes some of them sylke and the Rest of Lynen clothe and two Crosse clothes of sylke and fyve banner poles, iij Cruyttes of pewter & v dyeper towelles.

ffulham

More of the Inventory

Itm xiiij candelstyck bosses of Latten and one olde candelstycke and a bason to holde the pascall,¹⁰ and a bason for a lampe.

Itm xij greate bowkes sum of paper and other some of parchment.

Itm iiij sorpleses and two Rotchettes and two cortens of sylke to hange at the aylters Eandes.

Itm v greate belles and a lyttell bell in the steple and iij hande belles, and a vayle of whytt and blew lynen clothe.

Itm two clothes that hangeth over the sakaramente one of changable sylke and one of lynen clothe.

Itm a payre of Orgayns that lyeth all to be broken and a Qwesshyon of Redd and Grene sylke.

Itm a hangynge for an aultor of whytt sylke and a nother of dorney.

Certen goodes sowde by Thomas Wilkockes and George Burtton, Churche wardens aforesayd w^t the Consent of the holic parrysshoners the parselles as aperythe hereafter:

Sowlde: Imprimis sowlde to Thomas Bead dwellynge in the paryssh of saynte Mychaelles in Wood Streat, gerdelar, two owlde crosses of latten two payre of sensors of latten, a Shype and a sponne of latten, vj lyttell candellstyckes of bras and iiij greate candelstyckes of latten & two basons, & ewer of latten and a holly watter stocke of latten, xiiij bosse candelstyckes for the Roode lyght

and one owlde hollow candelstyck and a bason to holde the pascall and a bason for a lampe of latten and thre hande belles, sould for.....1^s

The paryssh of Cheswyk.

We the jury doo presente and scertyfy the goodes, plate, ornamentes, Jewelles and belles belongynge and aperteynyng to the church of Cheswyk w^t in the Countie of Mydd' As well w^t in the Inventory takyn by the kynges maiestes Comessioners as also other goodes belongynge to the same church and paryssh not beyng in the kynges inventory w^t Rerages and other deptes belongynge to the same church as aperyth hereafter more playnly scertyfyed by us the same jury the fyft daye of Awgoost in the yeare of owr Lorde God a thowsande, fyve houndryth, fyfty and twoo and in the sext yeare of the Reigne of owr Souffereigne Lorde Kyng Edwarde the sexte by the grace of God of Englande, ffrance and Ierlande, kyng, defendour of the faith and of the church of Englande and Ierlande the Suprem hede Emedyatly under God then beyng in the Inventorye.

The Inventorye takyn by the kynges Maiestes Comessioners in the thurd yere of his moost gracyous Reigne

- Imprimis two chalices of sylver parsell gylte weynge xxv^{ti} ounces di.
- Itm a pyx^{li} of latten.
- Itm two latten candelstyckes on the high alter.
- Stowln: Itm a bason and Ewer of latten for crystenyng.
- Itm a crosse of copper and gylte.
- Itm three corpores cases.
- Itm one vestment of Blew satten of Brydges.
- Itm one vestment of Blew damask w^t a Redd crosse on ye same.
- Itm one vestment of darke blew sattyn of Brydges w^t a Crosse of Redd vellett.
- Itm two vestmentes of Blew Sattyn of Brydges w^t blew crosses.
- Itm one vestmente of damask of popingey color wythe womens hedes on the crosse thereof.

Cheswyk.

Inventory:

- Itm one vestment of yelow flowers.
- Itm one vestment of sylke full of whytt byrdes.
- Itm one vestment of murrey chamblett w^t starres.
- Itm one vestment of Redd Chamblett.
- Itm one vestment of whytt fustyan w^t Redd Spottes.
- Itm one vestment of yelowe sylke.
- Itm one yelowe cope wyth Lyons.
- Itm one other yelowe Cope w^t pecokes feders.
- Stowln: Itm one Cope of Redd cafffa w^t yelowe Lyons.
- Itm one Cope of Grene w^t flowers of Redd.
- Itm one Cope of Redd saye.
- Itm one Course Cope wyth Grene flowers.
- Itm a Cannapy clothe of Redd Sylke.
- Stowln: Itm a hearse clothe of Redd Sylke.
- Itm a hangynge of yelowe sylke for the high Aulter.
- Itm in the steple fyve greatte belles one of them beyng a clocke.
- Itm a saunce bell.
- Itm a hande bell.
- Goodes belongynge and Remangynge in the paroch:
- Brase & Itm two brase potes weynge lx poundes.
- Pewter: Itm a spytt.
- Itm iiij pewter dysshes and a lyttyll bason weynge xj poundes.
- Stowln: Itm all the lynnyng of the Church as albes, sorplusses, aulter clothes and all other lynnyng stowln owt of the church and the church brokyn.

Cheswyk.

Depttes and Rerages dew to the same churche:			
Itm in the handes of John Tomas of the churche money delyvered in to his handes	xl ^s		
Itm Wyll'm Baldok beyng churche warden dyd lende of the churche money to one Wyll'm Sutton and un payd.....	v ^s	vij ^d	
Itm John Good.....	xl ^s		
And so Remyne in the boxe in the costody of the sayde wardens Will'm Gyells and John Cursell	vj ^s	vij ^d	
Goodes Serteyn Latten candelstyckes that were in the Rood Lofte by Thomas Sowld: Browne decessed w ^t the consent of ye paryshe.....		xvij ^s	
Som of thes depttes and rerages.....	vli	xj ^s	iiij ^d

Yelinge.

We the jury doo present and sertyfy the goodes, plates, ornamentes, jewelles and belles belongynge and apertcynge to the churche of Yelinge w^t in the Countye of Mydd' as well w^t in the inventory takyn by the kynges Maistes Commessioners as also other goodes Belongynge to the same churche and parryssh not beyng in the inventory w^t Rerages and other deptes belongynge to the same churche as aperyth hereafter more playnly sertyfyed by us the same jury the fyft daye of Awgoost in the yere of owr Lorde God a thousande, fyve houndrythe, fyfty and two and in the Sexte yere of the Reigne of owr Sovereigne Lorde kynge Edwarde the Sexte by the grace of God of Englande, ffrance and Ierlande kynge, defendour of the faithe and of the churche of England and Ierland the Supreme hede Emedyatly under God.

The Inventory made the tenthe daye of Marche in the thurde yere of the Reigne of owr moost drede sovereigne Lorde Edwarde the Sexte by the grace of God of Englande, ffrance and Ierlande kynge, defendor of the faithe and of the Church of England and Ierlande the Supreme hede Emedyatly under God of all suche goodes as ar in the parrysse churche of Yelynge in the Countie of Midd' by the consent of Will'm Haywarde, Clarke, Vicar of the same parrysse, Will'm Page and Roberete Shene, church wardenes of the same.

Symonde Baringer, Symonde Cooke, Richarde Aylworthe and Thomas Cannon of the saide parrysse church wryttenes to the same.

Yelynge.

The Inventory

Imprimis thre chalices w^t patentes of sylver and one of them sylver and gylte thother two of parsell gylte.

Itm a paxe¹² of sylver parsell gylte.

Itm a pyxe of copper gylte and a clothe to the same pyxe.

Itm a crosse of copper and gylte.

Itm a crosse of Latten gylte and a foote to the same crosse.

Itm viij corporas cases and clothes to the same.

Itm two payer of hangynges to the high aultor, one payer of Blacke vellett thother payer of whytt Satten and Redd.

Itm one payer of hangynges for a syde aulter of Black Damask.

Itm one hole Sewte of Redd vellett and one coope of ye same sewte.

Itm one vestment of Redd and a Coope to the same.

Itm one sewte of whytt damaske and a coope to the same.

Itm a sewte of Blacke vellett and a coope to ye same sewte.

Itm one other sewte of damaske & a coope to the same.

Itm vj other vestments of sondrye coulers for every daye.

Itm two other owlde coopes for the sondayes.

Itm one crosse clothe of sylke and two streamers of sylke.

Itm two streamers of lynen clothe.

Itm viij Aultor clothes of lynen to laye upon the aulters.

Itm iiij towelles of dyeper and two of playne clothe.

Itm vj Sorpleses for the preast and clarke.

Itm one Cannapy and one clothe of Satten.

Yelynge.

More of the Inventory.

- Item iiij antyformers,¹³ two of them parchement, thother paper, and iiij grayles,¹⁴ three of them parchement, thother paper, and v masse bowkes, three of parchment, and two of paper, and one Ledgend¹⁵ Bowke and two manuelles.¹⁶
 - Item a Byble and a paraphares of Erassemus and three saphltar bowkes and a bowke of the Omeles¹⁷ and a bowke of s'vyce.
 - Item a payre of Orgayns and iiij greate Stondardes and iiij smale Stondardes of latten and xv Candellstyckes of latten for the Rood Lyghtes and two basons and two ewers and two sensors of latten and two latten basons for two tapars to stand in, and one holly watter stocke of latten.
 - Item in the steple v great belles and a saunce bell.¹⁸
 - Item two hande belles and two sakrynge belles.¹⁹
 - Item the Chansell keveryd wt leade and a chest wt three lockes and two lether Qwesshions stuffed wt fethers.
 - Item a churche howse wt tables and formes, a carpett clothe, three table clothes, two Spyttes, xvij platters of pewter, xij pewter dysshes and three sawsors and two greate pottes of pewter and two smale Cobardes, two bras pottes, a cauderyn and a kettyll and vj saultsellars of pewter.
- Certen goodes sowlde as aperyth hereafter:
- Imprimis sowlde to Nycholas Allam goldsmythe dwellyng in Chepsyd two challices beyng no parcelles of the forsayde Inventory takyn by the kynges Commessioners ye whiche two challices weare sowlde the fyrst yeare of the Reigne of our Sov'gne Lorde, kyng Edwarde the Sexte..... vijli

Yelinge.

More sowlde:

- Item sowlde to Bryan Evans, founder, dwellynge in Lothbery, a pyxe of Copper and gylte And a Crosse of Copper and gylte and an other crosse of latten gylte and a ffoote to the same crosse.
- Item iiij great standardes and iiij smaler standardes and one lyttell candelstycke and xv candelstyckes belongyng to the Roode Lyght And two basons and two Ewers of Latten And two sensors and a holly watter stocke of Latten And two basons of latten for two tapars to stande in.
- Item two hand belles and two sakarynge belles all whiche latten and copper dothe weye iij^c xxvij poundes..... ijli xvij^s
- Item sowlde to Margaret Buckmaster for a tabernacle vij^d
- Item Thomas Longe for the seyepulcre and olde Jeron v^s iij^d
- Item Recevyd of Jaymes Sheyn for a press..... vj^s vij^d
- Item Will'm Haverd vycker for serteyn tabernacles v^s
- Item Margere Hyggdon for a bason of Latten x^d
- Item Recevyd for waxe..... iij^s iij^d
- Item Recevyde for two Images iij^d
- Sm of thes goodes sowlde..... xiiijli ij^d
- Remanyng in the hande of Thomas Skelton and John Lother Church wardens: xxxvij^s vij^d
- Item Symonde Cooke owynge to the churche..... xxxiiij^s ob.
- Som of all thes depttes and Rerages..... xvjli xj^s ij^d ob
- The forsaide Church wardens and parysshoners dothe declare unto us that they have bestowed in Rerarynge and mayntenynge of ther Church and alteracyon of nessesary ornamentes for the mayntenaunce of there devyne servyce accordyng to ther bownden dewtes, dewryng the tyme of sexe yeares passed they have bestowe and layd owt to the some of xiiijli ij^d parsell of the forsayd soms as of Depttes, Rerages and other goodes sowlde.
- Sm. xiiijli ij^d
- And soo Remaneth to the churche in Reddy money in the custodye of the churche wardens wt the depttes Remanyng in Symond Cookes handes mencioned here before..... ijli xj^s ob.

The parysshe of Acton.

We the jury doo present and sertyfy the goodes, plate, ornamentes, Jewelles and belles Belongynge and apertaynyng to the church of Acton w^t in the Commpte of Mydd' As well w^t in the Inventory takyn by the kynges Maiestes Comessioners As alsoo other goodes belongyng to the same church and parysshe not beyng in the kynges inventory w^t Rerages and other depthes belongyng to the same church as aperythe hereafter more playnly. Sertyfyed by us the same jury the fyft daye of Awgoost in the yeare of owr Lorde God a thousande, fyve houndryth, fyfty and two and in the Sexte yeare of the Reigne of owr Souffereigne Lord kyng Edwarde the Sext by the grace of God of Englande, ffrance and Ierland Kyng, defender of the ffaithe, and of the church of Englande and Ierlande the Suprem hede Emedyaty under God.

The Inventory takyn by the kynges Maiestes comessioners and presentyd unto them by Humiffray Vynsent and Phelyp Compayn, Church Wardens then beyng.

Imprimis a pyx of copper and gylte.

Itm two Crosses one of Copper and gylte and thother of wood plated w^t sylver.

Itm two paxes one of Sylver and thother of wood.

Itm iiij Coopes one of purple vellett, one of whytt damask, one of Blacke damaske, and one of Blewe sylke.

Itm xij vestmentes, one of Blew vellett, one of Blacke vellett, one of straked vellett Redd and grene, one of whytt damaske, one of whytt Satten of Brydges, one of grene satten, two of purple satten of Brydges, one of Blewe sylke, one of whytt fustyan, one of dorney, and one of Redd Seyc lackynge thalbes.

Acton.

The Inventory

Itm tenn aulter clothes, one of yelow satten of Brydgyes, one of fustyan in nappes, iiij of dorney and iiij of paynted clothes and two Corteyns of sylke for the awlter.

Itm vj candelstyckes of Latten for the high awlter.

Stolyn: Itm two hearse clothes, one of satten of Brydgyes and thother of Blacke Cotton w^t a crosse of whytt satten of Brydges.

Itm vj corporys cases.

Itm a Crysmatory²⁰ of Latten.

Itm a payre of Orgayns Lackynge scerteyn pypes.

Itm iiij Belles and a saunce bell in the steple and a clocke.

Item a hande bell and two sakerynge belles.

iiij Itm two challyces of Sylver w^t pattyns.

Stowl'n: Itm fyve sorpleces.

Itm three superaltaries.

Itm a Bason and an ewer of pewter and a ewer of lattyn.

Itm two crosse clothes of sylke and iiij Banner clothes paynted.

Itm one streamer of sylke.

Stowl'n: Itm xvj lynen clothes for the Awlter.

Itm a deask of wood covered w^t a paynted clothe.

Itm iiij paynted clothes for the sepulcre.

Itm xlviij peces of oulde Lattyn candelstyckes.

Itm a payre of Sensors of Lattyn and a lyttle shype of Lattyn.

Itm a holywater pott of Lattyn and a lampe of lattyn.

Itm a bason of latten.

A Remembre that ye doithe Remayn in the custody of William Byrde of Wylsdon A vestment of Blew Vellett and one other vestment of purple satten of Brydges.

Acton.

Certen parcelles of this Inventory aforsayd sowlde by the church Wardens w^t the assent and consent of the parysshioners for the needful Repracyons of the church.

Imprimis A challys and a paxe of sylver sowlde unto Will'm Clarke of Cheswyk

for the some of fyve poundes after the Rate of fyve shyllyns the ounce. vli

Itm sowlde to Bryan Evans of London, founder, thre lyttell belles comanly cawled sakarynge belles. And all the aforsayd parcelles of latten mencyoned in the forsayde inventory for the some of.....	xxviij ^s	xj ^d
Itm the paynted clothes in the forsayde Inventory were occupyde for the settinge ffurthe of the scryptures in the churche.		
	Sm	vj ^{li} viij ^s xj ^d
Depttes owynge to the same churche.		
Remanyng in the churche wardens handes and other suche parsons as followeth hereafter whiche depttes beyng parsell of the forsayde goodes sowlde as also other depttes belongyng to the churche as here after doithe appere		
Imprimis William Byrde.....	xx ^s	
Itm Robertt Wryght.....	v ^s	
Itm Jolin Thomas.....	xiiij ^s	iiij ^d
Itm Hewe Sawnders.....	xij ^s	
Itm Phylyp Compayn doithe owe for two tyme.....	iiij ^{li}	
To be payde as apperyth hereafter that is to saye xxvjs vij ^d at Mychaelmas next and xxvjs viij ^d at Mychaelmas cum twelvemoneth After whiche shalbe in the yere of Our Lorde God a thowsand, fyve houndryth fyfty and three And then xxvjs viij ^d at the feast of Pentycost next after. The whiche is the ffull some of iiij ^{li} aforsayde.....	iiij ^{li}	
Som of thes depttes owyng.....	vj ^{li}	x ^s iiij ^d

Acton.

Certeyn stuff belongyng to the parryssh and church remanyng unsowlde.		
Bras and Pewter:		
Itm thre Bras pottes.		
Itm a Spytt and a payre of Cobyrens.		
Itm of pewter vj platers, iij dysshes and two sawsers.		
Lande: Also ther doithe belonge and aperteyne to the parryssh church of Acton aforsayde one haulfe aker of Arable grounde to the yearly vallewe of. . .		viiij ^d

The Pryssh of Marebon.

We the jury doo present and sertyfye the goodes, plate, ornamentes, jewelles and belles belongyng and aperteynyng to the cherch of Marebon w^t in ye countye of Mydd' as well w^t in the Inventory takyn by the kynges Maiestes commessioners as also other goodes belongyng to the same churche and parrysshe not beyng in the Inventory w^t Rerages and other depttes belongyng to the same churche as aperythe hereafter more playnly sertyfyed by us the same jury the sext daye of Awgoost in the yere of owr Lorde God a Thowsande, fyve houndryth, fyfty and two and in the Syxt yere of the Reigne of owr Sovereigne Lorde kyng Edwarde the Sext by the grace of God of Englande, ffrance and Ierlande, kyng, defendor of the faythe, and of the churche of England and Ierlande the Supreme hede Emedyatly under God. The Inventory made the tenth daye of Marche in the third yere of owr moost drade Sovereigne Lorde kyng Edwarde the Sext of all suche goodes as is in the churche of Marebon in the Countye of Mydd' by the consent of Ser John Fysshpole, curate of the same church, John Kempe and Robertt Washe Church wardens of the same churche and Roowhedon Thomas Lambertt and Nycholas Hylles of the saide pryshe wytesse to the same.

Imprimis vj vestmentes whereof one of Blewe and Redd Satten of Brydgus, the seconde of whytt satten of Brydgus w^t Roses and lylles, the thurd of grene and Blacke satten of Brydgus.

Itm the forthe of yellow and Redd fustyan an apes branched.

Itm the fyft of dorney, the Sext of Redd and yellow fustyan w^t all there albes belongyng to them.

Itm twoo Corporas & clothes w^t two casses.

Marebon.

The Inventory

Itm two lyttell pyllowes and a Coope of grene sattyn of Brydgus w^t blewe counterfett damaske.

Itm one hangyng for an aultor of Blew and yellow Sarsnett w^t two cortens to the same.

Itm two owlde cortens of Blew and Redd Sarsnett.
 Itm two owlde hangyngs that hangeth before ye aulter of dorney.
 Itm vj Aulter clothes whereof one of them of dycper and the Beast of Lockarum and two owlde paynted clothes to hange before the Sepulchre,²¹ thre owlde sorplesses, one of them for the preest and two for the clerke.
 Itm cootes for owr Ladye, one of them of clothe of golde, thother of satten of Brydgus.
 Itm vj brasen candelstyckes that stooode before ye Roodde.
 Itm two other brasen candelstyckes and a lytle one to sett a taper, one at the chrystenyng of chyldryn.
 Itm two payre of candelstyckes of pewter.
 Itm a pyxe of brasse and a crosse of brasse w^t a clothe of grene sarsnett paynted w^t an Image of the Assumption of owr Ladye.
 Itm a lyttell chalice of sylver w^t a pattent.
 Itm two lyttell belles in the steple and a hande bell.
 Itm two saunce belles and one owlde boxe of pewter.
 Itm a clothe a bowte the founte and a payre of cruytts of pewter.
 Itm two lytell hand towelles and a shypp of pewter.
 Itm a lyttell holy water stocke of brasse.

Marebon.

Certeyn goodes sowlde by the consent of the parryssh.

Imprimis Nycholas Hyll for serteyn hangynges and other paynted clothes to the vallow of.....

iijs	iiij ^d
ij ^s	vij ^d
	xij ^d
v ^s	
	xij ^d
	vij ^d

Itm to Will'm Aberley sowlde suche lyke stuff to the vallow of.....

Itm sowlde to Will'm Wodam a vestment pryce.....

Itm sowlde to John Kempe our Ladyes coote pryce.....

Itm sowlde to Ser Gycles, curate, a paynted clothe.....

Itm sowlde to Joane Warner, widow, a paynted clothe.....
 Sm. xiijs vij^d

Itm in the handes of Andrew Wedon, a hangyng for an Aulter of Blew and Yellow sarsnett and two cortens of the same sarsnett.

Stowln: Certeyn stuff stowln owt of the churche and the church brokyn as aperyth hereafter.

Imprimis a vestment of fustyan, an Apes and two lyttell belles cawled saunce belles and a boxe of pewter and a payre of Cruyttes of pewter and a shype of pewter to putt franckynsence in.

NOTES

¹ Acts of the Privy Council N.S. iij (1550-1552), p. 228.

² For text see "The Edwardian Inventories of Bedfordshire", Alcuin Club, vi, p. ix.

³ Seventh Report of the Deputy Keeper of the Public Records; London, 1846, App. II, p. 307; or "Surtees Society", vol. 97, p. 4.

⁴ Paten — shallow dish used for bread at the Eucharist.

⁵ Censer — vessel for burning incense; a thurible.

⁶ Incense boat — a little boat-shaped container for the incense used in the censer.

⁷ Suits of vestments included not only the priest's chasuble but also the dalmatic (a vestment like a wide short tunic slit up the sides, with short, wide sleeves) worn by the deacon since about the tenth century, and a tunicle (a scantier form of the dalmatic) worn by the sub-deacon at mass.

⁸ Albe — white tunic with long sleeves worn by clergy.

⁹ Amice — linen hood worn with the chasuble, placed over the head while the chasuble was put on, then thrown back, so that it was seen only like a loose fold of linen round the neck.

¹⁰ Pascal candle — large candle used in Easter ceremonies.

¹¹ Pyx — vessel in which the consecrated host is kept.

¹² Paxe — tablet with representation of the Crucifixion, etc., kissed by priest and people at mass.

¹³ Antiphonary — book containing a collection of antiphons, short sentences said or sung before the Psalms; canticles.

¹⁴ Grail, gradual — an antiphon sung between the Epistle and Gospel; a book containing a collection of such antiphons.

¹⁵ Legenda — book of readings.

¹⁶ Manuale — book of occasional offices.

¹⁷ Homilies — religious discourses.

¹⁸ Sanctus bell — a bell rung at the Sanctus before the Canon of the Mass.

¹⁹ Sacring bell — bell rung at the elevation of the host.

²⁰ Chrismatory — vessel for holding chrism or consecrated oil used in administration of the Sacraments.

²¹ Easter Sepulchre — used in Holy Week ceremonies.

THE BRASSES OF MIDDLESEX

PART 15: HAYES

H. K. CAMERON, M. A., PH. D., F. S. A.

- I. Robert Lelce, half-effigy of a priest in mass vestments, *ca.* 1370, with inscription; on Chancel floor.

This brass is similar in style to a number of other effigies of priests of about this date and, by this evidence, makes it, with that of Edmund Flambard at Harrow described in the last part of this series, the earliest figure brass in date remaining in the county. It has been relaid in the Chancel; no record exists of the original design of this memorial.

The figure, showing tonsured head with curly hair and sunken cheeks, has a wide amice around the neck, chasuble and alb which shows at the cuffs. The half effigy was not uncommon at this period; metal sheet was in short supply. This example is 14 in high, and below is a rectangular plate $2\frac{3}{8}$ in by $16\frac{1}{2}$ in on which is engraved in blackletter:

Hic iacet Robtus Lelce quon-
dam Rector huius Ecclesie.

Apart from stating that he was Rector of this church there is no other information, not even the date of death. The list of Rectors shows him intermediate between William Durrant and John Cressingham—Durrant was rector as late as 1366, being already Master of Merton College, Oxon., and became a Canon of Hereford. He was rector of St. Michael's Queenshithe in 1372. He died in 1375, the same year that John Cressingham's tenure came to an end.

- II. Robert Burgeys, Rector, *ob.* 1421; inscription only, relaid in Chancel.

This inscription, in blackletter, is on a rectangular plate $4\frac{1}{2}$ in high and $16\frac{3}{4}$ in wide, and reads:

Hic iacet Robert' Burgeys quond' Rector
istius ecclie qui obiit xii° die Januarii A°
dñi m°cccc° xxi° cui' aīe ppiciet' deu'.

He was rector from 1408 until his death.

- III. Walter Grene Esq. in armour, *ob.* 1456, with four shields and mutilated marginal inscription; on table tomb against N. wall in N. aisle.

The brass is inlaid on a moulded marble slab lying on a stone chest tomb which stands against the N. wall of the church. The chest has upon its front face three traceried panels and there is at each end a panel; all enclosing (stone) shields with the arms of Grene and Grene impaling Warner. A photograph of the tomb appears on Plate 14 in the R.C.H.M. volume on Middlesex.

On the slab is the figure of a man in plate armour, 35 in long. He is bare-headed and with close-cropped hair; the head rests on a jousting helm and the feet on a griffin. The figure is similar in style to several others of the same date and probably derived from the same design and workshop (for example, at Isleworth in Middlesex, Little Waltham and Willingale Doe in Essex; Marston Morteyn, Beds.; Ulcombe, Kent; and Crowhurst, Surrey).

The neck and shoulders are protected by a series of narrow plates and these are covered by two plain pauldrons. The elbow pieces are of moderate size and the gauntlets have overlapping plates with peaked cuffs. The skirt of lames is, in this style, long and divided not only hoopwise but each ring is divided on the front side into four escalloped plates.

At the four corners of the slab are shields of arms. The upper dexter and lower sinister bear Grene: *azure, a chevron argent between three bucks trippant or*. The other two shields bear Grene impaling *sable a fess between three fleurs-de-lis ermine* for Warner.

The edge of the slab is chamfered and carries on the three faces a strip inscription which was arranged for convenience to be read from the outside. Starting at the top (west) end the blackletter inscription reads:

Hic iacet Corpus Walteri Grene Armigeri/
qui obiit in ffesto Concepcois bē Marie Virginis
videlt Octavo die Decembris Anno dī m^occcc^o

At this point, about three-quarters along the major side, the inscription is broken and the remainder has long been lost.

The inscription is uninformative about Walter Grene and there is no evidence that he married or had children. For so elegant a tomb and well-engraved brass this is curious. He was, in fact, a man of considerable standing and importance—a member of Parliament for Middlesex no fewer than eight times between 1414 and 1446; a Justice of the Peace in the same county for two periods, one of 17 and the second of 16 years; he served on various Middlesex commissions, including oyer and terminer, between 1416 and 1455; and he was Controller of Tonnage and Poundage in the Port of London.¹

On the 10th August 1434 he bought from Isabel, widow of Thomas Brown, grocer, of London, the “Checker on the hoope” in “Walthamcrouch” and the “Belle on the hoope” also in Waltham Holy Cross.² In 1439–40 he was collector of the wool subsidy and customs at Ipswich. In 1445 he conveyed premises in Hendon to the Hospital of St. Bartholomew.

Walter Grene was the son of Walter Grene of Bridgnorth, co. Salop, and he was twice married. In the pedigree of Burbage of Parke Hall³ his first wife’s name is doubtfully given as the daughter of . . . Ade, of St. Ivone. It is more confidently given by Mill Stephenson⁴ as the daughter of Adam St. Ive. By this wife he had “several” children. One was Joan who married Myles Windsor of Stanwell in Middlesex, the only son and heir of Richard Windsor. Myles went on a pilgrimage to the Holy Land and, dying on the way on 30th September 1451, was buried at Ferrara in the monastery of St. Bartholomew, before the choir door. He left as his son and heir Thomas who was only 11 at his father’s death, who in turn had a son, Sir Andrew Windsor Knt. of Stanwell, who was created Lord Windsor in 1529. A second daughter of Walter Grene’s first marriage was Catharine (given incorrectly as granddaughter in Holt & Wedgewood) who married first, as his second wife, John Gaynesford of Crowhurst in Surrey, by whom she had five recorded children. After his death in 1460 she married Sir Edmund Rede Knt. of Boarstall in Bucks., as his second wife.

Walter Grene’s second wife was Elizabeth, daughter and heiress of Robert Warner, M.P., of Hayes, being seized of the manor of Cowley Peachey and other lands in Middlesex. The children of this marriage given in the pedigree already referred to⁵ were: Robert—later Sir Robert Green; John said of Essex, but elsewhere as Sheriff of Kent in 1476 and buried at Chislehurst; Alice, who married first John Arderne of Leigh in Surrey, and secondly John Holgrave, a Baron of the Exchequer, having at least three children by each husband;



HIC IACET ROBERTUS LELLE, QUONDAM
RECTOR HUIUS ECCLESIE

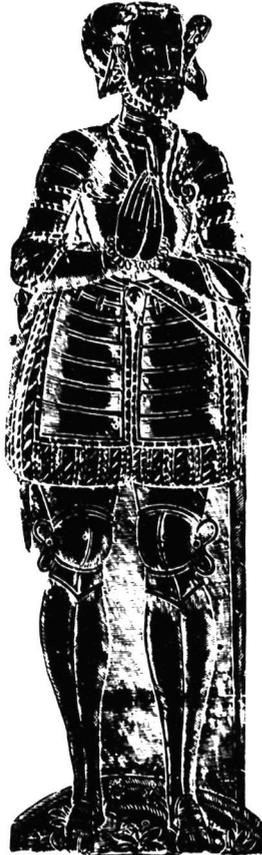
Robert Lellee, Rector, *ca.* 1370.

HAYES I

rubbed 13.ii.74 by L. E. James



Walter Grene Esquier, ob. 1456.
HAYES III
rubbed 13.ii.74 by H. K. Cameron



In tumulo hoc iacet Thomas Higatus in armis
 Armiger parvulus religione pius.
 In thalamos comit venit Elizabetha fideles.
 Adidit huic deus iniqua chara noveram.
 Dum dixit Thomas res cunctas ordine vellet
 equi defensor mortuus altera tenet.
 Obiit anno salutaris humanarum 1576. mensis augusti

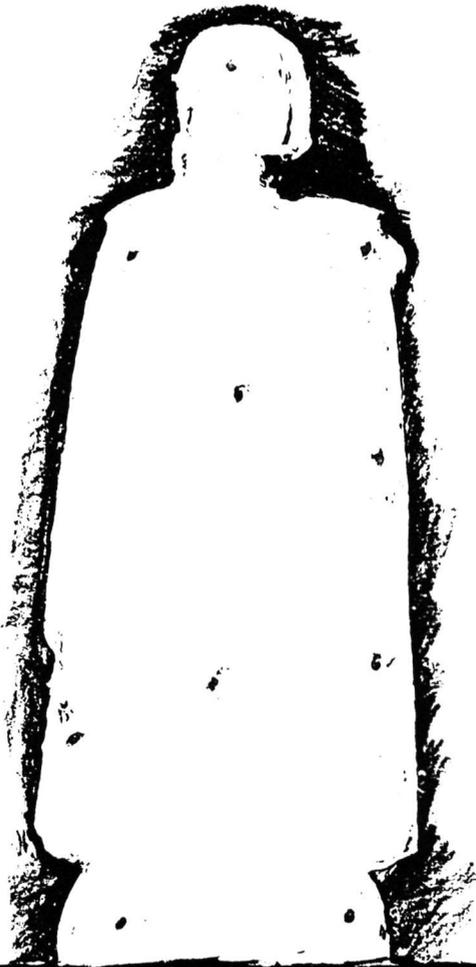
Thomas Higate Esquire the first
 of his name & his wife beloved
 Katherine of his wife the second
 wife of Elizabeth his first wife
 his wife no longer remains in this
 monument by his will the year 1576



Thomas and Elizabeth Higate and family. He died 1576.

HAYES IV

rubbed 13.ii.74 by Nicholas White



HERE LYETH THE BODIE OF HENRY CLERKE ESQUIRE WHOE
WAS CLERKE OF THE PEACE OF MIDD: XXXV YEARES HEE
LIVED IN GOOD CREDIT WITH THE BEST AND WAS WELL SEENE
IN DEVINE AND HVMANE LAWES, AND WAS GREATLY ESTEEMED
IN THIS COVNTY FOR HIS WISDOME AND VPRIGHTNES IN IUSTICE
HE HAD TO WIFE KATHERINE WHO LIVED TOGETIER WTH HIM
IN AMITYE AND LOVE FIFTIE YEARES. AND HE OF MEERE LOVE
AND CHARITIE HATH GYVEN TOWARDS THE RELIEFE OF Y POORE
OF BARRHAMISTED S PETER IN THE COVNTIE OF HERTEFWIERE
HE WAS BORNE TENN POUNDS A YEARE FOR EVER. AND TOWARDS
THE RELIEFE OF THE POORE OF S IOHNS STREETE, WHERE HEE
DWELT LYKEWISE TENN POUNDS A YEARE FOR EVER. WHOE
LIVED FOWERSCORE YEARES AND DIED IN THE TWVE MAYE
OF CHRIST THE FIFT DAY OF OCTOBER ANNO DNI 1609.
WHOSE SOVLE RESTETH WITH THE LORD.

Henry Clerke Esquire, ob. 1609.

HAYES VI

rubbed 13.ii.74 by J. Weeks

• Hic iacet Robert Burgeys quondam Rector
istius ecclesie qui obiit xij die Januarii A.
dm m^o d^o 1421 cuius anima requiescat in pace.

Robert Burgeys, Rector, ob. 1421.

HAYES II

rubbed 13.ii.74 by L. E. James

HERE LIETH BVRIED ANNE THE
DAUGHTER OF ALAN HENDRE AND
ANNE MILLET, WHO DIED THE
31TH DAY OF OCTOBER 1605.

Anne Hendre, ob. 1605.

HAYES V

rubbed 13.ii.74 by L. E. James

HERE LYETH Y^E BODY OF VEARE JENYNS AGED 28 YEARS
WHO DYED 8. OCTOB. 1644. (ELDEST DAUGHT^R. OF S^R. JAMES
PALMER OF DORNYE, IN Y^E COVNT. BVCKINGH. K^T. GENT. VSHER
OF Y^E PRIVIE CHAMBER TO KING CHARLES. AND MARTHA HIS
WIFE, DAUGHT^R. OF S^R. WIL: GARRETT OF DORNYE AFORE S^R. K^T.
WHO LYETH BVRIED AT ENFEILD, IN Y^E COVNT. HARTFD.) THE
TRVELY VERTVOVS & DEARELY BELOVED WIFE OF THOMAS
JENYNS OF HAYES IN Y^E COVNT. MIDDLE^S. ESQ^R BEING MARRIED
ELEVEN YEARES & HALFE, BY WHOM HE HAD 6 SONNES
& 4 DAUGHT^{RS}. BEING Y^E SECOND SONNE TO S^R. IOH. JENYNS
OF CHVRCHILL IN COVNT. SOMERS^T. KN^T. & DOROTHE HIS
WIFE SOLE HEIRE TO THOM. BVLBECK OF KINGSTO SEAMER
IN COVN. SOMERS^T. ESQ^R, BOTH W^{CH}. LYES BVRIED IN SAVOY LOND.

Veare Jenyns, ob. 1644.

HAYES VII

rubbed 13.ii.74 by H. K. Cameron

Elizabeth, who married Sir John Catesby Knt., Judge of the Common Pleas, a son of Edmund Catesby and a cousin of the notorious William Catesby; and lastly Joan, who was unmarried at her father's death in 1456, but for whom provision was made in his Will against her marriage. She married Sir Ralph Salesbury of Rythen in Wales.

However, there is evidence of two other children included in the version of the pedigree given in Cass.⁶ A brass inscription in Monken Hadley church commemorates Philip and Margaret Grene who, with Margaret Somercotes, all died on the one day, the 16th September 1442. This curious brass is described in an earlier paper in this series.⁷ Walter Grene died on the 8th December 1456, two days after making his Will.⁸ He makes bequests to his wife Elizabeth—300 marks in goods and chattels, and to his daughter Joan 100 marks for her marriage.

He was buried at Hayes whence his wife had come and to which she no doubt returned. As one of the executors of her husband's Will she would have been party to the instructions for preparing his monument which could account for his burial at Hayes. Although her arms are to be seen impaled with his, both on the brass and on the sides of the tomb in stone, there is no mention of her or any children on the inscription (the length of the missing strips seems insufficient) nor are they depicted in figure.

The other executors of Walter Grene's Will include Sir Robert Grene, his son, John Gaynesford, John Arderne and John Catesby, all his sons-in-law. John Gaynesford was also a Member of Parliament (for Surrey in 1453-54) as were his two brothers William and Nicholas, and their father John. He may well have been responsible for choosing the craftsmen for the tomb and the brass. His own father, John Gainsford, who died in 1450, is commemorated in the church at Crowhurst in Surrey by a brass so very closely like that of Walter Grene that it must have come from the same pattern and workshop. Even the size—it is 37½ in. high—shows great similarity. The two noticeable differences are that Grene has the unusual griffin at his feet, whereas the Gaynesford figure has a lion. Although the Crowhurst brass is also on a table tomb the inscription is not on a chamfer border, but on a rectangular plate at the foot of the figure. There is no doubt, from an examination of the script, that they are from the same pattern. John Gaynesford the son, who was Walter Grene's executor, also has a brass at Crowhurst on a tomb. He is shown in armour, which is markedly different in style from that of his father or of Walter Grene, although he died only four years after the latter. The inscription is not only similar in script, but may be compared with Grene's in the manner of describing the day of his death as "in festo Tñslacōis S̄ci Thoīne Martiris".

Another of Walter Grene's executors, also a son-in-law, is represented on a brass, but only as a child. This is John Arderne who is shown as one of six named children below the effigies of his parents, John (*ob.* 1449) and Elizabeth in Leigh church in Surrey. (This brass, too, is from the same workshop.) John was one of only two mentioned in their father's Will and therefore likely to be surviving his death. He married Alice Green, by whom he had three children. One of these, Richard, is also commemorated by a brass at Leigh.

The remaining executor was Sir John Catesby, a judge and husband of Elizabeth.

- IV. Thomas Higate, *ob.* 1576, and his wife Elizabeth, with five sons and four daughters, inscription in six Latin and six English verses, a heraldic achievement and one shield; on a brick chest tomb against the outer wall in the S. aisle.

This brass, though somewhat mutilated, is a good example of Elizabethan engraving. Thomas Higate is shown in armour, an ungainly figure of which the upper part, including

the head, is disproportionately smaller than the lower part. The head is bearded and uncovered and rests upon a much too small helmet. Lace ruffs show at the neck and at the wrists. The chest and arms are covered by elaborate plates and a skirt of lames hangs over trunk hose, or large breeches, puffed out and slashed. The legs and feet are completely covered with plate, and spurs are worn. A long sword hangs at his left side and a dagger at his right. He stands upon a mound with flowering plants. The whole space between the legs and between the sword and dagger and the legs is part of the brass and is strongly hatched, producing a rather heavy effect.

On his left side is the figure of his wife, the two facing slightly towards one another. The male figure is $37\frac{1}{2}$ in. high, the female 2 in shorter. The bottom 8 in of each figure is engraved on a separate plate, although this piece of the woman is now missing. She wears a "Queen Mary" bonnet, ruffs at neck and wrists, full puffed sleeves, with a narrow waist and full but plain skirt. From her simple waist belt (with a bow in front) hangs an ornament on a long cord. This figure also is of bad proportion, being too long for the size of head and torso, but this is to some extent relieved in its present condition because the lower part is missing.

Below the two figures is a rectangular inscription plate $6\frac{1}{4}$ in. high and originally $30\frac{3}{4}$ in. wide. Some $4\frac{1}{2}$ in. of the sinister end of this plate is now missing. The inscription is divided into two parts by a narrow cross-hatched dividing border, which also surrounds the sinister half of the inscription under the lady's figure, which is in English. A plain narrow border surrounds the Latin inscription beneath his figure. Both inscriptions are in black-letter and read:

In tumulo hoc positus Thomas Higattus in armis
 Armiger egregius religione pius.
 In thalamos coniux venit Elizabetha fidelis
 Addidit hisce deus pignora chara novem.
 Dum vixit Thomas res cunctas ordine gessit,
 aequi defensor, mortuus astra tenet.
 obiit anno salutis humanae. 1576. mense Augusti

This rather fulsome piece may be rendered thus:

Thomas Higate in his armour is placed in this tomb,
 an outstanding Esquire, pious in his religion.
 Elizabeth was his faithful wife in marriage.
 God added to these two nine dear pledges of love (= children)
 While he lived Thomas conducted his affairs in an orderly manner.
 A defender of justice, dead he grasps immortality.
 He died in the year of human salvation 1576 in the month of August.

The other part of the inscription, beneath the lady, has been broken and part is now missing. What remains carries on in the same vein, in English:

Thomas Higate Esquier lies buried
 A faithful Christian beloved fa
 A furtherer of Justice to ponnish
 Whoe by Elizabeth his wife childr
 His soule no doubt remains in faithfu
 Amongest ye faithfull flock, who sine

Below the inscription plate are two groups of children; beneath the man, five sons all bare-

headed and in civilian dress, facing, like their father, somewhat to the left; beneath the wife, four daughters face the other way, the first now being without head.

These plates are each 10 in high, the sons 10 in across and the daughters $8\frac{1}{2}$ in across and are made up of three separate pieces.

Above the head of Thomas Higate is a rectangular plate $6\frac{1}{2}$ in wide and 8 in high, on which is his shield of arms, bearing *gules two bars argent, on a bend or, a torteau between as many leopards' faces azure*, surmounted by a helm and mantling and a crest, being *a wolf's head erased gules*. Above the wife is a shield $5\frac{3}{4}$ in x 6 in bearing Higate impaling a coat of arms that appears to belong to Stonerd of Loughton, co. Essex, *per fess sable and or a pale engrailed counterchanged, three eagles displayed of the second*.

In the Middlesex Visitations⁹ the descent of Thomas Higate of Hayes is shown but not the name of his wife. The Higate family were, however, established in Essex and Suffolk.¹⁰ Thomas Higatte of Fearinge in Essex had a second son, Thomas, of whom nothing further is recorded. It therefore seems quite likely that the Thomas who moved to Hayes took with him a wife from Essex. The advowson of the Rectory of Hayes was held by a son Thomas Higate in 1589 and 1591 under a grant to his father Thomas from the Earl of Pembroke.

V. Anne, the daughter of Alan Hendre, *ob.* 1605. Inscription only, on floor of nave.

A small rectangular plate, 4 in x 13 in wide has upon it in Roman capitals the following inscription:

HERE LIETH BVRIED ANNE THE
DAUGHTER OF ALAN HENDRE AND
ANNE MILLET WHO DIED THE
31th DAY OF OCTOBER 1605

The inscription suggests a young, unmarried girl and this is reinforced by the belief that she died before her parents. Her father died in 1611, being described in his Will¹¹ as of St. Andrews parish in Holborn. He left his lands in Surrey and Berkshire to his son Allan; if he died without heirs then to his daughter (presumably d. in law) and if she should not have heir then to his wife. This implies that his wife was already well provided for and, as a Millet, she was of a family of considerable consequence locally in the county¹² of Middlesex. He left £10 p.a. to his kinsman Edward Horde and his heirs, £3 p.a. to the poor of Egham and £3 p.a. for the repair of the highways there; and £20 for Roger Hendre. He caused 40 gold rings to be made at 10 shillings each, with Death's heads and the motto "Memento Mori Allan Hendre" for his wife and friends.

VI. Henry Clerke, *ob.* 1609, effigy lost, inscription remains, on floor of Chancel.

It is unfortunate that the interesting figure of Henry Clerke has been lost. It would appear from the indent that he may well have been in legal costume, with coif on his head. The figure was $25\frac{1}{2}$ in high, and immediately below it is a rectangular plate, $12\frac{1}{4}$ in x $24\frac{1}{2}$ in on which, in Roman capitals, is an English inscription in 15 lines. This reads:

HERE LYETH THE BODIE OF HENRY CLERKE ESQUIRE WHOE
WAS CLERKE OF THE PEACE OF MIDD: XXXV YEARES HEE
LIVED IN GOOD CREDIT WITH THE BEST AND WAS WELL SEENE
IN DEVINE AND HUMAINE LAWES, AND WAS GREATLY ESTEEMED
IN THIS COUNTY FOR HIS WISDOME AND VPRIGHTNES IN IVSTICE
HE HAD TO WIFE KATHERINE WHO LIVED TOGETHER W^THIM
IN AMITYE AND LOVE FIFTIE YEARES. AND HE OF MEERE LOVE

AND CHARITIE HATH GYVEN TOWARDS THE RELEIFE OF YE POORE
OF BARKHAMSTED ST PETER IN THE COVNTIE OF HERTF: WHERE
HE WAS BORNE TENN POVNDS A YEAR FOR EVER. AND TOWARDS
THE RELEIFE OF THE POORE OF ST IOHNS STREEETE WHERE HEE
DWELT LYKEWISE TENN POVNDS A YEARE FOR EVER WHOE
LIVED FOWERSCORE YEARS AND DIED IN THE TRVE FAYTHE
OF CHRIST THE FIFT DAY OF OCTOBER ANNO DNI 1609
WHOSE SOVLE RESTETH WITH THE LORD.

He was Clerke of the Peace for Middlesex from 1559 until 1593.

The inscription mentions his wife Katherine who lived with him for 50 years. She survived him, dying on 26th December 1613, and elected to be buried at Harrow where she was born. A brass in her memory is in Harrow church and was described (No. XIII) in the last part of this series. She was described as the wife of Henry Clerke of "Rislipe" who was "buried at Heyes where his monument is erected" and with whom she lived 52 years.

His brass indicates benefactions to his birthplace, Berkhamsted, as well as to St. John Street, London, where he lived and worked. It was no doubt in this house that his widow "dyed at hir house in London" in 1613. In his Will¹³ he asks to be buried where it pleases God—and to be buried without prayer or vainglory. He gives "a dole" for the poor at the funeral; 40 shillings to the poor of St. John Street "which be honest and most needy" and the same amount to the poor of Berkhamstead St. Peter; and bequests to his cousins and brothers.

VII. Veare Jenyns, *ob.* 1644; inscription only, on floor of S. aisle.

An inscription plate of trapezoidal shape lies on the floor near the Higate tomb. The height of the plate is $10\frac{1}{4}$ in and it is $19\frac{1}{2}$ in wide at the top and 18 in wide at the bottom. On this plate is engraved, in Roman capitals, an English inscription in 13 lines. This reads as follows:

HERE LYETH YE BODY OF VEARE IENYNS AGED 28 YEARS
WHO DYED 8. OCTOB. 1644. (ELDEST DAUGHT. ^R OF S^R JAMES
PALMER OF DORNYE IN YE COUNTY. BVCKINGH. KT. GEN^T. V^SHER
OF YE PRIVIE CHAMBER TO KING CHARLES. AND MARTHA HIS
WIFE. DAUGHT^R. OF S^R WILL : GARRETT OF DORNYE AFORES^D. KT.
WHO LYETH BVRIED AT ENFEILD. IN YE COUNT. HARTF^RD.) THE
TRVELY VERTVOVS & DEARELY BELOVED WIFE OF THOMAS^S
IENYNS OF HAYES IN ye COVNT. MIDDLES^X. ESQ BEING MARIED
ELEVEN YEARES & HALFE BY WHOM HE HAD 6 SONNES
& 4 DAUGHT^{RS} BEING YE SECOND SONNE TO S^R. IOH IENYNS
OF CHVRCHILL IN COVNT. SOMERST. KNT. & DOROTHE HIS
WIFE SOLE HEIRE TO THOM^S BVLBECK OF KINGST^O SEAMER
IN COVN. SOMERST. ESQ BOTH W^{CH} LYES BVRIED IN SAVOY LOND

The Jenyns family were, as their inscription indicates, widely connected. There was a William Jenyns, Lancaster Herald, early in the reign of Henry VIII, at Ipsley, Warwicks.,¹⁴ and many of the name in Shropshire,¹⁵ some moving to Dunmow in Essex. They were Lords of the Manor of Hayes in the seventeenth and eighteenth centuries, and Veare's memorial is one of eight to members of the family in this church.

Veare's father was close to Charles I as the gentleman usher of the Privy Chamber. He was also Chancellor of the Order of the Garter. Poor "vertuous and dearely beloved" Veare died young, after delivering ten children in her $11\frac{1}{2}$ years of married life.

VIII. Edward Chinn Walker, 1810, inscription S. aisle.

On the floor near to No. VII, is a small rectangular place 7 in high x $15\frac{1}{4}$ in wide on which is the following inscription:

BENEATH are DEPOSITED the REMAINS of
EDWARD CHINN WALKER
an Hopeful endearing and much lamented Son of
WILLIAM and ELIZABETH WALKER
who was born on the 15th Sept. 1807
and died of the Hooping Cough the 3rd June 1810.

NOTES

BRASSES OF MIDDLESEX

¹ A. D. Holt and J. C. Wedgwood. *A History of Parliament 1439-1509*; Vol. I. Biographies, p. 393.

² Cal. Cl. Rolls; 2 Henry VI, p. 323.

³ Harleian Soc., LXV, p. 79.

⁴ *Surrey Arch. Collections XXVII*, p. 34.

⁵ Cowley Peachey had passed by 1431 to Robert Warner, who died in 1439. He was succeeded by his daughter Elizabeth, who married Walter Green. She was in possession in 1461 and died as a widow in 1473 leaving as heir her son, Robert Green (Will of Eliz. Green, P.C.C. 12 Wattys).

⁶ *Monken Hadley*, by F. C. Cass (Rector), 1880, p. 128.

⁷ *Trans. L.M.A.S.* 20 (1961), p. 6.

⁸ P.C.C. 15 Stokton.

⁹ Harleian Society, LXV, p. 87.

¹⁰ Harleian Society, XIII, p. 61.

¹¹ P.A.B. London; 86 Wood.

¹² See, for example, an earlier paper in this series; Vol. 20 (1960), p. 71.

¹³ P.C.C. 99 Dorset.

¹⁴ Harl. Soc. XII, p. 241.

¹⁵ *Ibid.*, XIII, p. 428; XXVIII, p. 275.

ACKNOWLEDGEMENTS

Once again thanks are due to L. E. James Esq. for help in the production of this paper and in particular for assistance in taking the rubbings, in which we were aided by J. Weeks and N. White, two of his pupils at Merchant Taylors School.

AN ADDRESS GIVEN AT THE PEPYS
COMMEMORATION SERVICE IN THE CHURCH OF
ST. OLAVE, HART STREET IN THE CITY OF LONDON
6th JUNE 1974

HUGH TREVOR-ROPER, M.A., F.B.A., F.R.HIST.S.

Regius Professor of Modern History in the University of Oxford

We are here to commemorate the late Samuel Pepys, of this parish, esquire—he was addressed as esquire in March 1660, “of which, God knows, I was not a little proud”,—Member of Parliament for Castle Rising and Harwich, Secretary of the Admiralty under their late Majesties Charles II and James II, Master of Trinity House, Master of the Clothworkers Company, President of the Royal Society, benefactor of Magdalene College, Cambridge, etc.; a man, as these qualifications show, eminently worthy of public commemoration. He also, in his indiscreet youth, before he had risen to any of these public positions, kept, for just over nine years, a private diary. Alas, it must be admitted, it is not his discreet public service that has earned him this public commemoration. How many Masters of the Clothworkers Company, and even Secretaries of the Admiralty, have passed with dignity, after one brief funeral tribute, into oblivion or the *D.N.B.* This majestic gathering pays its annual tribute not to the admirable civil servant, but to the uninhibited diarist who wrote not for us but for himself alone, and whose work, though gradually released to the public more than a century after his death, is such that the full text, according to that great Victorian Sir Leslie Stephens, “cannot possibly be printed”. I am sure that we all rejoice that this impossibility is now being overcome, and that the diary is being printed, in full, by modern editors, publishers and printers no less respectable than Sir Leslie Stephen.

Since we commemorate the diarist rather than the civil servant, the person rather than the *persona*, I shall be excused, I hope, if, in this brief address, I say little of his public life and service. I could, of course, if you wished (after the necessary briefing) extend myself on both subjects. But that might require the same generous allowance of time as Pepys himself took when he defended the administration of the Navy before a full House of Commons on 5th May 1668. On that occasion, as he tells us, being rather nervous (as who is not when facing a distinguished and critical auditory), he stoked up in advance with half-a-pint of mulled sack at the Dog and a dram of brandy at Mrs. Hewlett’s in Westminster Hall, and then spoke, non-stop, for over three hours; after which, honourable members thronged around him with competing and hyperbolic compliments and Mr. George Montagu kissed him and declared that he was another Cicero; which must have been a very gratifying experience, only slightly qualified by the admission that many of the members, during so long a speech, “had gone out to dinner and come in again half-drunk”—a situation which we would not wish to see repeated in this church.

Let me then say a few words in praise of Pepys the diarist, Pepys the man, as revealed by his diary. That diary, we all admit, is the greatest diary in our language, and it owes that title to that very freedom and freshness which, not stopping at the limits set by later moralists, exposed, with an almost child-like *naïveté*, which Victorians might call shamelessness, the workings of a mind sufficiently exceptional to command our interest but not so far

above our own as to baffle or humiliate us. There are many worthy diarists in our literature: useful recorders of their lives and times. But these are of interest, primarily, to historians, for whom they provide raw material: we do not read them as literature. There are also the accidentally great diarists: those who kept diaries because they lived through great events and were in a position to give vivid first-hand accounts of them. And there are admirable diarists: men who—like Pepys' friend John Evelyn—present, through their diaries, an apparently natural pattern of high-minded virtue. But these, on further examination, often prove somewhat artificial. I am afraid that I always distrust virtuous diarists. The virtuous diarist seems to me a contradiction in terms, a man who has shirked his proper function, which is to reveal himself as he naturally is, not as he would like us to think that he has been; and we are none of us naturally virtuous: otherwise we would have no need of religion or morality.

Pepys' diary is a great diary in all these three respects. At the lowest level, it is a quarry for an historian. It is also, by chance, a literary record of great events. And always, against the background of events, whether great or small, it reveals a personality which, whatever our initial prejudices or expectations, we come gradually to love, because it speaks to us unguarded, without art or hypocrisy, revealing a character which we can recognise and, at times, since we come to trust the honesty of the writer, genuinely admire.

Such diarists are rare in history, and in our own literature Pepys is the earliest. Perhaps this has an historical explanation. Like Montaigne in France, of whom he so often reminds us—by his scepticism, his candour, his power of uninhibited, dispassionate self-observation, and of course his perpetual trouble with that painful ailment of the time, the stone—he was brought up in a period of civil war and ideological pretensions, and when he came to write, he had had enough of public attitudes, of hypocrisy.

Any man, or generation of men, that grows up in a time of revolution is likely to become sceptical of professed ideals. Pepys had been seven years old when the Long Parliament had first challenged King Charles I in the name of liberty and property. His home had been in London—Puritan London. He had been educated at St. Paul's School under Puritan teachers, and had become, in his own words, "a great roundhead". At the age of 17 he had witnessed the execution of the King, and on that occasion had made to his schoolfellows a ringing declaration which, fortunately, only he would remember: "that were I to preach upon him, my text should be, 'The memory of the wicked shall rot'." If he left London, in the 1650s, it was only to exchange the Puritan capital for the Puritan university. He spent three years at Cambridge, first at Trinity Hall, then at Madgalene College. How many a weary sermon he must have heard in those days from the pampered Puritan clergy who, in the years of war, trooped up to London to settle in the rich city benefices, from which the old uncovenanted clergy had been ejected, and from the complacent Puritan Fellows whom the Parliamentary Visitors had installed or continued in the Elect University! In London, too, since we know his passion both for politics and for sermon-tasting, he must have heard some of the blood-thirsty political sermons of the radical saints of Coleman Street and Blackfriars, and, perhaps (like Lord Keeper North) out of curiosity, "sank so low as to hear Hugh Peters preach". These were the prophets of those tumultuous years: they believed that they were bringing about an instant reformation of manners, creating a new generation of saints and evangelists to regenerate the land. In fact, they created a new generation of wordlings, disgusted alike with their doctrines, their claims, their whole mentality. As the English Republic lurched from expedient to expedient, and the moral gymnasts of Puritanism performed

their dazzling feats of casuistical double-think, ordinary men lowered their aims and instead of a godly commonwealth looked for stability and consistency on the old basis. As long as Oliver Cromwell was there to maintain order, they would support him, hoping that he would become their king and rule within the old law. When Oliver died and anarchy returned, there was no man of genius, no charismatic leader, to replace him. "It is now clear", Pepys would write, "that either the Fanatiques must now be undone, or the gentry and citizens throughout England, and clergy, must fall, in spite of their militia and army". The only solution was to return to the old institutions; to bring back the time-honoured monarchy which could at least sustain itself, even if the monarch himself were untried, and perhaps unpromising.

So, in 1660, Pepys, with so many of his contemporaries, rejoiced in the return of legitimate King and Established Church, and the former "great roundhead" went forth, without vindictiveness indeed, but with evident satisfaction, to see the most violent of the regicides, the Messianic Fifth-Monarchist Major-General Harrison, hanged, drawn and quartered. "Thus", he recorded, "it was my chance to see the King beheaded at Whitehall, and to see the first blood shed in revenge for the King at Charing Cross".

How fortunate it is for us that Pepys decided to keep a diary precisely in the year of Restoration, 1660! Did he sense, on that New Year's Day when he wrote the first page, that great events were coming and that he would have the opportunity to be their eye-witness? Did he guess that his patron and cousin, Edward Montagu (afterwards Earl of Sandwich), Cromwell's General-at-Sea, would sail to Holland to fetch the King home and that he himself, though a mere clerk and secretary, would have the singular good fortune to accompany him; that he would kiss the hands of the King and Duke of York as they came aboard his ship; that he would watch them dine, see them rechristen the ships of the Republic—the *Naseby* becoming the *Charles*, the *Dunbar* the *Henry*, etc.—and, finally, that he would hear from the King's own lips the dramatic story of his escape in 1651? "Upon the Quarter-deck he fell in discourse of his escape from Worcester. Where it made me nearly to weep to hear the stories that he told of his difficulties that he had passed through. As his travelling 4 days and 3 nights on foot, every step up to the knees in dirt, with nothing but a green coat and a pair of country breeches on and a pair of country shoes that made him sore all over his feet that he could scarce stir", etc., etc. Afterwards the King would repeat these stories so often that his courtiers would almost weep for boredom, and Pepys would again be in at the final, revised version. In 1680, at Newmarket, Charles II suddenly and surprisingly decided, in Mr. Matthews' words "to withdraw himself from the delicious distraction of jockeys, horses, dogs, hawks and ladies of pleasure", and called on Mr. Secretary Pepys, "with his short-hand and well known efficiency", to record the classic tale for publication and posterity. The manuscript is in the Pepys library still, and we now have a scholarly edition of it by Mr. William Matthews, one of the editors of the new edition of the Diary.

How fortunate, too, that Pepys persevered with his diary for ten whole years! Thanks to that perseverance we have not only an authoritative account of the struggles of the Navy Office, an occasional glimpse into the cabinet of Charles II, and a running commentary on Restoration court politics, but also those other great set pieces: in particular, the most vivid account that we possess of the Great Plague of 1665 and the Great Fire of 1666, that fire in which so many of the old London churches perished and which gave his great opportunity to Sir Christopher Wren.

To us, in retrospect, the Great Fire is the beginning of the City of London as we know it—or as we knew it till the second great fire of 1941 and the second rebuilding by the post-war developers. It gave the City its distinguishing monuments from St. Paul's downwards. But who could have foretold that at the time? To Pepys, as confirmed and committed a Londoner as Dr. Johnson, it seemed almost the end. In those terrible September days, as he watched the fire spread, he saw all the old landmarks disappear: the houses of his friends, the churches where he had sampled so many sermons, the theatres from which he had periodically but ineffectively vowed to abstain, the inns where he had consumed, on the slightest provocation, and at any time of day, so many barrels of oysters, lobsters, chines of beef, udders, dishes of steaks and rabbits, venison pasties, buttered salmon, wild geese roasted, marrow-bones and tongues, mulled wines, etc., etc., and had thereby softened up, fondled, "towsed", sported with and given a bout or tumble to, so many compliant ladies.

Day after day, in his diary, Pepys recorded the lamentable story of the destruction of the City. It began on 2nd September, Lord's Day, when "some of our maids, sitting up late last night to get things ready against our feast today, Jane called us up about 3.0 in the morning, to tell us of a great fire they saw in the City. So I rose and slipped on my nightgown and went to her window"; but thinking the fire far enough away, beyond Mark Lane, he returned to bed. Then at daylight he went out and began to realise the true scope of the disaster. Both ends of London Bridge were now ablaze, and the fire still raged unchallenged every way "and everything after so long a drought proving combustible, even the very stones of the Churches, and among other things the poor steeple by which pretty Mrs. [Horsley] lives, and whereof my old schoolfellow Elborough is parson, taken fire in the very top and there burned till it fell down". Pepys hurried to Whitehall, saw the King, and the Duke of York, was promised soldiers to help him in the work, and was sent back with a message to the Lord Mayor; but when he finally discovered the Lord Mayor, in Canning Street, among the swirl of citizens carrying their goods out of the blaze, he found him "like a man spent, with a handkercher about his neck. To the King's message, he cried like a fainting woman, 'Lord what can I do? I am spent. People will not obey me. I have been pulling down houses. But the fire overtakes us faster than we can do it.'" So Pepys took precautions for himself, buried his money, his wine and his Parmesan cheese in his neighbours' gardens, took steps to keep the fire from the Navy office in Seething Lane, and went on with his melancholy chronicle: in Thames Street he saw the warehouses of oil, wine and brandy, and the crowded stores of pitch and tar, go up in flames; all over the river, "with one's face in the wind, you were almost burned with a shower of firedrops" which carried the fire from house to house; from his office garden he was almost put out of his wits to see "how horridly the sky looks, all on fire in the night", for it seemed as if "the whole heaven was on fire"; all the Old Bailey was in flames, "and Paul's is burned, and all Cheapside . . . Fenchurch-Street, Gracious-street and Lombard street all in dust. The Exchange is a sad sight, nothing standing there of all the statues or pillars but Sir Thomas Gresham's picture in the corner . . . Lord, what a sad sight it was by moonlight to see the whole city almost on fire . . ."

This, of course, is the public side of the diary: the vivid autoptic chronicle of great events. But always, inseparable from it, giving to those events their authenticity, their immediacy, their dramatic quality, there is the diarist himself, constantly and artlessly revealed, the man of his age, sceptical, purged of all cant, alert, enquiring, politically sophisticated, agog for new experience, "in all things curious", "with child to see any strange thing", an epicure

in things material, an aesthete wherever there is beauty to see or hear. Most surprising, at first, is the sensitivity to beauty of this typical *homme moyen sensuel*. He would himself write of "the strange slavery that I stand in to beauty, that I value nothing near it".

He was a lover of art—exquisite art, the art of the portrait-painter—and of music: not the "dull vulgar music" of "trumpets and kettledrums", but the delicate music of church and chamber. How he loved music: the viols, the theorbo, the organ, the human voice, and that wind music which once "ravished me, and indeed in a word did wrap up my soul so that it made me really sick just as I have formerly been when in love with my wife". And yet this occasional rapture is combined with a meticulous eye for detail. He is a careful calculator, an exact housekeeper, a punctilious civil servant, critical of all disorder or irresponsibility, neat in his accounts as in his handwriting, a fastidious collector of books, a virtuoso, the friend of *virtuosi* and scientists, himself Baconian in his scientific interests, and therefore not unfit to be President of that Baconian foundation, the Royal Society. Above all, he is an observer of man, including himself; introspective, as a great diarist must be, but not morbidly so: like James Boswell, who so often resembles him (and yet so often differs from him), he looks into himself only so far as to see, and accept, the inconsequence, the contradictions, the occasional absurdity, of his own character, and, in that respect, its community with the species.

Having thus catalogued Pepys' interests I now see that I have omitted one which, in this place, should surely have been mentioned: religion. Pepys was not, it must be admitted, a religious man. No doubt, like so many of his contemporaries, he had had too much religion when young. Certainly, by the time when the diary begins, he had no use for puritanism. Late in his career, he would be accused of popery: the religion of the master whom he long and loyally served, James II. In fact he was not a papist: in 1668 he had been thoroughly "frighted" on hearing that his wife, born a Huguenot, had such leanings. He was a sound Restoration Anglican, a member of the established Church, which he accepted not, like the old royalists, as the true Church against all others, but rather as a comprehensive national institution providing, with the minimum of constraint, the best guarantee of ordered tranquility. He disliked sectarianism of all kinds; and since the old Anglican Church of Archbishop Laud had itself been sectarian, he had no love for those who sought to revive its exclusive claims. He did not love the restored bishops of 1660—to him, as to so many Londoners, they were "strange animals", "so high that very few do love them": it was unlikely, he thought, that they could "carry it so high as they do" for long; if they tried, they would "ruin all again". But he accepted the system, when it had settled down, while remaining fundamentally critical of clerical pretensions. If the house of Cromwell had lasted, no doubt he would have conformed happily enough with an established bishopless semi-Presbyterian Church, which, while reasonably tolerant, would have kept down "the fanatiques" whom he hated. As it was, he conformed with the restored Anglican Church, criticising its occasional intolerance, accepting much for the sake of its music, respecting some of its clergy, and visiting the churches of all denominations to sample the sermons, which, even if they were poor and dry, provided opportunities for criticism, relaxation or distraction. I think, for instance, of that "simple, bawling young" Scotchman "to whose voice I am not to be reconciled" and through whose sermons, in 1663, he invariably slept; and again, of that visit, in 1660, to Henry VII's chapel at Westminster "where I heard a sermon and spent (God forgive me) most of my time in looking upon Mrs. Butler". As for his own regular preacher here, the rector, Mr. Mills, I am afraid he was critical both of the

man ("a fat lazy priest") and of his "lazy, dull sermons"; but he was punctilious in his attendance, even hurrying on from another, and better, sermon—although on arrival he "stood privately at the great door to gaze upon a pretty lady", and after his devotions "from Church dogged her home, whither she went to a house near Tower-hill; and I think her to be one of the prettiest women I ever saw". In view of Pepys' critical comments on the words which he heard from this pulpit, I am rather glad he is not sitting in the audience now. Later, when "the fanatiques" raised their hue and cry against popery and his patron, Pepys moved to the right. High-churchmanship was now unable to persecute; after the Revolution it was unable to meddle in politics; and Pepys would take the last sacrament from a non-juring parson, who had never accepted the Revolution of 1688 and the deposition of his old master, whom he continued to honour, King James.

By that time the diary had long been closed. The six volumes, so neatly written in his own shorthand, so elegantly bound in his own binding, were in his library, destined for remote posterity. He had closed them in May 1669, reluctantly, for he had come to love his diary, as we do now. The last entry gives the reason: the strain on his eyes was too great; he was convinced that he was going blind; and that the diary, with its exiguous, exacting shorthand, would hasten his blindness. "Therefore, whatever comes of it", he wrote, "I must forbear . . . And so I betake myself to that course which is almost as much as to see myself into my grave; for which, and all the discomforts that will accompany my being blind, the good God prepare me!" Historians, of course, must lament the closing of that incomparable historical source. What would we not give for Pepys' own account, in his own informal style, of the great dramas of the Popish Plot and the stirring events which followed it, in which he too was involved? But for those to whom the diary is not merely a record of events but a portrait of the man, the record of those nine years are enough. It reveals his whole personality; and it is the personality thus revealed that we honour today, rather than the honest and loyal administrator, the fastidious bibliophile, the cultivated virtuoso, the generous benefactor; for these are but the roles in which that personality found its useful public expression and earned the friendship, respect and gratitude of the best of his own contemporaries.

JOHN STOW AND HIS MONUMENT

A. J. TAYLOR, C.B.E., M.A., D.LITT., F.B.A., DIR.S.A., F.R.HIST.S.

*Address delivered in St. Andrew Undershaft at the Annual John Stow Commemoration Service,
24 April, 1974*

I think I cannot do better, My Lord Mayor, than begin this address by recalling some of the words in which John Stow dedicated the second edition of his *Survey of London* to your Right Honourable predecessor Sir Robert Lee, Citizen and Merchant Taylor, in the year 1603.¹ "I have attempted", he writes, "the discovery of *London*, my native soyle and Countrey, at the desire and perswasion of some of my good friends, as well because I have seene sundry antiquities my selfe touching that place, as also for that, through search of Records to other purposes, diuers written helpes are come to my hands which few others have fortun'd to meet withall. . . . It is a duty that I willingly owe to my native mother and countrey . . . What London hath been of ancient time men may here see, as what it is now every man may beholde. I knowe that the argument, being of the chief and principall cittie of the land, required the pen of some excellent Artisen; but fearing that none would attempt, and finish it, . . . I chose rather (amongst other my Labours) to handle it after my playne manner, than to leave it unperformed."

Thus, modestly, almost apologetically, John Stow commended to his public a book which from the moment of its completion became a classic, that is to say a unique book, a book of rare quality, a book in a class by itself. Stow's long life, then drawing to its close, had already embraced 22 years of the reign of Henry VIII, the six years of Edward VI, the nine days of Lady Jane Grey, the six years of Mary Tudor, and the whole life² and 44 years' reign of Queen Elizabeth: a full three-quarters of the sixteenth century and the opening years of the seventeenth. That period in England witnessed the passing of the Middle Ages and, especially through the Dissolution of the monasteries and the colleges and the chantries, the violent destruction of great numbers of medieval buildings, which with their artistic and historic contents and particularly their monuments and their glass were often epitomes of English history going back to the Norman Conquest and sometimes further. These things were happening in London when Stow was an impressionable boy. The final dissolving of the greater abbeys and priories was ordered in 1539, that is to say exactly one year before, as a lad of 15, he started his apprenticeship to a Merchant Taylor named John Bulley. During the next ten years or so he must have seen with his own eyes many a historic building in course of demolition; we may instance his record of what happened to the priory of the Hospitallers at Clerkenwell. "This priory church and house of St. John", he writes, "was preserved from spoyle or down-pulling so long as king Henry eight raigned, and was employed as a store-house for the king's toyles and tents, for hunting and for the warres &c: but in the third year of king Edward the Sixt (*i.e.* 1550) the church for the most part, to wit the body and side aisles with the great Bell Tower, (a most curious peece of workmanshippe, grauen, gilt, and enamelled to the great beautifying of the Cittie, and passing all other that I haue scene) was undermined and blown up with Gunpowder, the stone thereof was employed in building of the Lord Protector's house at the Strand."³

While buildings like this were being destroyed, libraries and muniment rooms, chronicles and cartularies, were being dispersed, and might yet be recovered and turned to good account.

It was to the collection and preservation, copying and editing of these that Stow, having spent thirty years as a working tailor, devoted the second half of his long life, and very many of his transcripts and notes, in his neat, legible hand, are preserved to this day amongst the Harleian manuscripts in the British Museum. What architecture lost at the hands of the reformers, the historical study of antiquity gained at the hands of John Stow. His *Summary of English Chronicles*, a book of some 270 pages, first appeared in 1565; its 6th edition, enlarged to nearly 800 pages, in 1590. A different version, called the *Summary Abridged*, appeared in 1566, and was reprinted and revised nine times between then and 1618. In 1580 he brought out another book of *Chronicles*; and in 1592 appeared the first of six editions of his *Annales of England*, “faithfully collected out of the most authentick Authors, Records, and other monuments of Antiquitie, from the first inhabitation untill this present yere 1592. By John Stow.” It was not until six years later still, as a postscript as it were to these immense labours, that he produced in the year 1598, when he was 73 years old, his *Survey of London*, the book by which he is known everywhere and for which, as our Service here this morning shows, posterity still yields him undying affection.

Stow’s *Survey* has been so worthily and comprehensively treated in the fine critical edition of Charles Lethbridge Kingsford, that any subsequent worker who sets out to pay his tribute to Stow must needs acknowledge his deep debt to Kingsford also.⁴ Different readers of the *Survey* will have their own favourite passages. One of mine is Stow’s recollection of his boyhood chore of being sent to fetch the milk, and how unbelievably cheap it used to be, things that he is reminded of when he comes to write about the Minories, the dissolved abbey which had stood between Aldgate and Goodman’s Fields. “Neare adjoining to this Abbey”, he writes, “on the South side thereof, was sometime a Farm belonging to the said Nunnery, at the which Farme I my selfe in my youth have fetched many a halfe pennie-worth of Milke, and never had less than three Ale pints for a half-pennie in the Summer, nor lesse than one Ale quart for a half-pennie in the Winter, alwaies hote from the kine, as the same was milked and strained.”⁵ Stow’s looking back to the good old days of his youth when winter milk was only $\frac{1}{2}$ d. a quart, rather makes the occupant of this pulpit look back to the days when a City schoolboy could buy a cloth-bound gilt-lettered copy of the Everyman edition of Stow’s *Survey of London*⁶ for 2s. od. new, as the copy in my hand was bought at Stoneham’s bookshop by St. Stephen’s Walbrook, in 1924, 50 years ago this year. If it has not already gone up again, the same thing now costs £1.50, but it speaks wonders for Stow’s popularity that it is now available in paperback also. One may perhaps recall, too, that the very first book to be subscribed for by the newly-constituted Society of Antiquaries of London in 1719⁷ was Strype’s great 1720 folio edition of the *Survey*,⁸ and that the copy then bought is still in the Society’s library. What better link could there be between the Elizabethan antiquaries, amongst whom Stow himself was prominent, and the successor Society which still flourishes today?

Stow was totally at home with the past, whether the past of his own acute observation and long memory, or the past as explained and vouched for by the records which, self-taught, he explored and copied diligently at the Tower, or in search of which, having never learned to ride and being very far from well off, he travelled, on foot, to many parts of England.⁹ He also gleaned much material from the records of the City Companies, some of whom, being less responsive to his enquiries than others, stood very low in his estimation; what could be more withering than his dismissal of the Fishmongers as “men ignorant of their Antiquities, not able to show a reason why or when they were joined in amity with the

Goldsmiths”:¹⁰ He had it in for the Vintners too. Having taken a great deal of trouble to discover all he could of the Vintners’ history from the public records, he attended a Court of Assistants to read them his results and seek their help in supplementing these from the Company’s own archives. Yet all he got for his pains was a surprising assertion that they were one of the lesser, not one of the greater companies; not undeservedly he prints in the margin the acid comment: “The Vintoners one of the 12 principall companies. The readiest to speak, not alwaies the wisest of men.”¹¹

But Stow’s concern was not just with the past for its own sake. His condemnation of the Fishmongers and the Vintners was not directed simply at their unawareness of their own past, but at their lack of interest in the historical explanations he could offer them for their present status and importance. Stow’s real interest was with the living city of his own day, of which he was immensely proud. For him the explanation of the living present lay in *terms of continuity with a no less living past, and the buildings and the monuments, the institutions and the charities, even the very streets and rivers, were all invoked by him, and their stories traced and unravelled, to explain how his city had come to be the wonderful place in which he and his contemporaries moved and had their being.* When he recorded, often more by silent implication than open accusation, the facts of the iconoclastic holocaust which the Reformation had inflicted, in his own lifetime, in its destruction of the contents of most of the great London conventual churches, he was doing so not as a mere antiquary, but as one relating the past to the present, and lamenting silently the awful damage that had been done to the City’s greatness as the shrine and living successor of so much tangible evidence for the continuity of English history. That, I think, is how we have to see such a passage as the list Stow has left to us, without comment, of the 50 tombs and monuments destroyed in the church of the Blackfriars, including as they did those of Queen Margaret of Scotland and the heart burials of Eleanor of Castille and the little prince Alfonso, and many another famous personage.¹² For Greyfriars the list is more than twice as long and even more distinguished: “All these and five times so many more have bin buried there”, he says, “whose monuments are wholly defaced.”¹³ What Stow is saying is that in these great churches the City had had, right down to his own boyhood, what in modern terminology might be described as Westminster Abbeys in miniature, and that the Elizabethan city was immeasurably the poorer for their loss.

At a time when much money and effort are being devoted to seeing that the part of London’s past that lies buried beneath its soil is not destroyed without examination and record, John Stow’s own competence and interest in such matters deserves not to pass unnoticed. I wish there were time to quote *in extenso* from the remarkable account he has left us of the results of a self-appointed watching brief he carried out in the interests of rescue-archaeology in the 1570’s, on a Roman cemetery site that must have lain only a few hundred yards from where, in the 1970’s, the London and Middlesex Archaeological Society holds its meetings in the Bishopsgate Institute. It is to be found in the *Survey in the section on Bishopsgate Ward*, and I would commend it as illuminating reading for any who may imagine that urban archaeology is an invention of the twentieth century.¹⁴

Finally, let us think for a moment of John Stow and this church of St. Andrew Under-shaft; what he knew of it, what he tells us about it, and what there is to be said of the monument at which in a few minutes we shall symbolise for another year Stow’s legacy to London and London’s debt to Stow. First its name. Stow, good scholar that he was, was always interested in city place-names. This “faire and beautifull parish Church of *S. Andrew*

the Apostle”, he tells us, has the “addition, to be knowne from other churches of that name, of the *Knape* or Undershaft” (Knape, K-N-A-P-E, from Old English “knap” or “cnaep”, meaning the top of a hill, a reminder that it was also commonly called St. Andrew-upon-Cornhill;)¹⁵ and “Undershaft, because that of old time, every year on May day in the morning, it was used that an high or long shaft or May-pole was set up there, in the midst of the streete, before the South doore of the said Church, which shaft when it was sett on ende, and fixed in the grounde, was higher than the Church steeple” (—the tower was then one storey lower than it is today). Though it had not been used since 1517, Stow well remembered seeing the old pole resting on its hooks along the fronts of a row of houses in a passage called Shaft Alley. There it remained until about 1550 when, to Stow’s huge contempt, the puritannical parson of St. Katharine Cree claimed that it was an Idol, and so got it sawn up and burnt.¹⁶

As to the fabric of the church, Stow is himself our authority for its having been rebuilt by the parishioners, structurally very much as we still see it this morning, between the years 1520 and 1532, “every man putting his helping hand”, he records, “some with their purses, other with their bodies: Steven Gennings, Marchant Taylor, sometime Mayor of London, caused att his charges to bee builded the whole North side of the great Middle Ile, both of the body and quier, . . . and also the North Ile, which hee roofed with timber and seeled, also the whole South side of the Church was glazed . . . (at) his costes, as appeareth in every Window, . . . which worke was finished to the glasing in 1529, and fully finished 1532.”¹⁷ The heraldic glass Stow referred to, containing several shields of the old-style arms of the Merchant Taylors, formed the finest surviving collection of pre-Reformation glass in the City, and still filled the aisle windows until it was wisely removed (apart from a few still-remaining fragments) for safety during the last war.¹⁸ We must hope that its replacement will be possible in the not too distant future, for nothing could now do more to bring back the likeness of this beautiful building to the church that Stow would himself have known.

It was this church which became Stow’s own church for the last 35 years of his life, after he moved to his house near Leadenhall in about the year 1570. Here, in 1581, his daughter Julian was married to Peter Towers (who was to become Master of the Company in 1622), and here, in the 1580’s and ’90’s, their eight children, Stow’s grandchildren, were baptised.¹⁹ Two of the boys, Thomas and Gregory Towers, went to the school in Suffolk Lane.²⁰ Tom, the elder, was born in the early summer of 1588, just about the time the Spanish Armada was setting sail for England.²¹ He would thus have been a boy of 14 in 1602, when it fell to Stow’s patron, Sir Robert Lee, to stage the annual triumph which was to be the last Lord Mayor’s Show of Queen Elizabeth’s reign. It must have been well up to standard, for the Company paid the Headmaster of the school the sum of £7 13s. 4d. for the costs of “preparing A Wagon and appareling ten schollers, which did represent the nyne muses and the god Apollo before my Lord Mayor in Cheapside.”²² In the afterlight, one cannot but be tempted to wonder whether the part of the muse of History might not even have been played by old Stow’s grandson, and Stow himself a much contented spectator. Alas, within a twelve-month, young Tom, only 15, was to be buried here at St. Andrew’s,²³ probably a victim of the bad plague outbreak of the summer of 1603.²⁴

Here, too, having reached the age of 80, Stow himself was buried on 8th April, 1605.²⁵ Let our last thought, then, be of the monument which Elizabeth Stow caused to be put up to her husband’s memory.²⁶ It shows him in effigy with three of his own books;²⁷ one, which he is still writing, lies open on a table in front of him, the others rest on either side

of the little alcove in which he is at work; one may suppose that the open volume may indeed not be the *Survey of London*, but rather the *Annals of England*, the revision of which he actually brought down to only ten days before his death.²⁸ Panels to left and right bear the emblems of his craft as an antiquary: two books, one open, one closed; two pairs of crossed spades and leg-bones, to witness to his practical interest in archæological excavation; and, at the foot, a flaming brazier, symbolising the fire of life at which he had warmed his hands to such good purpose. Stow was not armigerous; instead his monument appropriately bears the arms of the Company whose freeman he was, amongst whose brethren he had many good friends and who, as a fitting tercentenary tribute to his greatness, were to undertake its restoration in the year 1905.²⁹ Its epitaph, long wrongly lettered but now corrected, is based on a well-chosen phrase of Pliny:³⁰ AVT SCRIBENDA AGERE, AVT LEGENDA SCRIBERE. "Blessed is the man to whom it is given", wrote Pliny, "either to do things that are worth writing about, or to write things that are worth reading about". Herein John Stow was doubly blest, for surely he did both, and did them both abundantly, and that is why his London still remembers him.

How continuously, or it may be how intermittently, there has taken place since 1605 this little ceremony of the annual renewal of the master's quill I have not discovered. But it has a respectable antiquity, for as long ago as 1828 it is mentioned as something that was then being done regularly.³¹ As we re-enact it today, let us be especially mindful of the antiquities of London-within-the-Walls, and let us, all of us, make it our purpose to preserve and cherish them wherever and whenever it is practicable and beneficial to do so. So "may wee and our posterity", in Stow's own words, "long enjoy the good estate of this Cittie."³²

NOTES

- ¹ *A Survey of London*, by John Stow . . . 1603, pp. iii-vi. The 1598 edition contained an identical dedication, but it was addressed to the Lord Mayor *ex officio* and without name. The inclusion of Sir Robert Lee's name at the head of the 1603 "Epistle Dedicatory" may well reflect personal acquaintanceship through the Merchant Taylors' Company.
- ² Stow was born in 1525, Queen Elizabeth in 1533.
- ³ *Survey of London*, ii, 84-85. This and future references, abbreviated to *SL*, are to C. L. Kingsford's edition of 1908.
- ⁴ C. L. Kingsford, ed., *Stow's Survey of London*, 2 vols., Oxford, 1908. For Kingsford's life, see A. G. Little, "Charles Lethbridge Kingsford, 1862-1926", *Proceedings of the British Academy*, xii, 348-356.
- ⁵ *SL*, i, 126; ii, 288.
- ⁶ *The Survey of London*, by John Stow, Citizen of London, ed. H. B. Wheatley, London, J. M. Dent & Sons, 1912.
- ⁷ Joan Evans, *A History of the Society of Antiquaries* (Oxford, 1956), p. 65 and note.
- ⁸ *A Survey of the Cities of London and Westminster*, By John Stow . . . Now Lastly Corrected, Improved and very much Enlarged By John Strype . . . In Six Books, London, 1720.
- ⁹ *SL*, i, p. xxiv.
- ¹⁰ *SL*, i, 215.
- ¹¹ *SL*, ii, 247-48.
- ¹² *SL*, i, 340-41.
- ¹³ *SL*, i, 319-22.
- ¹⁴ *SL*, i, 168-70.
- ¹⁵ *SL*, i, 143; ii, 292.
- ¹⁶ *SL*, i, 143-44.
- ¹⁷ *SL*, i, 145.
- ¹⁸ For a summary description of the St. Andrew's glass, see *An Inventory of the Historical Monuments in London, Vol. IV, The City* (HMSO, 1929), pp. 6 and 7; for illustrations of the arms of Jennings, Goldwell and the Merchant Taylors' Company, see *ibid.*, Pl. 15.
- ¹⁹ *SL*, i, p. xlvi.
- ²⁰ Mrs. E. P. Hart, ed., *Merchant Taylors' School Register 1561-1934* (2 vols., London, 1936), ii, s.n. TOWERS. It may well be that one or more of the other brothers, Peter (bapt. 1582), Francis (bapt. 1583), Peter (bapt. 1594) and Robert (bapt. 1596), were also at the school, but the records are very imperfect before 1607 (cf. *ibid.*, i, pp. iii and iv).
- ²¹ Thomas was baptised on 2 June 1588 (*SL*, i, p. xlvi); the Armada left the Tagus in the last days of May 1588 (J. B. Black, *The Reign of Elizabeth, 1558-1603* (Oxford, 1936), p. 343).
- ²² F. W. M. Draper, *Four Centuries of Merchant Taylors' School, 1561-1961* (London, O.U.P., 1962), p. 40.
- ²³ *SL*, i, p. xlvi.
- ²⁴ For how the effects of the plague of that year were felt at the school, see Draper, *loc. cit.*
- ²⁵ *SL*, i, p. xlvi.



The John Stow Monument
St. Andrew Undershaft Church, St. Mary Axe, E.C.3 (*National Monuments Record*)

- ²⁶ It is said to be the work of the Southwark monumental mason Nicholas Johnson (or Jansen), who collaborated with the more famous sculptor Nicholas Stone in the fashioning of Sir Thomas Sutton's monument at the Charterhouse (W. L. Spiers, *The Note-book and Account Book of Nicholas Stone* (Walpole Society, vol. vii, Oxford, 1919), pp. 40-41; there is a marked resemblance between the detailing of the flanking pilasters of the Stow monument and the corresponding features of the Sutton monument, Johnson's itemised estimate for which is printed in Gerald S. Davies, *Charterhouse in London* (1921), 347-8.
- ²⁷ In this respect it anticipates Stone's monument to Sir Thomas Bodley at Merton College, Oxford, which is carved to represent the stacks of books whose amassing and presentation to the university was Bodley's crowning achievement.
- ²⁸ *SL*, i, p. lxxxiv.
- ²⁹ F. M. Fry, *The Pictures of the Merchant Taylors' Company* (London, 1907), Appendix B, pp. 149-53.
- ³⁰ *Ibid.*, p. 152.
- ³¹ "The pen in his hand is annually renewed". Thomas Allen, *History and Antiquities of London* (1828). I owe this reference to the kindness of Mr. F. J. Froom.
- ³² *SL*, ii, 195.

OBITUARY

T. A. N. HENDERSON, F.S.A.

Theodore Arthur Newsam Henderson was born in Dulwich Village on 13th June 1906 and was educated at Forest Hill House School and, from 1918–21, at Dulwich College. After leaving school he worked with the Canadian Bank of Commerce both in London and in Canada for some years. In 1931 he married and left the bank to join his father-in-law at Hatchard's, the Piccadilly booksellers, as a junior partner.

During the 1939–45 war he served with the Auxiliary Fire Service and the London Fire Brigade, rising quickly to the rank of Leading Fireman and then Section Leader and Sub-Officer. Much of his service was at sub-stations in the Streatham area where he was then living. For a time, early in the war, he was attached to the Streatham Fire Station which received a direct hit during an air raid. Many of his colleagues were killed but he was uninjured. During the height of the *blitz* appliances from suburban stations would be moved into the City or anywhere in Central London that was being heavily attacked, and he was thus involved in some of the worst of the London raids. Later he volunteered for the Overseas Fire Brigade, but its services were never required.

His connection with the Society began in April 1931 when he joined and was immediately appointed Hon. Treasurer, a post which he held for the record period of 36 years. On completing 25 years of office, he was presented with the Society's Silver Medal, the ceremony taking place at the Centenary Meeting at Crosby Hall on 14th December 1955. Professor Grimes, then President, in making the presentation, spoke of the Treasurer's invaluable services and his sound financial administration over a difficult period. In 1947 he was appointed Hon. Treasurer of the newly-formed Sulloniacae Excavations Committee, and in 1949 he also became its Hon. Secretary. The name was changed to the North Middlesex Archaeological Research Committee in 1952, and in later years it was to a great extent his enthusiasm and devotion which held it together until its final dissolution. He was elected a Fellow of the Society of Antiquaries in 1936 and a Vice-President of the London and Middlesex Archaeological Society in 1949.

Returning to Hatchard's for a short period in 1945, he then transferred to J. & E. Bumpus Ltd., of Oxford Street, until it closed down in 1963. After a period with the Institute of Physics he joined Interscience Publishers, a firm which eventually amalgamated with John Wiley & Sons and moved to Chichester in Sussex. It was this move that brought about the severance of his active connection with the Society in 1967, though he continued to take the greatest interest in all its activities and was always to be seen at the Annual Conference of London Archaeologists. After moving to Chichester he became Treasurer of the Chichester Junior Museum Club and a member of the Chichester Museum Committee. He organised a visit by the Society to Chichester some years ago which was a most enjoyable occasion, and at the time of his death was helping to arrange another such outing in 1974.

He died at his home in Graydon Avenue, Chichester, on 2nd December 1973. Theodore Henderson will always be remembered by the colleagues who worked with him as a loyal and devoted officer of the Society which meant so much to him and which he served for a far longer period than any other Treasurer in its long history.

E.E.F.S.

NEW BOOKS

L. DODI: *L'Urbanistica Romana in Britannia*, Milan 1974, 152 pp. (Price in Britain not stated.)

This book is based on the good idea of a comparative study of Roman towns in Britain, but its execution, both in its scope and presentation, leaves a great deal to be desired. About half the book is taken with an historical summary and detailed and largely irrelevant examination of military establishments of various types. The remainder of the book examines the major towns of Britain: London, Colchester, Silchester, etc., but by omitting the small towns and settlements where evidence for Roman "town-planning" is also evident, leaves half the job undone.

The serious criticisms, however, must be reserved for the inaccuracies contained in the written information and presented in the illustrations. In the London section, for example, a variety of dates for the building of the city wall is offered, ranging from Boudicca to the late third century. Little serious selection of the facts seems to have been attempted, and even the bibliography for London omits two essential works: the Royal Commission volume of 1928, and Professor Grimes' *Excavations of Roman and Medieval London*. The illustrations for the London section also demonstrates their general shortcomings: Figs. 35 and 36 are an outline plan of the Roman city and a plan of the forum/basilica area (wrongly captioned) and are taken from Ralph Merrifield's book (1965); Fig. 37 is a re-drawn map indicating the Roman defences and includes all the bastions (Roman and Medieval), a diagonal cross-wall in the S.W. Corner and apparently a riverside defensive wall. (This map is also unfortunately featured on the cover of the book.) Fig. 38 is a photograph of a model of part of the Barbican scheme, nine-tenths of which lies outside the Roman city; Fig. 39 is a photograph of the south face of the city wall at St. Alphage showing post-Roman rebuilds.

In general, the idea behind the book is good, but the many inaccuracies make it impossible to recommend it.

Hugh Chapman.

DAVID JOHNSON: *Regency Revolution: The Case of Arthur Thistlewood*. Pub.: Compton Russell Ltd., Compton Chamberlayne, Salisbury. 182pp. 8pp. of plates. £2.75.

An attractively-produced publication in which the author tells in great detail the story of Arthur Thistlewood, the "British Jacobin", who planned to butcher the Cabinet and make himself President of the English Republic. The illustrations are particularly good.

L.S.S.

ORDNANCE SURVEY: 1973. *Field Archaeology in Great Britain*. £1.50.

This is the fifth edition of the Ordnance Survey's Guide to Field Archaeology. It contains, *inter alia*, a summary account of the nature and scope of archaeological field work, an account of the place of archaeology within the work of the Ordnance Survey, and an illustrated note on the importance to the archaeologist and the historian of a proper appreciation of the perspective of time. The rest of the book is given over to a chronological review of the kinds of antiquities found in Britain from the Palaeolithic, the Old Stone Age, to the Industrial Archaeology of recent centuries. The book is illustrated with 30 line drawings depicting the ground plans of a variety of representative antiquities, ranging from Stone-Age tombs to Medieval earthworks, and concludes with a comprehensive bibliography and index. A most valuable publication.

L.S.S.

A. L. HUMPHREYS: *A Handbook to County Bibliography*. Dawsons of Pall Mall, 1974. 501pp. £12.00.

Published in 1917 as a bibliography of bibliographies relating to the counties and towns of Great Britain and Ireland, this valuable book has now been reprinted, and will be of great service to local historians and others engaged in research. The book is well printed and strongly bound, as befits a work of reference. Unfortunately the price is such that few individual researchers will be able to afford one. London and Middlesex are well represented.

L.S.S.

JOHN RICHARDSON: *The Local Historian's Encyclopedia*. Historical Publications, New Barnet, 1974. 312pp. £1.50.

This splendid new paperback encyclopedia will be welcomed by all students of local history. It provides an easy reference to the basic information needed by local historians and genealogists. Its 18 sections deal with land and agriculture, the local community, taxes, services and rents, archives and printed records, social welfare, education, law and order, etc. Tables of regnal years and a Latin word-list are also included.

L.S.S.

STOP PRESS

As we are going to press the President and Council learn with deep regret of the death of Miss Marjorie Honeybourne, M.A., F.S.A. on 12th November, 1974.

An Obituary will appear in the next issue of Transactions.

CONTENTS

Officers	i
118th Annual Report and Accounts, 1972-1973	iii
Excavations at Toppings and Sun Wharves, Southwark, 1970-1972. <i>By Harvey Sheldon</i>	I
Excavations at The Custom House Site, City of London, 1973. <i>By Tim Tatton-Brown</i>	117
Excavations at Christ Church, Newgate Street, 1973. <i>By Tony Johnson</i>	220
Excavations for Stane Street in the Clapham Area, 1966-71. <i>By Donald Imber</i>	235
Excavations at Brockley Hill, Middlesex, March-May, 1972. <i>By Stephen A. Castle</i>	251
A Medieval Deposit from 224-246 Borough High Street, Southwark (TQ 3234 7967), London. <i>By F. S. C. Celoria and J. C. Thorn</i>	264
Three Roman Objects from the City of London. <i>By Hugh Chapman</i>	273
A Late Bronze Age Pin from Brentford. <i>By Francis Celoria</i>	278
Two Pit Groups in the City of London. <i>By Peter Marsden</i>	282
A Fifteenth-Century Middlesex Terrier. <i>By Douglas Moss and Ian Murray</i>	285
The Edwardian Inventories of Middlesex. <i>By Lawrence S. Snell, M.A., F.S.A., F.R.Hist.S., F.R.S.A.</i>	295
The Brasses of Middlesex, Part 15: Hayes. <i>By H. K. Cameron, M.A., Ph.D., F.S.A.</i>	303
An Address given at the Pepys Commemoration Service in the Church of St. Olave, Hart Street in the City of London, 6th June, 1974. <i>By Hugh Trevor-Roper, M.A., F.B.A., F.R.Hist.S.</i>	310
John Stow and His Monument. <i>By A. J. Taylor, C.B.E., M.A., D.Litt., F.B.A., Dir.S.A., F.R.Hist.S.</i>	316
Obituary: <i>T. A. N. Henderson, F.S.A.</i>	322
New Books	323
Stop Press	324