

Transactions  
Volume 29 1978



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**London & Middlesex Archaeological Society**

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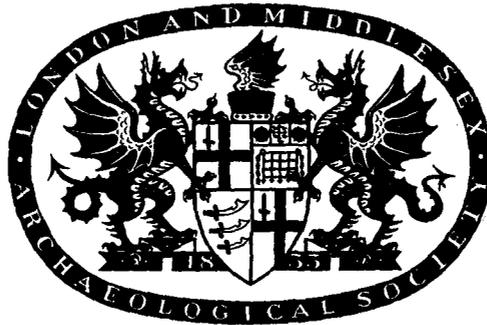
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*Volume 29*

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# London & Middlesex Archaeological Society

*incorporating Middlesex Local History Council*

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# London & Middlesex Archaeological Society

*incorporating Middlesex Local History Council*

122nd ANNUAL REPORT OF COUNCIL FOR THE YEAR ENDING  
30th SEPTEMBER 1977

The year saw the beginning of the move of the Society's activities from the Bishopsgate Institute to the Museum of London. Meetings of Council and of several of the committees were held at the new venue from January, as were the Archaeological Conference in March and the new season of lectures opening in September. Volume 27 of *Transactions* appeared in February, and three numbers of the *Newsletter* were issued.

The Annual General Meeting on 23rd February was followed by the Presidential Address by Mr. R. Merrifield on *Art and Religion in Roman London*. Seven other lecture meetings were held, opening with Mr. K. Whitehorn on *Anglo-Saxon Jewellery* on 20th October, and *The Greek and Early Roman Theatres in the Eastern Provinces* by Mr. R. C. Jarvis on 17th November. More local topics were those of Dr N. J. Kerling, *St. Bartholomew's Hospital*, on 8th December, and Mr. R. M. Robbins, the George Eades lecture *The First Railways in London*, on 19th January. Geographically, subjects ranged from *The Yemen* by Mrs. Hellings-Jackson on 2nd March to *Historical Clapham* by Mr. E. E. F. Smith on 20th April. The first of the Society's lectures at the Museum of London was by Mr. D. Sturdy on *16th and 17th Century Fortifications in the London Area* on 23rd September.

The Stow Commemoration Service took place on 20th April, the Church of St. Andrew Undershaft having been sufficiently restored after the fire of the previous year; the address was given by Mr. L. S. Snell. On 25th May Sir Bernard Miles gave the address at the Pepys Commemoration Service at St. Olave, Hart Street.

Seven visits were arranged during the year: to *Staple Inn* on 16th October, *Lambeth Palace* on 2nd December, *Churches in the eastern half of the City* on 19th February, *Croydon Palace and area* on 12th March, *Norman West Middlesex* on 30th April, *Sandwich, Richborough and Faversham* on 18th June and *Hertford and Bengeo* on 17th September. Duplicated programme-guides were available for several of the visits.

## **Archaeological Research Committee**

The Committee had an active year, with work continuing on its main projects. At Staines, the Society's Field Officer carried out excavations on two large sites south of the High Street. This work revealed evidence of small timber-framed buildings of the 1st and 2nd centuries fronting the Roman road.

The Committee of Borough Secretaries was expanded over the year to include representatives from all active groups working within the Society's area.

The 14th Annual Conference of London Archaeologists was held at the Museum of London on 19th March with maximum attendance. Topics included reports on excavations at the Tower of London, Keston, South-West London and Hampstead.

## **Inner London (North) Archaeological Unit**

The Unit carried out further excavations on a site at Shadwell adjacent to the Roman signal station excavated in 1974. Traces of two buildings of late 3rd-4th century date were revealed as well as a number of earlier cremations. Trial trenching was carried out in most of the seven Boroughs covered by the Unit and exhibitions were mounted on the work of the Unit in Kensington, Westminster, Hackney and Camden. A booklet was published on the *Archaeology of Hackney*, with work on two similar publications nearing completion. Reports on the Unit's excavations at Butcher Row, Ratcliffe, and the observation of the redevelopment scheme at 20 Dean's Yard, Westminster Abbey, together with notes on all sites excavated from 1974 to 1976, were completed for publication.

## **Historic Buildings and Conservation Committee**

The main pre-occupation of the Committee continued to be the examination of all applications for Listed Buildings Consent or in respect of major building works in Conservation Areas in London, which are statutorily notified to the C.B.A., and objection to undesirable proposals.

During the year, notification of applications ran at a relatively depressed level of about one a week, enabling even the most trivial to be considered at the regular meetings of the Committee, though because of the unduly short time allowed for making representations most cases were dealt with initially between meetings.

The most important current concerns are the continuing saga of Liverpool Street and Broad Street Stations, the long awaited result of the Public Enquiry being still unknown at the time of writing, and the alterations to the roofs and Trafalgar Square front of the National Gallery. The unending threats to substantial parts of the Bow Lane Conservation Area in the City remain a cause for concern.

The major defeat of the year was the loss of the battle for Wyke House, Syon Lane, Hounslow, due to gross neglect and dilapidation. On the positive side, permission was refused for the demolition, amongst others, of 17 Folgate Street, City, and Woolwich Methodist Church.

### **Local History Committee**

The year was one of consolidation and modest progress. The 11th Annual Local History Conference was held at Guildhall on 20th November, the principal speaker being Mr. Charles Hill, the transport historian, who spoke on sources and techniques for studying this aspect of local history. Two short talks were given by Miss M. Y. Williams, on the Surrey Collection at the Minet Library, Lambeth, and Mr. Stephen Marks, who spoke of the hard work and personal satisfaction to be obtained from working on one's own—in his case on the history of Camberwell.

The Committee published the results of its second survey into local history research and publications in London, covering the years 1974–75. Apart from showing the wealth of original work being undertaken by societies and individuals, it is hoped that these surveys will foster co-operation between researchers in similar fields in different parts of London.

Two new members joined the Committee during the year, a representative of the Greater London Industrial Archaeology Society, and Mr. Tom Hastie, of the I.L.E.A. History and Social Sciences Teachers' Centre, who will strengthen the Committee's links with history teachers and schools.

### **Youth Section**

The Youth Section, having been revived under the leadership of Mrs. Elizabeth Newbery, had reached a total membership of fifty at the end of the year. Two Newsletters were issued during the year, and activities included a visit to the Museum of London shortly after its opening, and an "Archaeology Day" organised jointly with the Museum during which the group were involved in a "miniature dig" devised to demonstrate the various stages of an excavation and what might be encountered, as well as a talk on archaeology and a visit to the Roman Fort gate and wall. Predictably the session proved very popular.

### **Membership and Finance**

Total membership at 30th September 1977 was 820, made up of 659 individual Members, including 10 Honorary Members, 30 Student Members and 11 Junior Members, together with 122 Institutional Members and 39 Affiliated Societies.

The Society's total income rose by almost £250 over the previous year's figure and, with no additional publications, there was a surplus for the year of £228. The cost of the publishing programme for the current year and the likely shortfall in investment income following the transfer of funds to the new company are covered by the increase in subscription rates from 1st October 1977 and the financial outlook is now satisfactory. With the formation of the company London and Middlesex Archaeological Projects, it ceases to be appropriate for a detailed statement of income and expenditure on archaeological projects to appear in the Society's accounts, but the Treasurer will furnish that information to any member who may wish to have it.

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

By direction of Council

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# Excavations at London (Heathrow) Airport 1969

Roy Canham, with contributions from Alison Laws and Margaret Sutton

## PART I THE EXCAVATIONS

### INTRODUCTION

The airport is situated in the centre of the wide plain that forms the south western corner of Middlesex, straddling a gravel ledge that slopes gently from around 25m OD on the Bath Road to 20m at West Bedfont (Fig. 1). The southern border of the feature is clearly seen in the fields south of the airport where the land drops away steeply to the level of the Floodplain Terrace. The formation of this ledge is generally assigned to the Taplow stage of the Ice Age. It is clear from the geological map of the area and from inspection of gravel pits and trench sections that much of the surface of the gravel is covered by a sheet of brickearth.

The principal runways of the airport were, as first designed and constructed, a little under 3000m in length. The more southerly of these (No. 5 runway) was extended by 800m in 1959 for the use of heavy long-range jet aircraft. During winter 1968-69 work was started on an extension to the No. 1 runway (which is sited close to the Bath Road on the northern perimeter) to meet the requirements of the new generation of aircraft expected to enter service in the 1970s (Fig. 1). From planning lists received at the then London Museum and from information published in the press, it was realised that a massive amount of earthmoving was to be undertaken in an area likely to have been occupied for several thousand years. The scheme involved the construction not only of the runway extension (over 1000m long and 42m wide) but also the taxiways, new perimeter road and a vast aircraft-holding area (Pl. 1). In addition many trenches were to be cut for storm-water drains and electricity cables.

An approach was made to Sir Peter Masfield, at that time chairman of the British Airports Authority, who immediately gave permission for regular inspection of the engineering works in order to record any traces of ancient settlement. Museum staff worked in conjunction with members of the West London Archaeological Field Group to ensure frequent tours of inspection. The discoveries described below all resulted from this operation, for no archaeological sites were previously recorded from the area of the extension.

The contractors for the project, Richard Costain Ltd., proved sympathetic towards the requirements of archaeology and temporarily diverted work from certain areas where excavation seemed desirable. In most cases this amounted to a respite of no more than a day or two, for numerous discoveries were made within the runway cutting where the principal effort of the construction project was concentrated.

Sherds collected during the scraping of the runway extension suggested that a settlement of some duration had once existed in the area. The dating material ranged through the iron age and Romano-British period, and included a number of worked flint items of neolithic or bronze age date. Attempts to gather information were rendered haphazard by the speed of

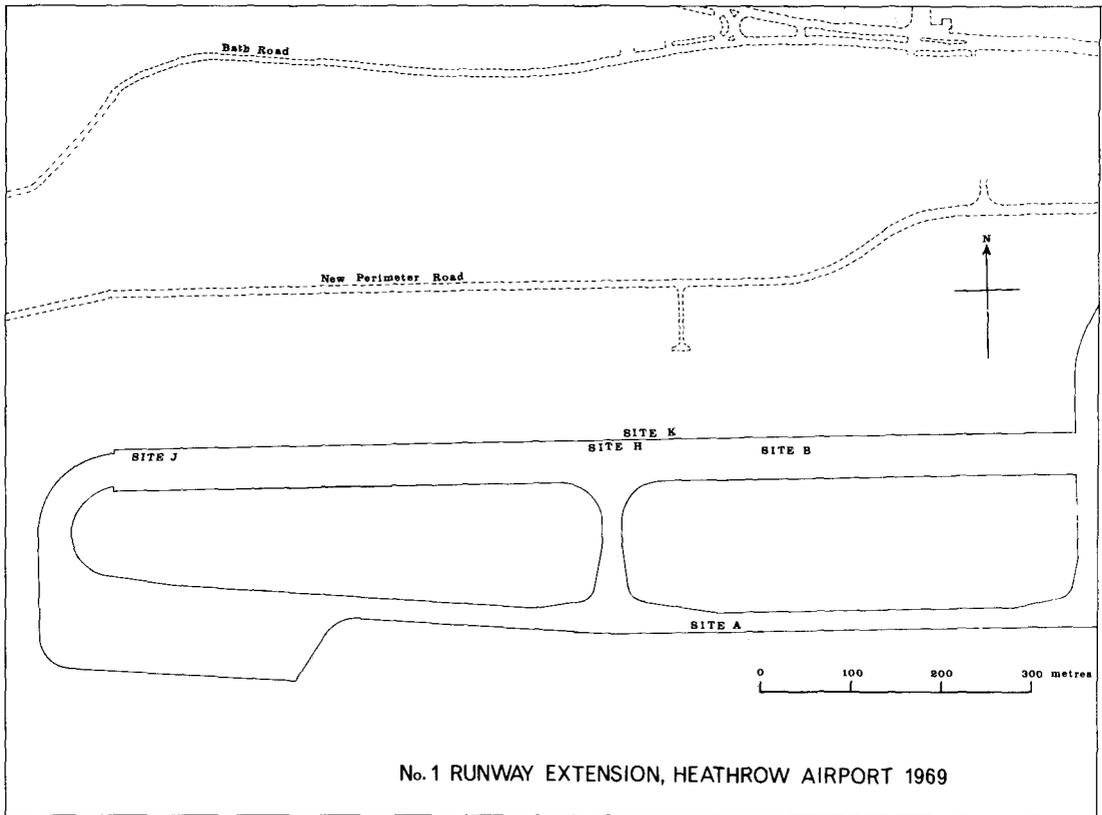
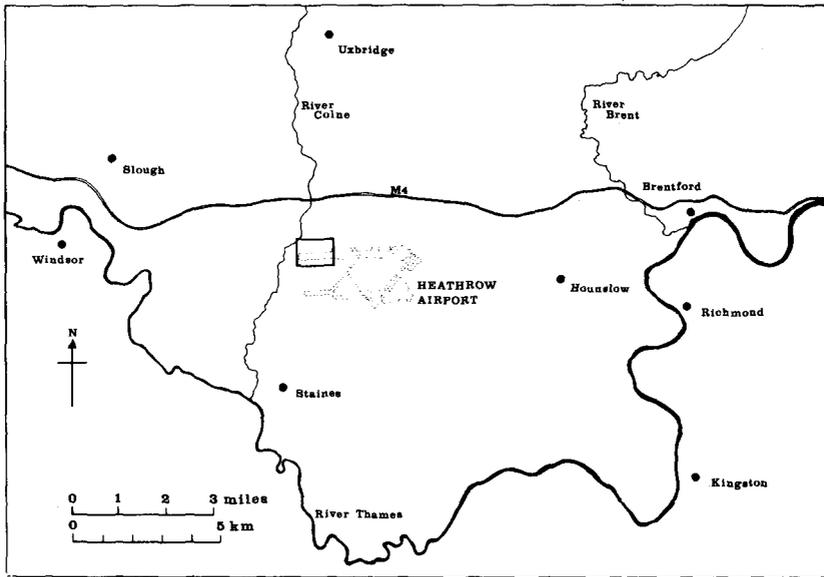


Fig. 1. Heathrow: Site Location maps.

earthmoving and the wet conditions of March and April 1969. In certain places excavation was conducted from an undisturbed or partially scraped level, in others from a much reduced level at the surface of the gravel. In the latter cases only deep-cutting features survived, since a bed of brickearth was removed together with the topsoil and the shallower aspects of habitation were thereby destroyed.

## HISTORICAL BACKGROUND<sup>1</sup>

BY ALISON LAWS

The excavations were located on land that was until recently in agricultural use south of the Bath Road and south-east of the village of Longford. The area was originally part of the ancient parish of Harmondsworth within the hundred of Elthorne. This parish incorporated the settlements of Longford, Heathrow, Perry Oaks and Sipson until 1946 when the airport opened for civilian use obliterating the farms of Heathrow and Perry Oaks. Until the building of the airport, the area was open agricultural land with the large expanse of Hounslow Heath occupying its eastern side and a network of rivers emanating from the River Colne on its western border.

Of the present day tributaries of the River Colne, only two streams are original. In the north-west of the parish, the Bigley Ditch leaves the Colne at West Drayton and west of Harmondsworth village joins the Wyrardisbury River, and the Poyle Mill stream which also left the Colne at West Drayton. The Duke of Northumberland's River which crossed the line of the runway extension some 300m west of the main area of excavation, and the Longford River, are both artificial running east and west respectively of Longford village. The Duke's River (formerly called the Isleworth Mill River) was constructed to increase the water driving Isleworth Mill in or about 1543. It has been suggested however, that the cut was made along the course of a much earlier stream and this possibility is substantiated by the fact that a bridge known as Longford Bridge was in existence as early as the 14th century. It has also been suggested that Longford Bridge once stood in the place of either Mad Bridge or High Bridge further to the west. The Longford River was constructed by Charles I to improve the water supply at Hampton Court and did not receive its present name until the 20th century having been called the New River, King's River, Queen's River, Cardinal's River, Hampton Court Cut/Canal. In the late 1940s to help with the building of Heathrow Airport both the Duke's River and the Longford River were diverted southwards into a single channel.

The name of the parish first appears in Domesday Book as 'Hermodesworde' (Hermode's Farm) although an earlier document refers to a grant made by Offa, King of Mercia in the 8th century (probably AD 780), consisting of land in the place called Hermonds in the Middle Saxon Province. The manor at Harmondsworth belonged to the Earl Harold under Edward the Confessor and was given by William the Conqueror to the Abbey of Holy Trinity at Rouen. In the reign of Edward III it was seized by the crown whence it passed to Winchester College, was seized again by the crown under Henry VIII and eventually descended to the Earls of Uxbridge. The Benedictine priory of Harmondsworth once stood to the south west of the surviving tithe barn which is of 14th or 15th century date.

The only medieval settlement to grow up along the Bath Road was at Longford, *c.* 1.5km north-west of the excavations and there is evidence of settlement here by 1337. A medieval hamlet known as Southcote was in existence in 1265. Its position is not accurately known but it has been suggested that it lay in the south-west of the parish. In the 15th century it

became known as Southcoterow and also about this time the settlement at Heathrow became established. Both settlements are mentioned in a rental of 1493-1494 but thereafter Heathrow appears alone. Perry is mentioned as a hamlet in 1354 although there is a suggestion that this reference is in fact to Southcote and not the settlement at Perry Oaks as that name is not mentioned again until the 16th century. The settlement at Sipson, well established by 1337 lay in the north-east of the parish.

The first definite picture of the parish is supplied by Rocque's map of 1754. Houses are shown at Longford, Sipson and Harmondsworth, Perry Oaks and Heathrow. The uncultivated area west of the rivers was known as Harmondsworth Moors although south of the Bath Road the area between the Colne and the Longford rivers was meadowland and arable land lay between the Longford and the Duke's River. The latter also covered the rest of the parish to the eastern boundary north of the Bath Road and the Heathrow Road in the south. John Middleton, writing in 1798<sup>2</sup> describes the area lying between the Hounslow to Colnbrook Road on the north and the Thames on the south as being loamy sand or dry turnip and barley land containing 1-3 feet deposit (presumably brickearth) resting on gravel. He continues 'All the land to the south of the road passing from Brentford through Hounslow to Longford is so nearly level as to have no more than a proper drainage and much the greater part of it is less than 10 feet above the surface of the river and not more than 3-5 feet above the level of the rivulets flowing through the district.'

The agricultural coverage of the area appears to have changed very little over the last few hundred years. The first Ordnance Survey map of 1868-1881 shows the area of the excavations divided into large open fields which apart from a few boundary changes appear to have continued in use up until acquisition by the British Airports Authority.

## THE EXCAVATION

The following notes are intended to clarify the confusing picture represented on the general plan (Fig. 2).

*Site A* a segmented ring-ditch, found during the scraping of the taxiway cutting.

*Site B* a series of small trial trenches, dug during a pause in the scraping of the runway extension when flooding rendered machine operations impossible.

*Site C* observation and recording of features exposed in storm water drain trench.

*Site D* examination of the gravel base after scraping of the runway extension, and excavation of features thus revealed (same area as Site B).

*Site H* a ring-ditch, found within the runway extension following machine scraping.

*Site J* excavation of a solitary pit in the scraped runway extension, towards its western limit (Fig. 1).

*Site K* excavation of an area adjacent to the northern edge of the runway.

Information relating to settlement was gathered principally from Site K. Sporadic discoveries during the engineering works showed that the occupation area extended beyond the northern edge of the main cutting and it was at first assumed that little damage would occur in this region. Apparently, the ground in this area projected slightly above the proposed runway surface and the decision was made to lower the level. Topsoil was removed by mechanical means and several weeks spent in excavating the traces of settlement thus exposed. This provided something of a counter-balance to the 'salvage' conditions encountered in the rest of the work.

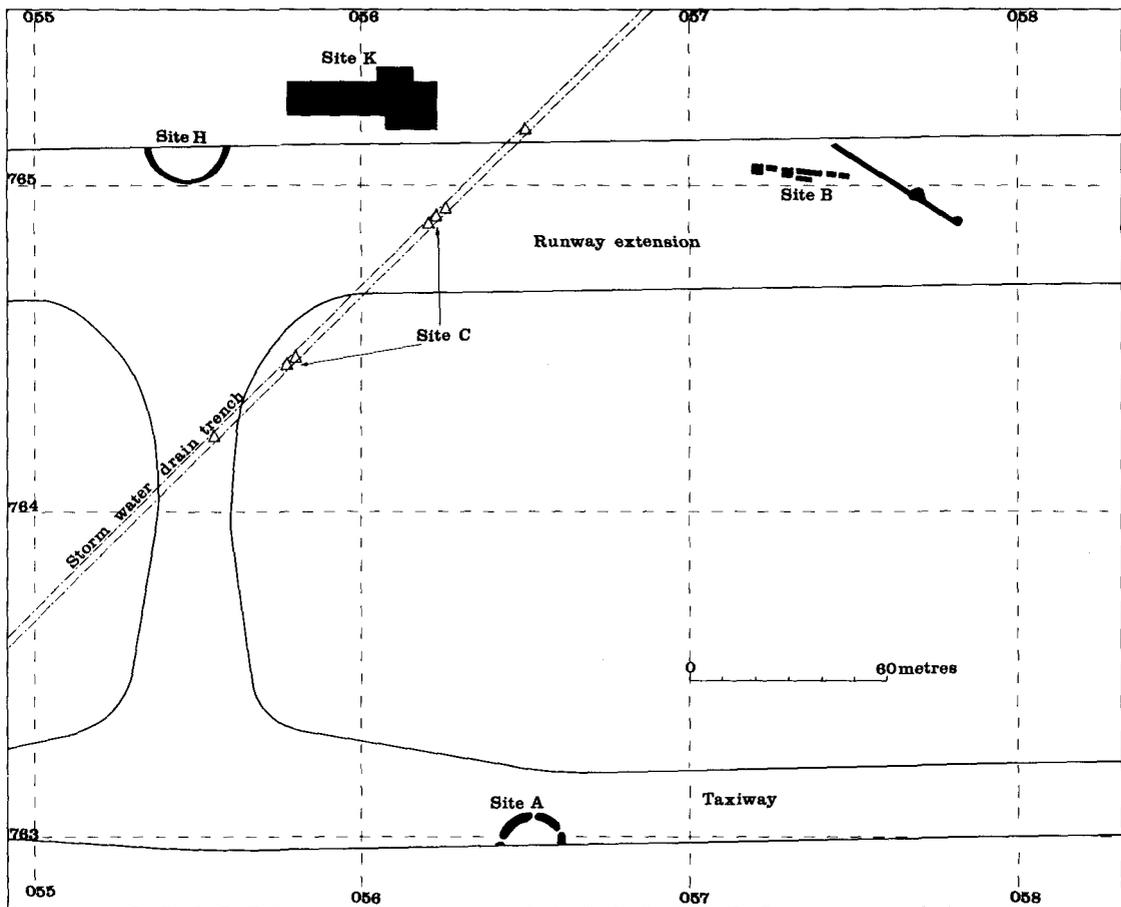


Fig. 2. Heathrow: Location of the excavations.

A general impression that must be recorded in relation to Site K concerns the degree of preservation. Topsoil was removed by mechanical means in order to provide reasonably speedy access to features, and during this process concentrations of domestic refuse were noted at certain spots. Ultimately it was confirmed that these were the positions of prehistoric pits. In spite of many years of agriculture, it may be confidently stated that the archaeological deposits still survived well above the top of the bedrock.

On exposing the brickearth surface, a wealth of detail could be observed. In many cases only partial excavation was attempted for there was no certainty of the length of time available for work. The following description is presented in chronological order, and includes not only features of the main excavation (Site K) but related discoveries made in other parts of the engineering works.

#### INDICATIONS OF BRONZE AGE MONUMENTS

The principal deposits exposed during the project related to settlement in the early iron age. However, there were in places features lacking the usual collection of iron age pottery and these appear to have belonged to the second, rather than the first, millenium BC.

## THE SEGMENTED RING DITCH (Site A)

During February inspection of the work for the new taxiway resulted in the discovery of a semicircular feature located against the southern edge of the cutting (Fig. 3). The following weekend was set aside for examination, since it was known that all soft fillings observed within the gravel base were to be removed by machine and filled with rammed aggregate.

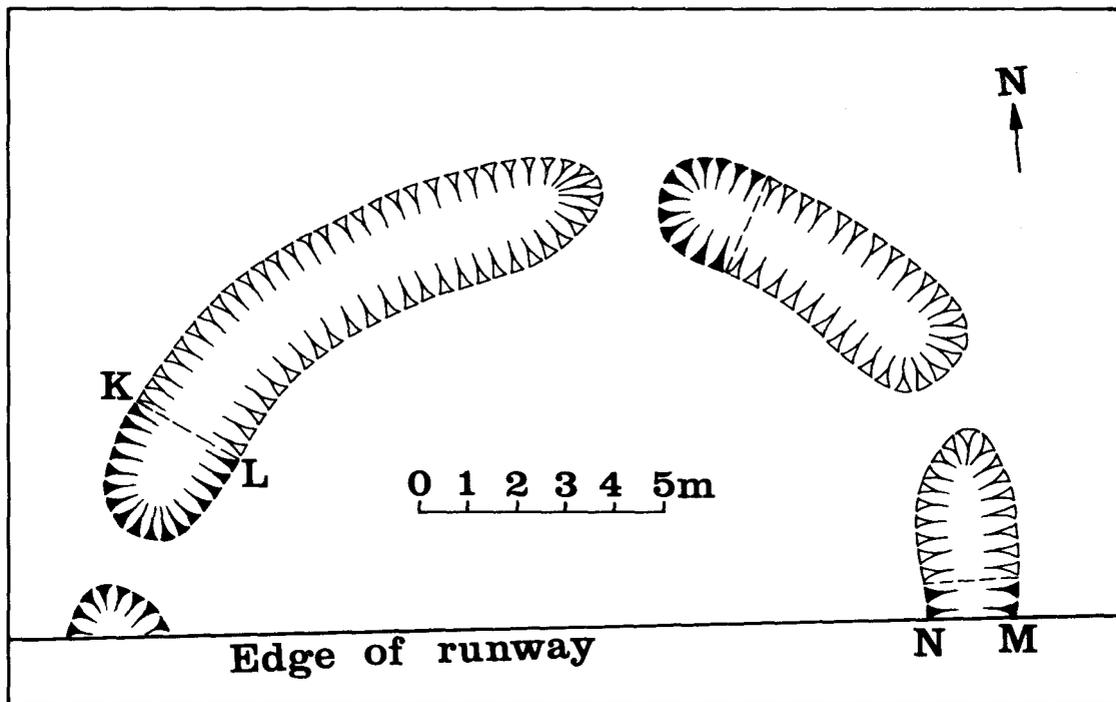


Fig. 3. Heathrow: Plan of ring-ditch, Site A.

Following a general clean-up of the gravel surface and the cutting of four narrow sections, the feature was revealed to be a ditch consisting of short, curving segments. It had been somewhat truncated in the vertical plane by the machine cutting of the taxiway, but was distinguished from the gravel matrix by its dense clay filling. Within the stripped area two complete segments and the ends of two others were exposed. The gaps or causeways between segments were of near-identical width, roughly 1.2m. The segments averaged about 2m in width by 0.6m in depth from the base of the plough-soil. The distinctively heavy and compact ditch filling, consisting of a thin lining of yellow clay and a main filling of brown clay, is somewhat difficult to explain. Though it is close in character and colour to the local brickearth, this cannot have been its origin for in the immediate vicinity of the feature, the gravel bears no brickearth capping. Further intrigue is added by the observation that very little gravel was present in either layer of the filling. Perhaps a brickearth deposit formerly existed in this area but has been totally admixed with the plough-soil by the action of cultivation.

It may be relevant that the sections (Fig. 5, K-L and M-N) suggest two points concerning the history of the feature. Firstly, the thin lining of yellow clay, the primary silt, had an unusual profile, in that it lacked the concentration of silted material normally to be found in the ditch base and extended without noticeably thinning up the sides. There is thus a strong implication that the ditch had been re-excavated at some period, resulting in the partial destruction of the primary silt profile. Secondly, at the interface of the archaeological deposits and the plough-soil (as seen in the section taken at the edge of the taxiway cutting, M-N) there was a marked truncation of the ditch filling. No doubt this resulted from constant

ploughing of the site, but there is reason to believe that this took place in the distant past (a point discussed below) since a number of prehistoric features investigated nearby were preserved to a significantly higher level.

On the theory that the feature was a ring-ditch (of about 20m in diameter) a slot was cut into the adjacent undisturbed area in order to search for remains of a burial, but nothing resulted. There are in fact other possible interpretations for the ditches which are discussed in the general conclusions below. Finds from the filling consisted of a few flint flakes, waste products of a date impossible to determine with great exactitude.

#### THE RING-DITCH (Site H, Fig. 4)

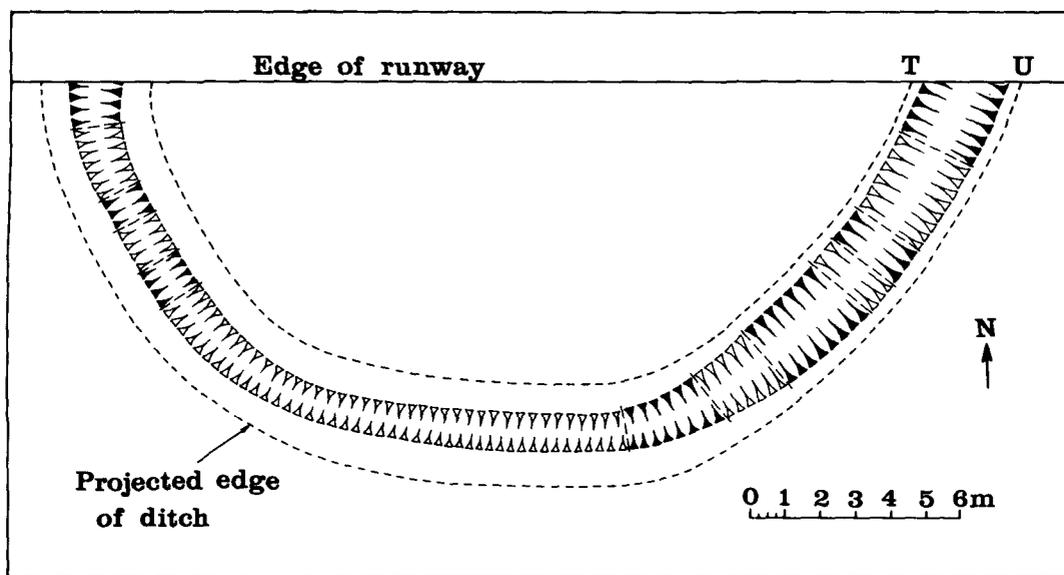


Fig. 4. Heathrow: Plan of ring-ditch, Site H.

Within the cutting for the runway extension, part of a ring-ditch emerged. Its appearance contrasted so much with the gravel bedrock that it was first reported by the machine drivers. Since the brickearth capping (approx. 0.40m thick) was removed in the earthmoving, the feature was examined in a reduced state. The apparent diameter of the ring-ditch was 30m, the width and depth of the ditch being 3m and 1.4m respectively (as recorded at the edge of the cutting). An intermittent spread of coarse gravel in the base of the ditch was sealed by a primary silt of yellow clay containing a few waste flint flakes. The secondary silting consisted of a dense clay, blue-brown in colour. Above this, and sealed by the plough soil, a deposit of mixed soil and gravel was noted (Fig. 5 T-U). This too contained waste flakes.

The upper filling was sited assymmetrically in the ditch against the inner edge. This implies that material was derived from a central mound, presumably demolished when the land was given over to agriculture. There is thus a strong possibility that the feature was a bronze age bowl-barrow. No indications of a burial or other internal feature came to light. The centre of the barrow lay within undisturbed ground beyond the edge of the cutting.

#### THE EVIDENCE OF SETTLEMENT

Information concerning successive phases of settlement activity is drawn principally from site K (Fig. 6), with additional observations from sites B, C, D and J (see Figs. 8, 9 and 12).

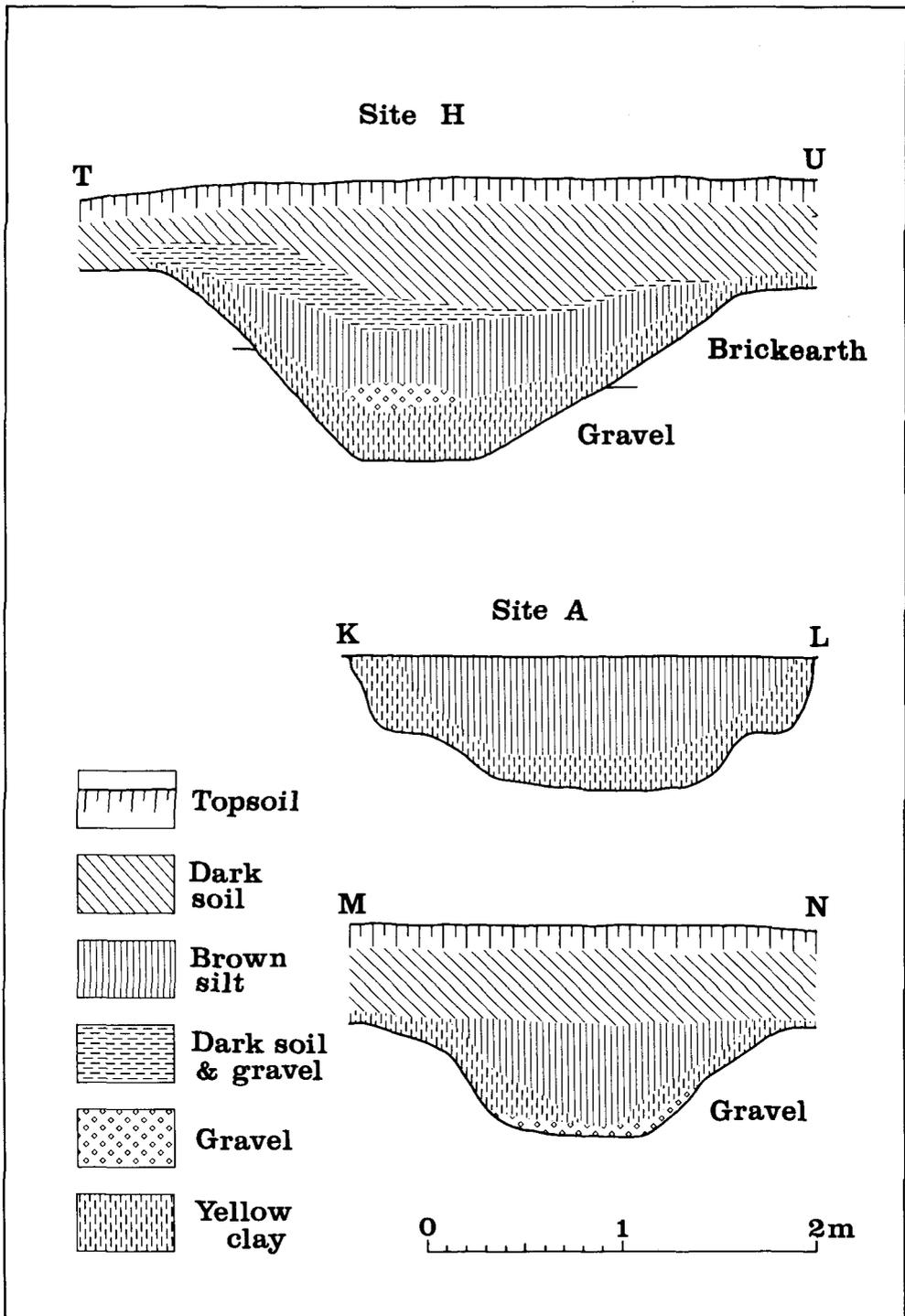


Fig. 5. Heathrow: Ditch sections, Sites A and H.

PHASE I: neolithic or bronze age

Amid the complex of early iron age features on Site K, the vague outlines of a ditch were discerned which proved difficult to excavate owing to the similarity of its filling to the brickearth. It was established that early pre-Roman iron age pits cut this ditch, that it was approximately 2m wide, and that it had been dug with a V-shaped profile. The few worked flints from its filling cannot be dated with great precision. Tiny fragments of pottery or daub in its upper fill did nothing to clarify the problem of its origin or date. It appeared to be a straight rather than curving feature, aligned roughly east-west.

PHASE II: early pre-Roman iron age

The features excavated on Site K were in the main characterised by the presence of shouldered jars and angular shouldered bowls of a widely recognised type, These forms, together with associated debris of occupation, formed the substantial part of evidence recovered from our investigations.

The features consist almost totally of pits and hollows, a combination found on other settlements of this period. The single structural element consisted of a line of three post-holes, situated between the two large hollows on Site K (Fig. 6). Little can be offered by way of interpretation of these save to refer to the two-post arrangements which have been regarded as possible drying racks, and were first recognised at Little Woodbury in Wiltshire.<sup>3</sup>

The pits

Twenty two pits of this phase were recorded within Site K. Another (Feature 19) was noticed during the earthmoving that finally destroyed the site and was rapidly dug out but not planned. A further pit of large type was located during work within the runway area on Site B, and another was found in complete isolation some 500m from Site K towards the western limit of the works (Site J; see Fig. 1). A distinct pit-cluster is observable on the plan of Site K. The majority of the pits were circular and about 1.5m in diameter. Depths varied from a shallow example a mere 0.06m deep to almost 2m in the case of Feature 22. There was a certain variety of form, but the greater number were of a simple type with flat bases and steep sides (Fig. 7, Features 8 and 10). Two pits exhibited a distinctive profile which included a broad base and undercut sides forming a constriction just below the surviving surface (Features 3 and 19 for section of 3 see Fig. 7). Two related types (Features 1 and 7) also possessed undercut sides, though the expansion was restricted to a portion of the bottom circumference.

Three of these early period features had interior characteristics of an unusual kind. These can best be described as steps or ledges, disposed either concentrically or in chord-like fashion with respect to the pit outline (Pls. 2 and 3).

The filling of almost all pits contained occupation refuse. Pottery varied in quantity from a handful of sherds to the shattered remains of complete vessels (Features 19 and 21). Fragments of burnt daub were common, calcined flints occurred sporadically (in large quantities in Feature 22), ash and charcoal appeared intermittently as lenses in the filling or had been mixed with earth. An absence of silt in the pits indicates that they were deliberately filled.

Two pits with distinctive characteristics came to light at some distance from the cluster on Site K. The first of these, Feature 22, was encountered in the small trial trench dug into the partially stripped topsoil on Site B, within the main runway cutting (Fig. 8). This was at a point some 120m from the pit-cluster on Site K. The feature was large, 3.5m in diameter, 2m in depth. The lower part of the filling at least was derived from deliberate filling and included a huge number of calcined flints. These apart, there was scarcely any material relating to settlement activity. The other pit occurred in total isolation, some 500m west of Site K (Fig. 1, Site J). It was oval in plan (1.7m x 1.20m, Fig. 9) and just under 1m in depth. Internally, the pit possessed a central chamber flanked by two ledges. Its filling was composed of a dense clay, and contained a carbonised wooden stake together with the remains of a large shouldered jar. The latter fragments were scattered in unusual manner around the lower walls and base of the central chamber.

The hollows

There were four features of this category, each possessing characteristics singular to itself. A brief individual description will help to clarify the essential differences.

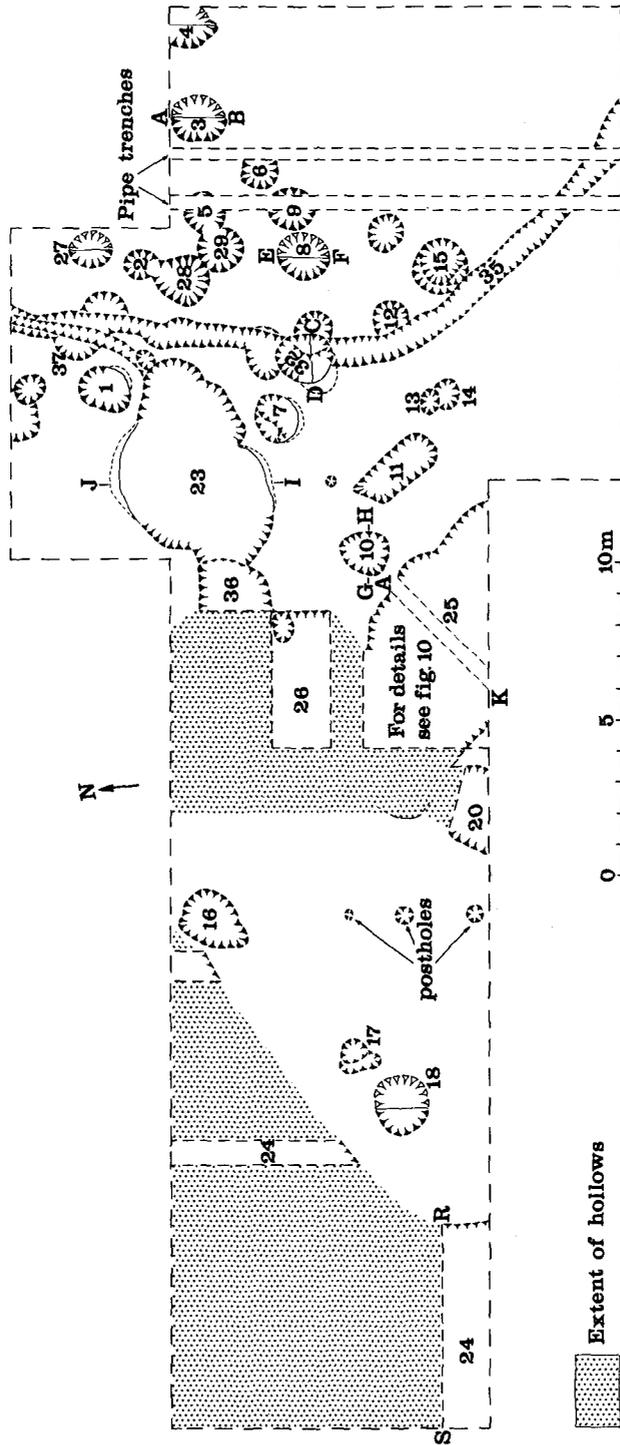


Fig. 6. Heathrow: Plan of Features, Site K.

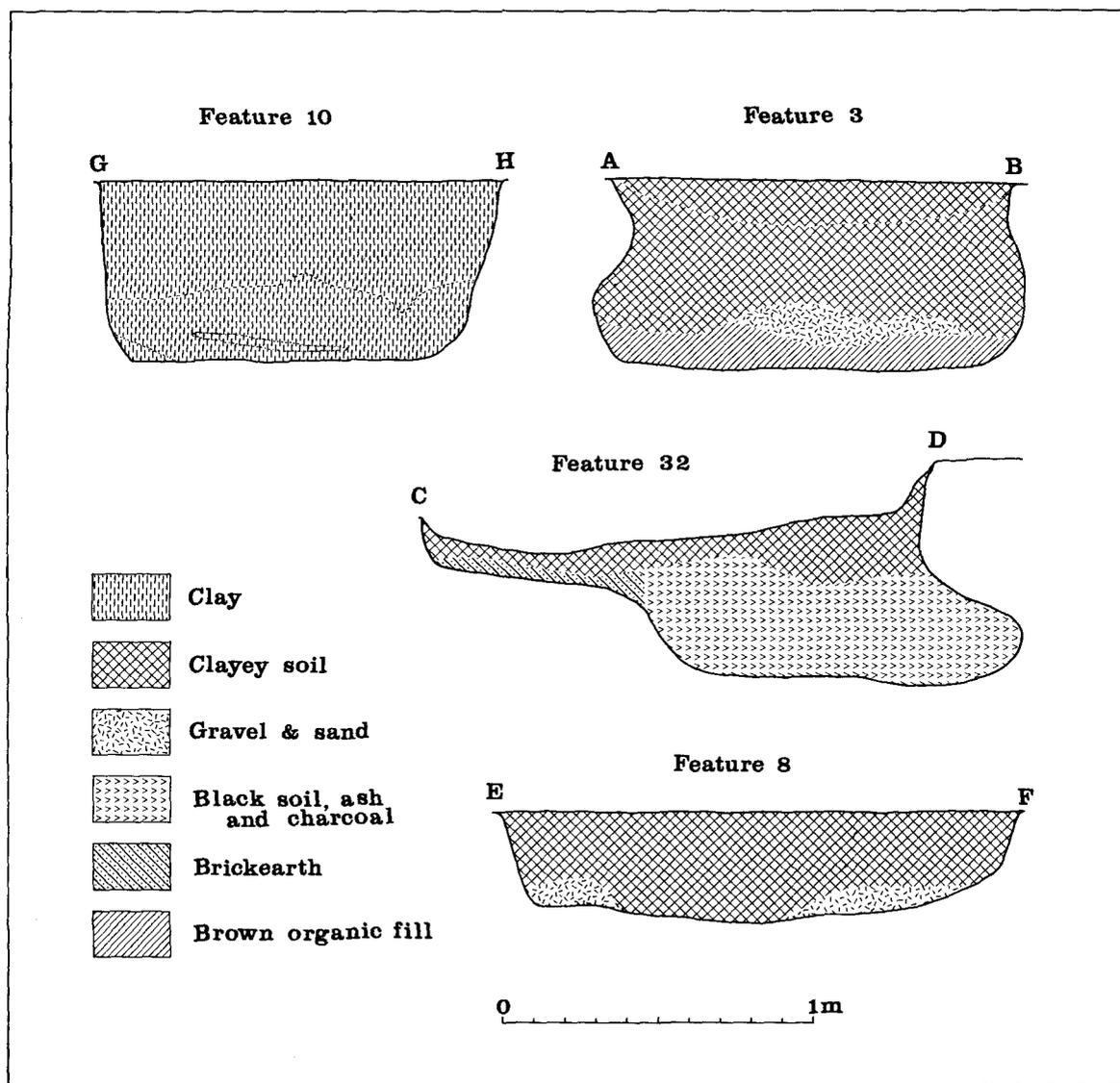


Fig. 7. Heathrow: Sections of early iron age pits.

*Feature 23* (Fig. 6 and 10, I-J)

An oval shaped hollow, 7m x 5m, and averaging 1m in depth. The outline consisted of a series of arcs, as if the hollow had resulted from the intersection of numerous pits (Pl. 4). Excavation proved that the feature was a single entity, having a flat bottom and undercut sides. In these aspects it was comparable to some of the circular pits. The nature of its filling encourages such a comparison, for it had obviously been filled by human agency in a single action. The principal constituents were tipped layers of pure brickearth, brickearth containing charcoal flecks, and mixtures of soil and brickearth. Fragments of burnt daub were noted, together with much pottery and a certain amount of animal bone.

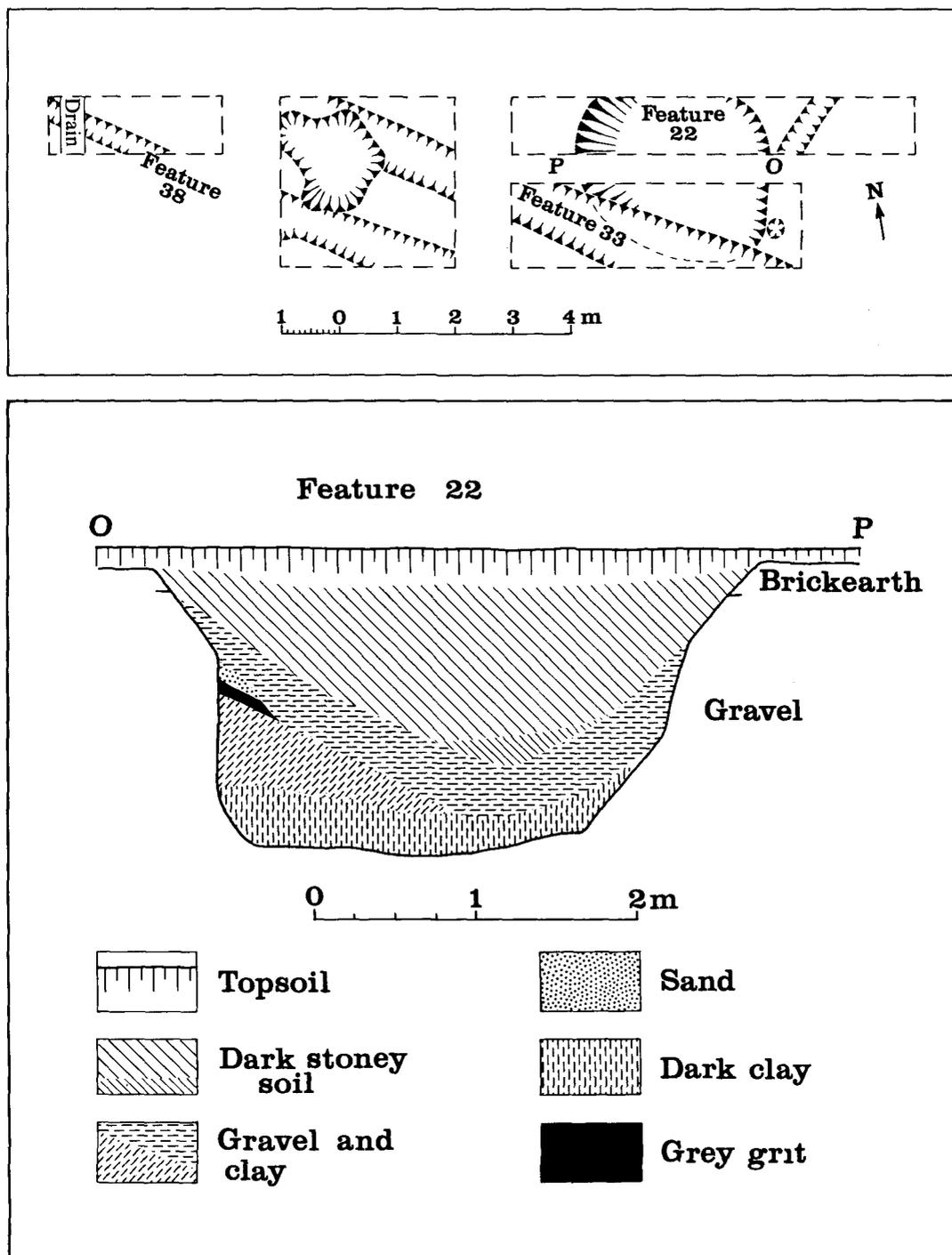


Fig. 8. Heathrow: Features on Site B and section of storage pit, Feature 22.

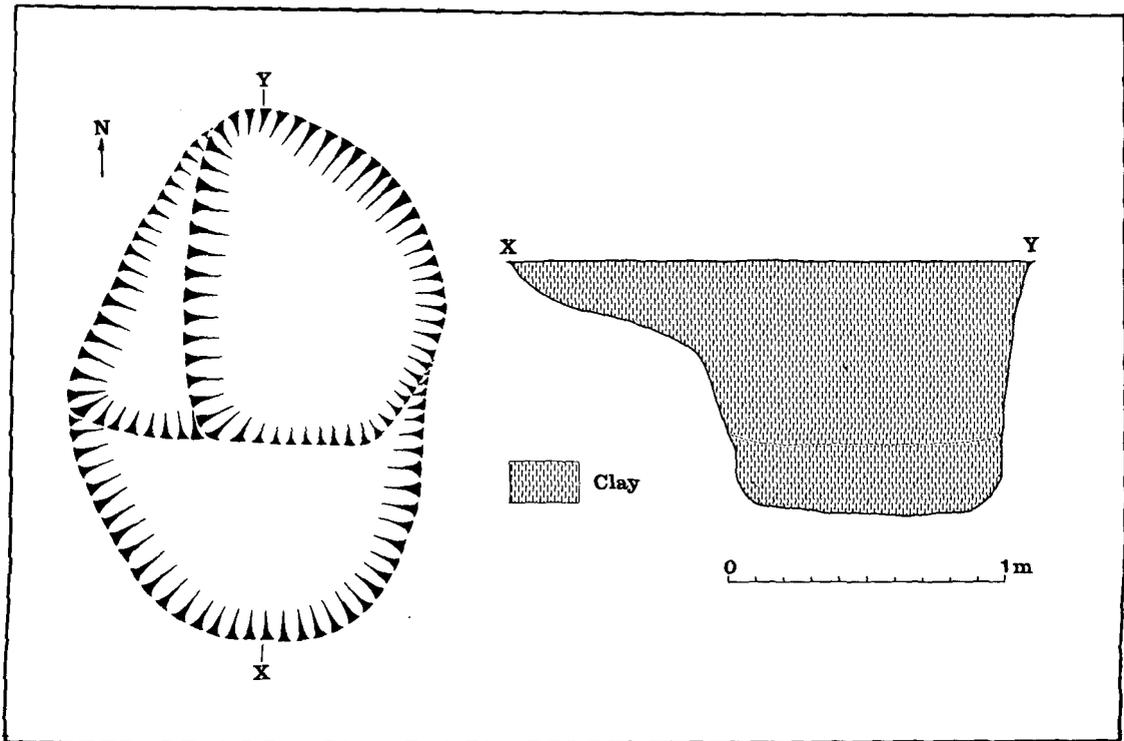


Fig. 9. Heathrow: Plan and section of the isolated early iron age pit, Site J.

Two noticeable concentrations of pottery were unearthed. In both cases the impression was gained that the sherds had been placed in the filling in small heaps. The two piles were derived from two shouldered jars (Nos. 41 and 42).

*Feature 24 (Fig 6)*

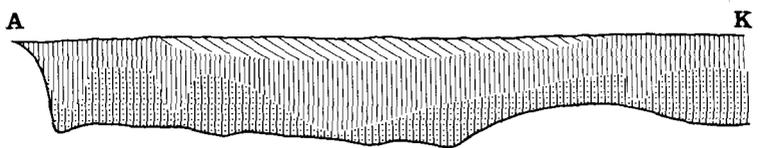
A hollow which fell only partly within the excavated area. The section (Fig. 11) shows a feature of uneven, though shallow, depth, filled with a brown clayey soil throughout. This material was noticeably sterile of finds in its lower portion, but the upper part abounded in sherds of pottery and fragments of bone. Although excavation was confined to the digging of two narrow trenches a very useful quantity of material resulted. For reasons that remain obscure, the conditions of both pottery and bone was extremely poor, a circumstance not encountered generally in the excavations.

Apart from the domestic refuse in the top, there was no indication of deliberate filling.

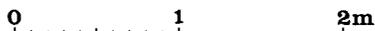
*Feature 25 (Fig. 10)*

A large hollow, not fully excavated, with an average depth of 0.60m. The feature was approximately 5m wide and at least 10m long. It possessed a rather intricate nature, being essentially a hollow with vertical sides that were in places undercut. The base was fairly flat with no obvious features cut into it.

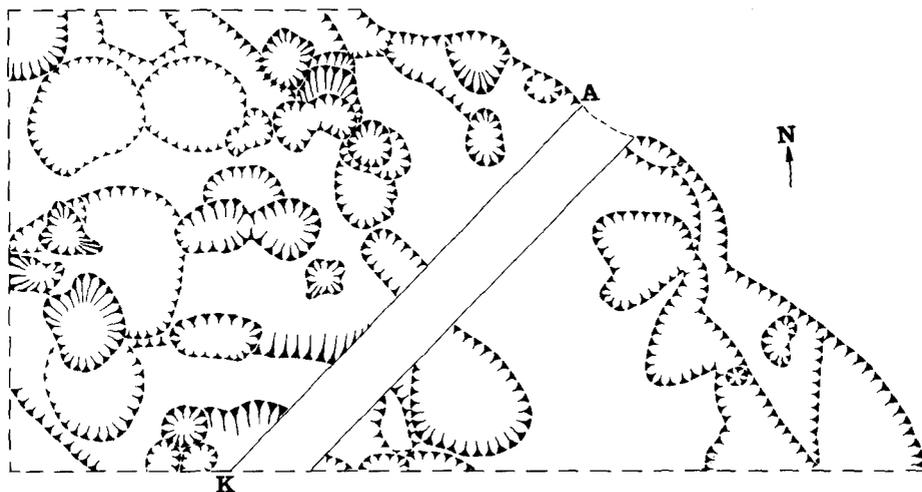
Feature 25



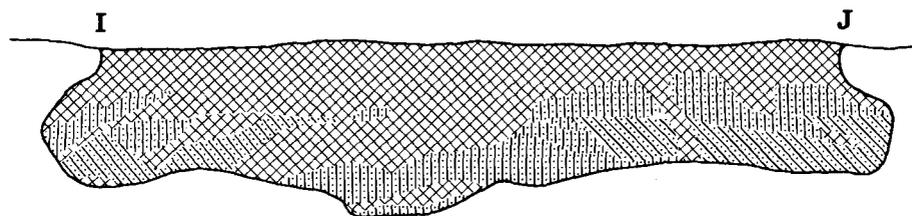
-  Dark clayey soil
-  Fine brown soil
-  Brickearth & soil mixture



Feature 25



Feature 23



-  Dark clay soil mixture
-  Brickearth & dark soil mixture
-  Brickearth with flecks of charcoal

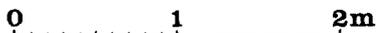


Fig. 10. Heathrow: The early iron age hollows on Site K.

This was covered with 0.30m of brickearth and dark soil through which various small pits had been dug, some of them having the appearance of post-holes. The upper part of this level held a concentration of potsherds and bones perhaps indicating that it was a floor. It was covered by a fine dark soil and sealed by a dark clayey soil containing large quantities of daub, potsherds and calcined flints.

It does not seem possible to make a firm interpretation of the jumble of small pits and postholes. It will be observed, however, that one or two clusters of postholes with similar diameters are present, indicating presumably the replacing of vertical timbers in a long-lasting structure. The patches of brickearth and soil may represent materials packed around the base of these timbers to give them support.

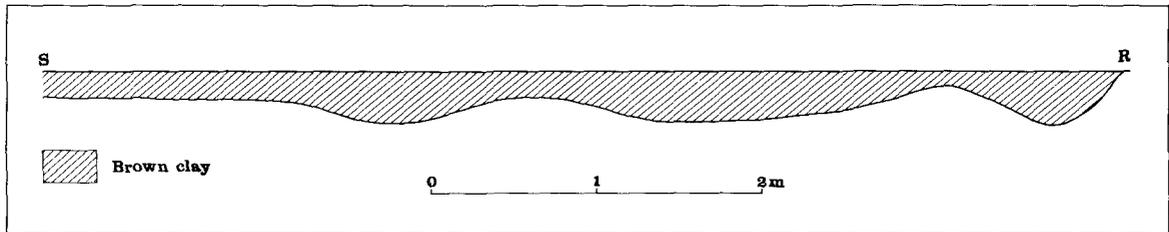


Fig. 11. Heathrow: Section of one of the hollows, Feature 24.

Several hundred sherds of pottery were found within the feature, the majority of them belonging to the shouldered jar and bowl tradition. Only the topmost surviving layer, which constituted the final levelling-off of the hollow (probably by plough action), contained later material, and this was restricted to four sherds of the later iron age or early Romano-British period. Since the same top filling contained fifty or more sherds of the early material, none of it particularly worn or eroded, it appears that the late sherds are intrusive or merely an indication of the tail-end of the levelling process. However, in the description of the pottery the sherds from the top fill are set apart in the interests of accuracy.

#### Feature 26 (Fig. 6)

This hollow merged with the northern portion of Feature 25. The sequence of the two was not established. Excavation was limited to a small trial trench, but was sufficient to establish that the feature was similar to 23. It was flat bottomed, filled with a mixture of soil and brickearth, and contained potsherds and calcined flints. A single posthole was noticed, cut into its base, close to the eastern edge. The pottery fragments were present in large numbers and concentrated in the upper filling.

During the final earthmoving, traces of the feature could be seen extending some distance (20m or more) away to the north-west. The hollow was thus revealed as a parallel-sided entity, rather in the manner of a hollow-way.

#### PHASE III: the later pre-Roman iron age

A number of the features observed in cuttings or excavated on Site K were never satisfactorily dated. However, a small group of pits contained sherds of pottery belonging to a late phase in the iron age. Five of these (Features 27-29, 31 and 32) fall within the pit-cluster of Site K, a sixth was recorded on Site C (Feature 30) within the storm-water drain trench, situated 80m south of Site K. Four of these are directly comparable in size, shape and filling to the simpler forms of the early pits. Feature 32 compares to the undercut pits of early type for it contained a marked hollowing of one side, in which a cache of animal bones had been stored. Its filling was rich in ash and charcoal (Fig. 7, C-D).

#### PHASE IV: the Romano-British period

A small number of features and deposits indicated that settlement continued throughout the Romano-British period. Within the areas examined, it was clear that this occupation was never intensive. The exception to this was a narrow curving gully on Site K (Feature 35) which produced a rich haul of 1st century vessels, most of them in a near-complete state. The date lies within the first decades of Roman rule, *c.* AD 43-65. Two pits on Site K (Features 36 and 37) appeared to be contemporary. Within Site B, much was lost in the machine-scraping for the runway, but the trial

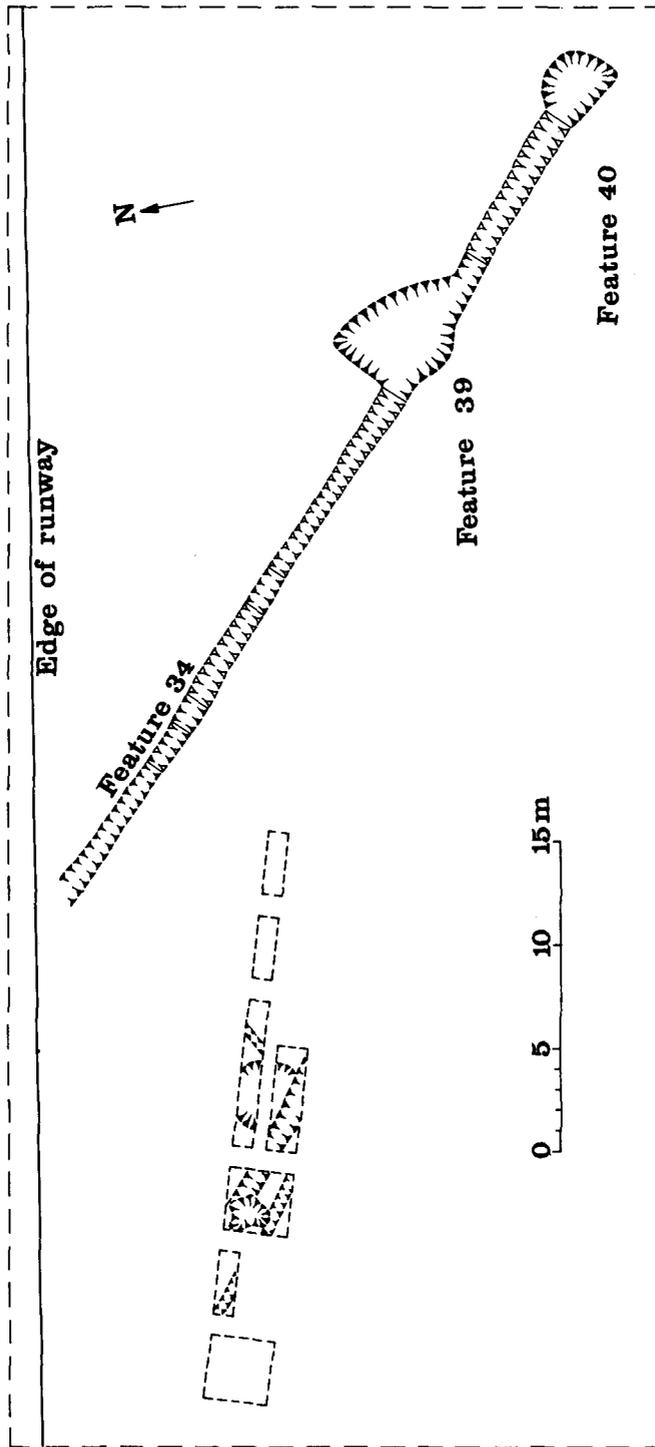


Fig. 12. Heathrow: General plan of Site B.

trenching prior to this established the existence of closely spaced archaeological features (Figs. 8 and 12). Among these there were two straight ditches (Features 33 and 34) that were first excavated in the mid 1st century. The more easterly of these (Feature 34) was intersected by two pits, which were probably dug as sumps to improve the drainage characteristics of the ditch (Fig. 12). The dating evidence ranges widely through the period, the total filling of the features not taking place until the 4th century. It is perhaps simplest to assume that pits and ditches remained in use for several centuries, being cleaned out occasionally and that the dating materials relate more to the demise of the features than to their original fabrication.

A small ditch (Feature 38) adjacent to Ditch 33, does however seem to have a 4th century origin, while on Site K evidence of a late Romano-British pit (41) was noted within the filling of Feature 23. Its size could not be determined owing to a close similarity to the fillings of the two, but its contents were isolated during excavation of the prehistoric hollow.

## CONCLUSIONS

In terms of the principal period of occupation the Heathrow site belongs to a widely distributed horizon of iron age settlements, probably spanning the period 550-300 BC and characterised by the manufacture of jars and bowls with angular profiles. In view of the difference with which absolute dates for iron age ceramics are currently stated, it would be foolhardy to dwell upon the question of chronology. The presence of a La Tène I type brooch, stratified deeply within one of the hollows belonging to the main phase, is added confirmation that the site lies within the 'angular ceramic phase' of the early La Tène iron age.<sup>4</sup> The length of occupation is also an issue about which speculation must be restrained. The two ring ditches denote the presence of a community in the area during the bronze age, while the later iron age pottery and indeed Romano-British features specify activity several centuries after the main iron age phase. We are thus presented with a picture of spasmodic settlement, the return to the site being influenced perhaps by social or economic pressures, or perhaps because land formerly exhausted by cultivation had re-established its fertility. An alternative argument would be that the nucleus of settlement drifted somewhat over the years and that the fieldwork reported here has recovered only a partial record. However, it would be true to say that a number of the Upper Thames sites, observed and excavated during extensive gravel digging, exhibit similar intermittent habitation.<sup>5</sup>

The simple ring-ditch (Site H) has parallels too numerous to mention on virtually every tract of river terrace gravel in southern Britain surveyed from the air. Since the terraces have universally been subjected to continuous ploughing for a very long period, it is likely that associated banks and mounds have been obliterated. The original form of these monuments remains in doubt, though in the present case there was a clear indication from the character of the ditch filling that an internal mound or bank had once existed. It may therefore have been a bronze age round barrow. The feature on Site A differed in that the circular ditch was interrupted by numerous causeways. Parallels are known for this characteristic. A small barrow on Stockbridge Down in Hampshire, which contained a primary beaker burial, was surrounded by a similar ditch dug in five segments.<sup>6</sup> It is also appropriate to refer to the oval burial mound excavated at Alfriston, East Sussex,<sup>7</sup> which was flanked by two ditches, curved to form an oval plan with two causeways, and apparently dug in segments. The Alfriston monument was of neolithic date, and it brings to mind another neolithic feature delineated by interrupted ditches, the long mortuary enclosure discovered on Normanton Down, Wiltshire.<sup>8</sup> Although a bronze age date seems probable for Site A, the neolithic tradition of digging ditches in this fashion suggests the possibility of an earlier date and perhaps a

different interpretation. The recutting of the ditch of this feature might be regarded as a sign of the revamping of a sacred or ritual site, examples of which in the context of the Wessex early bronze age have been listed in a recent report.<sup>9</sup>

Had there been more aerial survey of the gravels in the West London area, these two features would have been known prior to the excavation. It raises the speculation that the London gravel terraces may be as well-endowed with clusters of ring-ditches as the similar terrain of the Upper Thames,<sup>10</sup> and it is interesting that Barrett<sup>11</sup> has already pointed to a number of bronze age finds from the region that may have originated from ploughed-out barrows. The same author has also presented us with the reasons why such monuments have not come to light in the region, largely a matter of discovery potential rather than actuality.<sup>12</sup> It is germane to his argument that the Heathrow project offered a rare opportunity within the London region for the inspection of a large area of stripped gravel surface, and that the discovery of two ring-ditches resulted.

The dominant aspects of the main phase of settlement are the pits and the hollows. The pits were found to possess a number of characteristics recorded at Little Woodbury, where the case for their interpretation as storage pits was powerfully argued.<sup>13</sup> These elements include the presence of ash, burnt daub and calcined flint (believed to derive from ovens for parching corn) and the digging of some pits with constricted mouths. We need no longer range as far afield as Little Woodbury for parallels, for the pit clusters which reveal themselves on so many of the Thames Valley sites, both in excavation and on aerial photographs, are most certainly of the same nature.<sup>14</sup>

The hollows, by contrast, appear not to be a characteristic of Thames Valley iron age sites, yet at Heathrow these strange features were obviously important in the function of the settlement. The oval shaped hollow, Feature 23, is similar in its irregular outline and in size to many of the isolated hollows found on the Wiltshire site, but Features 24 and 26 by virtue of their size and regular shape differ both from the isolated Little Woodbury hollows and from the 'big hollow' on that site which was shown to consist of very many smaller units. In seeking to determine the function of these features Bersu described hollows observed in the neighbourhood of Egyptian villages, in which many of the tasks of harvest-time were carried out.<sup>15</sup>

Feature 25 was a hollow unparalleled at Little Woodbury in that it contained clear traces of numerous postholes. Harding has discussed forms of building other than circular houses and quotes continental examples of oval hollows into which foundations were recessed,<sup>16</sup> which adequately describes this particular feature.

Most of the features of this phase, therefore, would seem to be associated with cereal production and storage. The bone evidence supplies information on the stock-raising aspect of the community, in which cattle and sheep were of about equal importance. The low figures for the pig are typical of iron age deposits, and are usually taken to imply a landscape cleared of woodland (to which the pig is well suited and useful in furthering clearance). What is missing from the picture are the details of earthworks for controlling stock (ranch boundaries, droveways, and stock-enclosures) and the fences and drainage ditches which must have defined the fields.

Comment has been made above on the truncation of the ditch-filling on Site A and the implication from its filling, that a deposit of brickearth in its immediate area has disappeared. This contrasts strongly with the stratigraphy of iron age settlement where feature-fillings

survived high within the topsoil, and the Site H ring-ditch was similarly preserved above the bedrock level. The varied situation must result from ploughing in ancient times, and probably at the time of occupation of the iron age settlement since its features appear to be unaffected in this way. The evidence of the later iron age and Romano-British phases gives hints of the continuation, albeit with breaks, of farming. The late iron age pits are little different in form to those of the early phase, and presumably were dug for the same purpose; Feature 32 in particular, with undercut side and a filling full of burnt materials, is reminiscent of the Little Woodbury features. The ditches found to the south-east of the main settlement, apparently spanning the Romano-British period, were probably dug to drain land needed for cultivation. As to the rest of the Romano-British material, it was found within the prehistoric settlement, mostly scattered within the top fillings of iron age features. The curving gully (Feature 35) is too small to have formed the boundary ditch of a settlement, and may have served to drain an area in which buildings were sited. Of the latter there was no trace.

The discovery of an isolated pit towards the western end of the extended runway (Site J) may indicate the existence of another settlement. No other features were seen in the area in spite of extensive earthmoving. Further, the pit was of unusual construction, and the discovery of a wooden stake in its filling may connect it with the ritual pits discussed by Ellison and Drewett,<sup>17</sup> one of which contained a standing stake in its floor.

The Heathrow settlement is one of several iron age sites found within the Middlesex gravel plain. It is about equidistant from the previously excavated Heathrow settlement<sup>18</sup> just under two miles to the east, and from the large complex of fields, tracks, enclosures and hut-circles revealed as cropmarks near Bedfont two miles to the south-east.<sup>19</sup> Of the three, only the previously excavated Heathrow site was enclosed by a bank and ditch. On each site occupation continued into the Romano-British period. Comparison must inevitably be made with the 'multiple settlement' complexes of the Upper Thames gravels discussed by Harding,<sup>20</sup> although the separation distances in Middlesex are somewhat greater, at least on present evidence. It would be reasonable to assume that the kind of ancient landscape features seen to spread out from the Upper Thames sites existed also in Middlesex, and the ditches found near Hatton on the south-east corner of the airport by members of the West London Archaeological Field Group would fit into such a scheme.<sup>21</sup>

The Heathrow community had connections of culture and tradition over a wide realm. East Anglian sites, in particular West Harling, offer parallels for much of the pottery. A number of aspects, notably the pit-clusters and undefended nature of the settlement, invite close comparison with discoveries in the Upper Thames region. The farming techniques (including cereal production, the use of grain storage pits, sheep and cattle rearing) extend the apparent connections over a wider zone, encompassing Wessex settlements such as Little Woodbury in Wiltshire and Gussage All Saints in Dorset.<sup>22</sup>

However, the emergence of an horizon of 'angular ceramic' sites within the London region has been long awaited, in view of the remarkable Hallstatt D/La Tène I daggers dredged from the bed of the Thames.<sup>23</sup> It remains to be seen whether contemporary material comes to light in the gravels of central London during observation of building sites. On the gravels of the Lower Thames in Essex iron age occupation sites are again apparent. It is not difficult to envisage a linear zone of farming communities established along the entire length of the terrace system, linking the population of East Anglia and the Lower Thames with the Upper Thames settlements, and those of the Wessex chalkland.

## NOTES

1. The information was taken from the following sources: Victoria County History (V.C.H.) iii (London 1962); *Ibid.* iv (1971); M. Robbins *Middlesex* (London 1953); *Report on Bridges in Middlesex* (London 1826).
2. J. Middleton *The Agriculture of Middlesex* (London 1798).
3. G. Bersu 'Excavations at Little Woodbury, Wiltshire' *Proc. Prehist. Soc.* 6 (1940) 95.
4. D. Harding *The Iron Age in the Upper Thames Basin* (Oxford 1972) 86-96.
5. *Ibid.* Pl. 27.
6. P. Ashbee *The Bronze Age Round Barrow in Britain* (London 1960) Fig. 23.
7. P. Drewett 'The excavation of an oval burial mound of the third millennium BC at Alfriston, East Sussex' *Proc. Prehist. Soc.* 41 (1975) 119-152.
8. F. de M. Vatcher 'The excavation of a Long Mortuary Enclosure on Normanton Down, Wilts' *Proc. Prehist. Soc.* 27 (1961) 160-173.
9. F. de M. and H. L. Vatcher 'The excavation of a round barrow near Poor's Heath, Risby, Suffolk' *Proc. Prehist. Soc.* 42 (1976) 273.
10. E. T. Leeds 'Round barrows and ring-ditches in Berkshire and Oxfordshire' *Oxoniensia* 1 7-23.
11. J. Barrett 'The Bronze Age' in *The Archaeology of the London Area: Current knowledge and problems*. Special Paper No. 1 London Middx. Archaeol. Soc. (1976) 35.
12. *Ibid.* 33.
13. Bersu *op. cit.* in Note 3, 60-63.
14. Harding *op. cit.* in Note 4, Pl. 35.
15. Bersu *op. cit.* in Note 3, 77-78.
16. D. Harding *The Iron Age in Lowland Britain* (London 1974) 52.
17. A. Ellison and P. Drewett 'Pits and Postholes in the British Early Iron Age: some alternative explanations' *Proc. Prehist. Soc.* 37 (1971) Pt. 1 184.
18. W. F. Grimes 'Some smaller settlements; A Symposium, in S. S. Frere (ed) *Problems of the Iron Age in Southern Britain*.
19. N. Farrant 'Iron Age Site at Bedfont' *London Archaeol.* 1, 13 (1971) 305-309.
20. Harding *op. cit.* in Note 4, 10.
21. Unpublished information from Alison Laws.
22. G. Wainwright and M. Spratling 'The Iron Age settlement of Gussage All Saints' *Antiquity* 47 (1973) 109-130.
23. E. M. Jope 'Daggers of the Early Iron Age in Britain' *Proc. Prehist. Soc.* 27 (1961) 307-343.

## PART II: THE FINDS

## THE EARLY IRON AGE POTTERY

## PHASE II: The Pits on Site K

(Figs. 13 and 14)

*Large jars (diameter at mouth 250-400mm)*

1. Coarse black fabric with red-brown surface, containing much flint grit. The exterior bears numerous oblique and horizontal striations as though wiped or brushed before firing.
2. Coarse dark brown ware, smooth surface.
3. Dark brown with very fine filler (partly pounded flint grit, partly grog).
4. Coarse dark brown ware with finely pounded flint grit. Similar vessels with thick, rimless necks inclined inwards were found at Staple Howe in Yorkshire. (Brewster 1963, Fig. 39, No. 4).
5. Well-made brown to black ware with a fine sand filler. The surface is lightly burnished. Although expanded rims are common on this and other settlements of the early iron age this specimen with an internal ledge (presumably to support a lid) is a rarity. The closest parallel is from a Belgic level at Maiden Castle, (Wheeler 1943, Fig. 75, No. 233).

*Medium size jars (diameter at mouth 150-250mm)*

6. Dark brown ware with flint grit, smooth exterior.
7. Coarse brown ware, crudely finished. Sparse flint grit, the particles of which vary considerable in size.
8. Black fabric with orange-brown surface. Sparse flint grit.
9. Coarse black fabric with brown surface.
10. Brown ware with sparse flint grit.
11. Coarse brown-black ware.
12. Coarse brown ware with fine flint grit.
13. Coarse dark brown ware with sparse flint grit. Some attempt has been made to smooth the surface.
14. Coarse brown vesicular ware, smooth surface.

15. Coarse black fabric with brown surface, smooth finish.
16. Coarse brown to black ware, poorly finished.
17. Coarse grey fabric with buff surface and sparse flint grit. Surface wiped or brushed before firing.
18. Orange-grey ware, sparsely tempered with pounded flint and grog.
19. Coarse black ware with well-smoothed, burnished surface, a few large particles of flint.
20. Coarse brown ware with some grog, smooth exterior.
21. Fragment of a handle in brown ware, tempered with a fine white grit (possibly pounded shell).
22. Black fabric with orange surface. Well-finished and burnished on exterior. The rim seems more Belgic than early iron age. However the associated sherds are early.

*Small jars (diameter at mouth 100-150mm)*

23. Brown to black fabric, smoothed by horizontal brushing or wiping.
24. Dark brown ware with a sparse flint grit.
25. Dark brown ware, crudely wiped surface.

*Fine ware bowls*

- 26-29. Fine dark brown ware with smooth surface, fine flint grit.
30. As No. 26, a parallel with four grooves at Darmsden (Cunliffe 1968, Fig. 4, 61).
31. As No. 26 but burnished. This and No. 29 are possibly from fine ware jars. A similar distinctly expanded rim was found at Darmsden (Fig. 3, 34).
32. Brown ware with burnished surface.
33. Grey fabric with pale grey surface, tempered with dark brown grit (possibly a grog). Chinnor produced a number of bowls with the same motif of parallel vertical strokes. (Richardson and Young 1951, Fig. 8, Nos. 47, 54, 55)

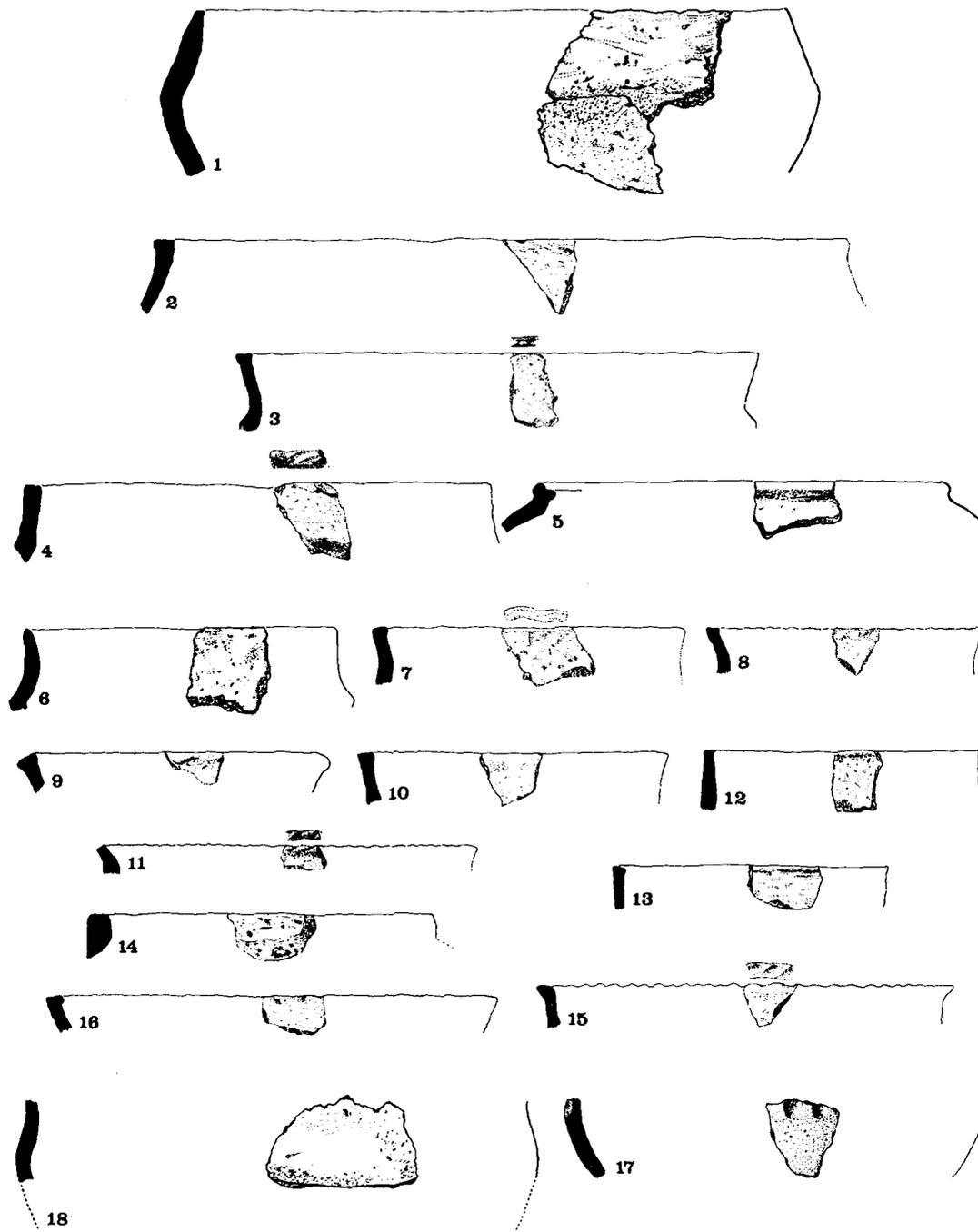


Fig. 13. Heathrow: The iron age pottery. Nos. 1-18 (1:4).

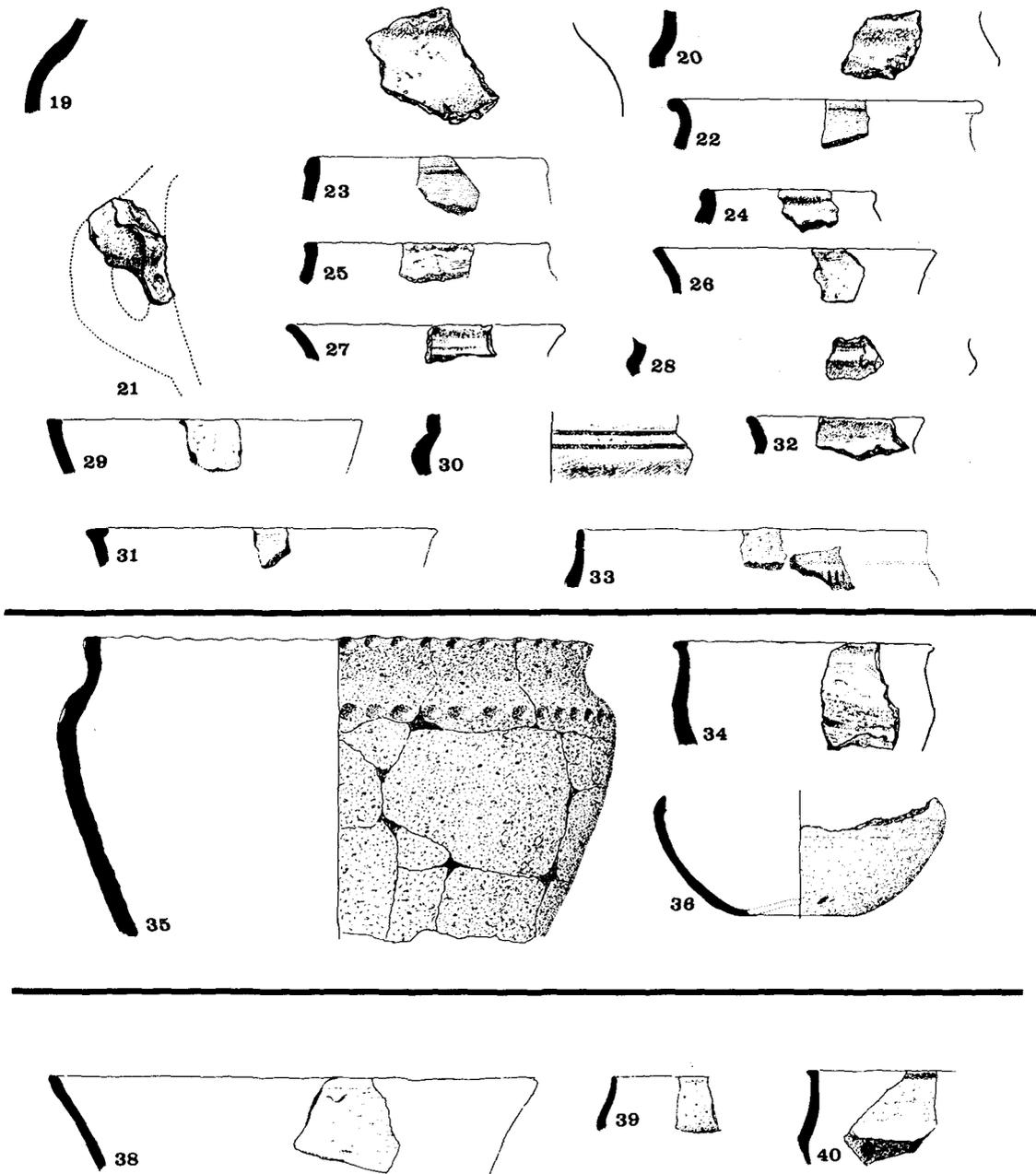


Fig. 14. Heathrow: The iron age pottery. Nos. 19-36, 38-40 (1:4).

## FEATURE 19, a pit north of Site K

(Fig. 14)

Although its dating evidence and shape place it in the same category as the pits listed above it has been accorded separate treatment here because it contained a rather greater quantity of pottery than was normal with these features.

*Shouldered jars*

34. Dark brown fabric with black exterior. Flint grit apparent in break and on interior surface but not on exterior, as though vessel has been coated with a crude slip.
35. Coarse black fabric with brown surface, dense shell tempering. Many of the jars from the West Harling site are decorated in the same manner, with bands of finger-tip impressions on both the shoulder and the

exterior of the rim (Clark and Fell 1953, Figs. 10-12).

*Fine Ware Bowl*

36. Fine black fabric with extremely fine white grit. Orange slip on interior and exterior, polished. There is a slight indication that the bowl had an indented base. A few round-shouldered bowls appeared at Chinnor, one possessing a similar hemispherical lower half, (Richardson and Young 1951, Fig. 8, No. 69)

## FEATURE 21, isolated pit, Site J

(Figs. 14 and 15)

*Shouldered jar*

37. Heavily gritted black ware fired to grey-red in places.

*Fine ware vessels*

38. Brown fabric with black burnished surface; fine flint grit. It is not clear whether this is a bowl or a jar.
39. Fine dark ware, though containing much flint grit.
40. Fine black ware with sparse flint grit.

## FEATURE 23, a hollow

(Figs. 15, 16 and 17)

*Large jars (diameter at mouth greater than 250mm)*

41. Coarse dark brown fabric, orange exterior, much flint grit.
42. Coarse grey to brown ware with flint and grog filler. The decoration has been formed by pushing a finger-tip into the clay and applying pressure to one side of the indentation to form a ridge. Not only the decoration but also the size of the vessel is noteworthy. A large biconical jar with an all-over decoration of finger-tip impressions was found at West Harling (Clark and Fell 1953, Fig. 12, 26), and Cunliffe describes vessels from Darmsden in Suffolk that possess 'over-all finger pinching or impression' (Cunliffe 1968, 179). The distinctive form — a large, wide-mouthed jar with short neck and high rounded shoulder — is closely paralleled at West Harling (for example Fig. 12, 20).
43. Coarse black fabric, fired red on the surface; dense flint grit. The exterior bears signs of rough brushing or wiping. Nail-marks within the impressions confirm that they are finger-tip ornament. As with No. 42 the West Harling site provides the best comparisons, both for the shape of the vessel and the use of a double band of finger-tip impressions (Fig. 12, 20 & 21). A vessel from Wisley in Surrey has an identical profile (Lowther 1945, Fig. 3, No. 51)
44. Coarse fabric with some grog and much flint, especially on the undersurface. Appears to be the base of No. 43.
45. Brown to black coarse ware with flint grit, well finished. There are traces of the orange slip seen on some of the fine-ware bowls. In his survey of the iron age in Surrey, Bishop defines a class of jars with high bulging shoulders (Bishop 1971, 3). Most sites seem to produce one or two examples with high flaring rims similar to the vessel illustrated here.
46. Brown to black ware containing large particles of flint grit.
47. Coarse black ware with flint grit. The sherd is presumably a base fragment and possibly belonged to No. 42.

*Medium sized jars (diameter at mouth 150-250mm)*

48. Coarse black, flint-gritted ware, exterior burnished.
49. Coarse dark brown ware, flint grit.
50. Coarse black fabric with flint grit, fired buff-to-brown on exterior.
51. Grey-brown fabric with extremely fine shell temper. Well-finished with burnished exterior.
52. Dark brown ware with flint grit.

*Small jars*

53. Coarse black fabric with flint grit.
54. Coarse dark brown ware, some flint grit. Smooth surface.

*Fine ware vessels*

55. Dark brown ware, smooth surface. Exterior has a red coating, possibly haematite.
56. Dark brown burnished fabric with fine flint grit. Decoration incised before firing. The sherd appears to represent the neck of an angular jar, broken at rim and shoulder. Tripartite jars and bowls with four-line chevron decoration on the neck were common at Fengate (Hawkes and Fell 1945, Fig. 2), and from the published description were smooth and well made as is this example.
57. Coarse black fabric with flint grit, smooth brown surface burnished on interior and exterior. Probably part of a bowl.
58. Dark brown fabric with very fine, sparse flint grit and well smoothed surface. Very similar to No. 56. The unusual rim has a parallel at Staple Howe (Brewster 1963, Fig. 35, 4).
59. Fine orange ware with extremely sparse flint grit. Burnished exterior. An indented base is indicated by the change in angle on the lowest surviving portion. The bowl is closely paralleled by some of the Darmsden vessels (Cunliffe 1968, Fig. 2, 7).
60. Fine grey ware with smoothed surface.
61. Fine black ware with sparse, fine flint grit. Thin orange slip on both surfaces.
62. As above. The orange slip on this sherd is applied evenly and is unworn.

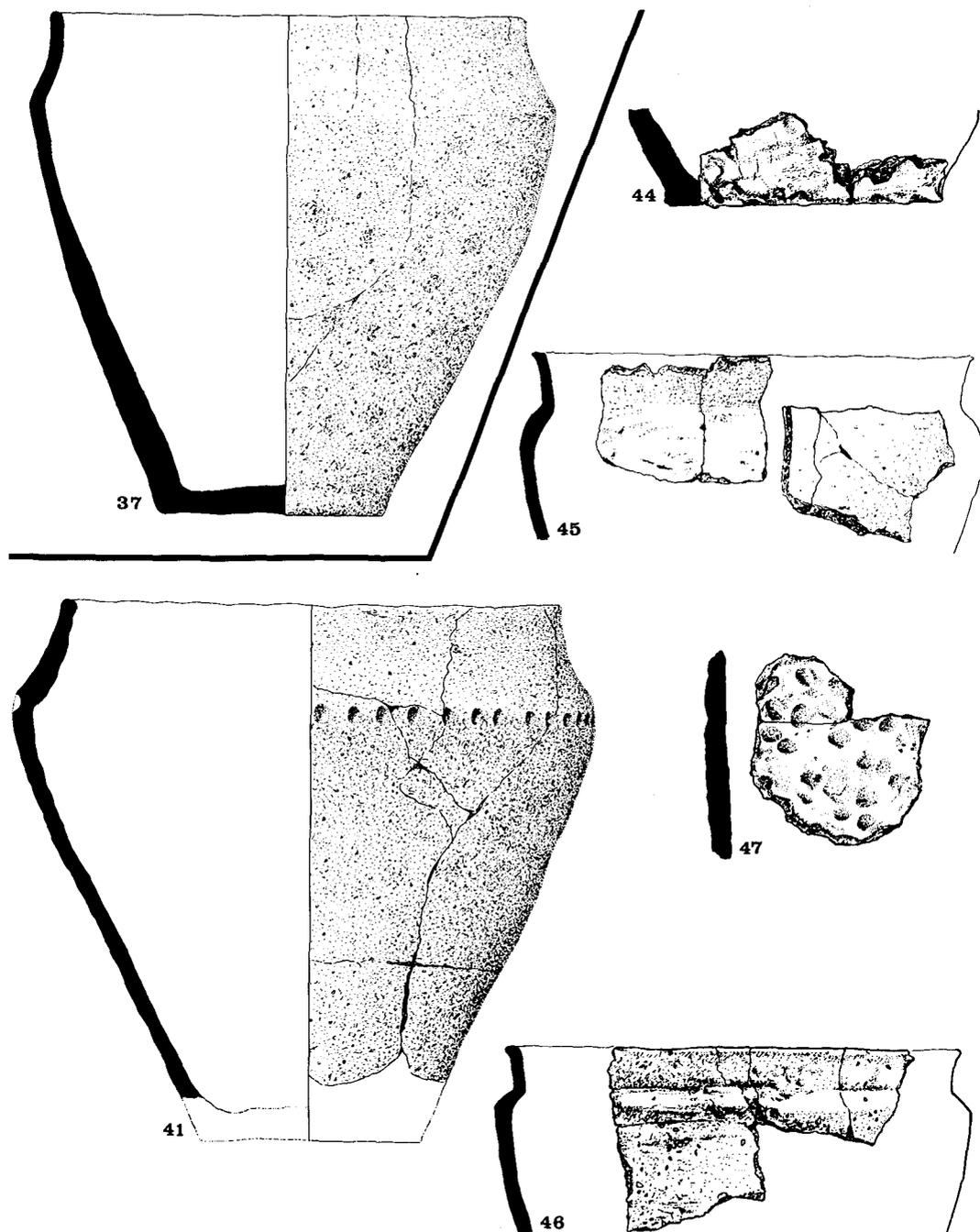


Fig. 15. Heathrow: The iron age pottery. Nos. 37, 41, 44-47 (1:4).

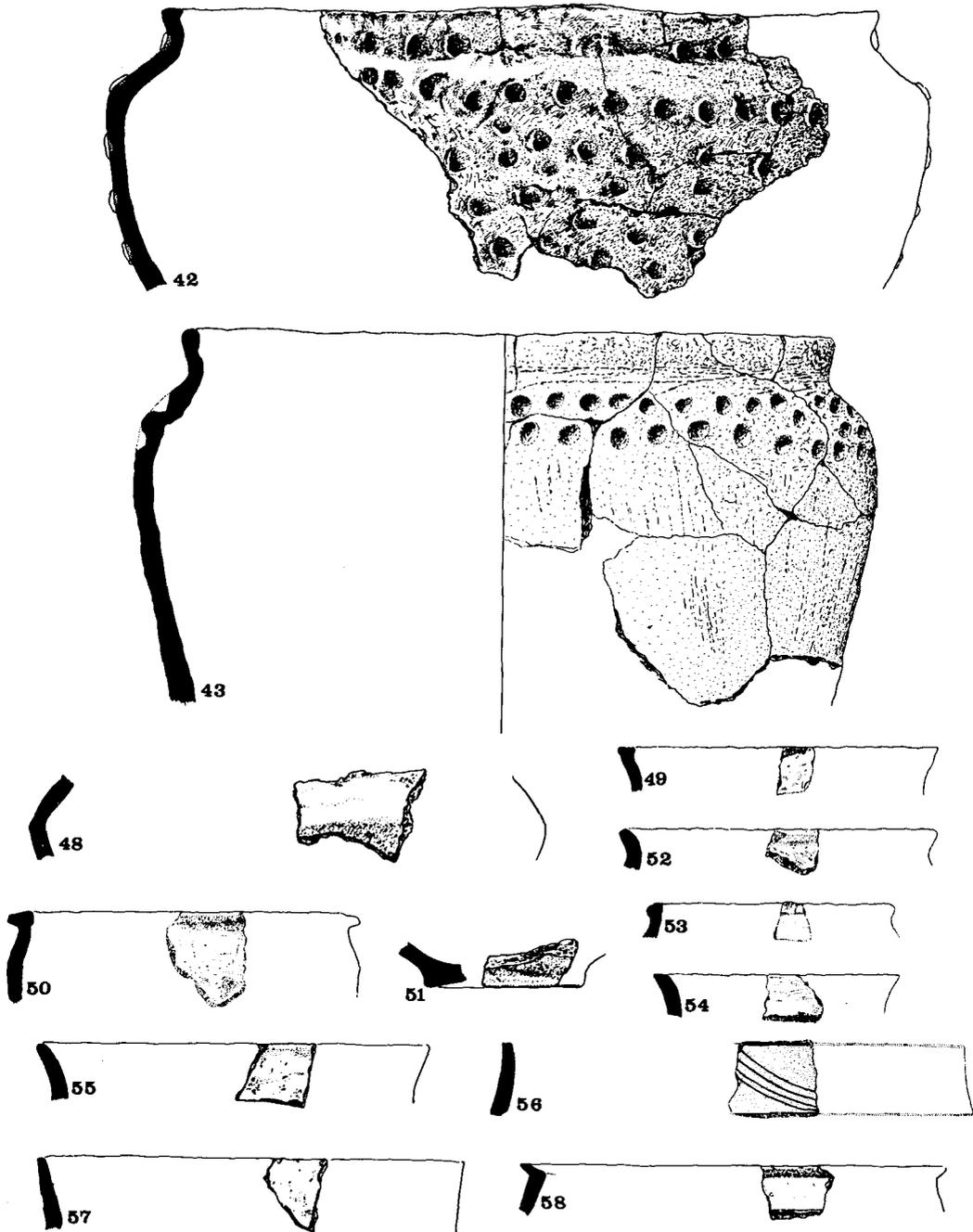


Fig. 16. Heathrow: The iron age pottery. Nos. 42, 43, 48-58 (1:4).

*Miscellaneous*

63. Black fabric with fine flint grit. The exterior is gritless, implying that a coating has been added. The rustication has been achieved by pinching the surface

## FEATURE 24, a hollow

*(Figs 17 and 18)**Large jars (diameter at mouth greater than 250mm)*

65. Coarse black fabric with fine-to-medium flint grit, surface fired red-brown. The clay has been pushed into a ridge using the finger-tip in the manner of No. 42.  
66. Black fabric with sparse, fine flint grit. Traces of an orange slip.  
67. Coarse dark brown ware with flint grit.  
68. Dense black fabric with coarse flint grit. Exterior is scored by wiping or brushing.

*Medium sized jars (diameter at mouth 150-250mm)*

69. Black fabric fired to buff on surface.  
70. Coarse grey-brown ware with flint grit.  
71. Coarse dark brown ware.  
72. Coarse black ware with flint grit.  
73. Black fabric fired red on exterior, sparse flint grit.  
74. Coarse buff to black ware, with grog and flint grit. Very crudely made.  
75. Dark brown fabric fired orange on surface, much flint

## FEATURE 25, a hollow

*(Fig. 18)**Upper filling*

93. Dark brown vesicular ware. Indications of burnishing on upper part of body. The vessel is related to proto-beadrim pots though less globular, more open-mouthed than is normal. There are a few small bowls or cups at Staple Howe (Brewster 1963, Fig. 53, 3).  
94. Fine hard black fabric, fired brown on surface. Very fine white grit. The vessel is related to the footring bowls of the later iron age in Kent (Ward Perkins 1944, Fig. 5).  
95. Black fabric with much flint grit, fired brown on surface. Outer surface smoothed.  
96. Dense black fabric fired brown on surface and burnished. Fine and sparse flint grit.

Fine brown soil (mid-filling)

## FEATURE 26, a hollow

*(Fig. 19)*

A small group of late iron age/early Romano-British pottery and small finds located in the upper layers are probably to be attributed to an intrusive feature. The material amounts to three sherds, an iron brooch and a bronze coin. Several hundred iron age potsherds deriving from coarse angular jars and fine burnished bowls were also found, concentrated in the upper fill. Most were too fragmentary to permit illustration.

*The late pottery*

102. Fine grey fabric with orange surface.  
103. Fine black ware with burnished surface.  
104. Orange to black vesicular ware.

between thumb and finger (*cf* Cunliffe 1968, Fig. 3, 51).

64. Coarse black fabric, brown surface, roughly striated. The sherd appears to be a base fragment.

76. Black fabric with brown surface and sparse flint grit. Vertical scoring on exterior.  
77. Black fabric with brown exterior and flint grit. The clay has been thoroughly worked over with the finger-tips to form a thin, dense fabric.  
78. Dark brown fabric with much flint grit. As the grits do not show on the exterior it seems that a coating has been added.  
79. Coarse grey ware with flint grit and grog filler.  
80. Coarse dark brown ware with flint grit.  
81. Coarse black ware with grog filler, red-brown surface. Exterior wiped or brushed.  
82. Black fabric with brown surface. Much flint grit.  
83. Black fabric fired red-brown on exterior. Fine flint grit.

*Fine ware vessels*

84-92

All are in a fine dark ware with sparse flint grit, and most are burnished.

*Medium sized jars (diameter at mouth 150-250mm)*

97. Black fabric with sparse flint grit and grog, buff surface. The ware has been compressed by thorough finger-working in the same distinctive technique as No. 42 (Feature 23). The shape is close to some of the early vessels from Maiden Castle (Wheeler 1943, Fig. 58, 40).  
98. Coarse black fabric, some grog, fired buff on surface.  
99. Black flint gritted fabric fired dark brown on surface.

*Brickearth and soil mix (lower filling)**Medium sized jars (diameter at mouth 150-250mm)*

100. Black ware with fine flint grit, compressed in the manner of Nos. 77 and 98.  
101. Coarse black ware with flint grit.

The feature produced a few sherds of the typical fine-ware bowl form, though nothing of sufficient size to merit illustration.

*The early pottery*

105. Coarse black fabric with buff surface.  
106-  
108 All in lightly gritted, black-burnished ware.

## PHASE III: pits of the later pre-Roman iron age

## FEATURE 27

*(Fig. 19)*

109. Grey core, brown surface: the sherd is soft and eroded.

110. Fine black fabric fired orange on surface, smooth and well-made.

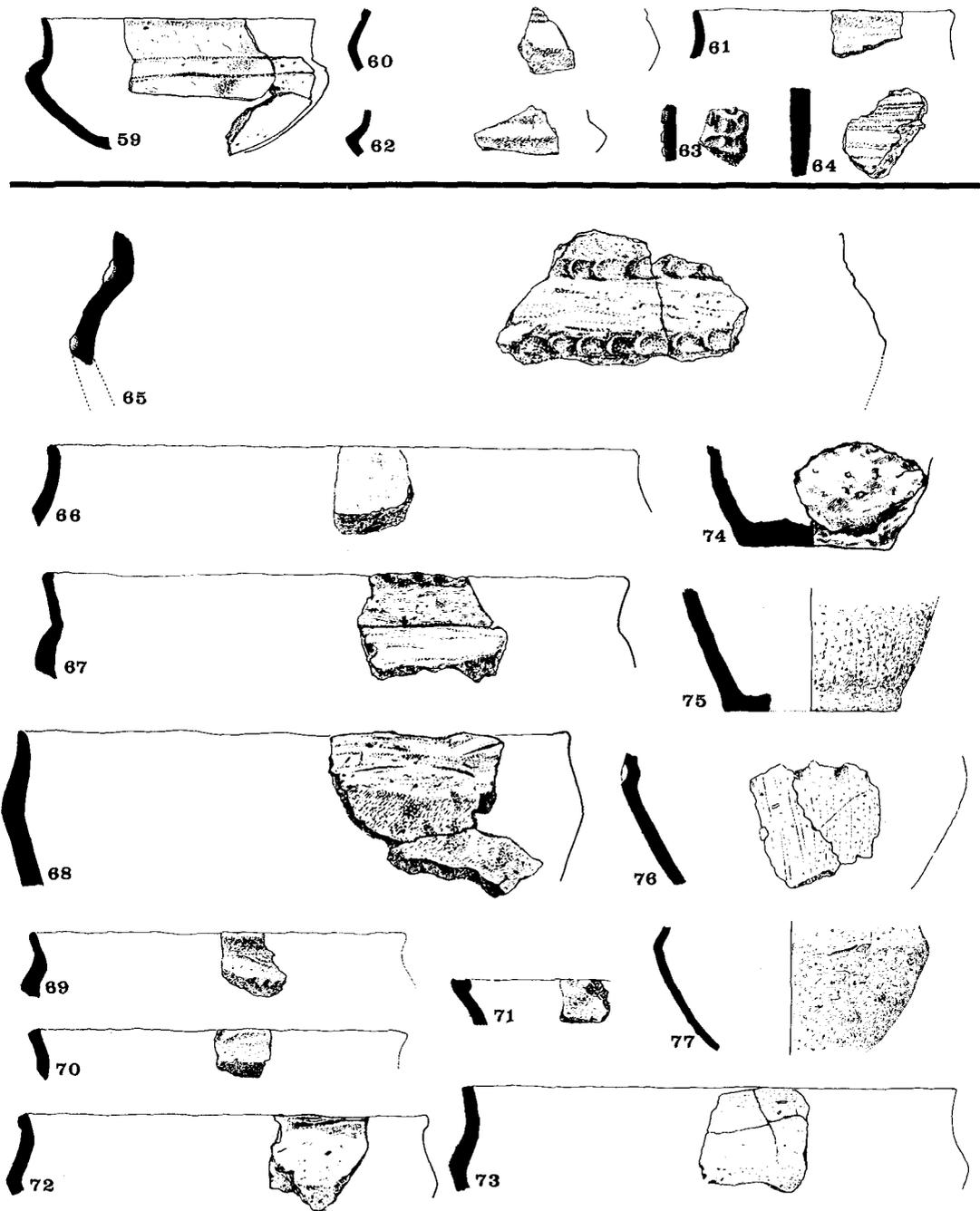


Fig. 17 Heathrow: The iron age pottery. Nos. 59-64, 65-77 (1:4).

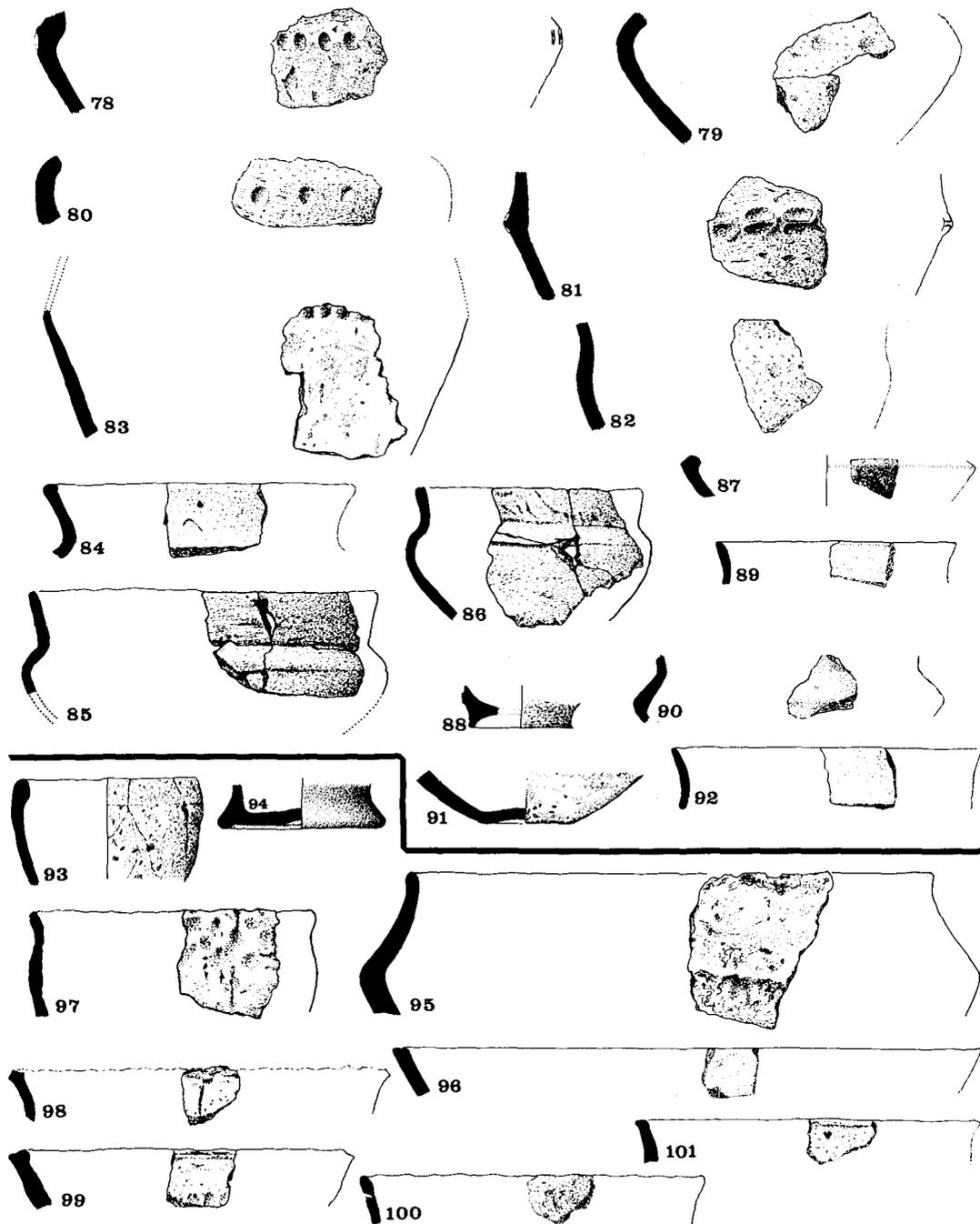


Fig. 18. Heathrow: The iron age pottery. Nos. 78-101 (1:4).



Plate 1. Aerial view of Heathrow Airport, looking east. The aircraft holding area and runway extension are nearest to the camera.

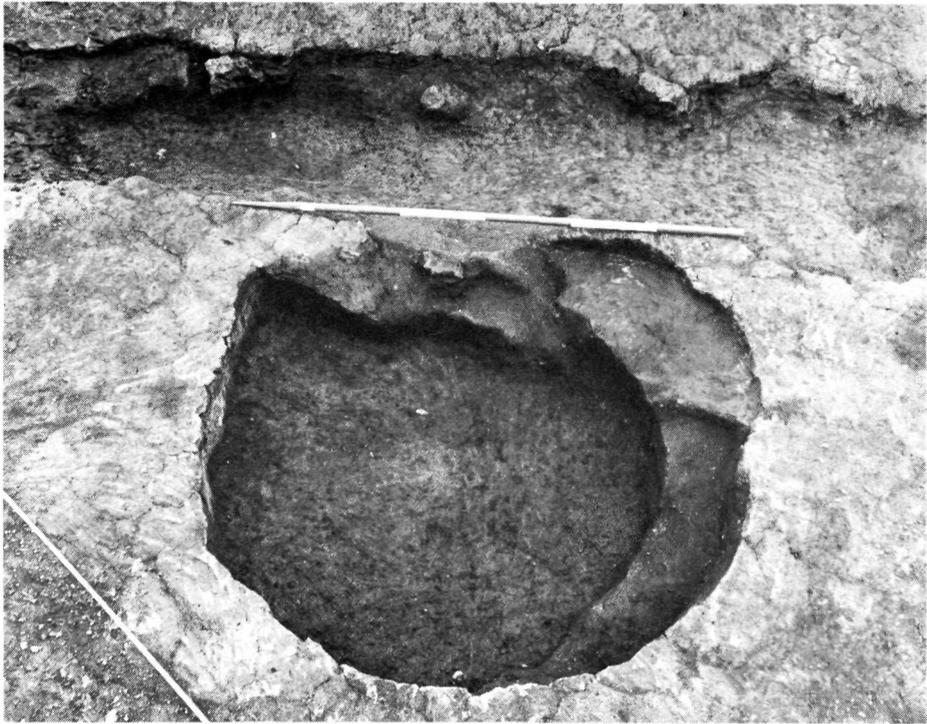


Plate 2. Heathrow: storage pit with ledge (Feature 15)



Plate 3. Heathrow: storage pit with ledge (Feature 7)

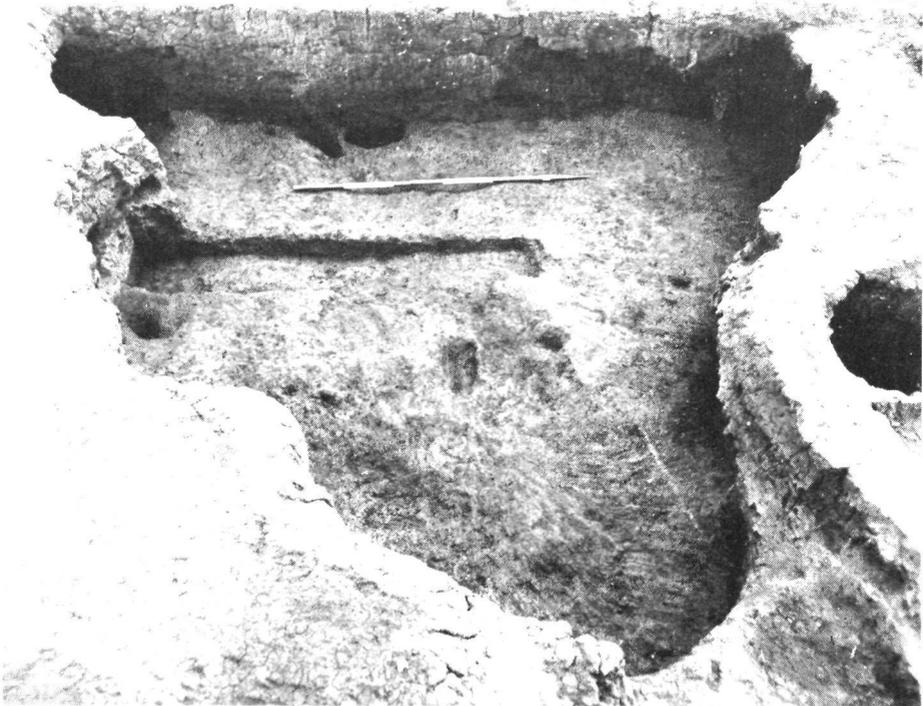


Plate 4. Heathrow: one of the hollows on Site K (Feature 23)

111. Dark brown ware with smooth exterior, very sparse fine grit.  
112. As above.

FEATURE 28

(Fig. 19)

114. Grey core, buff surface. Very soft and eroded.

FEATURE 29

(Fig. 19)

116. Identical to Nos. 111 and 112, perhaps same vessel.

FEATURE 30

(Fig. 19)

117. Black fabric fired brown on surface, well-finished. There are parallels at Hawks Hill for both the shape and the fabric (Hastings 1965, Fig. 6, 1). *cf.* also

FEATURE 31

(Fig. 19)

120. Black fabric with some grog, brown surface. *cf.* Hawks Hill (Hastings 1965, Fig. 7, No. 5).

FEATURE 32

(Fig. 19)

122. Black fabric fired buff on exterior.  
123. Red brown sandy fabric, fine flint grit.

UNSTRATIFIED POTTERY

(Fig. 19)

125. Finely gritted brown ware, incised lines forming an oblique panel.  
126. Black burnished ware with fine grit. The lines are made up of short incised bars formed by pressing a

THE ROMAN POTTERY

BY ALISON LAWS

FEATURE 33

(Fig. 20)

128. Small bead-rim vessel in corky fabric. Brown-black in colour with smoothed outer surface.

FEATURE 34

(Fig. 20)

131. Jar in hard grey ware, grey-brown surface. The type is present in Brentford groups of late 1st-early 2nd

FEATURE 35

(Figs 20 and 21)

133. Two-handled flagon in hard orange fabric with traces of white slip.  
134. Flagon in light pink-buff ware. The type is present at *Camulodunum* (Hawkes and Hull 1947 Pl. LXII, 155B) dated AD 10-65 and at *Verulamium* (Frere 1972 Fig. 102, 104) AD 60-75.  
135. Butt-beaker in hard light grey fabric with orange coated surface and two bands of combed decoration. An example from Fishbourne (Cunliffe 1971 Fig.

113. Somewhat coarse brown burnished ware, decoration incised before firing. This is perhaps a stray from an earlier feature.

115. Black fabric with smooth brown surface.

Crayford (Ward Perkins 1938, Fig. 7, Nos. 5, 12).

118. Coarse black fabric with light brown surface. Some flint grit. Identical to many of the early jar forms.  
119. Coarse brown vesicular ware.

121. Brown-black fabric with contrasting orange surface. The exterior has been furrowed and burnished.

124. Coarse black ware, poorly finished. Probably a stray from an early feature.

sharp tool into the surface.

127. Red to black fine fabric with fine grit. The small impressions seem to form part of a curvilinear design, as in the sherds from Wisley (Lowther 1945, Fig. 2, Nos. 24-25)

129. Jar in hard orange fabric.

130. Jar in hard grey sandy ware.

A 1st or 2nd century date is indicated by these sherds.

century date (Laws 1978, Fig. 56, 6).

132. Jar in hard reddish-brown fabric, dark grey micaceous coating.

88, 59.1) is dated AD 43-50.

136. Butt-beaker in hard fine orange fabric with two bands of rouletted decoration. The type is present in the early layers at Fishbourne (Cunliffe 1971 Fig. 88, 64).

137. Poppy beaker in fine light grey fabric with vertical bands of raised barbotine dots. Vessels of this type have not so far been found in the London area before the mid-Flavian period (information from Paul Tyers).

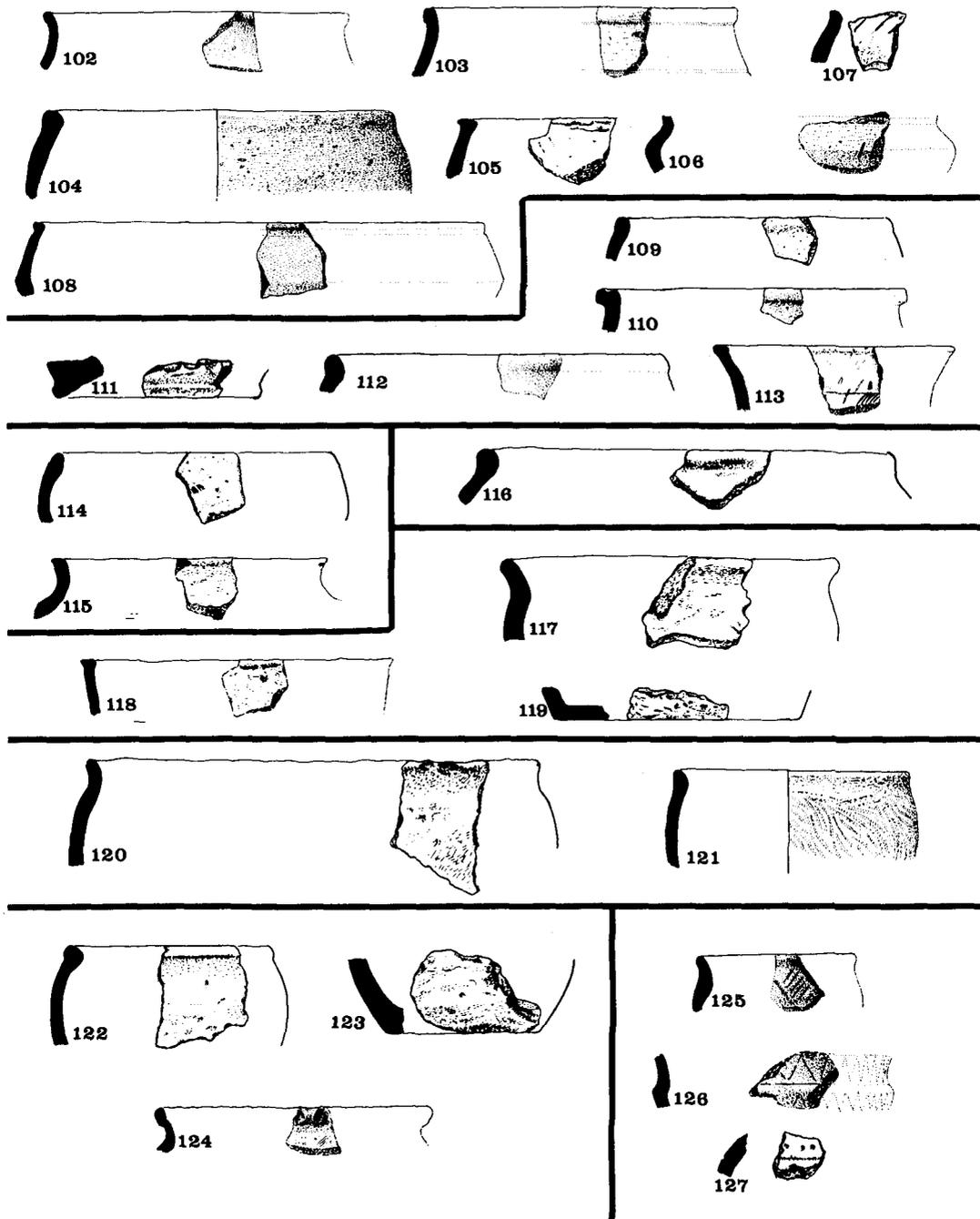


Fig. 19. Heathrow: The iron age pottery. Nos. 102-127 (1:4).

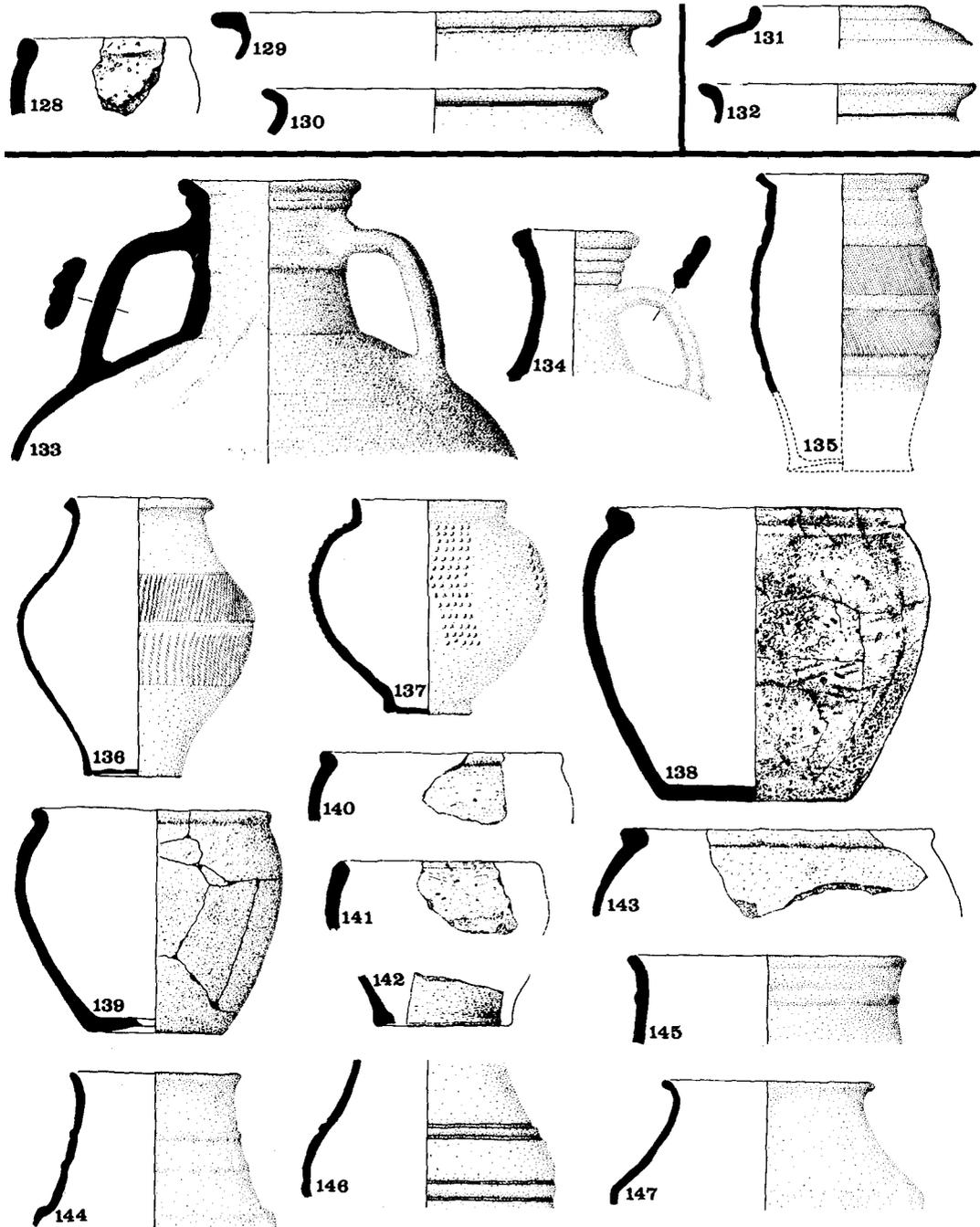


Fig. 20. Heathrow: The Roman pottery. Nos. 128-147 (1:4).

138. Coarse hand-made bead-rim jar in reddish-brown fabric but blackened around the rim, shoulder and inner surface. The surface has been smoothed and polished. Small particles of flint grit. An example from *Camulodunum* is dated AD 10-65 (Hawkes and Hull 1947 Pl. LXXXII, 257).
139. Coarse grey fabric with orange patches on outer surface. A deliberate hole has been chipped in the centre of the base. Similar to vessels being made in the Highgate kiln, phase 2 (Brown and Sheldon 1974 Fig. 3) dated to the period AD 70-100.
140. Small bead-rim jar in coarse handmade fabric.
141. Small bead-rim jar in black corky fabric containing small particles of flint grit. This vessel closely resembles items from the phase 1 production of the Highgate kiln, now thought to date to around the time of the conquest (information from Paul Tyers).
142. Base of jar in pinkish-brown fabric with small particles of flint grit.
143. Coarse bead-rim jar with smoothed buff-brown outer surface, blackened interior, flint grit tempering.
144. Cordonned jar in hard grey ware, orange surface on both sides. At Silchester cordonned jars of similar fabric were common in the pre-Flavian period.
145. Rim of cordonned vessel. Reddish-brown core with dark smoothed and polished surface, slightly soapy in texture.
146. Cordonned beaker in hard dark grey-black fabric. A similar type at Fishbourne is dated AD 43-75 (Cunliffe 1971, Fig. 88, 64.1).
147. Jar in hard dark grey micaceous ware.
148. Jar in fine hard micaceous fabric with light grey core and darker grey surface. A similar vessel from Fishbourne is dated AD 43-75 (Cunliffe 1971 Fig. 89, 66.5).
149. Coarse hand-made jar in grey-black fabric, large particles of flint grit, smoothed surface.
150. Pear shaped jar in red fabric with black coating which has been smoothed and polished.
151. Hard grey ware with lighter grey core, traces of brown painted decoration on rim and shoulder.
152. Jar similar to above in hard light grey ware with reddish brown patches.
153. Jar in hard micaceous grey ware with light grey core, darker on surface. This type was in common use at Fishbourne in the 1st and early 2nd centuries (Cunliffe 1971 Fig. 103, 180.1). At Verulamium cf. Frere 1972 Fig. 107, 285.
154. Small carinated bowl with reddish-brown core and brown-black surface showing evidence of burnishing.
155. Base of jar or flagon in light cream coloured fabric. As in vessel No. 139 a hole has been made in the centre of the base.

This group of vessels would appear to contain pottery of two distinctive types. Some of the vessels, notably the butt-beakers, cordonned jars and bead rimmed jars could well date to the very beginning of the Roman period, whilst others would suit a Flavian date. Although only two sherds of samian were present in the gully (see p. 00) a Flavian date is also indicated by these. The most interesting factor relating to the group is the condition in which the vessels were found. It seems that they were unbroken when thrown into the gully for the sherds from each pot were found close together with virtually no mixing. Whether this was merely a disaster of a domestic nature or something more serious is not evident.

It is interesting that two such distinct groups of pottery should be found in association with one another in circumstances which ought to point to a relatively tight date range. It may well be that the group represents continuing native traditions in an area which appears also to have had contacts with markets reflecting the new Romanised wares. Comparison may be made with sites such as *Camulodunum* and Fishbourne where native traditions continued to influence the pottery production. A date of AD 55-75 is suggested for the material.

#### FEATURE 36

(Fig. 21)

156. Bowl in coarse grey-black fabric with smoothed, burnished black slip on rim and upper part of shoulder, burnished decoration on shoulder. Probably residual from an iron age context.
157. Handle of dark grey ware with flint grit particles. Probably residual.
158. Bowl of dark grey ware with smoothed surface. At Silchester dated AD 45-65 (Cotton 1947 Fig. 11, 29).
159. Coarse grey bead rim vessel with smoothed surface, flint grit intrusion.
160. Coarse dark grey ware with particles of flint grit. Probably residual.
161. Jar in smooth buff ware.
162. Hard light grey fabric.
163. Jar in light grey fabric with darker grey smoothed surface.
164. Thick reddish-brown fabric showing traces of white slip.
165. Cordonned bowl with reddish-brown gritty core. Smoothed black coating on outer surface and inside rim. An early example of this tradition of cordonned bowls from the Belgic site at Deal can be seen in Birchall 1965 Fig. 12, 98. Examples of early Roman date are found at Fishbourne (Cunliffe 1971 Fig. 87, 53).
166. Coarse grey fabric with smoothed dark grey outer surface.
167. Bead rim bowl in coarse fabric with dark grey-brown surface, small particles of flint grit (Not illustrated).
168. Small dish in hard grey-buff fabric with orange outer surface. An example from Silchester is dated to the Flavian period (Boon 1969 Fig. 14, 164).

This group of vessels may be compared with the earlier vessels from Feature 35 and a pre-Flavian date is likely for this pit.

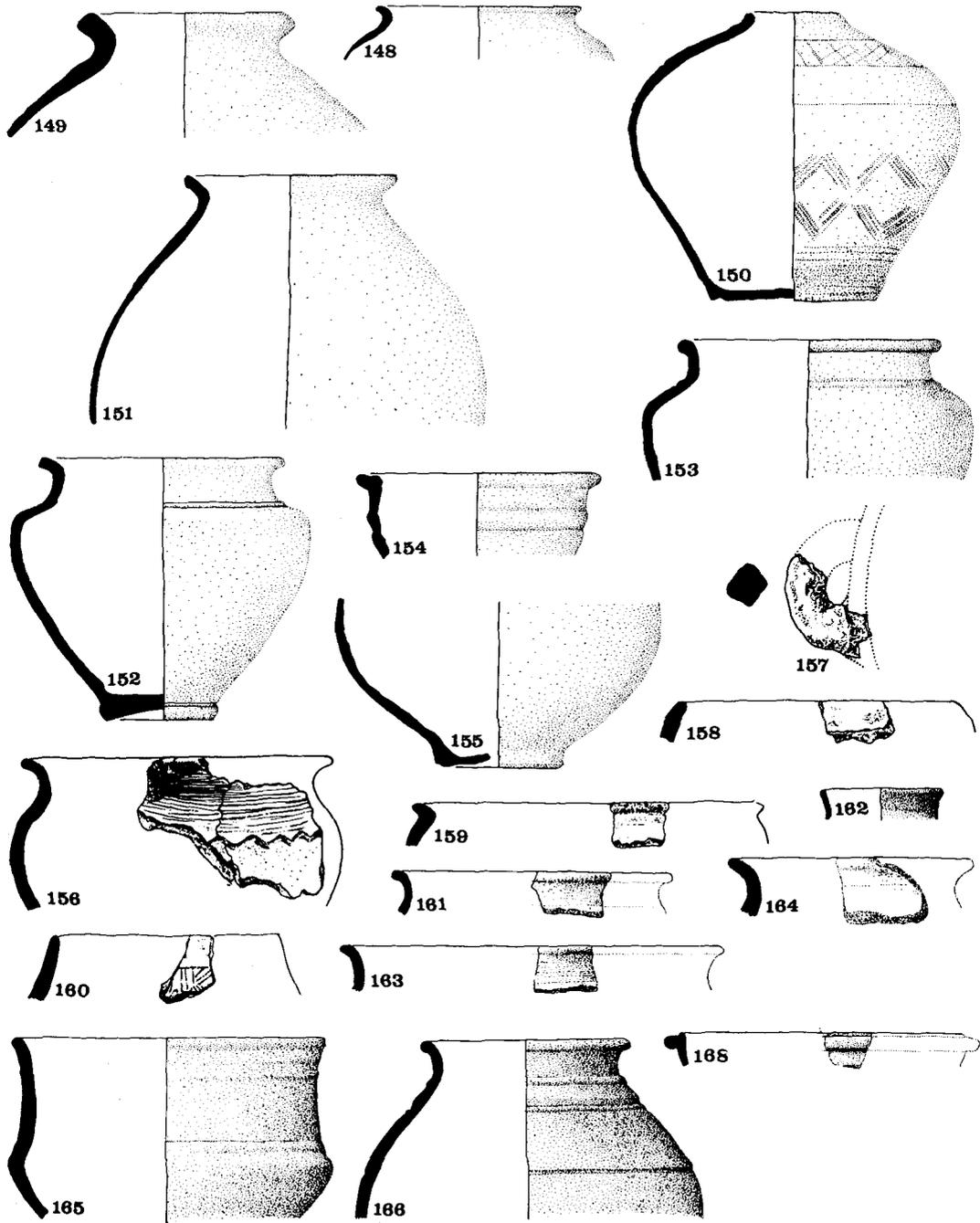


Fig. 21. Heathrow: The Roman pottery. Nos. 148-168 (1:4).

## FEATURE 37

Only one dateable sherd was present, the rim of a *mortarium* dated AD 80-110 (see *mortarium* report, p. 00 No. 203)

## FEATURE 38

(Fig. 22)

169. Hard dark grey ware with traces of burnishing on the cordon. Probably a product of the Farnham kiln in Surrey (Wade and Lowther 1949 Fig. 6); a similar vessel from Brentford was present in a group dated to the late 3rd or 4th century (Laws 1976 Fig. 51, 3).
170. Jar in hard sandy fabric with orange-red core with grey-buff surface, traces of black slip on rim.
171. Jar in hard orange fabric.
172. Small cup in smooth buff fabric, perhaps from the Brockley Hill area.
173. Jar in light grey ware with light grey burnished slip.
174. Flanged bowl in hard light grey fabric with light

grey slip on both interior and exterior surfaces. Although appearing earlier, this type of vessel is predominantly of late 3rd or 4th century date. A similar vessel is dated AD 270-350 at Winchester (Cunliffe 1964 Fig. 19, 4) and at Brentford (Laws 1976 Fig. 9, 77) is only present in groups of that date.

175. Storage jar in light grey sandy ware. This vessel is very probably a product of the Farnham kilns and a date of AD 320-360 is given to a vessel from Cobham of similar type (Frere 1949 Fig. 8, 4).
176. Storage jar in coarse orange fabric, small particles of translucent flint grit. Probably also from the Farnham kilns.

An early 4th century date is indicated by these sherds.

## FEATURE 39

(Fig. 22)

The following four vessels are from the earliest silting:

177. Flagon rim in hard grey sandy fabric, blue-grey core.
178. Storage jar in grey sandy fabric, light blue-grey core, darker exterior. Probably from the Farnham kilns.
179. Cordoned jar in reddish-brown fabric with grey surface slip, traces of burnishing on surface.
180. Jar in light brown-black corky fabric.

(From the later silting)

181. Hard grey sandy fabric. At Winchester present in a group dated AD 43-60 (Cunliffe 1964 Fig. 13, 3).
182. Jar in sandy grey ware with lighter grey core.
183. Hard grey sandy ware with blue-grey core.
184. Hard blue-grey fabric.
185. Jar in buff fabric blackened on rim. A similar

example from Verulamium is dated AD 200-275 (Frere 1972 Fig. 131, 1061) and the type is present in Brentford groups of late 2nd century date (Laws 1978 Fig. 50, 69).

186. Dish in hard black micaceous fabric showing traces of burnishing on outer and inner surfaces. This type of vessel was found in a later 4th century group at Bow (Sheldon 1972 Fig. 7, 23) and at Brentford (Laws 1976 Fig. 8, 55) a 4th century date is also given.
187. Flanged bowl in buff sandy fabric with white-grey slip on rim. Once again a 4th century date is indicated (Laws 1976 Fig. 9, 76-82).
188. Storage jar in light grey sandy fabric with blue-grey core.

The pottery from this feature covers a wide date range although there is not necessarily much difference in date between the latest identifiable sherds from each group (178, 180, 186 and 187).

It is likely that vessels Nos. 183, 184, 178 and 187 are products of the Farnham kilns in Surrey. Also present was the base of an Oxfordshire *mortarium*.

## FEATURE 40

(Fig. 22)

189. Jar in light grey sandy fabric. At Silchester a similar example is dated to the Antonine period (Boon

1969, Fig. 11, 16) and at Leicester (Kenyon 1948, Fig. 50, 29) to AD 200-250.

## FEATURE 41

(Figs. 22 and 23)

190. Small beaker in fine fabric with one shallow horizontal groove on exterior shoulder. Evidence of barbotine panels. Hard, grey fabric with light grey burnished slip. This type of beaker is found in Flavian/Trajanic levels in London (information from Paul Tyers) and at Brentford a similar form was present in a group of late 1st or early 2nd century date (Laws 1978, Fig. 52, 1).

191. Bowl in hard dark grey fabric with smoothed surface.
192. Dark grey-black fabric with brownish surface, small particles of flint grit.
193. Friable reddish-brown shell tempered fabric with traces of brownish slip on interior surface.
194. Hard dark grey sandy fabric with coarse dark grey surface.

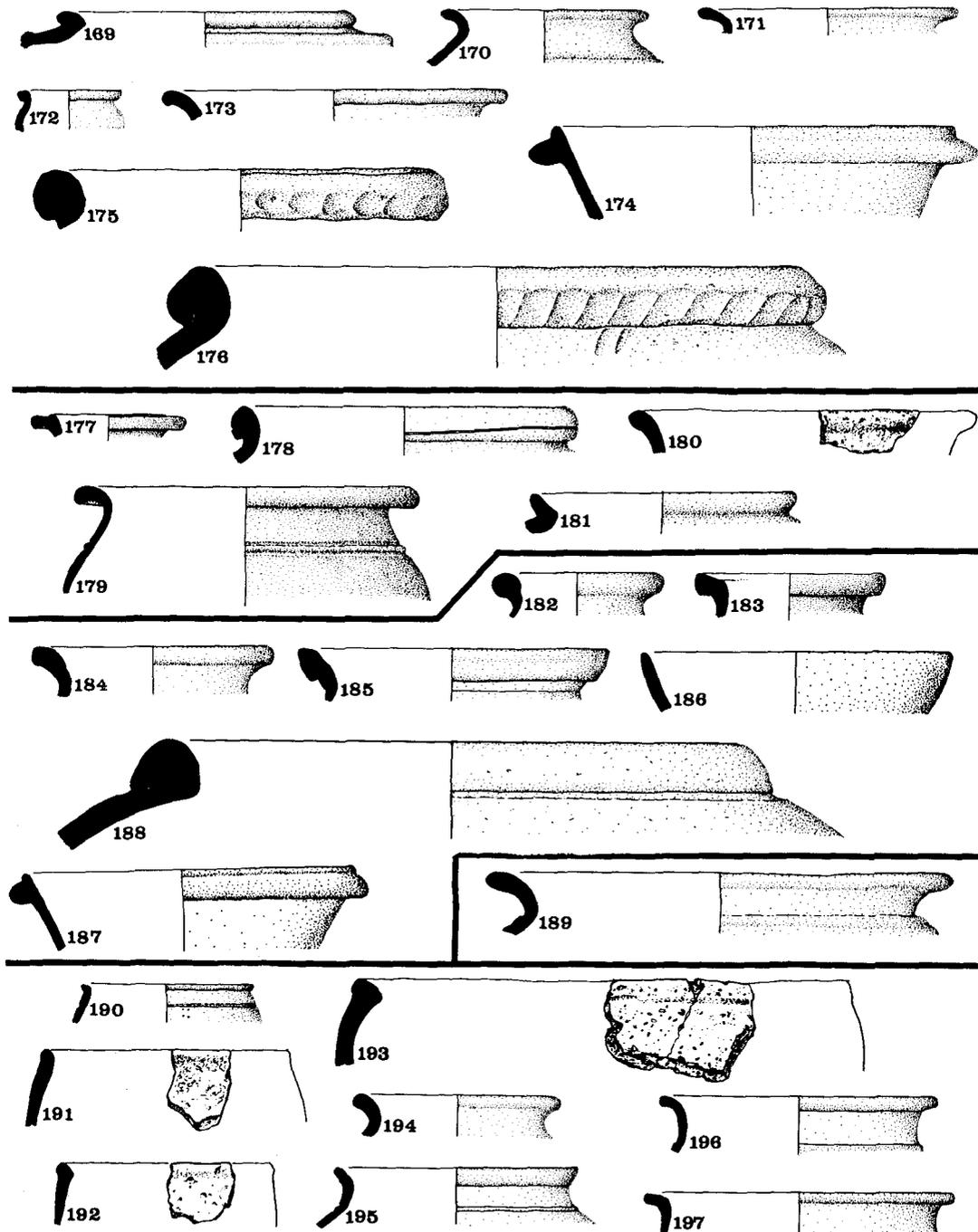


Fig. 22. Heathrow: The Roman pottery. Nos. 169-197 (1:4).

195. Fine light grey fabric with hard dark grey slip.  
 196. Hard fine orange fabric with grey-brown surface. A similar sherd from Dorchester is dated AD 135-180 (Frere 1962 Fig. 16, 122).  
 197. Hard Brown fabric with smooth grey-brown surface.
198. Both exterior and interior surface of rim covered with dark grey burnished slip, circumference of lip painted white.  
 198. Hard orange-brown fabric heavily tempered with black and brown grit, smooth but pitted orange slip weathered brown on surface.

The decorated samian sherd from this feature (see p. 00) indicates an early 2nd century date, however this pit cut into the surface of Feature 35 and it would appear possible that several vessels, notably Nos. 192, 193 and 195 are residual from this earlier context. An early 2nd century date would suit the jars present.

## THE SAMIAN

BY JOANNA BIRD

### FEATURE 35

(Fig. 23)

199. Undecorated: Dr. 27 South Gaul, probably Flavian (Not illustrated).  
 200. Decorated: Dr. 30 South Gaul, slightly burnt, gladiator incomplete but similar to 0.1020 (Oswald 1936-7), c. 55-75 AD.

### FEATURE 41

(Fig. 23)

201. Undecorated: Dr. 33 South Gaul, Flavian (Not illustrated).  
 202. Decorated: Dr. 37, in the style attributed to Donnaucus of Les Martres de Veyre. His ovolo with beads above and below (Stanfield and Simpson 1958, Pl. 48, 567); he also used the bacchus 0.571 (Oswald 1936-7; Stanfield and Simpson 1958, Pl. 46, 546). c. 100-125 AD.

## A MORTARIUM STAMP FROM HEATHROW

BY KATHARINE F. HARTLEY

### FEATURE 37

(Fig. 23)

203. This is a fragmentary impression of a stamp which even when complete is impossible to interpret with certainty and the potter must be regarded as illiterate or semi-literate. There is, however, no reasonable doubt that his intention was to produce a namestamp to one side of the spout and a *fecit* counterstamp to the other. The Heathrow example is part of the namestamp.

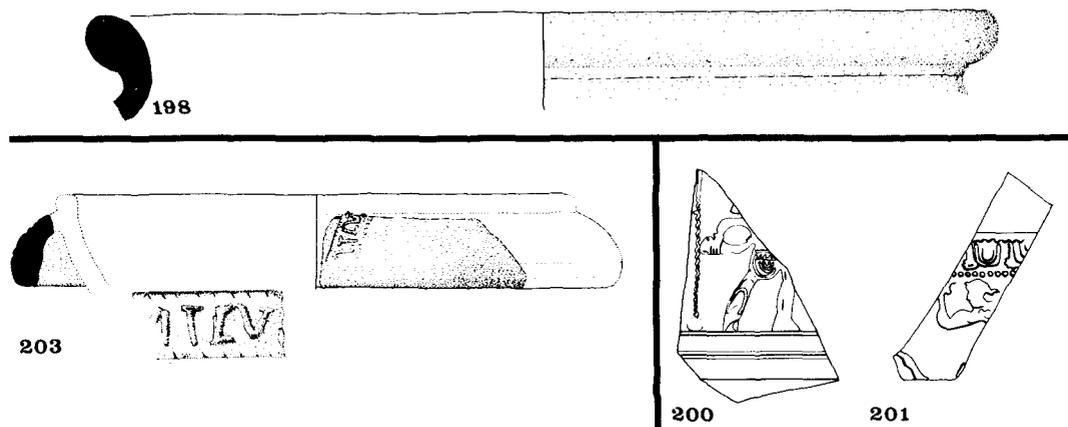


Fig. 23. Heathrow: The Roman pottery. Nos. 198, 203 (1:4) (Mortarium stamp 1:2) Nos. 200-201 (1:2).

Stamps from the same pair of dies have now been noted from Brockley Hill (4); Deanshanger, Nr. Towcester; Great Chesterford; Hassocks, Sussex; High Cross; London (5 + 2?); Southwark; Wilderspool; Worcester; and Wroxeter (2). The fabric produced by this potter points to production in the extensive potteries near Watling Street in the area between Verulamium and London (including kilns at Brockley Hill, Radlett, Verulamium and Bricket Wood). The condition of the mortaria from Brockley Hill, Middlesex suggests that he had a workshop there (Castle 1972, 87 and Fig. 6). A stamp from Wroxeter (Atkinson 1942, Fig. 40, Nos. 8 and 280) is from a pit dated to AD 60-90 and his rim-profiles would fit well with activity in the period AD 80-110.

(NB. The reconstruction of the sherd, Fig. 23 No. 203, is inaccurate and for closer parallels from Verulamium see (Frere 1972, Fig. 110 No. 359-370))

## THE SMALL FINDS

### WORKED FLINT

(Fig. 24)

The neolithic-bronze age ditch, Site K

1. Side scraper; translucent grey-brown flint, retouch on two edges, others show signs of wear.
2. Triangular flake; translucent grey-brown flint, steep flaking on all sides, possibly combined borer/scraper.

3. Snapped point; light grey translucent flint, very sharp point with delicate bi-facial flaking. Possibly the point from a hollow-base arrowhead or sickle.
4. Snapped blade; translucent grey-brown flint.
5. Snapped blade; translucent grey-brown flint. Broken blade, no re-touch but edges show signs of wear.

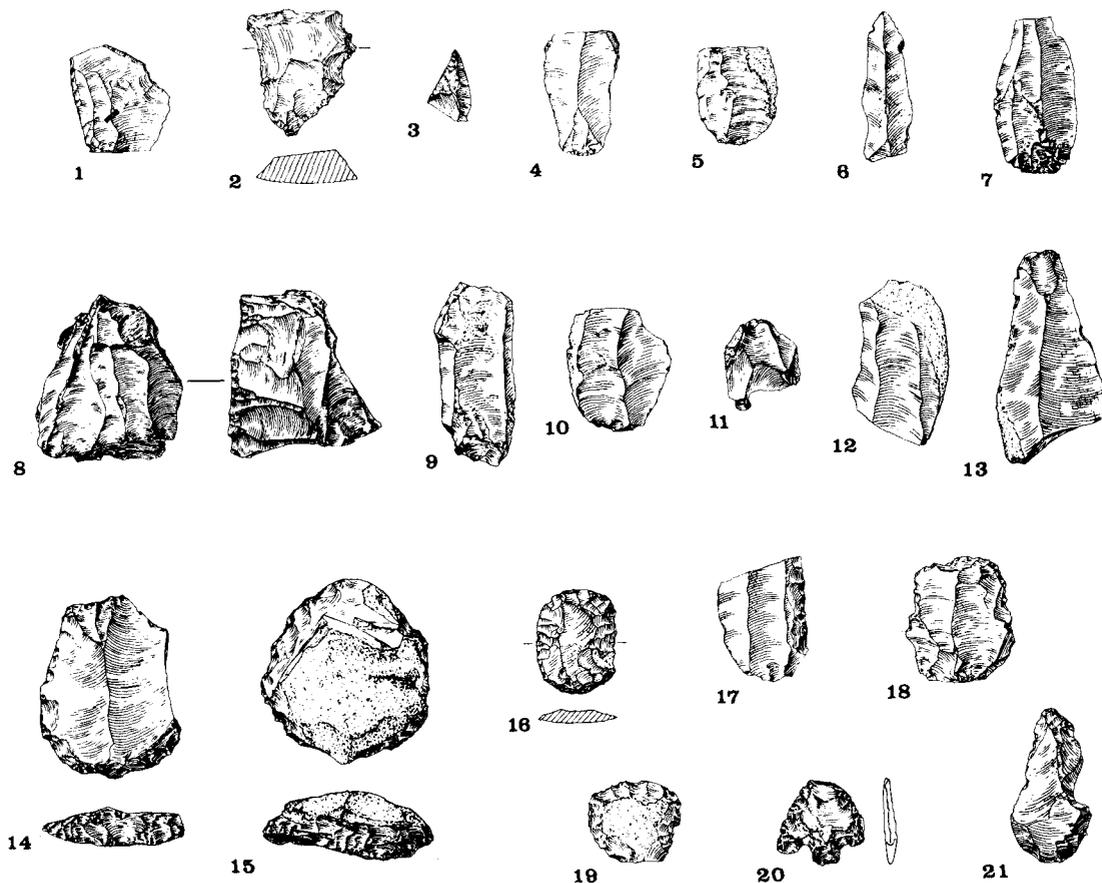


Fig. 24. Heathrow: The worked flint. Nos. 1-21 (1:2).

*The segmented ring-ditch, Site A*

6. Pointed and notched bladelet; grey-brown translucent flint. Both edges show signs of wear, one edge has small notch with retouch.

*The ring-ditch, Site H*

7. Blade; grey mottled flint. Three flake facets on convex face, no bulb. Notched and snapped.

*Early iron age contexts*

8. Core; sandy grey flint with two striking platforms (Feature 19).
9. Blade; light grey flint (Feature 25).
10. Snapped blade; translucent brownish flint. Cortex on one edge (Feature 17).
11. Notched flake; grey flint. Yellow cortex on one edge (Feature 24).
12. Snapped blade; bluish flint, cortex on one side (undated feature, Site C).
13. Snapped blade; translucent dark-grey flint. Signs of use on edges (Feature 22).
14. End scraper; light grey speckled flint (Feature 22).
15. Discoidal scraper; fine brown-grey flint (Feature 22).
16. Thumb nail scraper; fine brown-grey translucent flint (Feature 22).

*Romano-British contexts*

17. Blade with blunted edge; the implement has been snapped after the retouching has been done. Possibly a side scraper or a knife blade with blunted back (Feature 35).
18. Convex end scraper; grey speckled flint, fine pressure-flaking on broad end and one edge. Bulbar face unworked (Feature 33).
19. Small scraper; light grey-brown flint, three edges steeply flaked with very fine pressure, bulbar face untouched (Feature 35).

*Unstratified*

20. Barbed and tanged arrowhead; of bronze age date. Pale grey translucent flint. Bilateral scale flaking.
21. Notched flake; fine dark grey flint — possibly intended as a combined awl and scraper.

## OBJECTS OF BRONZE

*(Fig. 25)*

1. One piece brooch with ring-and-dot ornament on the flat bow. A La Tène III type found on early Roman sites such as Colchester and Hod Hill in Dorset. Brailsford 1962, Fig. 7, C. 22-26. Unstratified.
2. Fragmentary brooch of La Tène I type. Found in the lower filling of an early iron age hollow (Feature 25).

## OBJECTS OF IRON

*(Fig. 25)*

3. A four coiled brooch of La Tène III type, probably 1st century AD, found in Feature 26, but presumably

## THE BONE EVIDENCE

## BY MARGARET SUTTON

The Heathrow site yielded only a comparatively small amount of bone, comprising 172 identifiable fragments and 83 teeth. The majority of the bone is in a broken condition and probably represents food debris. The animals represented are cattle, pig, sheep and horse with a few unidentifiable bird bones. A distinction between sheep and goat was not attempted. No wild animal or dog was found. The site may be divided into two horizons, early pre-Roman iron age (by far the largest) and late iron age/Romano-British.

belonging to the intrusive feature of late iron age/Romano-British date.

4. Knife from Feature 38. The associated pottery indicates a date in the 4th century AD.
5. A curving blade with tang, perhaps a sickle. Unfortunately the feature in which it was found, No. 20, cannot be dated with certainty, though it is probably early pre-Roman iron age.
6. Object of uncertain purpose, c.f. the example from a well at Purberry Shot in Surrey (Lowther 1946-7, Fig. 12, 4). This one is from a Romano-British level on Site B.
7. Pin, head missing. From the top layer of Feature 26 and therefore of uncertain date though probably early pre-Roman iron age.
8. Object of uncertain function, possibly a casket fitting. From an iron age pit, Site C.
9. Fragment of currency bar or plough-share. There is some doubt as to whether there is a real difference between the currency bars of this type and the iron age type of plough-share (Allen 1967, 312-14, type CO). Whatever the function of the object it is clear from Allen's distribution map that the type is found regularly in the Thames Valley. This specimen was found in an early Romano-British context (Feature 35).

## OBJECTS OF CLAY

*(Fig. 25)*

10. Spindle whorl bearing three small incised lines. From Feature 26, an early iron age hollow.
11. Spindle whorl in red-orange clay, with incised decoration on one side only. Unstratified.
12. Object in dark brown clay, perhaps the lug handle of an early iron age jar (Clark and Fell 1953, Fig. 18, 1). From one of the early pre-Roman iron age pits (Feature 17).
13. Oval sling shot of baked clay containing a stone. Its shape and weight make it comparable to the specimens from Maiden Castle and Glastonbury (Wheeler 1943, Pl. XXXII, B. and Bulleid and Gray 1917, Pl. XC, 1-23). Unstratified.

## OBJECTS OF STONE

*(Fig. 25)*

14. Quern fragment from a late Roman feature on Site B (Feature 38).

## OBJECTS OF WOOD

*(Fig. 25)*

15. Point of stake, carbonized. Found together with the shouldered jar in the lower filling of the pit on Site J (Feature 21).

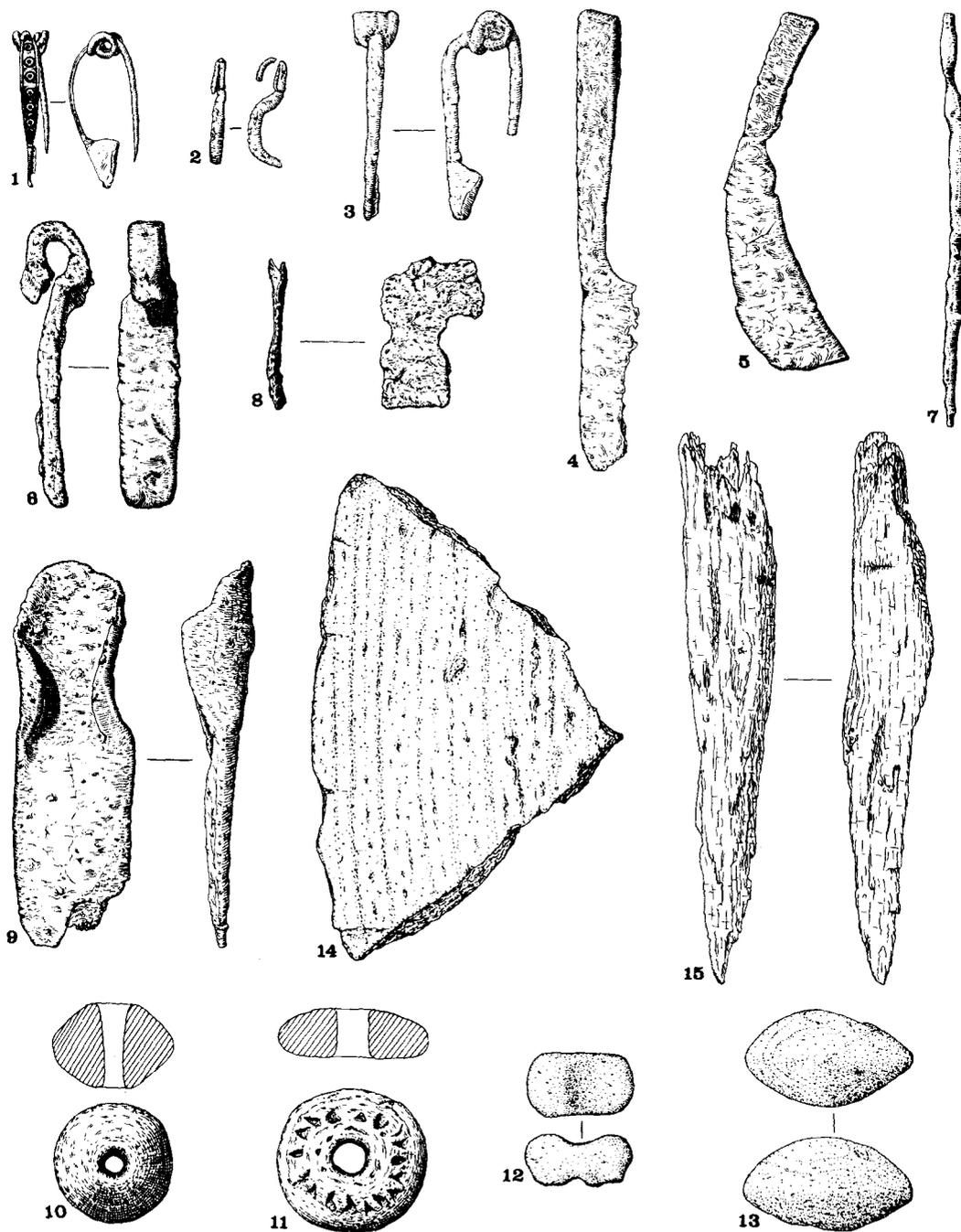


Fig. 25. Heathrow: The small finds. Nos. 1-15 (1:2).

## EARLY PRE-ROMAN IRON AGE (Fig. 26)

The bones used to calculate the minimum number of animals represented are shown in Fig. 26. These amount to 11 cattle, 3 horses, 16 sheep and 4 pigs. All the animals are rather small, similar to those found on other early iron age sites such as Hawks Hill (Hastings 1965), Staple Howe (Brewster 1963), All Cannings Cross (Cunnington 1923), and Glastonbury Lake Village (Bulleid and Gray 1917).

Cattle and sheep appear to have formed the main source of food. The scarcity of pig is a feature of other early iron age sites such as All Cannings Cross and Little Woodbury. Clark (1952, 117) points out that there appears to be a decline in pig-keeping and a corresponding increase in sheep-rearing between the neolithic and early iron age.

The lack of evidence of wild animals indicates that there was little or no hunting. It was significant that very few vertebrae, rib or skull fragments were found on the site. With the exception of the jaw-bones, the majority were meat bones suggesting that the scene of slaughter and butchery was elsewhere.

## CATTLE

Such evidence as there is to indicate size suggests the small 'Celtic ox' breed. There are only two complete metatarsals of mature animals, having lengths of 203 and 210mm. These compare well with those found at All Cannings Cross and are similar to the Kerry cattle. Sex determination, based on breadth/length indices (Chaplin 1971, 103-4) indicates that both are female, and by multiplying the length by a factor of 5.65 their height is estimated to be 1.147m and 1.187m, a little smaller than the cattle at Durrington Walls (Harcourt 1971, 340). The teeth and jaws form a large sample of the bone, the loose teeth all being from the lower jaw. There are very few skull fragments and only two horn-cores. It is possible to age 28 of the bone fragments.

*Age at death*

0-2 years	1 metatarsal
0-2 years	1 metacarpal
0-3½ years	1 ulna
0-3½ years	2 femurs
0-3½ years	1 radius
over 1 year	2 mandibles
over 1½ years	2 humeri
over 1½ years	6 radii
over 1½ years	4 mandibles
over 2 years	6 mandibles
2-2½ years	1 mandible
over 3½ years	1 metatarsal

It is apparent that a substantial portion of the cattle were kept through at least one winter, and some through two, suggesting a reasonable amount of winter fodder.

## SHEEP

The slender metatarsals and metacarpals are typical of early iron age breeds. However, there are no whole metapodial bones for measurement. There is a large quantity of teeth, the majority of which are molars from the mandible and maxilla, but as with the cattle very few skull fragments were found.

The following estimates of age have been made:

*Age at death*

0-10 months	1 humerus
5 months	1 mandible
0-2 years	1 metacarpal
over 1 year	9 maxillae
over 1½ years	7 mandibles
2-2½ years	2 mandibles
2 years	1 mandible
over 2 years	11 mandibles and 6 maxillae.

All eleven tibiae found have been chopped through at both ends. Most of the sheep were kept until at least a year old. The great quantity of loose teeth may be because sheep often lose them whilst still alive.

#### PIG

There are very few pig bones present, the majority being loose teeth and jaw fragments.

Estimates of age are:

##### Age at death

0-1 year	1 humerus
1½ years	1 mandible
1-2 years	2 maxillae
2 years	1 mandible
over 1 year	2 maxillae and 6 mandibles
over 1½ years	5 maxillae and 3 mandibles
over 2 years	2 maxillae.

#### HORSE

As with the other species the horse is rather small. One metatarsal measures 239mm and two metacarpals measure 199 and 200mm, indicating that the animals stood about 12 hands high. They fall between the two varieties found at the Roman fort at Newstead (Curle, 1911) described by Professor Ewart as 'plateau' or *equus agilis* type and 'forest' or *equus robustus* type.

The following estimates of age have been made:

##### Age at death

over 1½ years	1 metacarpal
over 2 years	2 metatarsals
over 3½ years	1 femur
over 4½ years	1 mandible
11 years	1 mandible.

The majority of the horse bones indicate that the species was longer-lived than the others at Heathrow, implying a long working life.

#### THE LATER IRON AGE — ROMANO BRITISH PHASE (Fig. 27)

The amount of bone from this horizon is so small that it has been impossible to carry out an analysis. The animals represented are 8 cattle, 3 horses, 3 sheep and 2 pigs. The estimated age of death of the cattle is greater than for those of the early iron age, the majority having lived for more than 2½ years, perhaps indicating improved farming methods in providing winter fodder.

Bone Type	Cattle	Horse	Pig	Sheep
Mandible	11	3	2	16
Maxilla		1	4	6
Scapula	5	1	1	3
Humerus	3		1	4
Radius	6			3

Bone Type	Cattle	Horse	Pig	Sheep
Ulna	2	1	1	
Metacarpal	3	1		4
Ilium	6	2		
Femur	1	1		
Tibia	3			7
Metatarsal	3	2		1
Atlas	1			
Calcaneum	1			
Astragalus	1			

Fig. 26. Heathrow: The early pre-Roman iron age bone. Minimum numbers of animals as represented by bone types.

Bone Type	Cattle	Horse	Pig	Sheep
Mandible	8		2	3
Maxilla				2
Scapula	2	2		
Humerus	2			1
Radius	3	1		2
Ulna				
Metacarpal	2	2		
Ilium	2	1		
Femur				

Bone Type	Cattle	Horse	Pig	Sheep
Tibia	1	1		3
Metatarsal	1			
Atlas				
Calcaneum	1			
Astragalus	3			1

Fig. 27. Heathrow: The later iron-age — Romano British phase. Minimum numbers of animals as represented by bone types.

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# REPORT ON EXCAVATIONS AT FULHAM PALACE MOAT, 1972-1973

PAUL ARTHUR AND KEITH WHITEHOUSE

## INTRODUCTION:

*Bishop's Park, adjoining Fulham Palace, Fulham, is situated on the north bank of the river Thames, on an inside bend, about seven miles south-west of the Roman city of London (Fig. 1). Field work in Fulham had led to a questioning of the date and the origin of the moat and earthworks surrounding the Fulham Palace. In the hope of elucidating the nature of the site it was decided to excavate a section across these features. Therefore, in October 1972, with the permission of the Hammersmith Borough Council, a trench 22.8m (75 ft.) by 3m (10 ft.) in dimension was opened later to be backfilled in August of the following year (Fig. 2; Nat. Grid TQ 2415 7595). Excavations were carried out under the direction of Keith Whitehouse (F.A.R.G., Director of Rescue Excavations), assisted by Paul Arthur as site supervisor on behalf of the Fulham Archaeological Rescue Group. All finds and site records are temporarily deposited with the group.*

## HISTORICAL DISCUSSION: (K.W.)

Most historians have considered that Fulham, in earlier times, was a marshy area by the Thames not suitable for settlement.<sup>1</sup> Their argument was that as the terrain was low-lying and prone to flooding, 'Fulham' literally meant 'foul-ham' due to its wet state.

However, the origin of the Fulham Palace site appears to be centred on a ford that crossed the Thames from Fulham to Putney near the site of the present Putney Bridge at the head of a conjectural route of a prehistoric trackway following the route of Fulham Road-Old Street.<sup>2</sup> Evidence for its existence is emphasised by three exceptional finds that have been found along its Fulham route, a neolithic polished black-stone axe, bronze age spearhead and a coin of Philip of Macedon.

Fulham and Putney lie on one of the few stretches of the Thames west of London where there is firm sand and gravel on both sides of the river with no intervening alluvium, and this coupled with the deep loop in the Thames at this point would create a strategic route from the London area and the east into western Surrey. The Thames would have been much shallower and probably non-tidal.

Numerous river finds of artefacts dating from palaeolithic times to the iron age period confirm activity in the area.<sup>3</sup> Fulham was probably first occupied in mesolithic times, for after the last Ice Age, the flat terrain of the flood-plain both fertile and well drained would have been easy to clear for farming and therefore conducive to settlement. Similar sub-soil is found on the opposite riverbank at Putney.<sup>4</sup>

## ROMAN

Until 1962, little was known about the Roman period in this part of London until occupation evidence was found west of Putney High Street, near the River Thames. Since then excavations have revealed considerable evidence of activity on that side of the river, though the exact nature of this occupation has yet to be established. The evidence suggests

an area of agricultural small-holding, and a small fragment of mosaic pavement, possibly Roman, perhaps indicates a substantial building in the vicinity.<sup>5</sup>

The discovery of evidence of Roman occupation on the opposite riverbank at Fulham, has raised questions about the history of the settlement on the north bank. Until 1972, no authentic Roman find was known from Fulham, although the well known 'Fulham Sword', a legionary sword and scabbard dated to the 1st century A.D., was found in the Thames in 1887. The precise find spot is uncertain although it is recorded to have come from the Middlesex bank, west of Fulham Palace.<sup>6</sup>

One or more roads must have linked these two sites and the associated ford with other settlements in the area. It would therefore seem reasonable that the prehistoric trackway may have continued in use in the Roman period. In Saxon times the independent estates of Kensington and Chelsea had the Fulham Road as a common boundary.

There is little evidence available about the end of the Roman period, although it appears to have ceased in the late 4th/early 5th century.

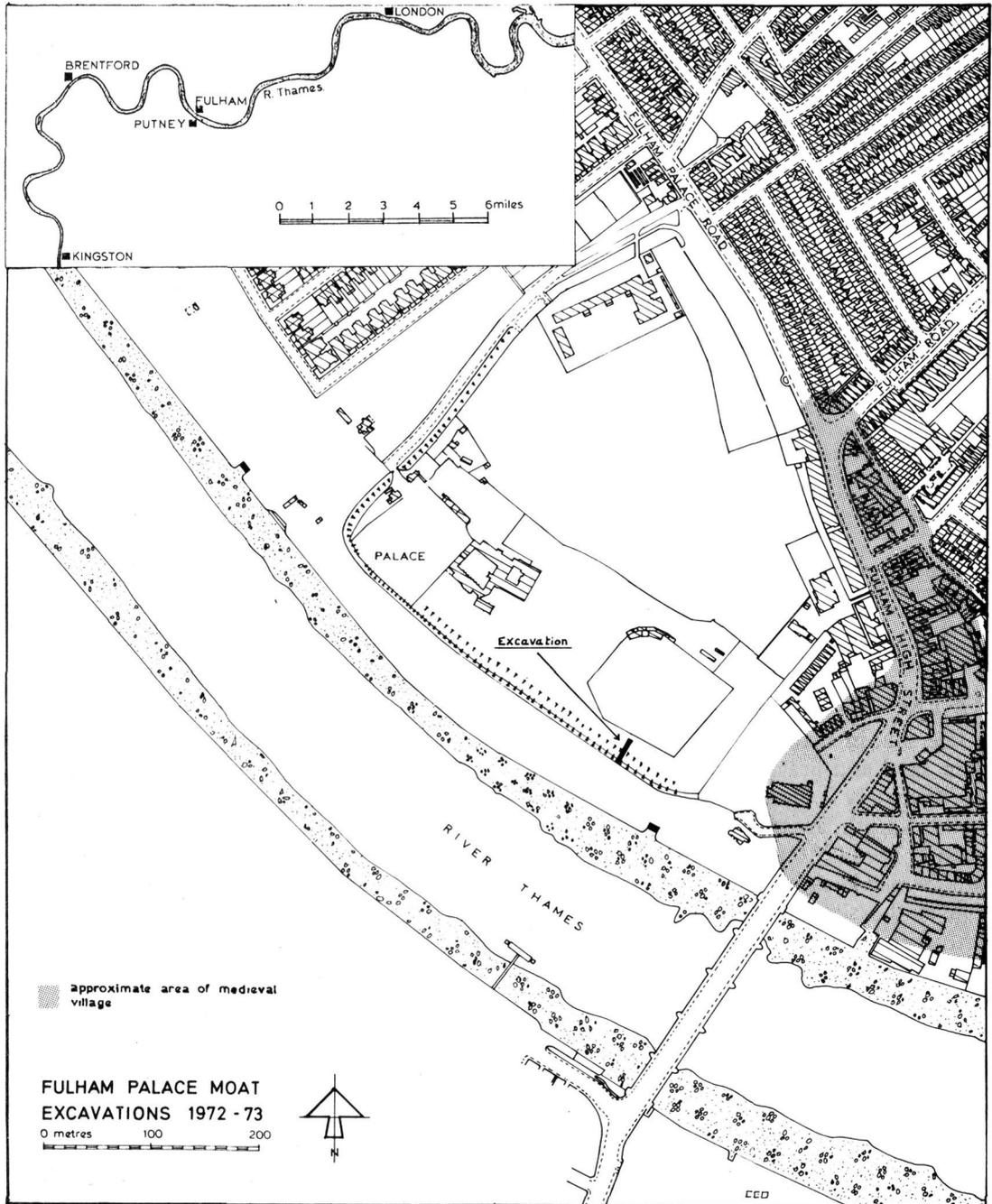
The subsequent history of the area is unknown until A.D. 704-705 when the Bishop of Hereford granted a place called 'Fulanham', consisting of the present area under the authority of the London Borough of Hammersmith, to the Bishop of the East Saxons (London).<sup>7</sup>

## THE ORIGIN OF THE MOAT

The first apparent documentation dates to between 1163-80.<sup>8</sup> The Fulham Palace site originally appears to have been an island, for a stream is known to have issued forth at Colehill and to have fed the moat at its northern corner. The stream apparently forked, one arm flowing along Bishops Avenue into the Thames delineating the north-west side of the moat, the other flowing down Fulham High Street and discharging into the Thames in the vicinity of Putney Bridge. *The north-east and south-east sides were thus determined by the stream and the south-west side by the River Thames.*

The moat has generally been considered to be medieval in origin and, although its size would be extraordinary for this date, it has been claimed to be the largest medieval moat in England.<sup>9</sup> It encloses approximately 14.5 hectares (36 acres). Since the discovery of a Roman settlement in Putney, reconsideration of the date of the riverside portion of the moat has led to the suggestion that it is similar in form to a Roman defensive earthwork of the early empire. *Another view held is that its size was indicative of an iron age earthwork,* while local tradition has associated its construction with a Danish incursion in A.D. 880<sup>10</sup> for Sir Arthur Blomfield concluded that it was the work of the Danes because its size could only have been constructed by a large body of men for defensive purposes.<sup>11</sup> It is not, however, unreasonable to suggest that the Danes would have used an existing earthwork to avoid the inconvenience of digging another and by this date the site must have already been occupied by the 'hall' of the estate and an existing earthwork could well have been refashioned.

It might be expected that the existing Palace complex would have been centrally placed within the moated area, though it was in fact positioned in the north-west corner. This perhaps suggests that a separate enclave, which would have been easier to defend, was established and such an arrangement would have general parallels with the situation at Pevensy and Portchester. In 1975/76, a rescue excavation and resistivity survey in the north-west corner of the moated area inferred that approximately 0.4 hectares (one acre) had



been separated in the medieval period by multiple banks and ditches. The banks lacked dating evidence but several features contained debris of the 13th century. This evidence, taken together with crop-marks noted on the adjoining lawn, suggests that this corner may have enclosed the Palace by the 13th century.

The Bishops Walk, between the river and the moat, was a bank against flooding until the late 19th century, but may owe its origin to the late Roman embanked surfaces (Fig. 3). A large drainage ditch on the south-west side, which is now back-filled, could originally have been an additional defence.

A further length of ditch, at least 180m. long, is shown on Rocque's map running parallel with the moat's north-east arm.<sup>12</sup> Additionally, on the east side of Fulham High Street, running parallel with the length of this arm, is a bank standing c. 2.00m high at its southern end. During the 19th century, properties on a portion of it were known collectively as 'High Bank'. It may be significant that in 1391 the High Street was known as 'Burystrete'.<sup>13</sup>

Much work remains to be done before the full complexities of this multivalliate structure are understood.

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#### THE EXCAVATION: (P.A.)

The site, in Bishop's Park, formerly within the Palace grounds, lies on fairly level Flood Plain sand and gravel held within a meander of the Thames. The Flood Plain deposit<sup>1</sup> is approximately 7.6m (25 ft.) thick and rests on London Clay. Below the Clay, at about 49m (160 ft.) depth, are the Reading and Thanet Beds which are based on chalk at an approximate depth of 76m (250 ft.). This site is approximately 93m from the present low tide mark. The bank is visible along most of its southern and western course as a low earthwork (900mm high at the site) immediately behind the infilled moat. The excavation cut through the earthwork and moat exposing a varied stratum dating from the neolithic (see main section and plan, Fig. 3).

#### PRE-ROMAN PERIOD

The earliest deposits on site may be divided into two groups. First, a gully and four hollows cut into natural gravel to the south of the moat, and secondly, a deposit of light clay material on natural sand and gravel to the north of the moat. Cut into the gravel were two small pits, one with an associated gully. All were sterile of artifacts.

##### Group I. South of moat cutting.

The gully (3) (Figs. 4 and 6), of shallow U-shaped section, was apparently left open for some time and silted naturally, the fill being sterile apart from some eroded gravel from the sides and a high number of crazed flints and charcoal flecks. Immediately to the south-east of the gully was a group of four hollows as well as two depressions which may once have been similar hollows. The largest hollow may conceivably have been a post-hole due to its very regular round shape. It was 460mm (1 ft. 6 ins) wide

at the top and 300mm (1 ft.) deep. Its fill was identical to that of the gully apart from the occurrence of a struck flint flake in its base. The other three hollows were irregularly shaped and also contained fill similar to that of the gully. Sealing all was a deposit of clay and gravel (layer 4) varying in thickness. The top of the deposit was flat.

Group II. North of moat cutting.

This deposit (layer 2) consisted of a layer of graded clayey alluvium which became sandier as the underlying natural subsoil changed from gravel to sand. The northern part of the deposit was disturbed in parts. Four fragments of friable neolithic pottery were recovered from the clay, which also contained a considerable amount of gravel, crazed flints and flecks of daub and a number of mesolithic and neolithic struck flints (see p. 52). Two small pits (1) were cut into the gravel (Fig. 6). They were filled with a soil slightly darker than the overlying alluvium. Cut into the alluvium was a small pit (Layer 5; Fig. 5) which contained two hundred closely packed river pebbles, none larger than a clenched fist, and may date to the Roman period.

ROMAN PERIOD

Adjacent to Layer 5 was another small pit (7) cut 140mm into the alluvium, with a maximum width of 720mm, containing a horse's skull minus its mandible and a dog's skull with its atlas and axis vertebrae (Fig. 5). Both skulls were lying nearly parallel, facing east, and with their crania uppermost. The tops of the skulls had been crushed in antiquity, probably due to the use of the adjacent surface. The pit's fill was clayey and represented backfill. Directly to the north-east of the burial was a large post-hole (8) (lying 5.14m from the northern edge of the trench), 210mm in diameter, cut 450mm into the alluvium. The original post was c. 180 x 180mm square, and although the packing seemed undisturbed, there was no soil discolouration to suggest that the post had rotted *in situ*. The packing consisted of thirty-six large, roughly squared, flint nodules of mean weight 1.82kg, the largest weighing 4.55kg, three weathered sandstone blocks and a broken tegula. The flints were not waterworn, as is the locally occurring river gravel, and had thus been imported.

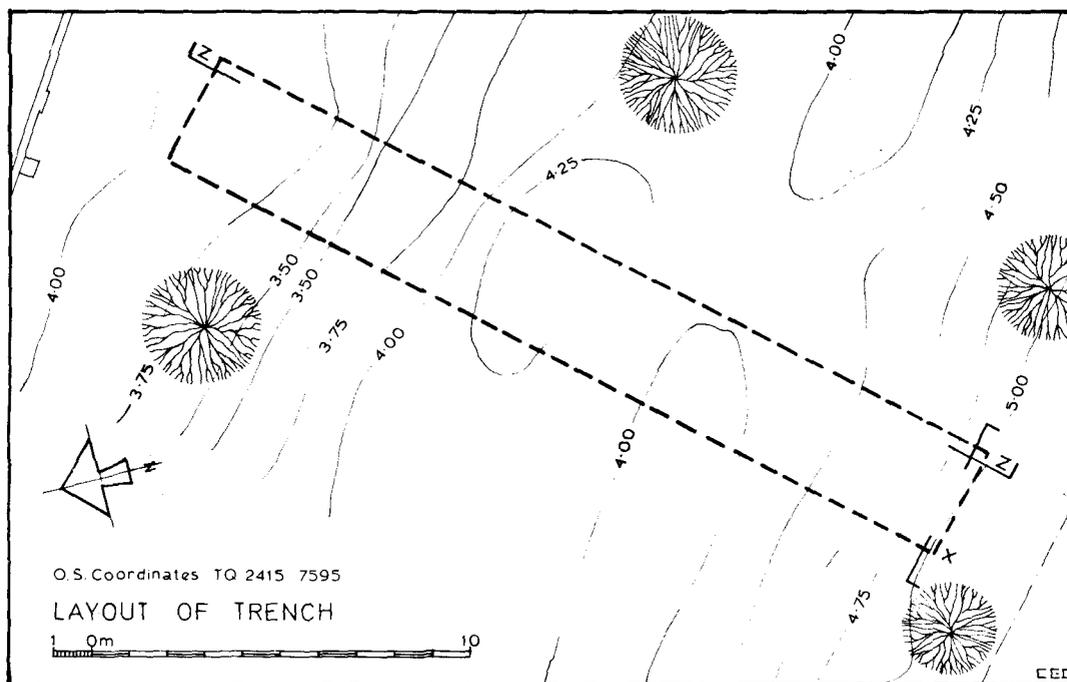


Fig. 2 — Fulham Palace Moat: Layout of trench

Partly sealing the burial was a gravel spread (Layer 9), which had one recognisable resurfacing (Layer 10) and contained a coin of Victorinus. At the southern end of the site a second surface had two distinct resurfacings (Layers 12, 14 and 16). The primary southern surface was bedded on compacted iron shot clay (Layer 11) which immediately overlay the clay and gravel Layer 4. Similar layers of iron shot clay (Layers 13 and 15), both containing Roman debris, were respectively underlying Layers 14 and 16. The pottery and bone from these layers had badly corroded surfaces, while metal objects remained only as discolourations in the soil.

To the east of the gravel surface Layer 9, and forming a slightly acute angle with its edge, was a pit or ditch terminal (Layer 6) partly obscured by the section. Its fill consisted of dirty wet sand with some charcoal flecks and a small amount of Roman rubbish including a high percentage of bone.

The occurrence of two burnt deposits dating from about the mid 4th century were possibly the result of a localised fire. Layer 17, which was about 180mm at its thickest point, partly overlay Layer 6, while a similar layer (Layer 18) 150mm thick was laid down next to the gravel surface Layer 9 and the post-hole. Both layers consisted of dark, charcoal-flecked soil and contained large amounts of pottery, bone and tile, which in some cases were burnt. Oyster and mussel shells were also recovered from Layer 17.

Shortly afterwards, a V-shaped ditch was dug through the gravel and the burnt Layer 18, and its flat bottom had penetrated the natural gravel. The ditch (Layer 19) was approximately 830mm deep and had a dark fill containing a large amount of gravel which probably derived from the gravel surfaces 9 and 10, as well as usual domestic rubbish and a coin of Constantine I from the top of the fill. Parallel to this ditch was a trench (20; Fig. 3) further south, of U-shaped section and cut about 440m through the gravel and into the alluvium. In the bottom of this trench a post-hole (21) of 300mm diameter and 265mm depth had been dug. There were no signs of a decomposed post, although some gravel packing remained in the base. The trench had remained open long enough for a thin band of rapid silt to accumulate in the bottom, but had then been backfilled with material almost identical to the surrounding soil, but containing a small amount of Roman refuse.

The latest recognisable ancient feature on the site was a bank of dump construction, which covered the trench (20) and ditch (21). Its fill contained many small abraded sherds and no coins later than *c.* AD 367 to 375. The front part of the bank consisted of a clay layer (Layer 22), and the whole was covered with clean gravel capping (Layer 24) almost devoid of finds, and presumably deriving from the natural subsoil. The crest of the bank was fairly level and contained at least three post-holes averaging about 270mm deep and 140mm wide, and spaced at approximately 500mm intervals. These were devoid of dating evidence and lay just beneath the modern topsoil. Any ditch accompanying the bank to the south would have been totally destroyed by the medieval moat (Layer 27), which was infilled over the years 1921-1924. Behind the bank and overlying Layers 6 and 17 were various indistinct sandy layers (Layer 25) containing late Roman refuse. These layers were virtually indistinguishable from the overlying 18th and 19th century strata, apart from the date range of respective finds.

For convenience, all modern layers, excepting the moat, are labelled Layer 26.

#### INTERPRETATION: (P.A.)

The evidence can be divided into three periods, pre-Roman, Roman and post-medieval, though only the first two are discussed here. Detailed information on the post-medieval deposits is lodged with the site records.

#### PRE-ROMAN PERIOD

Mr. J. J. Wymer writes:

237 flints were submitted for examination, and, except for one naturally-fractured piece, all are artifacts. The majority come from levels disturbed in Roman or later times, but there are 33 from a light clay with gravel and 22 from dirty sand (Layer 2). Both the latter deposits are assumed to be natural alluvium of the River Thames.

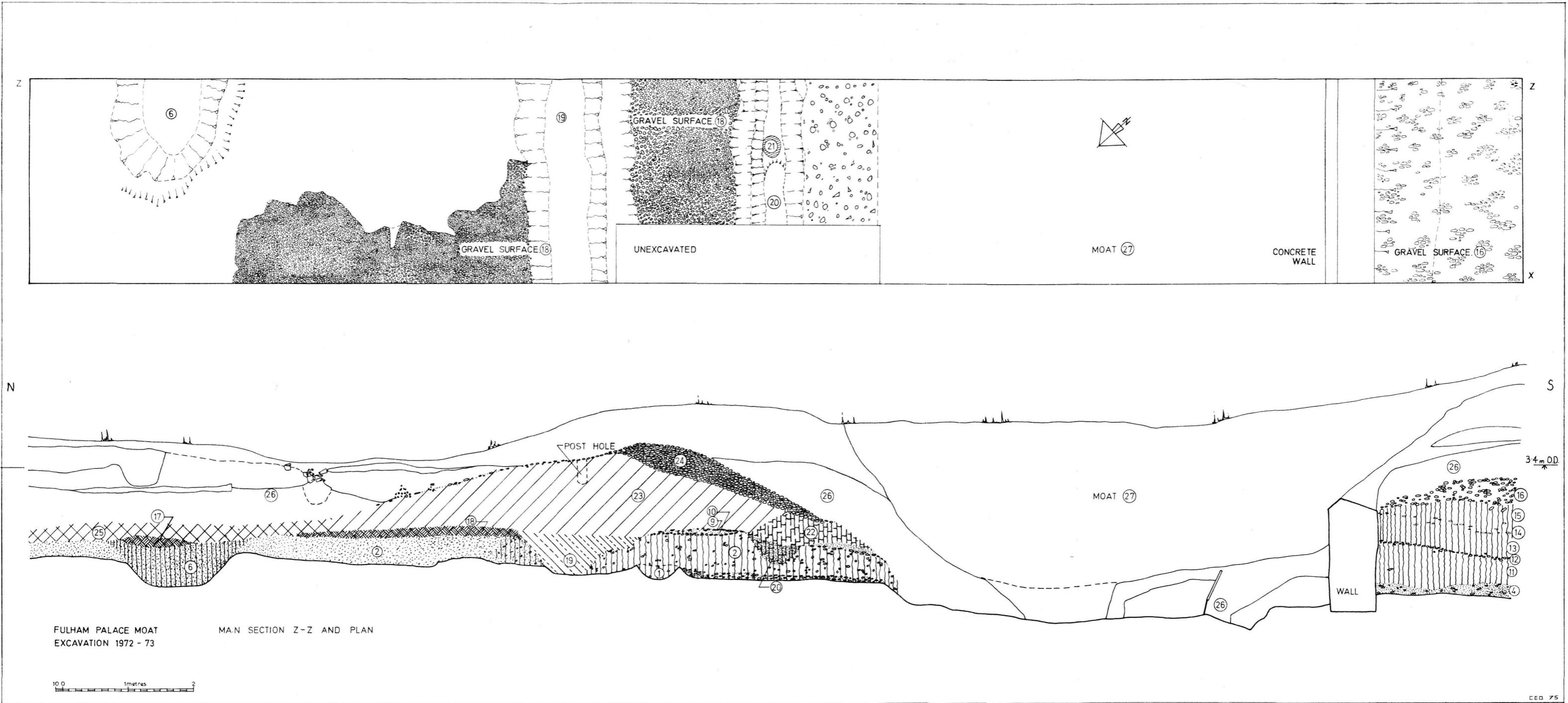
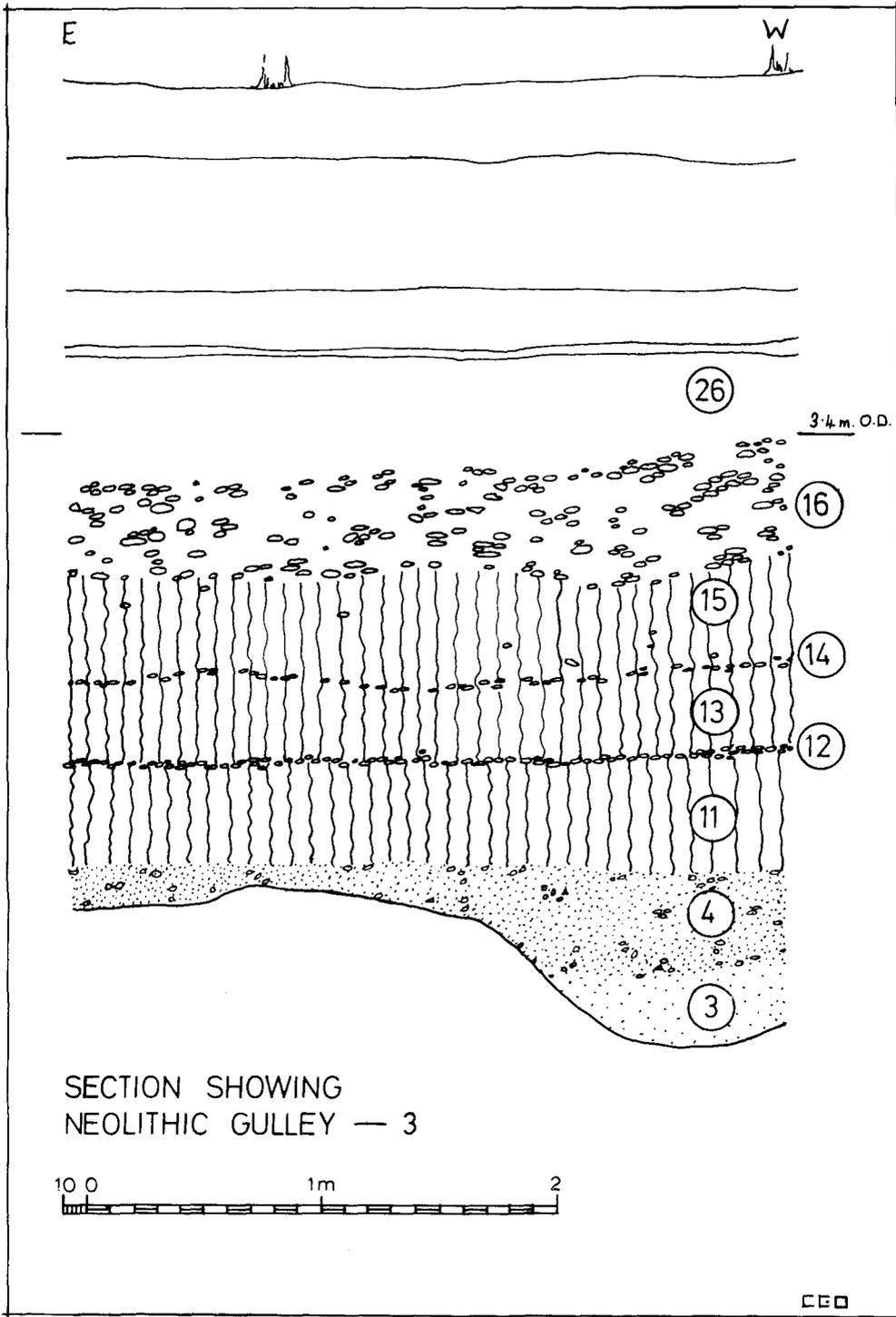


Fig. 3 — Fulham Palace Moat: Main plan and section



SECTION SHOWING  
NEOLITHIC GULLEY — 3

Fig. 4 — Fulham Palace Moat: Section of south end of trench (Z-X) showing neolithic gully and overburden

They are classified as:

	<i>Unstratified</i>	<i>Layer 2 - alluvium</i>
Core .....	1	4
Flake .....	144	41
Blade .....	3	1
Bladelet .....	7	2
Core preparation flake .....	1	—
Utilised flake .....	7	2
Spall .....	15	4
?Axe rough-out failure .....	—	1
Graver .....	1	—
Scraper .....	2	—

It is unfortunate that among these flints there is nothing that is convincingly diagnostic of any particular industry or period. The unstratified flints, i.e. those in disturbed levels, have presumably been thrown up from earlier levels, and the date of the deposition of the alluvium is unknown. The presence of cores, and a core trimming flake, show that flint was actually being knapped on the spot, and the few utilised flakes at least demonstrate that there was some domestic activity. At least five pieces are burnt, but these do not include any from the alluvium. A small proportion of the artifacts (13%) are patinated and this is suggestive that at least two different periods are represented. Blades and bladelets might be expected to have a mesolithic context, but the patination is little guide in this respect, for the number of these artifacts found is too small to regard the somewhat higher proportion of patinated to unpatinated (31%) as significant. However, at least one flake shows traces of earlier patinated flake surfaces, and there are two patinated flakes which show clear traces of utilisation at a later date, as the edge damage is unpatinated. Also, the only tool form of any consequence, although it is rather a crude, poor example, is a micro, plain angle graver. This is more likely to be mesolithic in date than neolithic, and it is patinated.

The cores are all small (less than 4cm long). Three are of single platform type, and one is multi-platformed and irregular. None has been used for the production of blades or bladelets and, like the majority of the flakes which accompany them, have all the aspect of a normal neolithic industry. One scraper is perhaps better described as a small (3cm) thick flake with secondary working along one edge and obliquely across the distal end. It is burnt and patinated. The other is a small ‘thumb scraper’

The only tentative conclusion that may be made from these flints is that both mesolithic and neolithic industries existed here, either buried in or on the surface of the Thames alluvium. More convincing evidence for the date of at least some, if not the majority, of the flints being neolithic comes from four pot sherds found within the clay alluvium. They include two rim sherds, one of simple form, one externally thickened. One of the other sherds is probably part of a curved shoulder. The latter is of a hard, thick ware with a red burnished exterior. All the sherds have flint grits, but only the externally-thickened rim sherd has coarse grits which protrude on the surface. These sherds have the form and texture of neolithic pottery.

Neolithic material is well known from the River Thames from Kingston to the City of London,<sup>2</sup> but occupation along the flood plain is only attested by a few mainly more recent finds. These are usefully summarised by Warren,<sup>3</sup> and his account of the discoveries on the opposite side of the river at Putney suggest a similar situation to that at Fulham.

ROMAN PERIOD

The Roman period on site has been divided into three tentative phases (see Fig. 6), dating from not earlier than the end of the third century to the last quarter of the fourth.

Phase I

This may be represented by the possible ditch terminal (6), the pit containing skulls of a horse and a dog (7), the post-hole (8), the gravel surfaces (Layers 9 and 10) and possibly Layer 5 and the primary gravel surface south of the moat cutting. Perhaps the most interesting find was Layer 7, which may be interpreted as a ritual burial. The two skulls are discussed at length in the bone report (p. 69). Although the horse's skull, which lacked its mandible, may have been old already when it was placed in the pit, the intact condition of the dog's skull, with articulating vertebrae, might indicate that the animal was decapitated especially for the purposes of the burial. A fracture in the horse's skull may indicate that it had been pole-axed. There is, as yet, no exact parallel to the Fulham votive burial amongst the substantial number of Romano-British votive burials known to us. Merrifield<sup>4</sup> lists much of the evidence from the London area, although such burials are well spread throughout the lowland zone. Dogs were by far the commonest animals used in such rituals, followed by oxen and horses, and were particularly important in Romano-Celtic religion, appearing in various contexts as a symbol of death or healing.<sup>5</sup> They are perhaps best illustrated in their latter role by the well-known finds from the fourth century temple of Nodens at Lydney.<sup>6</sup> The horse, being a relatively expensive animal, was a suitable sacrifice. It too can be associated with death and healing, and was likewise linked with the Celtic mother-goddess. The Fulham

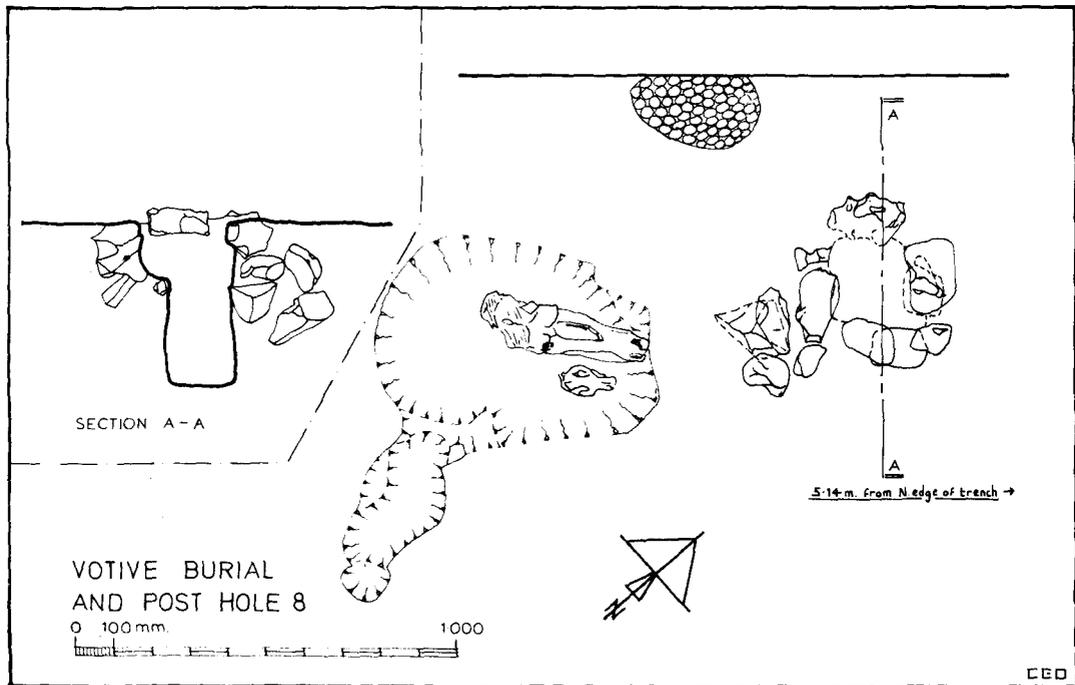


Fig. 5 — Fulham Palace Moat: Votive burial (7) and adjoining features (5 and 8)

burial is most akin to the group of animal foundation burials which were deposited in the vicinity of gateways or in association with buildings. At Maiden Castle,<sup>7</sup> Wheeler discovered a pit containing a dog skeleton, beneath the earliest Belgic gravel track at the southern entrance, while at Lullingstone, Kent,<sup>8</sup> two ox skulls were found in the flue of a hypocaust dating to the late 3rd century. Thus, the Fulham burial may perhaps be circumstantial evidence for the close presence of a building or gateway, perhaps incorporating the post-hole and gravel surfaces.

There is no direct link between the primary gravel surface south of the moat cutting (Layer 12 and its clay bedding, Layer 11) and the other features assigned to Phase I, although as with the other layers, it represents the first deposit of Roman material above neolithic or post-neolithic alluvium (Layer 4).

## PHASE II

To this phase can be assigned the burnt deposits (Layers 17 and 18), the V-shaped ditch (19), and possibly the small trench and post-hole (20 and 21) and the intermediate gravel surface, and its clay bedding (Layers 13 and 14) south of the moat cutting.

Layers 17 and 18 may represent the burning and destruction of a nearby structure. The level surface of these layers would suggest that they were raked over, prior to the digging of the V-shaped ditch. The small trench and its associated post-hole has been tentatively assigned to phase II because, as with the ditch, it underlies the bank deposit and cuts through Layers 9 and 10. However, there is no evidence to assess its chronological relationship to the burnt deposits. It may represent a fence-line, a beam slot for the footings of a building, or a palisade associated with the bank.

## PHASE III

In phase III the bank (Layers 22, 23 and 24) was constructed, and the last gravel surface and bedding (Layers 15 and 16) may have been laid down. Layer 25 might also date to this phase.

The striking similarity in the proportions of the numbers of beakers, bowls, dishes and jars in Layer 23 of the bank with those of the underlying deposits would strongly suggest that it was constructed from the scraping up of earlier Roman deposits, and capped and faced by natural gravel presumably derived from an accompanying ditch to the south, now destroyed by the moat, or from the moat itself.

The very presence of the bank begs the important question as to why it was built. As it is an unsealed deposit, it may theoretically date to any time between the 4th century and the medieval period, although the large bulk of datable material would favour a construction date in the late 4th century, postdating the early 370's. As such, it would appear to be unprecedented, but it would be equally difficult, if not more so, to parallel the earthwork with post-Roman constructions. Therefore, it is tempting to see the earthwork resulting from unrest in the late 4th century. It is interesting to note that a similarly, enigmatic earthwork, it too with a *terminus post quem* provided by 4th century pottery, lies in Pear Wood, near Brockley Hill and the Watling Street.<sup>9</sup> Alternatively, the earthwork may date to the sub-Roman period, when London seems to have been a British enclave at least until the middle of the 5th century, along similar lines to St. Albans. Dr. Juliet Clutton-Brock remarked that "many of the scraps of bone (from the Roman layers) were rolled as if they had lain in water", and Mr. F. G. Dimes remarked of the building rubble that, "in general the

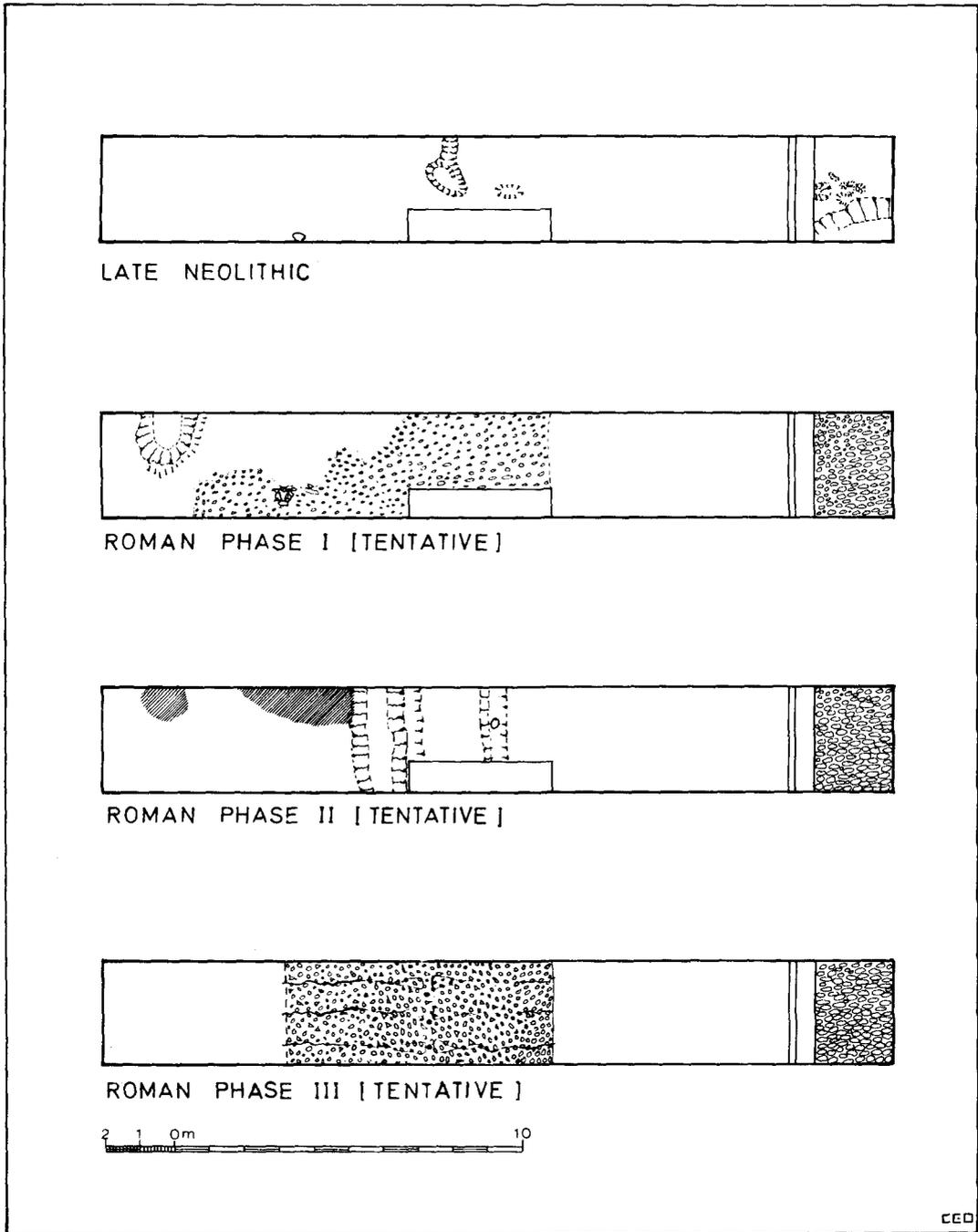


Fig. 6 — Fulham Palace Moat: Tentative phase plans

specimens are in a very poor state and many are deeply weathered'. The same may be said for much of the pottery in Layer 23. Indeed the high degree of Roman pottery fragmentation, which could be interpreted as due to weathering of material which had originally lain on the Roman gravel surfaces, might equally indicate a medieval date for the bank, despite the lack of post-Roman dating evidence. The earliest surviving documentation of the moat (Layer 27) exists in the Court Rolls of Fulham Manor dating to 1392,<sup>10</sup> although it was probably in existence earlier, and it is probable that the date of the bank (Layer 23) should be bracketed *c.* AD 380 — *c.* AD 1163-81. It is unwise to speculate too far on the limited evidence available, and it is clearly desirable that further excavation should take place to try to establish more firmly the date of the bank.

Another question posed by the earthwork, if indeed it is Roman, is what was there to enclose or defend? Excavations across the Thames at Putney have shown there to be some kind of minor settlement<sup>11</sup> with Roman material dating from at least the second half of the 1st century until the end of the 4th. Grimes has suggested that a prehistoric trackway, the 'Old Street', crossed the Thames at Fulham/Putney,<sup>12</sup> where the river must once have been fordable. It would be expected for a settlement, such as that at Putney, to have access across the Thames to the north, and it would not be surprising for a small 'bridgehead' to have developed on the opposite side of the river. The excavations have not yet yielded any evidence for Roman activity in Fulham prior to the end of the 3rd century. Both the Antonine *samian* and the *sestertius* of Marcus Aurelius are not incongruous in a later 3rd century context. Thus, on present evidence, the Roman activity at Fulham spanned only one third of the period of that at Putney.

Layer 23 yielded three fragments of hypocaust tile. A large number of *tegulae* and *imbrices* were found throughout the deposits, while Mr. F. G. Dimes of the Geological Museum has shown that building rubble from the site includes Kentish ragstone, Chert, Hassock, Chalk, Tufa, Carstone and a variety of sandstones, possibly including Reigate, Gatton and Merstham Stone.<sup>13</sup> This would strongly suggest at least one substantial building nearby. The Roman pottery came from a number of sources. Little can be local, and most was probably obtained through the markets at London. Niedermendig lava querns and Mayen ware must have come down the Rhine and across the Channel. Coal came from the north-east of England. It is interesting to see the material which arrived at the site in the late 3rd and 4th centuries, all of which would suggest a fairly thriving community. It is still too early to judge its own degree of self-sufficiency, but presumably it was an agricultural community, and perhaps, situated on the Thames, a small local market. The occurrence of two probable pieces of military equipment (Small Finds report, Nos. 6-7), however, should not be overlooked.

Although, with the limited excavation, it is hard to judge the function of the various ditches, surfaces and post-holes, it may be worth briefly considering the importance of the southern gravel surfaces (Layers 12, 14 and 16). These three surfaces were built up on thick layers of compacted clay, to a little under two metres total height, perhaps within the space of a hundred years. Although the surfaces themselves may perhaps be seen as representing a trackway along the riverbank (or even perhaps a towpath, such as the one that Ausonius saw running along the banks of the Moselle near Trier<sup>14</sup>), the thick clay-bedding is unexplained. Perhaps the thick clay and rise in level of the surfaces may be seen as a result of a rise in the level of the Thames. Further up-river, at Staines, flood deposits dating from the 3rd century AD have been found at approximately 12m O.D.<sup>15</sup> Such inland flooding may similarly have occurred at Fulham or at least have represented a potential menace. The high water

mark (if the Thames at this point was tidal) cannot have been far removed from *c.* 1.5m O.D.,<sup>16</sup> whilst the base of the Roman deposits in the southern part of the trench is also *c.* 1.5m O.D. The top of the clay and gravel deposits (Layers 11-16) is, at least, 3.6m O.D. and must almost certainly have been higher than the level of the river. Embanking has proceeded along this stretch of the Thames in recent years, and may well have been vital to the survival of a Thameside settlement at Fulham during the Roman period.

In conclusion, the evidence would seem to support there having been a substantial amount of Roman activity in 4th-century Fulham. Apart from the possible significance of the earthwork, some 36 acres in area, the site is clearly important due to there being a potentially extensive Roman settlement lying beneath a park and gardens amongst the urban spread of modern-day London.<sup>17</sup>

NOTES

1. The figures are taken from S. Buchan *The Water Supply of London*, Geological Survey Memoir (1938).
2. C. E. Vulliamy *The Archaeology of Middlesex and London*, (London 1930).
3. S. Warren "Neolithic Occupation at Putney" *The London Archaeologist* 1 No. 12 (Autumn 1971) 276-279.
4. R. Merrifield "Folk-Lore in London Archaeology Part 1: The Roman Period" *The London Archaeologist* 1 No. 3 (Summer 1969) 66-69.
5. Cf. F. Jenkins "The Role of the Dog in Romano-Gaulish Religion" *Latomus* XVI (1957).
6. R. E. M. and T. V. Wheeler *Report on the excavation of the prehistoric, Roman and post-Roman site at Lydney Park, Glos.*, (Oxford 1932).
7. R. E. M. Wheeler *Maiden Castle, Dorset* (Oxford 1943) 115.
8. G. W. Meates *Lullingstone Roman Villa* (London 1955) 108.
9. S. A. Castle "Excavations in Pear Wood, Brockley Hill, Middlesex, 1948-1973" *Trans. London and Middlesex Archaeol. Soc.* 26 (1975) 267-277.
10. K. Whitehouse "Early Fulham" *The London Archaeologist* 1 No. 15 (Summer 1972) 346. Cf. also D. Haselgrove "Early Fulham — a rejoinder" *The London Archaeologist* 2 No. 1 (Winter 1972) 18-21.
11. N. Farrant "The Romano-British Settlement at Putney" *The London Archaeologist* 1 No. 16 (Autumn 1972) 368-371.
12. W. F. Grimes *The Excavation of Roman and Mediaeval London* (London 1968) 46.
13. Mr. Dimes has kindly compiled a very full report on the stone building rubble from the excavation. A copy is lodged with the site records.
14. Edith Mary Wightman *Roman Trier and the Treveri* (London, 1970) 205.
15. Unpublished information kindly supplied by the excavator, Kevin Crouch.
16. Recent work by Harvey Sheldon would suggest that a height beneath O.D. for the level of the Thames as suggested by G. Willcox "Problems and Possible Conclusions related to the History and Archaeology of the Thames in the London Region" *Trans. London and Middlesex Archaeol. Soc.* (1975) 285-292 is too low.
17. The moat and the enclosed area has now been scheduled as an Ancient Monument.

THE FINDS

THE COINS BY PAUL ARTHUR

SUMMARY

2nd Century A.D.	1
Gallic Empire and other late 3rd Century A.D.	26
House of Constantine	20
House of Valentinian	10
House of Theodosius	1
Unidentifiable Roman	4
Post-Roman	5

LIST:

All coins are bronze. Conditions have in general been omitted. Coin no. 1 has been included as a stray find a few metres to the north of the excavation. There have also been unconfirmed finds of Constantinian coins in the vicinity of the site, L.R.B.C. references are to Carson, Hill and Kent (1975), and the R.I.C. reference is to Sutherland and Carson (1966).

1. Marcus Aurelius. Sestertius. FELICITAS Type. Rome. ?A.D. 161. (Very worn surface find).
2. Claudius II. Antoninianus. (Layer 23).
3. Victorinus. Antoninianus. FIDES MILITUM Type. (Layer 23).
4. Victorinus. Irregular antoninianus. (Layer 9).
5. ?Victorinus. Irregular antoninianus. (Layer 23).
6. Tetricus I. Irregular antoninianus. SPES AVG Type. (Layer 26).
7. Tetricus I. Irregular antoninianus. ?PROVIDENTIA Type. (Layer 23).
8. Tetricus I. Irregular antoninianus. (Layer 23).
- 9-10. As above, but from layer 22.
11. ?Tetricus I. Irregular antoninianus. (Layer 23).
12. As above, but from layer 10.
13. Tetricus II. Antoninianus. PAX AVG Type. (Layer 18).
14. ?Tetricus II. Irregular antoninianus. (Layer 10).
15. Tetrici. Irregular antoninianus. (Layer 23).
16. Aurelian. Post-reform antoninianus. (Layer 22).
- 17-22. Unidentifiable irregular radiates. (Layer 23).
- 23-24. As above, but from layer 10.
- 25-26. As above, but from layer 18. One possibly VIRTUS Type.
27. As above, but from layer 26.
28. Fragment of a 4th century silvered follis. An ancient break. (Layer 23).
29. Licinius I. Follis. R.I.C. London 15. (Layer 26).
30. Constantine I. Follis. SOL INVICTO COMITI. London. (Layer 26).
31. Constantine I. Irregular GLORIA EXERCITVS Two standards Type. Trier or Lyon. (Layer 25).
32. Constantine I or Constans. GLORIA EXERCITVS Two standards Type. (Layer 23).
33. As above, but from layer 17.
34. Constantine I or Constans. GLORIA EXERCITVS One standard Type. (Layer 23).
35. 'Urbs Roma'. Trier. L.R.B.C. I 51. (Layer 26).
36. 'Urbs Roma' irregular. (From the surface of layer 19).
37. 'Constantinopolis'. Copy of Lyon mint. (Layer 23).
38. 'Constantinopolis'. Thick flan. (Layer 23).
39. 'Constantinopolis' irregular. (Layer 23).
40. Constans. Trier. L.R.B.C. I 140. (Layer 10).
41. Constans. Trier. L.R.B.C. I 159. (Layer 25).
42. Constans. Trier. L.R.B.C. I 167. (Layer 18).
43. Constans. VICTORIAE DD AVGG Q NN Type. (Layer 23).
44. Constantius II. Cyzicus. L.R.B.C. II 2484. (Layer 23).
- 45-46. 'Fallen Horseman' Type. Irregular. (Layer 23).
47. 'Fallen Horseman' Type. Irregular. (Layer 10).
48. Valens. ?Rome. SECVRITAS REIPVBLICAE Type. (Layer 23).
49. As above, but mint unidentifiable. (Layer 23).
50. Valens. Trier. Probably L.R.B.C. II 87. (Layer 23).
51. Valentinian I. Trier. L.R.B.C. II 82. (Layer 26).
52. Valentinian I. Lyon. L.R.B.C. II 300. (Layer 23).
53. Valens or Valentinian I. Aquileia. 'Emperor dragging captive' Type. (Layer 23).
54. Possibly House of Valentinian, but extremely corroded. (Layer 10).
55. Gratian. Arles. (Layer 26).
56. Gratian. Arles. L.R.B.C. II 529. (Layer 25).
57. Gratian. Siscia. 'Emperor dragging captive' Type. Mintmark  $\frac{F|R}{ASISCE}$  (Layer 25).
58. House of Theodosius. As L.R.B.C. II 162-4. (Layer 25).
59. Uncertain 3rd-4th century. (Layer 20).

60. As above, but layer 15.
61. As above, but layer 18.
62. 4th century barbarous minim. (Layer 26).
63. William III. Farthing. 1698-1699. (Layer 26).
64. Flattened 19th century coin. ?'Shove Ha'penny' piece. 26mm in diameter. (Layer 27).
65. Victoria. Halfpenny. 1861. (Topsoil).
66. Victoria. Halfpenny. 1866. (Layer 26).
67. Circular tag with hole through centre. Obv: BOROUGH OF WANDSWORTH A71. Rev: Blank. (Layer 26).

## SMALL FINDS BY PAUL ARTHUR

(Fig. 7 Nos. 1-13; Fig. 8 Nos. 14-31)

### SHALE AND JET

1. Shale bead with two parallel perforations. Characteristic late Romano-British type. cf. Lawson (1975, 244 Nos. 6-7) for similar examples in jet and further references. (Layer 15).
2. Polished jet bead; probably of Roman date. (Layer 26).

### COPPER ALLOYS

3. Part of a probable Late Bronze Age socketed axehead with high lead content. The cavity at one end is typical of the shrinkage pipe formed in the runner of a casting. The runner is then broken away and the surface dressed. (Layer 23).
4. Small bronze pin with a recurved (?bent) head, possibly from an annular brooch. (Layer 23).
5. Unidentifiable bronze fragment. (Layer 23). Various other nondescript fragments remain unillustrated.
6. Bronze belt or harness fitting. These objects are frequently found on Roman sites and appear in a variety of shapes, always retaining the two rear studs. Identical parallels to the Fulham example have just been published as auxiliary equipment by Oldenstein (1976, 186-187 and Taf. 56). They are widely spread throughout the German provinces and date predominantly from the 3rd century A.D. Many examples still bear traces of silvering or tinning. (Layer 23).
7. Two fragmentary bronze plates held together by a large central rivet and four smaller rivets, one in each corner. These may be the remains of a military belt plate. cf. Chapman (1973, 48 No. 10 for a similar object). (Layer 25).
8. A thin strip of bronze through which a round-headed tack has passed. This presumably was affixed to some wooden or leather object. (Layer 23).
9. Bronze pin with a terminal in the form of a seven-petalled flower. The central cavity must have held an inset of glass or enamel. (Layer 23).
10. Fragment of a two-strand, twisted, bronze bracelet. (Layer 23).
11. As above, but more delicate and with traces of silvering. (Layer 23).
12. As no. 10 above. (From the surface of layer 10).
13. ?Purposely bent fragment of a strip bracelet decorated with concentric circles and a herringbone design. (Layer 23).
14. A bronze strip bracelet decorated with a herringbone pattern and ribbing. The eye-hole was later plugged with a higher copper wire, and is thus not evidence for a workshop reject. (Layer 23).
15. A similar bronze strip bracelet, decorated with punched circles and dots. (Layer 23).

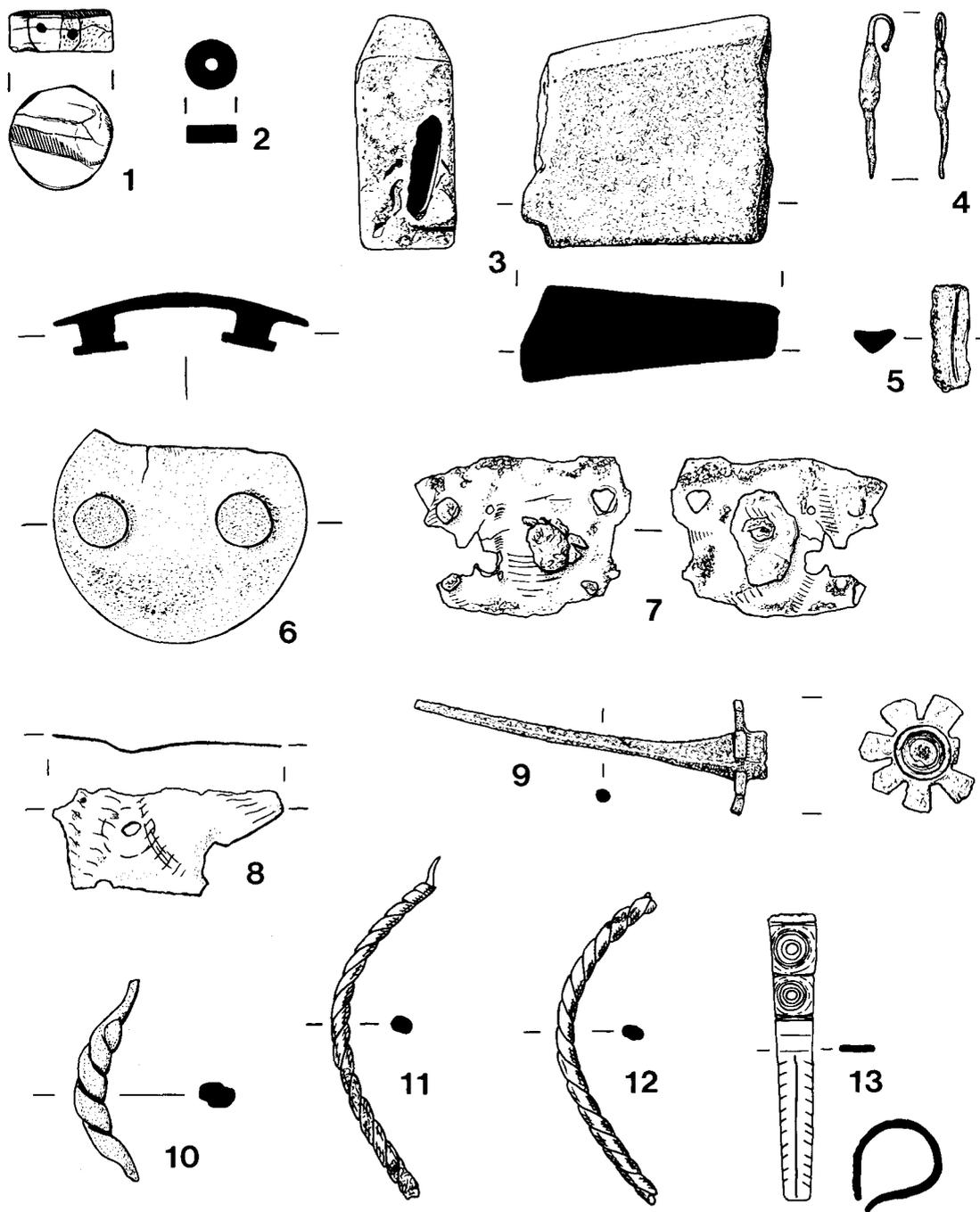


Fig. 7 — Fulham Palace Moat: Small finds 1-13 (1/1)

16. A fragment of a bronze strip bracelet with traces of ribbing. 29mm long. From the surface of layer 10. (Unillustrated).
  17. Badly corroded strip of bronze, perhaps from a strip bracelet. 71mm long. (Layer 23). (Unillustrated).
  18. Tapering rod of bronze, about 48mm long, which may have formed part of a needle or toilet instrument. (Layer 23). (Unillustrated).
  19. A fragment of a bronze brooch spring. (Layer 23). (Unillustrated).
- IRON
20. Badly corroded and broken iron nail with a flat circular head and square-sectioned shank. Altogether, a minimum of forty nails of similar form were retrieved from layer 23. Most of them showed signs of use and three intact bent nails had been hammered through wood *c.* 35-40mm thick, and were between 50 and 70mm long. The shank section averaged 5 x 5mm square.
  21. A curved or bent iron strip. (Layer 23).
  22. A badly corroded iron hobnail from layer 23. A further 37 examples were also found. The shanks varied in length from 7 to 16mm, and the domed heads were *c.* 10mm across.
  23. Fragment of iron blade. (Layer 23).
- LEAD
24. Fragment of thin lead sheet. (Layer 23). A flattened globule of lead was recovered from layer 17.
25. Folded sheet of lead, broken at one end. This may have been suspended as a weight, and a larger example from Portchester has been described as a net weight. *cf.* Webster (1975, 233 No. 167). (Layer 23).
  26. Another, also from layer 23.
- BONE
27. Worked piece of bone, perhaps part of a cylindrical toilet box or *pyxis*; a very common find in Italy, though scarce in Britain. *cf.* Frere and St. Joseph (1974, 69 No. 121). (Layer 6).
  28. Carved bone eye. The central hole presumably held an inset pupil. Tooling marks around the edge suggest that it may have been inlaid into a statuette. (Layer 23).
  29. Knob-headed bone hairpin. (Layer 23).
  30. Globular-headed bone hairpin. (Layer 23).
  31. Ring consisting of a section roughly cut from a long bone. *cf.* Brodrribb (1971, 110 No. 4). (Layer 26).
- GLASS
32. Fourteen fragments of Roman glass, representing over half a dozen vessels. One piece has horizontal ribbed moulding and all are colourless or tinted green. (Layer 23). (Unillustrated).
  33. Fragment of rim from a fourth century green glass beaker. (Layer 26). (Unillustrated).
  34. Eight fragments of Roman glass, two from layer 10 and the rest, including the folded base of a light blue blown flask. (Layer 19). (Unillustrated).

## METALLURGICAL RESIDUES

### BY R. TRIBBICK

Isolated fragments of silicate material were found in Roman levels. These were of high-iron content, typical of iron-working slag produced when iron-oxide is reacted with silica. This can occur either by combination of iron "scale" with a furnace lining, or with sand which is used to clean it from the surface of iron before hammer-welding. The total quantity (0,25kg.) is small and perhaps suggests scatter from a source not uncovered by this excavation. Some of the fragments are rounded (?water worn), which could support the idea of a more remote origin. No evidence of bronze working was given by these fragments.

Layers 13 and 23: Sections of fragments showed iron-silicate with some free magnetite.

Layer 11: A plate of magnetite, probably scale from heated iron.

Layer 18: Fritted sanded particles cemented with iron-silicate.

## THE POTTERY

### BY PAUL ARTHUR

#### Introduction

A large amount of Roman pottery was recovered from the excavation. Apart from its internal dating value, it is useful in that it provides a cross-section of wares available in the London region during the later third and fourth centuries AD. The residual element, *pre-c.* AD 250, appears to be small. Unfortunately, the largest group of pottery present, that in Layer 23 which contains 52% of the rims, consists of a random selection of material predominantly spanning a hundred years. Thus, protracted statistical analysis has not been felt to be worth the effort involved, and that undertaken has been based solely on rim counts. All rims have been tabulated according to probable production centre or fabric type (Fig. 9), and class of vessel (Fig. 10). Three subsections of the report deal with samian ware, a coarse ware, here termed Fabric A, which may be local, and with a detailed list of stamped sherds.

Catalogued sherds include examples important for dating, or of interest in their own right. Much use has been made of Fulford's (1975a) pottery report of the Portchester excavations, and any figure prefixed by the letter P. will refer to the Portchester type series. Other references will be detailed in the bibliography. A hyphen between two colours indicates that the colour of the vessel is a blend somewhere between the two. A dash between two colours indicates that they occur in patches on the vessel. A detailed pottery report will be lodged with the site records.

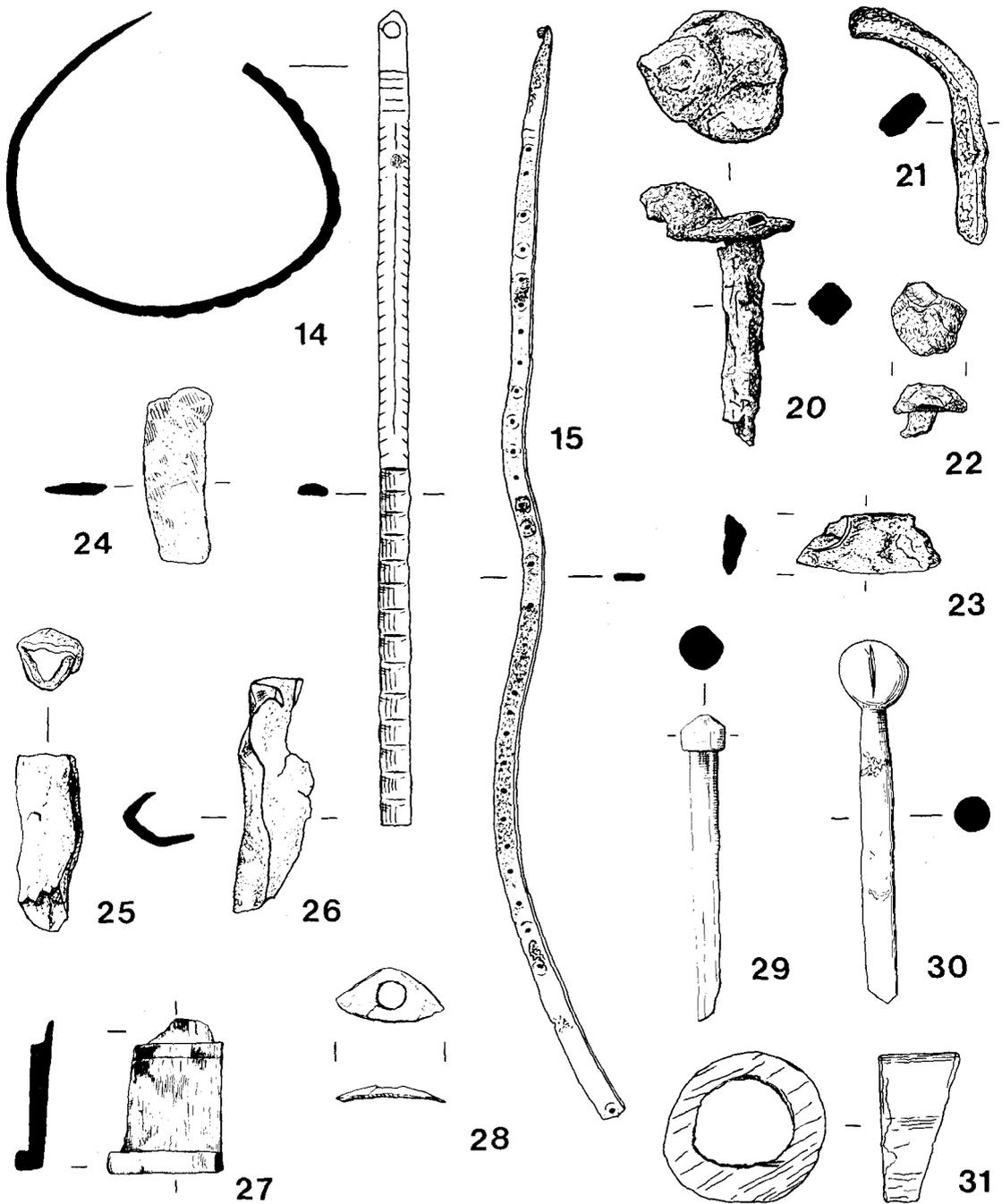


Fig. 8 — Fulham Palace Moat: Small finds 14-31 (1/1)

## Discussion

Figure 9 shows the various amounts of pottery types on site according to rim counts, and their relative percentages. The wares have been initially identified by use of a x10 hand lens, and although the statistics will thus not be 100% true they do give some idea of the proportions of wares involved. 26.5% of the assemblage is unidentified, but comprises mostly coarse wares of the standard late southern Romano-British types, closely similar to the Farnham wares. Farnham, in fact, provided over half of the coarse pottery from the site, some 41% of the assemblage. The bank, Layer 23, contained an abnormally high percentage of Farnham ware dishes and a correspondingly low percentage of flanged bowls. It would be of prime importance to know where the unidentified material comes from as it comprises about one third of the coarse pottery. 6% of the total assemblage is accounted for by Fabric A, which may be local (see below). Black-burnished wares form 4% of the total, although only a minimal amount can be assigned to the Dorset source (i.e. BB1). Shell-tempered vessels form only 2% of the whole. They are similar in fabric to the pottery from the Harrold kiln site, Beds., and No. 54 is a typical jar form, which presumably had horizontal rilling on the shoulder.

The Oxfordshire kilns, providing 12% of the material, form the second largest identified group from the site and the bulk of the fine wares. Transport was presumably by river. Fulford and Hodder (1973) have listed percentages of Oxfordshire pottery from the major Romano-British sites. Although they stress that too much reliability should not be placed on their data, they found that a water link with the Oxfordshire kilns was an important factor in the percentages of such pottery arriving at a site. Additionally, rural or semi-rural sites, such as Fulham appears to have been, seem to have consumed smaller percentages of 'exotic' pottery than urban sites. This may be indicated by the 12% of Oxfordshire pottery at Fulham, some 18% at London, which is even further from the kilns, and apparently some 25% at Staines, Crouch (1976, 100), the closest of the three sites to the source. Another problem is the nature of the supply of Oxfordshire pottery to Thameside sites such as Fulham. The nature of the site may have made it unprofitable for merchants to have dropped off pottery on their way to London, and thus it might only have reached Fulham from a secondary distribution point such as the markets of the capital. Unfortunately, it is still too early to see how proportions of this, or of any other pottery, compare with other rural sites in the area.

Much Hadham, which is nearer than the Oxfordshire kilns, can apparently account for only some 2% of the wares, or 3.5% if Verulamium region material, much of which may be residual, is added on. An assessment of the Much Hadham pottery industry is clearly vital. The Vale of St. Albans is drained by the Colne to the west and the Lea to the east, and these rivers may have been adopted for river transport down to the Thames in much the same way as the River Wey was used for the transport of Farnham ware. However, in the third century, with drastic changes in pottery organisation, London region sites tended to look less and less to the north and the continent for their wares and more towards the south and west where new large industries were developing. The drive of the northern Nene Valley industry however, is indicated by equal ceramic proportions to Much Hadham.

Imported pottery comprises samian, 'Rhenish', Southern Spanish amphorae and Mayen ware, which, together with a fragment of glass (?British), forms a negligible 1.5% of the assemblage. The samian may be residual, as may be the amphora sherds. These latter, not represented by rims, would appear to belong to oil amphorae of Dressel forms 19 and 20. Although they are generally dated prior to the confiscation of Spanish estates by Septimius Severus, finds from Italy suggest their exportation at least until the middle of the 3rd century, Zevi (1966). The one fragment of Mayen ware amplifies this pottery's distribution around the Thames, and came from the same region of Germany as did the lava querns found on site.

The statistics show that the ratio of fine to coarse wares in the site assemblage is in the region of 1:5.

<i>Type</i>	<i>Percentage</i>	<i>Distance of site from kilns</i>
Oxfordshire	12%	Within 50 mile radius.
Farnham	41%	Within 40 mile radius.
Nene Valley	2%	Within 90 mile radius.
Much Hadham	2%	Within 30 mile radius.
Verulamium region	1.5%	Within 30 mile radius.
Black burnished ware	4%	Various sources.
Shell tempered ware	2%	Probably various sources.

Type	Percentage	Distance of site from kilns
Fabric A	6%	?Local.
Imports	1.5%	Over 300 miles.
Unidentified wares	26.5%	Most probably within 50 miles.

Fig. 9. Breakdown of pottery into types and fabrics

VESSELS	LAYERS														TOTALS	%	
		9	10	11	13	15	16	17	18	19	20	22	23	24			25
Storage jars		1	—	—	—	—	—	1	—	1	—	—	10	—	—	13	3%
Jars		4	11	10	3	2	6	8	8	18	3	4	84	1	4	166	41%
Bowls		1	4	1	2	—	2	4	4	5	—	2	32	—	—	57	14%
Beakers		—	2	2	1	—	1	4	3	3	1	—	16	—	1	34	8%
Dishes		2	2	3	2	1	—	4	10	8	1	—	43	—	1	77	19%
Flanged bowls		1	3	4	—	—	—	4	1	2	—	1	16	—	2	34	8%
Mortaria		—	1	—	—	—	—	1	1	1	1	1	3	1	—	10	2.5%
Flagons/Jugs		—	2	—	—	—	—	—	—	—	—	1	5	—	—	8	2%
Lids		—	—	—	1	—	—	—	1	1	—	—	1	—	—	4	1%
Face jar		—	—	—	—	—	—	1	1	—	—	—	—	—	—	2	0.5%
TOTALS		9	25	20	9	3	9	27	29	39	6	9	210	2	8	405	

Fig. 10. Breakdown of vessel types by rim counts

Figure 10 is a breakdown of pottery forms from the various site deposits. Jars predominate in all deposits, and represent 41% of the total. The high number, although normal on similar sites, may perhaps be accounted for by the many uses to which such a vessel may be put. Some jars, perhaps the darker fabric vessels, may have been predominantly for cooking, while others may have been for storage or as packaging for merchandise. True storage vessels form solely 3% of the assemblage.

The rest of the percentages require little comment. The frilled face-jar reminds us of the not wholly domestic nature of the pottery.

THE SAMIAN WARE  
BY CATHERINE JOHNS

- Layer 10: Dr.31, Central Gaulish, Antonine.
- Layer 13: Dr.38, Central Gaulish, Antonine.
- Layer 15: Two indeterminate sherds, one Central Gaulish, one East Gaulish, both Antonine.
- Layer 23: Dr.31, Central Gaulish, Antonine, stamped . . . RILLI.MA, probably SACRILLUS. Indeterminate sherds, probably mainly from Dr.31 (one sherd of Dr.33), all Central Gaulish and Antonine.  
One sherd of Dr.45 in East Gaulish fabric, also late second century.
- Layer 18: Dr.38, Central Gaulish, Antonine.

The Other Pottery  
Fabric A.

Fabric A is an unidentified coarse ware which forms some 6% of the total pottery assemblage. Examination of the pottery assemblages at Putney and Brentford where, due to their proximity to Fulham, one might expect parallels to appear, proved negative. Additionally, it does not appear to be present at Staines or Southwark, whilst Malcolm Lyne informs the writer that he cannot recall having seen the ware during his examination of coarse pottery collections in the south of England.

Therefore it would seem probable that the ware, here termed Fabric A, is of local manufacture.

The pottery is hand-made, but displays a fair degree of competence on the part of the potter. The fabric is generally brown or dark grey-brown with a thick black core, and fairly hard and sandy. Examination under a x10 lens clearly shows an abundance of rounded and sub-angular quartzite grits, scarcely larger than 0.5mm in diameter, embedded in the clay matrix. Tempering consists of sporadic particles of red grog, Reeves (1974; Red/Brown A2). Dr. J. G. Rider kindly carried out thermal expansion measurements (Tite, 1969) on a test-piece, from which he concluded that the sherd was originally fired below the vitrification temperature of the clay from which it was made. Its vitrification temperature was estimated at 710° C. Thus, it is quite possible that the pottery was fired in clamp- or bonfire-kilns, which would leave little or no trace in the archaeological record.

The earliest stratified sherds of Fabric A came from Layer 10 (Phase 1). Due to lack of close dating evidence it is, at present, impossible to do more than suggest a 4th century date for the ware. This accords with the dating of what looks to be a similar piece from Gadebridge Park villa, Neal (1974, 249 No. 402), although confirmation of similarity is needed.

Fabric A is present in four basic forms:

- (i) A plain, everted-rim jar in various sizes (e.g. Nos. 32-33). Thirteen rim sherds were recovered.
- (ii) A bowl with a plain flattened rim of sub-triangular section (e.g. Nos. 10, 36 and 60). Ten rim sherds were found.
- (iii). A bowl with a plain, almost vertical, rim. The angle of the body turns inwards about a third of the way down (e.g. No. 61). Three rim sherds were found, of which two joined.
- (iv). A globular beaker or jar with a slightly beaded rim. One rim sherd was found and is unillustrated.

The base (No. 40) with centrally perforated hole is also in Fabric A, but cannot be certainly matched to any of the preceding forms. Some of the vessels display signs of burnishing.

Without more evidence, little can be said about this ware. However, it is interesting to find examples of very local hand-made wares, apparently dating to the 4th century, which may presage sub-Roman or early Anglo-Saxon wares of the fifth century. The simple forms recall some late pre-Roman and Roman iron age types.

### THE STAMPED SHERDS

Eight sherds with concentric circle or 'rosette' stamped decoration were found during the excavation. These are described below and illustrated full size (*Fig. 11*) to facilitate comparison with similar stamped pottery from other sites.

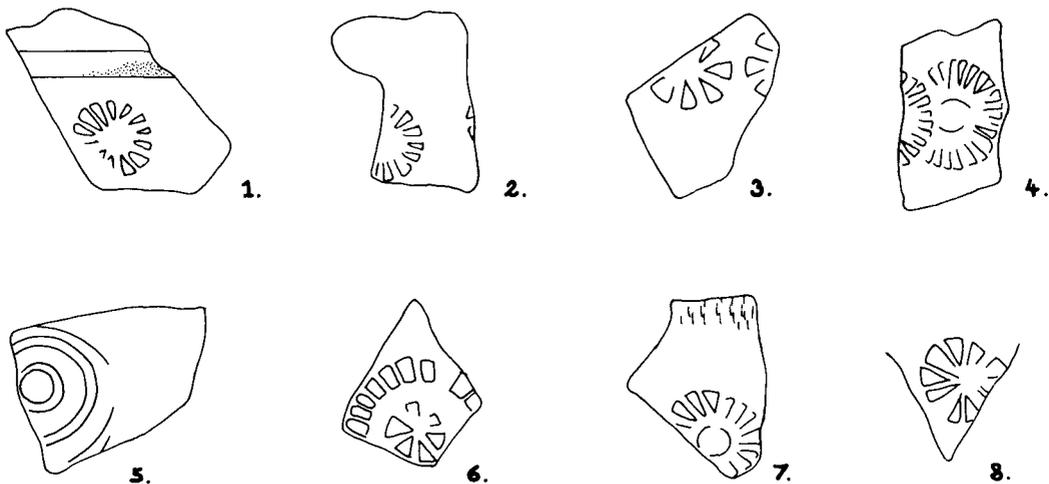


Fig. 11 — Fulham Palace Moat: The stamped sherds (1/1)

1. Bowl of type P.34 in Oxfordshire fabric 1. This stamp is identical to that on sherd 2 below, which is probably from the same vessel. (From Layer 18).
2. Same fabric as No. 1 above. (From Layer 23).
3. Bowl in Oxfordshire fabric 1, but burnt. (From Layer 23).
4. Bowl in Oxfordshire fabric 1. (From Layer 23).
5. Slightly micaceous buff-pink fabric, with an orange core and light brown slip. (From Layer 23).
6. Similar fabric and slip to No. 5 above, but not noticeably micaceous. (From Layer 26).
7. Similar to No. 5 above, but with a grey core. The sherd may belong to a bowl of type P.36. (From Layer 26).
8. Bowl of type P.33 in Oxfordshire fabric 1. (From Layer 26). For a drawing of this particular vessel see No. 67 in the main catalogue.

### The Other Pottery; Catalogue

(Fig. 12 Nos. 1-26; Fig. 13 Nos. 27-52; Fig. 14 Nos. 53-69)

#### Layer 9: Gravel spread

1. Three body sherds of a Nene Valley beaker, in buff fabric with a chocolate brown slip, rouletting and cream barbotine decoration. Cf. O'Neil (1945, 91 No. 52).
2. Flat topped jar in medium grey sandy fabric. Farnham ware.
3. Triangular, undercut rim of a jar type P.136. Grey-brown sandy fabric, with a marginally lighter core.
4. Circular storage jar rim of sandy grey-buff ware, with a light grey layer sandwiched between it and the core. P.177. A joining sherd came from Layer 23.
5. Undercut rim of a storage jar or 'stew-pot', in medium grey ware with an orange-pink core in parts. Traces of a grey slip.

#### Layer 10: Gravel resurfacing of Layer 9.

6. Cornice rim jar in a slightly micaceous orange fabric, with an overall orange slip. Much Hadham ware.
7. Squared rim of a narrow-necked jar, in buff-red fabric with a brown-buff surface and traces of grey slip. P.153. Farnham ware.
8. Flanged bowl similar to P.87.3 in form with a sandy grey/brown fabric, further reduced in places, and covered by a light grey slip.

#### Layer 11: Clay beneath gravel surface, Layer 12.

9. Dish in micaceous black fabric, slightly buff immediately beneath the surface. Cf. Wilson (1972, 344 No. 1085).

#### Layer 16: Gravel surface.

10. Fabric A bowl; form II.

#### Layer 17: Burnt deposit.

11. Neck and rim of a 'Rhenish' beaker with grey and red sandwiched paste and a glossy dark brown slip. Central Gaulish. A joining fragment came from Layer 20.
12. A beaker with a slightly everted rim, in hard buff-orange fabric with a medium grey core, containing mica and quartz grits. The outer surface appears sturried. Probably Much Hadham ware.
13. Top of a face-jar in slightly grogged orange-pink ware, with grey core at the rim and a fine orange-pink slip. The eyes are pressed out from the inside and the nose is applied. A joining rim sherd came from Layer 18. Much Hadham ware. Cf. Hull (1958, Type 290).
14. Rim of an Oxfordshire bowl, P. fabric 3, with red slip on the exterior of the rim. Slightly burnt.
15. An Oxfordshire bowl, P. type 40.6, in fabric 1. Four sherds of this vessel were recovered, all burnt, two from Layer 17 and two from post-Roman levels.
16. An Oxfordshire mortarium, P. type 63, fabric 3. Burnt.
17. A flanged bowl in hard grey fabric with a lighter grey core. A light grey slip covers the flange and interior surface. Farnham ware. A small sherd of this vessel was recovered from Layer 23.

18. Flanged bowl in off-white ware with a matt black slip. Burnt. Nene Valley ware. Cf. O'Neil (1945, 93 Nos. 2-3), and Sheldon (1972, 121, No. 4).
19. Rim of a flanged bowl in sandy black ware, with a grey/brown surface and grey slip on the flange.
20. Plain dish in dark grey ware with a buff core. Farnham ware.
21. Two sherds of an everted rim jar in hard grey fabric, with a light grey slip on the exterior surface and running half way down the interior of the rim. Farnham ware.
22. Jar with everted hooked rim of very sandy pink and grey fabric. Farnham ware.
23. Bead-rim of a storage jar, in grey fabric and with a lighter grey core. A darker grey slip covers the exterior surfaces and runs halfway down the interior of the rim. Farnham ware.
24. Jar of grey ware with a lighter grey core and traces of a darker slip over the rim. Farnham ware.
25. Narrow necked jar, of a hard grey fabric with a darker grey slip. Farnham ware.
26. Fairly soft, hand-made, everted rim jar. The shell tempered fabric varies in colour from buff to orange, with a light grey core. There are a series of horizontal impressions below the rim.

#### Layer 18: Other burnt deposit.

27. Base in slightly micaceous orange-brown fabric, with an exterior red-brown colour coat.
  28. Rim and shoulder of a vessel in hard light pink ware, with sand inclusions and cream surface, showing delicate cornice moulding below the vertical rim. Probably Verulamium region and residual.
  29. Lid in grey-buff ware, with a grey core and grey surfaces. Farnham ware. Cf. Hanworth (1968, 44 No. 38). A joining fragment came from Layer 13.
  30. Flanged bowl of BB 1 ware, in a sandy dark grey fabric with black surfaces and external burnished decoration.
  31. Dish in sandy dark grey fabric, with external burnished decoration.
  32. Small fabric A jar, form I.
  33. Large fabric A jar, form I.
- #### Layer 19: V-shaped ditch.
34. Bowl imitating Dr.38, P. type 43, Oxfordshire fabric 1. Two pieces, both burnt.
  35. Undercut, everted rim jar, with a cordon half way down the neck. Sandy medium grey ware with a lighter core. Farnham ware.
  36. Fabric A bowl, form II.
- #### Layer 20: U-shaped trench.
37. Mortarium, P. type 63, with a squared flange and of Oxfordshire fabric 3.
  38. Undercut, everted rim in grog-tempered grey fabric, oxidized buff-pink on the surface and covered with an overall cream slip. Cf. Sheldon (1971, 60 No. 30).

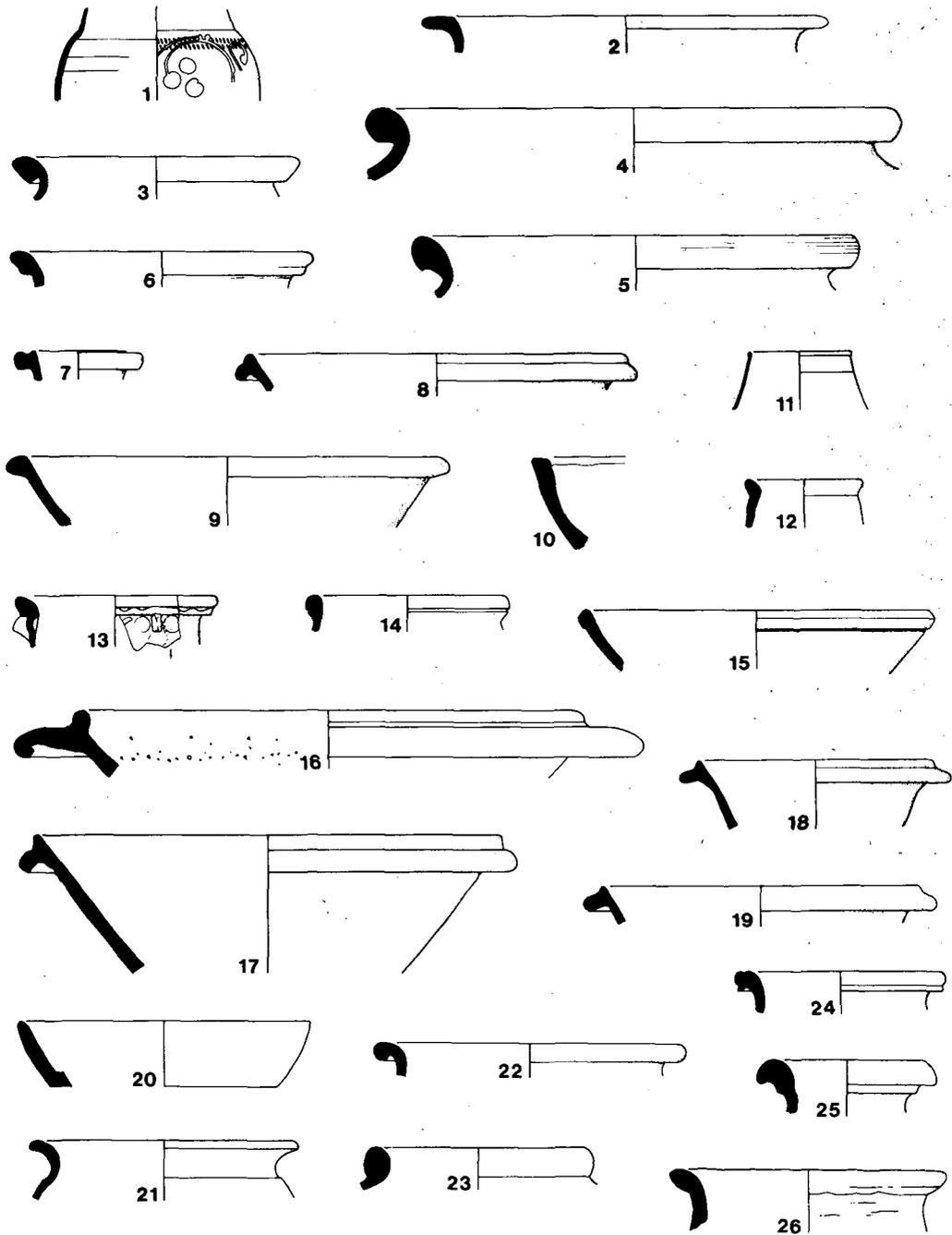


Fig. 12 — Fulham Palace Moat: Roman pottery Nos. 1-26 ( $\frac{1}{4}$ )

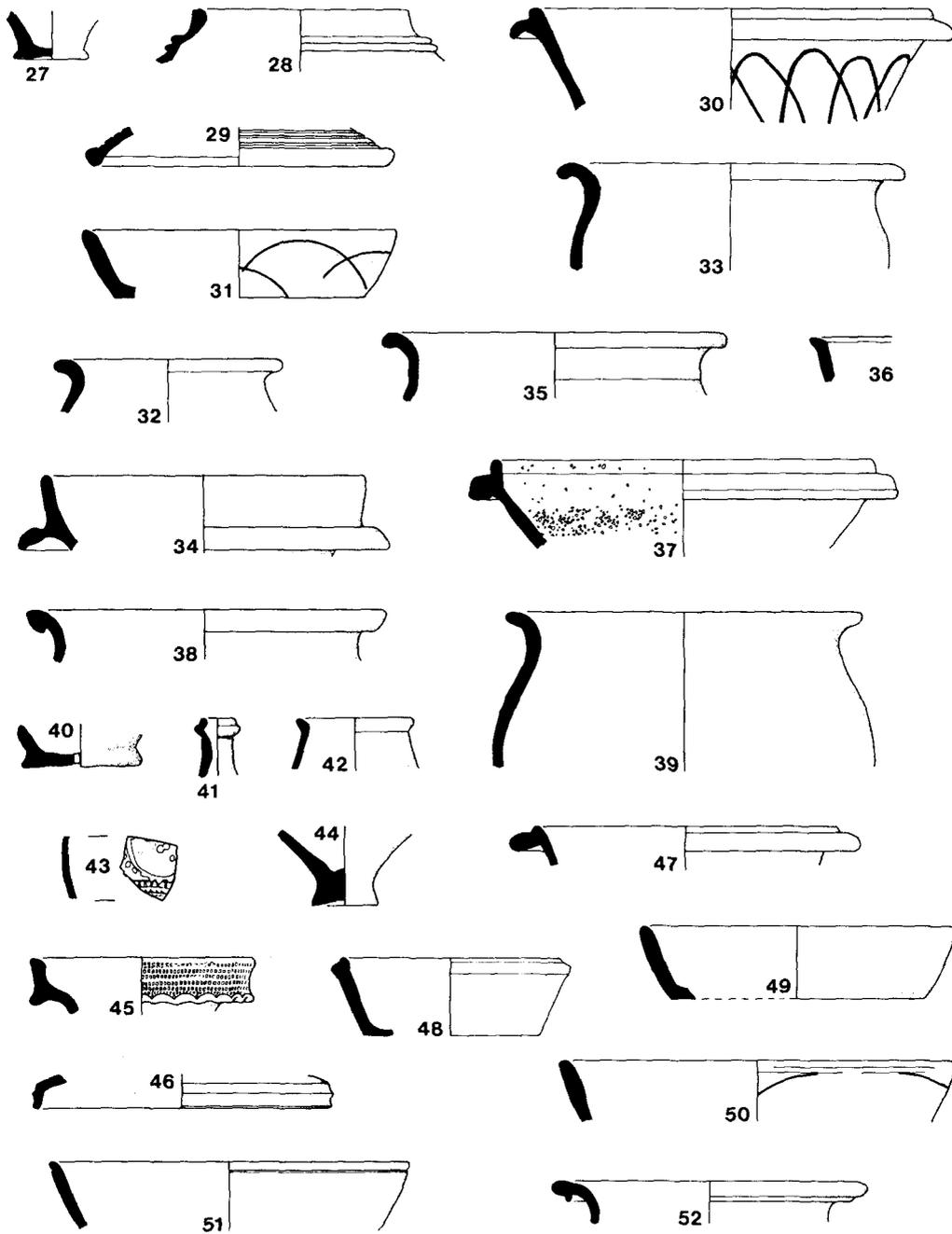


Fig. 13 — Fulham Palace Moat: Roman pottery Nos. 27-52 (¼)

39. Hand-made, everted rim jar in dark brown/grey fabric with shell-tempering. A joining sherd from Layer 23.  
 40. Base of a fabric A ware vessel, with a centrally perforated hole. As only half of the base was found it is impossible to say whether or not the hole formed one of a pair of rivet holes.

*Layer 23: Bank.*

41. Flanged spout of a flask in orange fabric, with a dark brown colour coat. Cf. Fulford (1975b, 44 Type 2), for a New Forest example of this vessel.  
 42. Outbent beaker rim in white paste, with dark grey colour coat. Cf. Wilson (1972, 348 No. 1117) for rim. ?Nene Valley.  
 43. Body sherd in orange-buff fabric, with internal and external brown slip and decorated with rouletting and orange barbotine.  
 44. Beaker base in orange-buff fabric, with a medium brown external slip.  
 45. Narrow-necked jar rim in cream ware, with a pink/grey core. It is decorated with many small impressed rectangles and frilling. This vessel is exactly paralleled by an example from Brentford (1974 site; unpublished) found in a 4th century deposit. Wilson (1972, 352 No. 1152) illustrates an example, similarly from a fourth century context, and Suggett (1953, Nos. C30-31) from Brockley Hill are similar.

46. Lid or dish in fairly soft, cream, fabric.  
 47. Flanged bowl in medium grey sandy ware, with a lighter grey core.  
 48. Flanged dish in fairly hard, dark brown/grey fabric, with a dark grey slip on interior surface and over flange. Farnham ware.  
 49. Plain dish in a dark grey/buff sandy ware, with a dark grey interior slip and slight burnishing on the exterior. Farnham ware.  
 50. Plain dish in a dark grey, sandy ware, with semi-circular burnished lines on the exterior, and a black burnished slip on the interior. Farnham ware.  
 51. Plain dish with a groove immediately below the rim. In hard grey fabric, with a dark grey burnished slip on the interior and above the groove on the exterior. Farnham ware.  
 52. Cornice rim in a fairly sandy, grey, grogged fabric, with a grey core and thin red-buff layers sandwiched between it and the surface.  
 53. Triangular rim, P.137.6, in a very sandy, slightly grog-tempered, pink-buff fabric. There is a grey core and blackened rim terminal. This is Fulford's Fabric D, which appears to be no earlier than the early fourth century AD. Opinions differ as to whether or not this is a Farnham fabric and of the Tilford variety.  
 54. Triangular jar rim in heavily shell-tempered grey fabric, with a buff surface.

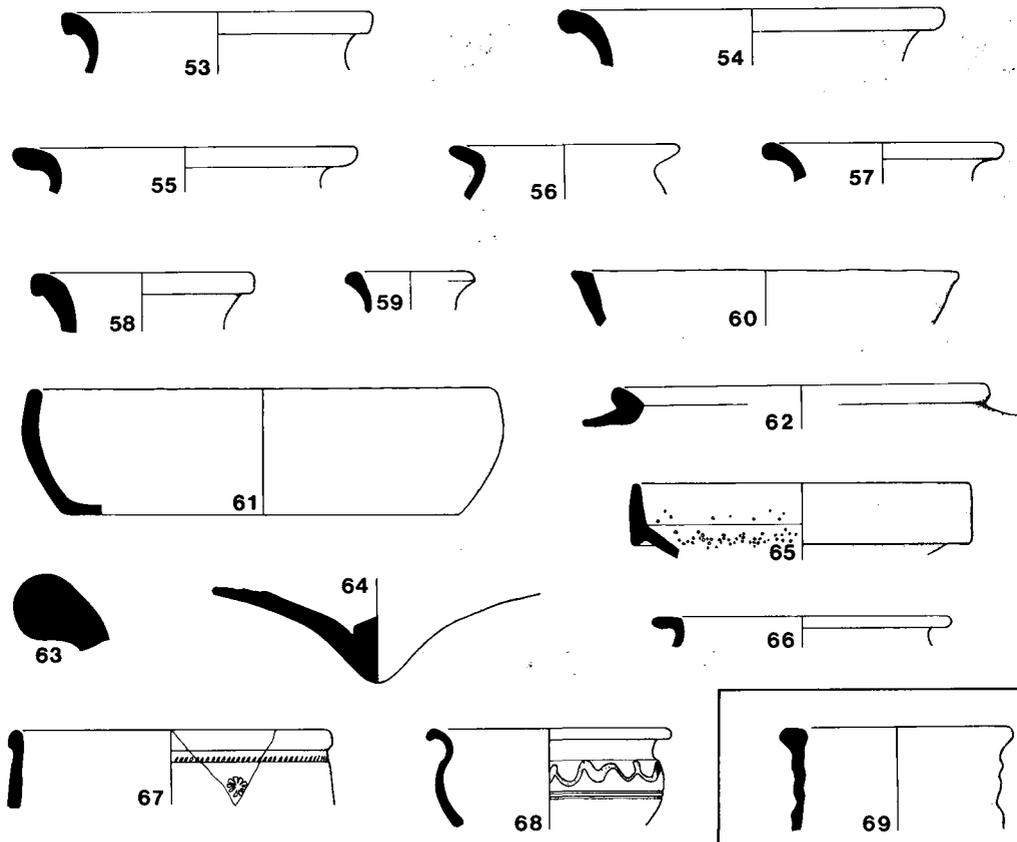


Fig. 14 — Fulham Palace Moat: Roman pottery Nos. 53-69 and medieval No. 69 (1/4)

55. Everted rim jar in hard, sandy orange-grey fabric, with a grey core and orange layer just beneath the surface. Possibly Farnham ware.
56. Similar fabric to No. 55 above, but with a cream-buff surface.
57. Everted rim in a black shell-tempered fabric.
58. Triangular rim from a jar, in a medium grey fabric, with a medium grey slip. Farnham ware.
59. Slightly triangular rim of a highly fired jug, in a light green-grey fabric, with inclusions of both angular and rounded quartz grits and other inclusions. Mayen ware. Cf. Fulford and Bird (1975, Fig. 1 No. 2).
60. Fabric A bowl of form II.
61. Fabric A bowl of form III.
62. Flattened, squared storage jar rim, with a grey core and surface, a light buff-grey sandwiched layer and a burnished grey exterior slip. Farnham ware. A joining sherd came from Layer 12.
63. Large rounded storage jar rim in medium grey, grogged ware, with a slightly oxidized outer surface and traces of a grey slip. Possibly from Essex.
64. Stub of a Dressel 20 amphora from Southern Spain. Micaceous pink/buff fabric. Body sherds from other examples were also found.
- Layer 24: Gravel capping to bank.*
65. Fairly sandy mortarium, imitating Dr. 45. Pinky-orange fabric and grey core, with a red-brown slip, red-brown grog inclusions and quartzite trituration grits. Non micaceous.
66. Jar with horizontal out-bent rim, in a grey fabric, with a light grey core. Farnham ware.
- Layer 26: Post-Roman deposits.*
67. Bowl, form P. 33, in a hard orange fabric, with a grey core. Slip varies from red-brown to black, and decoration consists of rouletting and stamping. Cf. Fig. 11, No. 8, for a full-size drawing of the rosette stamp.
68. Everted rim bowl, with two girth grooves, in a hard buff fabric and orange core. The exterior bears a grey-brown slip and white barbotine decoration.
69. A medieval jug neck in a hard, sandy, cream ware, with a blotchy pine green glaze on the exterior.

## THE ANIMAL BONES

BY JULIET CLUTTON-BROCK

The animal remains from the site were mostly very fragmentary and many of the scraps of bone were rolled as if they had lain in water. An exception to the majority of the material was the finding of the almost complete skulls of a dog and horse (layer 7; see p. 53), the former with a mandible, the latter without. It is difficult to escape the conclusion that these skulls were buried for some ritual purpose. They were found, facing east, in a shallow pit partly covered by layers 9 and 10. The dog's neck had been presumably severed at the junction of the axis and the first cervical vertebra for the axis and atlas were still in position next to the occipital condyles. This would suggest that there was still flesh on the skull when it was buried. The lack of mandible with the skull of the horse, on the other hand, suggests that this may have been a clean skull when it was buried. The dimensions of the two skulls are given below.

### SKULL OF DOMESTIC DOG (measurement in mm)

Condylal-basal length	— 141.5
length of mandible	— 114.0
height of vertical ramus	— 42.6
depth of vertical ramus under P4	— 16.25
zygomatic width	— 94 (est)
cranial width	— 56.3
maxillary width	— 60.0
premaxillary width	— 16.7
palatal length	— 78.0 (est)
length upper cheek tooth row	— 55.5
length lower cheek tooth row	— 58.8
length of upper carnassial tooth	— 15.9
length of lower carnassial tooth	— 18.90

The measurements show that the dog was not a very large animal; it was probably similar to an average-sized mongrel of the present-day. The dentition is anomalous in that both the upper and lower second premolars are absent. The teeth are well-worn and it is likely that the dog was more than four years old at the time of its death. The jaws were healthy and there is no sign of periodontal disease or malnutrition.

### SKULL OF A DOMESTIC HORSE

The facial region has been smashed, probably as a result of pressure in the soil. The upper right tooth row is complete in the maxilla, whilst the left cheek teeth are present but separate from the fragmentary maxilla. Dimensions of the horse skull are as follows (in mm):

Cranial width	— 113.0
zygomatic width	— 210.0
width of occipital condyles	— 79.6
width of upper right cheek tooth row	— 177.0

The first premolar is much worn which could be the result of the horse biting on a metal bit. This cannot be ascertained with certainty, however, without knowing the state of wear of the corresponding lower premolar. The horse was large and probably stood at least 15 hands (152.5cm) at the withers. The bone of the skull and the teeth were in a healthy condition at the time of death although the wear of the teeth indicates that the horse was probably at least 15 years old.

The rest of the animal remains have been identified as follows. No remains of wild animals were found, with the exception of one water vole mandible, a few bird bones, and one rabbit metatarsal which could be intrusive:

## LAYER 6

- Pig — 1 nearly complete right mandibular ramus.  
Length LRM3 — 32.05mm.
- Ox — 1 juvenile metapodial.  
— 1 juvenile axis vertebra.  
— 1 complete metatarsal. Length — 248 mm.  
prox width — 56  
dist width — 63  
min width shaft — 31
- Sheep/goat — 1 fragment of maxilla with teeth.  
— 1 fragment of radius.

## LAYER 17

- Pig — 1 tibia fragment.
- Ox — 7 fragments of horn core and skull fragments.  
— 1 mandible fragment.  
— 1 premolar.  
— 1 cervical vertebra.  
— 1 talus — length — 63.75 mm.  
— 1 hoof core.  
— 1 lower tooth.
- Sheep/goat — 1 lower tooth.

## LAYER 23

- Oryctolagus cuniculus* (rabbit) — 1 metatarsal bone.
- Arvicola terrestris* (water vole) — 1 mandibular ramus.
- Dog — 1 premolar tooth.  
— 1 distal end tibia.
- Cat (probably domestic) — 2 metatarsal bones.  
1 radius.  
3 vertebrae.  
1 1st phalanx.
- Horse — 4 teeth.  
— 2 articulating cervical vertebrae from a small horse or pony.  
— 1 distal end of a radius.  
— 1 1st phalanx fragment.
- Pig — Fragments of maxilla, teeth and limb bones, some juvenile.
- Ox — Fragments of long bones, ribs, foot bones etc. None complete enough for measurement.
- Sheep/goat — Fragments of teeth and limb bones.  
— 1 distal end of metatarsal — width — 20.5 mm.

## LAYER 24

- Dog — 1 distal end of a tibia.

## LAYER 25

- Pig — 1 cuboid bone.  
— 1 complete talus — length — 59.9 mm.  
— 1 hoof core — length — 63.5 mm.

The other Roman levels contained fragments of bones and teeth of domestic pig, ox, and sheep/goat that are not listed because they are not complete enough for any useful results to be obtained from them. In layer 11 there was a small collection of much-smashed bone fragments which were obviously associated and were considerably stained from the iron deposit. Unfortunately the fragments were too small to be identified but they probably came from one ungulate skull.

## THE COAL

BY DR. A. H. V. SMITH

Specimens of coal and coke were submitted to the Yorkshire Regional Laboratory of the National Coal Board for evidence that might indicate the source of the coals. The samples comprised 5 small fragments of coal from layer 23 and one from layer 11 as well as two fragments of coke-like material also from layer 23.

The five fragments of coal were crushed and treated as a single sample. The sample from layer 11 was also crushed. Reflectivity measurements and spore analyses were made on both coal samples to determine their rank and approximate age. The two pieces of coke were impregnated with resin, ground and polished for observation under the microscope to confirm their nature.

The average maximum reflectivity of the coal from layer 23 is 0.91%, that of the coal from layer 11 0.73%. These values are significantly different and indicate a strongly and weakly caking bituminous coal respectively. The deduced volatile matter and carbon contents on a dry ash free basis of coals with these reflectivities are respectively: 35.5-38 and 84.5-86 (Layer 23), and 36.5-39.5 and 81.5-83.5 (Layer 11).

A good assemblage of spores was obtained from each coal sample and from the established stratigraphical ranges of the species present it can be stated that the coal from layer 23 is of Middle Coal Measures age, that is, from a seam between the Clay Cross and Mansfield marine bands of the Yorkshire coalfield or the equivalent horizons in other coalfields. The coal from layer 11 is of Lower Coal Measures age, that is, from below the Clay Cross marine band and more precisely from seams between the Better Bed and Fenton seams of the Yorkshire coalfield or their equivalents.

It is assumed that coal seams in Roman times would have been worked at their outcrop. Seams of the appropriate age and rank outcrop in the east Pennine coalfield from Nottinghamshire to Northumberland. The particular coalfields from which each coal may have come are Yorkshire (Barnsley area) and Durham for the coal from layer 23, and Yorkshire (Leeds area), Nottinghamshire and Northumberland for the other specimen. Since no spores are diagnostic of individual seams it is impossible to be more precise.

Microscopic examination of the two pieces of coke-like material showed that one was a char from a mild heating such that the microscopic components were still recognisable whereas the other had been completely coked. The optical properties of the coke suggest that the rank of the original coal was similar to that recorded from the coal in layer 23.

#### CONCLUSION

The coal fragments from the different levels on site are from more than one source but both could derive from outcrops of the East Pennine coalfields. The lower rank coal could have come from the Nottinghamshire coalfield but the other coal is unlikely to have originated from nearer London than Yorkshire.

#### THE CHARCOAL

BY G. RICHARDSON, ROYAL BOTANIC GARDENS, KEW

The following woods were identified from charcoal found in the Roman deposits:-

Oak	<i>Quercus robur</i> L. type.
Elm	<i>Ulmus</i> sp.
Ash	<i>Fraxinus excelsior</i> L.
Hazel	<i>Corylus avellana</i> L.
Thorn	<i>Crataegus</i> sp.
Acer	Probably <i>Acer campestre</i> L.
Coniferae	Probably Fir. <i>Abies</i> sp.
Salicaceae	Probably Poplar. <i>Populus</i> sp.

#### THE MOLLUSCAN REMAINS

A complete qualitative analysis of the molluscan remains from soil samples taken on site by J. Cooper, is preserved with the site records. A summary article on the material is published in *The Conchologists' Newsletter* No. 57, Cooper (1976, 490-492).

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Mr. C. Oliver acted as Site Surveyor, drawing up all plans and sections, and gave constant assistance and encouragement, Mr. S. Garfi drew the small finds and Mr. P. Elkins made the initial pottery drawings. Mr. G. A. C. Evans provided storage and transport. Miss Janet Taylor kindly typed the report, and M/S M. Edgar, N. Hale, F. McLaren and L. Jones gave particular assistance in post-excavation work. We owe a debt to these and to the many volunteers without whom the excavation and processing would not have been possible.

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# EXCAVATIONS AT FETTER LANE, 1976

JANE SIEGEL

## INTRODUCTION AND SUMMARY

A small excavation at the rear of the now demolished St. Dunstan's House, 133-137 Fetter Lane, EC4 (TQ 31258124), near the City's boundary with Westminster, was carried out by the Inner London Archaeological Unit from mid-November to mid-December 1976 in advance of redevelopment of the site.

Observation after demolition of the late Victorian (built in 1887) St. Dunstan's House revealed that the extensive basements of this commercial structure had destroyed any evidence of earlier archaeological deposits along the Fetter Lane frontage of the site. Excavation was therefore confined to an area just west of St. Dunstan's House.

An initial trial trench was excavated with the aim of recovering evidence of medieval settlement in the City's western suburb in the vicinity of Fetter Lane, north of Fleet Street. Although no evidence of medieval settlement was obtained, it was decided to expand the trial trench when foundation walls were uncovered.

The trenches excavated by the Unit covered an area of *c.* 42 sq. metres. It was not possible to extend further the excavated area due to surrounding redevelopment work, spoil heaps and thick concrete beneath the topsoil in one corner of the site. However, site watching of adjacent areas took place during the redevelopment.

Excavations exposed foundation walls and other structural features (Figs. 2, 3, 4) of the pre-Fire Chambers Nos. 16-17 (in block Nos. 14-17) of Clifford's Inn (Plates 1, 2, 3), an Inn of Chancery which had been affiliated with the Inner Temple from at least the late medieval period,<sup>1</sup> and possibly as early as the 14th century. Chambers Nos. 14-17, constructed *c.* 1663,<sup>2</sup> stood on the site until their demolition in the 1930s.<sup>3</sup>

Prior to the construction of these Chambers, the site appears on 16th and mid-17th century maps<sup>4</sup> as open ground, probably a garden. A layer of garden soil (F10) containing mainly 16th/17th century pottery sealed pits and ditches F4, F5 and F6, observed and recorded during redevelopment of the site. Deposits (F8) beneath this garden soil sealed an excavated ditch (F2) and a pit (F3). All these ditches and pits were dated to the 16th century. During redevelopment, a (?) possibly Roman ditch or pit (F7) was observed and recorded. Additional portions of the Clifford's Inn Chambers Nos. 14-17 were also observed during this site-watching.

All unpublished plans and sections may be examined at the offices of the Inner London Archaeological Unit.

## DOCUMENTARY EVIDENCE

### THE LEGAL INNS

Following the Conquest, the Chancery, originally having mainly secretarial duties within the Royal household, continued for some time to be part of the King's household<sup>5</sup> and to travel with the Court. By the mid 13th century, the Chancellor's duties as secretary for



home and foreign affairs and minister of justice were expanded when the work of the Chancery was much increased by becoming the source of original writs, and by the adoption of the system of enrolments forming the Patent, Close and other chancery rolls. As its responsibilities and staff grew, the office of the Chancery was reorganised, and in 1260 the chancellor was made responsible for the maintenance of himself and his clerks as a separate household. This took the form of houses hired or taken over at certain centres during the King's progresses, which temporarily became inns of the King's clerks of chancery. At the beginning of the 14th century, however, the migrations of the Chancery from London became less frequent. As they had no fixed place in London in the first half of the 14th century, they occasionally made use of the churches of the Blackfriars, Whitefriars or St. Mary le Strand, Barking Chapel near the Tower, the 'Domus Conversorum' (the House of Converted Jews) in Chancery Lane, and the Temple. Most often they sat at Westminster, and by *c.* 1350 the office of the Chancery was fixed at Westminster Hall.<sup>6</sup>

Various types of Inns of Chancery then grew up, of which it is thought the most permanent were hired by Chancery clerks collectively and used as centres for legal education.<sup>7</sup> In the time of Edward I there certainly was a class of apprentices of the law, and the Crown desired the judges to exercise control over them. The first mention made of the Inns or 'hospitia' of the apprentices is in the late 13th or mid 14th century.<sup>8</sup>

Though the oldest records pertaining to the Inns of Court are now lost, the 'Black Books' of Lincoln's Inn date from 1442, and the Inn probably originated in the 14th century.<sup>9</sup> Gray's Inn and the Temple were probably established as Inns of Court during the same period.<sup>10</sup>

By the late 15th century, the Inns of Court numbered four (Lincoln's Inn, Gray's Inn, Inner Temple and Middle Temple). Each of these had some 200 students, and were considered 'greater Inns', as opposed to the ten existing Inns of Chancery (the 'lesser Inns') with approximately 100 students each. The legal training provided by the Inns was considered to have a more practical emphasis than that at Oxford and Cambridge.<sup>11</sup> Certain of the Inns of Chancery were affiliated to specific Inns of Court, and were provided by them with readers to deliver lectures, but the precise nature of the control exercised by the 'greater Inns' over the Inns of Chancery does not seem to have necessarily been the same in all cases. It appears, however, to have been the practice for students to remain at an Inn of Chancery for a time, and then to go on to an Inn of Court.<sup>12</sup>

## CLIFFORD'S INN

### HISTORY OF THE SITE AND THE INN

By 1292 Malcolm de Harley, attorney of Edward I, along with his clerks, occupied an Inn towards the south-west corner of Fetter Lane. De Harley was prominent as the King's escheator south of the Trent and as such was Keeper of the lands and possessions temporarily in the hands of the King. His Inn was located just north of the corner property of Robert de Bardelby, a leading attorney, Keeper of the Seal, and Chancery clerk.<sup>13</sup>

The earliest known reference to what is now Fetter Lane is its description in 1252 as 'Niwestrete'.<sup>14</sup> This is distinct from 'Le Newe Street' (now Chancery Lane), made from Holborn to Fleet Street in the late 12th century through the property of the Knights Templar.<sup>15</sup> Between 1282 and 1292 it became known as 'Faitours Lane' and

'Faytureslane'.<sup>16</sup> Later variants of the name include 'Faitereslane', 'Faitures Lane' and 'Faytores Lane' and by the reign of Elizabeth the common was 'Fewtar Lane'.<sup>17</sup> In 1603, Stowe commented that:

'Fewtar lane which stretcheth south into Fleetestreet by the east end of St. Dunstones church, and is so called of Fewters (or idle people) lying there, as in a way leading to Gardens: but the same is now of latter yeares on both sides builded through with many fayre houses.'<sup>18</sup>

Kingsford points out that Middle English 'faiour' meant 'imposter, cheat; especially a vagrant who shams illness'.<sup>19</sup>

An alternative suggestion for the origin of the street's name is based on the legal associations of the area, for by the mid 14th century legal Inns had been firmly established in London's western suburb.<sup>20</sup> It has been suggested that the presence of de Harley, the King's 'factor' (i.e. agent), may have been influential in the renaming of 'Niwestrete' (New Street) to 'Faitours Lane', as the words 'faiour' and 'fayture' were old French equivalents of 'factor'.<sup>21</sup> In 1618 Sir Edward Coke commented on the legal Inns in the vicinity:

'All these are not far distant from one another, and altogether do make the most famous Universitie for profession of law only, or of any one human Science that is in the world.'<sup>22</sup>

De Harley died insolvent in 1298, and as a debtor to the King his property was taken into the King's hands and entrusted to his nephew, John of Brittany, afterwards Earl of Richmond.<sup>23</sup> On 24 February, 1310, de Harley's 'messuage with appurtenances near the Church of S. Dunstan in the West, in the suburb of London'<sup>24</sup> was granted by Edward II to Robert de Clifford, distinguished soldier and a Justice in Eyre, Justice for the Forest north of the Trent, and Marshal of England.<sup>25</sup> The houses then became known as 'Clifford's Inn', and had entrances in Fetter Lane and in Fleet Street. Clifford died in 1314, and when his son Robert died in 1344, the latter's wife Isabel leased the Inn to the Apprentices of the Bench, who may have already been in occupation, for a rent of £10 yearly.<sup>26</sup> Although the 'Ancient and Honourable Society of Clifford's Inn' was founded in 1381,<sup>27</sup> it was not until 1618 that the popular conception of the purpose of the site was actually formalised. In that year Francis de Clifford granted the Inn to the Ancients of the Society by explicitly devoting the deed for the property to the housing of legal practitioners and providing a centre for legal studies 'forever to continue and be employed as an Inn of Chancery for the furtherance of the Practicers and students of the Common Law'.<sup>28</sup>

In 1586, Clifford's Inn had 110 members in term time, a number exceeded only by Staple Inn and Barnards Inn. Amongst the eminent men who were members and students during the Tudor period were Sir Edward Coke, admitted in 1571 and then going on to the Inner Temple (to which Clifford's Inn was attached) in 1572, and John Selden, who came from Oxford to the Inn in 1602, before being admitted to the Inner Temple in 1604. The last admission from Clifford's Inn to the Inner Temple of which there is a record was in 1621.<sup>29</sup>

While in some cases the Inns of Court continued to send readers to lecture to the members of the Inns of Chancery until the 19th century, in other cases the practice died out as early as the late 17th century.<sup>30</sup> A contemporary comment on the state of the Inns of Chancery in 1684 noted that 'being now almost totally filled by the inferior branch of the profession are neither commodious nor proper for the resort of gentlemen of any rank or figure; so that there are very rarely any young students entered at the Inns of Chancery'.<sup>31</sup> By the end of

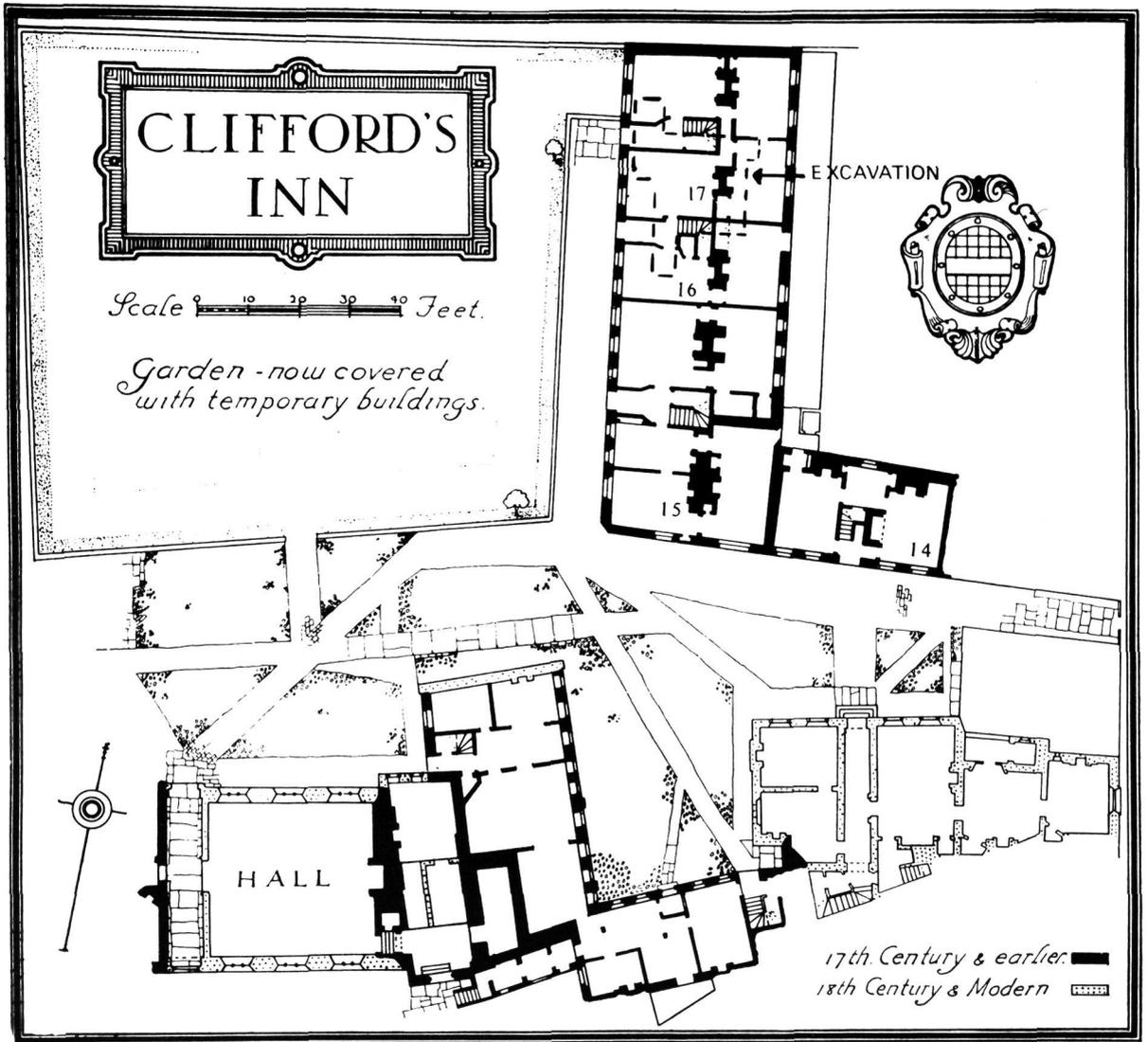


Plate 1. Plan of Clifford's Inn, 1929 (Chambers 14-17 numbered) (Copyright Royal Commission on Historical Monuments).



Plate 2. Clifford's Inn Chambers Nos. 14-17, looking north-east (Copyright B. T. Batsford Ltd.).



Plate 3. Clifford's Inn Chambers Nos. 14-17, looking north (*Copyright Royal Commission on Historical Monuments*).

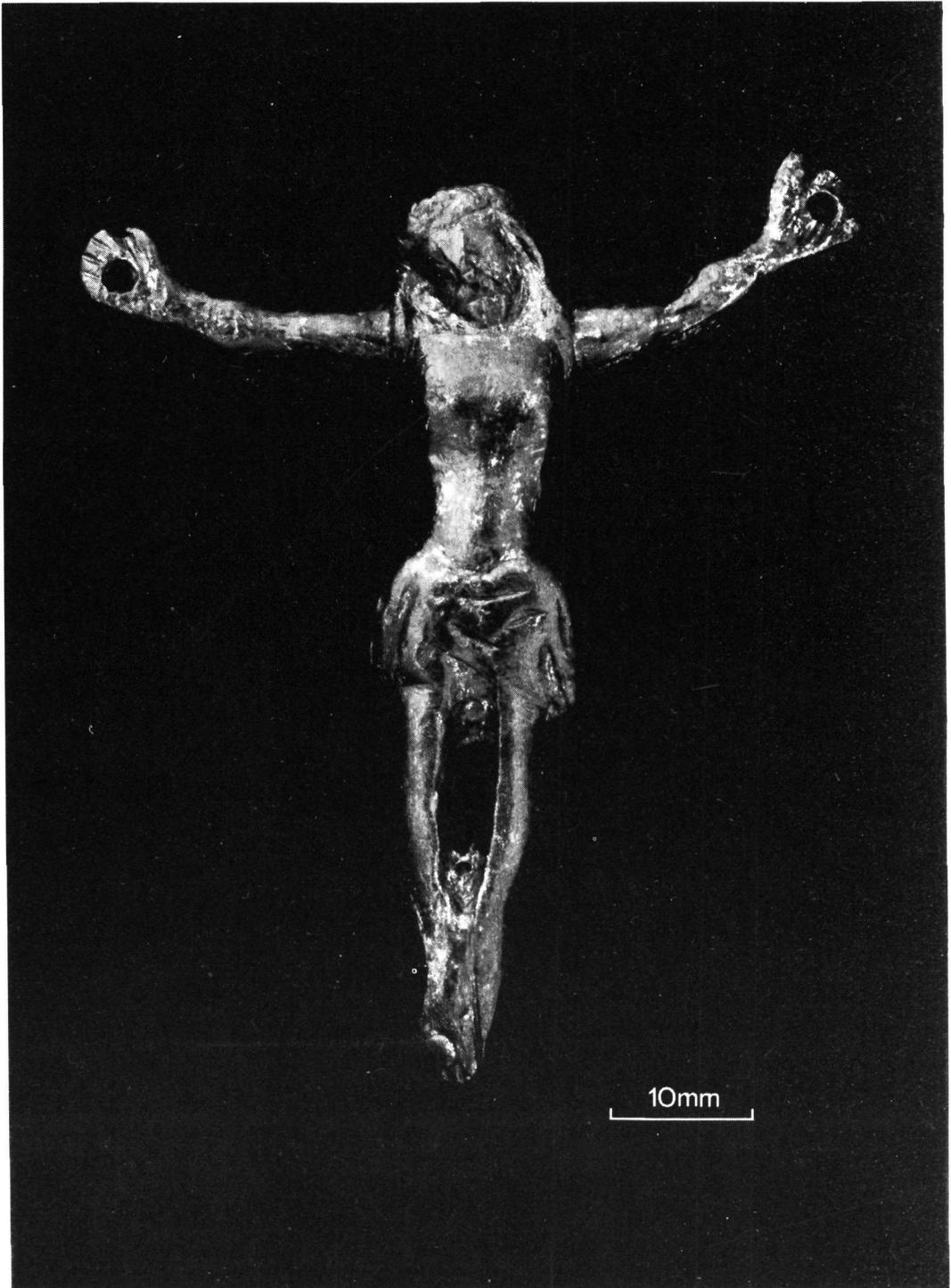


Plate 4. Fetter Lane: Bronze crucifix.

the 17th century, members of these Inns were chiefly attorneys and solicitors<sup>32</sup> and the Societies of the Inns of Chancery were all eventually disbanded.<sup>33</sup> At the same time, the Inns of Court ceased to hold their previous position as educational institutions, and instead became associations of lawyers to whom was entrusted the selection of members of the Bar and its organisation and discipline.<sup>34</sup> In 1854 the Society of Clifford's Inn pointed out that the Incorporated Law Society had taken over the function of lectures and examinations.<sup>35</sup>

The Clifford's Inn Chambers were nevertheless sought after by both members and non-members. The chambers became popular with generations of journalists and literary men, including Samuel Butler, who for many years lived at No. 15 Clifford's Inn.<sup>36</sup>

In 1879, the Inn's connection with the Clifford family was terminated when the Duke of Devonshire agreed to sell his interest.<sup>37</sup> The number of members of the Inn had dwindled, but the ancient customs of the Society were maintained until 1885. By 1899 there were only 16 surviving members, and in 1902 the Society was dissolved.<sup>38</sup> The property was sold to William Willett, a London builder, in 1903 for £100,000.<sup>39</sup> As the 1618 conveyance of the freehold of Clifford's Inn provided for the site to be used for legal education, an action was brought to ascertain whether the Inn was the property of the members, or subject to a trust for charitable purposes. The Court held that the members were not entitled to the proceeds of the sale, and the money went instead to the Law Society and the Council for Legal Education.<sup>40</sup>

## THE BUILDINGS

No description more specific than the reference in 1310 to 'messuage with appurtenances near the Church of S. Dunstan in the West, in the suburb of London'<sup>41</sup> or in 1314 'tenement with a garden'<sup>42</sup> gives any details of the early structure (or structures) comprising Clifford's Inn.

Before demolition this century, the buildings of the Inn consisted of a Hall and blocks of chambers grouped around a garden and two courts (Pl. 1). The Hall, of medieval origin, was almost entirely rebuilt in 1767-8, incorporating parts of the earlier walling and a 14th century doorway. The oldest chambers surviving before their destruction in the 1930s were all of 17th century date, with Nos. 14-17 dating from *c.* 1663. Chambers Nos. 14-17 were of red brick with tile roofs, comprising three storeys with attics. They formed an L-shaped block, with No. 17 the northernmost chamber, No. 15 at the south and No. 14 at the east<sup>43</sup> (Plates 1, 2, 3). The first map indicating the distinctive L-shaped chambers Nos. 14-17 near to Fetter Lane is Hollar's plan of 1667. Prior to this date, the site of these chambers appears on Agas' plan of 1560-70 and Faithorne and Newcourt's of 1658, as an open area, probably a garden.

The Great Fire of 1666 spread westward only just across Fetter Lane on the north side of Fleet Street and apart from Chamber No. 13, Clifford's Inn was spared.<sup>44</sup> If No. 13 was, however, rebuilt soon after the Fire, that building may perhaps have been one of the three sets of chambers pulled down in 1830, when St. Dunstan's church was rebuilt slightly to the north of its previous location.<sup>45</sup> It is known that No. 13 was rebuilt in 1834.<sup>46</sup> Chamber No. 14 was either repaired or rebuilt in 1669,<sup>47</sup> and this may have been necessary as a result of damage during the Fire, as it was located a few yards to the north of No. 13.<sup>48</sup> Block 14-17 was repaired in 1782, and also had subsequent internal alterations.<sup>49</sup> After the Fire, Sir

Matthew Hall and other eminent judges sat in the Hall of the Inn to hear claims for compensation arising out of destruction of property.

Other repairs and additions were periodically made to the Inn over the centuries, and Maitland, in 1760 observed<sup>50</sup> that the Inn 'of late years is much enlarged in newe buildings'.

Subsequent to the 1903 sale of Clifford's Inn there were additional sales and demolitions,<sup>51</sup> and part of the Inn was purchased by H.M. Commissioner of Works with the intention of protecting the Public Record Office from fire risk. In 1934 the remaining portions of the Inn (including Chambers Nos. 14-17) were described as 'the best group of pre-Fire houses in the City'.<sup>52</sup> Nevertheless, in August 1934 the Inn was standing derelict awaiting demolition,<sup>53</sup> and certainly by 1937 none of the buildings of the Inn remained.<sup>54</sup>

### THE PRE-CLIFFORD'S INN CHAMBERS FEATURES (Figs. 1, 2, 3, 4)

Natural gravel was reached at 14.73m O.D. but sloped down to 14.50m O.D. in portions of observed sections G-H and J-K.

Just above natural gravel lay a deposit of mottled yellow-grey sandy soil containing gravel (F1). The layer ranged in thickness from *c.* 0.20m to 0.45m and extended both across the excavated area and in sections (Fig. 1, sections G-H and J-K) observed during subsequent site-watching. The top of the deposit lay at a height of *c.* 15.10m O.D., but at the southern end of an observed section (J-K) it sloped down to 14.40m O.D. As the layer contained some 15th-16th century sherds, the balance of the pottery retrieved (13-14th century, and one Roman sherd) must be considered residual, although the earlier sherds were not particularly abraded. A small quantity of animal bones and a few fragments of unidentifiable charcoal also came from this deposit. While it was not possible to ascertain the mode of deposition of the layer, it may have been naturally lain as a result of localised flooding.

The top of the yellow-grey layer (F1) was cut into by a ditch, F2, and a pit, F3. F2 extended from the south-east of trench IV into the western section of trench III. The line of the ditch was not, however, apparent within trench III. The ditch (F2) was at least 4.20m long (E-W) and 0.60m wide at its easternmost point where it butt-ended. It widened out to 0.90m at the western end of trench IV. The ditch had been cut in at a height of 14.88m O.D. at its eastern limit, and 14.97m O.D. at the point where it was seen furthest west (see Fig. 3). It was only in trench IV that the ditch cut natural gravel as well as the yellow-grey layer (F1), to a depth of 14.66m O.D. at the east, and 14.62m O.D. at the west. The fact that there was no significant slope in the base of the ditch might suggest that it was a property boundary rather than a drainage ditch.

The fill (2a) of the ditch comprised light brown charcoal-flecked sandy soil with some gravel, to a depth of 0.22m at its eastern end, and 0.30m at the west. Burnt flint, Roman brick fragments, and a small quantity of animal bones were retrieved from the ditch (F2).

Cutting into ditch F2 from a height of 14.92m O.D. in trench IV and through the yellow-grey layer (F1) and natural for a total depth of 0.54m was an almost circular pit, F3, with steep sides and a flat bottom. It had a diameter of 1.10m. The fill, (3a), similar to that of 2a, contained a relatively large quantity of domestic animal bone refuse, and a single Roman sherd, which must be considered residual.

The following features, all observed in section (Fig. 1, sections G-H and/or J-K) during redevelopment, were also cut from the top of the yellow-grey layer (F1). All were cut through the layer, into the natural gravel, and were sealed by the layer above:

- A) (In section J-K): F4, a pit or ditch, at least 0.70m wide (N-S) was cut at the south by a modern retaining wall. The feature had a depth of 1.00m. The fill of F4 comprised (4a) a 0.06m layer of light brown clay, at the bottom of the feature, overlain by (4b) *c.* 0.70m of dark brown soil, containing a thin lens of yellowish-brown soil. No finds were retrieved.
- B) (In sections G-H and J-K): F5, a flat-bottomed ditch or pit with almost vertical sides. The feature was 2.30m wide (N-S), having a depth of 0.70m, with a homogeneous fill (5a) of dark brown soil with small stones. It contained a single residual sherd of pottery, of 12/13th century date.
- C) (In section G-H): F6, a U-shaped pit, 2.40m wide (N-S) with a depth of 1.25m. The fill comprised the following layers: the lowest layer (6a) was 0.04m of dark brown silt. This was

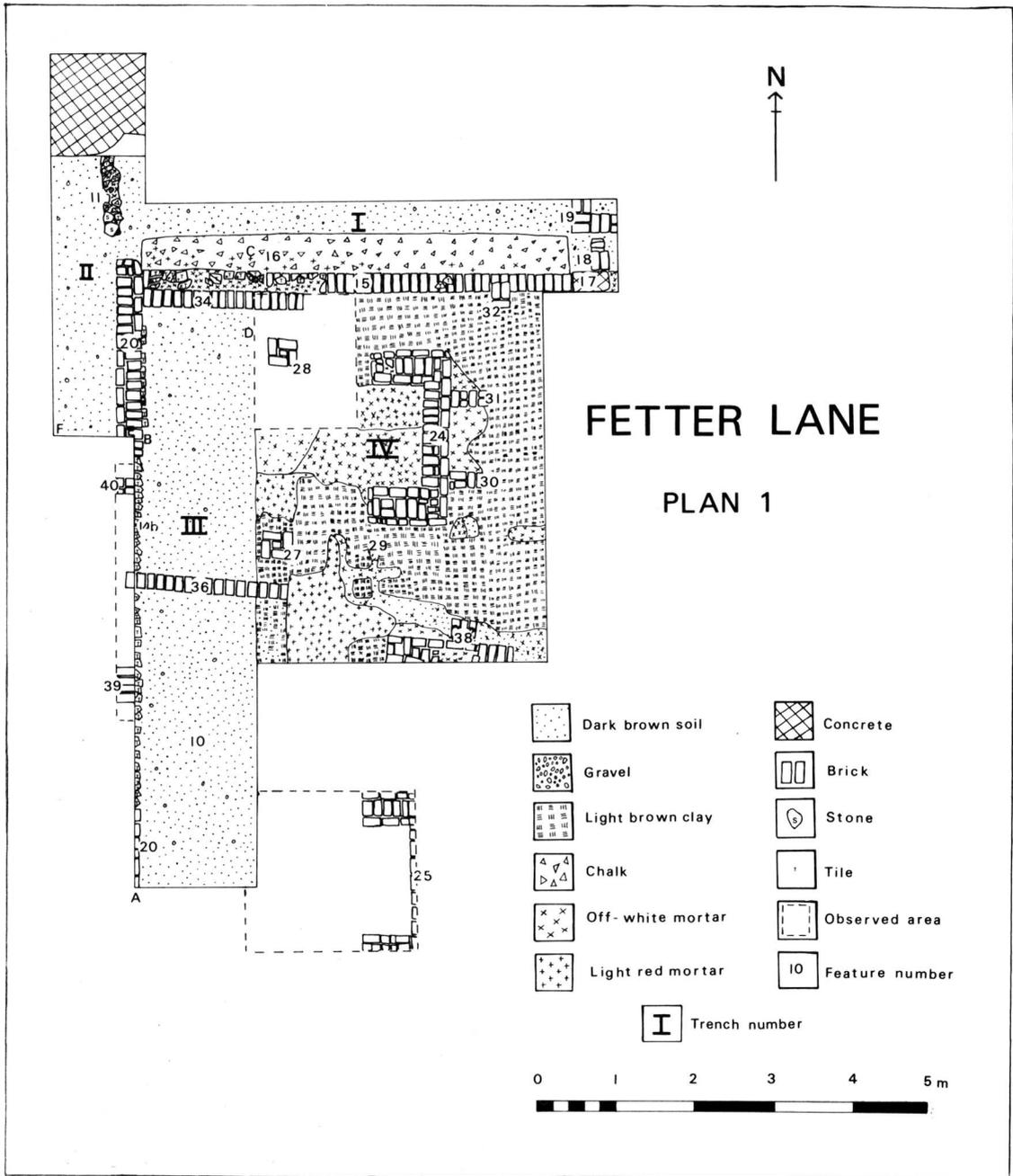


Fig. 2. Fetter Lane: Plan 1.

overlain by (6b) 0.20m of yellow sand with stones, containing a thin lens of dark brown silt. Above this was a deposit of 0.06m dark brown silt (6c). The layer above, (6d), consisted of 0.14m yellow-orange sand, overlain at its northern portion by a layer (6e) of 0.18m of mid-brown sandy soil with stones. The next layer (6f) consisted of *c.* 0.60m of dark brown soil with charcoal fragments, flint, and a few sherds of 12/13th century pottery. Within 6f were lenses of dark soil (6g, 6h, 6j) each a few centimetres thick, which contained residual 12/13th century pottery. The uppermost portion of the pit (6k) comprised *c.* 0.30m brown soil with yellow clay and flint, and contained one residual sherd of late Roman pottery.

Although the small quantity of pottery retrieved from observed pits/ditches F4, F5, F6 and the excavated ditch F2 and pit F3 is, with the exception of the Roman sherd from 6k, of 12/13th century date, in view of the 15/16th century pottery from the yellow-grey layer (F1) which these features cut, these pits/ditches must on stratigraphical grounds, be of at least 16th century date, and the earlier pottery residual.

### FETTER LANE

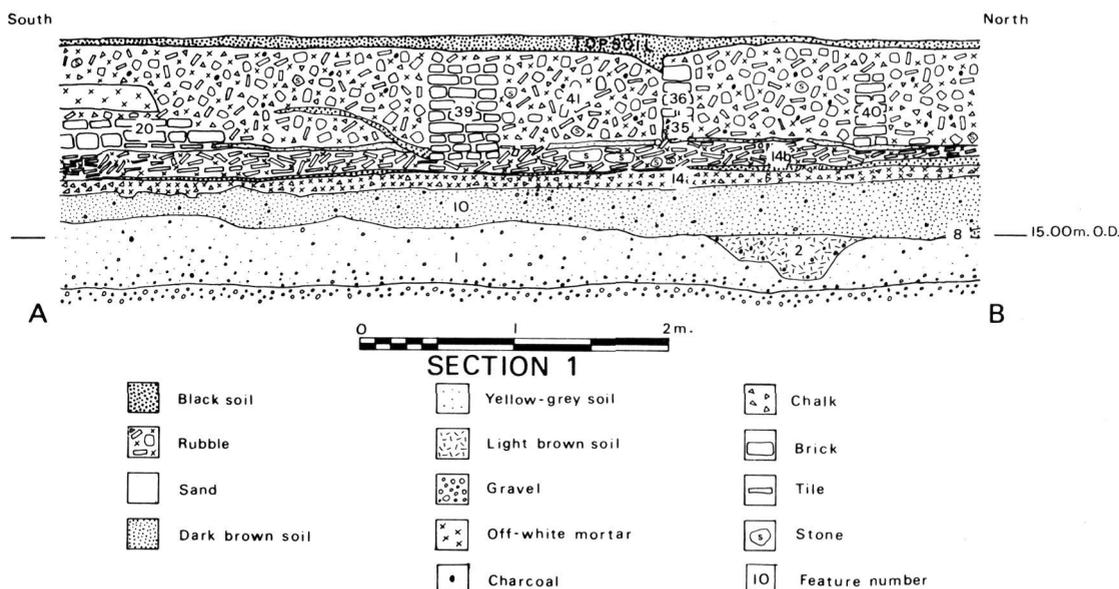


Fig. 3. Fetter Lane: Section 1.

In addition, a possible ditch (F7) was observed during machining operations for redevelopment in a section (L-M) *c.* 23.00m to the north-east of the excavated area of the site. The ditch, 3.00m wide, ran in a NE-SW direction, and had irregular sides tapering to a flat bottom. Although it cut the natural gravel at a height of 14.42m O.D., the upper part of the feature was badly disturbed by modern deposits and therefore it is likely that it had, in fact, been cut in from a still higher level. The bottom of the ditch was at a level of 13.42m O.D.

The feature contained the following layers of fill: (7a) silt and gravel 0.04m thick, (7b) 0.20m of orange gravel. (An early Roman flagon neck, the only pottery from F7, was found within this gravel.), (7c) greyish silt with a depth of 0.30m, (7d) *c.* 0.10m of stained orange gravel, (7e) 0.06m of iron-stained orange sand sealed 7c, (7f) a layer of 0.30m of greyish gravel, overlain by (7g), a 0.16m deposit of iron-stained light beige sand, sealed by (7h) 0.08m of dirty orange gravel, (7j) *c.* 0.50m of iron-stained grey silty clay was sealed by (7k), a *c.* 0.40m layer of light grey iron-stained sandy clay. 7m was 0.10m of dark brown soil in the upper eastern part of the section.

Due to the modern disturbance, and the distance from the excavated trenches, it was not possible to tie in the feature with other deposits above natural levels on the site. The only dating evidence from the feature was the Roman sherd from 7b at the bottom of the ditch. There was no evidence to contradict a Roman date. However other features produced Roman pottery but were stratigraphically dated to the 16th century, and this may also be the case here.

Portions of the yellow-grey layer (F1), and ditch F2 and pit F3 were sealed by a layer of light brown soil (F8), ranging from 0.04m to a maximum thickness of 0.35m in parts of trench IV. This layer did not extend across the site since it was only noted at the west and south of trench II (see Fig. 4, section 3), though a thin lens continued at the western edge of trench III (see Fig. 3) and in trench IV. It was not noted in the north-west portion of trench IV and it did not appear to have been cut out by later features. The layer contained a few sherds of 16th century pottery, and one residual fragment, possibly of a loom weight, which could not be more closely dated than late Roman or early medieval.

At the south end of trench IV the light brown soil (F8) was cut into by a possible posthole (F9) from a height of 15.21m O.D. Only a portion of the posthole was exposed in the trench, where it continued into the section. The sides sloped steeply to a flat bottom. The dimensions of the exposed portion were 0.23m N-S by 0.18m E-W, with a depth of 0.52m. The fill, (9a), consisted of dark sandy loam, containing some charcoal flecks, gravel and brick flecks. No pottery was found. Only one identifiable bone came from the feature.

Sealing F9 and F4, F5, F6 and layers F8 and F1 was a layer of homogeneous dark brown soil containing some gravel (F10). It was 0.60-0.70m thick and extended across the excavated trenches and the observed areas. The majority of the pottery from this layer was of 16th-17th century date, with the remainder being residual medieval material. A late 15th or 16th century bronze crucifix (Pl. 4) was found towards the top of this layer, in trench I. This soil also contained almost two-thirds of all the animal bone from the site, snail shells, and a few fish bones of salt-water species.

The earliest extant maps of the area, i.e. Agas 1560-70 and Braun and Hogenberg 1572, indicate that the site was not at that time built upon, and appears to have been used as a garden prior to the construction of Clifford's Inn Chambers Nos. 14-17, an L-shaped structure which is first seen on Hollar's map of 1667. The environmental evidence suggested the soil to have been either garden or plough soil. As plough marks were not noted, it seems reasonable to assume that the areas was a garden, as suggested by these documentary sources.

Cutting into the dark brown soil (F10) was a narrow (0.25m at the south, 0.17m at the north section) rubble foundation wall (F11), constructed of limestone, large pieces of chalk, brick and tile fragments set in loose sandy mortar; the foundation wall survived only to a maximum height of *c.* 0.09m. It retained a length of 1.02m (N-S) at the northern end of trench II. As the stones were not tightly packed, it could not be determined with certainty whether or not the feature continued into the section. If, however, it did extend further north, it may have served as a support for a wooden fence, no traces of which survived. The surviving top of the feature was at *c.* 15.34m O.D.

#### THE BUILDING PHASE (Figs. 2, 3, 4)

##### (CLIFFORD'S INN CHAMBERS NOS. 14-17)

The earliest features relating to the erection of the Chambers were two construction trenches, F12 and F14.

F12 cut into the dark brown soil (F10) at a height of 15.73m O.D., retaining a length of 5.46m in an E-W direction along the southern portion of trench I, and a depth of *c.* 0.68m. A section across the feature revealed its width to be *c.* 0.50m.

Before F12 was back-filled, a shallow depression with sloping sides, F13, was cut into the bottom of F12 at its junction with construction trench F14, for a total depth of 0.10m. The almost circular feature measured 0.56m E-W by 0.50m N-S. The depression was then packed with large stones. Due to its position at the base of the junction of construction trenches F12 and F14, its function was probably for additional support for foundations of the superstructure. The stone-packed support was overlain by F12's rubble fill, (12a), comprising crushed chalk, mortar, stones, red-brick fragments, and tile fragments. The latter were mainly confined to the upper 0.25m of the construction trench.

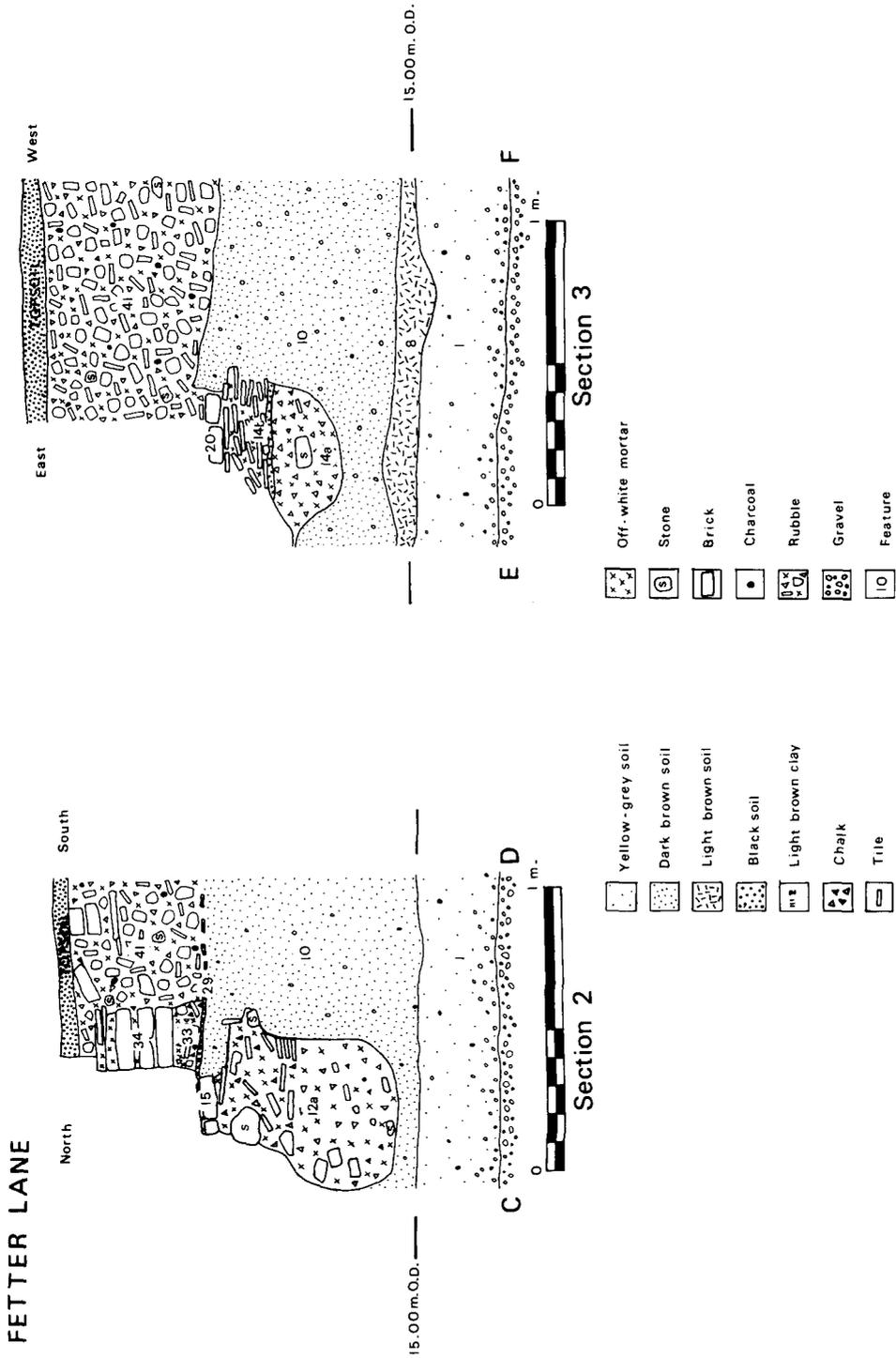


Fig. 4. Fetter Lane: Section 2. Section 3.

F14 abutted the western edge of F12 and retained a length of 8.10m N-S, where it appeared to continue into the southern section of trench III. Its width was *c.* 0.50m, and its depth *c.* 0.50m. The feature cut into the dark brown soil (F10) from the same height (i.e. 15.73m O.D.) as F12. The fill of F14 consisted of two distinct layers, the bottom 0.25m (14a) being crushed chalk and mortar, with a few brick and tile fragments, while the upper portion (14b) was rubble comprising a concentration of tile fragments in mortar with a few large stones and incorporating a thin lens (0.02-0.04m) of black soil. A small amount of 16th century and residual medieval sherds, and a few animal bones, were contained within the upper portion of the feature.

Overlying fill 12a was a one-course red-brick foundation wall (F15) with a tile course above. F15 was 5.46m long (E-W) and 0.24m wide (N-S). Traces of off-white and light red mortar survived on the surface of some of the tiles. Running E-W immediately adjacent to F15 at the north for the length of F15 was a layer of crushed chalk F16, 0.17m thick and 0.50m wide, which cut into the dark brown soil (F10) and was covered with mortar in patches. The chalk might have served as make-up for an overlying structural feature which did not survive.

At the south-east end of trench I was a slab of concrete, F17, set in mortar. The feature measured 0.46m long (E-W) by 0.26m wide (N-S) and was 0.06m thick. It was cut in from the same height as foundation wall F15, and appeared to have been associated with that feature.

Abutting F17 at the north was brickwork F18, of which three courses of red-brick remained. Brickwork F19, just north of F18, comprised fourteen courses of red-brick, and extended into the north and east sections of the trench. As the thick grey mortar bonding of F18 was considerably different in colour and texture from that of the other structural features, it is possible that this was a later alteration to the Chambers. The function of F18 and F19 could not be determined.

Abutting foundation wall F15 at its western end was a brick foundation wall F20, which overlay foundation trench F14's fill 14b, F20 survived to a length of 2.30m (N-S) along the south-eastern edge of trench II, and had a width of *c.* 0.30m (E-W). A large block of Reigate stone formed a cornerstone at its northern end. Three courses of red-brick remained towards this end, while only two survived further south in the trench. F20 continued at the south-west end of trench III for a length of 1.06m (N-S) and continued south into the section. It retained two courses of brick. In some places wall F20 overlay a tile course, while in others a tile course was incorporated between the bottom two courses of brick. The length of wall intervening between the northern and southern stretches of wall F20 had been cut by later structural features F36 (see p. 84), F39 and F40. F39 comprised nine courses of brick and measured 0.46m wide (N-S) and extended in an E-W direction for a minimum of 0.22m, where it further continued under the section, F40 was a 0.22m square brick 'pedestal' consisting of seven courses of brick.

Cutting into the dark brown soil (F10) from a height of 15.65m O.D. in trench IV were two construction trenches, (F21 and F22), for the north and south 'arms', respectively, of a fireplace, (F24), constructed of eight courses of red brick. These trenches were 0.52m wide (N-S), with light brown clay linings 0.02m thick. The trenches were 0.15m deep, which was sufficient to accommodate the bottom course of bricks. The construction trench (F23) for the main body of the fireplace was unlined. The length (N-S) of the fireplace was 2.10m, with footings of two courses of brick extending out another 0.10m at each of the north and south edges. The arms of the fireplace extended out 0.70m to the west.

A portion of what appeared to be an identical fireplace (F25) was observed during redevelopment *c.* 3.50m to the south of F24, on the same alignment. No traces of burning were observed on either fireplace.

At the southern edge of trench IV, the soil (F10) was cut by a foundation trench (F37) thinly lined with mortar. The trench contained a structural feature, (F38). The feature was built mainly of three courses of red brick, with a one course brick footing around its base. The exposed portion of brickwork measured 1.65m E-W, and its width before continuing into the south section was 0.35m at the west, and 0.25m at the east. It was not possible to identify its function.

Further west in trench IV, the top of the dark brown soil (F10) was cut by a construction trench (F26) for a 0.35m square brick 'pedestal', (F27), with four courses of brick surviving. The trench was lined with a thin layer of light brown clay, and filled with dark soil, clay and mortar to a maximum

depth of 0.13m at its centre. One 16th century sherd and a few animal bones were contained within this make-up. A similarly constructed 'pedestal' (F28) was observed *c.* 2.10m further to the north during redevelopment work.

Above the dark brown soil (F10) in trench IV was a layer of light brown clay overlain by off-white and light red mortar, (F29), which together retained a thickness of 0.015m to 0.03m. The northern edge of this surface abutted the southern edge of wall F15, but did not overlie it. At the east, it continued into the section. F29 went at least as far south as the southern section of trench IV, but only as far west as the western edge of trench IV. In approximately half the area of the trench the mortar was worn away, and in some spots not even the clay remained. While it seems likely that the surface would have continued west to wall F20, no trace of it remained that far west. Its absence there may be connected with the later alterations made in this area. A relatively large quantity of sherds, all of 16th century date, and a small amount of animal bone came from this feature. The clay and mortar were probably make-up for a floor, originally constructed of brick or tile. A surface similar to this feature was observed in sections G-H and J-K during site-watching subsequent to excavation.

F29 was overlain by the following features:

- A) Two Narrow 'buttresses', (F30 and F31), abutted on to the eastern face of fireplace F24. Each had a length (E-W) of 0.50m, and a width (N-S) of 0.20m and comprised seven courses of red-brick. F30 and F31 were 0.80m apart. They had no construction trenches, and lay directly on F29.
- B) Near the north-east corner of trench IV, a narrow brick 'pedestal', (F32), consisting of four courses of brick and measuring 0.30m N-S by 0.22m E-W, extended slightly into trench I, where it rested partially on the southern edge of foundation wall F15.
- C) The rubble make-up, (F33), for a brick wall, (F34), overlay F29 at the north-west corner of trench IV. The rubble comprised *c.* 0.09m of mortar, tile and chalk fragments and small stones, and contained a few animal bones. A single, residual sherd of 12/13th-century pottery came from this rubble. F33 and F34 spanned the width of trench III and continued along the northern edge of trench IV for a total length (E-W) of 2.04m. Its width was 0.22m (N-S). While five courses of the wall survived in trench III, only three courses remained in trench IV.
- D) F36, a four course brick wall cutting foundation wall F20, rested on 0.17m of rubble make-up (F35), which overlay F29 towards the south-west corner of trench IV and spanned the width of trench III. F36 retained a total length (E-W) of 2.10m and a width (N-S) of 0.22m. Two sherds of late 16th/early 17th-century pottery came from within the mortar bonding of the feature.

Overlying the excavated and observed areas was a layer of rubble (F41), relating to the demolition of the Chambers in the 1930s.<sup>55</sup> The layer was 0.45-0.70m thick. The rubble comprised mortar, tile and brick fragments, stone, crushed chalk and charcoal. The rubble contained a quantity of 16th/17th-century pottery and candlesticks, 17th-century clay pipes, residual material, and 20th-century pottery.

## DISCUSSION

Victorian basements at the Fetter Lane frontage of the site removed any archaeological evidence which may have been present there. Excavation and observation of adjacent areas, however, yielded a number of features and layers which pre-dated the *c.* 1663 erection of Clifford's Inn Chambers Nos. 14-17.

The few Roman sherds from the site were all found in residual contexts, with the possible exception of the flagon neck from ditch F7. The ditch was observed at a distance from the excavated area during redevelopment of the site. Its upper portion was disturbed by modern deposits, and as a result it was not possible to tie it in with levels on the site above natural gravel.

It is clear from documentary sources<sup>56</sup> that the City's western suburb in the environs of Fetter Lane was occupied during the medieval period, and the early building or buildings of Clifford's Inn would have been located in the immediate vicinity of the site.<sup>57</sup> Although a small quantity of medieval sherds was retrieved, all must be considered residual. In the

absence of medieval features at the site, it must be assumed that nearby intensive activity during the period did not extend to the small excavated and observed areas.

Agas' map of 1560-70, Braun and Hogenberg's of 1572, and Faithorne and Newcourt's of 1658 show that the site was not yet built upon. Excavation revealed a layer of garden soil, containing pottery of mainly 16th-17th century date. The surfaces of 16th century layers beneath this soil had been cut into by several features which contained residual material.

Several structural features were found during excavation and site-watching. Late 19th and early 20th century Ordnance Survey maps indicate that an L-shaped structure, Chambers Nos. 14-17 of Clifford's Inn, stood on the site. The earliest extant plan showing these chambers is Hollar's map of 1667. By 1937, the structure had been demolished.<sup>5 8</sup>

A survey of Clifford's Inn<sup>5 9</sup> a few years prior to its demolition illustrated and described the standing buildings as they were at the time (Pl. 1). The position of the Unit's trenches has been superimposed on this plan (with dotted lines) and indicates that the excavated area was towards the northern end of the L-shaped structure, mainly within Chamber No. 17, and extended southward into Chamber No. 16.

Of the structural features shown on this plan (Pl. 1), the southern fireplace in Chamber No. 17 was excavated, and a portion of that in No. 16 was observed. Structural features of the Chambers' foundations not illustrated on the plan were also excavated and observed, and examples of alterations to the original structure of the Chambers were noted.

## NOTES

1. W. S. Holdsworth *A History of English Law* 2 (London 1923) 498.
2. Royal Commission on Historical Monuments *An Inventory of the Historical Monuments in London* 4 (London 1929) 157-8.
3. *The Daily Telegraph* (29/8/34) London County Council map of 1937, a revised version of the 1912 O.S. map, indicates that the structure had been torn down.
4. Braun and Hogenberg's map of 1572, Agas' map published 1633 (but probably based on a map of the 1550s), and Faithorne and Newcourt's of 1658.
5. W. S. Holdsworth *A History of English Law* 1 (London 1956) 37.
6. W. Page 'History of Clifford's Inn' (2 Oct. 1920) *Clifford's Inn: Particulars, Plan and Conditions of Sale* (1921) 16.
7. *Ibid* 17.
8. Holdsworth *op. cit.* (in note 1) 495.
9. *Ibid* 494, 496.
10. Holdsworth *op. cit.* (in note 1) 501; W. R. Douthwaite *Gray's Inn, Its History and Associations* (London 1886) 19.
11. Holdsworth *op. cit.* (in note 1) 494.
12. *Ibid* 498.
13. E. Williams *Early Holborn and the Legal Quarter of London* 2 (London 1927) 956, 960, 966, 980.
14. *Ibid* 956.
15. *Ibid* 1229, 1520.
16. *Ibid* 960.
17. J. Stow *Survey of London* C. L. Kingsford edition vol. 2 (Oxford 1908, reprinted from text of 1603) 363.
18. *Ibid* 39.
19. E. Ekwall *Street Names of the City of London* (Oxford 1954) 121.
20. W. G. Bell *Fleet Street in Seven Centuries* (London 1912) 84.
21. Williams *op. cit.* (in note 13) 956, 966, 967.
22. Sir F. Pollock ed. *The Law Reports, Cases Determined in Chancery Division* 2 (London 1900) 518; Holdsworth *op. cit.* (in note 1) 494 n. 2.
23. Williams *op. cit.* (in note 13) 967.
24. *Ibid* 1007.
25. *Ibid* 967-8, 1007.
26. *Ibid* 970.
27. C. M. Hay-Edwards *History of Clifford's Inn* (London 1912) 59.
28. Williams *op. cit.* (in note 13) 973-5.
29. Page *op. cit.* (in note 6) 19.
30. Holdsworth *op. cit.* (in note 1) 43.
31. *Ibid* 42.
32. *Ibid* 43.
33. *Ibid* 46.
34. *Ibid* 15.
35. *Ibid* 44.
36. Bell *op. cit.* (in note 20) 521.
37. P. Norman 'Disappearing London' *London Topog. Rec.* 13 (1923) 73.
38. Page *op. cit.* (in note 6) 20.
39. Bell *op. cit.* (in note 20) 520.
40. Holdsworth *op. cit.* (in note 1) 45.
41. Williams *op. cit.* (in note 13) 1007.
42. C. L. Kingsford 'Historical Notes on Medieval London Houses' *Lon. Topog. Rec.* 10 (1916) 91.
43. RCHM *loc. cit.* (in note 2); Fox, Burnett and Baddeley *Clifford's Inn: Particulars, Plan and Conditions of Sale* (1921).
44. Bell *op. cit.* (in note 20) 350.
45. Hay-Edwards *op. cit.* (in note 27) 151.
46. W. G. Bell 'Clifford's Inn Passes' *The Connoisseur* 94 (1934) 293-9.
47. RCHM *op. cit.* (in note 2) 157.
48. *Lon. Topog. Rec. op. cit.* (in note 37) 72.
49. RCHM *loc. cit.* (in note 47).

50. W. Maitland *The History and Survey of London* 2 (London 1760) 961.  
 51. *Lon. Topog. Rec. loc. cit.* (in note 48).  
 52. Bell *loc. cit.* (in note 46).  
 53. *The Daily Telegraph loc. cit.* (in note 3).  
 54. London County Council map of 1937, a revision of 1912 O.S. map.  
 55. *The Daily Telegraph loc. cit.* (in note 3).  
 56. Williams *op. cit.* (in note 13).  
 57. Williams *loc. cit.* (in note 24).  
 58. The Daily Telegraph *loc. cit.* (in note 3). L.C.C. map *loc. cit.* (in note 3).  
 59. RCHM *loc. cit.* (in note 2).

## THE FINDS

### THE POTTERY

BY ELIZABETH PLATTS

#### INTRODUCTION

The site produced 918 sherds of pottery and fragments of brick and tile, ranging from early Roman to 20th century. The pottery can be generally grouped into four main date ranges: a few sherds from the Roman period, approximately 33 sherds of early medieval pottery (late 12th/early 13th century) and some sherds from later medieval periods, the vast majority coming from the 16th and 17th centuries, and a small number of sherds of the 20th century. The small quantity of Roman and medieval pottery suggests that there was no intensive activity during those periods on the site and that, as the documentary evidence suggests (p. 77), it was not until the 17th century that the site was actually developed. While the 17th century material appears to be ordinary rubbish, the quantity is not great and no actual rubbish pits were found. The absence of 18th and 19th century rubbish suggests merely that other arrangements were made for refuse disposal, and the few 20th century sherds might be associated with the demolition known to have taken place in the 1930s.

The distribution of the material throughout the site may be summarised as follows:

The few Roman sherds found in F2 (fill 2a), 3 (fill 3a), and 6k i.e. pits and ditches, although not much abraded must be considered residual, as the ditches and pits cut the yellow-grey layer (F1) from which 15th and 16th century Surrey/Hampshire ware sherds, 16th century red wares, a few 13th and 14th century sherds and a single Roman sherd were retrieved. The same applies to the 33 medieval (12th/13th century) sherds from pits and ditches F5 (fill 5a) and F6 (fill 6f, g, h, j) which also cut the layer. It could be argued, however, that there was some use of the area during those periods (Roman and early medieval); the sherds are not particularly abraded, and in the case of the 12th/13th century material the sherds are comparatively large (average area 20 sq. cm) and it seems unlikely that the material had travelled far. The layer of garden soil (F10) contained mainly late 16th and early 17th century pottery, and some sherds of late 15th and early 16th century material and earlier residual medieval sherds. The demolition layer above (F41) included a quantity of 16th and 17th century pottery, residual medieval material, 17th century clay pipes, and 20th century pottery.

On the whole the sherds were small (a number very small) and the profiles of few vessels could be reconstructed. The range of vessels encompasses cooking pots, jugs and table-ware, and perhaps reflects the greater affluence in a site so near the City of London compared with a more suburban or a rural one. No notable omissions in the range have been observed. The large number of candlesticks (p. 87) may simply be coincidental.

All the finds are lodged at the Inner London Archaeological Unit's office at Imex House, 42 Theobalds Road, London WC1X 8NW and may be consulted there.

#### THE ROMAN POTTERY

During the course of the excavation and site watching, four sherds of Roman pottery and three fragments of Roman brick were found, from F1, 2 (fill 2a), 3 (fill 3a), 6k and 7b.

The pottery consisted of: a flagon neck (F7b, Fig. 5, No. 1) in a buff sandy ware, probably made at Brockley Hill (Castle and Warbis 1973, 106) and therefore dating up to AD 160; a colour-coated base (F1 not illustrated) probably Nene Valley ware and 3rd century AD in date; a small colour-coated body sherd (F6k not illustrated) possibly from Colchester and of similar date to the colour-coated base; a small thick coarse sherd from a cooking pot (F3a, not illustrated) probably of early date.

The brick fragments, though small, are of a thickness to suggest that they are bricks from a bonding course and not roof tiles.

All the material is somewhat abraded.

#### THE MEDIEVAL POTTERY

All the sherds of medieval pottery were residual, and with the exception of those from F5, 5a and 6 mentioned below, were single featureless sherds of 13th and 14th century date, including examples of 'West Kent' and early 'Surrey/Hampshire' wares. The only assemblages, 33 sherds, were found in F5, 5a and F6, representing eight vessels (cooking pots and one jug) all dating from the late 12th/early 13th century i.e. earlier than the rest of the medieval material. Only one rim (Fig. 5, No. 2) was found in this group and three (sagging) bases, the rest being body sherds. The majority of sherds, reduced and quartz-gritted, are similar in fabric to the south Hertfordshire wares (Orton 1977, 80). The calcite-gritted sherds (four sherds) are of a hard consistency and therefore can be dated comparatively late in the long occurrence of this ware, and examples (seven sherds) of the buff very sandy ware frequently found in London contexts and thought to be manufactured in the vicinity also suggest a late 12th/early 13th century date.

The single glazed sherd, a reduced coarse sandy fabric covered on the exterior surface with white slip and mottled green glaze, comes from a jug (possibly conical in shape) of 13th century date.

From F8 a fragment of a possible loom weight was found (not illustrated). It has not been possible to date it more closely than late Roman or early medieval.

#### POST-MEDIEVAL POTTERY

Well over half the material recovered from the excavation was post-medieval. A large number of vessels was apparent, but in almost all cases only represented by a single sherd. There are comparatively few examples of imported pottery, the most notable being two sherds from a 17th century Frechen bellarmine from F41. The bricks recovered all appear to be of 17th century date. The only notable small find is the bronze crucifix.

#### RED WARES

The red earthenware found was mostly in the form of small sherds of cooking pots and large storage vessels. Some of the vessels had the same heavy thumbing under the rim (F41, Fig. 5, No. 13) found in Woolwich ware and probably made at other centres near London at the end of the 16th and during the 17th centuries.

#### SURREY/HAMPSHIRE BORDER WARES

While a few sherds were found dating from the late 15th/early 16th century, the vast majority dated from the late 16th and 17th centuries. The vessels, represented by small sherds, included jugs, plates and platters, pancheons, pipkins and others. A number of small sherds (none illustratable) were found from jugs of the Inns of Court type (Matthews and Green 1969, 12, No. 5) as might be expected from such a location.

#### THE CANDLESTICKS

An interesting aspect of the finds from this excavation has been the high proportion of ceramic candlestick fragments (mostly from the layer of demolition rubble (F41) and also from unstratified layers: Fig. 5, Nos. 3-11).

The candlesticks came from several different pottery sources, but predominantly from the kilns of the Surrey/Hampshire borders. It has not been possible to ascribe them to any particular pottery, although it can be said that a number closely resemble those made at Cove (Haslam 1975, 164-188), though no definite fragments of the elaborate triple-tiered version were found. The types include both the pedestal and the flat-bed candlesticks, though many more of the former.

It is interesting to note that the original pedestal shape was known to be made from the middle of the 16th century and joined, though not superseded, by the flat-bed version from the beginning of the 17th century (Holling 1971, 81). The flat-bed appears to lose favour with potters from the middle of the

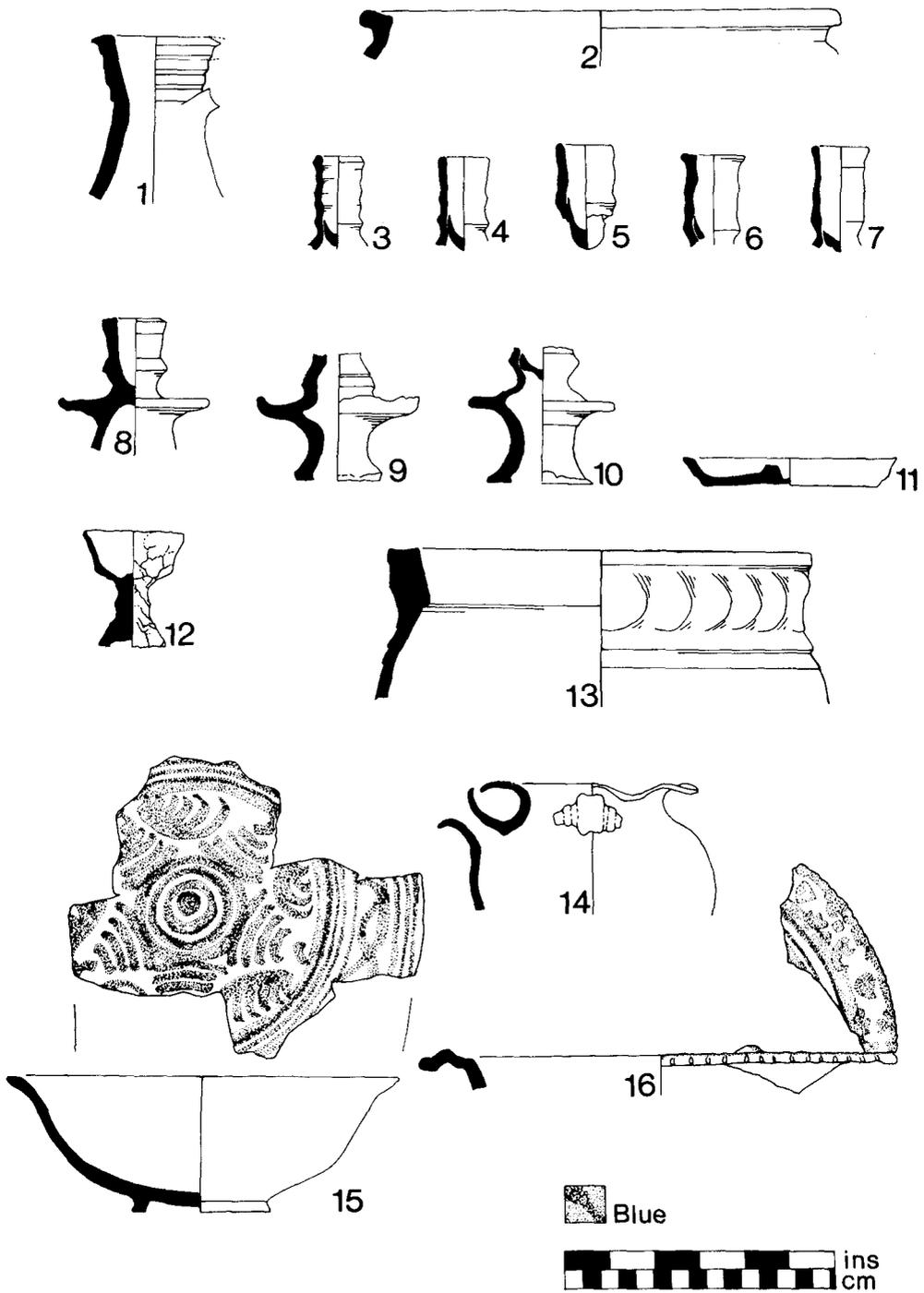


Fig. 5. Fetter Lane: Roman (No. 1), medieval (No. 2) and post-medieval (Nos. 3-16) pottery (1/4).

17th century and the pedestal candlestick resumes its prominence. It is, therefore, difficult to say whether this group might date from an early stage of the flat-bed floruit or from a period afterwards. There is at present no way of telling how long a circulation these objects might enjoy but it seems likely that any date up to at least 50 years after manufacture is probable for discard.

Although a few examples show signs of burning, it might well be after fracture, and on the whole the candlesticks show little sign of wear. The studious occupation of the residents might explain the need for extra illumination (p. 76).

Also to be noted is the pedestal vessel (F41, Fig. 5, No. 12) found in very poor condition. The fabric, a cream fairly fine one, shows stress marks and fractures spiralling down and only one small portion of a yellow lead glaze remains. Manufacturing faults like this have been found on pottery made at Cove. The vessel, obviously too small for use as a chalice, has been suggested to be a lamp.

#### THE TIN-GLAZE POTTERY

A small proportion of the sherds from the garden soil (F10) and the demolition layer (F41) were tin-glazed pottery, mostly dating from the first half of the 17th century. Several vessels were represented, including bowls, platters and plates, a mug and a vase (F41, Fig. 5, No. 14). The majority of pieces were almost certainly made at the London tin-glaze potteries, at Southwark and later at Lambeth, though the small size of the individual sherds with the corresponding small amount of decoration makes positive attribution difficult. Of more doubtful provenance is a small part of a straight-sided manganese-sponged mug (F41 not illustrated) and a platter with frilled edges and domed decoration on its flanged rim (F41, Fig. 5, No. 16). Similar examples to the latter have been reported from the Ipswich area (unpubl.) and it has been suggested that they might come from the first tin-glaze pottery set up in this country.

The rest of the material covers the range of decoration available during the 17th century. The bowl (F41, Fig. 5, No. 15) is the most complete vessel retrieved: its style of decoration appears on the earliest Dutch tin-glaze imports until at least the early 18th century. Also of interest is the rim sherd with spout and knob (F41, Fig. 5, No. 14), which almost certainly comes from a flower vase; it bears similarities to a decorated drug jar.

#### THE CLAY PIPES

The clay pipe fragments were virtually all retrieved from the demolition layer (F41), except for five examples from F10. They all date from the 17th century, adding to the evidence of an intensive activity, for example building, on the site from about the middle of that century. The total number of pipe fragments found was 110.

There are a few examples from the beginning of the 17th century — four of SG4 (Oswald 1975, 39&41) but the majority, of SG7 and SG17, can be placed in the date range of 1640 to 1680. None of the pipes is marked in any way.

#### SMALL FINDS

##### THE CRUCIFIX

##### BY JOHN CHERRY

The bronze crucifix (from F10, Pl. 4) which is 7.1cm high may be dated to the late 15th or 16th century. The crucifix in cast bronze is very worn and has engraving on the hands, feet and loin cloth. The hands and left arm are raised. The head, with shoulder-length hair, falls on to the right shoulder and the head may possibly have borne a crown of thorns. The loin cloth is short and the feet are placed one above the other. The crucifix was secured by three rivets, since a bronze rivet through the feet remains and drilled holes in the hands indicate the position of the other two. The general type of this crucifix is illustrated by Thoby (1959) by a number of examples dating from the end of the 15th and beginning of the 16th century but the detail is not sufficiently well preserved on this example to draw exact parallels. This bronze crucifix was probably attached to a cross and Nos. 345, and 379-382 in this work are comparable late 15th or early 16th century bronze crucifixes attached to crosses.

## THE ANIMAL BONES

BY ALISON LOCKER

A small group of animal bones was retrieved from the site. The following species were found: cattle (*Bos* sp.) 85 bones, sheep (*Ovis* sp.) 153, pig (*Sus* sp.) 6, hare (*Lepus* sp.) 1, rabbit (*Oryctolagus cuniculus*) 7, domestic fowl (*Gallus* sp.) 7, goose (*Anser* sp.) 1, raven (*Corvus corax*) 1, oyster (*Ostrea edulis*) 1, unidentifiable fragments 119, burnt bone 1.

As the total number of bones was so small, it is only possible to say that this probably represents food debris, as the majority of the bone came from the garden soil (F10). Sheep is the most numerous species, and butchery was observed on both cattle and sheep.

Fish bones were recovered from two features, F1 and F10. The following species were identified: cod (*Gadus morhua*) 1 bone, bib (*Trisopterus luscus*) 1, haddock (*Melanogrammus aeglefinus*) 1, conger eel (*Conger conger*) 1, also 2 vertebral centra of a gadoid (i.e. of the cod family) and the vertebral centrum of a flatfish which were unidentifiable to species. The above can all be eaten, and are all gadoids except conger eel and flatfish. All are found in deep sea conditions.

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## ACKNOWLEDGEMENTS

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The excavation was carried out by Robert Whytehead, Alistair Hunter-Jones, and Steve Waring, assisted by George Salveson and Ann Crossey.

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The Librarians at Gray's Inn Library kindly permitted access to that library, and Sylvia Collier provided RCHM archive material relating to the survey of Clifford's Inn.

The Unit acknowledges the Royal Commission on Historical Monuments for permission to reproduce a plan (Pl. 1) of Clifford's Inn and a photograph (Pl. 3) of Clifford's Inn Chambers, and B. T. Batsford Ltd. for permission to reproduce a photograph of Clifford's Inn Chambers (Pl. 2). The report was typed by Alison Bristow.

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# BASTION 10A: A NEWLY IDENTIFIED BASTION IN THE CITY OF LONDON

JOHN SCHOFIELD with a contribution by A. J. CLARK

## INTRODUCTION

From time to time throughout the medieval and post-medieval period there appear references in documentary records to the letting of the gates of the City of London for non-military purposes on the condition that the fabric is kept in good condition. In this way Aldgate was leased to Geoffrey Chaucer in 1374<sup>1</sup> and Bishopsgate to the Hanseatic merchants: until 1461 they were 'bound to keep a mansion on the gate and keep guard in time of war the part above the portcolys'.<sup>2</sup> In 1311 the gates were used to accommodate the Templars, held as prisoners.<sup>3</sup>

There are in addition records of agreements about some of the bastions or 'tourelles'. On 6 June 1235 Henry III made a life grant to Alexander Swereford, treasurer of St. Paul's, of the use of the turret in the city wall near and to the north of Ludgate and opposite the grantee's garden. The grant enabled Swereford to build in the turret such buildings as he pleased, to have full use of it in time of peace for the storage of goods, and to enjoy free entry and exit on both sides of the turret within the wall. In time of war when 'it may be needful to munition the City wall with arms and men, the turret and even the buildings in it shall be exposed to receive the munitions of the City like the other turrets in the wall'.<sup>4</sup> From the 13th century two, perhaps four, of the bastions were regularly inhabited by hermits.<sup>5</sup>

During the course of the author's research into medieval housing in the City two further references to the letting of bastions on either side of Bishopsgate have been found. In 1305 the 'tourelle' situated on the east of the gate, with place adjoining, was let to a King's serjeant (it had been formerly let to a chaplain), on condition that he maintain it.<sup>6</sup> In 1314 a tourelle 'on London Wall near Bishopsgate' was granted to Sir John de Elyngham, chaplain, as long as he maintain it.<sup>7</sup> In 1314 the words *London Wall* would refer not to the street of that name (first known as such in 1547)<sup>8</sup> but to the City Wall generally. Since the position of the bastion is not given, the 1314 grant could refer to a bastion on either side of Bishopsgate and indeed to the one mentioned in 1305.

The bastions on either side of Bishopsgate are shown on the copper plate map of c. 1558, attributed to Anthonis van den Wyngaerde (Fig. 1).<sup>9</sup> They appear as semicircular attachments to the wall, rising up the equivalent of one storey above it and with a door to the walkway on the inside. The representations are identical and are no doubt schematic, unlike that of Bishopsgate itself which is drawn with turrets, an oriel on the inside, approach stair from the wall on the east side and an added building on the west. A bastion is shown half way between Bishopsgate and the church of All Hallows on the Wall.

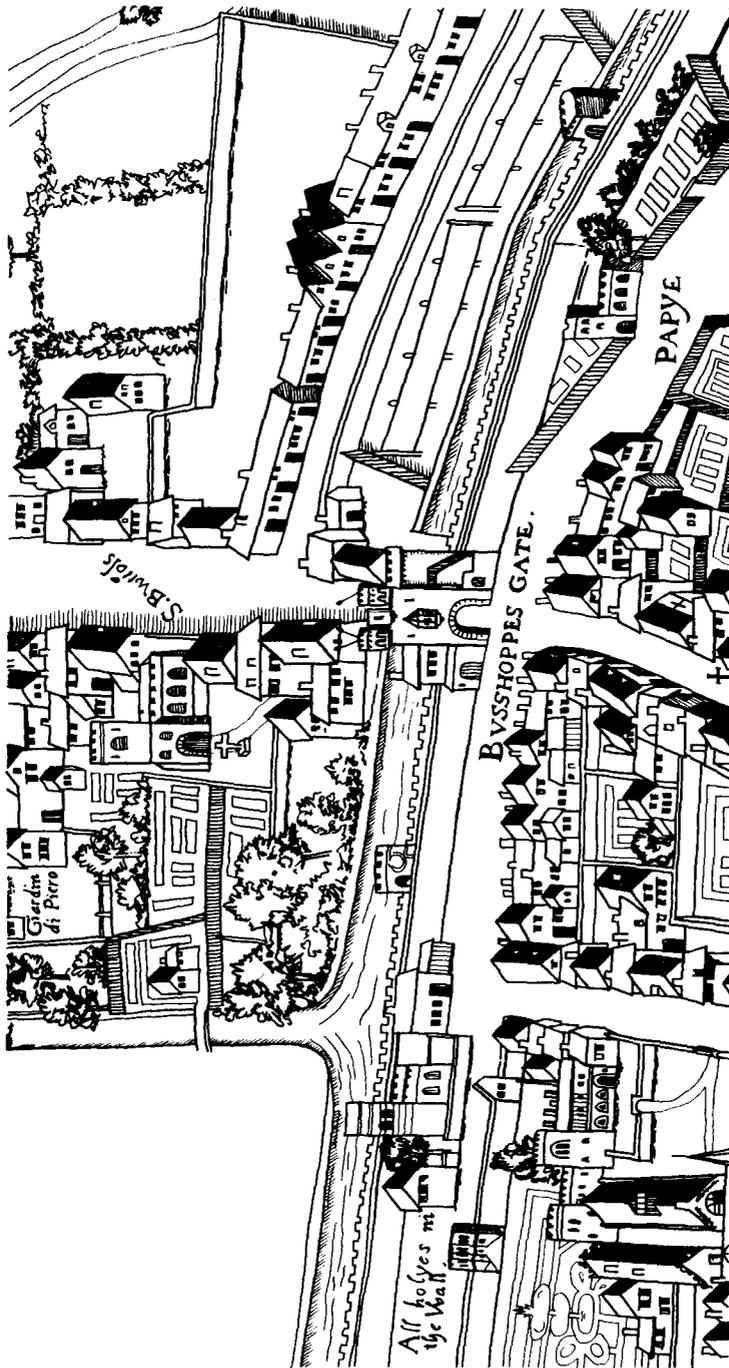


Fig. 1. Bastion 10A: Bishopsgate and the adjoining medieval wall, from the copperplate map of c. 1558 (redrawn by *Esta Demroche*).

Because the copperplate map was not published until 1966 neither the Royal Commission volume for London published in 1928 nor Merrifield in 1965 recorded this bastion.<sup>10</sup> To the west a bastion is known to have projected from the north side of All Hallows London Wall itself, since it was excavated beneath the vestry of the modern church in 1905, and said to be probably late Roman in date.<sup>11</sup> This Bastion 11 is not shown on the copperplate, perhaps because it was attached to the church. The whole stretch of the city wall from the church to the gate, a distance of 160m (500ft), is one of the longest sections of wall for which there is no archaeological record. It therefore seems possible that this is a new bastion to be added to the eastern series, for which the number 10A may be proposed.

First, the accuracy of the copperplate map should be checked. In general Holmes<sup>12</sup> found the map an accurate representation of public buildings such as the Guildhall, and suggested several confirmatory links with known topographical features. Current work suggests that the representations of churches are substantially consistent with Hollar's and Wyngaerde's other drawings of them, and indeed full of particular information comparable with other documentary sources.<sup>13</sup> Since only two sheets of the map survive, showing the middle and eastern part of the city from Aldermanbury to Mark Lane, only four bastions are shown, three to the east of Bishopsgate. These three accord with the known, excavated, positions of Bastions 8-10. In particular the change in angle of the wall between Bastion 10 and Bishopsgate, and the relation of the main body of All Hallows on the Wall church to the end of Broad Street is in close agreement with modern cartography.

This demonstrable accuracy also helps rule out the possibility that Bastion 10A might be Bastion 11, the All Hallows bastion, drawn some distance from the church. Bastion 11 was half way along the north side of the church which was built on the city wall. How access along the walkway or into the bastion was gained in the medieval period is not known, but an anchorite is known to have lived in the bastion from at least 1465.<sup>14</sup> By the normal bishop's licence for such cases<sup>15</sup> an anchorite's cell had to have a window to the choir of the church to witness mass and receive the Eucharist. The 1314 reference to the chaplain Sir John de Elyngham has been taken to refer to this bastion,<sup>16</sup> but without clear proof. It is however interesting that the former tenant of the bastion on the east of Bishopsgate was a chaplain, and that this bastion must be Bastion 10, which was within the churchyard of St. Augustine Papey. It is therefore possible that one or both bastions were let to chaplains because of their proximity to churches.

Fortunately the recent indexing of the Repertories of the Court of Aldermen by Miss Anne Sutton of the Corporation of London Record Office has produced a series of references between 1529 and 1532 to a bastion west of Bishopsgate which throw further light on the matter. On 25 May 1529, Husy the Chamberlain was given 'the little tower with the garden under the wall there which lies west from Bishopsgate, late in the tenure of William Heydon'. No rent was charged, and the grant was for life.<sup>17</sup> On 2 September 1532 John Husee at his own request was discharged his office because of disease, and granted the little tower and garden at London Wall provided he did not devise the term or any part of it to a person other than a freeman.<sup>18</sup> The lease of 10 October read: 'the little tower and garden on the north side of London wall in length from Bishopsgate along by the said wall to an old tower in the wall adjacent to the church of All Hallows on the Wall towards the west'. The rent was a bushel of red roses to the then mayor.<sup>19</sup>

In 1676 William Leybourn produced a survey, which is kept in the Corporation of London Record Office, drawn at 10ft to the inch, of the strip of land 16ft wide outside the walls. On this survey there is no sign of the bastion in the stretch between Broad Street and Bishopsgate. By this time the bastion, if it existed, had been demolished.

We have then a bastion for which there is some evidence in 1529, and which appears on a map of *c.* 1558, only to be demolished before 1676. It is possible that the reference of 1314 is also to this bastion, but there are two other candidates (Bastions 10 and 11).

The present state of the site between Broad Street and Bishopsgate was examined. The western half of the wall in this sector had been destroyed, if not before, by a recent property development of the early 1970s. Archaeological observation at the time did not detect the wall at all. In the eastern half the wall line was represented by the back walls of a row of post-Fire buildings, now mostly shops, on the north side of Wormwood Street. North of the wall line lay the churchyard of St. Botolph without Bishopsgate. The southern part of this churchyard was occupied by a small formal garden and a tennis court; but between the tennis court and the back of the Wormwood Street buildings a narrow strip 35m by 5m was planted with occasional shrubs. This strip of undeveloped territory lay precisely over the position of any bastion protruding northwards from the wall (Fig. 2).

A resistivity survey of the area<sup>20</sup> was arranged and carried out in November 1977.

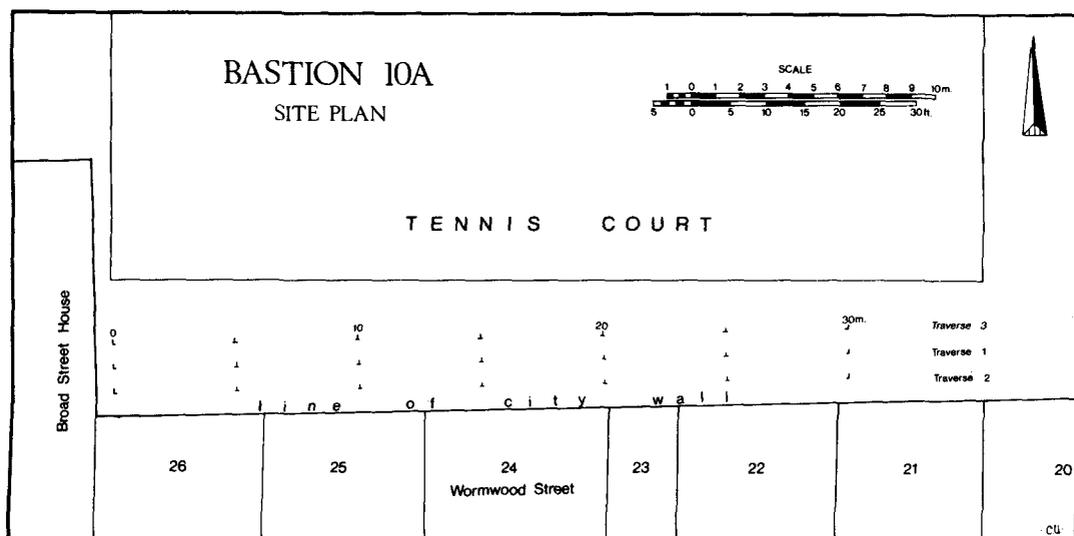


Fig. 2. Bastion 10A: Site plan.

## RESISTIVITY SURVEY

A. J. CLARK, Ancient Monuments Laboratory

### Methods of Measurement

Using a Martin-Clark Resistivity Meter, measurements were made along three search traverses parallel to the line of the City Wall.

Three probe configurations were used: the Wenner, which responds well to substantial buried features but produces a confusing double response to small ones; the Double Dipole, which gives better

definition, especially to smaller features, but a rather weaker response; and the Twin Electrode, in which two electrodes are moved while the other two are placed in a fixed, remote position, and which is also capable of giving a clear response to small features.<sup>21</sup> Resistivity measurements can see to a depth of roughly equal to the probe spacing.

Traverse I, two metres from the building line (Fig. 2), was measured with Wenner and Double Dipole at 1m, 2m and 3m spacing, and with Twin at 2m and 3m spacing, giving eight sets of readings of increasing penetration along a single line. Traverse II was 1m from the building line, and traverse III was 3m from it. In the light of the results from traverse I, both of these were measured only with Wenner and Double Dipole at 3m spacing. Each traverse was 30m long.

Results (Fig. 3)

The readings at 1m spacing revealed a clear high resistance feature at the centre of traverse I (Fig. 3: A). This was probably shallow because it was much suppressed with the 2m spacing, at which a deeper and wider feature was beginning to show in the first half of the traverse (Fig. 3: B). This was also detected at 3m spacing (most clearly by Double Dipole) and seemed to be of the scale and depth that one might expect of bastion remains in such a situation. In traverse III, although the readings were suppressed by a marked change in the soil near the surface, this anomaly was again detected. However in traverse II it was absent, indicating that whatever was causing the anomaly was not attached to the City wall, and therefore was unlikely to be a bastion; possibly it was due to the chance presence of a gravelly patch below the churchyard soil.

High readings near the beginning of traverse I, 1m, could have been due to the projecting building just beyond, but seem to be somewhat detached from it and therefore possibly represent another shallow feature like the one in the centre of the traverse: these could be substantial graves.

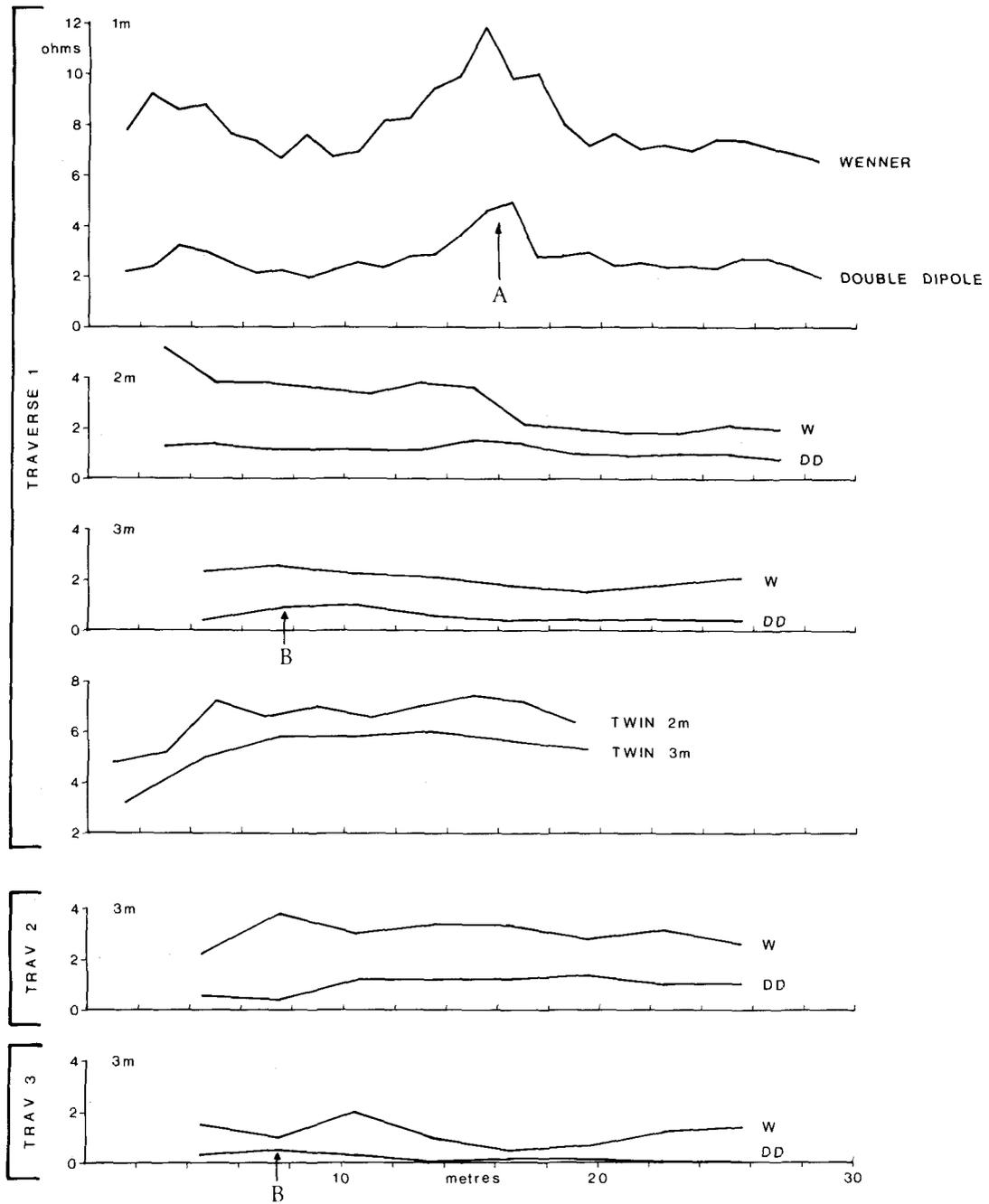
The Twin Electrode readings of traverse I were curtailed before the end of the traverse because of difficulty in placing the fixed electrodes sufficiently remotely on this cramped site. This is probably why they have an overall tendency to increase towards the east; nevertheless, allowing for this, they broadly confirm the pattern of the other readings.

## DISCUSSION

The verdict of the resistivity survey was 'not proven'. The extreme caution associated with the results when seen in isolation may however be slightly lessened when other considerations are taken into account.

Bastion 10A, now recognised from documentary sources, would fill a gap in the eastern series of Bastions 1 to 11 (Fig. 4). Of these, seven have produced rough dating evidence. Apart from the hollow Bastion 1 within the Tower, the other six have solid bases incorporating fragments of inscriptions and funerary monuments from the Roman cemeteries immediately outside the walls; the first piece of the tombstone of Classicianus the Procurator, for instance, was found in Bastion 2, and a fragment of frieze and sculptured figures in Bastions 9 and 10. The solid bastions are generally thought to be probably late Roman in date.<sup>22</sup> Investigation of Bastion 6 in 1971 tended to confirm this since a layer of rubble with nothing later than 4th century pottery and late Roman coins had apparently accumulated against the bastion.<sup>23</sup> The hollow western series, from Bastion 11A onwards, are thought to be medieval, based largely on the discovery of Bastion 11A itself in 1965 overlying a deposit with 13th century pottery.<sup>24</sup>

That Bastions 1 to 11 were built at roughly the same date is argued not only by the similarity of construction and the large gap (formed by the headwaters of the Walbrook) between them and the western series, but also by their spacing. Between Bastion 9 and Aldgate, the bastions are almost regularly spaced, at intervals of between 180 and 240 feet.



BASTION 10A RESISTIVITY SURVEY

Fig. 3. Bastion 10A: Resistivity Survey.

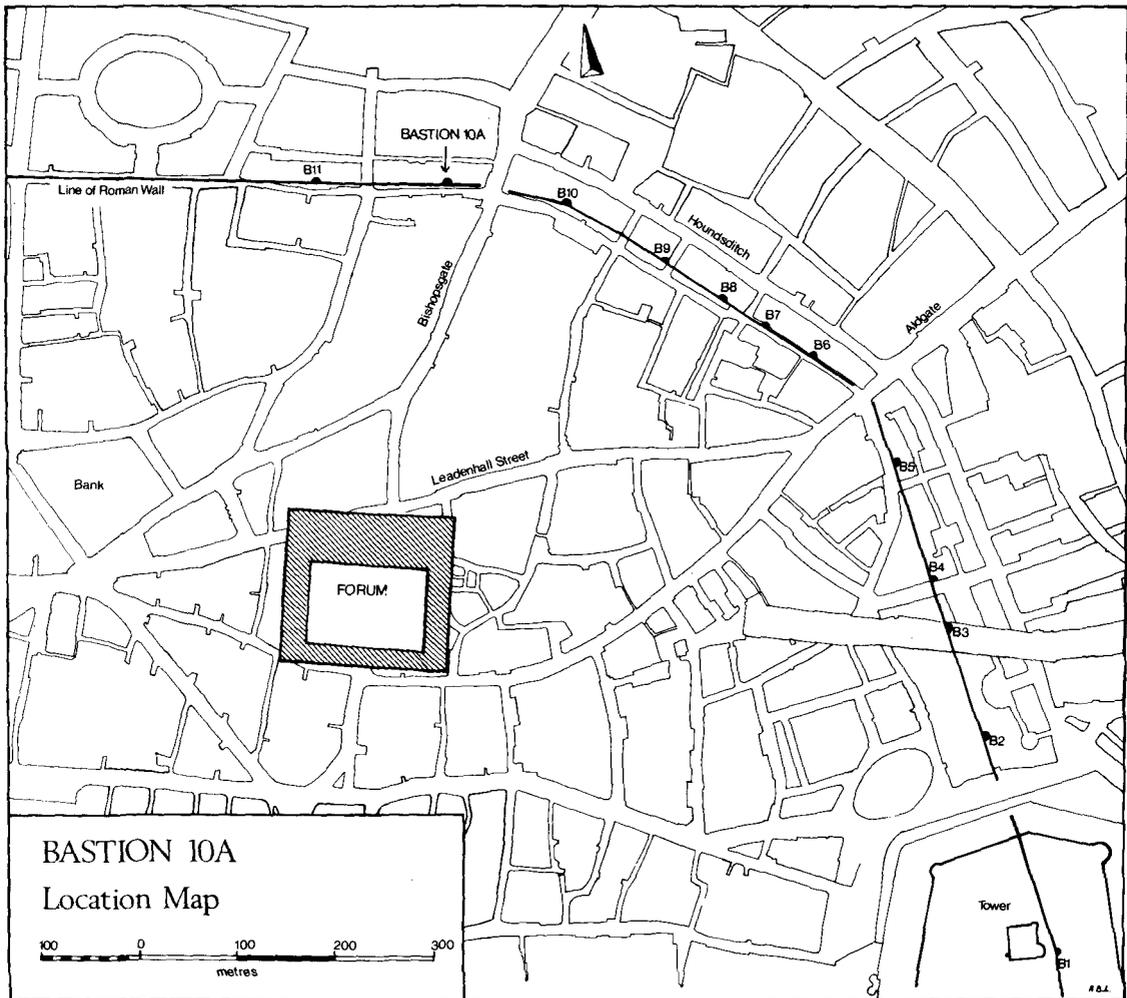


Fig. 4. Bastion 10A: Location of the new bastion.

This is also roughly the distance between Aldgate and Bastion 5, and between Bastions 4 and 3. The distance of 410 feet between Bastion 5 and 4 and about 400 feet between Bastion 3 and 2 might indicate that the sites of other, unknown bastions are to be found at a mid-point between each pair. It is then about 800ft between Bastions 2 and 1, and the interval between Bastion 1 and the corner of the wall, and the intervals between the possible bastions on the riverside wall beneath later medieval towers (Lanthorn, Wakefield and Bell Towers) of the Tower complex<sup>25</sup> are about 200-210ft.

North-west of Bastion 9, in the region of Bishopsgate and Bastions 10-11, the rough module of *c.* 200ft between bastions and between bastions and gates can also be, tenuously, applied. It is about 400ft between Bastion 9 and 10, arguing perhaps for a missing tower between. It is then about 250ft. to Bishopsgate, where the precise site of the Roman gate is not known. Beyond the gate westwards the distance from the gate (taking a measurement

from the middle of the present road) to Bastion 11 at All Hallows church is 625ft. Division of this into thirds gives the rough modular distance. This would suggest the possible sites of two bastions, one immediately to the east of New Broad Street and the other in the stretch of churchyard investigated in the present paper. The precise site of the eastern bastion would be about 10m out from the starting point of the resistivity survey. Here on the survey was the anomaly marked at point B (Fig. 3).

## CONCLUSIONS

Cartographic and documentary references between 1529 and *c.* 1558 indicate a hitherto unrecognised bastion (for which the number 10A is proposed) between All Hallows on the Wall church and Bishopsgate. The resistivity survey came to a 'not proven' verdict on the stretch of ground available for inspection inside the churchyard of St. Botolph without Bishopsgate, but did register a weak anomaly precisely at the point suggested by the regular spacing of nearly all the known bastions and eastern gates. It is therefore suggested that Bastion 10A is an addition to the eastern series of bastions.

This is not the place for a detailed consideration of the whole eastern series, which should await the publication of the excavation of Bastion 6, but it is a reasonable speculation that if the regular spacing of the late Roman bastions on the landward wall was thoroughly carried out there would have originally been nineteen bastions, and not the known eleven, defending the eastern city between the river Thames and the marsh at the head of the Walbrook, immediately west of All Hallows on the Wall church.<sup>26</sup>

## NOTES

1. *Calendar of Letterbooks of the City of London, Book G* ed. R. R. Sharpe (London 1905) 327-8.
2. *Calendar of Letterbooks of the City of London, Book H* ed. R. R. Sharpe (London 1907) 13.
3. Cal. Close Rolls 1307-13, 308.
4. Cal. Patent Rolls 1232-47, 106-7.
5. Rotha M. Clay *The Hermits and Anchorites of England* (London 1914) 66-8.
6. *Calendar of Letterbooks of the City of London, Book C* ed. R. R. Sharpe (London 1901) 143.
7. *Calendar of Letterbooks of the City of London, Book E* ed. R. R. Sharpe (London 1903) 39.
8. E. Ekwall *Street-names of the City of London* (Oxford 1954) 188.
9. The map is most conveniently reproduced in Philipula Glanville *London in Maps* (London 1972) Plate 2.
10. In fact the bastion could have been seen before 1966 on other maps which were copies of the copperplate, e.g. Braun and Hogenberg's map of 1573 (Glanville *ibid.* Plate 3).
11. R.C.H.M. *Roman London* (London 1928) 103-4; R. Merrifield *The Roman City of London* (London 1965) gazetteer no. 323.
12. Martin Holmes 'An unrecorded map of London' *Archaeologia* 100 (1966) 105-28.
13. J. Schofield 'Pre-Fire churches of London: some sources of reconstruction' *in preparation*.
14. The most famous occupant, Simon the Ankar, produced a small devotional treatise, *Fruyte of Redemcyon*. The treatise is printed as an appendix in Charles Welch ed. *The Churchwardens' Accounts of the Parish of All Hallows, London Wall . . . AD 1455-1536* (London 1912) XXV.
15. Will of William Gregory; James Gardiner ed *The Historical Collection of a Citizen of London* Camden Soc. N.S. 17 (1876) xvii.
16. Welch, *ibid.*
17. Rep. 8, f.41.
18. Rep. 8, f.43. The author is grateful to Miss Sutton for these references. It should be noted that the Repertories have only been indexed to 1580, and that reference to the demolition of the bastion before 1676 may be found in the future.
19. Rep. 8, f.251b.
20. Suggested at the time by Steve Roskams, to whom thanks.
21. A. J. Clark 'Archaeological prospecting: a progress report' *J. Archaeol. Sci.* 2 (1975) 297-314.
22. Merrifield *op. cit.* in note 11.
23. Excavation by Peter Marsden.
24. W. F. Grimes *The Excavation of Roman and Medieval London* (London 1968) 71-5.
25. W. G. Bell, F. Cottrill and C. Spon *London Wall through eighteen centuries* (London 1936) 43-5.
26. The author is grateful for the assistance of Esta Denroche, Chris Unwin and Alison Balfour-Lynn, who drew Figs. 1, 2 and 4; and for the advice and encouragement of Tony Dyson.

Mr. Adrian Prockter has noticed a further new bastion on the map of London by Hogenberg (based on the copperplate (1573)), between Aldgate and the Tower, perhaps between bastions 4 and 5; see A. Prockter and R. Taylor *The A to Z of Elizabethan London* (Lympne/London, *forthcoming*).

This bastion is however not shown on the Agas woodcut, which is a slightly earlier and better copy of the copperplate, and may be a copyist's error.

# THE EXCAVATIONS OF A ROMAN PALACE SITE IN LONDON: ADDITIONAL DETAILS

PETER MARSDEN

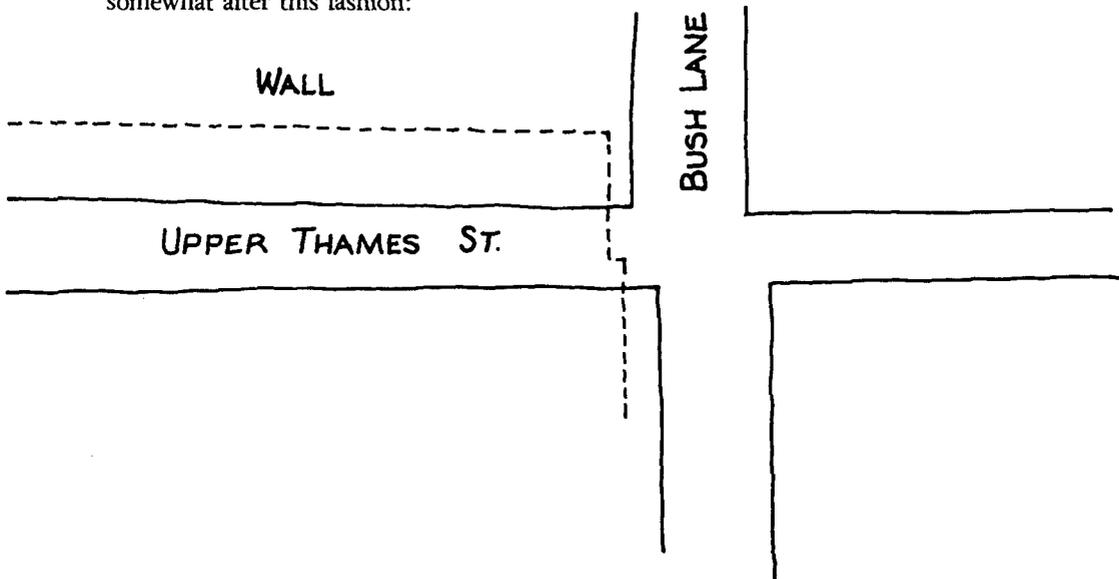
Since the report on the excavation of the Roman palace site was published in Volume 26 of these *Transactions* in 1975, additional detail about the structure of part of the palace has been found in two letters preserved in the Museum of London. They had been written to Charles Roach Smith by two London antiquaries in 1864, and supplement the information that was given in the description of discoveries on the site of Cannon Street Station,<sup>1</sup> thus making possible a revised interpretation of the finds in that area. The letters are as follows:

Letter from John Price to Charles Roach Smith, dated 1st June 1864.

“Dear Mr. Roach Smith,

. . . There are just now some discoveries in Upper Thames Street, which of course are quite new to me and I wish I had time to follow them up closely. In excavating for the new railway which is to cross the river by Dowgate — into Cannon Street they have come on a Roman wall. I imagine the same portion that I think is referred to in your works as having been cut into in U. Thames St. I was there on Monday and though but a hasty visit I wished you had been with me as there was so much that I should have liked to have asked you. I hope to get down there again tomorrow . . .

From what I could make out of the remains which are being quickly removed there seemed to be a great length of wall (Note A) fronting the Thames turning round sharply at Bush Lane downwards towards the river and going right across U. Thames Street somewhat after this fashion:



Just about here the incline is very steep and the wall shows itself at a short distance from the surface, the men say about 10 feet. They are taking away masses of Kentish Rag with the foundations of sandstone by cartloads all day long. In front of this wall and also extending across the street are a large quantity of wooden piles and transverse beams of extraordinary length and thickness — the lowest of these — for they are ranged one above another is 25 feet from the roadway (Note B). Quite a network of timber. I suppose this may be considered as the Thames embankment of the period! As yet the excavations are very awkward for tracing the course of this wall for they only dig here and there just where the supports for the arches are to come, and I could find no convenient spot to obtain any drawing or section, but more will be found when I hope to be more fortunate . . .

I remain yours very truly  
John E. Price.”

Letter from F. Fairholt to Charles Roach Smith dated 24th October 1864.

“My dear Smith,

I have had a very long day in the City, and now write the result for your amusement.

I went first to Cannon St., they have cleared away all Bush Lane to the neighbourhood (opposite London Stone) for a new Railway terminus; a bridge crossing the Thames. It is midway between Cannon St. and Thames St. that the Roman work appears you wrote about (Note C). There is no doubt about its being Roman, and of great size and solidity. It consists of foundations and sections of walls running about 30ft in a line with the Thames (Note D). Where the sections appear, there is a regular course of Roman tiles at the angles of the walls. The foundations of what I should take to be an extensive floor, is laid upon the native soil, and is a concrete of stone flint & mortar with a few broken bricks (Note E). The mortar predominates and is so strong that it seems almost impossible to separate it. In fact to clear all away, it has been necessary to undermine it, and split it up with gunpowder.

I saw a portion thus acted on. Something like 12ft of rubble had been undermined, and stood firm like a bridge across the excavation; and though this was drilled and a large charge of powder used, it failed to do more than slightly crack the tenacious mass. Had it been modern work, a man with a pickaxe would have cleared all away in an hour.

I cannot help thinking that such walls and foundations must have belonged to some great public building, and this is a likely spot for such a place . . .

With kind regards,  
yours very truly  
F. W. Fairholt.”

It is worth pointing out that the first of these letters shows that much of the Roman palace structure still survives beneath Cannon Street Station and that selective excavation beneath the Station would even now clarify much of the plan of the Roman palace.

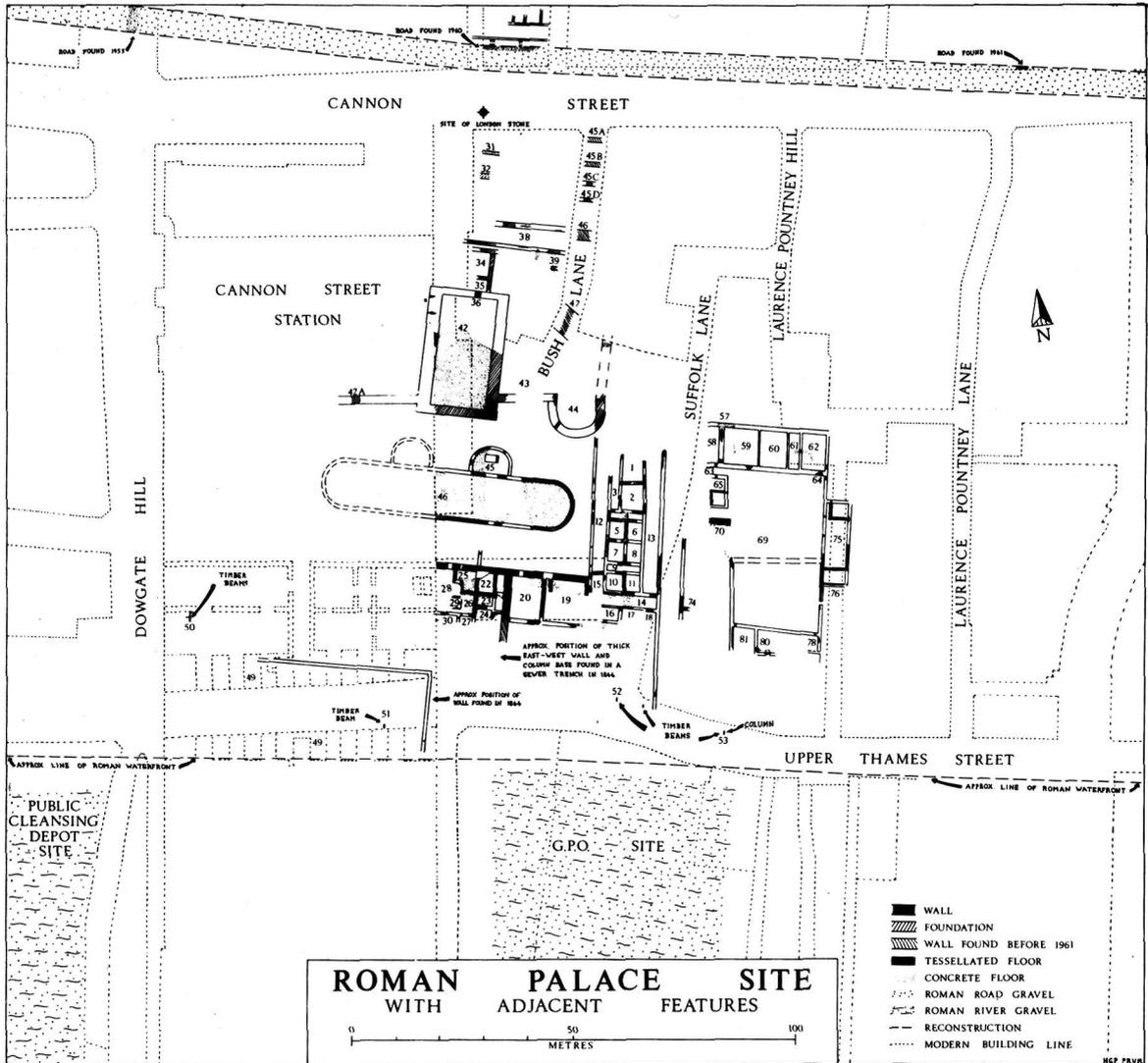


Fig. 2.

COMMENTARY ON THE LETTERS

Note A The position of this major Roman wall, both in relation to the south wing of the palace and to the waterfront, does suggest that it might have formed the frontage of two subsidiary wings along the waterfront. Of special interest, however, is the fact that the north-south wall found in 1864 crossing Thames Street lies on the prime north-south axis of the palace,<sup>2</sup> and that this wall apparently extends southwards almost to the Roman waterfront. If this positioning is

reasonably correct, then it seems likely that the two subsidiary wings will have been bounded by the north wall of Room 28 and the massive east wall of Room 21; while the walls found in 1864 may have formed the south and west sides of those wings. The enclosed area between, in the region of Feature 49, may have been a quayside open court. The area to the east of these wings, and south of Rooms 19 and 20, may therefore have formed another riverside court (Fig. 3).

Note B

The description of the Roman waterfront structure seems very similar to those found at Custom House,<sup>3</sup> and at New Fresh Wharf and Seal House<sup>4</sup> where the waterfront was built of squared baulks of timber ranged one above another, while behind was a network

of timber beams forming boxes which supported the surface of the quayside. It is presumably this inshore timber construction that is represented by the timber beams Features 51-53 (Fig. 2), in the Roman palace.<sup>5</sup>

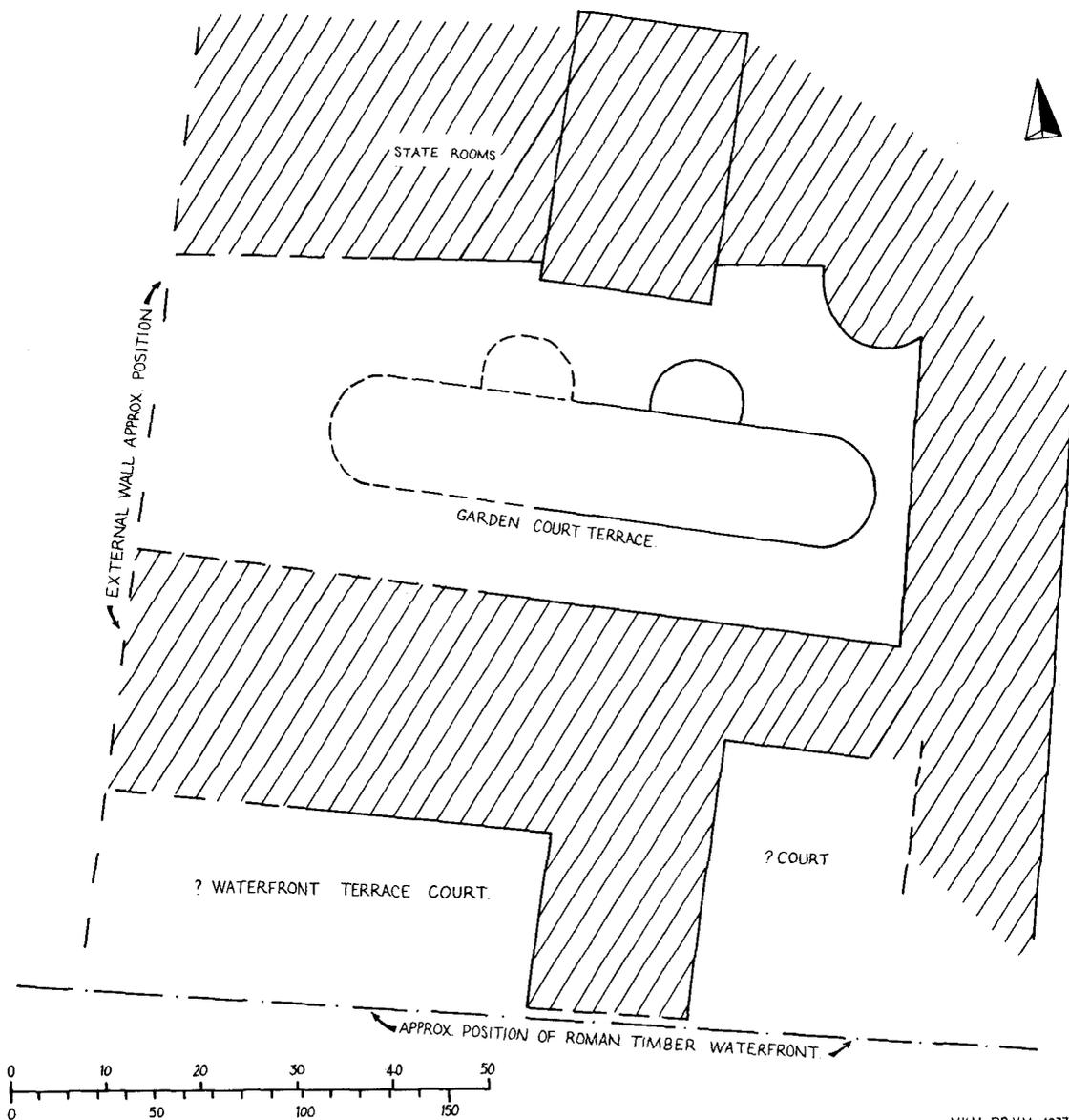


Fig. 3

Note C The statement that the Roman structures lie only in the southern half of the area between Cannon Street and Thames Street is important for this more precisely locates the many recorded and published structures which were found while the Station was being built.<sup>6</sup> The structures include a massive north-south wall some 200ft (60.96m) long and 12ft (3.66m) in thickness which apparently bounded the west side of the palace. The large room measuring 50ft

(15.24m) by 40ft (12.19m) which was connected with two others now seems to have been part of the range of 'state rooms' on the west side of the great hall, Room 42 (Fig. 2).

Note D The walls mentioned here may have been a continuation of the 'state rooms' on the west side of Room 42 (Fig. 2).

Note E The foundation of an extensive floor is best interpreted as part of the western end of the great pool (Fig. 2, Feature 46).

#### REFERENCES

1. P. Marsden 'The excavation of a Roman palace site in London, 1961-1972' *Trans. London Middlesex Archaeol. Soc.* 26 (1975) 51-54.
2. *Ibid.* Fig. 29.
3. T. Tatton-Brown 'Excavations at The Custom

House site, City of London, 1973' *Trans. London Middlesex Archaeol. Soc.* 25 (1974) Fig. 8, 122-128.

4. J. Schofield forthcoming publication.
5. Marsden *op. cit.*, 53-54.
6. Marsden *ibid.* 51-54.

# A ROMAN LADDER FROM QUEEN STREET, CITY OF LONDON

JANE WEEKS

Despite being one of the few Roman ladders found in this country, the 1st century ladder from the Bank of London and South America site in Queen Street has never been fully published;<sup>1</sup> the following is an attempt to put it in its proper context. The ladder is at present on display in the Museum of London,<sup>2</sup> having also been displayed in the two previous homes of the former Guildhall Museum, the Royal Exchange and 55 Basinghall Street.

Brief reports of the site appeared in the annual summary of excavations in the *Journal of Roman Studies*<sup>3</sup> and in Ralph Merrifield's *The Roman City of London*.<sup>4</sup> The following report on the site has been written with the aid of the excavator's<sup>5</sup> site notebook, now in the Department of Urban Archaeology of the Museum of London.<sup>6</sup>

The site, No. 82 Queen Street, was excavated in 1953, during the preparation of foundations for the new Bank of London and South America building, which now occupies the site. During the course of excavation, fourteen Roman and eleven medieval and post-medieval wells were found.

The Roman wells were of two types; square in section, with a lining of oak timbers strengthened by diagonal braces and halved joints at the corners, or cylindrical, the timber lining being formed by re-used barrels.<sup>7</sup> The ladder was found in a square well near the northern edge of the site. On the surface of the well lay loose timbers from the uppermost courses of the well-lining and immediately below these, in a brown clay fill, were sherds of Roman pottery, including a bead-rimmed coarseware pot, dated to A.D. 70-90. 1.90m below the top of the well (which lay 5.65m beneath the modern road level) was a thin layer of organic material and in this lay a human skull, minus its lower jaw, partially crushed by an octagonal piece of timber:<sup>8</sup> 'the skull had obviously been pushed down through the already silted-up well . . . Directly beneath this skull (in a layer of grey clay) the first signs of the ladder were encountered'. A second, thicker organic layer was reached 2.54m below the top of the well; on it lay a number of loose barrel staves, a wooden spoon, a wooden spatula, a spindle, a large iron key, a Samian Drag. 29 bowl stamped OF CRESTIO and a pair of leather trunks.<sup>9</sup> The timber lining ceased 3.65m down, but both the well pit and the ladder continued. Unfortunately, due to the contractor's schedule, no additional time could be allowed for excavation beyond that point, so *c.* 2m of the ladder was salvaged and removed to the Guildhall Museum. It was however possible to resume the excavation at a later date though unfortunately Mr. Noël Hume was not on site when the contractors resumed digging and part of the mid section of the ladder was lost.<sup>10</sup> Only one further find was made, that of a wooden handled bowl, 'probably a water ladle', near the bottom of the well.<sup>11</sup>

The ladder was conserved with alum in the workshops of the Guildhall Museum and, after restoration (the two preserved sections having been joined together) the ladder now measures 5.59m long, though it is now impossible to gauge its original length (Figs. 1, 4 and Pl. 1).

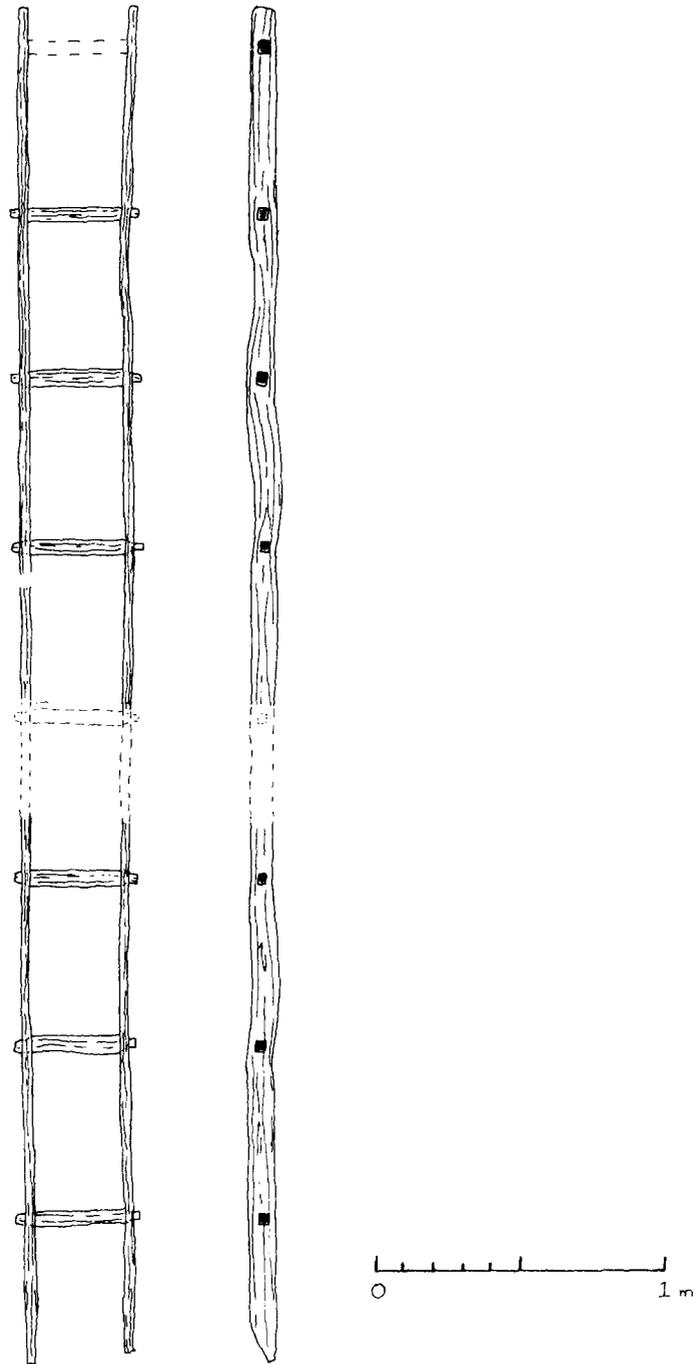


Fig. 1. Queen Street, London: the Roman ladder (dashed lines indicate reconstructed portions of the ladder).

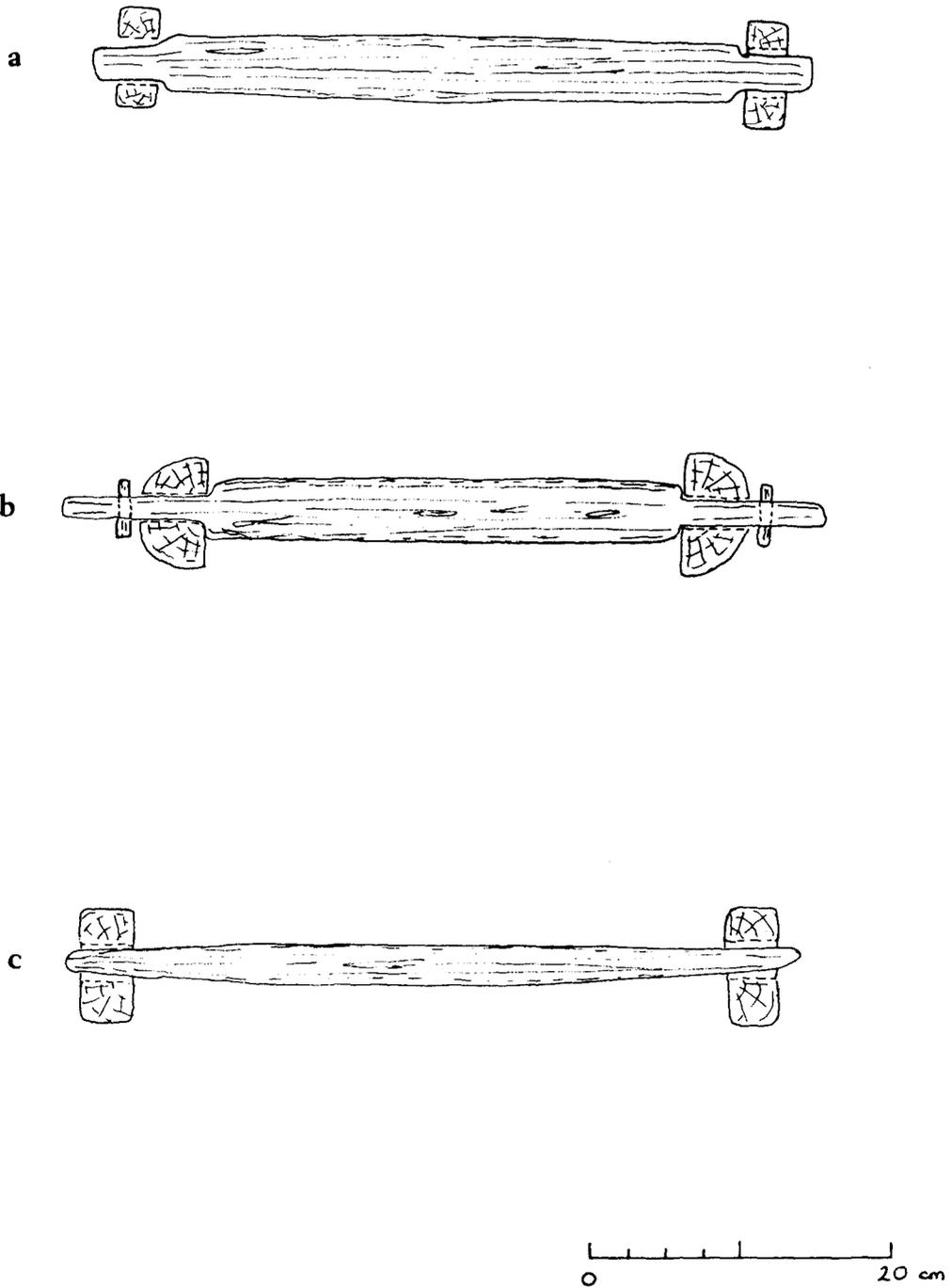


Fig. 2. Rung/pole joints in plan and section. (a) Queen Street, London; (b) Glastonbury, Somerset; (c) Silchester, Hants.

The wood used for the ladder was oak (*Quercus robur*)<sup>12</sup> for both the rungs and the poles.<sup>13</sup> The rungs of the ladder are spaced at 0.50m intervals,<sup>14</sup> each rung being cut flat on its upper face, though retaining the original curvature of the trunk on the underside. At either end, the rungs taper to fit into rectangular mortices cut in the poles (Fig. 2a). Though there are no wedges or other fastenings to keep the rungs in position, it is conceivable the rungs were originally held in place with wedges which have since become dislodged, as the rungs do not fit closely into the mortices. Ivor Noël Hume mentions that there were no wedges holding the rungs when the ladder was first found, but they then fitted fairly snugly. That they do not do so now is due to post-excavation shrinkage, no doubt accentuated by the use of alum for conservation.

The ladder poles are rectangular in cross-section and have been roughly dressed into shape with an adze. From the tree-rings visible in the cross-section of these two poles it can be seen that slightly more than half of one trunk was used for each pole. Traditionally, ladder poles are made from a single trunk cleft down the middle, but apparently this is not the case with the Queen Street ladder. Practically the whole diameter of the tree, including the sapwood, but excluding the bark, was used (Fig. 3). Fifteen rings of sapwood are visible, and, as the sapwood normally forms a band of 15-25 rings between the bark and the heartwood, the original diameter of the trunk can be estimated at *c.* 0.13m giving a circumference of *c.* 0.41m.<sup>15</sup> Each pole is made of one whole length of timber; one end of the ladder is broken

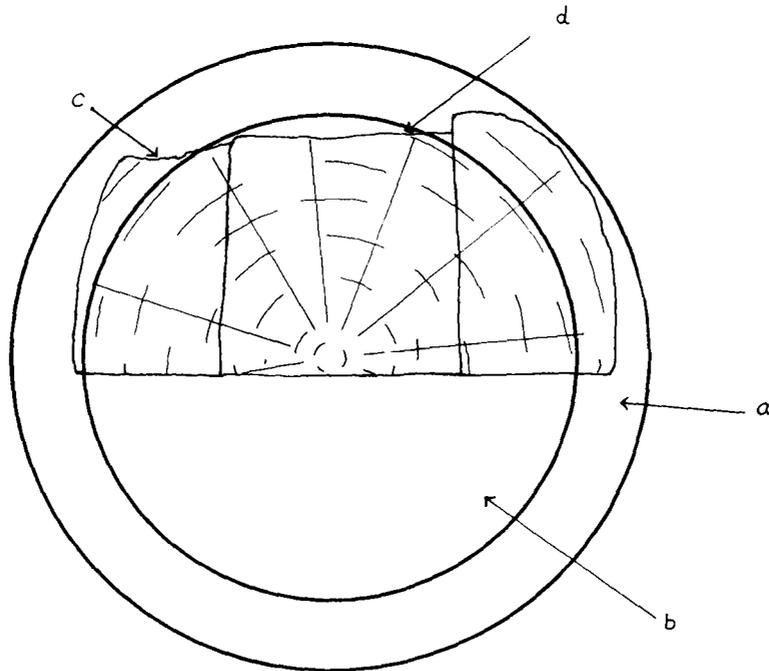


Fig. 3. Queen Street, London: sketch to show how ladder pole was cut from original trunk; a — sapwood; b — heartwood; c — broken edge of pole; d — cut face of mortice (not to scale).

off, but at the other end both poles are cut at an angle to seat the ladder more firmly on the ground. The straight length of these pieces suggests that the two trees came from a densely-wooded oak forest, where they had been forced to grow up straight in order to reach the sunlight.

Ladders dating to the prehistoric and Roman period have been found in various parts of Europe and fall into two different groups; the rung ladder and the less-sophisticated notched tree trunk ladder, the latter forming by far the largest group. Notched tree trunk ladders are found most frequently in mines such as those at Rio Tinto and Aljustrel, Spain, Villefranche and Rozières, France and Mitterberg, Austria.<sup>16</sup> The advantages of this type of ladder over the rung ladder are that it is quicker to assemble, less liable to collapse and more stable. Also, once in position, it takes up less room.

An intermediary type is represented by the ladder discovered in the Westbury Brook mine, Forest of Dean, 'at the junction of the ancient and modern workings'.<sup>17</sup> It was a 'rudely formed ladder 6ft. 6in. long, 8in. wide and 2in. thick. It was formed out of a massive plank of oak in which were cut six holes wide enough to receive the foot'. The author of the note, which appeared in the report of the Society's summer meeting at Gloucester, suggested that it was Roman in date. Certainly there is little evidence for prehistoric working in these mines. Edlin, however, mentions when writing of recent ladder-making, 'a very different kind of ladder . . . once favoured in the iron mines of the Forest of Dean, both rungs and uprights being carved from the single log of wood',<sup>18</sup> which suggests that either this type had a long ancestry or that the find reported to the Society of Antiquaries was comparatively modern in date.

Only two ladders dating to the Roman period have been adequately recorded providing sufficient evidence for comparison with the Queen Street ladder (Fig. 4). A rung/pole joint similar to that in the Queen Street ladder was used for the middle two rungs of a ladder found in the Iron Age lake village at Glastonbury.<sup>19</sup> The lowest rung was secured with wooden dowels which passed through holes drilled in the projecting tenons of the rung<sup>20</sup> (Fig. 2b). The uppermost rung was missing though the mortices remained and the gap had been repaired with a length of 'plaited withy'. The three wooden rungs were 'not quite straight, but followed the curves of the branch from which they were cut'. The reason for the different types of rung/pole joint is not immediately obvious, though presumably the lowest rung fitted its mortices very loosely and thus needed an additional fastening to keep it in position. The ladder poles were made of ash<sup>21</sup> and measured 2.10m long; they were plano-convex in cross-section with the curved surface of the trunk forming the outside of the pole. The report does not say whether the poles were made of split half-trunks or not, though it seems likely from the published diagram, but unfortunately the ladder has since been lost.<sup>22</sup>

An alternative method of dowelling the rungs was to wedge them and this solution was adopted in the 2nd century A.D. ladder from Silchester.<sup>23</sup> All but one of the five rungs were rectangular in cross-section, with tenons projecting 0.05m on either side of the poles 'kept in place by wooden wedges'<sup>24</sup> (Fig. 2c). The remaining rung, the second, was circular, 0.25m in diameter and had been lathe-turned; this may have been a repair. The rungs were set 0.35m apart (a similar distance to those in the Glastonbury ladder) and were made of oak; the poles were of fir<sup>25</sup> and, like the Queen Street ladder, were rectangular in cross-section. The whole ladder measured 1.94m long, though only the lower part survived as the pit in which it was found had obviously collapsed during the making. Fox and Hope suggest that the pit

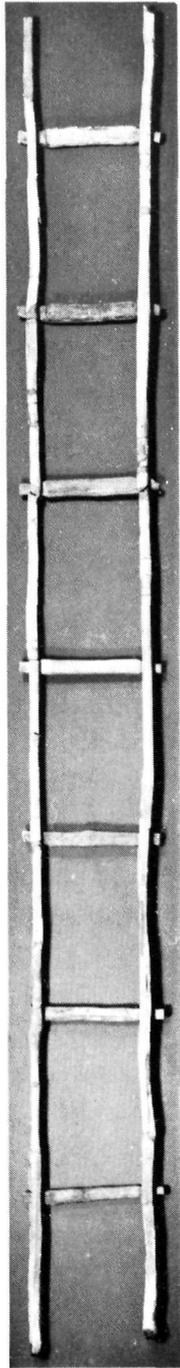


Plate 1. The Roman ladder from Queen Street, City of London (see text for measurements).  
*(Museum of London).*

was originally intended as a well and following the collapse, 'the workman managed to extricate the upper portion of his ladder'.<sup>26</sup>

LADDERMAKING

No written description of laddermaking in the Roman period has survived, but, using the evidence of the records of recent laddermakers and that of contemporary wall paintings, together with that provided by the ladder itself, it is possible to recreate the stages of making a ladder in antiquity. A wall painting in the House of the Vettii, Pompeii, showing Daedalus at work on the wooden cow which he built for Pasiphae, gives a clear picture of an ancient laddermaker at work for it is apparent from the form of the workpiece that Daedalus is in fact preparing a ladder pole (Fig. 5).<sup>27</sup> Additional comparative information can be obtained from modern ethnographic sources.<sup>28</sup>

A straight young tree, or two trees in the case of the Queen Street ladder, was chosen and split down the middle, to form the two poles; the resulting halves were either left plano-convex, as in the crudely-built Glastonbury ladder, or roughly trimmed with an adze or a saw to a rectangular shape. The face which was to form the inner face of the pole was evened up with a plane or a draw knife and the positions of the mortices marked. The pole was then fastened to a work bench; the Daedalus illustration shows a pole held in place by two bench stops, placed on alternate sides at either end of the bench. Daedalus is cutting mortices for the rungs with a morticing chisel<sup>29</sup> and a mallet or hammer. The bevel on the blade is clearly visible. The bow drill lying at Daedalus' feet need not imply that the rung/pole joint is to be the same as that in the Glastonbury ladder, since it would be necessary to drill the dowel holes through the tenons, and it would also have been used for the initial hollowing-out of the mortices.

The ladder rungs were split from a section of timber and trimmed to shape with a draw knife, though, once again, the rungs in the Glastonbury ladder seem to have been dressed more roughly than the other surviving examples. The rung tenons were trimmed into shape with a knife. Edlin notes that, prior to fitting the rungs into the poles, each rung was knocked

	<i>QUEEN STREET, LONDON</i>	<i>SILCHESTER, HANTS.</i>	<i>GLASTONBURY, SOMERSET</i>
<i>Date</i>	1st cent. A.D.	2nd cent. A.D.	1st cent. B.C.
<i>Recorded length</i>	5.59m	1.94	2.10
<i>Width (+ poles)</i>	0.45	0.55	0.41
<i>Rung gap</i>	0.50	0.35	0.30-0.43
<i>No. of rungs</i>	8	5	4
<i>Rung dimensions (cross-section)</i>	0.05 × 0.04	0.03 × 0.05	0.04 × 0.04
<i>Pole dimensions (cross-section)</i>	0.07 × 0.04	0.08 × 0.05	0.10 × 0.06
<i>Rung/pole joint</i>	mortice and tenon	wedged mortice and tenon	R2, R3 — mortice and tenon; R4 — dowelled mortice
<i>Wood</i>	Oak	Oak rungs Fir poles	Ash

Fig. 4. Iron Age and Roman ladders from Great Britain.

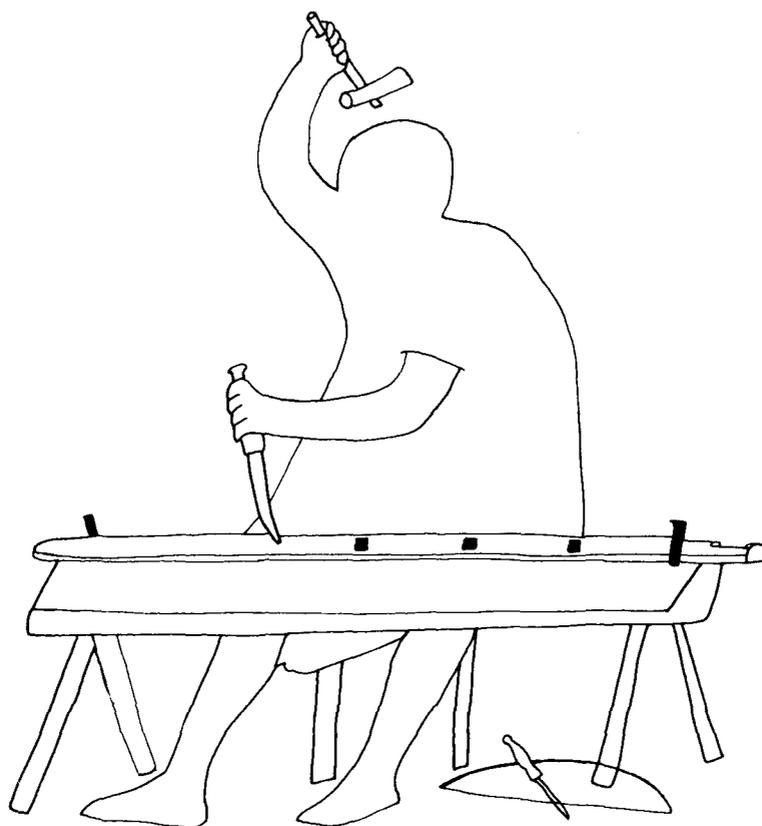


Fig. 5. House of the Vettii, Pompeii: wall painting showing Daedalus at work on a ladder (after J. Liversidge).

into a shallow gauge as a test for size.<sup>30</sup> This would not have been necessary when making the Glastonbury and Silchester ladders as the rungs are held in place by more than just a tight fit. Once the mortices had been finished the rungs were knocked into the holes in one pole, the other pole being then fitted over it and hammered into place.

As will be seen from this description, laddermaking does not require a specialised toolkit as the ordinary carpenter's tools — plane, chisel, adze, draw knife, bow drill — suffice. Furthermore, all these tools have been recognised in the Roman carpenter's toolkit, illustrated, for example, by the 1890 hoard of ironwork from Silchester.<sup>31</sup>

## CONCLUSION

The appearance of a rung ladder in a pre-Roman context implies that this type of ladder was not a Roman introduction to Britain, though Roman technology served to improve the finished artifact. The use of ladders in the Roman world is well attested; soldiers are shown on Trajan's column using them to storm enemy fortifications.<sup>32</sup> Apart from military usage, they were also a necessity in a wide variety of activities, agriculture (especially viticulture and fruit-picking),<sup>33</sup> building,<sup>34</sup> mining, embarking and disembarking, and they even formed

part of actors' and jugglers' 'props'.<sup>35</sup> A Roman terracotta lamp in the British Museum shows an 'itinerant' surrounded by his troop of performing animals. On his right is a monkey, and on his left a cat or weasel climbing a ladder, and above his head are hoops for the animals to jump through.<sup>36</sup> Acrobats must also have used ladders and it is extremely tempting in view of the association of the ladder and the leather bikini trunks to imagine an acrobat using the Queen Street ladder in his or her act. This might offer an explanation for the unusually wide rung gap. Sadly, it is apparent from the different humus levels that the ladder had been placed in the well before the trunks were thrown in and 3.65m of silt had collected in between the two depositions. The ladder was most likely the property of a civilian workman and judging by its position and the broken upper ends of the ladder, it suffered a fate similar to that of the Silchester ladder.

## NOTES

1. I would like to thank Hugh Chapman of the Museum of London for encouraging me to publish the ladder and for his advice during the writing of this paper. My thanks are also due to Dr. A. J. Parker for reading and criticising an earlier draft of this paper.
2. Museum of London Accession No. 21234.
3. R. P. Wright 'Roman Britain in 1954' *J. Roman Stud.* 45 (1955) 138-139.
4. R. Merrifield *The Roman City of London* (London 1965) 184, 215, Pl. 113.
5. The excavator, Ivor Noël Hume, was kind enough to correct a number of errors in the original draft of this paper and to send me copies of his notes and drawings not otherwise available.
6. ER (Excavation Register) 81; I am grateful to Peter Marsden of the Department of Urban Archaeology for giving me access to the excavator's notebook.
7. Merrifield *op. cit.* in note 4, Pls. 108, 112.
8. The piece of wood measured 0.70m long; it has been suggested that it might be a table leg, but the working of it is too crude for it to have been used for anything but the roughest furniture. The remarks in quotations are taken from Noël Hume's site notebook.
9. The purpose of the trunks remains enigmatic, but several pieces of evidence (Merrifield *op. cit.* in note 4, 215, Pls. 116, 117) suggest they may have been worn by an acrobat or athlete. A similar pair were found recently at Shadwell (for the site see A. Johnson 'A Roman signal tower at Shadwell.' *Trans. London Middlesex Archaeol. Soc.* 26 (1975) 278-280).
10. I am grateful to Mr. Noël Hume for pointing this out; the ladder is now so heavily restored that the break above the fifth rung is not immediately apparent.
11. Merrifield *op. cit.* in note 4, Pl. 115.
12. I am grateful to George Willcox for this identification.
13. Edlin uses this term to describe the side pieces of a ladder, see H. L. Edlin *Woodland Crafts in Britain* (Cambridge 1949) 148-149.
14. The most obvious explanation for the large rung gap is that a smaller number of rungs require less time to make and fit, while each extra mortice adds to the instability of the pole.
15. R. A. Morgan 'The selection and sampling of timber from archaeological sites for identification and tree-ring analysis' *J. Archaeol. Science* 2 (1975) 225.
16. For Rio Tinto and Aljustrel see O. Davies *Roman mines in Europe* (Oxford 1935); for Villefranche and Roziers, A. Heron de Villefosse 'Note de M. Ed. Cuq sur des objets ayant servi à l'exploitation des mines d'Aljustrel au temps des Romains' *Bull. Soc. Nat. Antiq. France* (1907) 358; for Mitterberg, J. Andree *Bergbau in der Vorzeit* (Leipzig 1922).
17. *Proc. Soc. Antiq. Lon.* 1 (1861) 369.
18. Edlin *op. cit.* in note 13, 149.
19. 'Found in the peat just outside the border-palisading, 26ft to the west of . . . mound XIV; it was lying lengthways in a NE and SW direction. The side piece situated towards the NW was raised 4in. above the level of the other and was buried 3ft. 8in. below the surface of the ground', see A. Bulleid and H. St. G. Gray *The Glastonbury Lake Village* 332, X55, Fig. 108, Pl. 51.
20. A similar rung/pole joint was used in a 12th century ladder found in a pit in the Saxon shore fort of Pevensey Castle, G. C. Dunning 'A Norman pit at Pevensey Castle and its contents' *Antiq. J.* 38 (1958) 205-217.
21. As presumably were the rungs, though Bulleid and Gray do not specify.
22. I am indebted to Martyn Brown of the Somerset Rural Life Museum, Glastonbury for allowing me to search for the ladder in the Tribunal, where the finds from Glastonbury are housed.
23. Pit XXVII, in the NE angle of Insula XXIII, see G. E. Fox and W. H. Hope 'Excavations on the site of the Roman city of Silchester' *Archaeologia* 57 (1901) 229-256.
24. Fox and Hope do not specify how the wedges were driven in but presumably they were hammered inwards from the outside face of the pole. Unfortunately, the wedges are no longer in position. The remains of the ladder (only two of the rungs survive) are stored in an outhouse of the Reading Museum. I am grateful to Susan Read, Assistant Archaeologist, for allowing me access to it and for unearthing a photograph of the ladder on display in the Museum.
25. Boon quotes Fox and Hope's report incorrectly, G. C. Boon *Silchester: The Roman Town of Calleva* (Newton Abbot 1957) 85.
26. Fox and Hope *op. cit.* in note 23, 244.
27. J. Liversidge 'Woodwork' in D. Strong and D. Brown eds. *Roman Crafts* (London 1976) Fig. 262.
28. Edlin *op. cit.* in note 13, 244.
29. The chisel must have a tanged handle as the junction between the blade and the wooden handle can be easily distinguished.
30. Edlin *op. cit.* in note 13, 148.

31. J. Evans 'On some iron tools and other articles formed of iron found at Silchester in the year 1890' *Archaeologia* 54 (1894) 139-160.
32. C. Cichorius *Die Reliefs der Traianssäule* (Berlin 1896, 1900).
33. K. D. White illustrates a fruit-picker using a ladder, an illustration taken from a Roman mosaic, see *Roman Farming* (London 1970) Fig. 63.
34. Liversidge has an illustration of Roman interior decorators at work, from a stone carving from Sens, Yonne, see J. Liversidge *Britain in the Roman Empire* (London 1968) Fig. 31. The price for 'an ordinary large ladder of 30 rungs' is fixed at 150 *denarii* in Diocletian's price edict, see Tenny Frank ed. *Economic Survey of Ancient Rome* 5 (Rome 1959) 360, XIV 6.
35. Pauly-Wissowa *Real Encyclopädie der classischen Altertumswissenschaft* (Stuttgart 1921).
36. H. B. Walters *Catalogue of the Greek and Roman lamps in the British Museum* (London 1914) Pl. 16, No. 679.

# SIGNET RINGS FROM ROMAN LONDON

MARTIN HENIG

Four rings, evidently found in London at various times in the 19th century, were located recently in the reserves of the Department of Prehistoric and Romano-British Antiquities, British Museum. Although one ring had been recorded by Roach Smith and thus received a mention in my corpus of gemstones, this is the first time that the other three have been described and none of them has yet been illustrated. This note also takes the opportunity of recording a fifth ring from London (now in an American private collection) which has been brought to my notice, and of an intaglio found recently west of Queenhithe on the Thames foreshore.<sup>1</sup>

1. Iron ring with simple hoop (incomplete) which expands sharply at the bezel. It contains an intaglio of chalcedony, perhaps an onyx, bleached and stained by chemical action — possibly through having been subjected to intense heat at some time. The device is a warrior, nude but for his helmet, holding a shield in his left hand and with his right arm outstretched before him.<sup>2</sup> He appears to be falling backwards as the result of an arrow piercing his right ankle. This detail suggests an identification of the figure with the mortally-wounded Achilles. The device is surrounded by a cable border.

*Dimensions.* Diameter of ring 21.5mm; width across bezel 11.5mm (at narrowest surviving point on the hoop *c.* 2mm). The intaglio is a flat oval measuring 12mm by 10mm. (B.M. 55 8-4 66). The ring was found in London, during February 1846.

The ring is of a type common at about the time of the Roman conquest of Britain. It may be compared with another example from London, containing a glass gem showing Hercules fighting a giant, and a ring found at Hod Hill set with a paste depicting the Spartan hero, Othryadas.<sup>3</sup>

In the present instance the gem appears to be considerably earlier than its mounting. The cable border and the crisp, slightly archaic cutting of the central figure recall the work of Etruscan gem-engravers. Indeed 4th-century scarabs depict the death of Achilles in almost identical manner.<sup>4</sup> Ringstones became more popular after *c.* 300 B.C. and an 'Italic' (i.e. Roman Republican) gem in Vienna provides an almost exact parallel to the London stone.<sup>5</sup> It is possible, as we have seen, that the gem had at one time been in a fire. Could it have been rescued from the ashes of a cremation to serve as an heirloom, a reminder of an ancestor's martial prowess? In any case the choice of Achilles as a signet device would suggest a highly 'Roman' virtue to its owner, namely that Fame was to be preferred to Long Life.<sup>6</sup> This gem is not the only signet of Republican date to have been found in Britain. A cornelian from Waddon Hill, Dorset, portrays Ajax carrying the dead Achilles, while a sard found at Verulamium depicts Diomedes stealing the palladium from Troy. The style of the Verulamium stone, with its emphasis on heavy musculature, is very close to that of the intaglio under discussion.<sup>7</sup>

2. Iron ring with simple hoop, expanding slightly towards the bezel. It is set with a chalcedony bleached and crazed through the action of fire, and the intaglio shows a youthful male figure who stands towards the front and faces right. He holds a long staff, curved at its end, over his left shoulder and an indeterminate object in his right hand. Although the figure was originally described as Cupid, he seems to lack wings and is more probably to be interpreted as a satyr with his hunting-stick (*lagobolon*) and either his kill or a bunch of grapes.

*Dimensions.* External diameter of ring 26mm (internal diameter 22mm); width across bezel 9.5mm (at narrowest point 2mm). The intaglio is a flat oval with bevelled sides. It measures 10mm by 8mm (upper engraved surface 8mm by 6mm). (B.M. 56.7-1.806).

Originally published by C. Roach Smith (*Catalogue of the Museum of London Antiquities* (1854) 60 No. 269) it was described as a 'bronze ring, set with an opaque white stone, bearing a nude youthful figure, or Cupid, with two faces; in his left hand he carries a staff resting on his shoulder; in his right, extended backwards, is a purse, which the hinder face appears to be inclined towards, and regarding.'<sup>8</sup>

The ring should be dated to the late first or early second century A.D. and may be compared with an example from the Walbrook set with an onyx intaglio.<sup>9</sup> The type of a satyr with his stick and bunch of grapes is very common on gems but cupids are sometimes depicted in the same attitude.<sup>10</sup>

3. Silver ring of massive proportions. The flat ribbon-hoop expands below the shoulders and the upper side is set with a cornelian intaglio now somewhat damaged. It portrays Fortuna holding her rudder, with the wings of Victory and the aegis and helmet of Minerva.

*Dimensions.* External diameter of ring 25mm (internal diameter 21.5mm); width across bezel 19mm (at narrowest point *c.* 2.3mm). The gem is a slightly convex oval 15mm by 10.5mm (B.M. 55.8-4.65).

The ring was purchased with other London material (Lot 267 Chaffers Sale). The ring is a magnificent specimen of a late-Antonine and Severan type. It may be compared with a fine signet from the *Colonia Traiana* at Xanten and another from Klein-Stürlack in East Prussia.<sup>11</sup> Somewhat similar rings found in London (No. 4 below), at Mucking in Essex and at Alchester, Warwickshire, are of slightly less ample proportions.<sup>12</sup>

This is only the second example of a representation of pantheistic Fortuna on a gem from a British site. The other came from a Roman sewer at York, containing material no later than the early third century.<sup>13</sup> Syncretism was popular at this time and it is interesting to compare the York and London gems with the relief of the winged and helmeted *Brigantia Caelestis* from Birrens.<sup>14</sup>

4. Silver ring, of similar type but with somewhat narrower hoop. It is set with an onyx intaglio, unfortunately badly cracked, which depicts an Eagle standing in profile to the left but with its head turned to the right. It holds a wreath in its bill.

*Dimensions.* It has proved possible to examine only oblique photographs of the ring, from which it appears that the ring has an external diameter of *c.* 22mm. The intaglio is a flat oval with a bevelled edge, and its upper surface measures *c.* 8mm by 5mm.<sup>15</sup>

The ring, which is said to have been found in London, is in a private collection in the U.S.A.<sup>16</sup>

Intaglios showing eagles are reasonably common and we may cite similar representations to ours from Great Chesterford (Essex) and Bath.<sup>17</sup> However it may be appropriate here to recall that these birds were especially associated with legions, and a gem from Southwark has been published recently showing an eagle standing between a pair of standards.<sup>18</sup>

5. Bronze ring with narrow hoop and carrinated shoulder. The raised bezel contains an intaglio of nicolo-paste which shows a bust of Minerva in profile to the right.

*Dimensions.* External diameter of ring 19.5mm (internal diameter 17mm); width across bezel 10mm (at narrowest point on hoop 2mm). The intaglio is a flat oval 9mm by 7mm (B.M. 62.3-21.5). Found in London and presented to the British Museum by A. W. Franks, Esq.

The ring is of typical third-century form and may be compared with similar examples from Augsburg, Cannstatt and Augst.<sup>19</sup> Amongst busts of Minerva shown on gems we may note one from an Antonine context in Canterbury and another in a gold ring of similar date found at Verulamium.<sup>20</sup>

6. Nicolo intaglio portraying a satyr dancing towards the left. He holds some object, perhaps a hare, in his right hand.

*Dimensions.* Flat oval with bevelled sides, measuring 11mm by 8mm. I am very grateful to Mr. Dexter Bedwell for showing me the stone, which remains in private possession.

The gem is similar to very many others which portray satyrs most of whom are depicted holding a bunch of grapes.<sup>21</sup> Stylistically the intaglio would seem to belong to the second century A.D.<sup>22</sup>

Although the five rings and one loose ringstone listed here do not form any kind of closed group, they are of considerable interest. No. 1 was already old when it was lost, perhaps by a soldier in the early years of the province. It is likely that Nos. 3 and 4 also belonged to soldiers, but at a later date when the Cripplegate Fort was garrisoned. If such surmise is a matter of opinion, the good state of preservation of all the rings does provide some firm evidence at least as to the manner of deposition. Metalwork only survives well in London in waterlogged conditions such as the Walbrook stream-bed and the Thames foreshore. Roach Smith acquired much of his collection from the Thames and perhaps ring No. 2 was discovered here as well. The ringstone No. 6 certainly came from the foreshore and by coincidence also portrays a satyr.<sup>23</sup> Deposition in streams may sometimes attest casual loss, but it must also be remembered that this was an obvious way of making an offering to the divine powers of these sacred places.

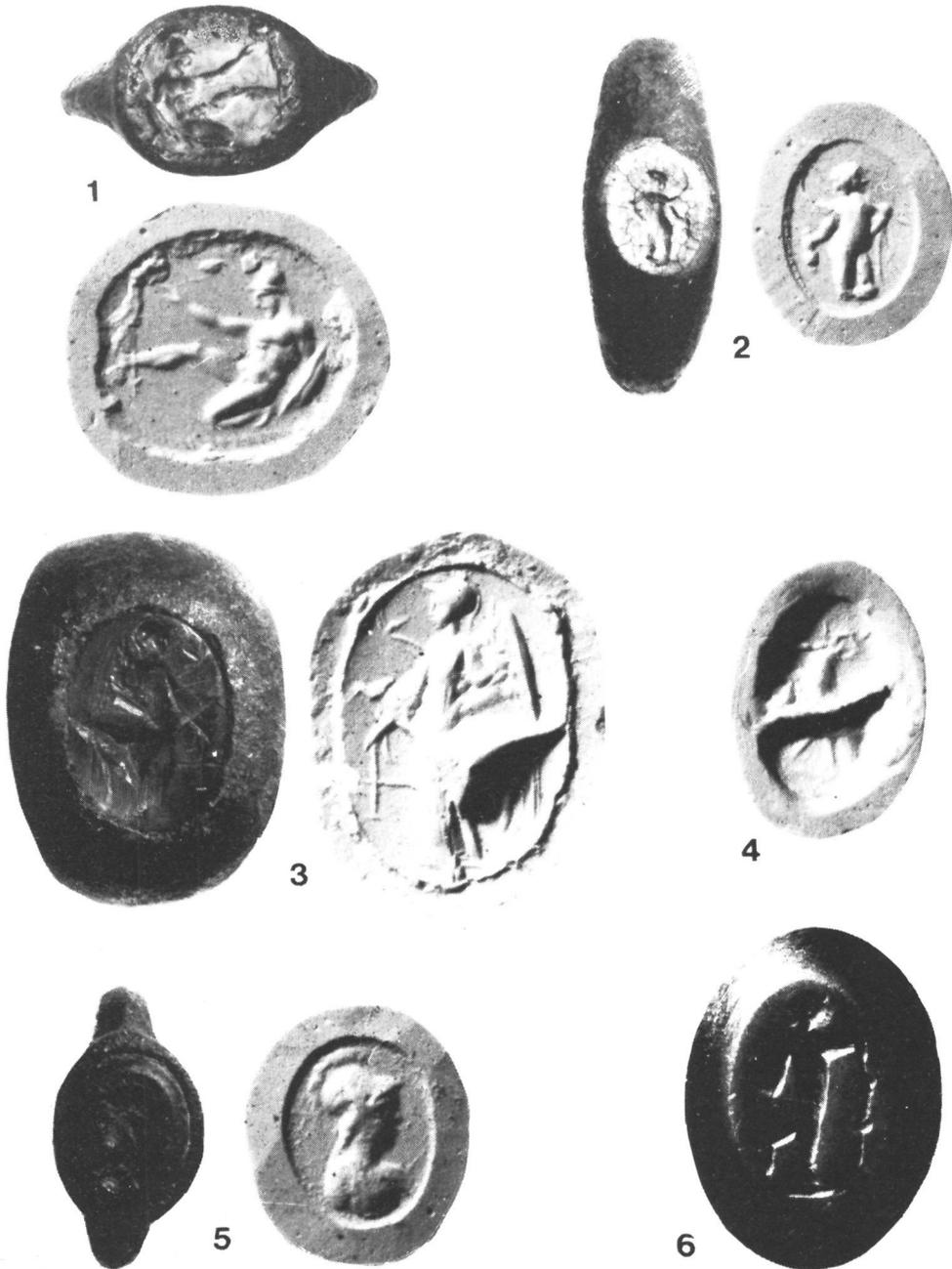
#### NOTES

1. I am very grateful to Mrs. Monica Robinson for first drawing my attention to the B.M. items, and to Miss Catherine Johns and Mr. Kenneth Painter both for their help and for supplying me with photographs of the rings themselves. Mr. Jack Ogden told me about the ring in America and Mr. Dexter Bedwell supplied me with information on the new Thames find. Mr. David Brown kindly

arranged for the casts of Nos. 1-5 to be photographed at the Ashmolean Museum, and the illustration of No. 6 was supplied through the kindness of Hugh Chapman by courtesy of the Museum of London.

2. Here, and elsewhere, I take my descriptions from impressions rather than from the actual gems for these were what the recipients of letters actually saw.

3. London Museum Catalogue *London in Roman Times* (1930) 100 and Fig. 30 No. 16; J. W. Brailsford *Hod Hill* 1. (1962) 20 and Plate 14a No. M6 *cf.* M. Henig 'The Veneration of Heroes in the Roman Army' *Britannia* 1 (1970) 249-265 for the significance of heroic themes to the Roman soldier.
4. G. M. A. Richter *Engraved Gems of the Greeks and the Etruscans* (1968) 202 Nos. 820 and 821. E. Zwierlein-Diehl *Die Antiken Gemmen des Kunsthistorischen Museums in Wien* (1973) 64 No. 106.
6. Henig *op. cit.* in note 3, 252-256. Also *cf.* A. Wardman, discussing Homeric epics in *Rome's Debt to Greece* (1976) 65 'For many Romans ... the *Iliad* was a poem which bestowed lasting fame on the hero Achilles. If serious epic meant a poem about deeds of war, the *Iliad* was the more obvious choice'.
7. M. Henig *A Corpus of Roman Engraved Gemstones from British Sites* British Archaeol. Rep. 8 pt.ii (1974) 64 No. 447 (Waddon Hill); No. 444 (Verulamium). Plate 14.
8. Henig *op. cit.* in note 7, 26 No. 143.
9. Henig *ibid.* 55 No. 381 Pl. 37 (*cf.* Pt. i Fig. 1 Type III).
10. Henig *ibid.* 28-30 Nos. 161-177 Pls. 5 and 6. A. Furtwängler *Beschreibung der Geschnittenen Steine im Antiquarium. Königliche Museen zu Berlin* (1896) 279 No. 7544 Pl. 56 for a cupid.
11. F. Henkel *Die Römischen Fingerringe der Rheinlande* (1913) 57 No. 416 Pl. 21. C. Beckmann 'Metallfingerringe der römischen Kaiserzeit im freien Germanien' *Saalburg Jahrbuch* 26 (1969) 38 and Pl. 1 Form 21a, Ring No. 487.
12. Henig *op. cit.* in note 7, 22 and Pl. 28 No. 116 (Mucking); 84 No. 622 (Alchester) (Pt. i Fig. 1 Type V).
13. M. Henig in A. MacGregor *Finds from a Roman Sewer System and an Adjacent Building in Church Street, York* (1976) 8 and Pl. i No. 11.
14. J. C. Toynbee *Art in Roman Britain* (1962) 157 No. 80 Pl. 77.
15. Dimensions taken from a wax impression.
16. Information from Mr. Jack Ogden. The ring corresponds with Henkel *op. cit.* in note 11, 56 No. 410 Pl. 21 (Kastell Zugmantel).
17. Henig *op. cit.* in note 7, 91 Nos. 689, 690 Pl. 21 and 43. The wreath, of course, is an emblem of Victory in each case.
18. M. Henig "'Eagle and Standards'" Intaglio from St. Thomas Street, Southwark' *London Archaeologist* 2 No. 10 (Spring 1975) 243.
19. Henkel *op. cit.* in note 11, 114 No. 1254; 115 Nos. 1255 and 1261. Pl. 48. (The ring-type may be compared with Henig *op. cit.* in note 7, Pt. i, Fig. 2 Type Xb).
20. Henig *ibid.* Pt. ii 35 No. 227 Pl. 31. The Verulamium ring is published in *Hertfordshire Archaeology* 4 (1974-6) 176 and Pl. 49.
21. Henig *op. cit.* in note 7, 28-30 Nos. 161-177 Pls. 5-6, *cf.* also Ring No. 2 above.
22. M. Maaskant-Kleibrink *Classification of Ancient Engraved Gems* (1975) 196 on the 'plain grooves style' of the second century characterised by 'thick rounded disk grooves' with little detailing. The gem in our ring No. 2 would also appear to have been cut in this style.
23. Satyrs as denizens of the wildwood and companions of Bacchus, must have been close to the affections of the Roman Londoner. Opportunity is taken of this note to correct an attribution of a gem from Moorgate Street which I had previously published and later cited in this journal as showing Diana with her bow and quiver (Henig *op. cit.* in note 7, 38 No. 252 Pls. 8, 33; also *Trans. London Middlesex Archaeol. Soc.* 26 (1975) 284). It is almost certainly a bust of a satyr wearing a fawn-skin (*nebris*) and with his lagobolon or game stick. The reference to hunting thus remains. (*cf.* Henig *ibid.*, 27 No. 150 Pl. 5 for an intaglio from Colchester showing a satyr head with lagobolon).



Signet rings from Roman London: No. 1. The death of Achilles, iron ring (2:1) (*Copyright British Museum*), impression (3:1) (*Ashmolean Museum*); No. 2. Satyr, iron ring (2:1) (*Copyright British Museum*), impression (3:1) (*Ashmolean Museum*); No. 3. Syncretistic Fortuna, silver ring (2:1) (*Copyright British Museum*), impression (3:1) (*Ashmolean Museum*); No. 4. Eagle, impression (3:1) (*Ashmolean Museum*); No. 5. Minerva, bronze ring (2:1) (*Copyright British Museum*), impression (3:1) (*Ashmolean Museum*); No. 6. Satyr, nicolo intaglio (approx. 4:1) (*Museum of London*).

# THE MEDIEVAL CHURCH DEDICATIONS OF THE CITY OF LONDON

J. E. OXLEY, M.A., Ph. D.

An investigation of the medieval church dedications of the City show a different pattern of popularity from that of England as a whole, and there are also some rare dedications. The writer attempts the dating of some dedications, and suggests that on the whole, historical reasons lie behind the choice of many of these. The paper omits the churches of Bridge Ward without, since that originally lay in the Diocese of Winchester and the County of Surrey.

The following table shows medieval church dedications of the City (including those of demolished churches) in descending order of popularity, with the number of churches bearing each dedication, and, in brackets, the position of each dedication in the national list of popularity<sup>1</sup>:

1. (1)	St. Mary 13	((23)	St. Botolph	)	
2. (2)	All Hallows (Saints) 8	((10)	St. Margaret	)	
3. (4)	St. Michael 7	6. ((49)	St. Benedict	)	4 each
4. (14)	St. Martin 6	((5)	St. Andrew	)	
5. (3)	St. Peter 5	((7)	St. Nicholas	)	
	((24) St. Catherine	)			
11.	((15) St. Bartholomew	)		3 each	
	((49) St. Olave (Olaf)	)			

14. Two dedications: St. Anne (32), St. Augustine (37), St. Dunstan (42), St. John Baptist (6), St. Laurence (11), St. Leonard (13), St. Margaret (10), St. Mary Magdalene (12), St. Mildred (66), St. Stephen (28).

24. One dedication each: St. Alban (52), St. Alphege (72), St. Antholin (Anthony) (80), St. Audoen (80), St. Bride (Bridget) (40), St. Christopher (60), St. Clement (31), St. Dionis (Denis) (30), St. Edmund (26), St. Ethelburga (141), St. Faith (39), St. Gabriel (111), St. George (18), St. Giles (16), St. Gregory (36), St. Helen (17), St. James the Great (8), St. John Evangelist (19), St. Magnus (93), St. Matthew (38), St. Pancras (66), St. Sepulchre (80), St. Swithun (27), St. Thomas the Apostle (34), St. Vedast (111), The Holy Trinity (9). Displaced dedications: St. Osyth (10), St. Werburga (52).

We may begin with a consideration of known pre-Conquest dedications, treatment of which has been somewhat unsatisfactory.<sup>2</sup> The earliest documented Anglo-Saxon church in London is in King Edgar's regrant of London to Westminster Abbey, about 959, delineating the northern boundary of the estate as running from Tyburn, along the army-road (*here-path* i.e. Oxford Street, New Oxford Street, Holborn) to the old wooden church of St. Andrew, which must be St. Andrew's, Holborn.<sup>3</sup> Richard of Cirencester tells us that in 1010, the body of St. Edmund, King and Martyr, was brought to London from East Anglia because of Danish incursions and rested in St. Gregory's Church, a

small church adjoining the Lollard's Tower of St. Paul's Cathedral, never rebuilt after its destruction in the Great Fire.<sup>4</sup> In a grant which may be dated between 1052 and 1070, Brihtmaer of Gracechurch granted land in Gracechurch with All Hallows Church there, to Canterbury Cathedral. This is, of course, All Hallows, Lombard Street, demolished in 1937; the name Gracechurch indicates the existence of another church also, doubtless St. Benet Gracechurch Street.<sup>5</sup> A writ of Edward the Confessor, to be dated between 1063 and 1066 declares that the monks of Westminster were to hold the estate of Staines, Middlesex with the land in London called Staeningahaga 'in all things rightly belonging thereto in churches, mills,' etc., a reference to St. Mary Staining Church.<sup>6</sup> The will of an 11th century Bishop of East Anglia, Aelfric, contains an ambiguous phrase, thus rendered by Professor D. Whitelock — 'I grant the messuage in Norwich to St. Edmund for my soul and the souls of those who granted it to me, and I grant the messuage in London to St. Peter.' 'St. Edmund' undoubtedly means the Abbey of Bury St. Edmunds, and, in this context 'St. Peter' would appear to mean St. Peter's Abbey, i.e. Westminster. There is a slender chance that it means a church dedicated to St. Peter, probably St. Peter on Cornhill.<sup>7</sup>

In 1067, William the Conqueror confirmed to Ingelric the priest and his brother Eirard, the possession of the church of St. Martin (-le-Grand), which they had founded for the benefit of the soul of Edward the Confessor. Mr. W. H. Stevenson, discussing this document, known only from official copies made in medieval times (inspeximus in Charter and Patent Rolls) points out that Ingelric and Eirard are Frankish names and that no Englishman would dedicate a church to St. Martin.<sup>8</sup>

A spurious document, probably concocted in Henry I's reign, claims to be William the Conqueror's confirmation of the possessions of Westminster Abbey. The City churches claimed are St. Mary Newchurch, given by Aelfward the Fat (*Grossus*), St. Clements, which Hamo the Steward (*dapifer*) had usurped, the King having forced him to restore it, St. Lawrence, with its cemetery and lord's court; a wooden chapel, and a moiety of St. Magnus Church at the Bridge (i.e. London Bridge). In fact, Eudo, not Hamo was the King's Steward, St. Magnus did not die until 1107, some fifty years after the date of the supposed charter, which was doubtless the Abbey's attempt to lay doubtful claims to property in the hope of securing it. Neither City church dedicated to St. Lawrence ever belonged to the Abbey, nor did St. Mary Newchurch. Stow claimed, possibly rightly, that St. Mary Aldermary was so-called because it was the oldest City church dedicated to the Virgin. He identified St. Mary Newchurch with Bow Church, but it was, in fact, St. Mary Woolchurch. This is clear from the cartulary of St. John's Abbey, Colchester, founded by Eudo the Steward in 1096. Among other endowments, he gave to the Abbey, with the assent of the priest, Ailward (*sic*) the Fat 'the Church of St. Mary West Cheaping, which is called Newechirche, his father having bestowed it (i.e. the living) on Ailward.' Hence St. Mary Woolchurch may have been founded in Saxon times, but more probably, just after the Conquest. The charter also grants St. Stephen, Walbrook, to the Abbey. We may assume with fair certainty that St. Clements, Eastcheap is intended, though we cannot be sure which of the St. Laurence's (Pountney, Jewry) is meant. Nevertheless, we have here evidence of Saxon or very early Norman date for four churches.<sup>9</sup>

According to Thomas Walsingham, a St. Alban's Abbey chronicler, the church of St. Alban, Wood Street, was a chapel of Offa, King of Mercia; originally it had belonged to

St. Alban's Abbey, but in some way passed into the possession of Westminster Abbey. Our faith in the story is shaken by the fact that the church actually belonged to the Hospital of St. James, Westminster, as Thomas could easily have ascertained. Nevertheless, as Offa was founder of St. Alban's Abbey, Thomas may preserve a truthful tradition regarding the dedication of the church, which could then be dated between 757-795.<sup>10</sup> How far we can trust Geoffrey of Monmouth's *Historia Regum Britanniae* is problematical; he tells us that the Britons placed a statue of Cadwallo over the west gate of London, i.e. Ludgate, and built underneath it a church dedicated to St. Martin. Again, though we may find the story unacceptable we might see it as evidence of the early foundation of St. Martin's, Ludgate.<sup>11</sup>

Archaeology confirms the Saxon origin of All Hallows (Barking) by the Tower, and a fragment of a grave slab bearing Anglo-Saxon carving from St. Benet Fink, now in the Museum of London, suggests the pre-Conquest origin of that church. The British Museum has a circular cross head from the churchyard of St. John-upon-Walbrook, of early Cornish, not Saxon design, but which may still indicate a pre-Conquest date for the foundation of this church, consonant with its former dedication to St. Werburga (see below). On the whole, however, later rebuilders made a clear sweep of Anglo-Saxon church sites, for the demolition of All Hallows, Lombard Street, only produced a Saxon coin, while excavations at St. Mildred, Bread Street, pretty certainly an Anglo-Saxon foundation, produced nothing whatever from the period.<sup>12</sup>

Having noted dedications of proven early date, we may now consider why and when particular dedications were adopted. As Queen of Heaven, standing in a particularly powerful intercessory relationship to the Son, the Virgin Mary had obvious claims to be the most popular patron. Incidentally, St. Mary Axe Church, demolished in 1561, was dedicated to St. Mary, St. Ursula and the 11,000 Virgins. In spite of the immense suffrages such a dedication could offer, and the popularity of the story in medieval art, this was the only church so dedicated in England. Possibly its destruction was a Protestant counterblast to what was conceived as Romish superstition. The powerful intercession of All Saints accounts for the popularity of this dedication, though London is notable for retaining the Anglo-Saxon term All Hallows, but this is not conclusive evidence of the pre-Conquest date for these churches.

St. Michael, leader of the Heavenly Hosts and adversary of the Devil understandably stands third in popularity, but it is remarkable that St. Peter, holder of the Keys of Heaven is demoted to the fifth place of popularity in London; note the appropriateness of the dedication to St. Peter-ad-Vincula (-in-chains) of the Tower of London Church.

The large number of Churches to the City square mile is notable. This is probably due to the fact that landowners built churches on their London land, frequently dedicating them to the patron saint of the parish wherein the estate lay, and as we have already seen, a London church (Staining) might have connection with an estate outside. W. J. Loftie believed that originally the City consisted of two great parishes, divided by the Walbrook, each under St. Mary's patronage, later subdivided into the parishes of Woolchurch, Woolnoth and Bothaw on one side and Aldermary, Bow, Colechurch and Abchurch on the other, all dedicated to St. Mary.<sup>13</sup> Even if so sweeping a theory is not acceptable, a subdivision of parishes seems to have taken place. Otherwise it is, for example, hard to explain why All Hallows the Great and All Hallows the Less were

within a few yards of one another in Thames Street, and study of the map produces similar instances.

Other dedications are explicable on historical grounds. St. Gregory sent St. Augustine from the monastery of St. Andrew in Rome, which was said to be built on what had been the family property of St. Pancras, a boy martyr of Diocletian's reign. Hence, one of the first churches built by Augustine at Canterbury was dedicated to St. Pancras, and his first church at Rochester was dedicated to St. Andrew. The New Testament has little to say about St. Andrew, but the gap in knowledge was filled by a work of fiction, written first in Greek, translated into Latin and ending as a first-rate adventure poem in Anglo-Saxon, at once accounting for and enhancing the Saint's popularity. The four City churches dedicated to him can never have formed one parish. The proximity of St. Andrew-in-the-Wardrobe to St. Paul's suggests that that was the earliest founded. St. Andrew's Holborn, as we have seen, marked the western boundary of London, and possibly St. Andrew Hubbard and St. Andrew Undershaft mark stages in the eastward growth of the City. St. Gregory's church, as we have mentioned, stood close to St. Paul's, and the remains of St. Augustine's are a stone's throw away. It is difficult to comment on St. Augustine Papey which stood on London Wall, and had a chequered history. St. Clement was, reputedly, the third Bishop of Rome, and St. Clement's Church in Eastcheap probably belongs to this early period. St. Faith was a virgin martyr of Aquitaine in Diocletian's reign. Miss Arnold-Foster believes that the dedication was introduced into England by the Normans, but St. Faith's Church in London was demolished when St. Paul's was extended eastwards in 1256-1312, and such proximity to the Cathedral suggests a somewhat earlier date. St. Laurence was martyred in 258 and Constantine later built a church over his relics. Dedications to him may have been introduced at the time of the Conversion, though there is a possibility that Laurence, Augustine's successor was intended or there may be a conflation of the two.

St. Helen, as discoverer of the True Cross was greatly venerated in Anglo-Saxon times, being especially popular in the northern counties, since she was reputed to have given birth to the Emperor Constantine at York. An Anglo-Saxon M.S. at Vercelli in Italy contains one poem about her and another of devotion to the Cross, part of the latter being inscribed on the Saxon Cross at Ruthwell in Scotland. It is therefore difficult to tell whether St. Helen's Bishopsgate, owes its dedication to some northerner who settled in London or to a more widespread devotion.

English saints of the early period are curiously neglected in the City. W. Levison tells us 'apart from St. Martin, saints of Gaul were not yet represented nor were there churches in honour of English saints' at the end of the eighth century in England.<sup>14</sup> Nevertheless, it is strange that there is no dedication to St. Erkenwald (d. 693) founder of Barking and Chertsey Abbeys, at one time virtually the City's patron saint. His sister, St. Ethelburga (d. 670) has one dedication. St. Osyth (d. 680) founded a nunnery at Chich (now St. Osyth's) in Essex, and had one church dedicated to her, but before mid-12th century it had been re-dedicated to St. Benedict (see below). This neglect of Essex may be due to the fact that London, originally part of the Kingdom of Essex, became Mercian under King Offa in the last half of the eighth century. But the change may have been due to the Norman Conquest as seems to have been the case with St. Werburga, (d. 669) daughter of Wulfhere King of Mercia, an Abbess of Ely and founder of several nunneries.

In the early 12th century, London had a church dedicated to her, but by 1300, it had been re-dedicated to St. John the Evangelist, thus blotting out the memory of an early saint connecting London with the Midlands, though, one suspects she was by that time already on the way to oblivion.<sup>15</sup> By contrast, St. Mildred (d. 725) had two dedications. She is reputed to have been Abbess of a nunnery at Minster-in-Thanel, suggesting a Kentish connection for these dedications.

There were four dedications to St. Botolph, who is practically unknown to history and little known in legend though he is supposed to have lived in the seventh century. The majority of churches dedicated to him are in Norfolk, closely followed in numbers by Lincolnshire and Northamptonshire. But dedications to him are found all down eastern England, from North Yorkshire to Kent, and strangely enough three occur in Warwickshire. The wide distribution of sixty dedications to the saint can hardly be explained as marking places where he preached, and the isolated positions of such dedications make it impossible to claim that they mark pilgrim routes to his town of Boston. London churches dedicated to him were at City gates — Aldersgate, Aldgate, Bishopsgate and Billingsgate. A possible explanation is that they were appropriate to places where travellers from the Eastern Counties entered the City, but the writer feels that the distribution of dedications to St. Bololph requires much further investigation. It is also remarkable that London has only one dedication to the historical East Anglian Saint Edmund King and Martyr, killed by the Danes in 870, though there is some evidence that St. Sepulchre's was originally re-dedicated to him.<sup>16</sup>

Other dedications to Saxon saints of late date are to St. Swithin (d. 862), St. Dunstan (d. 988) and St. Alphege, killed by Danes in 1012. It is hardly possible that these dedications were post-Conquest; hence the dedication to St. Alphege must have been within sixty years of his death, and those to St. Dunstan within eighty years. We have, unfortunately, no evidence that this quick canonisation and dedication had always been the custom. If it were, then the churches dedicated to St. Ethelburga, St. Werburga, St. Osyth and St. Botolph must have been founded by about the eighth century.

As we have seen, St. Benet Fink and St. Benet Gracechurch are pre-Conquest foundations; there is no evidence regarding St. Benet's Paul's Wharf. None of these churches ever had a connection with any Benedictine monastery, so the dedication is evidently due to admiration for the founder of western monasticism, possibly due to St. Dunstan's influence but perhaps going back to St. Erkenwäld's time. St. Benet Sherehog, as we have seen, was originally dedicated to St. Osyth. Stow was mistaken in assuming that the re-dedication took place when Benedict Shorne restored the church in the 14th century. The evidence points to a much earlier date, the church being so-called before 1248, and 'Alfwinus Sacerdos Sherehog' appears on an early 12th century document.<sup>17</sup>

We have already shown how many pre-Conquest dedications seem to be linked with the provinces. Other dedications suggest foundations made by foreigners settled in England. Modern scholarship does not accept the idea that any church dedicated to St. Martin must have been built shortly after the saint's death in 400.<sup>18</sup> But as noted above, it is due to Frankish, as distinct from Roman influence. We may or may not accept Geoffrey of Monmouth's story about St. Martin's, Ludgate, but, as we have seen, St. Martin's-le-Grand was undoubtedly a Frankish foundation. St. Martin Orgar took its name from Orgar the Deacon, who granted it to St. Paul's in Richard I's reign (1190-99).<sup>19</sup> He was

pretty certainly of French origin (Orgar le Prud, i.e. the Proud, occurs earlier in the century). Stow describes the church as 'a small thing' which is in keeping with an early date. St. Martin-in-the-Vintry was in existence in the second half of the 11th century when Ralph Peverel granted it to Gloucester Abbey (now Cathedral). Its name indicates a close connection with the French since the Ward took its name from the wine-trade. In the 14th century the church was the burial place of the Gisors family, obviously of French origin, and it was rebuilt by the executors of Matthew Columbars, a Bordeaux wine-merchant. Stow says that St. Martin Pomeroy takes its name from apples 'growing where houses are lately built, for myself have seen large void places there.' The derivation from French *pommes* seems to be mere guesswork. The Latin form of the name, *in pomerio* suggests a possible link with Latin *pomarium*, 'orchard' but more likely it is from *pomerium* meaning the empty space between the wall and built up area of a town.<sup>20</sup> It is strange that Stow did not know the English derivative 'pomery' which as the N.E.D. shows, was used in 16th century England, and this meaning explains the 'void places' Stow had seen better than 'apple trees.' The church itself was in Ironmonger Lane, not far from the wall; if the derivation suggested is correct, the church must be of fairly late date since one can hardly imagine the *pomerium* being built on immediately after the Conquest. St. Martin Outwich possesses no clues as to its origin; Stow mentions a settlement of Frenchmen, called Petty France adjoining Houndsditch, but this can hardly be connected with the church.

St. Audoen's church was demolished in Henry VIII's reign, with that of St. Nicholas Shambles, being granted by the King to the City on condition that the church of the dissolved Greyfriars became that of the united parishes, denominated, obviously with Protestant intention, Christ Church.<sup>21</sup> St. Audoen (d. 683) was Chancellor and Keeper of the Great Seal to the Frankish King Dagobert, eventually becoming Bishop of Rouen and later patronal saint of the Cathedral. The dedication is rare, and, coming as it does from Normandy, we are probably right in thinking the church was built by a follower of the Conqueror. The same applies to St. Vedast, Foster Lane. This saint was born in southern France but his preaching brought a religious revival in northern France when he became Bishop of Arras where he died in 540, where the cathedral and a great monastery were dedicated to him. Only one other church in England, at Tathwell in Lincolnshire, is dedicated to him, and there is no known connection between the two. St. Dionis may be a dedication of French origin, though a large number of saints have this name (a form of Dionysius) — Dionysius the Aeropagite, converted by St. Paul, renowned wrongly, in the Middle Ages as the author of some mystical treatises, a second century Bishop of Corinth, and a third century Bishop of Arras are some of the claimants. The latter became St. Denis, patron saint of France, and he may be the saint intended in the dedication of St. Dionis Backchurch. No suggestion can be offered about the probable date of dedication. Possibly the form Dionis was kept instead of the more usual Denis to avoid accusations of sympathy with the French enemy.

Three dedications are of Scandinavian origin — St. Olave (Olaf) St. Magnus and St. Bride. St. Olaf, King of Norway forcibly converted his subjects to Christianity, dying in 1030, so that dedications to him can hardly be earlier than the second half of the 11th century, and are most probably by Scandinavian settlers. St. Olave, Silver Street, was near the Pool, St. Olave, Old Jewry, at the commercial centre of the City, both places fitted

for a nation of merchants and seafarers. St. Olave, Hart Street, tucked away at the north-west corner of the City was perhaps built in what had been the *pomerium* when little building space was left. St. Magnus died in 1107, so that, unless a re-dedication, the church must have been built in the 12th century, its position close to London Bridge being particularly appropriate. St. Bride (Bridget) was a disciple of St. Patrick, who died in 525. Most churches dedicated to her are in the north-west, and a few in the south-west. Bridekirk, for instance means 'Bridget's church.' A number of Norsemen settled near Dublin; as time passed, Irish words and turns of phrase slipped into their speech, and the Irish St. Bridget became their patron. Eventually a number of these Irish-Norse settled in north-western England, as place-names, dialect and church dedications show. Probably St. Bride's in London owes its dedication to men of this type, rather than to pure Irish settlers.<sup>22</sup>

St. Sepulchre's, really the church of the Holy Sepulchre, seems to have been originally dedicated to St. Edmund, and the change is probably due to the enthusiasm for recovering the Holy Sepulchre from the infidel which led to the Crusades. St. Leonard, a French hermit saint of the sixth century, about whom little is really known, had a reputation for ransoming prisoners and captives which may have led to his popularity in the Middle Ages, especially during the Crusades when ransoming captives was of considerable importance, as shown by London's two dedications to him. One of the four English churches in England dedicated to St. Antony (St. Antholin) was in London. He was a 4th century Egyptian hermit, said to have become popular with merchants trading to the Middle East. This might explain the London dedication, but certainly does not explain the others (Byker, Cartmel Fell) which cannot have had such a connection.

Having explored the historical reasons for church dedications, we may glance at others. A striking feature is the lack of Biblical references — one dedication only to the Holy Trinity, Christ Church a post-Reformation re-dedication. Andrew's popularity drawn from his apocryphal adventures we have already noted. St. Bartholomew, no more than a name in the New Testament, rates next, probably because his legend described adventures in Arabia and India ending in his being flayed alive; making him more interesting. St. John Baptist was more popular than the Evangelist, doubtless because his story illustrated the wickedness of women, a favourite theme of medieval moralists. Mary Magdalene's popularity was probably more due to her adventures in France than to her being a repentant sinner, especially after the 13th century 'discovery' of her bones by a Count of Provence. St. Stephen's stoning also supplied a dramatic theme for preachers. It is, however, remarkable that though St. James's shrine at Compostella was one of the great 'draws' for medieval pilgrims, only one City church was dedicated to him. God's messenger St. Gabriel, had only two dedications in England of which one was in London. That however was late; until 1517 the church had been dedicated to St. Mary, and the reason for the change is unknown.<sup>23</sup> St. Anne, legendary mother of the Virgin Mary had two dedications in London, one shared with St. Agnes, a virgin martyr of the 4th century. The growing popularity of belief in the Immaculate Conception may have led to devotion to St. Anne, and her connection with Agnes, noted for her chastity.

St. Giles is a shadowy figure historically, but legend connects him with hunting and the outdoor life. Hence churches dedicated to him are usually found close to city gates, usually on the outside, as with St. Giles, Cripplegate. St. Christopher, patron saint of

travellers, had but one church dedicated to him, not near a gate but in Threadneedle Street. History is somewhat vague about St. George though his legend is well-known. He did not displace Edward the Confessor as England's patron saint until Edward III's reign (1327-77) when the Order of the Garter was founded and work began on St. George's Chapel. It would be tempting to connect the City's St. George Church with these events, but it was already in existence.<sup>24</sup> St. Nicholas, a 4th century Bishop of Myra, has been popularised by legend; of 387 English churches dedicated to him, London had four but whether as patron saint of mariners, children, travellers or thieves or in some other of his numerous capacities is not clear.<sup>25</sup> St. Katherine is said to have been martyred in the fourth century, though her body was not discovered on Mount Sinai until the ninth. Good, beautiful and chaste, she defended her faith before the Emperor Maxentius, who, after putting her to torture on a spiked wheel, had her scourged and beheaded. Her story may have been brought back to the West by Crusaders, and the manner of her martyrdom was a tear-jerking theme for an eloquent preacher. More striking still was the story of St. Margaret. Neither blandishments nor torture could persuade her to yield her virginity. When devoured by a dragon, she made the sign of the Cross, which burst the creature asunder, she emerging unscathed. Eventually she was put to death, having first prayed to the Almighty that anybody who wrote, read, or related her life should have his name written in the book of eternal life, and anybody who built a church in her name should not be punished for his evil deeds. These were privileges no other saint had secured, and it is perhaps surprising that only two churches were dedicated to her.

1. The writer has compiled his own list of the medieval popularity of dedications from the data given in: Miss F. Arnold-Foster's *Studies in Church Dedications* 3 (London 1899) 1-26, Appendix 1; the popularity list in F. Bond's *Dedications and Patron Saints of English Parish Churches* (Oxford 1914) 17-25, is based on all dedications, both ancient and modern, and so completely misleading regarding medieval popularity.
2. W. Lethaby, *London Before the Conquest* (London 1902) is particularly inaccurate e.g. Geoffrey of Monmouth's reference to St. Martin's Ludgate is referred to 'St. Michael's Ludgate', instead of 'a moiety of St. Magnus' he has 'St Magnus moiety' and other errors.
3. W. de G. Birch, *Cartularium Saxonicum* (London, 1883-92) No. 1048. The word here translated 'wooden' is *stoccen*, only known from this charter, derived from *stoc* 'a stump, a log.' Hence, at this date, the church must have been built of split logs like the Anglo-Saxon church at Greensted-juxta-Ongar.
4. Richard of Cirencester, *Chronicle* (R.S.30 London 1863-9) 359. After the Fire, St. Gregory's parish was united with that of St. Mary Magdalen, Fish Street, R. Newcourt, *Repertorium Ecclesiasticum Parochiale Londinense* 1 (London, 1708) 236.
5. A. J. Robertson, *Anglo-Saxon Charters* (Cambridge, 1956) No. 116, 216-17, 469.
6. F. E. Harmer, *Anglo-Saxon Writs*. (Manchester, 1954) 98, 362-3. Miss Harmer advances reasons against All Hallows Staining being the church concerned. The document shows that Stow's derivations (from Painter-Stainers in the neighbourhood or a stone church) are bad guesses. (J. Stow, *A Survey of London*, ed. C. F. Kingsford, Oxford 1908) 203-04, 304.
7. D. Whitelock, *Anglo-Saxon Wills* (Cambridge, 1930), 72-3, 181-4.
8. W. H. Stevenson, 'An Anglo-Saxon Charter of William the Conqueror, London, A.D. 1068' *English Historical Review*. 11 (London, 1896) 731-44. J. H. Round's comments and Stevenson's reply *ibid.*, 12 (1899) 105-10.
9. Calendar of Charter Rolls, 1327-1341 (London, 1912) 333-4. *Cartularium Monasterii Sancti Johannis Baptiste Colcestriae* ed S. A. Moore 1 (Roxburgh Club, London, 1897) 3.
10. T. Walsingham, *Gesta Abbatium Monasterii Sancti Albani* (R.S.28, pt 4 London, 1867-9) 55, Newcourt, *op. cit.* 1, 236-7.
11. Geoffrey of Monmouth, *Historia Regum Britanniae*, ed A. Griscorn. (London, 1929) 529 (trans: L. Thorpe (Penguin Classics, London 1966) 280 S. Evans (Everyman Library, London 1963) 259.
12. V.C.H. London, 1 (London, 1909) 169-70. St. Benet Fink grave slab, fig. 34; St. John cross-head, fig. 19. For St. Werburga's see below; for All Hallows, J. W. Bloe 'Visits made to the site of All Hallows, Lombard Street', London and Middlesex Archaeol. Soc. N.S.9 (1945) 181-9; for St. Mildred's, P. Marsden *et al.*, 'Excavations on the site of St. Mildred's, Bread Street' *ibid.*, 26 (1975) 171-208.
13. W. J. Loftie, *A History of London*, 2 (London, 1883) 368-9.

14. W. Levison, *England and the Continent in the Eighth Century* (Oxford 1946) 36. But the present writer is not wholly convinced by the argument *ab silentio*. The poems 'Andreas (St. Andrew) 'Elene' (St. Helena) and 'The Dream of the Rood' are printed in G. D. Krapp, *The Vercelli Book* (London and New York 1932).
15. B. W. Kissam 'An Early List of London Properties' London and Middlesex Archaeol. Soc. N.S.8 (1938) 57-68. The parish was known as St. Werburga's until the beginning of the 14th century, for the Historical Manuscripts Report 9 (London, 1883) notes four deeds of Edward II's reign relating to tenements in St. Werburga's Parish (St. Paul's Archives).
16. C. E. Bradford 'St. Sepulchre's, Holborn. Fresh Facts from Wills.' London and Middlesex Archaeol. Soc. N.S.8 (London 1940) 169-94.
17. J. Stow, *op. cit.*, 260. Alfwinus, witnesses a quitclaim in St. Paul's Archives, Historical MSS. Comm. Report 61b, the church is mentioned in the Calendar of Ancient Deeds (London 1890) A.1621 (Henry III. 1217-72), A.1657 (Henry III) A.1660 (Henry III), A.1674 (1283-5).
18. O. Chadwick, 'The Evidence of Church Dedications in the Early History of the Welsh Church' *Studies in Early British History* (ed. N. K. Chadwick, Cambridge 1954) 173-88. 'The cult of St. Martin was a part of Frankish influence, which we constantly find side by side with the Roman influence.' (*op. cit.*, 182).
19. Orgar's grant, Historical MSS. Comm. Report 9, 61b; for Orgar le Prud, Stow, *op. cit.*, 122-23, R. R. Sharpe, *Calendar of Letter Books of the City of London. Letter Book C.* (London, 1901) 219-20.
20. See 'Pomery' in N.E.D., *pomarium*, *pomerium*, in any good Latin Dictionary.
21. J. Stow, *op. cit.*, 1, 318-19. Henry's grant, *Letters and Papers Foreign and Domestic of the Reign of Henry VIII*, 21 (London, 1910) No. 771 (14) p 416.
22. For these Irish-Norse immigrants. A. A. Armstrong *et. al. The Place-Names of Cumberland*, pt. 3 (English Place-Name Society, vol. 22, Cambridge 1952) XXIIXXX, E. Ekwall, *Scandinavians and Celts in the North-West of England* (Lund. 1918).
23. Newcourt, *op. cit.*, 1, 350.
24. Newcourt, *op. cit.*, 1, 353 records its earliest rector as Robert de Halwell, 1321, but Silvester, Rector of St. George's occurs in a quitclaim of 1320, R. R. Sharpe, *Calendar of Letter Books, Letter Book E.* (London 1903) 125.
25. David Hoppit in an article "Londinium uncovered" (*Daily Telegraph*, 12th August, 1978) writes: "Higher up in the debris is the Saxon church of St. Nicholas in the Shambles". The present writer has not been able to investigate further this statement, which suggests that St. Nicholas is a pre-Conquest dedication.

# THE EDWARDIAN INVENTORIES OF MIDDLESEX

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Continued from Volume 27 (1976) p.305

The certificate and presentment of the Jury of all the goodes, playte, ornamentes, Juelles and Belles belonging and apperteynyng to the church of Hadley wthin the countie of Midd'x aswell conteyned wthin the Inventory taken by the Kinges Mates Commyssyoners as also other goodes belonging to the same church at this present third daye of August in the sixth yeare of the reigne of our Soverayne Lord King Edward the vj<sup>th</sup> by the grace of God king of England, ffraunce and Ireland, Defendor of the faith and in earth of the church of England and also of Ireland the Supreme heade.

## HADLEY

Imprimis a gilt crosse weying	xxx ounces qr
Item one gilt challys weying	xiiij ounces
Item iiij belles whereof the greate bell in footewydnes in the mouthe from the outsyde of the skeartes and in depth	iiij foote iiij ynces ij foote di ynces.
Item the next bell unto the sayde greate bell broken in wydnes as is aforesayd and in depth	ij foote xj ynces. ij foote ij ynces
Item the greteste bell unto the sayd ij belles in wideness as is aforesayd and in depth	ij foote vij ynces. ij foote.
Item the least of the sayd iiij belles in wydness and in depth	ij foote iiij ynces l foote x ynces.
Item one sanctus bell in wydness and in depth	l foote iiij ynces x ynces.
Item ij lytle hande belles.	
Item one lytle saking bell <sup>1</sup>	
Item one cross of lattyn	
Item one pixe of Lattyn	
Item ij coopes the one of whyte branched damaske a little Imbroyderyd w <sup>t</sup> golde thother of Dornix <sup>2</sup> old and sore worne.	
Item one vestyment of sylke Dornix bleu and white with a crosse of blewe velvet, Imbrodered w <sup>th</sup> gold and an albe p <sup>t</sup> eynyng to the same.	
Item ij other vestyments of satten of Bridges color blewe w <sup>th</sup> a redde crosse of the same satten	

Imbrodered w<sup>th</sup> flowerd velvet and w<sup>th</sup> golde and twoo albes ij amyses and stoles and ij phannelles app'teyning to the same.

Itm one other vestyment color blacke of olde saye<sup>3</sup> crossed w<sup>th</sup> fustyan,<sup>4</sup> one cope color blewe w<sup>t</sup> an albe, an amis, stole, phannelles app'teyning to the same.

Itm one other vestyment of olde whyte fustyan crossed w<sup>th</sup> blewe and imbroderde and an aulbe, an amis, and one stole and phannell app'teyning to the same.

Itm one other vestyment of old whyte fustyan crossed w<sup>th</sup> blewe and embrodered, an albe, an amis, and one stole w<sup>th</sup> a phannell app'teyning to the same.

Itm ij other old vestimentes the one color redde of saye crossed w<sup>th</sup> grene saye thother color grene of Dorney crossed w<sup>th</sup> the same.

Itm iiij olde vestimentes worne and torne of Dornix crossed with the same.

Itm one crosse clothe of sarcenet.<sup>5</sup>

Itm one dyshe of Lattyn

Itm one Bason and one ewer of latten.

Itm ij Cruettes of tynne.

Itm one Christatorye<sup>6</sup> of lattyn.

Itm ij clothes hanging before thealter of Satten of Brydges color whyte.

Itm iiij alterclothes whereof iij is of lynen and the other of curse diaper.<sup>7</sup>

Itm ij diaper towelles.

Itm vj towelles of lynen.

Itm one olde clothe that hangeth before the high alter.

Itm v olde paynted clothes that hangeth about the high alter and other alters that were then in the saide church.

Itm iij olde stremers of sercenet.

Itm ij surpylis for the prest and one for the clerke.

Itm one hearse clothe<sup>8</sup> of black say crossed w<sup>th</sup> whyte.

#### NOTES

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| <p>1. Sacring bell — bell rung at the elevation of the host.</p> <p>2. Dorney, Dornick, Dornyx(e), dornex, darnex, etc. The name of a Flemish town (in French Tournay) applied to fabrics manufactured there. Fabric (worsted, silk, woollen or partly woollen fabric) used for vestments, etc.</p> <p>3. Say — thin woollen stuff or serge.</p> | <p>4. Fustyan — material woven in same manner as velvet.</p> <p>5. Sarsenet — a thin tissue of fine silk.</p> <p>6. Christatory — vessel for holding chrisim or consecrated oil.</p> <p>7. Diaper — linen or cotton cloth woven in slightly defined figures.</p> <p>8. Hearse cloth — pall.</p> |
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To be continued

# TRANSPORT AND SUBURBAN DEVELOPMENT IN MIDDLESEX DOWN TO 1914

BY MICHAEL ROBBINS, C.B.E., M.A., F.S.A.

Suburbs and transport — the two ideas seem to be inseparable from each other. Suburbs, by their nature, must be accessible from their city centre; accessibility is provided by transport in its different modes; so transport is a *sine qua non*, a necessary element in suburban settlement. Some historians of suburban places seem inclined to conclude that transport *makes* suburbs, just like that; and they appear to imply that if you establish the chronology of the establishment of transport facilities then you have explained the settlement and growth of the suburb. But, while the fundamental point is indisputable — no transport, no suburb — the actual process has been nothing like a simple case of cause-and-effect. Transport has been, to vary the Aristotelian phrase, a necessary cause but not a sufficient cause. The process of events leading to the settlement of each suburb has been different: each has been in its own way unique: it calls for careful and sometimes subtle inquiry to develop a reasonable theory of why any particular place ceased to have a strong independent economic life of its own and became a full-blown suburb just when it did. This article gives some illustrations of the process as it unfolded down to 1914 with reference principally to the Middlesex suburbs of London, more especially to the north-western ones, but also mentioning certain developments in Essex across the Lea and Surrey south of the Thames by way of contrast.

In this inquiry the specific detailed story of each place is all-important. Generalisations are almost valueless — at any rate until a much more soundly-based body of underlying facts has been assembled on which to found new generalisations; and this is not yet the case. But a sketch can be provided of the development of the different transport modes, with their potential and actual consequences; this will supply a general framework, but not more than that. London suburbs are here understood as those districts linked to London by continuous or nearly continuous building, a considerable proportion of whose earning inhabitants perform their daily work outside the district in which they reside (not necessarily in the centre of London). The transport dealt with here is the daily movement of persons to and from work, not the intimately related matter of the transport of freight, which is an important but separate matter.

The most important geographical and historical fact about London and its home counties is the existence of the River Thames as a navigable waterway. There is no need to elaborate this statement: it is attested by all we know of London's early recorded history, and archaeological evidence takes our knowledge a good deal farther back into very early times. The Thames was a regular traffic route; and the earliest mention of daily conveyance of passengers to and from the city, "daily-breaders" or "commuters" as we now call them, so far found relates to the Thames: in 1636 the Privy Council, having forbidden communication between London and Hampton (where the court then was) on account of the plague, observed that

“divers Londoners obtained houses near Hampton Court and Oatlands, and these inhabit, going daily to and from London, which cannot be without great peril to their Majesties”; they were ordered to give up this practice and stop their servants going up to London.<sup>1</sup> This of course concerned the well-to-do, with more than one house; we are into the 18th century before we find persons of lower rank living in suburban places and working daily in London.

The Thames continued to be an important passenger transport route throughout the 18th century and into the 19th. Chiswick, Isleworth, and Twickenham, in particular, flourished as places for week-end residence, or for pleasure visits, because of the facility afforded by water-carriage; but of true suburban traffic, daily to-and-froing, it is difficult to find evidence until the steamboats came in. The first regular steamer plying on this part of the river was the *Endeavour* of 1830; by 1842 there were four companies in the business. Richmond was the up-river terminus; the locks of that time prevented steamers going above the tideway. The up-river steamer traffic, however, was never anything like as important as that down-river between London and Greenwich, Blackwall, Woolwich, Gravesend and beyond.<sup>2</sup>

There is no evidence of any regular passenger traffic carried on the Lea, Colne, or Brent rivers, or the canals of Middlesex — the well-known packet-boat on the Grand Junction, commemorated by the inn of that name at Cowley, seems to have been a summer excursion affair. It is however recorded that the canal was considered objectionable by some inhabitants of Harrow because its proximity at Greenford would tend to open up and develop the country. (Certain influential inhabitants of Harrow have been heard protesting about every successive form of transport — railway, tramway, motor bus — for the same reason.) Anyway, when the Baptist church at Byron Hill was to be opened in 1812, a canal boat brought friends, ministers, and others from London; and the Harrow school boys pelted the visitors on their return journey with mud and stones.<sup>3</sup> But canals, though they were important for the location of certain kinds of industry, made no suburbs.

We can detect the beginnings of regular daily travel from Middlesex districts to and from London by persons other than the wealthy and their dependants quite early in the 18th century. In 1709 Edmond Skinner claimed exemption from parochial office in Enfield, where he lived, on the ground that he travelled daily to the City, where he was a haberdasher of petty wares; fifteen years later a stage-coach proprietor of South Mimms was excused from serving as high constable of Edmonton hundred because he resided chiefly at his place of business in Goswell Street and could not execute the office without prejudice to his own affairs.<sup>4</sup>

It is particularly difficult to form a well-considered judgement on the roads of 18th century Middlesex because practically every mention of them in the literature and records is a complaint. This cannot be helped; public services are most often mentioned to be criticised. Some of the expressions were highly critical: John Middleton, the agricultural surveyor, wrote in 1798 that the roads in Middlesex were not as bad as in Sussex — which was his way of saying that they were nearly as bad as bad could be; though some others thought that they were pretty fair. All the principal Middlesex roads were turnpiked in the first twenty years of the 18th century, so that by 1815 thirty-one per cent of its roads (the old county, that is) were turnpiked: a very high percentage, compared with Suffolk and Essex's ten per cent, Lincoln's eleven. Anyway, the main roads through the county were good enough to give rise, if not to compliments, at least to the remark that at Newport Pagnell and other places

within sixty or eighty miles of London shopkeepers were complaining that their opulent neighbours were supplying all their wants from London.<sup>5</sup>

The Middlesex main roads in the first thirty-five years of the 19th century were crowded with traffic of all kinds, with short-distance vehicles as well as the more glamorous (and more easily ascertainable) stage and mail coaches and waggons to and from more distant destinations. Hounslow — ‘the first posting town in the Kingdom’ — and Barnet, on the North road, and other roadside towns and villages grew prosperous on this road traffic, with all the employment it created for men and horses. But in between the great roads, lanes of sticky mud or hard-caked clay ruts persisted as the only communication with villages until unbelievably late in the century.

Roumieu’s *Ruislip*, written in 1875, says ‘It would seem impossible that such a quiet and secluded spot could exist within fifteen miles of Hyde Park Corner . . . It has dropped, as it were, from notice, and instead of being a place of importance as of old, has been passed in the race of life by smaller and less noted parishes, till it has become in fact ‘a no man’s land’.’<sup>6</sup> Over on the other side of the county, it was recorded in 1873 that within the past fifty years a lady, when she intended to make a call on a friend living at East Lodge in Enfield Chase, used to send out men two or three days in advance to fill the ruts with faggots so as to enable her carriage to pass.<sup>7</sup> In 1908 the by-roads in north-west Middlesex were scarcely ever passable for pedestrians before July; the lane from Harrow to Wood End, Northolt, was called alternatively Mud Lane or Love Lane.<sup>8</sup> The Middlesex main roads affected only a narrow strip.

In 1831 the turnpike tolls at Whetstone were let for £7,530 a year to a lessee who must have expected to make a profit at this figure. In 1838 there was no bidding for them at the old rates.<sup>9</sup> The London & Birmingham Railway was opened for traffic throughout in that year, and on its way through Middlesex it opened one station only, at Harrow. Willesden, Sudbury, and Pinner got stations in 1844, but the provision of trains was not encouraging to suburban settlement, nor was it intended to be: in 1845, three down and five up local trains on weekdays, three each way on Sundays, and only one a day for third-class passengers. The company was preoccupied with the more profitable long-distance traffic.

The Great Western out from Paddington on its way to Bristol had a station at West Drayton, for Uxbridge, when this part of the line was opened in 1838; within a year others followed at Ealing, Hanwell, and Southall. Ten years later these stations were served by eight weekday trains each way — only the 7.05 a.m. departure and 6.40 p.m. Paddington arrival had third class (the latter had started from Exeter at 6.30 a.m. and stopped at all stations). A short single-line branch to Uxbridge came in 1856.

We have a near-contemporary account of the effect of the Great Western on a Middlesex village. ‘A remarkable change for the worse took place about this time in the hitherto retired neighbourhood of Southall Green. The Railway spread dissatisfaction and immorality among the poor, the place being inundated with worthless and overpaid navigators — the very appearance of the country was altered — some families left, and the rusticity of the village gave place to a London-out-of-town character — moss grown cottages retired before new ones with bright red tiles — picturesque hedgerows were succeeded by prim iron railings, and the village inn, once a pretty cottage with a swinging sign, is transmogrified to the ‘Railway Tavern’, with its intimation gaudily set forth that ‘London Porter’ and other luxuries hitherto unknown to the inhabitants were to be procured therein.’ This seems to

support the clap-of-thunder theory about the railways turning village life upside down; but even if the authority is taken absolutely literally, it refers only to the area immediately adjacent to the line, and it is the period of construction, with the influx of navvies, that is specifically referred to, not the period after opening for traffic. In fact, between 1841 and 1851 Southall — then called Norwood Precinct for census purposes — added 308 to its population, not markedly more than the 249 in the decade 1811-21.<sup>10</sup>

The third railway in Middlesex was the line up the Lea Valley, opened in 1840 from Stratford through Tottenham and Ponders End on its way to Cambridge, with a similarly modest local service; a branch to Enfield through Edmonton was added in 1849. The Windsor, Staines & South Western, soon absorbed by the London & South Western, was opened from Richmond straight across the southern part of Hounslow Heath to Staines in 1848, with a loop through Brentford and Hounslow in 1850. The Great Northern was opened through Wood Green and Potters Bar in 1850 also; in 1868 the Midland came down through Mill Hill and Hendon; and a number of branches and extensions crawled over the northern and south-western parts of the county thereafter, the Metropolitan alone striking up through the north-west past Harrow and Pinner in the eighties. By 1900 there was still a large area untouched by railways in the angle between the Great Western main line in the south and the scissors-like pattern of the North Western and Metropolitan lines crossing below Harrow.

But the map and the chronology are far from telling us everything we wish to know about the railways' impact on individual places — indeed, they can be quite misleading if the policies and commercial attitudes of the different railway boards and managements are not brought into account. It may be stated, broadly and subject to minor qualifications, that down to the end of the 19th century the London & North Western, Great Western, and Midland Railways did not care very much about London suburban passengers, whose trains merely got in the way of their vastly more important and remunerative long-distance passenger and freight trains. In 1882, the vicar of Wealdstone said: “so far as the general aspect of the locality was concerned, they might just as well be in a remote part of Yorkshire for all the difference that their vicinity to the great metropolis brought to their comfort and convenience”.<sup>11</sup> In 1858 the London & North Western Railway had offered a first-class season ticket free for eleven years to every occupier of a new house in Harrow over £50 annual value; but in this district that was exceptional and not the rule. One suspects that the railway was more concerned with building up its local coal traffic; there was not so much as one stopping train an hour on the London & North Western Railway main line until 1879. The London & North Western Railway's own superintendent of the line, G. P. Neele, wryly recounted how one day, presumably in the 1860s, he took a train for Kilburn which did not stop there and carried him on to Harrow; it was 5 p.m. and there was no train back to London till 7.<sup>12</sup> But in the nineties, when Kodak had opened their factory, Wealdstone grew quickly as a working-class suburb. Farther in, Willesden, criss-crossed by railways as it was, a railway place *par excellence*, developed in an extraordinary patchy way, right down to the 1930s; it remains a mysterious story.<sup>13</sup>

On the other hand the Great Eastern Railway in the Lea Valley and the London & South Western south of Hounslow had much more interest in developing local passenger services; the Great Northern, with its local stations on the main line and its branches to Edgware, High Barnet, Alexandra Palace, and Enfield, tried to provide for an extensive suburban traffic

in addition to its long-distance business and nearly throttled itself in the process. There was a special feature about the Great Eastern: it was obliged to provide a workmen's service at low fares — 2d. return — from Edmonton, Tottenham, and Walthamstow to Liverpool Street under its Act of 1864 to compensate for the destruction of dwellings for the Liverpool Street extension, so those three districts were flooded with an immigration of new, low-income residents after about 1870; they were changed in population and social character very quickly as a direct result of the railway. But where relatively high fares and sparse train services prevailed, no such influx occurred. Palmer's Green and Winchmore Hill, with stations from 1871, developed very little, although there were thirty trains each way a day by 1880. The big landowners refused to sell; and Winchmore Hill station was approached along a country lane which only in 1902 was named Station Road.<sup>14</sup> Closer in, however, at Harringay, Hornsey, and Wood Green, dense suburban settlement had arisen round the stations. In 1866 passengers waiting for the 8.45 at Hornsey station watched a hare being chased and getting away to Harringhey park;<sup>15</sup> but in 1891 there were six times as many inhabitants as in 1861; typically clerical and lower-middle-class people, as described by Arnold Bennett (who lived there for a short time) in *Hilda Lessways*, and not the artisan, workmen's-ticket sort of people of Tottenham and Edmonton.

In the 1880s the Metropolitan and the Metropolitan District railways were pushing out fingers to the north-west and west, through Harrow to Pinner and Northwood, to Ealing and Hounslow. They were concerned almost wholly with short-distance passenger traffic; but the Metropolitan, at least, was not sanguine about the prospects — in the years after 1880 it ran without a station between Kingsbury & Neasden and Harrow, and when it did open Wembley Park station in 1894 it was to serve an amusement-park development and not in any great hope of ordinary suburban traffic. Some indication of the general pessimism about the prospects for railways in Middlesex in the second half of the 19th century can be derived from the number of schemes that were promoted and then dropped: continuation of the Shepperton branch to Chertsey Bridge, dropped in 1862;<sup>16</sup> the Great Northern's Hertford Loop beyond Enfield, authorised in 1865 but not ready for passengers until 1910 and 1924;<sup>17</sup> the Metropolitan's proposed branch of 1884 from West Hampstead to Hendon;<sup>18</sup> the Harrow and Uxbridge scheme of 1882, which lapsed in 1887.<sup>19</sup> Two funny little branches did creep into life; West Drayton to Staines in 1884/5, and Stanmore in 1890. People observing these two, and the Great Northern's Edgware branch, must have wondered what conceivable hopes of gain had induced investors to subscribe their savings for the operation of railways in these sleepy hollows.

The later nineties and the Edwardian decade brought striking changes to the Middlesex railway map which were pregnant for the future; their effects only began to be felt before 1914. The changes were created by two separate causes: one in the area of main-line railway policy, driving the Great Western, with the Great Central as a junior partner, to shorten its over-long Paddington-Birmingham run by building a new line from Old Oak Common, Acton, through Greenford and Ruislip, with a Great Central link from Neasden to Northolt Junction and a spur branch to Uxbridge; the other the technical development of electrification, which gave the impetus to the District's Ealing and South Harrow line (opened 1903), the revived Harrow and Uxbridge (1904), and the "new lines" of the London & North Western, virtually a segregated special-purpose passenger railway, which

came into use, with many new intermediate stations between Willesden and Watford, in 1912 and 1913, though electric traction did not begin until 1917.

In the Edwardian decade also the tube train entered the then county of Middlesex: in some ways its most significant transport development in this century. Golders Green, when the Charing Cross, Euston & Hampstead Railway got its Act in 1902, was regarded as only a temporary northern terminus; an Edgware & Hampstead Railway was approved in the same year, a Watford & Edgware the year after. Golders Green was reached in 1907, Hendon and Edgware (but never Watford) after the war. The causal connection between the tube railway provision and the development of the Hampstead Garden Suburb and the other Golders Green estates is very clearly established — it is almost the classic case among the London suburbs. It was rightly described in 1901 as “absolutely open country, for the simple reason that there is no means of getting to it”; building of the railway began in 1903, and development of the necessary local services, roads, drainage, and so forth, in the same year; so that every year between 1908 and 1914 more than three hundred houses were completed, with a peak of 744 in 1911.<sup>20</sup> But Golders Green was not typical of the years before 1914; the rapidity of its development, and the closeness of its link with railway transport, were characteristics of the 1920s and 1930s, and in this Golders Green was a forerunner.

The railways in Middlesex have been treated at some length because, within the area and the time limits being discussed, the railways present the most difficult and teasing problems of historical interpretation. Much briefer reference is made to the omnibuses and the tramways, but not because when they came, and particularly after petrol engines and electric traction respectively replaced the horse, they were less important than the railways; at the end of the period, indeed, the tramways may have been quantitatively more significant. But unlike the railways, their aims were undivided and straightforward: to carry as many local passengers as soon as they could. They went in to create settlement quickly in the most likely places. If you found a tram out in the country, as between Hayes and Hillingdon, or between Whetstone and Barnet, it was because someone had a reasonable hope that that stretch of line would not remain rural for long.

There were horsed tramways north of Finsbury Park and Stamford Hill up to Wood Green and Ponders End by 1887 and in the west at Acton and Chiswick; an unsuccessful experiment with steam traction in the north was ended in 1891. In the ten years 1901-11 a complete and ramified electric tramway system sprang into being covering virtually all the principal roads of inner Middlesex, running out beyond the county to Waltham Cross and High Barnet, stopping short of Harrow (the last mile or so from Wembley was as usual opposed by influential Harrovians and successfully cut short at Sudbury), reaching out in the west to Uxbridge, Hounslow, and Hampton Court.<sup>21</sup> Lines were authorised but not built to Staines, Cranford, and Sunbury; Maidenhead, down the Great West Road, was just too much for the authorities to swallow. The tram, with relatively low fares (including workmen’s, which the buses never offered), good services, and inner terminals either at railway stations (usually on the Underground) or with forward connections or even through cars to the London County Council system, brought a density and type of traffic that the railways had not produced, except in the north-east. Development usually leapt forward when the electric tram came, and development of a kind (then called “cottage property”) which many of the existing ratepayers did not care to contemplate. The local elections at Ealing in 1898 were dominated by this topic; the pro-tramway faction won. Tramways did carry mobility down

the social and economic scale, and relatively low-paid workers could reside along them considerably farther away from their places of employment. The memorial to the trams is to be found in many Middlesex commercial centres — the “parades” (that is what they were almost always called) of shops with dwellings above in what may be called the “Metropolitan Electric” style of architecture. They are to be found at Cricklewood, Golders Green, Palmer’s Green, and plenty of places in between.

It is interesting to speculate how different things might have been if mechanisation had been successfully applied to omnibuses a few years before it was to tramcars; but it is wholly unprofitable. Electric trams got in first, by a very few years; so Edwardian development in the suburbs was denser and more ribbony than if the more nimble and flexible motor bus had set the pattern. There had been infrequent coaches between London and some villages off the railways, like Stanmore, throughout the 19th century; otherwise the horse buses, as at Pinner and Southgate, plied to the nearest railway station. The motor bus was not mechanically sound and financially secure until 1910, though there had been earlier motor buses in Middlesex — the London & North Western Railway’s hourly service from Harrow & Wealdstone station to Watford began in 1906.

The battles which determined which was the fittest machine and the fittest company in the London motor bus world to merit victory and survival were largely fought out along the Edgware Road as far as Cricklewood. The victor was the London General Omnibus Company, and its first route map, of March 1911, shows outer terminals at Turnham Green, Ealing, Wormwood Scrubs, Harlesden, Kensal Rise, Willesden Green, Dollis Hill (on the Edgware Road), Child’s Hill, but none in Middlesex county east of that.<sup>22</sup> In 1912 the London General Omnibus Company’s outward expansion began, with extension to Twickenham, Southgate, and beyond Hounslow down the Bath and Staines roads. The powerful impact of the motor bus was hardly to be felt until the 1920s.

One of the most important clues to the settlement process is the availability of land. With this as a starting-point, the historian of a suburb must also consider whether developers were ready to put down investment in building; whether the respective authorities were willing to provide roads, water, and drainage; whether building-society or other forms of borrowing were at hand to enable people to purchase their houses, or alternatively whether it was attractive to build property for rent. Ilford is about 7½ miles from Liverpool Street; Wimbledon is about the same distance from Waterloo; both had stations on the main lines of railways opened by 1840; but they developed very differently. Ashted in Surrey, reasonably well served by railway from 1859, started on its real development only after 1879 when the big estate was broken up by sale, and land became far more easily available;<sup>23</sup> there were farms close to the station at Mottingham, 7¾ miles from London Bridge, until after the second war. The attitudes of landowners and the influential inhabitants mattered; so did soil, water, and air; and, in the end, it mattered perhaps most of all whether the tide of continuous building, having first flowed along the most obvious channels, where there were no defences against it, finally rose to engulf the remaining islands of green country, as it did at Kingsbury, for example, only in the 1930s. The Green Belt was enacted just in time to prevent the same thing happening north of Edgware. Perhaps one of the most interesting subjects for research would be the policies of the great institutional landowners in the London suburbs — not the landed families, who wanted to move away anyway or were forced to sell to raise money to pay death duties, but the colleges of the old universities, King’s at Ruislip,

All Souls in Willesden, Hendon, Kingsbury and Edgware. The example of the Dulwich College estates, on the other side of London, is instructive, but is it typical?<sup>24</sup>

There may have been cases in the London suburbs where availability of houses preceded adequate transport. Certainly on the Essex side there was one which is very fully attested: north Ilford, along and above the line of the Eastern Avenue through Gants Hill, where by the early 1930s settlement had outstripped transport capacity, by any ordinary standards of ‘adequacy’.<sup>25</sup> It is doubtful whether any such case could be found in Middlesex before 1914.

In sum, the local historian, when he looks at the development of transport facilities, must be very, very careful what conclusions he draws. Other things were often just as important. That is, or should always have been, self-evident. But this remains: suburban development is unintelligible unless the facilities available for personal transport are carefully ascertained and these facts used, with population figures, maps, and other kinds of evidence already mentioned, to produce a coherent account not only of what happened but also, so far as any historian can without arrogance make a judgement, *why* it happened *when* it did. Let the inquirer avoid the anachronism of supposing that effects which flowed from given causes in 1910 must equally have flowed from the same causes in 1850 or 1800. But if he remembers to be careful and humble in the face of his evidence, then transport is the key to unlock the door behind which the solution of many a suburban mystery is to be found.

#### NOTE

This article is based, with minor revisions, on the text of a lecture given to a local history conference held at the Harrow College of Further Education on 4 February 1978.

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# STOW'S LONDON

AN ADDRESS DELIVERED IN ST. ANDREW'S UNDERSHAFT AT THE  
ANNUAL JOHN STOW COMMEMORATION SERVICE, 12th APRIL, 1978

BY

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The pages of the Survey of John Stow and his two continuators of 1618 and 1633, are characterised by an ambivalence arising out of the conflict between Stow's inordinate pride in the greatness of the city which he was celebrating and his bitter nostalgia for landmarks which he remembered from his youth, but which were disappearing as the growth of London swallowed up open spaces and as old familiar buildings were demolished or modified out of recognition.

To the west of the City of London, the City and Westminster were becoming contiguous at an increasing number of points in addition to the traditional linkage in the extreme south along the line of the Strand. On the north side of the Strand, Westminster began immediately west of Temple Bar, while, on the south side, Westminster and the City of London were separated by part of the Liberty of the Duchy of Lancaster. Although by no means all of what was technically the city of Westminster was built up in this period, there was a spectacular growth of building there, some of it extending the south-western limits of the metropolis well to the west of Westminster Abbey, and much of it, despite the proximity of the Court, slum property. Although the area to the north of the Strand was by no means free from slums, places such as Covent Garden, St. Martin's Lane and Long Acre were being rapidly developed as fashionable districts *par excellence*. A return made in 1638 shows a total of 244 cases of compounding for the erection of new buildings within the fashionable parish of St. Martins-in-the-Fields alone. Further north still a line of building sped westwards along High Holborn through St. Giles-in-the-Fields, within which parish some of London's foulest slums were shortly to appear.

The growth of the built-up metropolitan area to the east of the City of London called forth some of Stow's most vivid descriptive passages. From the City the built-up area spread eastwards along three main axes. The southernmost of these ran alongside the river for a good mile from the Tower through the recently reclaimed mud-flats of Wapping, inhabited mostly by sailors and, especially after the establishment of the East India Company's dockyard at Blackwall in 1614, by shipyard workers. A little further north Ratcliffe Highway ran east from East Smithfield and Tower Hill up to and beyond Shadwell, a built-up thoroughfare, replacing, as Stow recalls, "a large highway, with fayre Elme trees on both sides". Also within Stow's own memory was the erection of the very first buildings here — a school and almshouses.

But of late yeares ship-wrights and (for the most part) other marine men haue builded many large and strong houses for themselues and smaller for Saylers, from thence almost to Poplar, and so to Blakewall.

The third and northernmost west-east axis, a wide street with many buildings, ran from Aldgate East. Here

both the sides of the streete bee pestered with buildings . . . with Cottages, and Allies, euen vp to White chappel church; and almost halfe a myle beyond it, into the common field: . . . which . . . being sometime the beauty of this City on that part, is so incroched vpon by building of filthy Cottages, and with other purprestures, inclosures and Layestalles . . . that in some places it scarce remaineth a sufficient high way for the meeting of Carriages and droues of Cattell, much lesse is there any faire, pleasant or wholesome way for people to walke on foote: which is no small blemish to so famous a city, to haue so vnsauery and vnseemly an entry or passage thereunto.

All this was noted by Stow in the 1600 edition of the *Survey of London*. The 1633 edition simply adds the building of a new chapel in Wapping in 1617 and the agitation against the malodorous alum works there in 1626-7. The building return of 1638, however, shows extensive new building in the eastern suburbs and more especially within the enormous parish of St. Dunstan's Stepney.

South of the river, Bermondsey, Newington and Lambeth were in process of becoming physically linked by building with the borough of Southwark and London Bridge, but to the north of London the prevalence of heavy clays making for drainage difficulties inhibited expansion so that northern villages such as Hackney, Islington and Highgate remained separated from the built-up metropolis by extensive open country, although along Bishopsgate in the north-east a thin line of building stretched through Norton Folgate and Shoreditch, while further west the extra-mural City ward of Farrington Without merged imperceptibly with the district of Clerkenwell in the county of Middlesex.

To us today Stow's lamentations at the phenomenon of metropolitan growth may seem to be more than a trifle overdone. The countryside remained within walking distance of the heart of the metropolis — during the 1620s the Earl of Clare frequently walked to the parliament at Westminster from his house in Clerkenwell — and, then as now, London was blessed with numerous open spaces, fields and parks, and, for the more fortunate of its inhabitants, houses with extensive gardens. The preservation and extension of such civic amenities is greatly to the credit of the Lord Mayor and aldermen of the City of London whose most notable achievement was the conversion of Moorfields from bog and fen into a public park with pleasant tree-shaded walks. This formidable and expensive operation which had been begun under the early Tudors, but discontinued before the death of Elizabeth I, was recommenced at the initiative and during the mayoralty of Sir Leonard Halliday in 1605-6, and was extended into middle Moorfield from 1610 and northern Moorfield from 1613.

In 1617 the gentlemen of the Inns of Court and some of the neighbouring parishes devised a similar project to convert Lincoln's Inn Fields into pleasant walks "after the same maner as More Feildes are now made". Although not so extensive as Moorfields, this unimproved area, roughly bounded by High Holborn, Chancery Lane, the Strand and Drury Lane, was much larger than the decorous square which bears that name today. The King and Privy Council supported the scheme, hoping that it would "frustrate the covetous and greedy

endeavours of such persons as daylie seeke to fill upp that small remaynder of ayre in those partes with unnecessary and unproffitable buildinges'', and contributions were invited not only from the chief potential beneficiaries but also from the City of London. The City refused to have anything to do with the scheme ''in respect the said feildes bee farr of [Sic] from the cittie of London . . . and that . . . the Cittizens of London shall have little or no pleasure there. And for as much as the Inhabitanes thereaboutes dwelling . . . did noe way contribute towards the making of Morefelde walkes''. There could be no more eloquent testimony to the prevailing parochialism in the metropolis and the absence of any sense of commitment to the idea of a greater London, and during the late 1630s the development of the Fields as a residential district began under William Newton, an entrepreneur who also played an important part in the development of nearby Great Queen Street. Newton's operations were a small and relatively minor aspect of the building activities consequent upon the tendency for the centre of gravity of fashionable London to shift perceptibly to the west, where property developers, including great aristocratic urban landlords such as the Earls of Salisbury, Bedford and Clare, were rapidly creating whole new residential districts. The desire of the country gentlemen and their families, who flocked in increasing numbers to London, to be as near as possible to the centre of things, which to the world of fashion meant Westminster rather than the City, offered hitherto unprecedented opportunities to the property developer in the rapidly burgeoning west-end.

This process had already begun in Stow's lifetime, though the main development of the westward expansion of fashionable London, the building of courtly and fashionable houses in streets such as St. Martin's Lane, Long Acre and Drury Lane and in Covent Garden, took place after his death. He would almost certainly have disapproved of the new-fangled urban development schemes of the third Earl of Bedford in Covent Garden in the 1630s. However, it is not, I think, at all fanciful to argue that those who deplore the demolition in the 1930s of the last surviving examples of what a seventeenth-century observer described as ''houses and buildings fitt for the habitacions of Gentlemen . . . of ability'' in the Covent Garden piazza are reacting in the proper Stow tradition to a particularly shocking example of twentieth-century municipal vandalism.

The lure of the west-end saw not only the expansion of gracious and fashionable dwelling houses but also the growth of a number of shops west of Temple Bar, and more especially of establishments selling luxury and semi-luxury products. For instance, despite the attempts both of the government and the City of London to restrict goldsmiths' shops to Cheapside and Lombard Street within the City, considerable numbers of both goldsmiths and silversmiths were still to be found in Fleet Street and the Strand. Similarly, although an outstanding silkman like the celebrated Sir Baptist Hicks, who was also a notable moneylender to the world of fashion and who himself ended his days as a peer of the realm, would never lack fashionable customers at his shop in the City, there was a growth of similar establishments as well as of high-class tailors' shops further west. The fears of some city interests that they were bound to lose from the increasingly westward orientation of the world of fashion find their most striking expression in the howls of protest which were elicited from the shopkeepers of the Royal Exchange within the City at the Earl of Salisbury's project in 1608 to erect his so-called New Exchange on the site of the former stables of Durham House in the Strand. The City shopkeepers viewed Salisbury's creation of what was in effect a fashionable shopping centre, managed by a single contractor with separate

premises let to a number of shopkeepers, as the thin end of a wedge, which, when rammed tightly home, would “drawe Mercers, Goldsmithes and all other cheefe Traders to settle themselues out of the Cittie in those partes.” Their petition to this effect was passed on by the Lord Mayor to Salisbury, whose reply is a masterpiece of sustained ridicule and carefully calculated invective against City interests which profited enormously from the fact that the Court resided and the law Courts met in Westminster and which therefore ought not to begrudge to Westminster “some small portion of comodity for such a neighbourhood, though it were drawne directly from themselues.” At a cost of £11,000 to himself he claimed to have provided not only a much-needed economic, but also a visual, amenity of great distinction.

Despite the increasing attractiveness of the west-end to the world of fashion, a large number of prominent courtiers and officials continued to live east of Holborn and Temple Bars. For instance, within the two liberties of St. Bartholomew the Great and Less, West Smithfield, there dwelt at one time or another in the early seventeenth-century, the favourite of Henrietta Maria, Henry Earl of Holland; Secretary of State Sir Ralph Winwood; Lord Chief Justice Sir Henry Hobart, builder of Blickling Hall near Norwich; Sir Horatio Vere, the later Lord Vere of Tilbury, the greatest English soldier of his day; Sir George Manners, the later seventh Earl of Rutland; and Lionel Cranfield, Earl of Middlesex, who came to live in what later became known as Middlesex House in 1630, six years after his fall from power. Lady Anne Sackville (née Clifford), Dowager Countess of Dorset, was also living in Great St. Bartholomew in 1629 immediately prior to her second marriage to the earl of Pembroke. The prodigality of her first husband had enforced the letting of part of the Dorset town house within the liberty of Dorset (formerly Salisbury) Court off Fleet Street to Sir John Suckling, the Comptroller of the King’s Household, though the whole house was later re-occupied by the fourth Earl of Dorset.

In the precincts of Whitefriars and Blackfriars, the former lying immediately to the west, and the latter not far to the east, of Dorset Court, were a number of fine houses. Among those dwelling in Blackfriars at one time or another were the Earl of Pembroke, Lord Cobham, Lord Beauchamp (the later Earl and Marquis of Hertford), Sir Edward Hoby and Sir Anthony Van Dyck, the great court painter. In the far east of the City we find the Earl of Northumberland, whose family had already disposed of two City houses, renting a house in 1623 in the liberty of the Minories near the Tower from Sir Richard Morrison, the Lieutenant of the Ordnance. Cheaper rents and house prices were probably the most important reason why many of these aristocratic residents failed to move to the more fashionable west-end.

In contrast to the situation today when only a tiny minority of those whose business takes them daily to the City of London actually resides there, all but a handful of the citizens lived in close proximity to — and often at — their places of work. However, a small minority of citizens lived in the country within easy reach of the City. Thomas Sutton, the famous moneylender and founder of Charterhouse, lived for a time in Stoke Newington, and, after the death of his wife, in Hackney. Also in Hackney dwelt Sir George Whitmore, who became Lord Mayor in 1631, and who had built his splendid country house, Balmes House, at Hoxton in that parish in 1630. It was here that, in November 1641, the Lord Mayor, aldermen and commoncouncilmen met Charles I on his return from Scotland, and conducted him to the City via a road which had been cut through Whitmore’s estate specially for the occasion on account of the foulness of the ordinary highway.

But citizens dwelling in the country during their business careers, as opposed to those who set the seal on their social respectability by purchasing estates on or just before retirement, were exceptional. And of course, the latter's houses in the City were often impressive. Most of them were probably one form or another of what Sir John Summerson has called the *unit-house*, 'with a narrow frontage to the street, rooms back and front on each floor, and a long court or garden at the rear,' with the ground floor often consisting of a shop and kitchen. For city grandees an extended or multiplied version of the same house-plan was common. Although Stow records with great pride some of the solid and dignified houses built by the wealthier citizens, his account is spiced with the occasional cautionary tale of the fate of builders with ideas above their stations, such as Sir John Champeneys (d. 1556), who had been Lord Mayor in 1534-5, and who was punished with blindness for building a brick tower, "the first that euer I heard of in any private mans house to overlooke his neighbours in this Cittie." A similar fate befell the merchant-tailor, Richard Wethell, who

became in short time so tormented with goutes in his ioynts, of the hands and legges, that he could neither feede him selfe, nor goe further then he was led, much lesse was he able to climbe, and take the pleasure of the height of his Tower.

Apart from the disastrous consequences to the builders, such details have an oddly familiar sound to the modern observer, even if the modern City equivalents of the towers are neither built of brick nor the creations of over-mighty individuals. However, if Stow is to be believed, demolishing ancient towers was likely to be attended with even more terrible retribution than building new ones. Such was the fate of a grocer named Buckle, who, after a few years before Stow was writing, took down Cernets Tower in Bucklersbury,

meaning in place thereof, to have set vppe and builded a goodly frame of timber, but . . . a parte thereof fell vpon him, which so sore brused him that his life was thereby shortened: and an other that married his widdow, sett vppe the new prepared frame of timber and finished the worke.

Stow's conservatism, which is so strikingly exhibited in these stories about the social as well as the physical dangers of building too high and of demolition of ancient structures, is no less apparent when he tells of the fate of some of the great City houses which were deserted by noblemen as a result of the westward movement of the world of fashion. Some of these houses were purchased by the more opulent citizens. For instance, one of the Earl of Oxford's finer town houses in Walbrook Ward was purchased by the great Elizabethan merchant prince Sir John Hart. A few such houses were acquired for civic purposes of various sorts. Such was Bergavenny House in Ave Mary Lane, the former town house of the Earls of Pembroke and later of Lord Bergavenny, who sold it to the Stationers' Company, who used it as their hall, 'converting', relates Stow approvingly, 'the stone-work into a new faire frame of timber and applying it to such serviceable use as themselves have thought convenient.' A similar fate attended the house which had been built in Throgmorton Street by the great Thomas Cromwell, which had been acquired by the Drapers Company for use as its hall; a development which Stow no doubt approved the more since his own father had been deprived of part of the garden of his house as the result of the creation of gardens for Cromwell's mansion, for, as he drily observed, "the sudden rising of some men causeth them to forget themselves."

Other former noble houses in the City became inns or taverns, which was the fate of one of the former town houses of the Prior of Lewes in Southwark after the Dissolution of the

Monasteries. One of the two town houses of the Earls of Northumberland had been used as a gaming establishment and bowling alley, though by the accession of James I it had been converted into what were rapidly becoming slum tenements, perhaps the most usual fate of these once great aristocratic town palaces; another example is the former town house of the Earl of Worcester in Palmer's Lane near the river. Sometimes such houses were wholly or partly demolished to make way for slum tenements or cottages. This happened to the famous house known as Coldharbour near the river in Dowgate Ward, the former town house of the Talbots, Earls of Shrewsbury and a cold harbour indeed for the indigent, where at least 125 people were living in 1637; also to the former Tower-Royal in Vintry Ward and to another of the Earl of Oxford's former town houses in Lime Street Ward. The latter house had passed by marriage to a Suffolk gentleman, Sir Robert Winfield, and through him to the great Norfolk lawyer, Sir Edward Coke, who at that time was Attorney-General. After Coke's ill-fated marriage to the formidable widow of Sir Christopher Hatton with her splendid house in High Holborn, a second town house might well appear superfluous. At any rate Stow remarks that the Earl of Oxford's old house had become

greatly ruined of late time. For the most part [it] hath been let out to Powlters, for stabling of horses and stowage of Poultrie, but now lately new builded into a number of small tenements letten out to strangers and other meane people.

Stow's regret for the decay of smart aristocratic houses in the City and his dislike for the ostentatious creations of parvenus perhaps prompts a comparison between his City conservatism and the complaints levied in his time against the prodigy houses being built in the countryside to advertise the wealth and status of their owners. These 'country' conservatives usually set the values of the Country over and against that of the Court. Ben Jonson praises that sturdy Elizabethan parliamentarian Sir Robert Wroth who

though so neere the citie and the court  
art tane with neithers vice, nor sport

Similarly Robert Herrick praises his brother who  
Could'st leave the City, for exchange, to see  
The Countrie's sweet simplicity:  
And it to know and practice; with intent  
To grow the sooner innocent.

The City, hardly less than the Court, was regarded as the centre of innovation and corruption, drawing to itself the wealth of the provinces, and increasingly attracting gentry and their families from their country estates and their duties of local hospitality and magistracy to a life of indolence and luxury. John Stow, no less a traditionalist than those who sang the virtues of the Country as opposed to the City, shows himself conscious, in the eulogy of the City with which he ends his Survey, of the need to refute "the opinion of some men which think that the greatness of that Citie standeth not with the profit and securitie of this Realme." Yet his own conservative values had much in common with those of the many critics of the City he loved, not least in his sentiments about the duty of hospitality and charitable activity incumbent upon the great. If he at one point, as we have seen, condemned Thomas Cromwell for his ruthlessness and arrogance, he was yet prepared to praise him for his benefactions, having "seen more then two hundred persons serued twice every day with bread, meate and drinke . . . for hee obserued that auncient and charitable custome as all

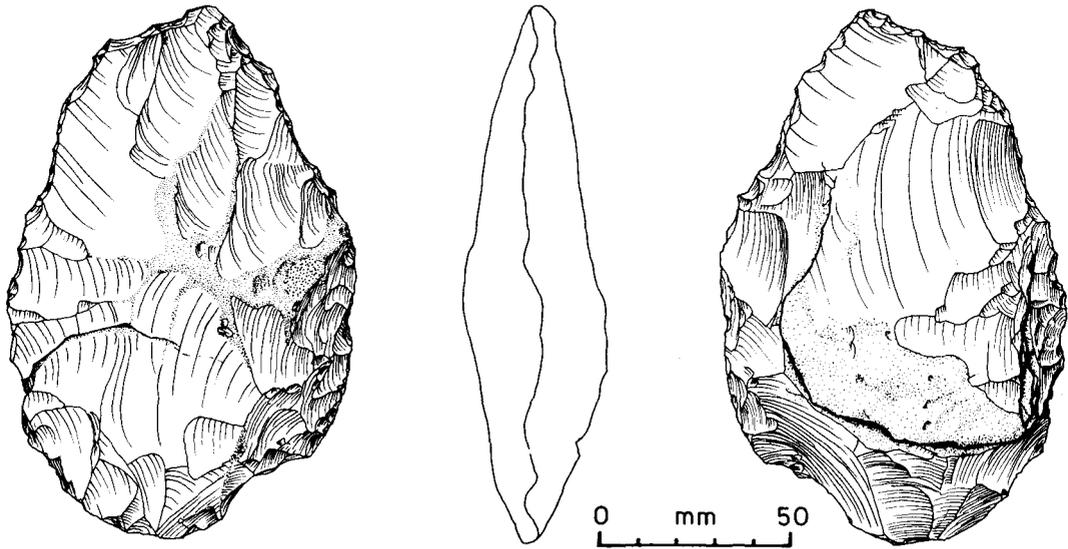
prelates, noblemen or men of honour and worship — his predecessors — had done before him.’’

Stow's failure to record every detail in the churches of his beloved City — every commemorative tablet or monument — cannot be ascribed to his lack of interest in recent notabilities and his antiquarian preference for the remote past. Among the monuments which he deliberately omitted from reference were those to persons whom he described as ‘‘worthy to be deprived of that memory whereof they have injuriously deprived others,’’ referring to the all too common practice of removing ancient monuments and even corpses from churches in order to make room for new ones. As C. L. Kingsford remarks in his introduction to the 1600 edition of the *Survey*, there is something especially poignant in the fact that John Stow, the hammer of such vandals and desecrators, himself became posthumously their victim when a century and a quarter after his death his body was removed from its tomb in this church to make way for another. In this church if we require a monument, we have only, literally, to look about us — to the splendid monument in alabaster and marble that was erected by his wife, and restored three centuries after his death in 1605 by his company, the Merchant Taylors. No-one understood better than Stow — unless it was William Shakespeare himself — the function and value of such monuments. If his work has a particular appeal for any group of people in our own time, it ought surely to strike an especially responsive chord in the hearts and minds of urban conservationists, whose noble, and too often unavailing, work to preserve our architectural and historical heritage, he would — I like to think — recognise as the true descendant of his own. Unhappily, if we require a monument to this too, we have only to step outside this church and look around us.

# AN ACHEULEAN HANDAXE FROM THE THAMES AT MORTLAKE

GALE CANVIN

A palaeolithic handaxe was found on the Surrey shore of the River Thames at Mortlake in May 1977.<sup>1</sup> The findspot lies on the gravel of the south foreshore at NGR TQ 1997 7659 in the London Borough of Richmond 400 metres north-west of Chiswick Bridge. This part of the river has only produced a few recorded handaxes. Wymer<sup>2</sup> lists eight from the river in the borough of Richmond, although none are specifically from Mortlake. Roe's gazetteer<sup>3</sup> is also unable to attribute positively any handaxes to the Thames along this reach.



The axe is 143mm long, with a maximum width of 93mm and thickness of 38mm. It weighs 431.6 grams. It has been made from mid orange-brown flint, with lighter brown inclusions and is partly stained olive brown, with a small oval patch of cortex remaining on one face. Rolling has smoothed most of the ridges between the flake scars (shown as faint stippling on the drawing). A large frost crack almost bisects the axe, and the extreme tip is missing.

The axe is of cordate form, with a cutting edge all round the tool, and is finished by the fine flaking of bar hammer technique. The cutting edge is straight, without the reversed 'S' twist present on many cordate axes. One cutting edge has been sharpened by tranchet blows.

Wymer's coding for this axe is Je/vi,<sup>4</sup> and he suggests these are typical products of the latter part of the Middle Acheulean.

The axe is currently retained by the author.

I should like to thank Cathy Dagg for her fine drawing.

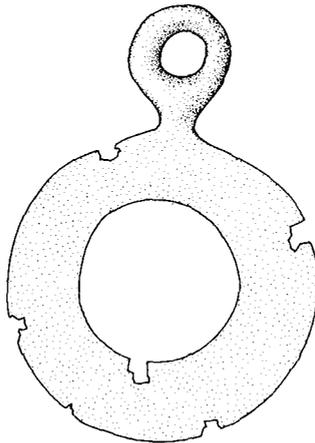
NOTES

1. Found by the author during part of a systematic riverside survey of the borough by the Fulham and Hammersmith Historical Society, Archaeological Section. Other finds are currently being prepared for publication.
2. J. Wymer *Lower Palaeolithic Archaeology in Britain* (London 1968) 274.
3. D. Roe "A Gazetteer of British Lower and Middle Palaeolithic Sites" *C.B.A. Research Report 8* (1968) 292.
4. J. Wymer *op. cit.* 56.

# A LATE URNFIELD PENDANT FROM THE THAMES AT OLD ENGLAND

BRENDAN O'CONNOR

The subject of this note belongs to the well known group of Late Bronze Age objects from the important site of Old England on the north shore of the Thames at Brentford.<sup>1</sup> The piece has a flat annular body with a ring handle attached by a short shaft; the outline of the body is slightly irregular and bears five rough notches, one inside and four outside. The inner notch is shown on Wheeler's photograph<sup>2</sup> but the others have been sustained since; all have the same appearance and none need be regarded as original. The internal diameter of the body is 22mm, the external diameter 42mm and the maximum length of the object is 59mm.



H

This object was originally published as a razor<sup>3</sup> though it was not described in detail. This identification was perpetuated by Piggott<sup>4</sup> but wartime conditions appear to have prevented her from examining the so-called 'razor' and publishing a first hand illustration. She recognised that the annular form was alien to the British series of razors but it should be noted that the plain annular form is also unknown on the continent. Furthermore, the edges of the Old England piece are not sharpened, unlike those of most razors. While it could be an unsharpened razor of unusual form, there is a more convincing identification. Among the Urnfield pendants described by Kossack<sup>5</sup> there is an annular form.<sup>6</sup> this is common in the Swiss lake villages, the valleys of the middle Rhine, Main and Moselle and in east central France; outliers reach East Prussia and western

France.<sup>7</sup> Several of the finds from the Rhine-Moselle area show that these small pendants may be parts of larger sets<sup>8</sup> which are probably elements of ceremonial horse gear.<sup>9</sup> These pendants are all larger than the Old England example; the pendant in the Vénat hoard, Saint-Yrieux, Charente, is closer in size, 5mm longer.<sup>10</sup>

Hoard finds indicate a late Ha B/late *Bronze Final* III date;<sup>11</sup> the find from Wallstadt, Kr. Mannheim,<sup>12</sup> is eponymous for the late phase of Ha B in south-western Germany.<sup>13</sup> A slightly later date is indicated by the Vénat hoard which includes a few Ha C objects.<sup>14</sup> Another 8th century late Urnfield import may be identified in the lower Thames valley during the Ewart Park phase of the British Bronze Age.

NOTES

1. R. E. M. Wheeler "'Old England', Brentford" *Antiquity* 3 (1929) 20-32. It is now on display in the Museum of London, A.10755, where I have been able to examine it by kind permission of Miss J. K. Macdonald. I am grateful to Mike Rouillard for the drawing.
2. *Ibid* Pl. I, Fig. 2, 6.
3. *Ibid*.
4. C. M. Piggott 'The Late Bronze Age razors of the British Isles' *Proc. Prehist. Soc.* 12 (1946) 121 Fig. 9.
5. G. Kossack *Studien zum Symbolgut der Urnenfelder- und Hallstattzeit Mitteleuropas* Römisch-Germanische Forschungen 20 (Berlin 1954) 76-78.
6. *Ibid*. Taf. 15, 17.
7. *Ibid*. 96-97 Taf. 25.
8. A. Kolling *Späte Bronzezeit an Saar und Mosel* Saarbrücker Beiträge zur Altertumskunde 6 (Bonn

- 1968) Taf. 44,1;48,4. F. R. Hermann *Die Funde der Urnenfelderkultur in Mittel- und Südbessen* Römisch-Germanische Forschungen 27 (Berlin 1966) Taf 176, D. Inv. Arch. F29;39;41.
9. Kolling *ibid*. 63-65,79.
10. Inv. Arch. F6,108.
11. Kolling *op. cit.* in note 8, 89-90, Abb. 27-28. Inv. Arch. F29.
12. H. Müller-Karpe *Beiträge zur Chronologie der Urnenfelderzeit nördlich und südlich der Alpen* Römisch-Germanische Forschungen 22 (Berlin 1959) 180-181 Taf. 176.
13. W. Kubach *Die Nadeln in Hessen und Rheinbessen* Prähistorische Bronzefunde XIII/3 (München 1977) 36.
14. J.-P. Pautreau 'Les civilisations de l'Age du Fer dans le Centre-Ouest' in *La Préhistoire Française* ed. J. Guilaine (Paris 1976) 770-772.
15. C. Burgess 'The Bronze Age' in *British Prehistory* ed. C. Renfrew (London 1974) 209.

# A BRONZE SWORD FROM THE RIVER THAMES

C. N. MOORE

In the corpus of Hallstatt bronze swords published by Cowen<sup>1</sup> there is noted an example of a *Gündlingen* type from the River Thames which was bought at a sale in Shrewsbury. Cowen based his identification on the British Association Card Catalogue of

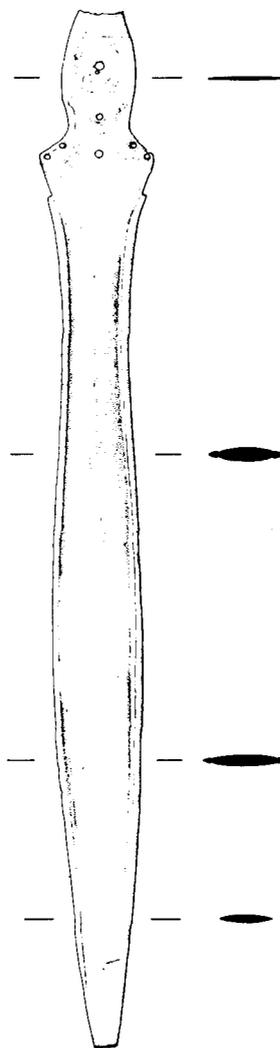


Fig. 1. Bronze sword from the Thames, now in Grosvenor Museum, Chester (1:4).

Bronze Implements now housed in the British Museum, presumably because the sword was in private possession. Since then the owner has presented the sword to the Grosvenor Museum, Chester. Further examination shows that it does not belong to the true series of Gündlingen swords and it would seem important to republish it here (Fig. 1).

When the sword was given to the Grosvenor Museum it had a modern hilt on it. This hilt must have been added before 1923, and its removal has revealed part of a 19th century label on which 'Thames' can be clearly read. Unfortunately the tang has been drilled to take a modern hilt, and this has meant that the size and configuration of the rivets are uncertain. It would appear that the top of the tang has been missing since antiquity. The surface of the tang shows the original patination and when the modern hilt was added the blade was probably re-patinated and filed flatter.

The sword certainly does bear a resemblance to the bronze Hallstatt Gündlingen sword, but it also has similarities with Cowen's 'Thames' type of sword and some swords of the 'Ewart Park' type. This demonstrates the difficulties encountered when trying to classify Late Bronze Age swords. The Grosvenor Museum's sword does have some 'Hallstatt' features, such as fairly marked ricassi and the normal blade cross-section. However, the blade is wide, lacking the normal Gündlingen proportions and the width of the tang is atypical. More importantly, the sword falls outside the size range associated with Gündlingen bronze swords. In its present state the sword is 553mm in length and it is unlikely to have exceeded 590mm in length. Typical continental examples of Gündlingen swords range between 660mm and 805mm and nearly all complete examples are more than 700mm long.<sup>2</sup>

The sword would certainly fall within the range of Cowen's 'Thames' type, which he describes as 'late Ewart' and considers to have come under the influence of the Hallstatt Gündlingen sword.<sup>3</sup> 'Thames' swords range from about 486mm to about 650mm, so that this example comes well within this range, but many of them do appear to be shorter. The classification of the 'Thames' group of swords does not appear to be satisfactory. They show a very wide range of blade shape, a variety of tang terminals and while some have ricassi, others do not. It is extremely hard to detect any precise differentiation between them and the larger grouping of 'Ewart Park' swords. The sword under discussion belongs to this borderline area of classification, and though lacking the terminal to the hilt which might be a diagnostic feature, it shares many 'Ewart Park' characteristics. Because this sword was found in the Thames Valley we may well incline towards calling it an example of the 'Thames' type, but if it had been found elsewhere in England it would probably have been classified as 'Ewart Park'.

The problem of classification arises because, with the exception of Eogan's corpus of Irish swords,<sup>4</sup> only a very small number of 'Ewart Park' swords have been published. This makes definition of the type and sub-groupings within it difficult. The extent of the influence of Hallstatt Gündlingen swords on the 'Ewart Park' sword series has been the source of some contention. Schauer has suggested that the 'Bexley Heath'/'Thames' swords<sup>5</sup> are precursors to the 'Gündlingen' type, though this is not accepted by Champion.<sup>6</sup> The writer has suggested<sup>7</sup> that nearly all 'Ewart Park' swords show Hallstatt influence, either in the rivet configurations, the blade cross-section or the ricassi, but one would not venture to suggest that the 'Thames' type are early in the series.

The problem of the chronological position of 'Ewart Park' swords must for the time being wait until they have been subjected to wider survey, but it is hoped that the publication of this further bronze sword from the Thames may hint at some of the current problems of classification.

#### ACKNOWLEDGEMENTS

Mr. P. Alebon kindly drew the sword which is in the Grosvenor Museum's collection. (Accession No. 42.P.1973.).

#### NOTES

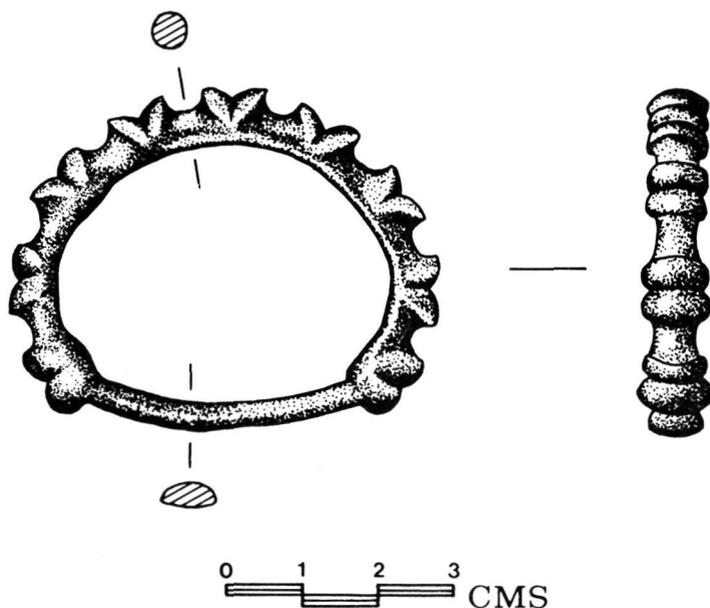
1. J. D. Cowen 'The Hallstatt Sword of Bronze: On the Continent and Britain' *Pap. Prehist. Soc.* 33 (1967) 443 No. 188.
2. Cowen *ibid.*, Nos. 108, 113.
3. Cowen *ibid.*, Nos. 412-413.
4. G. Eogan *Catalogue of Irish Bronze Swords* (Dublin, 1965).
5. P. Schauer 'Zur Herkunft der bronzenen Hallstatt-Schwerter' *Arch Korrespondenzblatt* 2.3 (1972) Nos. 261-270.
6. T. Champion 'Britain in the European Iron Age' *Archaeol. Atlantica* 1.2 (1975) 139.
7. C. N. Moore and M. J. Rowlands *Bronze Age Metalwork in Salisbury Museum* (Salisbury, 1972) 31-33.

# AN IRON AGE TERRET FROM THE THAMES FORESHORE AT ISLEWORTH, MIDDLESEX

JONATHAN COTTON

The terret is one of a number of scattered finds picked up between the tide-lines on the Thames foreshore at Isleworth, Middlesex, by Mr. John Gibson during the summer of 1975. Most of the objects, including the one here described, remain in the possession of the finder.<sup>1</sup>

Measuring 56mm x 46mm, the terret is of cast bronze, and paralleled by single finds from Fairford, Glastonbury and Springhead, and multiple finds from Hod Hill and Hunsbury. It is a fine, developed example of Leeds' Class I<sup>2</sup> with bivalvular pursed-lip like mouldings characteristic of the type. More recently this feature has been used as the basis for a re-classification by MacGregor,<sup>3</sup> and the terrets so distinguished placed in a separate 'ribbed' group with Spratling's 'Arras' (Yorkshire) terrets.<sup>4</sup> MacGregor's classification is preferred here, as the three terrets from Arras — a single example from the Lady's Barrow, and the two surviving from the King's Barrow<sup>5</sup> — although probably the best known, and perhaps the earliest, are at present the only northern representatives of a type otherwise restricted to the southern lowland half of the country.<sup>6</sup>



With nine bivalvular mouldings evenly spaced around its outer arc, the Isleworth terret can be compared with a similar example from Hod Hill,<sup>7</sup> and with another, one of two unprovenanced terrets in Saffron Walden Museum,<sup>8</sup> although examples with as few as six,

and as many as eleven or twelve mouldings are known.<sup>9</sup> As a stylistic feature, the bivalvular moulding can be traced to the split-lip mouldings on the chapes of Piggott's Group II sword-scabbards,<sup>10</sup> which have a continental La Tène II ancestry, and whose distribution correlates neatly with that of the ribbed terrets.<sup>11</sup>

That the terret functioned as a rein-ring or rein-guide now seems certain, particularly in view of the many instances of wear or fracture noted at two opposing points on the ring's inner arc,<sup>12</sup> an observation which holds good for the worn facets on the Isleworth terret. Using evidence from the Stanwick and Polden Hill hoards, Leeds long ago argued that a double harness included five terrets,<sup>13</sup> four small matching examples (of which this is one) and a larger and more elaborate fifth.<sup>14</sup> Stead later demonstrated that the four small terrets were distributed in two pairs set in the yoke above each horse, and argued that the fifth was mounted on the front of the pole or on the front of the vehicle itself to guide the reins to the driver.<sup>15</sup>

Such items of prestige metalwork are unlikely to have been common enough for everyday use, and the weight of evidence does not indicate more than a small number of mobile craftsmen engaged in their production. The situation is perhaps best illustrated by the presence of a 'bronze foundry' within an agricultural settlement at Gussage All Saints in Wiltshire,<sup>16</sup> where the excavated evidence suggests that the craftsmen were 'called in', and maintained only a short-term, but nonetheless intensive level of activity. Among articles of harness manufactured here by the *cire perdue* or 'lost wax' process, were terrets of the type under discussion.<sup>17</sup>

As with other ribbed terrets, the dating of the Isleworth example depends largely on the stylistic analogues provided by the Group II sword-scabbards. These, with their La Tène II background, belong to the second half of the 2nd and 1st century B.C.<sup>18</sup> Broad agreement is established by the 2nd-1st century B.C. dating of the Arras cemetery<sup>19</sup> with its three bronze-flashed iron terrets, which may perhaps be placed at the head of the ribbed terret sequence. Further, Spratling ascribes terrets of this type to the first of the two main phases into which he divides the bronzes of the southern British later pre-Roman Iron Age, and for which a 1st century B.C. date is argued,<sup>20</sup> although MacGregor suggests that the chronology may have to be extended into the 1st century A.D. to provide the stylistic inspiration necessary for later types.<sup>21</sup> The Isleworth example may therefore be dated to the 2nd century B.C. — early 1st century A.D., with the emphasis in the latter half of the period, and compared with the famous parade pieces attributed to the 'Thames school' of bronze-smiths (e.g. the Brentford 'horn-cap', and the Battersea shield) which are all similarly dated.<sup>22</sup>

#### ACKNOWLEDGEMENTS

My thanks are due to the finder for allowing this note and illustration to be prepared; to James Barfoot for drawing my attention to the find originally, and suggesting that it be published; to Sheila Jordain of the Saffron Walden Museum for information concerning the unpublished terrets in her custody; to Chris Going for his help and advice in the final stages of the work; and to Frances Lynch and Hugh Chapman for reading and commenting on the text.

#### NOTES

1. Precise details of the findspot have been deposited with the Museum of London, and may be consulted there. It is hoped to make the other finds, which include part of an Early Bronze Age handled beaker; a small quantity of scrap bronze which includes a

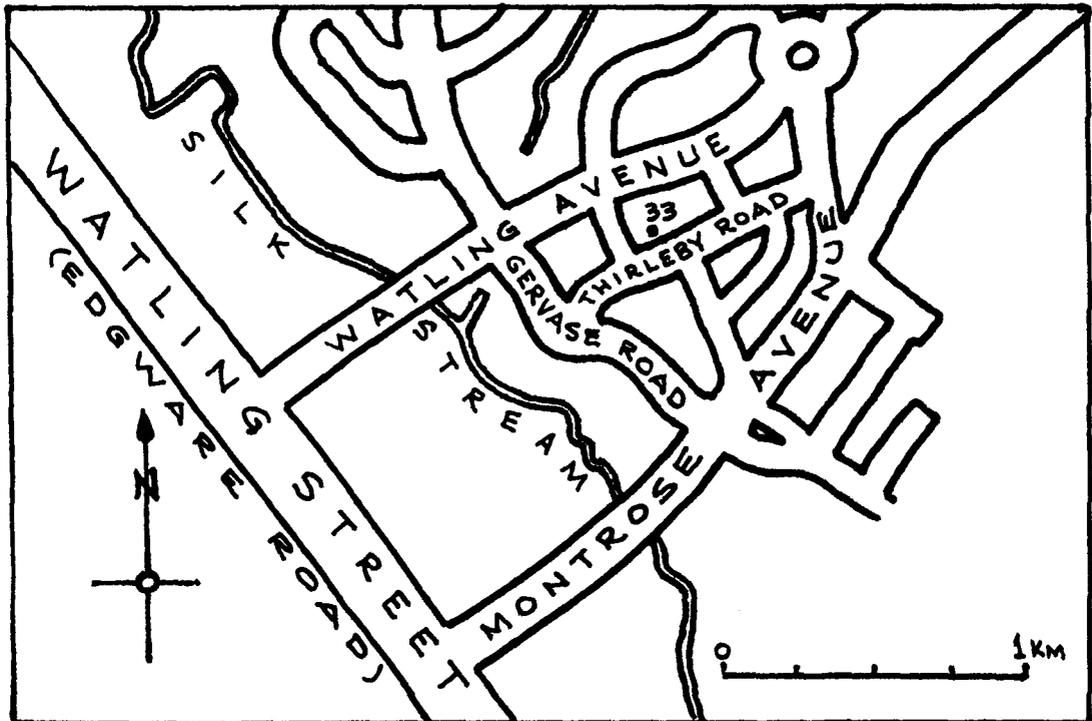
fragment of Late Bronze Age lead-bronze sword blade and part of a (?) chape; two La Tène I brooches; and a number of British 'potin' coins, the subject of a further note at a later date. The publication of the terret in advance of these pieces is as a result of a request by the Museum of London.

2. E. T. Leeds *Celtic Ornament in the British Isles down to A.D. 700* (Oxford 1933) 118-9.
3. M. MacGregor *Early Celtic Art in Northern Britain 1* (Leicester 1976) 38.
4. M. G. Spratling 'The Bronze Foundry' in G. J. Wainwright & M. G. Spratling 'The Iron Age Settlement of Gussage All Saints' *Antiquity* 47 (1973) 118.
5. I. M. Stead *The La Tène Cultures of Eastern Yorkshire* (York 1965) 89-91.
6. MacGregor *op. cit.* in note 3, Map 6. A second ribbed terret from Hod Hill (J. W. Brailsford *Antiquities from Hod Hill in the Durden Collection* (London 1962) 15, No. 17.), together with part of another from Torberry Hill, Sussex (B. W. Cunliffe *Iron Age Sites in Central Southern England* C.B.A. Research Report 16 (1976) 14 and Fig. 14 No. 2.), can be added to the sixteen examples listed in MacGregor *op. cit.*, of which the most important are the multiple finds from Hunsbury (3); Hagbourne Hill (2); Barbury Castle (2); and the King's Barrow, Arras (2).
7. Brailsford *ibid.*, 15, No. 17.
8. Information from Sheila Jordain (pers. comm.).
9. Examples with six mouldings include that from Glastonbury; with seven mouldings, one of the King's Barrow terrets; with eight mouldings, those from Hagbourne Hill and Richmond's excavations at Hod Hill; with ten mouldings, that from the Lady's Barrow, Arras, and one of the Hunsbury terrets. The larger of the two unprovenanced terrets from Saffron Walden Museum has eleven mouldings, while a second, somewhat corroded example from Hunsbury has eleven or possibly twelve mouldings, and although now broken, the Springhead (Kent) terret may have had as many as twelve or even thirteen. For individual references see MacGregor *op. cit.* in note 3.
10. S. Piggott 'Swords and Scabbards of the British Early Iron Age' *Proc. Prehist. Soc.* 16 (1950) 5-10 and Figs. 2 & 3.
11. Compare Piggott *ibid.* Fig. 5 and MacGregor *op. cit.* in note 3, Map 6. Little significance is here attached to the absence of the terrets from the Thames, as this may be explained by the nature of the objects themselves, which are small enough to escape the casual attention of dredging-workers.
12. MacGregor *op. cit.* in note 3, 39.
13. Leeds *op. cit.* in note 2, 121-2.
14. A view amply corroborated by the complete set of harness recently recovered from the chariot burial at Garton Slack (T. C. M. Brewster 'The Garton Slack Chariot Burial, East Yorkshire' *Antiquity* 45 (1971) 290-1).
15. Stead *op. cit.* in note 5, 44.
16. Spratling *loc. cit.* in note 4.
17. *Ibid.* 121-2.
18. Piggott *op. cit.* in note 10, 24.
19. Stead *op. cit.* in note 5, 82.
20. Spratling *op. cit.* in note 4, 122-3.
21. MacGregor *op. cit.* in note 3, 42.
22. R. Canham 'The Iron Age' in *The Archaeology of the London Area: Current Knowledge and Problems* London Middx. Archaeol. Soc. Special Paper No. 1 (1976) 47-8.

# ROMAN POTTERY FROM THIRLEBY ROAD, BURNT OAK, EDGWARE

REPORTED BY  
THE HENDON & DISTRICT ARCHAEOLOGICAL SOCIETY

In 1970 the tenant of No. 33 Thirleby Road (TQ 2059 9080), on the GLC Watling Estate at Edgware, dug two parallel trenches for a car run-in from his front gate to his garage door. These were just under a metre apart and each about 250mm deep, 300mm wide and 15m long. In the spoil from these trenches he noticed part of an unusual vessel. This he brought along with some other sherds to the Hendon & District Archaeological Society for identification.



The sketch-map, drawn by William Morris, shows the relationship of the site to the line of the modern A5 road, believed to lie on or very close to the original line of Watling Street.

The large fragment was the rim, neck and handle of a single-handled grey coarseware flagon, dated to the late 3rd/early 4th century.<sup>1</sup> The rim was undercut; the top of the handle was pushed close up beneath the rim, with the mark of the potter's thumb showing; there were some faint dark grey vertical striations on the neck; traces of white paint on both rim and double-grooved handle; and a deep groove running round the neck just above the base of the handle. The fabric was hard, harsh to touch and similar to fabrics used in kitchen vessels from the Alice Holt/Farnham area.<sup>2</sup> Half a dozen of the other sherds were also Roman.

The following year the tenant of No. 33 allowed the Hendon & District Archaeological Society to excavate the central strip of the car run-in; and later in 1971 he permitted two trenches, each 2.5m by 1.25m, to be cut in his front lawn, which was separated from the run-in by a flower bed 1.5m wide.

As a result of these two very small excavations (covering an area of only 18 sq. m in all) a modern trench running right across the site east-west was identified; two pits, possibly Roman, were found, one underlying a disturbed layer filled with much modern building material, and both containing a silty grey fill with fragments of Roman pottery. One of the pits, in the car run-in, was probably only the base of a pit, the top of which had already been cut away; at full depth it was only 300mm below modern ground surface. The other pit began 450mm below modern surface and went to a depth of one metre. An area which may have been part of a pit or gully was also found; it contained a similar grey silty fill with pottery, but because of the limits of the excavation its area could not be defined.

The pit in the run-in produced, at 50mm below modern ground surface, a small bronze coin in a frail condition, which has been identified as a barbarous radiate dating to A.D. 270-300.

In all, 52 sherds of Roman pottery were found, 19 of them unstratified and the remainder uncovered in the grey pit-fill. The fragments included 4 flanged rims; two body sherds from a thick grey storage jar; part of a redware base and part of a redware lid, both with traces of applied red slip; a number of greyware dish and jar rims, several undercut and some with white paint; some colour-coated fragments, one with rouletting; part of a black burnished indented beaker, cross-hatched in white; and a body sherd of a pipe-clay mortarium with dark grits. Almost all the sherds were heavily abraded, and all could have fallen within the date range of late 3rd/early 4th century.

Thirleby Road runs east-west just over a kilometre from the north-south line of Roman Watling Street (now the A5) at Burnt Oak. The house in the garden of which the pottery was found is situated below the brow of a small hill or knoll. It seems possible that a Roman building may once have crowned this hill (now completely built over) and that the rubbish from it was deposited in pits lower down the slope.<sup>3</sup>

#### NOTES

1. Mr. Norman Cook kindly looked at the material on two occasions and expressed an opinion on the date.
2. Cf R. Blurton 'Excavations at Angel Court, Walbrook, 1974' *Trans. Lon. Middlesex Archaeol. Soc.* 28 (1977) Fig. 8 No. 204. The parallel is not

exact, as the Walbrook rim is not undercut.

3. HADAS would like to acknowledge with thanks the helpful co-operation of the tenants of 33 Thirleby Road, Mr. and Mrs. John Whiston.
4. The finds are lodged with the Hendon & District Archaeological Society.

# KILN MATERIAL FROM THE THAMES FORESHORE IN THE CITY

G. EGAN

Items from tinglazed ware and stoneware kilns recently recovered by the Department of Urban Archaeology of the Museum of London from the foreshore of the Thames in the City were first noticed on the naturally accumulated shore. Greater quantities of items from both groups have subsequently been found next to revetments, behind which dumps of rubble had been deposited to form level mooring places adjacent to the wharves. Tidal action was probably responsible for scattering the kiln material over a wider area from the original location behind the revetments.

## TINGLAZED WARE

The tinglazed ware items come from a small area of the foreshore 35 metres west of Southwark Bridge on the north bank. Saggars, wasters and tiles which may have been kiln furniture are represented. The saggars have U-shaped or triangular apertures (Bloice<sup>1</sup> types 1 and 2) and support pins to fit the latter have been found also. Internal diameters vary between 180mm and 240mm. The vessel fragments mentioned here are all in the biscuit state. Glazed sherds which might be part of the group have not been included to avoid confusion with domestic refuse items from the same area.

Sherds with diagnostic base or rim profiles indicate that the following forms are present:

Albarello- or cauldron-type containers with hollowed bases and straight-sided feet, also a larger example with a chamfered foot (*cf.* nos. 81, 96 and 98).

Storage vessels. (*cf.* nos. 89 and 90)

Dishes (type 2) or bowls with footrings.

A dish with a thick footring. (type 3)

Plates without footrings. (type 1)

A lid. (*cf.* no. 75)

A bowl handle (similar to no. 57 but with a spade-shaped perforation.)

A cup.<sup>2</sup>

Pale yellow tile fragments bear occasional drops of white or blue tinglaze. Most of the items have patches of a grey concretion adhering, within which are pieces of charcoal, tile, pitch, stones and biscuit ware. The significance of this is uncertain.

Although most of the vessels can be paralleled by finds from Norfolk House, it must be remembered that there were a number of contemporary factories producing a similar range. Too few items have been recovered from the foreshore to establish the relative quantities of the rarer items manufactured. It is this pattern of overall production levels<sup>3</sup> which might help in attributing the group to a particular kiln. The dominant forms in the group are the common albarello- or cauldron-type vessels.

By analogy with the Norfolk House finds, the group can be dated broadly to the late 17th century and to the first half of the 18th century, although it cannot be matched exactly with any of the three chronological groupings suggested for the production period there. Saggars with U-shaped apertures seem to be 17th century in date<sup>4</sup> while those with triangular pegs are usually 18th century. The assemblage may be from rubbish that was accumulating at a kiln over a long period prior to dumping on the foreshore.

The discovery of tinglazed ware kiln items on the same general area of the foreshore, presumably part of the same group, has received mention in the past,<sup>5</sup> though no details have been published.

The group is explained more easily as the remains of an eroded dump, having been brought to the site for use as hardcore, rather than as evidence of an industry in the immediate locality. The fragments are water-worn, and the posts of a revetment immediately north of the findspot probably indicate the site of the dump. A scarcity of fresh-water snail shells in the shore where the group was found, compared with the numbers found nearer to the low-tide point provides further evidence that the shore here is not a natural build-up. Unless the possibility of a tinglazed ware production site in the area of the Steelyard<sup>6</sup> proves more likely than it now appears to be, the present group's origins are to be found over the river among the south bank kilns.

#### STONEWARE.

The stoneware kiln material has been found *in situ* behind a revetment immediately west of the entrance of Queenhithe Dock and, presumably subsequently scattered by the tide, on the surface of the foreshore in the dock itself.

The group comprises fragments of saggars and vessels, items of kiln furniture, and irregular lumps of saltglazed fired clay bearing fingerprints from being squeezed while still malleable.

The saggars have U- or tear-shaped apertures and internal diameters of 60-65mm. Few vessel sherds are diagnostic; a piece of a round-shouldered jar, similar to bung jars illustrated in sales catalogues of 1873,<sup>7</sup> came from behind the revetment, and a piece of a waster jar with an angled shoulder and a plain vertical rim was found in the dock. Kiln furniture includes crude flattened roundels and rodlike bars which could have acted as separators or supports.

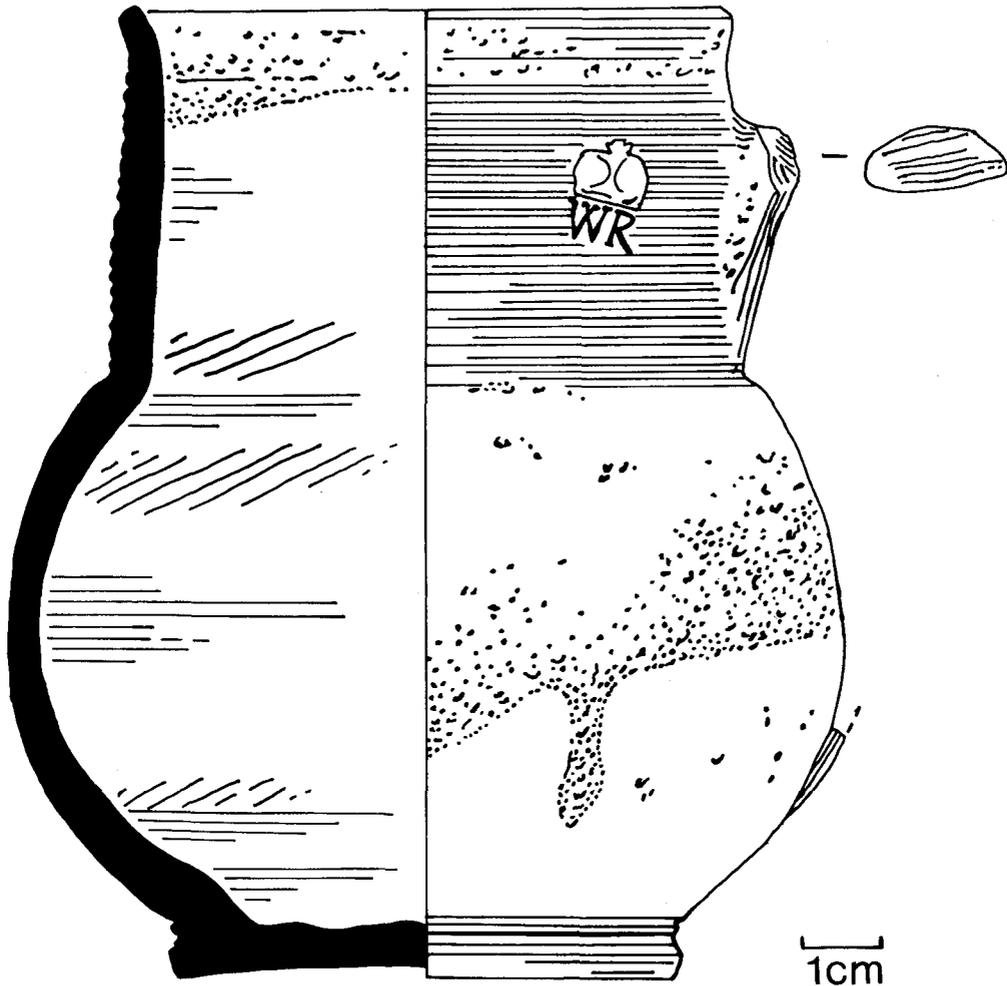
Fragments of 18th and 19th-century pottery and pipe bowls have also been recovered from the dump behind the revetment.

The kiln furniture and saggars are similar to the material from Fulham<sup>8</sup> which has been dated to the beginning of the 18th century. The two jars seem to belong to the 19th century, giving a broad date range for the group, which was probably manufactured at the Fulham kilns.<sup>9</sup> Presumably it was dumped in the latter half of the 19th century.

Further isolated fragments of saggars have been recovered from the foreshore near London Bridge in the City, and at several points between Blackfriars Bridge and Waterloo Bridge on the south side. These and similar finds upstream<sup>10</sup> may well be from further dumps of hardcore, now eroded or covered with other deposits.

#### A STONEWARE MUG FROM THE FORESHORE

Fragments making up the greater part of a globular pint-sized mug with a WR capacity mark have been recovered<sup>11</sup> from a small area in the foreshore just east of Queenhithe



Dock. Several imperfections indicate that the vessel is a waster. The handle was broken off at the kiln, since there is glaze over the stub on the neck. Below this, on the body, is a circular patch of darker glaze (some fragments are missing from this area) of a similar diameter to the mug's neck. This patch is partly bounded by a rough ridge where an object has come into contact and fused during firing. Opposite the handle the neck and the body are slightly distorted as a result of pressure from a flat object which again partially fused with the glaze. It is likely these marks are the result of the collapse of a stack of similar vessels in the kiln and that the neck of another mug came to rest against the body of the present one after the handle had broken off.

Similar mugs, dated to the late 17th century and 1730-1750, and a fragment with a WR capacity mark<sup>12</sup> in an oval surround are known from a kiln site at Fulham.<sup>13</sup> A closer parallel, *i.e.* without a surround to the letters, is provided by examples found in a dump at Bankside, possibly derived from the Gravel Lane Potteries of *c.* 1694-1750.<sup>14</sup>

How this waster (or usable second?) came to be on the foreshore is not clear. It does not seem to be connected with the stoneware dumped on the other side of the dock, since it was found in a sealed layer of mud, dated by clay pipes and other items, that apparently built up in the 18th century.

NOTES

1. All the type numbers and comparisons in the tinglazed ware section refer to B. J. Bloice with G. J. Dawson 'Norfolk House, Lambeth; Excavations at a Delftware Kiln Site 1968' *Post Med. Archaeol.* 5 (1971) 99-159.
2. Similar examples are illustrated by I Noël Hume *Early English Delftware from London and Virginia* (Colonial Williamsburg Foundation 1977) Pl. 15.
3. B. J. Bloice *op. cit.* in note 1, 150.
4. Noël Hume *op. cit.* in note 2, 103.
5. Noël Hume *ibid.* 104.
6. Noël Hume *ibid.* 114.
7. Doulton and Watts Lambeth Pottery *Price List of General Stoneware 1873*; James Stiff and Sons, Manufacturers, High Street, Lambeth, May 1873 *Price List* (both at Shepherd's Bush Library, under *Fulham*).
8. V. R. Christopher, D. C. Haselgrove and O. H. J. Pearcey *The Fulham Pottery* Fulham and Lambeth Historical Soc. (Archaeology Section) Occasional Paper 1 (2nd Impression 1977) 9 saggars Nos. 2 and 3.
9. I am grateful to Mr. O. H. J. Pearcey for this opinion.
10. 'Wandsworth Mudlarking' *London Archaeologist* 1 no. 11 (1971) 248.
11. I am grateful to the finder, Mr. P. Elkins, for lending the mug for comment, and to Chris Green for the drawing.
12. See M. Bimson 'The Significance of Ale Measure Marks' *Post Med. Archaeol.* 4 (1970) 165-6 for the apparent dating anomaly.
13. G. Canvin 'Some Archaeological Work in the Borough of Hammersmith' Fulham and Hammersmith Historical Soc. (Archaeology Section) Occasional Paper 2 (1975) Site A, Nos. 1-5.
14. A. Oswald 'A Stoneware Pottery, Recent Excavations at Bankside' *The Connoisseur* 126 (Dec. 1950) 183-185 Fig. 1.

I would like to thank Mr. D. Haselgrove, and Philippa Glanville, Chris Green and Clive Orton of the Museum of London for many valuable suggestions made during the preparation of this paper. Any remaining faults are my own.

## BOOK REVIEW

MARYANN BOWEN *The Archaeology of the Colne Valley Park* Research Memorandum 516, Greater London Council (1977) £3.00, 46pp.

This Research Memorandum on the archaeology of the Colne Valley Park brings together scattered information on archaeological sites and finds. The report was initially for use in consideration of the planning of alternative routes of the North Orbital Motorway M25 (Egham-Maple Cross) but later expanded to include the whole of the park.

The idea of the G.L.C. to collate this scattered archaeological information for use by Council planners, developers and archaeologists, is one for which it is to be congratulated. Unfortunately the presentation of ideas and information leaves something to be desired. The author acknowledges the assistance of a number of archaeologists, but the ideas and statements expressed indicate that the author is not truly conversant with the area and does not understand the interrelationship of settlements to one another.

Such statements as 'Londinium was probably established as a military supply base by the late 1st century A.D.' and that evidence for villas tends to be concentrated in the west Kent area — leads one to suspect the validity of some of the information given.

In the Roman section a great deal is made of a suspected Roman road system — a subject which has always been fraught with problems. The author says that three known alignments of Roman roads have been reported. Of these only one has been located by any archaeological means (an aerial photograph) and even this road has had added to it at right angles a road which is known not to exist. The other roads rely on documentary sources and reports of now defunct societies. In any understanding of the road system in the Colne Valley — and there surely must be such — one has to take into account the major settlements within the vicinity of the Park together with kiln sites, farmsteads and villas. All these factors have seemingly been ignored. Similar mistakes have been made for the Saxon and medieval periods. In the conclusions, it is stated that there are occasional references to sites located immediately outside the Park, though these unfortunately are few and Staines, a major Roman settlement within ¼ mile of the park boundary, has barely a mention. The Fulmer and Hedgerley Roman kilns, the major excavations at Heathrow/Bedfont area since 1944 and the excavations of the Saxon settlement at Old Windsor are ignored; many more could be added to this list.

Though the underlying idea of the paper is very commendable and it contains many statements which are perfectly valid, it might be argued that it could be used by planners and developers as much against archaeology as for it and its lack of cohesion ensures that it will only have a limited use for archaeologists and historians who live and work in the Colne Valley Park. It is hoped, however, that other Councils with the Colne Valley Park in their jurisdiction will have received copies of this report and take note of what has been said.

For a Research Memorandum on the archaeology of the Colne Valley Park, which is intended as a guideline for future development and archaeological investigation, it is unfortunate that no field work was carried out (as stated by the author), surely essential in any archaeological survey, and that there was not fuller consultation with the people directly concerned in the archaeological field.

KEVIN CROUCH

## NEW BOOKS ON LONDON

KEVIN McDONNELL: *Medieval London Suburbs, Phillimore*, 1978, 196pp., 5 plates, 14 figures, £4.95.

In this well illustrated and scholarly book Dr. McDonnell traces the emergence of East London from the fields of the manor of Stepney to the developed water-front of Elizabeth's reign.

PETER CUNNINGHAM: *Hand-book of London*, EP Publishing Ltd. 1978, liv + 602pp., £9.95.

EP Publishing are to be congratulated on reprinting Cunningham's Handbook of London. This handbook, originally published in two volumes in 1849 with a second one volume edition of 1850, contains an immense amount of information about places of interest in London. This extremely well-produced reprint of the 1850 edition has an excellent introduction by Michael Robbins which concludes: "This is a book that informs, that incites to further inquiry, that can stimulate thought on all kinds of subjects. There are curious facts, apt quotations, good anecdotes in it. You can read it straight through, getting several kinds of adventitious satisfaction on the way; or you can dip here and there, bringing up unexpected treasures in your bucket; or you can refer to it for significant contributions to knowledge . . ."

L.S.S.

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