

# EXCAVATIONS AT DOLLIS HILL, BRENT

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*With contributions by John Giorgi, Alison Nailer, Susan Pringle, and Louise Rayner*

## SUMMARY

*Excavations at Brook Road, London NW2, on the crest of Dollis Hill, revealed the first archaeological evidence for Iron Age occupation in Brent. Evidence of late Roman farming and quarrying was found in the form of field ditches and large pits. Building material, quernstones, burnt grain, and domestic pottery indicated the proximity of farm buildings and a resident population. Subsequently the hilltop was quarried for sand in the medieval and Tudor periods. Finds of the Late Bronze Age to Early Iron Age are the first of their kind in Brent and make an important contribution to archaeological knowledge of this area of London.*

## INTRODUCTION

The Museum of London Archaeology Service (MoLAS) undertook an archaeological investigation in April 2000 at the site of 92 Brook Road, Neasden, London NW2, in the London Borough of Brent (Ordnance Survey reference 52240 18630; Fig 1). The work was commissioned by Thames Water plc in advance of the construction of a covered reservoir. Excavation followed a programme of trial work that included 32 evaluation trenches across the whole development site. The evaluation indicated that Roman cut features survived in the southern third of the site and consequently three areas targeted on these features, and covering 1883m<sup>2</sup>, were excavated between 30 May and 30 June 2000 (Fig 2). In this report context numbers in the text are shown thus: [1]; sample numbers are shown thus: {1}; and accession numbers given to certain

artefacts from the site are shown thus: <1>. Illustrated pottery sherds are referenced thus: <P1>. The archaeological fieldwork has been

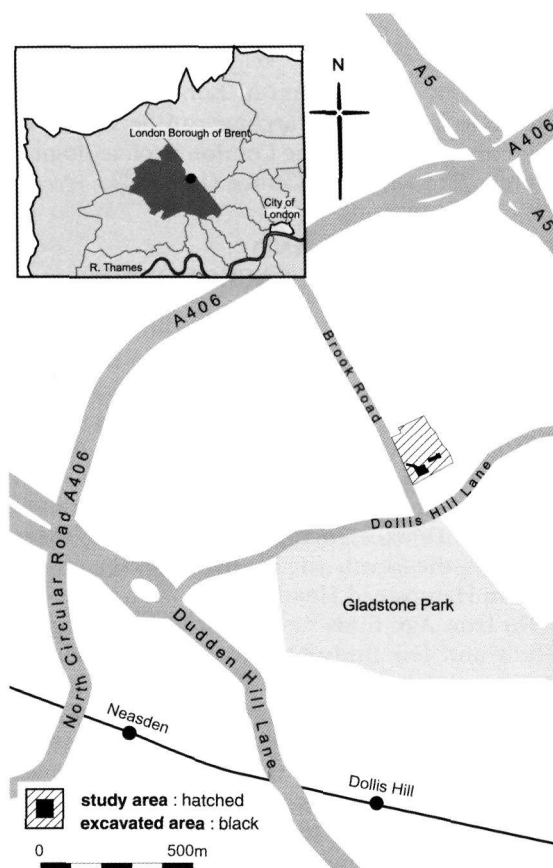


Fig 1. Site and trench location (Scale 1:25,000)



*Fig 2. View of the site under excavation, from the south*

archived by the Museum of London under the site code BKO00. The archive can be viewed by prior arrangement at the London Archaeological Archive and Research Centre (LAARC).

### **TOPOGRAPHICAL AND ARCHAEOLOGICAL BACKGROUND**

The site lies on the crest of a hill at between 72m and 76m OD and is capped by a high-level terrace gravel, the Dollis Hill Gravels, that varies in composition with yellow to black pockets of flint gravel and pure sand. The Gravels overlie the weathered surface of London Clay. The River Brent and its tributaries, along with tributaries to the River Thames, surround Dollis Hill on three sides. On the fourth side is a dry valley separating it from Hampstead Heath (Fig 3).

No Iron Age finds have been recovered from Brent and few findspots of prehistoric pottery are known from this area, although Bronze Age metalwork has been found at Neasden (Fig 3; MoLAS 2000, 94, nos BT1 and BT2).

The nearest Roman remains are flint walls from a possible villa site at Salmon Street, west of the Brent (Welsh Harp) reservoir (Fig 3; Sheldon & Schaaf 1978, 84, no. 4), and Roman pottery from Old Church Lane and St Andrews Church where building material was also found (Fig 3;

MoLAS 2000, 162, nos BT2–5). Both of these sites are 2km or more distant. Watling Street, the Roman road from London to North Wales and the North-West of Britain, runs through the dry valley along the line of Edgware Road. Dollis Hill appears to have remained open land until it was enclosed for pasture in the 19th century. A Post Office research station was constructed between the Wars and Brook Road was built. It was used as an emergency war headquarters during World War II, when radio masts were constructed on the site. It is thought that the crest of the hill may have been truncated around this time to produce a flat surface for their construction.

### **THE SITE SEQUENCE**

#### **Early Iron Age (Period 1)**

A short stretch of ditch (Ditch 1, Fig 4) and a small pit (Open Area 1, Fig 4) were both filled with an homogeneous grey silt-sand and both produced a quantity of Iron Age pottery (<P1>–<P6>, Fig 9). The fill of Ditch 1 also included a sherd of Roman pottery and both Ditch 1 and the pit contained a small quantity of Roman building material and Hertfordshire puddingstone. However, Ditch 1 had 34 sherds of prehistoric pottery suggesting that the Roman

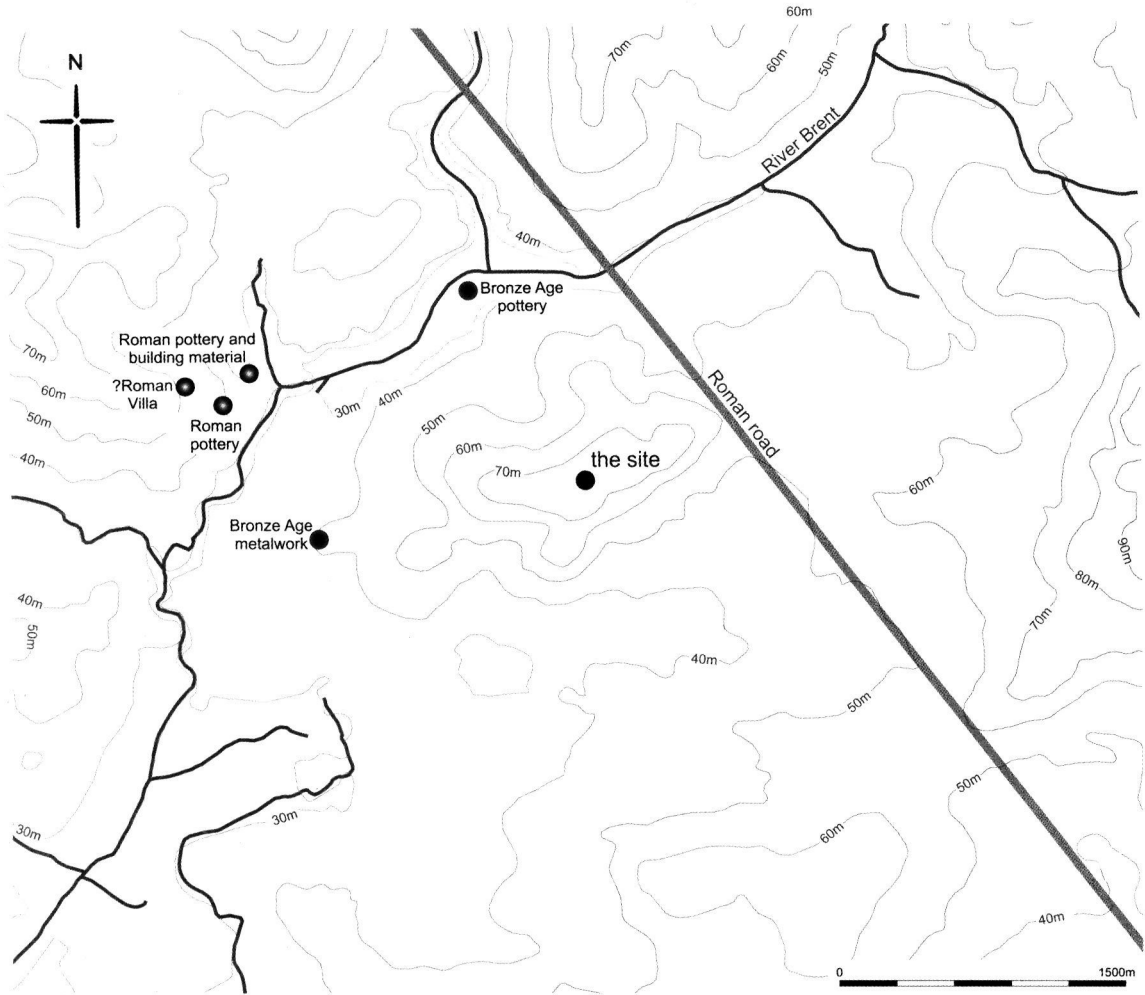


Fig 3. Site in relation to the modern topography and rivers showing the nearby Roman road and location of Bronze Age and Roman finds (10m contour interval; scale 1:40,000)

material may have been intrusive rather than the prehistoric pottery being residual. The evidence is also somewhat ambivalent since the ditch is on the same alignment and slightly south of the projected line of a late Roman ditch (Ditch 3, Fig 5).

### Late Roman (Period 2)

The largest group of archaeological remains was dated to the late Roman period (Period 2). Most finds are dated consistently later than AD 250, often later than AD 270. Finds of the 1st and 2nd centuries AD were either residual or

reused items. Two distinct types of features were recorded: sand quarries and ditches (Fig 5).

### Quarries (OA2)

The quarries (Fig 5, Open Area 2) are c.5.0m in diameter and originally would have been c.2.0m deep; they were presumably dug for the extraction of sand. The backfills were largely sterile with only the occasional find, including building material, pottery, an iron sheet <2>, and a fragment of a fine-grained sandstone hone <3>. The hone is somewhat larger than those normally kept for personal use and may have

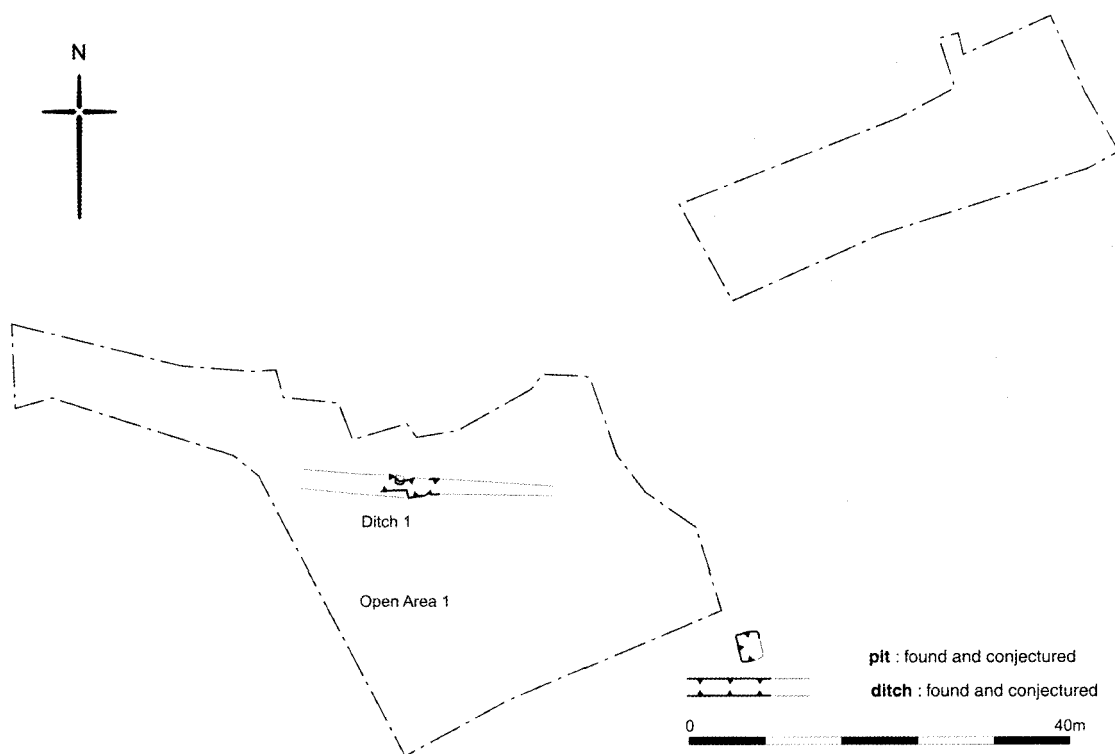


Fig 4. Iron Age features (Scale 1:800)

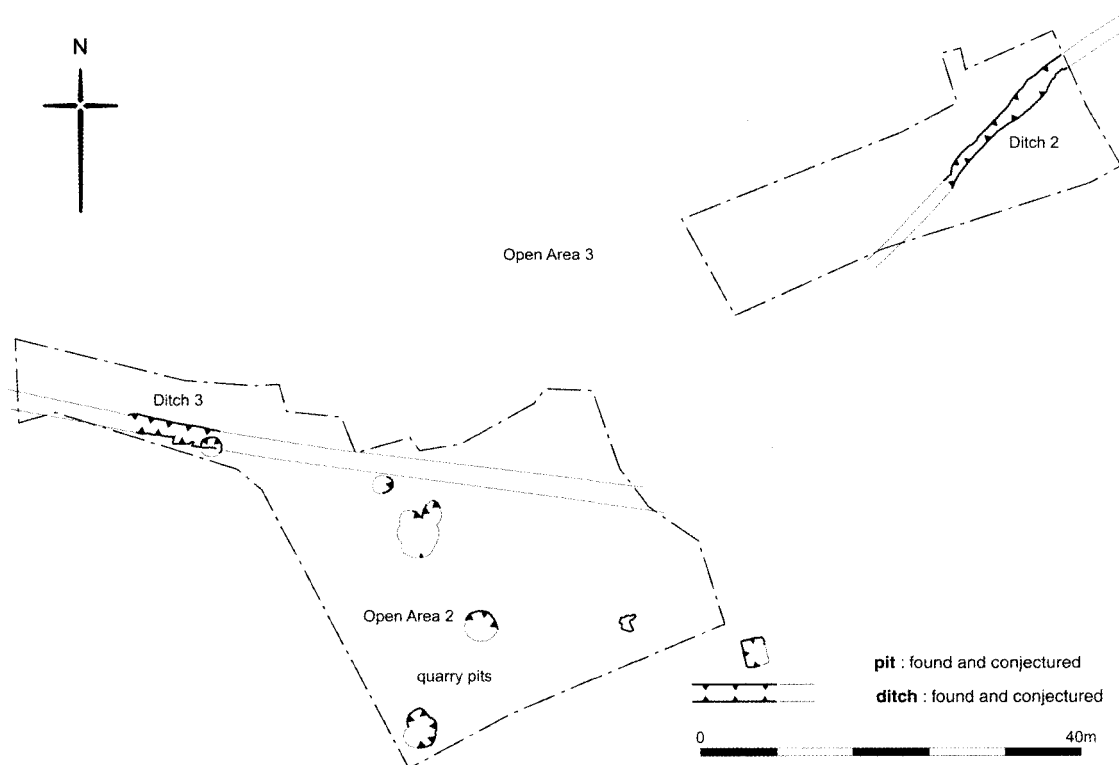


Fig 5. Late Roman features (Scale 1:800)

been used for sharpening tools or agricultural implements.

The pottery from the quarry pits was of a similar nature to that from the adjacent ditches (Ditches 2 and 3). One quarry pit fill, [35], contained a smashed but almost complete example of an Oxfordshire red/brown colour-coated ware (OXRC) dish imitating the samian form Drag 31 (Young 1977, 158 type C45); such dishes are dated *c.*AD 270–400+.

An environmental sample taken from the fill, [10], of a large quarry pit near the southern boundary only produced a very small assemblage of charred grains, weed seeds and chaff fragments together with a few small fragments and flecks of charcoal (see Table 3). The botanical assemblage probably derives from processing activities. Very little other material was present apart from a few fragments of large mammal teeth, possibly from cattle, and occasional pottery sherds.



*Fig 6. View of Ditch 2, from the north*

*Ditches 2 and 3*

Two ditches (Ditches 2 and 3, Fig 5) had homogeneous fills with no distinction between primary use and secondary backfill deposits. They may have formed two sides of a large field (Open Area 3). It is perhaps significant that Ditch 2 (Fig 6) was located near the boundary of the outcropping London Clay with the overlying sand and gravel. The two types of subsoil influence drainage and, consequently, potential crop or pasture regimes. The surviving ditches were c.0.6m deep, but may have been over 1.0m deep originally.

The largest groups of Roman pottery were recovered from Ditch 2 and Ditch 3 (Fig 7), which produced 331 sherds of Roman pottery, as well as 74 prehistoric sherds. The assemblage includes a number of diagnostic forms of 4th-century AD

date as well as a range of indicative fabrics. Alice Holt/Farnham ware (AHFA) vessels comprise a large proportion of this assemblage, with both jars and bowls present. The bowls include a bead and flanged type (<P8>, Fig 7; Lyne & Jefferies 1979, fig 32 Class 5B), with traces of white slip on the rim, which is a feature generally ascribed to late 3rd- and 4th-century AD vessels; examples from the waster-dumps at the production site have been dated c.AD 270–350. The straight-sided dish (<P9>, not illustrated) also has black slip extending from just below the single groove on the exterior over into the interior (*ibid*, fig 36 Class 6A).

Two distinctive rim sherds from this group (<P10>, Fig 7) are possibly from a strainer (Lyne & Jefferies 1979, fig 33 Class 5C.2). The rim is folded back to join the body; a rim type that

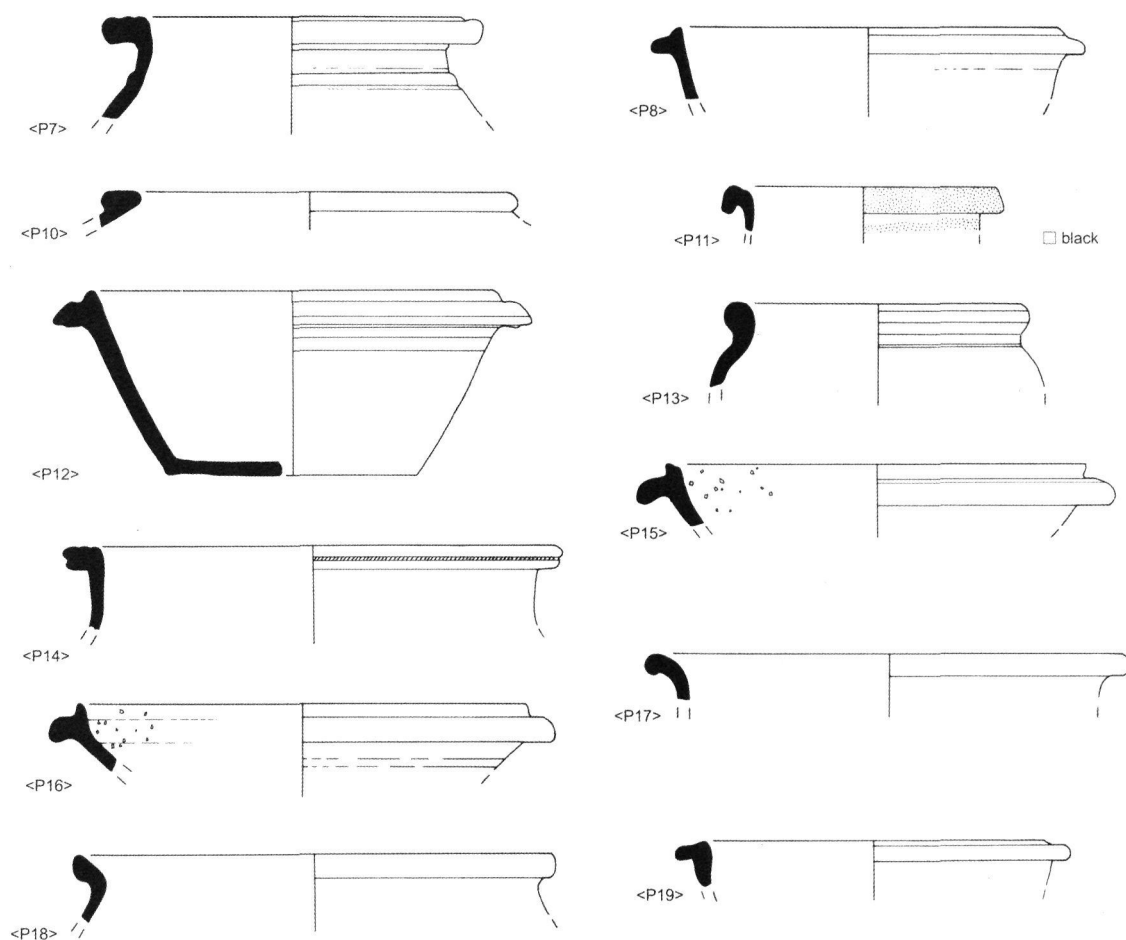


Fig 7. Roman pottery from Ditch 3 <P7–P8> <P10–P11> and Ditch 2 <P12–P19> (Scale 1:4)

appears to be associated with strainers, although no other sherds from this group supported this interpretation. Strainers of this type are dated c.AD 270–420 (*ibid*, 47).

Alongside the Alice Holt/Farnham ware (AHFA) bowls, there are also a number of jars including everted-rim, necked, and storage jars. The large reed-rimmed jar (<P7>, Fig 7) is similar to a published example dated c.AD 270–350 (Lyne & Jefferies 1979, 37 fig 22 Class 1.34). The necked jar (<P11>, Fig 7) has black slip on the rim and in bands on the neck (*ibid*, fig 23 Class 1A.13); as with the bowls, examples of this class with applied slip are dated c.AD 270–350.

Other jars in this group include hooked- and square-rimmed vessels (for example <P17>–<P18>, Fig 7), which also occur in the Billingsgate bathhouse group (Symonds & Tomber 1991, 77). The occurrence of both a jar <P18> and a bowl <P19> in shell-tempered fabrics (SHEL) is further evidence for the re-emergence of shell-tempered wares in the 4th century AD.

Aside from the reduced coarse wares, there are oxidised wares from the Oxfordshire region (Oxfordshire red/brown colour-coated ware (OXRC); Oxfordshire parchment ware (OXPA); Oxfordshire white ware (OXWW)) and the lower Nene Valley (Nene Valley colour-coated ware (NVCC)). The straight-sided flanged bowl (<P12>, Fig 7) is the most common NVCC bowl type of the 4th century AD (Perrin 1999, 104). The NVCC square-rimmed jar (<P13>, Fig 7) is also a common type in this period (*ibid*, 106).

The Oxfordshire wares are standard late Roman types and include Oxfordshire red/brown colour-coated ware (OXRC) bowls and mortaria, as well as the illustrated examples (<P14>–<P16>, Fig 7), which are a parchment ware bowl with red-painted decoration (Young 1977, type P24) and two mortaria (*ibid*, type M18 and M22).

The presence of five sherds of Portchester D ware (PORD) in the large pottery group from Ditch 2 dates the final disuse of the ditch to later than AD 350. However, pottery, discarded on household middens which were subsequently used to fertilise fields, probably ends up in field ditches as a result of natural erosion and depositional processes (see Brannigan 1989, 164–6). The pottery assemblage should therefore be considered the result of gradual accumulation and, taken as a whole, would indicate that Ditch 2 started filling after AD 250, and that this process continued throughout the 4th century AD.

The vast majority of the charred plant remains from the site were from Ditch 2 (see Table 3). The charred plant assemblage in this sample was dominated by hundreds of cereal grains and large weed seeds plus a little wheat chaff and a very small quantity of fragmented charcoal.

The cereal grains consisted mainly of poorly preserved wheat grains (spelt, emmer, and free-threshing wheat) with traces of barley, oats, and rye. The oats and the ?rye grain are probably cereal weeds. The weed seeds consisted mainly of large grasses, predominantly bromes. The relatively clean nature of the charred assemblages with a predominance of grain and large weed seeds (of a similar size to the grains) suggests that the grain, accidentally burnt, was at an advanced stage of processing.

These ditch fills also contained a large amount of ceramic building material and fragments of two quernstones, <4> and <5>, made from Millstone Grit. The building material included combed flue tiles, which would have originally been used in a hypocaust heating system. The presence of the quernstones (used for small scale milling of cereals) along with the charred remains of an almost fully processed crop could be associated with a corndrier, perhaps suggested by the flue tiles also derived from the ditch. Flue tiles were sometimes used in sophisticated corndriers, as for example at Bignor Roman villa (Frere 1982, 153 and pl VIIa); these structures appear to have been multi-functional, for the drying of grain and the preparation of grain for malting. However, the quantity and proportion of Roman roof tile found in the ditches suggest that it came from a collapsed roof. If the ceramic building material was reused in a structure such as a corndrier, a higher ratio of *tegula* and brick to *imbrex* would be expected than is the case. In addition to the Millstone Grit fragments, there were pieces of Hertfordshire puddingstone, often used as a decorative building stone but also used to make large millstones.

### Medieval and post-medieval (Period 3)

Two further quarry pits were recorded both c.5.0m in diameter (Fig 8). The fill of one included a few sherds of Kingston and London ware (dated to 1270–1350), including part of a tulip-necked baluster jug. The second quarry contained a brick dated to 1450–1700.

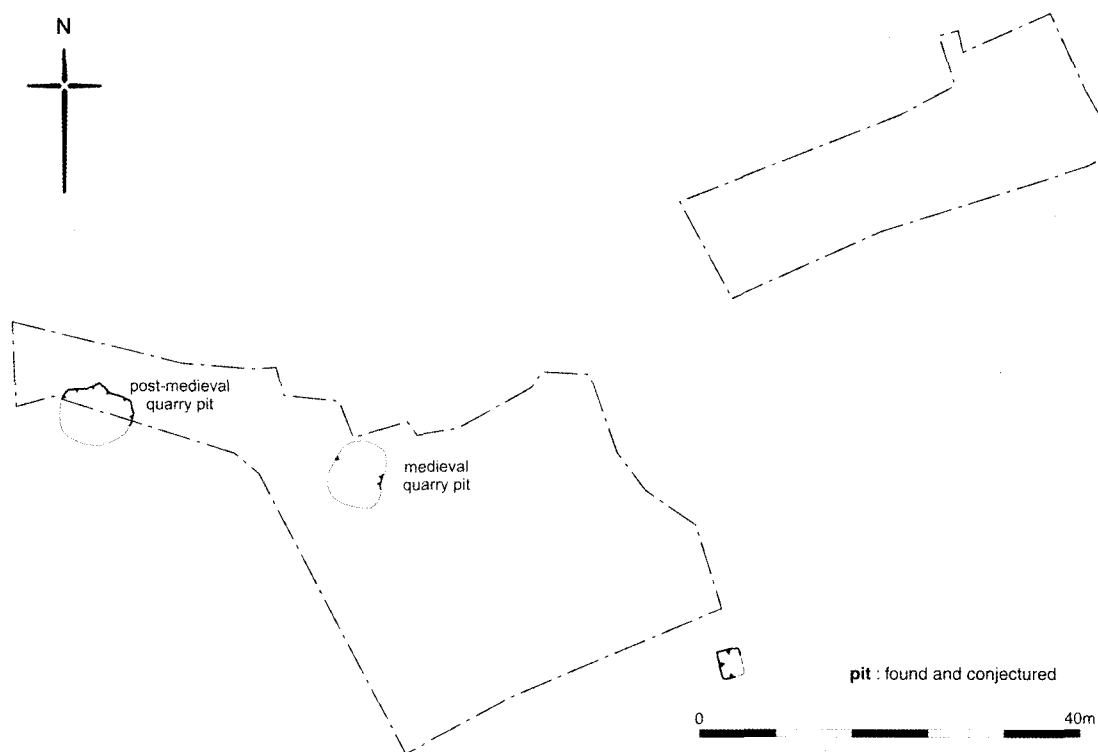


Fig 8. Medieval and post-medieval features (Scale 1:800)

## SPECIALIST REPORTS

### The non-ceramic finds

*Alison Nailer*

#### *Catalogue*

Abbreviations of dimensions used in the catalogues are as follows: L Length, W Width and Th Thickness.

#### Iron

<1>, [8], unstratified

Fragment of thick iron plate/bar. Three surviving edges. No rivets or rivet holes but an X-ray appears to show traces of wood in corrosion products. As the bar is slightly curved this may indicate that it is a section of a barrel hoop.

<2>, [38], P2, OA2

Small fragment of thin plate/sheet iron. ?Three cut edges. No rivets or rivet holes. L 55mm, W 37mm.

#### Stone

<3>, [38], P2, OA2

Fine grained sandstone hone. Rectangular section. Broken fragment, traces of burning. Three sides polished by wear. L 50mm, W 36mm, and Th 30mm.

<4>, [7], P2, Ditch 2

Coarse grained sandstone (Millstone Grit) quern. Small fragment. One polished side, one polished edge possibly for feed hopper or central hole of lower stone. One grinding side with two deep grooves. L 77mm, W 49mm, and Th 36mm.

<5> [7], P2, Ditch 2

Coarse grained sandstone (Millstone Grit) quern. Fragment. One very worn grinding side with two radiating grooves. L 130mm, W 87mm, and Th 76mm.

### The building material

*Susan Pringle*

The total weight of ceramic and stone building



materials from the site is 22.495kg, of which Roman material accounts for 78.4% of the assemblage by weight, and medieval and post-medieval material for 16.4%.

### *Roman ceramic building material fabrics*

The fabric codes used below refer to the Museum of London ceramic building materials type series.

Fabric types: 2815 group, including 2459B and 2459C, 3023, 3060

Most of the tile, 96% of the assemblage by weight, is in the local red-firing fabrics made from London clays (fabric group 2815). Kilns producing tiles in these fabrics were located close to Watling Street to the north-west of London and probably at other kiln sites around London. One major centre for the earlier production (fabrics 2452, 3006 and 2459A) was at Brockley Hill in Stanmore, possibly the site of the Roman settlement of *Sulloniacis*, mentioned in the Antonine Itinerary. Situated on Watling Street, the kilns supplied large quantities of tile to London between c.AD 50 and 160, when production appears to have ceased. The later fabrics in this group (2459B, 2459C) were produced elsewhere between c.AD 120–40 and 200–50, though apparently not in the same quantities as the early fabrics; they account for only 7.6% of the total assemblage compared with 88.5% for the early fabrics.

The other identifiable fabrics are the orange-firing products of the kilns at Radlett in Hertfordshire (fabrics 3023, 3060), which account for 2.9% of the assemblage by weight. Both contain distinctive fine, black iron oxides, and one (3023) has inclusions of light brown silt. There may be more than one source for tiles in fabrics containing black iron oxides, as similar clays occur in north London and north-west Kent, but Radlett is a definite source for these fabrics between c.AD 50 and 120. One fragment, a surface find, was in an unidentified red, calcareous fabric.

The date ranges of the majority of the tile fabrics on the site fall into the early Roman period, and the material represents building activity in the 1st or early 2nd century AD, as well as in the mid-2nd to 3rd century AD. As pottery dates indicate that the Roman features on the site are of 3rd- to 4th-century AD date, it is likely

that much of the material on the site is either reused or residual.

### *Roman ceramic building material forms*

#### Roof tile

Fabric types: 2815 group, including 2459B, 2459C, 3023.

The roof tile, which includes flat *tegulae* and curved *imbrices*, accounts for 59% by weight of the Roman tile assemblage. The 71 *tegula* fragments and 30 *imbrex* fragments present weigh 7.595kg and 2.805kg respectively. The relative weights of *tegula* and *imbrex* are comparable with the weight ratio of complete *tegulae* and *imbrices*, which is approximately 2:5 (Brodrigg 1987, 11). The assemblage thus appears to contain roughly equal quantities of both tile types, as would be the case if the material represented a collapsed roof. No complete tiles are present and no features of particular interest were noted. The highest density of roof tile occurs in Ditch 2.

#### Brick

Fabric types: 2815 group, 3060, and red calcareous fabric.

The 21 fragments of Roman brick weigh 6.22kg, 35.3% by weight of the assemblage. All but two are in the red-firing fabrics of the local 2815 group, one is in Radlett fabric 3060 (although close in appearance to fabric 2459B), and another, in a red fabric with calcareous and iron-rich inclusions, may be in a fabric type not found before in the London area. There are no complete bricks, nor are there complete dimensions to provide information on their original size and function.

#### Flue tile

Fabric types: 3006, 2459A, 2459C (2815 group).

Four fragments of flue tile are present (1.8% by weight of the assemblage), three of which have combed keying (fabrics 3006, 2459A, and 2459C). The flue tile comes from a Roman quarry fill and Ditch 2. Combed flue tile in fabrics of the 2815 group is not usually found before the end of the 1st century AD, so it is likely that the flue tile comes from a very late 1st- or 2nd-century AD building. The tile in fabric 2459C was probably

not made before the second quarter of the 2nd century AD.

#### Tesserae

Fabric types: 2815 group.

Two coarse red tesserae in an abraded condition were found as surface finds.

#### *Post-Roman ceramic building material*

The post-Roman ceramic building material assemblage consists of brick and roof tile in five fabrics, all of which are common in London and were probably manufactured in the London area.

#### Roof tile

Fabric types: 2271, 2276, 3090.

Quantities of post-Roman roof tile are small. The assemblage consists of 14 fragments of tile in the clean, red-firing fabric 2271, often with a grey core, five fragments of red-firing fabric 2276, and a single fragment in sandy orange fabric 3090. Both types 2271 and 3090 came into use in the medieval period, at c.1180 and 1200 respectively, but the tile on this site is unglazed and is likely to date from the 15th century onwards. Fabric 2276, which is a thicker version of 2271 with finer moulding sand, is post-medieval in date and is not found before the second half of the 15th century. All are common in London and would have been made in the South-East.

Fragments of both peg or plain tile and ridge tile were found on the site. No complete tiles were noted. The only item of interest is a peg tile in an unfamiliar fabric (surface find) with part of a stamp on the surface. The stamp is not complete, but the surviving letters, which are approximately 7mm in height, are [... ]ATTLE[?R..]. This is presumably the name of the tilemaker.

#### Bricks

Fabric types: 3033, 3046.

Three fragments of post-medieval brick are present in related red sandy fabrics 3033 and 3046; one fragment is too vitrified for the fabric to be identified. These bricks are typical of those used in London between c.1450 and the end of the 17th century, and were probably made at brickyards in or near the City.

#### Stone

Two types of building stone are present: a flake from what appears to be a thick slab of fine-grained laminated sandstone (stone type 3121) found in a medieval quarry pit, source unknown, and two roughly shaped fragments of conglomerate rubble, probably Hertfordshire puddingstone, found as possibly intrusive items in prehistoric features (Period 1). The latter was sometimes used for millstones and also for decorative external wall facings. It comes from Tertiary deposits overlying the chalk dip-slope of the Chilterns, in the north-eastern section of the county (T P Smith pers comm). The presence of the laminated sandstone, which is rarely found in London before the 4th century AD, is consistent with later Roman occupation of the site. The flake is 45mm thick, and is likely to have come from a thick paving slab.

### The prehistoric pottery

*Louise Rayner*

#### *Introduction*

The later prehistoric pottery assemblage totalled 148 sherds (1,458g). With the exception of one context, [34], all of the prehistoric pottery was found in conjunction with Roman pottery and frequently also ceramic building material, suggesting that much of it is redeposited and residual. The prehistoric pottery was recorded to current MoL standards established in accordance with the guidelines outlined by the Prehistoric Ceramics Research Group (PCRG 1995; revised 1997). The fabrics have been defined on the basis of inclusion type and standard MoL codes have been used. The assemblage is quantified by sherd count and weight.

#### *Fabrics*

Eight fabrics were defined on the basis of primary inclusion type. Of these, five are flint-tempered with sandy matrices (FLIN1–5), one is quartz- and flint-tempered (QUFL), one is sandy (QU), and one is shell-with-flint-tempered (SHFL). The predominance of flint-tempered fabrics during the Late Bronze Age in the Thames Valley and its hinterland is well established, with a gradual increase in the use of sand tempering during the Iron Age transition period. Based on this sequence, the majority of

the assemblage from Dollis Hill would appear to belong predominately in the Late Bronze Age to Early Iron Age transition period. The shell-with-flint-tempered fabric is also likely to date to this transition period based on the evidence from other sites, such as Snowy Fielder Waye, Isleworth (Timby 1996, 46). The sandy ware (QU) is perhaps more typical of Middle Iron Age fabrics and so may date slightly later, but only two joining body sherds are present.

#### Fabric descriptions

##### FLIN1

Hard fabric with rare very coarse (>3mm) angular crushed calcined flint; sparse to common fine (<0.25mm) quartz, well sorted; rare medium (>0.25–1mm) quartz, poorly sorted (11 sherds, 144g).

##### FLIN2

Hard fabric with rare medium to coarse (0.25mm–3mm) angular crushed calcined flint, poorly sorted; sparse to moderate fine quartz, well sorted; rare medium sub-rounded quartz, poorly sorted. Some of the sherds have a silty matrix but are included in this group on the basis of the size and density of the flint inclusions (45 sherds, 344g).

##### FLIN3

Hard fabric with a fine, silty matrix; very rare medium angular crushed calcined flint, (the flint inclusions are more visible on the surface, with few inclusions in the section); rare medium sub-rounded quartz (11 sherds, 124g).

##### FLIN4

Dark, hard fine silty matrix with rare (2%) sub-rounded medium quartz; rare (1%) medium angular crushed calcined flint, usually 0.5mm (17 sherds, 148g).

##### FLIN5

Hard fabric with fine silty matrix, quite friable in texture with burnt organic inclusions and elongated voids; rare sub-rounded medium quartz; rare fine to medium angular crushed calcined flint (58 sherds, 425g).

##### QUFL1

Hard fabric, with moderate (15%) sub-rounded medium quartz, moderately well sorted; mainly rare coarse (with occasional very coarse) angular crushed calcined flint (3 sherds, 99g).

##### QU2

Fine sandy ware with granular matrix; abundant well-sorted silt-sized quartz (2 sherds, 127g). Only two sherds occurring in this fabric (joining) with wall thickness of 12mm; traces of burnished surfaces.

##### SHFL1

Hard fabric with plate-like voids, originally coarse shell inclusions; rare (1%) coarse angular crushed calcined flint (1 sherd, 47g).

#### Forms

The small assemblage contained few diagnostic sherds and all sherds worthy of illustration (Fig 9) are listed in the catalogue. There are only three rim sherds present, which all appear to derive from jars. However, bowls are also represented and there are both fine ware and coarse ware vessels. Decoration is limited to

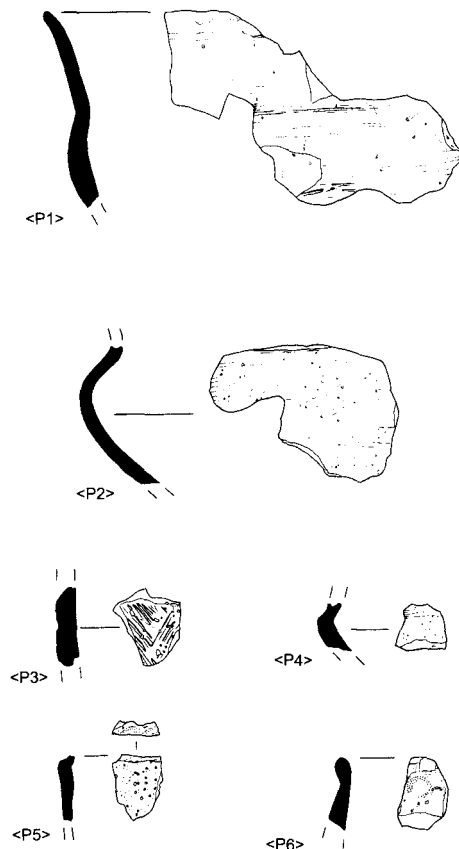


Fig 9. Prehistoric pottery <P1>–<P6> (Scale 1:4)

finger impressions, either on the shoulder or under the rim, and one example of incised decoration. Several of the vessels have smoothed and burnished external surfaces.

Where diagnostic sherds occur the forms include round-shouldered vessels (<P1>–<P2>, Fig 9), a carinated bowl, probably of tripartite type (<P4>, Fig 9), and a short-necked bipartite jar (<P6>, Fig 9). The coarse ware jars fall within Barrett's Class I and find parallel throughout the Thames Valley (Barrett 1980, 302). The carinated bowl form is found amongst the assemblage from Heathrow (Canham 1978, 27, fig 17 nos 59–62) and, along with the bowl (<P1>, Fig 9), falls broadly within Cunliffe's Darmsden-Linton group (Cunliffe 1991, 76 and 565 fig A:12).

The sherd with incised linear and chevron decoration (<P3>, Fig 9) finds parallel in Late Bronze Age assemblages, such as that from Runnymede Bridge (Longley 1991, fig 84, P104–6 and fig 88, P190) and in later transitional 'decorated assemblages' (Barrett 1980).

### *Catalogue of illustrated prehistoric pottery*

#### <P1>, [1], P2, Ditch 3

Round-shouldered fine ware bowl with flaring rim; smoothed and burnished exterior surface. The profile is similar to a vessel in the Darmsden-Linton group, although there is no decoration except a poorly executed line around the vessel at the junction between the rim and shoulder. FLIN5, 31 sherds/292g.

#### <P2>, [1], P2, Ditch 3

Round-shouldered fine ware jar (several joining shoulder sherds but no rim sherds survive); FLIN4, 15 sherds/139g.

#### <P3>, [33], P2, Ditch 1

Body sherd with incised decoration in chevron pattern. The internal surface is rough and the fabric quite coarse, which may suggest that the sherd derives from a decorated jar rather than a bowl, despite the fact that incised linear and geometric designs are most frequently associated with fine ware bowls (Longley 1991, 165); FLIN1, 1 sherd/3g.

#### <P4>, [33], P2, Ditch 1

Carinated shoulder sherd, probably from a tripartite bowl; similar to examples from Heathrow (Canham 1978, 27 fig 17 no. 62; Cunliffe 1991); FLIN5, 1 sherd/6g.

#### <P5>, [34], P1, OA1

Jar rim sherd; flat top rim with slight groove; QUFL1, 1 sherd/6g.

#### <P6>, [33], P1, Ditch 1

Jar rim sherd with short neck decorated with finger impressions; FLIN2, 1 sherd/21g.

## **The Roman pottery**

*Louise Rayner*

### *Introduction*

The Roman pottery accounts for 464 sherds, the majority of which are late Roman in date. Much of the pottery, especially the colour-coated and slipped wares, has lost its original surface leaving the abraded body exposed. However as several of the vessels affected are represented by large, joining sherds, it seems more likely that this was caused by adverse soil conditions than by excessive movement and re-deposition. The Roman pottery has been recorded using standard MoL fabric and form codes. Common name fabric codes are used after the first instance, which is written out in full. For full Roman fabric descriptions see Davies *et al* 1994 and Symonds & Tomber 1991.

### *Fabrics*

The Roman pottery comprises a range of wares, including a number indicative in London of late 3rd- to 4th-century AD activity, such as Oxfordshire red colour-coated ware (OXRC), Alice Holt/Farnham greyware (AHFA), Much Hadham oxidised ware (MHAD), and Portchester D ware (PORD). Table 1 shows that these are the most abundant wares (by sherd count) which contrasts notably with the single sherd of Black burnished ware fabric 1 (BB1). Other assemblages from London have suggested that the relative proportion of BB1 to AHFA is a useful chronological marker. A group from Leadenhall Court (group 53) dated AD 230–250/60 only contained <1% (by weight) AHFA, whilst BB1 comprised 11% (Symonds & Tomber 1991, 71). In a slightly later group from Dowgate Hill dated AD 270–350/60, AHFA accounted for more than half of the assemblage, although in this group Oxfordshire region products were only present in small quantities (*ibid*, 73). A 4th-century AD group from Billingsgate bathhouse

Table 1. Roman pottery fabrics by sherd count

Fabric	Count	% Count
Alice Holt/Farnham greyware	171	36.9
Baetican Dressel 20 fabric	1	0.2
Black-burnished ware 1	1	0.2
Black-burnished ware 2	2	0.4
Black-burnished ware 2 fine fabric	11	2.4
Black-burnished style	2	0.4
Miscellaneous colour-coated wares	5	1.1
Coarse ware	1	0.2
Grog-tempered ware	1	0.2
Much Hadham oxidised ware	3	0.6
Nene Valley colour-coated ware	26	5.6
Oxidised wares (miscellaneous)	20	4.3
Fine oxidised fabric	1	0.2
Oxfordshire parchment ware	3	0.6
Oxfordshire red/brown colour-coated ware	106	22.8
Oxfordshire white ware	23	5.0
Porchester D ware	11	2.4
Sand-tempered wares (miscellaneous)	28	6.0
Shell-tempered wares (miscellaneous)	45	9.7
Speicher ware	2	0.4
Verulamium region white ware	1	0.2
<b>Total</b>	<b>464</b>	<b>99.8</b>

has a comparable range of fabrics to the Dollis Hill assemblage, with PORD, MHAD, and OXRC forming important components (*ibid.*, 77).

The Roman pottery recovered from this site is very homogeneous, with a similar range of fabrics present in each context assemblage, where they are of reasonable size. There is also very little early Roman material residual amongst the assemblage, which suggests the activity was relatively short lived.

Table 2. Roman pottery form type by sherd count

Type	Count	% Count
Unidentified	208	44.8
Amphora	1	0.2
Beakers	5	1.1
Bowls	57	12.3
Bowls/dishes	7	1.5
Dishes	59	12.7
Flagons	1	0.2
Jars	97	20.9
Mortaria	29	6.3
Total	464	100

### Forms

Over half of the sherds could be attributed to a form type, with jars comprising the largest group (20.9% of the total assemblage by sherd

count). Bowls and dishes are the next most common types (12.3% and 12.9% respectively), whilst beakers, amphorae and flagons are poorly represented. Table 2 shows the quantities of pottery according to form type. Mortaria are also represented which suggests that the assemblage is rubbish deposited from a domestic context, possibly from a nearby settlement. If the vessels are examined by functional category, the composition shows a general domestic mix of kitchen, storage, and tablewares.

### The charred plant remains

*John Giorgi*

#### Introduction

Two bulk soil samples were collected, from the fill of Ditch 2 and from the fill of a large Roman quarry pit near the southern boundary of the site. Both samples were processed by flotation using sieve sizes of 0.25mm and 1.00mm for the recovery of the flot and residue respectively. Scanning the flots using a binocular microscope established the range, frequency, and diversity of plants and other biological remains. Identifications were listed of easily

recognisable taxa (Giorgi 2000). On the basis of the assessment, both samples were selected for further analysis. Modern reference collections and reference manuals (Berggren 1981; Beijerinck 1947) were used for identification of the plant macro-remains.

The very large quantity of charred plant remains from the ditch fill {1} meant that the flot was subsampled using a riffle box, with a 25% fraction being sorted and quantified. The remaining fraction (75%) was scanned for additional species, which are denoted (\*) on the table of results (Table 3).

## Results

The results are presented in Table 3. The two analysed samples produced identifiable and quantifiable charred plant remains with a total of 669 plant items. Almost 98% of the quantified plant items were recovered from the sampled ditch fill {1}. A breakdown of the main categories of material shows that almost equal quantities of cereals and weeds were present, with 45% cereal grains, 6% chaff fragments, and 49% weed seeds. Small amounts of very fragmented charcoal were present in both samples.

Occasional uncharred seeds were found in both samples, both robust woody fruit seeds, for example brambles (*Rubus* spp), elder (*Sambucus* sp), and high seed producing plants of disturbed ground and waste places, such as goosefoots (*Chenopodium* spp), stinging nettle (*Urtica dioica*), black nightshade (*Solanum nigrum*). Rootlets were also present in the flots. These seeds, however, are probably intrusive given soil conditions at the site.

## The cereals

The cereals were mainly represented by grains, which accounted for 88% of the cereal items, together with a small number of chaff fragments (12% of all cereal remains). The condition of the grains was not particularly good with distortion and fragmentation through excessive charring meaning that 65% of the grains could not be identified. Identifiable cereal grains included wheats (*Triticum* spp), barley (*Hordeum sativum*), ?rye (cf *Secale cereale*), and oats (*Avena* spp).

Wheat was by far the best-represented cereal on the site, accounting for almost 86% of all identifiable grains. The poor condition of the charred material, however, meant that 79%

of the wheat grains could not be identified to species. Of the better-preserved wheat grains, the glume wheats, spelt (*Triticum spelta*) and several emmer grains (*Triticum dicoccum*), were identified on the basis of the grain morphology. The definite presence of spelt wheat was confirmed by the identification of diagnostic spelt chaff, represented by a small number of glume bases. A small quantity of other wheat glume bases (and a single rachis fragment) was also recovered, although these could not be identified to species.

Free-threshing wheat (*Triticum* spp) was represented by a single grain with the very rounded morphology suggesting that it probably belonged to hexaploid free-threshing bread/club wheat (*Triticum aestivum* s.l.). The overlap in grain morphology between different wheats however meant that a number of grains were categorised as spelt/bread wheat (*Triticum spelta/aestivum*) while another grain was identified as either emmer or spelt (*Triticum dicoccum/spelta*).

Just two barley grains were identified in the samples with the presence of twisted and hulled grains in the scanned fraction of the flot from Ditch 2 indicating the presence of six-row hulled barley. Oat was identified by a slightly larger number of grains and awn fragments. These may be from wild or cultivated oats, although the presence of a wild oat floret in the scanned fraction of the Ditch 2 flot shows the presence of wild oat on the site. Finally, a single grain of ?rye was present in Ditch 2.

## Wild plants

The other botanical material in the charred assemblages came from a number of wild plants, although species diversity was not particularly high. Moreover, many of the seeds could not be identified to species; this limits ecological interpretation because different plants within a genus may grow in significantly different habitats while some plants may grow in more than one. The association of this material with the cereals suggests that most of the seeds were probably derived from plants imported onto the site accidentally as cereal weeds. The ecological information given below is taken from *The Flora of the British Isles* (Clapham *et al* 1987) and *New Flora of the British Isles* (Stace 1991).

The majority of the weed seeds represent wild grasses, which accounted for 96% of the quantifiable seeds of wild plants from the site. These were mainly identified as bromes (*Bromus*

Table 3. Table of charred plant remains

Latin name	English name	Feature Sample Context Volume soil (l) % Flot sorted % Flot scanned Habitat/use code	Quarry	Ditch 2
			{2}	{1}
			[10]	[7]
			20	100
			100	25
			-	75
<b>Latin name</b>	<b>English name</b>	<b>Habitat/use code</b>		
Cereal grains				
<i>Triticum dicoccum</i>	Emmer wheat	FI		*
<i>Triticum cf dicoccum</i>	?Emmer wheat	FI		2
<i>Triticum spelta</i> L	Spelt wheat	FI		4
<i>Triticum cf spelta</i>	?Spelt wheat	FI		3
<i>Triticum dicoccum/spelta</i>	Emmer/Spelt wheat	FI	1	*
<i>Triticum aestivum</i> type	Bread/Club wheat	FI		1
<i>Triticum spelta/aestivum</i>	Spelt/Bread wheat	FI		7
<i>Triticum</i> spp	Wheat	FI	2	69
cf <i>Secale cereale</i>	?Rye	FI		1
<i>Hordeum sativum</i> L	Barley	FI	1	1
<i>Avena</i> spp	Oat	AFI		9
<i>Avena</i> sp	Oat floret	AFI		*
cf <i>Avena</i> spp type	?Oat	AFI		3
Cerealia (large cereals)	Indeterminate cereal	FI	4	190
<b>Subtotal</b>			<b>(8)</b>	<b>(290)</b>
Chaff				
<i>Triticum spelta</i> L	Spelt glume base	FI		9
<i>Triticum</i> spp	Wheat spikelet base	FI	1	
<i>Triticum</i> spp	Wheat glume base	FI	2	25
<i>Triticum</i> sp	Wheat rachis	FI		*
<i>Avena</i> spp	Oat awn	AFI		3
<b>Subtotal</b>			<b>(3)</b>	<b>(37)</b>
Other plants				
<i>Chenopodium</i> spp	Goosefoot etc	ABCDFH		*
<i>Vicia/Lathyrus/Pisum</i> spp	Vetch/Tare/Vetchling/Pea	ABCDEFI		2
<i>Rumex acetosella</i> agg	Sheep's sorrel	AD		1
<i>Rumex</i> spp	Dock	ABCDEF		2
<i>Plantago lanceolata</i> L	Ribwort	D		1
<i>Tripleurospermum inodorum</i> L Schultz Bip	Scentless Mayweed	AB		4
<i>Lolium cf temulentum</i>	Rye-Grass	AB		*
Poaceae indet	Grasses (large seeded)	ABCDE		133
Poaceae indet	Grasses (large fragments)	ABCDE	+	+++
<i>Poa</i> spp	Poa	ABCDE		5
cf <i>Poa</i> spp	?Poa	ABCDE	1	
<i>Bromus</i> sp(p)	Bromes	ABD	1	176
<i>Avena/Bromus</i> spp	Oat/Brome	ABCDFI		3
indeterminate	-	-	+	+
indeterminate	Charcoal	-	++	+
<b>Subtotal</b>			<b>(4)</b>	<b>(327)</b>
<b>Total</b>			<b>15</b>	<b>654</b>
Seed density (per litre of soil)			(0.75)	26.16
(quantified items only)				

**Key**

Frequency: for charcoal fragments, wild grass seed fragments, and unidentifiable items only approximate estimates of numbers were recorded using the following rating system; + = 1–10 items; ++ = 11–50 items; +++ = 50 + items.

Habitat codes: A = weeds of cultivated ground; B = weeds of waste places and disturbed ground; C = plants of woods, scrub, hedgerows; D = open environment (fairly undisturbed); E = plants of wet/damp environments; F = edible plants; G = medicinal and poisonous plants; H = commercial/industrial use; I = cultivated plants

\* denotes additional plants recorded in the scan of the 75% of the flot

spp), which made up 54% of all weed seeds, although this proportion was probably much greater given the large amount of unquantifiable large weed seed fragments. Nineteen species of bromes are listed in *The Flora of the British Isles* and these grow in a range of habitats including cultivated ground. Bromes are characteristic weed seeds of stored grain deposits because they are of a similar size to the cereal grains and therefore difficult to separate out by sieving. Other grasses included a very small number of ?darnel (*Lolium cf temulentum*) and poa (*Poa* spp) seeds as well as probably the oat grains.

Other wild plants in the assemblages were represented by very few seeds. There were several seeds of scentless mayweed (*Tripleurospermum inodorum*), a weed of cultivated and waste land on all kinds of soil. Also single examples of ribwort (*Plantago lanceolata*), which is found in grassy places on neutral or basic soils, and sheep's sorrel (*Rumex acetosella* ag), which grows on heaths, in grassland and cultivated ground, being frequent on acid but infrequent on calcareous soils. A few other wild plants were represented by several seeds of docks (*Rumex* spp), goosefoots etc (*Chenopodium* spp), and vetch/tare/vetchling/pea (*Vicia/Lathyrus/Pisum* spp).

### Discussion

The cereals represented on the site have all been recovered from other rural as well as urban sites in Roman Britain. Wheat, which was the most common grain on the site, is one of the two best-represented cereals (along with barley) found on Romano-British sites. Spelt wheat is the most common wheat grain (for example at sites in the City and Southwark), while free-threshing wheat is less usual and abundant at very few sites (Greig 1991, 309). Emmer tends to decline in the Roman period with the emergence of spelt wheat although there are regional variations (van der Veen 1992, 152). All three species were present at the site, although it was difficult to establish the relative importance of the three wheat species on the basis of the small number of identifiable grains.

Barley is the other common grain found on Romano-British sites. It does not appear to have been very important at this site since only two samples were collected from the excavations. Rye, represented by just one possible grain, does not appear to have been a common grain in the

Roman period, only occasionally being found at other sites (Greig 1991, 310). Therefore, the rye along with the oats were probably cereal weeds.

There is very little archaeobotanical evidence from Roman sites in the hinterland of London. Two other Roman rural sites to the north and west of the City have produced a small number of charred cereal grains — St Mary Abbots Hospital, Marloes Road, Kensington (Giorgi 1995a) and Long Lane Playing Fields, Ickenham (Giorgi 1994, 7). At both these sites, wheat was also the best represented grain with mainly free-threshing wheat at Long Lane Playing Fields (Giorgi 1995b) and spelt, emmer, and free-threshing wheat together with traces of barley at St Mary Abbots Hospital (Giorgi 1998).

The cereal grains may have been used for bread (of which a number of different types were made), porridge, gruel, and cakes (Wilson 1991, 234). The Romans made a type of gruel from cereals called *puls* or *pulmenta*, which was prepared from roasted barley or spelt wheat. It was pounded and cooked with water in a cauldron to make a porridge similar to modern Italian polenta. They also made a wheat starch called *amulum* which was used by Roman cooks for thickening sauces (Renfrew 1985, 22–3). Wheat was probably used exclusively for human food and sometimes for brewing, although there was no evidence (no sprouted grains) to suggest that this was taking place on the site.

The charred plant remains from Dollis Hill show that wheat (including spelt and free-threshing wheat) was being stored and presumably used at the site. It is not possible to comment on the relative importance of the different wheat grains because of the problems of identification to species level. Both spelt and free-threshing wheat, however, appear to have been cultivated throughout the Roman period. The cultivation and use of wheat is confirmed by other finds of plant remains, albeit limited, in this area of north-west London as well as within the City of London itself. The few emmer grains are probably weeds or relics from previous harvests. Little comment may be made on the very small number of barley grains while the rye and oats are probably arable weeds.

Most of the remains were from Ditch 2 and represent the burnt remains of an almost fully processed crop, probably part of a storage deposit which may have been accidentally burnt while being dried in the structure tentatively identified as a corndrier. Most of the weed seeds



were of a size that would be expected at an advanced stage of crop-processing and also in storage deposits, being of a similar size to the grains and therefore difficult to separate out other than by hand sorting.

## CONCLUSIONS

Iron Age remains are not plentiful in Greater London and it is generally assumed that areas farmed may have contracted during the Late Bronze Age. Needham (1987, 135) suggests that climatic deterioration and soil exhaustion lead Later Bronze Age communities to intensify exploitation of more productive land. London Clay, the predominant local subsoil, is arguably less desirable to farm and has probably been pasture through most of history. It is more likely to be abandoned if farming is concentrated on well-drained lighter soils.

Compared to the presence of Bronze Age finds, the lack of Iron Age finds in Brent may be attributed to the contraction in the cultivated land. However, similar high-level gravel deposits, on extensive areas of outcropping London Clay, attracted the Early Iron Age foundation of hillforts at Loughton Camp and Ambresbury Banks in Essex. Their location overlooking a river is also similar to that of Dollis Hill.

Although small and lacking in featured sherds, the prehistoric pottery assemblage has parallels within the established sequence of Later Bronze Age pottery from the Thames Valley. With such a small sample size, the proportion of decorated to undecorated wares cannot be usefully assessed, but the presence of vessels of Darmsden-Linton type, coupled with the use of sandy flint-tempered fabrics, most probably places this assemblage in the Late Bronze Age to Early Iron Age transition period.

The prehistoric pottery assemblage is indicative of activity in this area in the transition period, c.8th–6th century BC. This in itself is important because, aside from a Deverel-Rimbury type urn found at the Brent reservoir (Fig 3), few findspots of prehistoric pottery are known from this area, although Bronze Age metalwork has been found at Neasden (Fig 3; MoLAS 2000, 94, nos BT1 and BT2). These aside, indications of prehistoric activity in this area are rare, supporting suggestions that the clay areas of North London were not favoured locations, with a clear preference for the floodplain or gravel terraces (*ibid*, 92–3). However the excavation

at Dollis Hill has shown that where gravel pockets exist in the London Clay, these have been utilised and in the London region this should be considered in the light of prehistoric activity evidenced on the claylands of Essex and Hertfordshire (*ibid*, 93).

There is no indication of prehistoric defensive ditches despite the strategic location on high ground and, since it is unlikely that pottery would be transported far before disposal, it is assumed that the site is near to a farm or farming hamlet. As only one feature, the pit in Period 1 (OA1), could be assigned to the prehistoric period with any certainty (possibly two if the Roman pottery and building material is accepted as intrusive from Ditch 1), the nature of this activity remains elusive. If Ditch 1 is of Iron Age date, its alignment with a later Roman ditch (Ditch 3) may indicate that the boundary was also marked by a hedge or hedge-bank which remained as a local feature long after the ditch silted up. No social continuity should be inferred from this since boundaries of the Iron Age and possibly earlier are still in use in the countryside today, notably in Penwith (Hoskins 1977, 28).

The Roman pottery suggests occupation during the 4th century AD and the completeness of some vessels and the condition of the pottery in general would suggest that the source of this material is in the near vicinity. Assuming there is an associated settlement nearby, the assemblage demonstrates that the inhabitants had access to regional fine wares, such as the Nene Valley colour-coated ware (NVCC) and Oxfordshire red/brown colour-coated ware (OXRC) vessels, as well as imported wares such as Speicher oxidised ware (SPEC), which frequently occurs in sparse quantities in 4th-century AD groups from the City of London.

Occupation on the site into the 4th century AD is also suggested by the presence of laminated fine-grained sandstone and, probably, Hertfordshire puddingstone. Fine-grained sandstone is rare in London before the 4th century AD, at which time it was increasingly used for both roofing and paving; the flake is too thick for roofing tile and is probably part of a flagstone or paviour. It is also notable that finds of quernstones made of stone other than lava from Gaul and Germany are rare in Roman London before the 3rd century AD (Milne 1985, 122), a situation apparently also echoed in the City's close hinterland. Puddingstone may have provided a local alternative. This would suggest that these

fragments date from the later Roman period, probably the 3rd or earlier 4th century AD as they were well used before they were discarded towards the end of the 4th century.

The Roman building material assemblage contains combed box-flue tile and tesserae as well as the more common brick and roofing tile. The dating of the material is generally earlier than the pottery dates from the site, indicating that the tile is either reused or residual. The absence of earlier Roman features suggests that reuse may be the more likely explanation, unless it represents a gradual accumulation of residual material. However, both explanations imply the presence in the area of Roman building activity. The material is generally fairly abraded.

The material present is typical of that used in high-status residential buildings, with evidence for a hypocaust heating system and a tessellated floor. Combed flue tile in local fabrics is not common in London until the end of the 1st century AD, so the hypocaust may have been a feature in a 2nd-century AD structure (I M Betts pers comm). A recent study of their occurrence in Southwark suggests that coarse tile tesserae are also rare in 1st-century AD deposits in London (Pringle in prep). The ceramic materials used all appear to be of types that were manufactured on or near Watling Street between London and Verulamium.

The disparity between the dates of the building material (late 1st to 2nd century AD) and the pottery (4th century AD) could be due to the presence of a nearby 2nd-century AD building, which was demolished or altered in the 4th century AD, the demolition material being incorporated into the 4th-century AD assemblages. The lack of contemporary 2nd-century AD pottery merely indicates that this material was disposed of elsewhere. A further explanation for the disparity of the dates of the ceramic building material and the pottery could be reuse of the building material in a later structure. The end-use of the building material may be different from that of its original function; for instance combed box-flue tiles derived from a hypocaust heating system need not have been reused for such a purpose. Hypocaust type heating systems were used for corndriers as well as for bathhouses, as at Bignor (Frere 1982, 153 and pl VIIa).

The burnt remains of an almost fully processed crop, probably part of a storage deposit, found in Ditch 2 does indicate grain processing in the

vicinity of the site. The association of quern fragments and burnt grain suggests that flour was being made. Columella placed the corn mill — *mola, pistrinum* — near to the villa house (quoted in White 1970, 433) but was writing at an earlier time when villas were unitary institutions staffed by slaves. Villas in the 4th century AD were large landed estates extracting rent-in-kind from tied tenants, or *coloni*. It is not known whether agricultural buildings were dispersed amongst the *coloni* communities or centralised near the landowner's house.

Despite the lack of other evidence for Roman activity in this area, the chronology suggested by the pottery does compare favourably with evidence from other rural sites. In West London on the gravel terraces, activity appears to have resumed in the mid-4th century AD, after a period of decline in the late 2nd century AD (MoLAS 2000, 155). This pattern is also suggested at a site at Long Lane Playing Fields, Ickenham, where late Roman pottery was recovered from a layer of mixed brickearth and subsoil that overlay ditches and entrance-ways of a field system (Lakin 1994, 3–6). The Roman pottery from this site suffered more extensively from abrasion than the Dollis Hill assemblage but small quantities of Alice Holt/Farnham ware (AHFA), Porchester D ware (PORD), Nene Valley colour-coated ware (NVCC), and Oxfordshire red/brown colour-coated ware (OXRC) could be identified (Symonds 1994, 9 table 1). A similar range of wares was also recovered from a late Roman pit and ditches at Avenue Gardens, Acton (Davies 1993, 11).

The Dollis Hill assemblage is therefore a useful addition, providing evidence for Roman activity in an area of *Londinium's* hinterland that has previously only been hinted at. Furthermore the comparatively good condition of the pottery enables a favourable comparison to be made between a rural assemblage and contemporary groups from the city.

Large Roman quarries in Open Area 2 were dug south of the field boundary defined by Ditch 3 (although one was dug through, and beyond, the ditch which contained high numbers of prehistoric sherds). All the quarries are dated to the late 3rd or 4th centuries AD from the small quantity of finds recovered from them. Sand had a variety of uses in construction — as moulding sand in the manufacture of tiles, as an aggregate in mortars and in the backing mortars for painted wall plaster which usually have a very

high proportion of sand — and its quarrying marks periods of construction in the locality or beyond. The quarries had no organic-rich or finds-rich fills and were probably not left open for long, being backfilled soon after they were dug.

The 4th century AD was the main period of country house/villa construction in Roman Britain in general. However, this has commonly been contrasted with the Greater London area (MoLAS 2000, 157) where there is little evidence for such a movement. The building material from the site is comparable with that from other Roman sites in the London area in both the fabrics and tile types present. Although it is always dangerous to make generalisations about Roman buildings and their uses, the relative proportions of roof-tile and brick seem to be what could be expected from an urban or villa site. If a villa it would conform to the national pattern of rural realignment and agricultural intensification in the final century of Roman rule.

The only post-Roman archaeological features recorded are also quarries. The quantity of finds recovered does not date them accurately but we may presume that they were also dug at times of construction booms in the late medieval or Tudor period.

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