

Roman occupation at Skerne Road, Kingston upon Thames

TIMOTHY BRADLEY

with contributions by

P AUSTIN, N P BRANCH, JOHN BROWN, K L HUNTER, MALCOLM LYNE, G E SWINDLE
and LISA YEOMANS

An excavation at Skerne Road, Kingston upon Thames identified the presence of three phases of Roman occupation in an area where Roman finds had been identified in the 19th century. Several pre-Flavian pits and a gully were recorded. Two 3rd century quarry pits were also identified which had been utilised subsequently for the disposal of rubbish. While a wide spectrum of domestic refuse was represented within these pits, certain assemblages recovered were unusual. High concentrations of both roof and box-flue tiles dating to the mid-1st to 2nd centuries AD were recovered, deposited with pottery dating to the 3rd century. This may indicate the presence of a 1st/2nd century building in the vicinity of the site possibly demolished or altered in the 3rd century. Partially articulated cattle and horse skeletons were also recovered from one of the quarry pits. An alignment of postholes of probable 3rd century date was identified, while a 4th century arable deposit suggested continuity of activity in the area for most of the Roman period.

Introduction

The redevelopment of land at Skerne Road, Royal Borough of Kingston upon Thames (fig 1; TQ 1810 6970) led to the requirement for an archaeological evaluation of the site. The evaluation trenches revealed flood deposits and channel fills across the majority of the area, post-dated by late 18th and 19th century activity. Evaluation trench 1, situated in the car park area towards the north-west of the site (fig 2), however, revealed evidence of a posthole and pit containing high concentrations of Roman building material. As preservation *in situ* was not practical in the context of the redevelopment proposals an open area excavation was undertaken, with a trench measuring 33 x 21m being cut. The fieldwork was undertaken between 28 November 2001 and 29 January 2002. The archive will be deposited with the London Archaeological Archive Research Centre, under site code SKD 01.

GEOLOGICAL AND ARCHAEOLOGICAL BACKGROUND

The geology consisted of flood plain gravel sealed by brickearths of alluvial and colluvial origin and more recent alluvial clays. The site was situated to the north of the Latchmere stream/Downhall ditch channel that formed the northern boundary of a gravel island on which the centre of Kingston is now located. This channel is thought to have been a former arm of the river Hogsmill and was open until the mid-19th century. In antiquity this appears to have been a substantial watercourse, as alluvial deposits associated with it have now been recorded over a wide area (Hawkins 1996, 50).

Evidence of prehistoric occupation from at least the Mesolithic is fairly prolific along the river margins at Kingston, although most of the evidence tends to consist of residual and often small artefact scatters. The Skerne Road excavation produced residual blade cores, blades and a core rejuvenation tablet of possible Mesolithic or Early Neolithic date. Scrapers and possible piercers were also found which may have been utilised for hide working, an activity frequently associated with riverine locations (Bradley 1978, 56–7).

Despite numerous archaeological investigations in the area of Kingston since the 1960s there has been a paucity of *in-situ* archaeological finds and features dating to the Roman period. A number of finds have, however, been recovered within approximately 300m of the

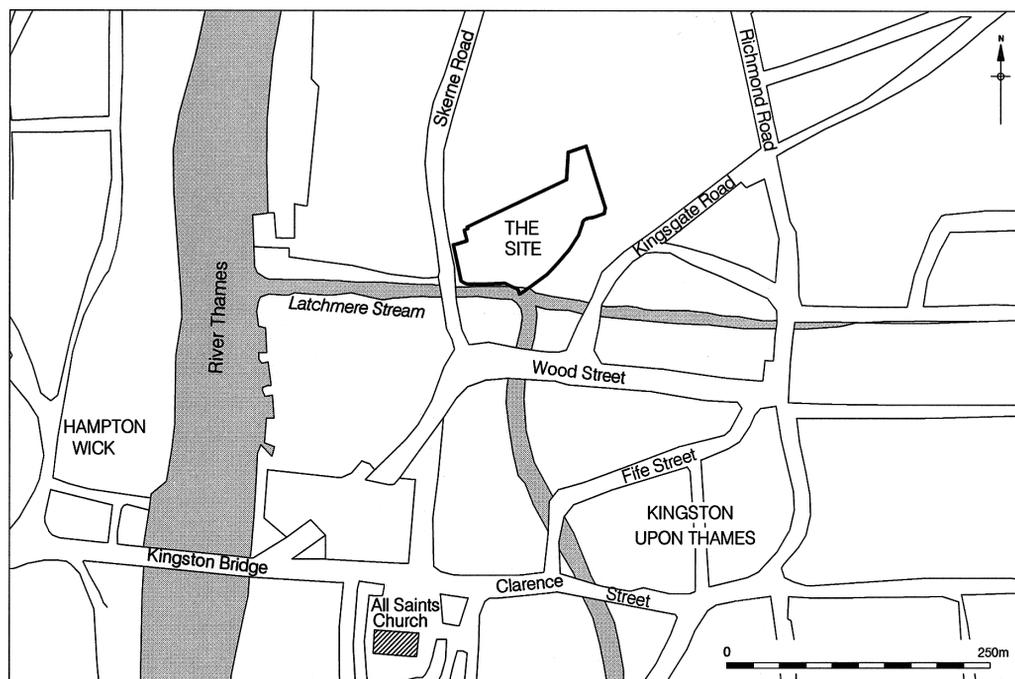


Fig 1 Skerne Road, Kingston: site location. (© Crown copyright and/or database right. All rights reserved. Licence number 100014198)

site at Cromwell Road (Greenwood & Maloney 1993, 81), Canbury Passage (Field & Hinton 1981, 47), Sopwith Way (Hawkins 1996, 50) and during the construction of the now demolished Kingston Power Station (Finney 1929, 229), and it has been suggested that a Roman riverside settlement existed at Kingston in the area of the site (Hawkins 1996, 50). Documentary evidence also indicates the presence of a Roman inhumation cemetery at ‘Canbury fields’, in broadly the area of the site (Hinton 1984, 285).

The site is remote from the known Anglo-Saxon settlements around Kingston (Hawkins 1998, 271; Hawkins *et al* 2002, 206) and lay north of the medieval town, just north of the legal boundary of the ‘Borough’ of Kingston (Hawkins 2003, 95–6). The site was agricultural and horticultural land well into the 19th century. A single building is recorded in the area of the site on the tithe map of 1840, part of the basement of which was identified during the excavation, but other than this, it remained undeveloped until well into the 20th century.

The archaeological evidence from Skerne Road

PHASE 1: NATURAL DEPOSITS

Brickearth was identified across the major part of the excavation trench, which sloped gradually downwards by approximately 0.5m from 7m OD in the north to 6.5m OD in the south. This gradual slope reflects the natural topography of the area with the Latchmere stream/Downhall ditch having run immediately to the south of the site until the 1850s. Test pits situated to the east of the excavation area (fig 2) also revealed the brickearth at greater depths than in the excavation trench, with its lowest level of 6.16m OD being recorded in the easternmost test pit 5. While this decline may have been caused by truncation, it is thought more likely to reflect the natural topography.

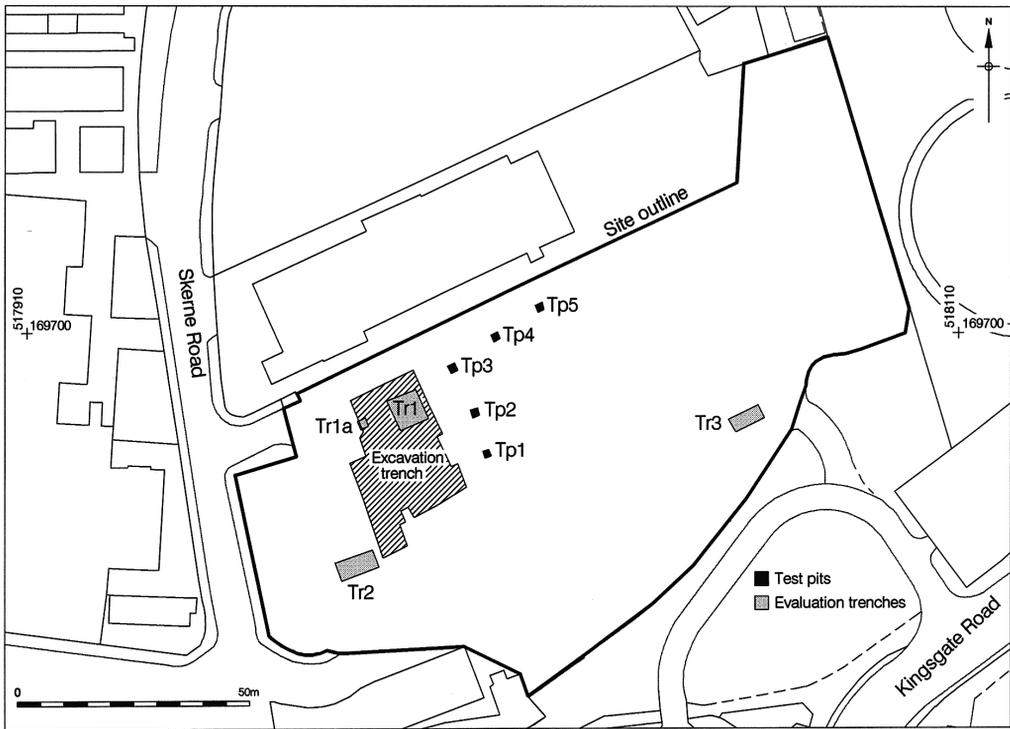


Fig 2 Skerne Road, Kingston: trench and test pit locations. (© Crown copyright and/or database right. All rights reserved. Licence number 100014198)

Evaluation trench 3, situated in the far south-east of the site (fig 2), identified a deposit of greyish-green silty sand across the trench that was interpreted as a channel fill, or at least a lower lying and more waterlogged area. Similar deposits were also recorded towards the north and south of the excavation area. It is likely that these were flood residues laid down in dynamic periods of aquafluction (Chris Green, pers comm). No dating evidence was recovered from either deposit to suggest when these flooding events took place but they do attest to the past power of the Latchmere stream/Downhall ditch channel.

PHASE 2: EARLY ROMAN; *c* 1ST CENTURY AD

The earliest features on the site dated to the 1st century AD. In the extreme north of the excavation trench four pits were recorded which ranged in shape from sub-circular to sub-rectangular, and were steep sided with concave bases (fig 3). They were filled with mid-brown sandy silt which produced fragments of a storage jar of North Kent Shell-tempered ware and sherds from bead-rim jars of Highgate Wood B type. An additional three pits were recorded further to the south, and although no datable finds were recovered from them, they had broadly the same form as the other pits dating to the 1st century AD and were filled with the same leached-out mid-brown sandy silt. This fill material had an appearance distinct from that of features of later periods and so these pits were interpreted as forming part of the same early phase of activity.

Towards the south of the trench an irregular north-east to south-west linear feature was recorded. It measured 1.5m wide x 5.84m in length, and had gradually sloping sides and a flat base. The ends of the feature appeared to grade away rather than having distinct butt-

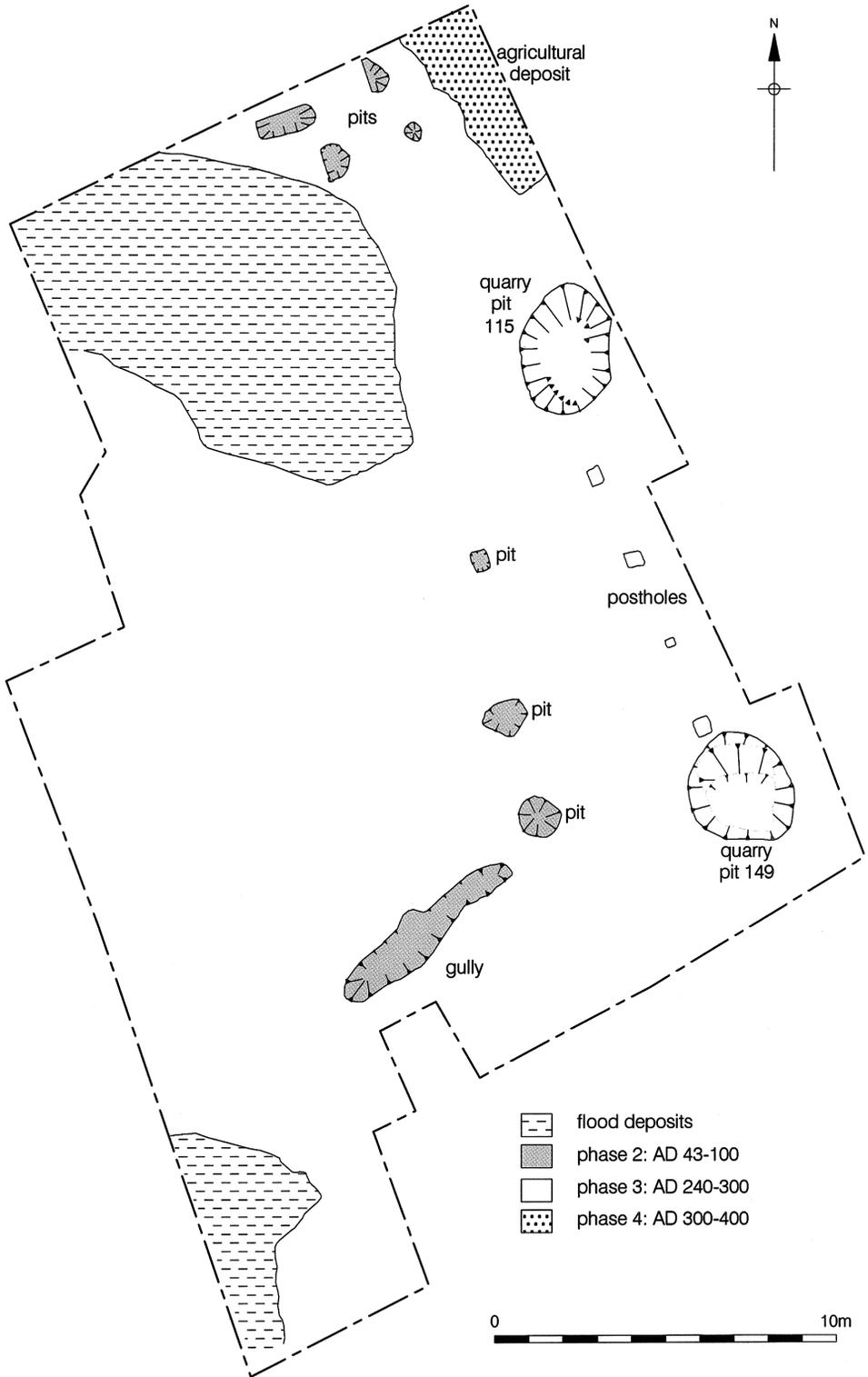


Fig 3 Skerne Road, Kingston: flood deposits and Roman features.

ends, suggesting that it may have had a greater extent in antiquity, possibly representing a drainage gully or ditch. Again, it was filled with the same deposit as the other features of 1st century date, and produced fragments of another Highgate Wood bead-rim jar, as well as three degraded fragments of cattle and pig bone. An environmental sample also yielded seeds preserved by waterlogging, including buttercup, dock and sorrel, again suggesting a likely drainage/water management function.

PHASE 3: LATER ROMAN; *c* AD 240–300

The most significant features dating to this phase of activity were two large pits located along the eastern side of the trench which were recorded as 115 (north), and 149 (south) (fig 3). They were both sub-circular in plan with diameters of *c* 3m. The northern pit was 0.7m deep, while the southern pit was considerably deeper, with a maximum depth of approximately 1.7m. The size of these pits would suggest that they were dug for brickearth extraction, although they appeared to have been used subsequently for the disposal of refuse.

The northern quarry pit was filled with 110 (primary), 107 (secondary) and 95 (tertiary) which all had a sandy silt composition and contained pottery dating to the 3rd century AD as well as bone and comparatively large quantities of unabraded roofing tile, box flue tile and brick dating predominantly to the mid-1st to 2nd centuries AD. Building material and pottery was also recovered from fills 148 (primary) and 139 (secondary) of the deeper pit, although it was more notable for the unusual faunal assemblage. The presence of a few largely complete animals (mainly cattle and horse) within the primary fill suggested the disposal of carcass portions that were unfit for human consumption, possibly due to disease. Certainly it did not represent a typical domestic faunal assemblage. While the fills of the two pits were distinct from each other, dating evidence indicated that the backfilling events may have been contemporary and possibly derived from the same source.

Four shallow sub-square postholes were recorded in alignment between the two quarry pits, which were aligned north-west to south-east over a length of 9m. The posthole fills all yielded small amounts of ceramic building material broadly contemporary with the backfilling of the quarry pits. The alignment of the postholes and the pits suggested that they may have been related, possibly delineating a boundary. Alternatively, the postholes may have formed the western side of a timber-framed building of post-fast construction.

PHASE 4: LATE ROMAN; *c* AD 330–400

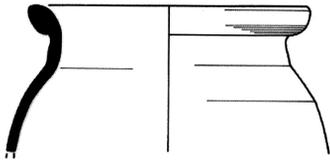
This phase of activity was represented by a single layer that was identified in the extreme north-east of the trench. It consisted of an orange/brown silty sand which measured 5.6m north–south x 2.2m east–west and extended into both the north and east limits of excavation (fig 3). It is likely that this layer represented an agricultural deposit formed from reworked natural deposits, possibly caused by plough action. A single unabraded Overwey/Portchester D jar rim sherd was recovered which suggested that this deposit had been reworked into the late Roman period. This agricultural deposit was recorded in the area of the trench with the higher levels for the natural brickearth, and it is likely that it extended north, away from the Latchmere stream/Downhall ditch channel and possible associated areas of flooding identified in the area of the trench.

The finds

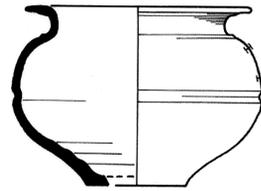
THE ROMAN POTTERY, by Malcolm Lyne

Introduction

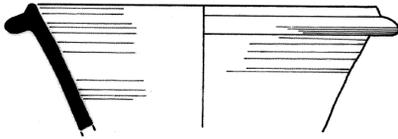
The site produced 544 sherds (7580g) of Roman pottery from eleven contexts, most of which were mid–late 3rd century in date and came from the fills of the two quarries. A few pre-Flavian assemblages were present.



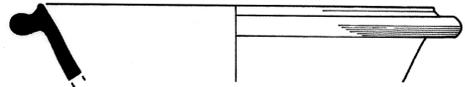
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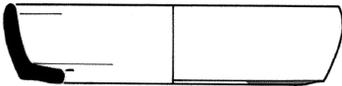
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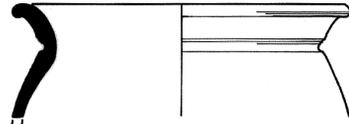
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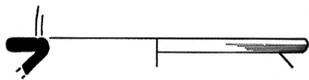
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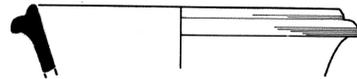
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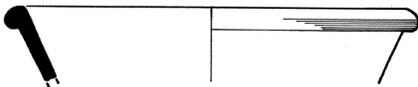
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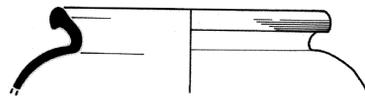
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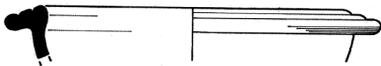
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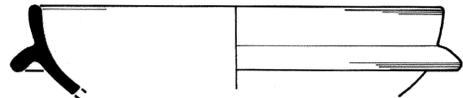
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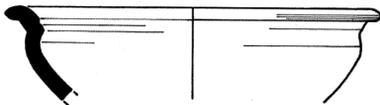
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*The assemblages*Phase 2: *c* 1st century AD

Two pits (93 and 103) and gully 217 produced small assemblages of this date. Pit 93 yielded three fragments (126g) of pottery from a handmade storage jar in North Kent Shell-tempered ware fired brown/black; unfortunately, none of the sherds is particularly diagnostic, although their appearance suggests a date before AD 70. Pit 103 yielded five fresh sherds (66g) of pottery from a bead-rim jar in Highgate Wood B fabric (Davies *et al* 1994, fig 62-341, *c*AD 40–100) and a further fresh sherd (40g) from a lid-seated bead-rim jar in North Kent Shell-tempered ware (Monaghan 1987, type 3L2.1, *c*AD 50–120). Fragments from another Highgate Wood B bead-rim jar? came from the fill of cut 217 (context 216).

Phase 3: *c* AD 240–300

The two quarry-pits produced mid–late 3rd century pottery assemblages:

Assemblage 1, from the fills of quarry pit 115 (contexts 95, 107 and 110).

These fills yielded 41 sherds (960g) of freshly broken pottery derived from just a few vessels, including two fragments from an obtuse-latticed cooking-pot in Black-burnished type 1 ware (BB1) fabric (*c* AD 225–70), the lower part of a flagon in North Kent White-slipped ware (fig 4, nos 1–5). A date of deposition between *c*AD 240 and 270 is indicated.

Assemblage 2, from the fills of quarry pit 149 (contexts 139 and 148).

The fills of this pit produced a considerably larger 485-herd (6310g) pottery assemblage (fig 4, nos 6–13), which was quantified by estimated vessel equivalents (EVEs). A date of deposition between *c*AD 240 and 300 is indicated.

The quantification table (table 1: see *Endnote*) shows that by far the most significant supplier (*c* 76%) of pottery to the site at this time was the Alice Holt/Farnham production centre 46km away to the south-west on the Hampshire/Surrey border. The kilns of this industry supplied most of the cooking-pots, coarseware bowls and dishes present in the assemblage.

The most significant other sources of coarse pottery were the Thameside kilns of North Kent 50km to the east (9%) and the Verulamium Whiteware industry 20km to the north (8%): the BB1 industry of Dorset is represented by fragments from an obtuse-latticed cooking-pot (*c* AD 225–70) and a straight-sided dish.

Fig 4 Skerne Road, Kingston. Pottery:

- 1: jar of Frere type 1476 (1983) in buff Verulamium Region Whiteware. Ext rim dia 160 mm, context 95, *c*AD 240–90;
 - 2: jar of Lyne & Jefferies (1979) type 1.30 in self-slipped Alice Holt/Farnham ware, ext rim dia 120mm, *c*AD 200–300, contexts 95 and 110;
 - 3–4: two beaded and flanged bowls in similar Alice Holt/Farnham ware, ext rim dia 200 mm, *c*AD 240/270–300, Context 95;
 - 5: straight-sided dish of Lyne & Jefferies Type 6A.1 (1979) in self-slipped Alice Holt/Farnham ware, ext rim dia 180mm, *c*AD 200–270;
 - 6: everted-rim jar in grey Alice Holt/Farnham ware with applied white-slip decoration, ext rim dia 180mm (one of several), *c*AD 270–400, context 139;
 - 7: jar of type 3A-16 in similar fabric fired grey, *c*AD 200–70, context 148;
 - 8: beaded-and-flanged bowl of Lyne & Jefferies type 5B-8 with internal black slip extending over the rim, ext rim dia 160mm, context 148;
 - 9: 'pic-dish' of Monaghan type 5C4.2 (1987) in BB2 fabric, ext rim dia 220mm, *c*AD 170–250, context 148 (another example, of Monaghan type 5C4.4, in similar fabric is also present (1987, *c*AD 170–230));
 - 10: jar of Monaghan type 3H7-7 in Thameside greyware, ext rim dia 130mm, *c*AD 180–250, context 139;
 - 11: reeded-rim bowl of Frere type 2469 (1984) in Verulamium Region Whiteware, ext rim dia 240mm, *c*AD 200–50, context 148;
 - 12: Dr. 38 bowl copy with deep maroon colour-coat, ext rim dia 200mm, context 139;
 - 13: Dr. 36 dish copy in sand-free pink/orange fabric with brown colour-coat, ext rim dia 200mm, context 148.
- The above two vessels may come from the putative Brentford source.

Phase 4: *c*AD 330–400+

This ceramic phase is represented by a single jar rim sherd in Overwey/Portchester D fabric from layer 92.

The pattern of coarse pottery supply to Londinium and riverine sites to the west during the late 3rd century

A number of late 3rd century pottery assemblages from London and riverine sites to its west were EVEs quantified by the author for his doctoral thesis (Lyne 1994) and it became evident that the pattern of coarse pottery supply to London at that time differed markedly from that to Putney and settlements at Brentford, Kingston and Staines, only a short distance up river to the west.

Both London and Southwark were receiving large quantities of Dorset BB1 during the period *c*AD 250–300 to the extent of it making up nearly half of the coarse pottery in most assemblages from the City and Southwark. Outside London, the percentages of such wares were much smaller, with the highest figure (10%) occurring at Brentford on the main road out of London to Silchester and the south-west of Britain. A similar situation applies to Thameside greywares and Black-burnished type 2 ware (BB2) vessels. These make up between a quarter and a third of all coarse pottery from the City and Southwark but once again are represented by nominal amounts at Putney, Brentford and Kingston.

A reverse situation applies with Alice Holt/Farnham greywares: the highest percentages are at Staines and Kingston, where such wares account for up to three-quarters of all of the coarse pottery. At Brentford and Putney, only 16 and 12km respectively west of London, such pottery still makes up more than half of the coarsewares present, whereas in London and Southwark such wares are only nominally represented at this time.

THE BUILDING MATERIAL, by John Brown

Introduction

Although no foundations were in evidence in the excavated area, significant amounts of Roman ceramic building material (CBM) came from large dumps forming the fills of two pits. The material probably represents demolition debris from a building or buildings, at least one of which might have had a hypocaust. The lack of abrasion on most of the fragments from these contexts suggests a deposition date relatively soon after the destruction of the structure(s), perhaps during the 3rd century AD. Nearly all the Roman material came from these two features.

Roman brick and tile fabrics: 2452, 2459a, 2459b, 3004, 3006 (fabric group 2815); 2453, 2457 (Southern fabric group); 3018, 3238 (fabric group 3108); 3060

Almost all the Roman CBM was seen to be in fabrics from the local mid-1st to 2nd century fabric group 2815. These fabrics were produced at numerous sites around London, particularly to the north-west of central London and towards St Albans in the Brockley Hill area. Fabric 3060 is similar to 3006 except for the inclusion of speckles of iron oxide, and is found locally. Included in the large dumps of this material, however, were occasional examples of late 2nd–3rd century fabrics 2453 and 2457 from the south of England. In addition, occasional fragments in fabric 3018 and 3238 were noted. The kiln site for these is uncertain, although there is some similarity in certain tiles with those found at Hartfield in East Sussex. The small amounts of later material suggest minor repairs to existing structures, or rebuilding with large-scale re-use of earlier fabrics, as was common during the 3rd and 4th centuries. In either case, both dumps appear to be roughly contemporary.

One fragment of unusual fabric was given the code skd01/1. It had the following characteristics: light grey fabric with moderate milky quartz >2mm, poorly sorted; occasional

beige, silty, balled inclusions poorly sorted >120mm; occasional white balls and streaks (calcium carbonate?) >130mm; moderate voids (shell) and medium quartz moulding sand.

Pit 115: fills 95, 107, 110

This pit contained three distinct fills, 95 (tertiary), 107 (secondary) and 110 (primary), which contained a large amount of Roman building material and little else. This CBM appeared to be unabraded, and may indicate the demolition of a building in the vicinity of the site (table 2: see *Endnote*).

Pit 149: fills 139, 148

This pit contained two distinct fills, 139 (secondary) and 148 (primary). Several CBM sherds in both contexts showed signs of sooting or reduction of the fabric, some *tegulae* showed sooting on the underside, which may indicate destruction by fire, or possibly the use of material in hearths (table 3: see *Endnote*).

Brick

Unfortunately, brick fragments did not show any dimensions to be able to determine specific brick sizes such as *bessalis* or *lydion*. One fragment may possibly represent *opus spicatum* paving brick used in herringbone floors. Some fragments showed remnants of *opus signinum* on the base with a worn top face, suggesting use in flooring.

Roof tile

Quantities of tiles recovered from pits 115 and 149 are given in tables 2 and 3 (see *Endnote*).

Box-flue tiles

A significant number of box-flue tile fragments were recovered from both pits, although pit 115 contained larger fragments

Nearly all the examples from the site showed comb-scored keying on the faces. Most of the pieces were too fragmented to see a complete pattern, though designs incorporating horizontal, diagonal and occasionally vertical combing were noted.

Stone fabrics: 3105 (Kentish ragstone), 3106 (Hassock Stone), 3108 (medium-grained laminated sandstone), 3121 (fine-grained laminated sandstone), 3132 (Forest marble)

Significant numbers of stone tile fragments were recovered in association with the Roman ceramic material from pit 149. The majority were fragments of medium-grained micaceous sandstone, reddish-purple to greenish-grey in colour. This material probably represents paving tiles, one example showing chamfered or bevelled edges.

At least one stone fragment was an unusual example of a stone roof tile of Forest marble. It had a distinct nail hole and was similar in form to ceramic pegged roof tiles, although larger in size with minimum dimensions of 275 x 158 x 20mm. Other smaller fragments of the same stone type were found, suggesting that stone peg tiles may have been used instead of *tegulae* and *imbrices* for roofing at least part of a structure.

THE ANIMAL BONE, by Lisa Yeomans

Introduction

A total of 378 fragments of mammalian bone and five fragments of bird bone were recovered. Almost the entire faunal assemblage (96%) originated from the Roman phase of land use.

Methodology

The animal bone was recorded to species/taxonomic category where possible and to size class in the case of unidentifiable bones such as ribs, pieces of longbone shaft and the majority of vertebrae fragments. Recording followed established techniques whereby details of the element, species, bone portion, state of fusion, wear of the dentition, anatomical measurements and taphonomic information, including natural and anthropogenic modifications to the bone, were registered.

The Roman assemblage

A substantial quantity of animal bone was recovered from the two Roman quarry pits, although in disproportionate quantities. The fills of the southern pit (149), particularly the primary fill, contained the majority of the bone; even considering the difference in size of the two pits the deposition of bone was extremely skewed, with almost 98% of the fragments originating from the larger southern pit. This difference is interesting, especially since the date of infilling of these pits is roughly contemporary, with both occurring during the 3rd century AD.

In general, the animal bone from pit 149 was relatively well preserved and the surfaces of the material were largely intact, displaying minimal signs of weathering. Despite this, anthropogenic modifications in the form of cuts and chopmarks were notably absent indicating an actual lack of butchery traces rather than this evidence being obscured by poor preservation. Further to this, many of the bones were complete with minimal fragmentation, and during excavation it was noted that much of the bone was situated in discrete concentrations of articulated skeletal regions. Taken together, this implies that the bone deposited represents parts of carcasses that were not heavily utilised as the disarticulation and fracturing normally found in bone assemblages typical of domestic waste was absent.

The MNI (minimum number of individual) value was calculated based on the cattle bones from the fills of pit 149, and this provided a value of 1 for the secondary fill and 5 from the primary fill. These figures were based on the data in table 4 (see *Endnote*), which show the MNE (minimum number of elements) for various portions of the skeleton, the low ratio of MNI to NISP (number of identified specimens) suggests the deposition of a few, largely skeletally complete animals.

There is no notable bias towards any particular element within the fills of quarry pit 149; all areas of the skeleton are present, although the occurrence of the upper-limb bones and the skull is moderately more frequent. This is particularly unusual since the upper limbs are the major meat-bearing elements, and a possible interpretation of a pit where these are found partially in articulation might be as a dumping location where the carcasses of diseased or animals otherwise unsuitable for consumption could be disposed of.

It was not only the cattle bones from the fills of 149 that are not typical of domestic waste; four fragments of equid remains, identified as horse (*Equus caballus*) on the basis of enamel patterning in the dentition, were also recovered from the primary fill. It has been argued that horsemeat was rarely consumed in Roman Britain, as the bones of these animals are rare finds in urban contexts (King 1978); generally they would have been kept into old age since they were of considerably more value alive. The equid bones from the larger quarry pit at Skerne Road included a practically complete skull that was from a sub-adult animal based on the presence of heavily worn deciduous premolars. None of the bones displayed evidence of butchery; a plausible explanation for the presence of a young horse, which would normally be kept into old age as a work animal, could be that it died naturally or was slaughtered because of the condition of its health.

ENVIRONMENTAL EVIDENCE, by P Austin, N P Branch, K L Hunter and G E Swindle

Following an assessment of several bulk samples recovered during the excavations only one was recommended for detailed analysis. This was a bulk sample (sample 1) of context 148, the primary fill of later Roman quarry pit 149 from Phase 3 (AD 240–300). This sample provided well-preserved charred plant macrofossils and charcoal. The analysis was conducted to provide some information on domestic activities and woodland resource exploitation during the later Roman period.

Plant macrofossil analyses

The results of the plant macrofossil analyses are presented in table 5 (see *Endnote*). All the identifiable plant material recovered from the sample was preserved by charring. Cereal remains make up the majority of the plant macrofossil assemblage. The remainder appear to be examples of weed-type seeds with the possible exception of the possible plum/damson stone fragments.

Results of the wood charcoal analysis

The results of the wood charcoal analysis are presented in table 6 (see *Endnote*). The values listed are the fragment count for each taxon. All 79 fragments from the >4mm fraction and a further 25 from the 4–2mm fraction were examined. Of the 104 fragments examined, 24 could not be positively identified and are recorded as ‘indeterminate’. The majority of these fragments could not be identified because of acute thermal degradation. Identification of 100 or more fragments, optimally 300+, is sufficient to recover the principal taxa, but not necessarily every taxon, present in a sample (Keepax 1988). While it is unlikely, therefore, that the range of taxa identified fully reflects the actual range of taxa present both in the sample itself and the contemporary landscape, the five named taxa (field maple (*Acer campestre*); hazel (*Corylus avellana*); ash (*Fraxinus excelsior*); blackthorn, cherries (*Prunus* spp) and oaks (*Quercus* spp)) probably reflect the principal taxa exploited in this instance.

Discussion

Human activities

The presence of spelt wheat and barley in the assemblage seems to correspond with other sites across Britain (Tomlinson & Hall 1996). Oat tends to be under-represented, possibly due to the problems of identifying to species without having diagnostic chaff. The presence of the relatively high number of oat grains may suggest the remains of a deliberately grown crop but in the absence of any diagnostic chaff it is not possible to say this with any certainty.

The presence of detached and sprouted embryos intimates that the deposit of wheat represented either deliberately sprouted grain possibly for malting, or grain that had become spoilt owing to unsuitable storage conditions. The former may have become charred accidentally when the grain was subjected to high temperature to arrest the malting process when the required stage of sprouting was reached. Alternatively if the cereal had begun to sprout unintentionally then the spoilt grain may have been disposed of by burning.

The ratio of sprouted embryos to wheat grains is very low and indicates it was not the result of deliberate malting. The presence of the glume bases, spikelet forks and the glume type wheat grains together suggests that they are the waste from a stage of crop processing in which the ears of wheat have been removed from the lighter chaff and straw by winnowing, leaving the grains still encased within the robust glumes (Hillman 1981). Parching and pounding may then be required to separate the grains and it can be at this point that grain and chaff may accidentally become burnt.

The presence and type of the chaff suggest that some type of wheat processing was

occurring close by. Other seeds of plants commonly found growing on disturbed or cultivated ground were also present in small numbers. The presence of *Apium* sp (marshworts) and *Carex* sp (sedges) indicates an area of damp ground either where the crops were growing or close to where the pit was located. All the weed seeds could have been gathered by accident with the cereals or were possibly growing around the site and were burnt with rubbish and deposited in the pit. The fragments of *Prunus* spp (plum type) stone may all come from a single stone, which was broken after charring. This suggests a potential food resource for the human population.

Local vegetation characteristics

Oak is seemingly the most abundant and consistently occurring taxon recorded from archaeological contexts in the UK (Keepax 1988). Rather than indicating its former ubiquity as a living plant, this phenomenon may be a reflection of the past economic importance attributed to oak and its intensive exploitation. Oak is highly valued for its wood, wood derivatives (eg bark tannins used in the processing of animal skins to produce leather), and is regarded as one of the best fuel woods. Hazel is also one of the most commonly occurring taxa recovered archaeologically and again this possibly reflects its economic value as much as its ecological status.

Oak favours slightly acidic soils but is tolerant of a broad range of environmental conditions. Hazel is equally tolerant of a wide range of edaphic conditions and is widely distributed on well-drained soils. The ecological preferences of the other taxa represented are a little more specific. Field maple and ash flourish on alkaline soils and share intolerance of dense shade. Today field maple is characteristically found in woodland edge locations and hedgerows. The presence of light-requiring taxa suggests that the local vegetation included areas where tree cover was light or even absent. Ash copes well in damp but not permanently waterlogged soils. It is often found in association with watercourses and may have grown locally in such conditions. The dense thorny shrub *Prunus spinosa* (blackthorn) is common throughout southern Britain, much more so than *P. avium* (wild cherry), and is probably the taxon represented here. Blackthorn forms dense scrub and, in common with the other taxa represented here, is a common component of present-day hedgerows.

The apparent lack of biologically degraded dead wood may reflect the use of wood cropped from managed stands, or hedge trimmings, rather than that gathered from the woodland floor. Indeed, oak, ash, field maple and hazel are all economically important woods that respond extremely well to coppicing and other silvicultural techniques.

Conclusion

The findings of this investigation indicate that the local vegetation was probably fairly open and may have included areas of managed woodland alongside scrub and, perhaps, living hedgerows. The finds noted in the sample, and those recorded during the excavation of the southern quarry pit, imply that the assemblage from sample 1 was an element of a general rubbish deposit with possibly domestic and metalworking waste. The assemblage suggests various potential cereal resources were being exploited in the area. It is likely that the initial processing of the cereals was carried out elsewhere but it is not possible to say how far the cereal was being transported. It is also not possible to ascertain whether the macro-remains represent the deposition from a single burning event or, as the wood charcoal analysis suggests, a tertiary deposit of general waste that formed elsewhere on the site over a longer time scale that was cleared from around the site and then redeposited in the pit.

Discussion and conclusions

The excavation trench appears to have been situated on an area of slightly higher ground, with lower-lying land situated to the east, south and west. It is known that the Latchmere

stream/Downhall ditch lay to the south of the site, and the levels of the brickearth within the trench did decline, albeit only gradually, with this slope probably respecting the natural topography of the area.

The 1st century AD features on the site consisted predominantly of pits, although part of a probable ditch or gully was also identified towards the south of the trench. The presence of pits, whether for the disposal of rubbish, storage or other activities, would at least suggest some form of settled activity in the area. Indeed, the sherds of probable storage and bead-rim jars, as well as fragments of cattle (and other indeterminate mammalian bones) indicate that this occupation was at least to some extent domestic. The presence of a probable gully towards the south of the trench may represent part of a drainage system on the margins of the higher ground where flooding might have been a problem, at least on a seasonal basis. Palaeochannels and flood deposits have been recorded during numerous archaeological investigations to the south and east of the site, suggesting that the area would have been prone to flooding in the Roman period.

The two large sub-rounded pits recorded across the eastern side of the trench were interpreted as being dug for brickearth extraction and subsequently used for the disposal of rubbish. While a wide range of domestic refuse was represented within these pits, the concentration of certain assemblages is unusual, and allows certain inferences to be made. The high concentrations of building material recovered are notable, consisting mainly of roof tile, either *tegula* or *imbrex*, as well as significant amounts of box-flue tile, almost all of which dated to the mid-1st to 2nd centuries AD. These had been deposited with pottery dating to the 3rd century, suggesting the presence of a large 1st/2nd century building(s) in the vicinity of the site which had been demolished or altered in the 3rd century. Some of the building material, both ceramic and stone, showed evidence of burning, which may point to the possibility of fire as a reason for its destruction or repair.

The building material recovered suggests that the building from which it derived would have been roofed mainly with tile *imbrices* and *tegulae*, although stone pegged tiles may also have been used. The presence of a hypocaust system is inferred from the significant numbers of box-flue tiles recovered. Probably brick, and possibly stone, were used for the flooring. The precise location of the building from which this material derived is unknown, but a location to the north away from the Latchmere stream/Downhall ditch channel seems most likely.

The large quantity of pottery recovered from the southernmost of the two quarry pits dated predominantly to the 3rd century AD. The presence of unabraded cooking pots, bowls and storage jars suggest that household refuse was being deposited here from nearby, probably from the same source as the building material. The pottery assemblage mainly originated in southern England, including Dorset, Kent and Oxfordshire. A small collection of colour coated and micaceous finewares was also recovered which has previously been encountered at Brentford (Lyne 1994), and seem to have been supplied to settlements along the banks of the river Thames to the west of London. Indeed, the Thames is likely to have provided an important trading route for any settlement activity in the area of Kingston at this time.

The significant assemblage of bone recovered from the primary fill of the southern pit is also unusual. There was a lack of butchery traces and many of the bones were complete, and situated in discrete concentrations of articulated skeletal regions. There was also no notable bias in the material, with all areas of the skeleton present, although the occurrence of the upper-limb bones and the skull was slightly more frequent. This is especially unusual as the upper limbs are the major meat-bearing portions. Possibly the carcasses from which they originated were unsuitable, or not designated, for human consumption. The exceptionally large pit left by the quarrying of the brickearth would seem to be a suitable location to discard diseased carcasses. The absence of bone in the smaller quarry pit may be interpreted as the deliberate discarding of this material within the deeper of the two pits.

The deposition of large segments of animal carcasses could alternatively be interpreted as ritual offerings. Interpretations of this kind have been proposed for Late Iron Age/early

Roman assemblages across southern England where parts of animal carcasses occur in unusual circumstances usually with other 'special' finds. Identifying ritual deposits of animal bone is problematic and arguments for such deposits rely heavily on the context of deposition and associated finds (Hill 1996). The animal bone from the large quarry pit at Skerne Road is mixed with building rubble and the remains of many broken pots. Furthermore, cattle are not commonly found where previous interpretations have favoured a ritualistic interpretation. Additionally, ritual activity would probably have been symbolic in nature whereas the wasteful discard of five cattle skeletons would have been an extreme action. Overall, the evidence seems to favour interpretation of the bone as discarding waste that could not be put to further use.

The volume of articulated bones, and the lack of butchery marks on them, may indicate that the raising of livestock predominated in the local rural economy, though arable farming may also have been a contemporary activity. Environmental evidence recovered from a sample of the primary fill of the larger pit (which produced almost all the articulated skeletal portions) suggests that the local vegetation was fairly open, and may have included areas of managed woodland and living hedgerows, with cereal resources being exploited in the area. While only giving a general indication of the local environment, this does suggest that the area would have been suitable for a mixed-farming economy in the 3rd century. Evidence of the continued occupation and agricultural exploitation of the area into the 4th century AD was provided by a probable arable deposit identified in the extreme north of the site. It is likely to have been formed by the reworking of the underlying natural deposits by plough action. The location of this deposit in the northern upslope area of the trench and extending beyond the northern and eastern limits of excavation suggests that the majority of activity, both domestic and agricultural, would have taken place slightly further to the north, with most of the area of the trench being located on marginal land, at the edge of the Latchmere stream/Downhall ditch channel.

The archaeological investigations have revealed the first evidence for clearly *in-situ* Roman activity from north Kingston excavated using modern recording techniques. The site may indicate that records of a Roman period inhumation cemetery identified in this area in the 19th century are indeed accurate. Analysis of the artefactual material and environmental evidence recovered from the two quarry pits is particularly informative, suggesting the presence of at least one significant building in the vicinity of the site from the 1st/2nd century to the 3rd century, in a landscape supporting a mixed arable and pastoral economy.

Endnote

The tables listed below are available on the Archaeology Data Service website (<http://ads.ahds.ac.uk/catalogue/library/syac/v92.cfm>). Copies of this material will also be deposited with: the Society's library, Guildford; Surrey History Centre, Woking, and the Surrey Sites and Monuments Record, Kingston. Photocopies can also be supplied by post – enquiries should be addressed to the Hon Editors, Surrey Archaeological Society, Castle Arch, Guildford GU1 3SX.

TABLES

- 1 Pottery quantified by EVEs
- 2 Pit 115: types with percentage values by number and weight
- 3 Pit 149: types with percentage values by number and weight
- 4 Minimum number of elements for anatomical regions of the skeleton for the cattle bones from the primary fill and secondary fill of pit 149
- 5 Results of the charred plant remains analysis
- 6 Results of the charcoal analysis

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