Archaeological excavations at 90–106 High Street, Staines-upon-Thames

JONATHAN BUTLER and MATT EDMONDS

with contributions by MURRAY ANDREWS, MÄRIT GAIMSTER, ENIKO HUDAK, CHRIS JARRETT, KEVIN RIELLY and BERNI SUDDS

Archaeological excavations at the east end of the High Street in Staines-upon-Thames revealed three phases of occupation dating to the Roman, medieval and post-medieval periods. The site lay just to the east of the main town gravel island in an area of marginal and frequently inundated land during the Roman and medieval periods. Evidence of the flooding was encountered with alluvial deposits observed across the site. Both the Roman and medieval consisted largely of attempts to drain and utilise this marginal land. During the post-medieval period the site was occupied by a tanyard, which may have had its origins in the 17th or 18th century but had gone out of use by the early 19th century.

Introduction

Following an archaeological evaluation between November 2016 and January 2017 (Haslam *et al* 2017) that revealed remains of Roman and medieval date across the southern part of the site, an excavation consisting of three trenches (21–23) was undertaken between February and March 2017 on land at 90–106 High Street, Staines-upon-Thames (hereafter Staines) (figs 1, 2 & 3). The site was centred on TQ 0362 7171 and was a roughly triangular plot of land. The southern and eastern limits are bounded by the High Street and Mustard Mill Road respectively while the northern limit is bounded by a service access road to the 'Two Rivers' complex and irregular western limits are dictated by properties fronting Norris Road. The archaeological investigation was allocated site code SMMR16.

Archaeological and historical background

The town of Staines is centred on a gravel island on the north bank of the river Thames where it is met by its tributaries, the rivers Colne and Wraysbury. In both the Roman and medieval periods the main focus of activity was on this island. The Roman settlement probably began some time before AD 65/70 (Jones 2010, 13) and it was recorded as *Pontibus* ('(at) the bridges') in the 'Antonine Itinerary', reflecting its position adjacent to a major crossing point of the Thames. The modern High Street is believed to overlie the line of the Roman road running between London (*Londinium*) and Silchester (*Calleva*), and it was along this road that the settlement grew until it became a thriving town in the 2nd century AD as a marketing centre and a stopping place on the main Roman highway (*ibid*, 19). The town went into decline in the last decades of the 2nd century AD with catastrophic flooding at both this time and in the 3rd century AD (*ibid*, 29). Few late 3rd and 4th century AD features have been found in the town although large assemblages of late Roman pottery have been found in 'dark earth' deposits (*ibid*, 30).

There does seem to have been some occupation of the town island in the Saxon period though much reduced from the Roman period, with most activity found along the river frontage and little evidence along the main road (*ibid*, 33). The main focus of settlement was on Binbury island to the north.

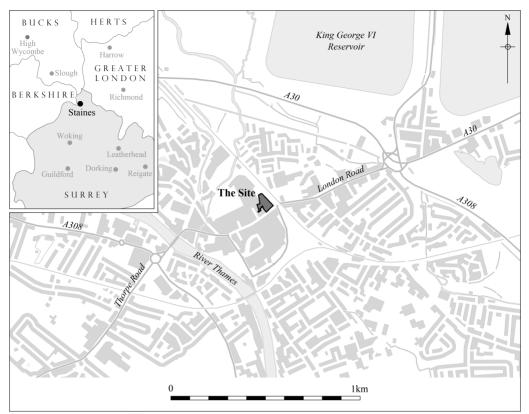


Fig 1 90-106 High Street, Staines. Site location.

During the medieval period the settlement grew, especially after the mid-12th century when a bridge was built over the Thames, and occupation primarily focused around the ribbon development alongside the former Roman road, with burgage plots to the rear of these properties. The town declined in the mid-14th century after the Black Death but grew strongly again in the late 15th and early 16th centuries. It was only during the 19th century when a new bridge was built upstream on Binbury island and after the arrival of the railways in 1848 that the town rapidly expanded beyond the town gravel island (*ibid*, xx).

The archaeological background of Staines has been covered extensively in a number of publications (Crouch & Shanks 1984; McKinley 2004; Jones 2010; Ellis 2016) and it is not proposed to replicate the information here. Suffice to say that the site lies to the east of the town gravel island within an area of flood plain alluvium and is thus outside the main areas of settlement in the Roman, Saxon and medieval periods. The nearest excavated sites are those to the east at Majestic House, which was also on the alluvial flood plain just on the western fringes of another gravel island, and the Central Trading Estate and Prudential sites to the west (fig 2).

Geology and topography

Staines at the present day is located above 'a series of low-lying gravel islands within the flood plain of the middle Thames Valley, situated on the north bank of the river Thames at its confluence with the braided tributary channels of the rivers Colne and Wraysbury' (McKinley 2004). The main Roman and medieval settlements were located on the town or High Street island with Binbury and Budbury Hill islands lying to the north and south

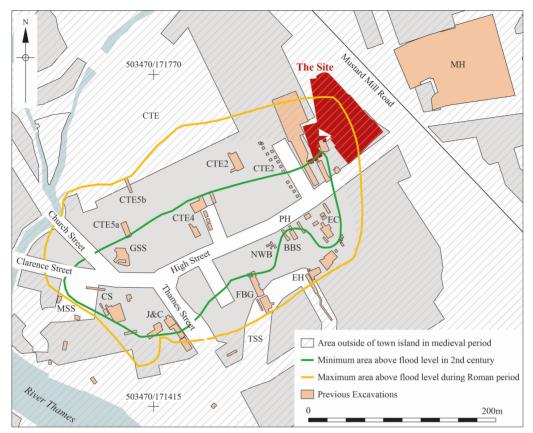


Fig 2 90–106 High Street, Staines. Sites mentioned in the text with minimum and maximum area above flood level during Roman period (after Jones 2010, fig 1.2). Sites: CS County Sports; CTE Central Trading Estate; EC Elmsleigh Centre; EH Elmsleigh House; FBG Friends Burial Ground; GSS George Inn site; J&C Johnson & Clarks; MH Majestic House; MSS Mackay Security site; NWB National Westminster Bank; PH Percy Harrison; PS Prudential site; TSS Thames Street.

respectively and another gravel island lying to the east (Jones 2010, fig 1.1). The British Geological Survey identifies the underlying bedrock geology to be the London Clay Formation, which is overlain by the Shepperton Gravel Member.

The archaeological evaluation and excavation of the site found no evidence of the gravel eyot, which was known to be located to the west of the site (fig 2), but did identify the alluvial sequence caused by overbank flooding, especially down the eastern side of the site (Haslam *et al* 2017). This alluvial material was encountered during the evaluation at a maximum height of 14.31m OD to the north-east and at a minimum level of 13.75m OD to the south-east. During the excavation it was recorded at 13.94m OD in trench 21 to the west and 13.85m OD in trench 23 to the east.

Archaeological sequence

PHASE 1: NATURAL FEATURE

Cutting the alluvium in trench 23 was a large natural feature (not illustrated), which was only partially investigated as it was revealed at a very deep level and continued beyond the limit of excavation. As seen, it measured 3.6m across x 0.72m deep and was recorded at 13.65m OD. This was probably the remains of a palaeochannel.

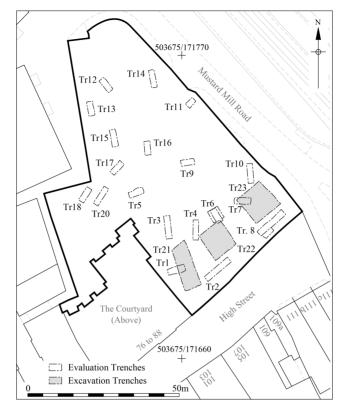


Fig 3 90-106 High Street, Staines. Trench location (evaluation and excavation).

PHASE 2: ROMAN (AD 250-AD 400) (fig 4)

Sealing the natural deposits in the three excavation areas was a layer of moderately compact mid-yellowish/green brown clay with some sandy clay that was 0.40–0.50m thick and found at 14.02m OD to the west rising to 14.23m OD to the east where it was seen at its thickest. A few sherds of pottery dated to AD 250–300 were recovered from the deposit in trench 21. This layer seemed to be a mixed layer of alluvium and greenish sandy clay and may be a dump deposit that was laid down during the late Roman period as part of the land reclamation taking place.

A series of ditches was revealed along the southern part of the site. These consisted of a large approximately north-west to south-east ditch (Ditch 1) observed within trench 21 and evaluation trench 1. It was traced for a length of 11.5m and was at least 3.3m wide, possibly extending to 4m in its southern part, and was up to 0.52m in depth. Pottery recovered from the feature was largely dated to the 4th century with the latest dated AD 350–400 (see Hudak, below). It was not observed immediately to the north in evaluation trench 3 but this area had been truncated by a large modern feature and neither was it revealed in any of the other evaluation trenches to the north; many of these did not penetrate the medieval and post-medieval dumped deposits as they lay below the development foundation level. It was thus possible that the feature may have continued across the site to the north. Extending to the north-east from its eastern side for at least 16.5m was a narrower ditch (Ditch 2) up to 2.2m in width that tapered to 0.80m to the east. Adjacent to its northern side to the east was another ditch (Ditch 3) at least 4.8m long x a maximum of 1.8m wide x 0.30m deep, which contained Roman pottery dating to AD 250–300. This showed evidence of being recut with the backfill containing pottery dated to AD 350–400. To the north-east was a ditch (Ditch 4)

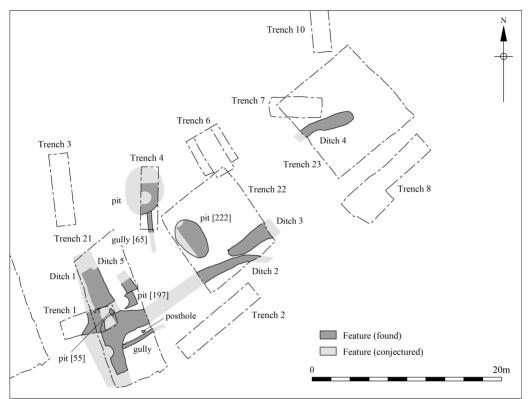


Fig 4 90-106 High Street, Staines. Roman features.

on the same alignment that terminated to the east and which also contained pottery dated to AD 350–400 (see Hudak, below).

To the south of Ditch 2 was possible evidence of a structure consisting of a narrow gully and a posthole. To the north lay three pits and the scanty remains of another north-west to south-east aligned ditch (Ditch 5). Two of these pits were large, with that in trench 22 measuring at least $4.3 \ge 1.09$ m deep. This feature had an organic primary fill from which was recovered a small quantity of pottery dated to AD 270–400. The secondary fill contained a small assemblage of pottery dated to AD 350–400. The pit to the north was at least 2.60m wide ≥ 0.42 m deep and had a narrow gully to the south. Both the pits and the gully contained pottery dated to AD 350–400 while the largest pit also contained a copperalloy *nummus* of the House of Constantine dated to AD 330–5. The pits may have been excavated to extract the alluvial clay deposits.

The alluvial deposits revealed on the site contained no datable artefacts but as the features cut through it were dated to the late 3rd and 4th centuries AD, it is likely that the deposits were earlier than the 4th century AD. Evidence of similar flood deposits dated to the late 2nd and 3rd centuries AD has been observed on a number of sites in Staines, including the Central Trading Estate 2 and Prudential site to the west and the Johnson & Clarks, Friends' Burial Ground and Percy Harrison sites to the south of the High Street (Jones 2010, 29).

The network of ditches would appear to represent drainage features to manage the marginal land on the edge of the gravel island to the west, which was the main focus of the Roman settlement. The location of these features is too far to the north to be associated with the Roman road that ran across the gravel island. The main ditches seem to conform to a pattern of a roughly north–south large ditch (Ditch 1) with another ditch (Ditch 2) lying

perpendicular to it to the east. These features suggest attempts to reclaim the land through drainage or manage the seasonal flood waters. The greater concentration of these features at the western side of the site seems to suggest that the activity was located close to the main town island. This fits the landscape models created during earlier investigations (McKinley 2004; Jones 2010; Ellis 2016), suggesting that the limit of occupation on this main evot was dictated by the flood level. The further away from this gravel island the less likely that the remains of Roman activity are to be encountered. The very large size (up to possibly 4m in width) of the main north–south Ditch 1 suggests that as well as acting as a drainage feature it may also have fulfilled the role of the eastern boundary of the town much as the large east–west ditch observed to the west at the Prudential site has been suggested to be part of the northern town boundary ditch (Jones 2010, 29). Ditches interpreted as field boundaries or drainage features of 2nd–3rd century AD date were recorded to the east on the Majestic House site (Ellis 2016, 137–8) and most likely represent similar activity to that found on the present site.

The Roman features contained weed seeds, including brambles (*Rubus* sp.), goosefoots (*Chenopodium* sp.), crosswort (*Cruciata* sp.), knotweeds (*Persicaria* sp.), duckweeds (*Lemna* sp.), nettles (*Urtica* sp.), docks (*Rumex* sp.) together with those of elder (*Sambucus* sp.), which would suggest that the area was marginal or waste land. There was also a high frequency of sedges (*Carex* sp.), which are commonly found on damp or wet ground, that might suggest the features were often waterlogged. Although terrestrial shells including common species such as *Zonitoides* sp. and *Succinea* sp. were present in the Roman features, freshwater shells of the genus *Planorbis* sp., which inhabit low-lying aquatic areas and ditches, and low numbers of *Lymnaea palustris*, which live in marsh and pond environments with stagnant and slow-moving water, were also recorded (Turner 2018). This provided further evidence of the marginal low-lying nature of the area and its tendency to flood.

A burnt deposit in trench 21 and the lower fill of Ditch 4 contained many charred weed seeds and a significant number of carbonised cereal grains, including an abundance of wheat (*Triticum* sp.), specimens of bread wheat (*T. aestivum* and *T. aestivum* subsp. *spelta*), moderate to abundant frequencies of barley (*Hordeum* sp.) and a small quantity (<30 grains) of rye (*Secale cereale*) with possible specimens of oat (*Avena sativa*) additionally from the ditch fill. A substantial number of the grains were too heavily fragmented or charred for species to be established, probably because of prolonged or high-temperature combustion. The ditch fill contained a moderate amount of burnt chaff remains possibly from the early stages of crop processing, including nodes, internodes and stem fragments, which may indicate that large-scale cereal processing and consumption had been carried out in the locality during this period. The proportion of charred weed seeds in this sample, which contained specimens from at least 22 genera, with principal types being large and small grasses (*Poaceae* sp.), medicks/melilots (*Medicago/Melilotus* sp.), peas (*Fabaceae* sp.) and goosefoots (*Chenopodium* sp.), may support this hypothesis (Turner 2018).

The activity seen was all dated to the late 3rd and 4th centuries AD, a period when few other features have been encountered elsewhere in Staines. Late Roman pottery was also recovered from similar ditches on such sites as 18–32 London Road, Staines (SCAU 1998), to the north of High Street, Staines (McKinley 2004) and immediately to the west at the Prudential site (Jones 2010, 29). Although little activity of this date has been found elsewhere in Staines, relatively large assemblages of late Roman pottery have been recovered from 'dark earth' deposits and later contexts (*ibid*, 30).

PHASE 3: MEDIEVAL (1150-1350) (fig 5)

The medieval features were similar in character to those observed in the Roman period consisting of ditches across the southern part of the site.

Sealing the Roman features in trench 21 was a dump layer of firm greenish/grey silty clay with a thickness of 0.4m recorded at a highest level of 14.49m OD. Medieval pottery dated

to 1050–1150 together with residual Roman pottery dated to AD 350–400 were recovered from this deposit.

A series of north-east/south-west aligned ditches up to 1.45m in width x 0.67m in depth was revealed largely to the west of the site, with narrower features present to the north-east, while a single ditch (Ditch 11) in evaluation trench 8 was on an east–west orientation. Two of these features (Ditches 6 & 8) terminated at their west ends. To the east were two northwest to south-east ditches (Ditches 9 & 10) that were traced for up to 10m in length and were up to 1.08m wide x 0.65m deep. The ditches lay c 5–7m apart and Ditch 9 contained a finely decorated and gilded buckle plate depicting a centaur in combat with a lion (fig 13; see Gaimster, below). A group of small pits was observed in trench 23 and a group of much larger probable pits in the south-west corner of site in trench 21 and evaluation trench 2. The pit in trench 21 contained the semi-complete remains of a poly-tempered ware curfew.

The features in trench 22 had two sherds of residual Saxon pottery dating from the 5th to 8th centuries (see Sudds, below). The two sherds of sand- and grass-tempered Saxon pottery are tentative evidence of Early–Middle Saxon activity. Possible Saxon features consisting of gullies and ditches along the foreshore and close to the riverbank have been found to the west at the Elmsleigh Centre, Friends' Burial Ground and the Johnson & Clarks sites, while a few other features close to the High Street may be Saxon at the Percy Harrison and Prudential sites, where 25 sherds of Saxon grass-/chaff-tempered ware were also found. However, despite these features it would appear that there was a greater focus on Binbury island during the Middle to Late Saxon period (Jones 2010, 33).

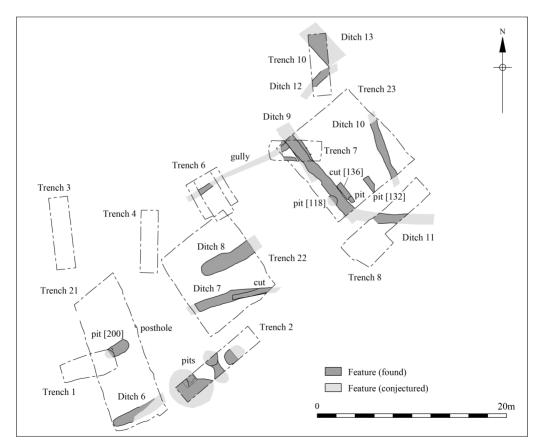


Fig 5 90-106 High Street, Staines. Medieval features.

274 JONATHAN BUTLER AND MATT EDMONDS

The medieval activity was very similar to that in the Roman period, consisting largely of ditches and gullies, with a concentration towards the east, which was partly due to a high level of truncation to the west in trench 21 where the foundations of modern buildings and associated drainage were identified. With the possible exception of Ditch 9 on the western side of trench 23, which may possibly represent the boundary of a burgage plot like those seen to the north-west at the Central Trading Estate Area 2 (McKinley 2004, 56, fig 35), the majority of the features are likely to be associated with drainage. Similar features consisting of agricultural field boundaries or drainage ditches and quarry pits containing pottery of similar late 12th–14th century date were revealed at the Majestic House site to the east (Ellis 2016, 138). This would suggest that the area outside the gravel island was still low-lying marginal land that was prone to flooding during the medieval period.

The majority of the features contained pottery of late 12th–13th century date with Ditches 9 and 10 to the east in trench 23 dated to 1240–1300, with slightly earlier pottery dated to 1150–1240 recovered from a pit and posthole in trench 21 and from Ditches 7 and 8 in trench 22. This might suggest that activity generally spread from the main town gravel island in the west towards the east. The date of the pottery recovered from the site accords with that from other sites in Staines. The earliest post-Conquest deposits dating to the 11th/ early 12th century were encountered to the west of the town island at the Mackay Securities site (Jones 2010, 34). More activity was observed on several town sites from the 12th century with evidence of a flourishing settlement by the late 12th century (*ibid*, 35). Immediately to the west at the Prudential site two phases of medieval activity were recorded consisting of postholes, beamslots and pitting dating from the late 12th to 14th centuries (*ibid*, 344–6). Further to the north-west the majority of the pottery from the medieval burgage ditches and pitting from the Central Trading Estate Area 2 was dated to between the 12th and 14th centuries (McKinley 2004, 59).

As reflected by the pottery, no activity seems to have taken place after c 1350. This evidence combined with absence of later activity reflects a contraction of the town overall during the late medieval period that was probably caused by the outbreak of the Black Death in 1348. It is thought that the town may have contracted to a core around the bridgehead and market, which is located at the west end of the town island (Jones 2010, 36). For some parts of the town this decline continued into the 18th century when once flourishing areas of settlement reverted to open land used for agriculture.

PHASE 4: POST-MEDIEVAL (17TH-19TH CENTURIES) (figs 6-8)

Tanning pits

Located in the south-western part of the site in trench 23 was a series of rectangular tanning pits aligned north-west to south-east (figs 6-7). The best preserved feature in the central part of the trench (Tanning Pit 3) measured 4.6m in length x 2.3m in width with a depth of 0.42m and was divided into three separate pits, c1.80m long x 1.00m wide, each lined with clean clay with traces of decayed organic material that represented the remains of the timber lining of the pits. They were backfilled with mixed fills containing pottery dated to 1805– 1840, glass dated to the late 17th and the early 18th century and clay tobacco pipe dated to 1730–1910, which would suggest a mixture of residual and contemporary material. Pottery dated 1780–1810 together with 18th and 19th century glass and clay tobacco pipe of similar date was recovered from Tanning Pit 5 to the west, which could indicate that the tanning pits went out of use in the first half of the 19th century. The only other pottery recovered from the tanyard was from Tanning Pit 2 to the east of the most complete feature that contained three sherds of residual pottery together with a sherd of tin-glazed ware dated to 1630-80, which might imply that tanning began in the late 17th century, but it is also possible that the sherd was residual. A preponderance of cattle bones, mainly composed of head parts - especially horncores - was recovered from the tanning pits and other similarly dated features (see Rielly,

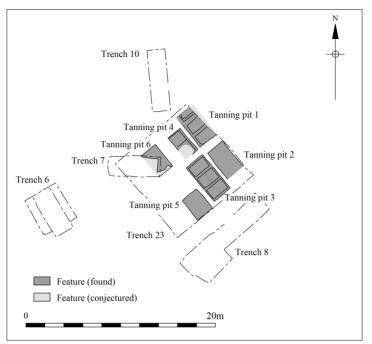


Fig 6 90-106 High Street, Staines. Early post-medieval features (trench 23).



Fig 7 90-106 High Street, Staines. Post-medieval tanning pits, facing north-west.

276 JONATHAN BUTLER AND MATT EDMONDS

below). The association with tanning pits strongly suggests that these collections are chiefly waste products from the local tanning industry. It is well known that hides were usually sent to the tanner with the horns and feet still attached. These parts would be removed from the hide at this point, the horns, or perhaps just the hornsheafs, sent on to the hornworker and the feet to the bone worker and/or glue manufacturer, these various trades often existing in the same part of the settlement (Serjeantson 1989, 132; Yeomans 2004, 282–7). It can be proposed, in the absence of metapodials or phalanges, that this had indeed occurred where the feet are concerned. The presence of horncores, on the other hand, indicates that just the useful part, the hornsheaf, had been sent on to the hornworker, the cores being dumped as waste products within some convenient feature. Other evidence of tanning was provided by the presence of a horncore-lined pit to the north of the site in evaluation trench 13 (not illustrated). This feature lay c 55m from the tanning pits observed in trench 23 and its backfill contained pottery dated to 1760–1800. The waste horncores from the tanning process were often used to line pits and other features in areas where tanning occurred and suggest that tanning was taking place across the site during the 18th century.

On the Prudential site immediately to the west many cattle horns and skulls were recovered from a 17th century soakaway and ditch that were located to the rear of the street frontage in the Backlands Trench Area. Both features were backfilled by the 18th century (Jones 2010, 347). The horncores are again indicative of tanning and it is possible that this activity began in the area during the 17th century and perhaps migrated to the east as the town developed during the 18th and early 19th centuries.

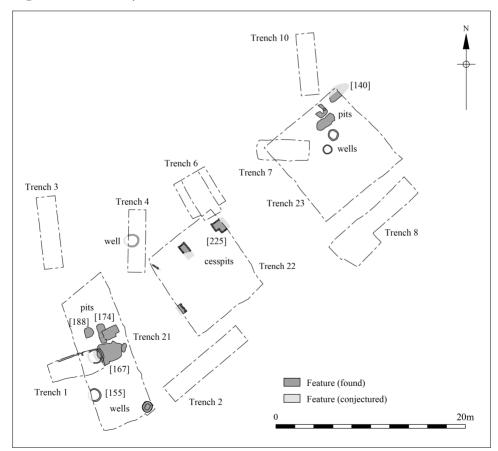


Fig 8 90-106 High Street, Staines. Later post-medieval features.

The tanyard would have been ideally sited on the eastern side of the town of Staines in a largely undeveloped part of the settlement with a ready supply of water from Sweep's ditch. Unfortunately, the majority of the parish registers of St Mary Staines do not list occupations (www.ancestry.com); however, there is some documentary evidence of tanning in Staines. In the decade from 1699 seven tanners and one fellmonger are recorded in the parish records of Staines (www.findmypast.co.uk), while in the early 19th century a James Smith was recorded as a tanner in 1813 and 1817 and a currier in 1829, and a Charles Barnes Wilkins, currier, was recorded between 1826 and 1829 located on the High Street (www.findmypast.co.uk; Pigot 1826, 490). The lack of documented tanners in the century between the two sets of records is probably due to the lack of occupation details recorded within the parish registers rather than an absence of tanning in Staines. However, a search of the commercial directory for Staines of 1839 (Pigot 1839) and the census returns for 1841 (TNA: HO17/718/12-13) did not produce any tanners in Staines, which suggests that the industry had moved by that date. That is reinforced by the tithe map of 1842 (not illustrated), which shows the site occupied by residential buildings and gardens with the only industrial concern, a forge, immediately to the east of the site.

Other post-medieval features

The remaining post-medieval features consisted of a series of pits, wells and brick-lined cesspits, which were located in the garden areas to the rear of the residential buildings that fronted the High Street (fig 8). The earliest features consisted of a large irregular pit, [167],

and a sub-circular cut, [188], located to the west of the site in trench 21 and another large pit in trench 23 to the north-east. These were backfilled with material that contained pottery, glass and clay tobacco pipe of early to mid-18th century date. Most of the other features, including all the brick-lined wells and cesspits, were backfilled with 19th century material with the two chambered brick-lined cesspits in trench 23 also containing an iron knife and a bone spoon (SF 10) with a decoratively carved handle (fig 9). A sub-rectangular pit, [174], in trench 21 contained the largest assemblage of pottery from the site consisting of 406 sherds, from 67 vessels that may represent a clearance group from a nearby house as there are a number of cross-joining profiles and multiple vessels of the same service (see Sudds, below).

The Romano-British pottery,

by Eniko Hudak

INTRODUCTION

The archaeological investigations produced a total of 777 sherds of Roman pottery weighing 15.373kg and representing 12.97 Estimated Vessel Equivalents (EVEs). The assemblage was quantified and recorded in



Fig 9 90-106 High Street, Staines. Bone spoon, SF 10.

accordance with the guidelines proposed by the Study Group for Roman Pottery (MPRG 2016). Fabrics and forms have been recorded using Museum of London codes (Symonds 2002) extended by other typologies and corpora where more precise dating was available. The assessment reports and the database of the pottery are available for consultation in the archive.

Overall, there is a rather limited range of both Romano-British and imported fabrics in the assemblage dating almost exclusively to the 3rd and 4th centuries AD. The dominant fabric is Alice Holt Farnham ware (AHFA, AD 250–400+) comprising over 66% of the site assemblage by sherd count and 68.7% by weight. The rest of the assemblage is divided between 28 other fabrics, only four of which are present in considerable quantities: Black-Burnished ware 1 (BB1, AD 120–400+), Portchester D/Overwey White ware (PORD, AD 350–400+), Nene Valley Colour-Coated ware (NVCC, AD 150–400+) and Oxfordshire Red Colour-Coated ware (OXRC, AD 270–400+). Amphorae are limited to six fragments, five of Baetican olive oil amphorae (BAET) and one in an unsourced fabric (AMPH), and samian ware to five sherds including a rim fragment of a type 5DR36 dish (SAM, SAMCG). The condition of the assemblage is mixed, ranging from heavily abraded to freshly broken fragments, while some sherds were noted to show signs of usage and post-firing modifications. The functional composition of the assemblage also shows a restricted range of vessel categories with jars occurring most commonly (59% of EVEs).

A total of 521 sherds weighing 10.611kg and representing 7.94 EVEs were recovered from the only Roman phase of the site (Phase 2 – Late Roman, fig 10). Analysis of pottery distribution by feature type shows that 67.2% by sherd count and 73.0% by weight of the phase assemblage was deposited in linear features (ditches and gullies), 30.7% (26.2%) in pits, and only 2.1% (0.8%) in layers (table 1). This report will present the assemblage

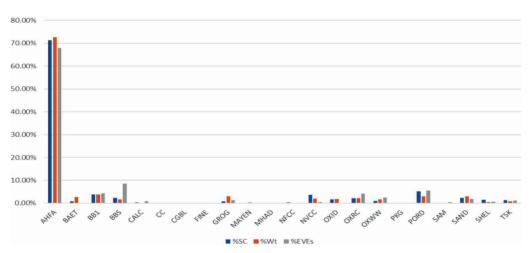


Fig 10 90-106 High Street, Staines. Quantification of the Phase 2 assemblage by fabric.

Table 1 Distribution of the Roman pottery assemblage by feature type (Phase 2)

Feature type	\mathbf{SC}	SC (%)	Wt (g)	Wt (%)
Ditch/gully	350	67	7747	73
Pit	160	31	2782	26
Layer	11	2	82	1
Total	521	100	10,611	100

through quantified data from the Phase 2 cut features from west to east to provide the best understanding of pottery deposition on the site in the Roman period.

DISTRIBUTION OF PHASE 2 (LATE ROMAN) ASSEMBLAGE

The section of Ditch 1 and truncated pit [55] excavated during the evaluation phase produced very little Roman pottery dated to after AD 350 in their fills, with the former yielding fourteen fragments (0.417kg) of AHFA everted-rim and hooked-rim jars and flanged bowls and a single sherd of unsourced sandy grey ware (SAND) – the latter a single fragment of PORD (0.013kg). Ditch [190], which was the northern part of Ditch 1, produced a similarly small amount of Roman pottery with twenty fragments weighing 0.427kg comprising fragments of a minimum of three AHFA jars of the late bead-rim, everted-rim, and flat-rimmed types giving the assemblage an overall date of AD 250–270.

Ditch 5 contained only four fragments of pottery (0.095kg): one sherd each of NVCC, AHFA, BAET, and one unsourced oxidised sherd (OXID), giving an overall date of AD 250–300. This ditch was truncated by pit [197] that contained 25 fragments weighing 0.258kg including an AHFA everted-rim jar sherd with graffito that could be a number, as well as a flat-rimmed AHFA rim, NVCC, OXID, and SAND dating the feature to AD 250–270; however, a single 1g fragment of PORD was also recorded. This fragment could have been introduced with the truncation of this feature by a medieval pit together with a small amount of intrusive medieval pottery.

The two excavated sections of Ditch 1 contained a somewhat larger assemblage of pottery than the other features of the western part of the site described above, with a total of 76 sherds weighing 1.627kg and an overall date of AD 350–400+. A greater variety of fabrics and forms is represented including a PORD hooked-rim jar, an OXRC funnel-neck beaker (3C22), AHFA late bead-rim and everted-rim jars and flanged bowls, BB1 late everted-rim jars and a plain-rim dish, a body sherd of an Oxfordshire White ware mortarium (OXWW 7), a fragment of imported late Roman Mayen ware (MAYEN), and some residual BAET amphora sherds.

Excavation during the evaluation in trench 4 towards the centre of the site gully [65] and truncating large pit [62] produced a very small amount of pottery with thirteen fragments (0.063kg) including PORD, an AHFA flask with combed decoration (ten fresh fragments, 0.208kg, 27% of rim, fig 11.1), OXWW mortarium, and BB1 from the former, and eight fragments (0.097 kg) of PORD, AHFA flanged bowl, and BB1 from the latter; both dated to AD 350–400+. Located to the south-east of these features, Ditches 2 and 3 also contained meagre amounts of Roman pottery. Ditches 2 and 3 with thirteen fragments (0.122kg) and nine fragments (0.431kg) respectively seem to have been backfilled contemporaneously with both dated to AD 250–300, while the fill of the recut of the latter with four sherds (0.051kg) is later at AD 350–400+.

Pit [222] in trench 22 produced one of the largest feature assemblages of the site with a total of 135 fragments weighing 2.524kg. The lower of its two fills contained twenty fragments (0.333kg) including an OXRC 4C75 type necked bowl dating the fill to AD 325–400+ (Young 1977) and a 3C22 type funnel-necked beaker, NVCC beaker, New Forest Colour-Coated ware (NFCC), an AHFA plain-rim jar, and a residual 7M18 type OXWW mortarium (AD 240–300, *ibid*). The upper fill contained 115 fragments weighing 2.191kg (2.22 EVEs) including a wide variety of PORD and CALC hooked-rim jars, AHFA jars, bowls and dishes, NVCC beakers, another OXWW 7M18 mortarium, and OXRC and NFCC body sherds with an overall date of AD 350–400+.

Of the two easternmost features of the site, ditch [149], which was only glimpsed in the base of a machine slot (not illustrated), produced a very small amount of pottery (22 sherds, 0.641kg) dated to AD 350–400+; however, the fills of Ditch 4, including its terminus, contained an assemblage of 164 sherds weighing 3.546kg (2.18 EVEs), which is the largest individual feature assemblage of the phase. The lowest fill of the ditch contained only two small sherds

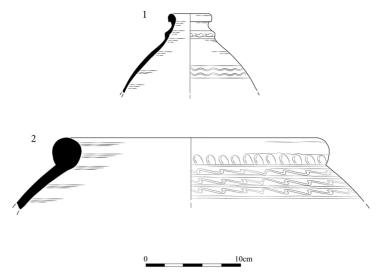


Fig 11 90–106 High Street, Staines. Roman pottery; RP3.1: AHFA flask with combed decoration, Lyne & Jefferies 1979 type 1B6 (AD 330–400); RP3.2: GROG large late bead-rim jar with wavy line decoration (cf Lyne & Jefferies 1979, fig 30/4.44 and class 1C, AD 270–400).

(0.018kg), one of imported Central Gaulish Black Slip ware (CGBL, AD 150–250) and one of Much Hadham Red ware (AD 200–400), suggesting that the natural silting of the ditch occurred after AD 200. The fill above produced a large assemblage of 113 fragments (2.532kg) but with a very restricted range of fabrics (cf Ditch 1 and pit [222] above): 92 fragments (1.946kg) of AHFA form the bulk of the fill assemblage with everted- and hooked-rim jars and a plain-rim dish with a variety of combed decoration. The rest includes a grog-tempered late bead-rim jar fragment with wavy line decoration (GROG 2A, fig 11.2), a PORD hooked-rim jar, BB1 and Black-Burnished style plain-rim dishes, a grog-tempered late bead-rim jar, and heavily abraded fragments of an NVCC beaker with white barbotine decoration, an OXRC 5C50 type dish with white painted decoration dated to AD 325–400+ (Young 1977) imitating samian form 5DR36, and a fragment of an actual samian 5DR36 dish.

DISCUSSION

The composition of the assemblage is typical of the late Roman period: the overwhelming dominance of Alice Holt/Farnham wares was also observed in late 3rd and 4th century AD groups in London (Symonds & Tomber 1991) reflecting the success of Alice Holt products of the period (Lyne & Jefferies 1979). The high percentage of both AHFA and PORD reinforces the 4th century date of the assemblage. The presence of more 'exotic' material such as Mayen ware is noteworthy, as it is another indicator fabric of late Roman activity (Gerrard 2011) and is not noted to be present on nearby sites (eg SCAU 1998; SCAU 2001; McKinley 2004).

The assemblage also compares well to sites in the area with a similar range of features, such as the excavations at 18–32 London Road, Staines (SCAU 1998) where the limited range of Roman features included two ditches both containing late Roman pottery. Excavations to the north of High Street, Staines (McKinley 2004) and to the west of this site revealed a similar series of drainage ditches to the northern limit of Staines island, which were deliberately backfilled during the 4th century with the abandonment of the site. This phase of activity produced a pottery assemblage typical of the era: AHFA dominating and the presence of other typical late Roman fabrics such as PORD and OXRC (McKinley 2004, 55).

It is interesting to note that although the density of features does seem to decrease towards the east of the site, the amount of pottery deposited does not follow the same pattern. The easternmost ditches yielded nearly 40% of the site assemblage by weight, while the westernmost features only 27.6%. This could be the result of post-Roman truncation affecting Roman features in the west more heavily than the east; however, the amount of redeposited Roman pottery does not appear to correlate with the extent of the truncation. A number of medieval and post-medieval pits and wells were cut through the ditches and pits in the western part, but they yielded only 23 sherds weighing 0.622kg, whereas the single medieval ditch cutting through the easternmost Roman ditch also produced a small assemblage of 27 sherds weighing 0.388kg. The greatest amount of redeposited Roman pottery was retrieved from the centre of the site from Phase 3 features (76 sherds, 1.069kg), especially from the ditch and its later recut at the eastern side of the trench, which in fact could explain the scarcity of pottery from these underlying features (see above). This observation could be an indicator of the depositional processes involved in the deliberate backfilling of the drainage ditches of the marginal areas around Staines, although this site alone does not offer enough evidence for an explanation.

In conclusion, the Phase 2 assemblage of the site is typical of late Roman period activities in the Staines area. It represents pottery associated with the management and then deliberate backfilling of marginal land reclamation features with the abandonment of the area in the 4th century AD, providing dating evidence for the sequence of these activities.

The Saxon, medieval and post-medieval pottery, by Berni Sudds

INTRODUCTION AND METHODOLOGY

A medium-sized assemblage of post-Roman pottery was recovered, amounting to 1227 sherds, representing an estimated 596 vessels (ENV) and weighing 44.538kg. The pottery dates from the Early Saxon period to the 19th century, although the majority is of late 12th–13th century date and 18th–19th century date (table 2).

The assemblage was examined macroscopically and microscopically using a binocular microscope (x20), and recorded in an Access database, by fabric, form and decoration. The medieval pottery was classified following the type series for Surrey proposed by Jones (1998; 2015), while the post-medieval wares were recorded using the Museum of London Archaeology type series (MOLA 2014). The forms were identified in accordance with the Medieval Pottery Research Group's guide to the classification of forms (MPRG 1998). The pottery was quantified by sherd count (SC), estimated number of vessels (ENVs) and weight. A summary of the pottery types and forms appears in table 3 (see *Endnote*).

DISTRIBUTION OF THE POTTERY BY PERIOD

The distribution of the pottery by phase and ware type is summarised in table 4 (see *Endnote*). The majority of feature assemblages are small (up to 30 sherds), with a smaller number of medium size (31–99 sherds) and two large assemblages (over 100 sherds), one of which contained over 400 sherds (pit [174]). Forty-six sherds are unstratified and a small proportion

Table 2 Breakdown of assemblage by period. ENV = estimated/minimum number of vessels

Pottery period	Sherd count	ENV	Wt (g)
Early/Middle Saxon	2	2	45
Late Saxon and medieval	499	326	11,809
Post-medieval	726	268	32,684

is considered to be intrusive or residual. The Saxon pottery is residual in later features and a small assemblage of medieval pottery was recovered from Phase 2 features but is considered to be intrusive.

The medieval assemblage was recovered from a series of ditch and pit fills, with a smaller number of sherds recovered from layers and posthole fills. The post-medieval pottery was deposited within the backfill of wells, drains and tanning and rubbish pits. The pottery of all periods is generally in good condition with an average sherd weight of over 36g, but the post-medieval material is particularly fresh with a high number of sherds to vessels and some groups including complete profiles.

RESIDUAL SAXON POTTERY

The earliest post-Roman pottery is Saxon in date, comprising a small sand-tempered hemispherical bowl with a simple rim (QGT; fig 12.1) and a fine micaceous organic-tempered body sherd (GT). The former could date from the 5th to 9th centuries, although the hemispherical form is more characteristic of an Early Saxon date. Elsewhere across central, eastern and southern England, including in Greater London, grass- or organic-tempered wares are dated from the 5th to 7th centuries, becoming most prevalent in assemblages in the later 6th and 7th centuries (Sudds 2015). In Surrey, however, it is suggested that the production of local hand-formed chaff-tempered wares continued until the late 10th or early 11th century (Jones 2015, 7). Both the sand- and chaff-tempered traditions appear to be long-lived types with an understanding of their dating and chronology in the region made more difficult by the absence or rarity of key chronological markers, including Middle Saxon Ipswich ware and Continental imports (Jervis *et al* 2015). Both of the sherds from the site are residual in medieval ditch fills ([212] and [220] of Ditches 7 and 8 respectively) but suggest contemporary activity in the vicinity.

PHASE 3

с 1000–1250

Chronologically, the next group of pottery comprises the chalky, shelly and ironstonetempered wares (SNC; S3; SYSH; IQ) with late 10th or 11th century origins. Saxo-Norman chalky wares and early shelly wares are present in relatively modest quantities, but it is the ironstone-tempered wares (IO) that are most numerous among this group, equating to the 'Early Surrey Wares' in the London corpus. In Staines the IQ wares are most common in post-Conquest groups and remained dominant into the early 12th century (Jones 2010, 147, 331). They continued to be made into the later 12th century, but by this date had been largely replaced by the Staines standard grey/brown sandy wares (Jones 1998, 220; 2010, 147, 331). The presence of the chalky wares (SNC), in particular, demonstrates that activity was still taking place in the vicinity prior to c 1150. There is also a handful of late 11th–12th century pottery from layers [3], [6] and [14] and a small 12th century group, including SNC, IQ and Sand- and flint-tempered ware (QFL) vessels from layer [156], but the earliest cut features were not backfilled until the later 12th century (Ditches 6 and 7; pits [200] and [136]). The fills of Ditch 6 contained a fairly modest assemblage dominated by chalky and ironstone-tempered sherds dated to the 12th century stratigraphically, but the upper fill also included six sherds of Poly-tempered sandy ware (Q1) and Grey/brown sandy ware (Q2), the latter post-dating c 1150. Indeed, assemblages dated from the mid/late 12th–13th century are typically dominated by the local sand-, sand-and-flint or poly-tempered coarsewares (Q2, FQ2; GQ2; QFL; Q1, GQ1). Both poly- and sand- and flint-tempered wares (Q1, GQ1 and QFL), probably representing part of a broader Chilterns tradition, appear earlier than the Grey/brown sandy tradition (FQ2, QG, GQ2), but continue later than the other early IQ and SNC wares (Jones 2010, 146–7). It is perhaps likely, therefore, that the groups dominated by IQ wares are earlier than those where the flint-, poly- or sand-tempered wares occur most frequently though a similar date range is suggested.

The range of forms recovered is relatively limited for the Late Saxon and early medieval wares – as typical of the period – comprising jars and a few bowls. There are two SNC jar rims, one with a flaring neck and simple flat-topped rim and another with a thickened flat-topped rim. The slightly thickened, flat-topped rim of a rounded SNC bowl or dish was also recovered. One medieval shelly ware (S2) jar was recovered from an early deposit with a thickened, externally-bevelled rim. A larger number of IQ jars were represented, all with thickened rims, sometimes with a flattened or internally bevelled top and internal bead, and most have a hollowed neck. Few vessels were sufficiently complete to determine profiles, but the large body sherds from one jar indicate a cylindrical shape, well-paralleled in the tradition. There is also a single IQ bowl with a slightly thickened and externally-bevelled rim.

The Poly-tempered coarsewares (Q1, GQ1) include jars with thickened, internally-beaded and thickened, flat-topped rims. One vessel has bands of diagonal combing, a feature of a number of the Chiltern traditions, including the Q1/CQ1 and QFL groups. The QFL group includes a wider range of forms including jugs, bowls and curfews but occurs predominantly as jars. The latter have thickened rims, with internally- and externally-bevelled tops, some of which are squared to the outside edge. The two curfews came from pit [200] and Ditch 8. The most complete from pit [200] has a convex perforated top, flared sides and a strap handle with faint thumb impressions to either side (fig 12.2). The second example from Ditch 8 has horizontal and diagonal applied thumbed strips and combed decoration (fig 12.3). OFL curfews have been found previously in Staines, some with applied thumbed strips, but the examples from this site appear to be the best preserved to date (Jones 1982, fig 7.168; 2010, fig 4.26.28 and fig 5.23.139 and 140). Curfews were used to cover the hot embers of a fire, typically overnight, to prevent accidental fires. Originating from groups dated to the late 12th or late 12th-early 13th century they represent early examples of the type. Four sherds from a QFL jug were also recovered from Ditch 8, representing part of the lower handle attachment with vertical applied thumbed strips running from each edge of the handle and a patchy green glaze.

The early Grey/brown sandy ware (FQ2; Q2; GQ2) forms comprise jars and a single dish and jug. The jars have thickened, internally-beaded rims, thickened, flat-topped rims, everted thickened and hollow-topped rims and thickened, triangular rims. Of particular note is the complete profile of a squat, slightly conical, FQ2 jar with a sagging base, everted neck and a slightly thickened externally-bevelled rim from (Ditch 7), similar to an illustrated example from the Johnson & Clarks site (Jones 2010, fig 4.24.17). The flared dish has a thumb-decorated rim (fig 12.4) and the jug has a simple, slightly thickened rim with a rounded top and a strap handle with raised thumb-impressed edges.

c 1240/50-1500

Deposits dated from the mid- to late 13th or early 14th century, including Ditch 9, pits [118] and [132] and layer [204], contain Kingston-type wares (WW1B), occurring both as a coarseware in the form of jars and a frying pan, but most frequently as glazed jugs. Grey/ brown sandy wares continue to represent the most dominant coarseware, but poly- and sand- and flint-tempered wares are also represented, although at least some of the latter may have been old when deposited. There are also a small number of medieval shelly wares (S2) and Hertfordshire/Middlesex reduced sandy greywares (HMQ).

Jar forms again account for the most common form among the sandy-, poly- and flinttempered coarsewares, sharing similar thickened, internally-beaded rims often with an internally bevelled top and sometimes with a squared outer edge. The two medieval shelly ware jar rims are both thickened and either flat-topped or externally-bevelled. Other forms include a QFL bowl with an everted flat-topped rim, thumb-decorated to the outer edge (fig 12.5) and a more unusual vessel with an inturned rim and the edge of a pouring lip (fig 12.6).

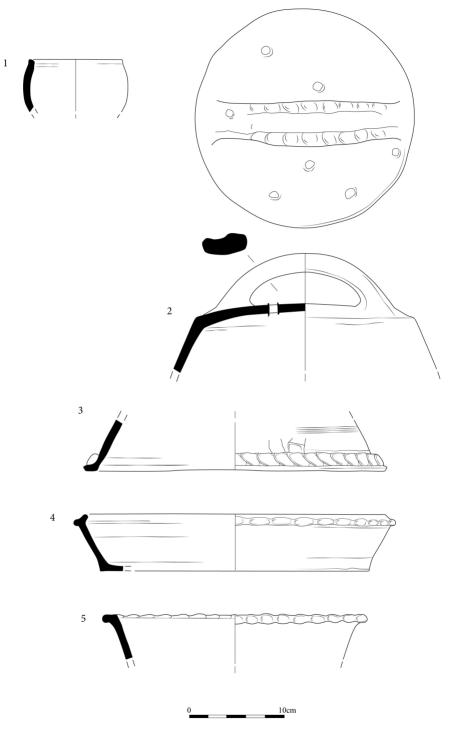


Fig 12 90–106 High Street, Staines. Post-Roman pottery; 12.1: QGT small hemispherical bowl, ditch [213] ([212]; Ditch 8); 12.2: QFL curfew, pit [200] ([199]); 12.3: QFL curfew, ditch [213] ([212]; Ditch 8); 12.4: Q2 flared dish, ditch [213] ([212]; Ditch 8); 12.5: QFL bowl, layer [204]; 12.6: QFL vessel with inturned rim and pouring lip, layer [204]; 12.7: FQFL1 large rounded jug, ditch [116] ([115]; Ditch 9).

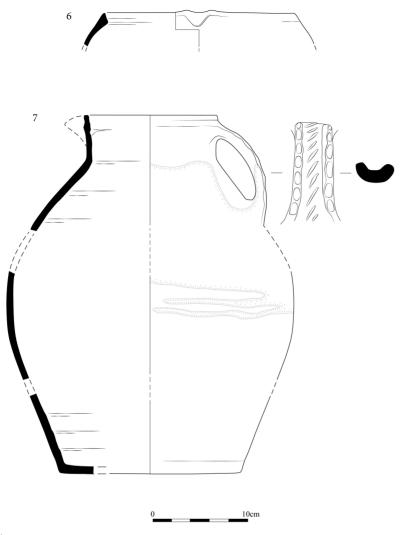


Fig 12 (contd).

There is no exact parallel for the latter although it could be the rim of a pipkin similar to a Q2 example from the Mackay Securities site (Jones 2010, fig 5.23.132) and a coarse Londontype ware example from the city (Vince & Jenner 1991, fig 2.74.192). Also of note is a rare Poly-tempered ware (Q1) internally-glazed handled bowl with an expanded, flat-topped rim from gully fill [71] in trench 6. The latter has a vertical loop handle attached from the rim and secured by an internal finger mark, pushed from the inside rim up into the handle. The internal glaze is coarse and green in splashes to the walls, with good coverage to the base. Diagonal combing is present on some of the Q1 and QFL body sherds.

The glazed wares are dominated by Kingston-type wares, of which a sizeable group was recovered from fill [115] of Ditch 9. Of interest is a highly-decorated Kingston-type ware jug with a bridge spout and decoration consisting of columns of point stabbing from Ditch 9 and a second highly-decorated Kingston-type ware jug from layer [25] with incised line decoration in narrow horizontal bands and an oval strap handle with point stabbing. Ditch 9 also contained seventeen sherds from a Fine sand- and flint-tempered ware (FQFL1) large, rounded jug with a collared rim and a slashed and thumb-decorated strap handle (fig 12.7).

The jug has a sandy fabric with sparse flint, ironstone and burnt organic inclusions and has a grey core, buff to pale orange surfaces and a patchy green glaze. There are also a number of other unsourced glazed wares, generally with sandy bodies, that could be products of the Grey/brown sandy tradition (FQ2), but also others that are lighter firing, nearer to whitewares. This also applies to some of the coarsewares. Indeed, distinguishing between the grey/brown tradition and whitewares in the region is not always straightforward (Jones 2015, 18). Furthermore, it has been argued that the 'whitewares' encompass a greater diversity than the current Museum of London classification allows for, owing to the fact that they may have been made at a number of production centres in Surrey including, perhaps, Staines (Jones 1998, 221 and 233–4).

Later products of the Surrey whiteware industry, namely Coarse Border ware (WW1A) and Cheam whiteware (WW1), are less numerous, as is pottery of late medieval date in general. Coarse Border ware vessels occur in a group dated from the late 13th to 14th century (medieval infill of hollow over earlier Roman Ditch 4) but the remaining Coarse Border sherds and few Cheam whiteware vessels are residual in post-medieval features.

Phase 4

Pottery of early post-medieval date is also poorly represented in the assemblage with nothing definitively of 16th century date and a limited quantity of 17th century material in the form of Surrey-Hampshire Border whiteware (BORDG/Y) and London tin-glazed ware with blue- or polychrome-painted decoration (TGW D). The majority of the pottery recovered from Phase 4 features dates to the 18th and 19th centuries.

Fill [166] of the large pit [167] in trench 21 produced a medium-sized assemblage (52 sherds, 25 ENV), dominated by Surrey-Hampshire Border redware (RBOR/RBOR SL) vessels, including three slip-trailed dishes. The group also includes a Staffordshiretype combed slipware dish, a fine post-medieval redware flanged dish with a joggled slip reminiscent of 18th century products from Brill in Buckinghamshire, and some tin-glazed bowls/tea bowl with blue painted floral and foliate designs. An 18th century date is suggested for the group, perhaps deposited prior to the late 18th century given the absence of massproduced refined wares, although White salt-glazed stoneware (SWSG), the earliest of the mass-produced wares, dating from c 1720 to 1780, is also missing. Another medium-sized assemblage was recovered from the fill of Tanning Pit 5, although this is more fragmentary and dated to the late 18th to early 19th century. The latter also includes significant quantities of Surrey-Hampshire Border redware, including another slip-trailed dish, but also massproduced Creamwares (CREA/ CREA DEV) and Pearlwares (PEAR/PEAR BW/PEAR TR) in the form of plates, dishes and bowls. The group also contained a Chinese blue-andwhite porcelain (CHPO BW) tea bowl and a London tin-glazed ware with plain white glaze (TGW C) porringer.

The largest single assemblage from the site was recovered from the fill of pit [174] in trench 21, amounting to 406 sherds, from 67 vessels. This may represent a clearance group from a nearby house as there are a number of cross-joining profiles and multiple vessels of the same service. The majority of the group comprises of Creamwares and Pearlwares, although it also includes English porcelain, London and English stoneware tankards and a jug, Surrey-Hampshire Border redware dishes and red earthenware flowerpots. The Creamwares are represented by plates of different sizes, dishes, bowls, nursery mugs, a food mould and a chamber pot. The nursery mug is under-glaze transfer-printed in red with a boy and a toy horse, marked 'FOR MY DEAR BOY' above. The Pearlwares also include two plates but they are dominated by tea wares in the form of tea bowls, saucers and a teapot. The assemblage includes 18th century material, including a near-complete white salt-glazed stoneware chamber pot with scratch blue floral decoration and a 'GR' portrait medallion, but was probably deposited c 1800–30. The greatly increased specialisation of form evident in groups of this date goes hand-in-hand with the rise of the mass-produced refined wares

at a time when social habits became more prescriptive and tea-drinking began to filter down through the classes.

One of the latest dated groups was recovered from fill [215] of cesspit [225] in trench 22, including later mass-produced industrial refined white earthenwares (REFW/ REFW PNTD), refined whiteware with under-glaze transfer-printed decoration (TPW/TPW3/ TPW4/TPW FLOW), Yellow wares (YELL SLIP), bone china and Majolica, the latter post-dating c 1850. A similarly specialised range of form types was recovered, including dinner and dessert plates, meat dishes, tureens, lids, ladles, jugs and mugs. As observed in other contemporary assemblages, the Yellow wares are represented by utilitarian kitchen forms.

DISCUSSION

The range and composition of the assemblage is similar to that observed on the adjacent site and other contemporary sites in Staines and more broadly in north-west Surrey (Ellis 2016; Jones 1982; 1998; 2010; Jarrett 2017).

Although residual, sherds of Saxon pottery were recovered. Small quantities of similarly dated pottery have been recovered from most sites within the central High Street area, forming part of a larger corpus of residual Anglo-Saxon finds from Staines that indicate Saxon occupation of the area (Jones 1982, 197–8). None were recovered to the immediate east at Majestic House, but both chaff/organic and sand-tempered Saxon vessels were recovered on the Prudential site and Central Trading Estate to the west and to the south of the High Street at the Elmsleigh Centre (Jones 2010, 148–9, 356; McKinley 2004).

The pottery indicates limited activity of late 11th–early 12th century date in the vicinity of the site but the earliest cut features contain material dated to the late 12th century, with the majority of the medieval assemblage dating from the later 12th-13th or early 14th century. This would appear to be in agreement with findings from elsewhere on the town island, suggesting that up to the 10th-early 11th century the focus of post-Roman activity was towards the southern and eastern end of the island around the Elmsleigh Centre (Jones 2010, 33). Post-Conquest, this focus appears to have moved to the western end, with most other sites spread along the island to the east producing too little pottery of later 11th and early 12th century date to be indicative of significant occupation (Poulton 2003, 9; Jones 2010, 34). The construction of the road approaching the bridge across the Thames in the mid-late 12th century provided the catalyst for the growth of the settlement towards the east (Jones 2010, 35), with the founding of a market by 1218 prompting further growth (Poulton 2003, 9–10). Pottery of 13th and early 14th century date has been recovered from most sites along the High Street, a reflection of the flourishing town (Poulton 2003, 9–10; Jones 2010, 35). It is probable that the late 12th-early 14th century pottery was dumped on the site from occupation in the immediate vicinity, perhaps even from buildings fronting onto the High Street. The range of form types and presence of limescale deposits, burnt residues and sooting would be consistent with domestic habitation, in particular for the preparation and consumption of food.

Relatively small quantities of pottery dating to the late medieval and early post-medieval periods were retrieved, which again appears to reflect the situation on many sites to the eastern end of the island. As elsewhere in England the devastation caused by the Black Death greatly retarded the economy, and settlement appears to have contracted back to the bridgehead and market (Poulton 2003, 10; Jones 2010, 36). The position of Staines on the main road from London is thought to have been important in a revival in the fortunes of the town during the late 15th and 16th centuries but this is not visible on the site, at least in the pottery, with no significant groups deposited until the 18th and 19th centuries. Again, the pottery assemblage is consistent with domestic activity, probably derived from properties fronting the High Street and there are no particular status or functionally specific form assemblages.

Clay tobacco pipes, by Chris Jarrett

The assemblage of clay tobacco pipes consists of 42 fragments (of which only two are unstratified) and comprises fifteen bowls, with a date range of c 1660–1910, 26 plain stems and one unstratified mouthpart. The bowl shapes were classified according to Atkinson and Oswald's (1969) typology (AO), except that 18th century bowls are classified according to Oswald's (1975) simplified typology and are prefixed OS.

THE CLAY TOBACCO PIPE TYPES

A single bowl shape is dated to the period 1660–80: a heeled AO13 shape with a rounded profile and with a noticeable 'overhang' on the front of the bowl. This item has an average quality of burnishing and a poorly executed quarter milling of the rim. This bowl shape may be non-local and it may come from a West Country source. The bowl was recovered from layer [2].

The 18th century bowls mostly date to the period 1730–80 and comprise four OS12, heeled upright bowls with a rounded front and a straight back and thin stems. All the examples were found in fill [166], pit [167], Phase 4 and three examples were maker-marked on the sides of the heel. One bowl is marked ?I ?B (SF 41): the initials are smudged from poor handling during the manufacturing process. Two bowls are initialled I S (SF 28 and 42). Mid-18th century pipe makers with these initials are fairly common in London, although less frequently documented in West London, Buckinghamshire and Surrey, and are completely absent from Berkshire (Oswald 1975). Higgins' (1981, 237) survey of Surrey clay tobacco pipes has no examples of this mark recorded in Staines or other Thames-side Surrey towns. It is uncertain who the I S pipe maker was.

There are three bowls, the shape of which has a revised dating of c 1770–1845 (Higgins 2004, 241), of the AO27 type defined as having a square profile heel, a straight back and rounded front. All the bowls have moulded decoration consisting of large round-ended fluting, each bordered with a pair of fine ribs. Two of the bowls (SF 29: fig 13.1 and SF 30) are marked W W on the sides of the heel, as was probably the third bowl (SF 31), which now lacks the heel. One of the bowls (SF 30) has had the heel trimmed to almost a point. All the bowls were recovered from fill [173], pit [174]. A possible pipe maker is William Walshe who was recorded in 1797 in the Eton Public Registers (Oswald 1975, 16). Although fluted decoration on AO27 bowls can date to the 1790s, it is more conspicuous on pipes dated to the 1820s and 1830s. Other contemporaneous bowls initialled W have been found in Staines, besides Egham and Weybridge (Higgins 1981, 217).

Six bowls are dated *c* 1820–50 and consist of the AO28 spurred tall bowl type with a rounded front and a straight back; all the bowls are decorated or initialled with marks on the sides of the spurs. One example has a small ring-and-dot mark on each side of the spur and a wheat ear border on the front of the bowl (fig 13.2: SF 32, fill [215], masonry cesspit [225]). There are four plain bowls initialled M N: one example (SF 8) was found during the evaluation (layer [69]), while three examples (SF 33, SF 34 and SF 36: fig 13.3) were noted in fill [215] of the cesspit [225]). This uncommon set of initials for a pipe maker(s) can probably be assigned to Mary and Anne Norwood, 1847–77, Eton (Oswald 1975, 161). The sixth AO28 bowl is initialled N and has an acorn and oak leaf border on the front of the bowl (fig 13.4: SF 35, fill [215], cesspit [225]). The pipe maker is unknown, although other pipes with these initials have been recorded in both Eton and Staines (Ayto 1988, 2; Higgins 1981, 237).

The latest bowl type in the assemblage is the 1840-1910 dated AO30 shape without a heel or spur. The single example is rounded in profile and decorated with scrolls around the rim. These are above rounded flutes with surrounds that continue onto the stem, stopping at a rounded cordon. Additionally, the stem has, reading along it, incuse *sans serif* stamps dated to the *c* 1870s, 'NORWOOD' on the left side and 'ETON', on the right side (SF 7: fig 13.5). The bowl was found in the evaluation (layer [69]) and was probably made either by Mary

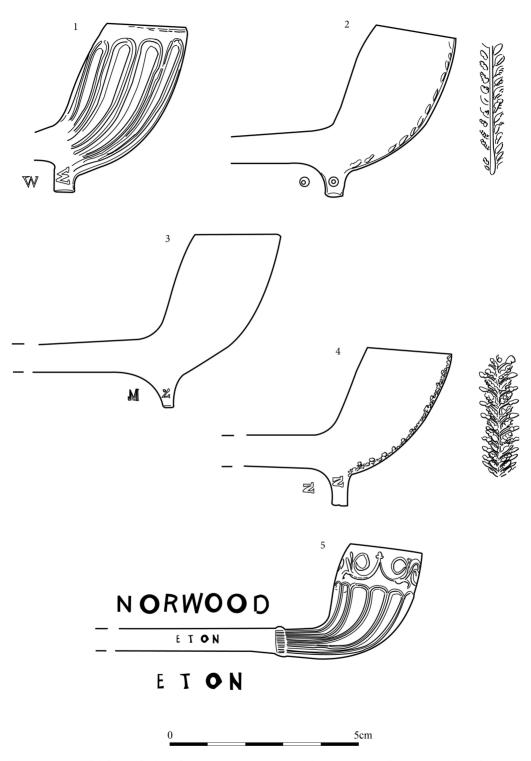


Fig 13 90–106 High Street, Staines. Clay tobacco pipes, 1: type AO27; 2–4: type AO28; 5: type AO30. Scale 1:1, stamps 2:1.

290 JONATHAN BUTLER AND MATT EDMONDS

and Anne Norwood, 1847–77, Eton, or Richard Norwood, 1839–1903, Eton (Oswald 1975, 161).

DISCUSSION

Despite Staines being recorded as having its own clay tobacco pipe industry (Higgins 1981, 217) and a late 17th or early 18th century pipe kiln being excavated at Elmsleigh House, Staines (Jones 2010, 85), there is no obvious evidence here for locally made pipes being smoked by the end-users living within the study area. The evidence of the maker-marked pipes suggests that the clay tobacco pipes were marketed from Eton, Buckinghamshire and especially those associated with the Norwood family. It may be that the Eton clay tobacco pipe industry was supplying Staines with pipes at the end of the 18th and throughout the 19th century when a local industry was not existent. What the assemblages demonstrated was that the Thames was used for the distribution of clay tobacco pipes to riverside towns to the west of Greater London.

Coins, by Murray Andrews

Four coins were recovered during the archaeological investigations. They consist exclusively of 'single finds' deposited individually, probably as a result of accidental loss. Three coins date to the Roman period, and comprise a copper-alloy *antoninianus* of Valerian (SF 2), a copper-alloy *nummus* of the House of Constantine (SF 24), and a copper-alloy *nummus* of an uncertain 4th century issuer (SF 1); while two of these occurred as residual finds in medieval contexts (SFs 1 and 2), one is a primary inclusion in the late 4th century fill [219] of a large late Roman pit [222] in trench 22. All three coins are characteristic examples of the low- to mid-value petty coinage that circulated extensively during the prime of Romano-British monetisation in the mid-3rd to 4th centuries (Reece 1995, 183), and have clear local parallels in the coin assemblage from the roadside settlement at Elmsleigh House, Staines (Hammerson 1976, 119–20). The fourth coin is a heavily-corroded 19th century halfpenny of an uncertain issuer (SF 6) found in the late 19th century context [69]; like the earlier coins, it is representative of the everyday 'small change' used as a means of payment for wages and small-scale purchases in Victorian England.

CATALOGUE

Roman

Context [52]. SF 2. Copper-alloy antoninianus of Valerian. AD 255–6. RIC V Valerian 113, Cunetio 504. Obverse: [IM]P [C P LIC VALERIANVS P F AVG], Radiate and draped bust right. Reverse: [PROV]I[DENTIA AVGG]. Providentia standing left holding baton and cornucopiae. Die axis 180°, weight 1.7g. Moderate wear. Moderate corrosion.

Context [219]. SF 24. Copper-alloy *nummus* of the House of Constantine. AD 330–5. As LRBC I 56–7. Obverse: Illegible, Laureate and cuirassed bust right. Reverse: [GL]OR [IA EXERC ITVS], Two soldiers holding two standards. Mint-mark [T]RS, mint of Trier. Die axis 0°, weight 1.7g. Moderate wear. Moderate corrosion.

Context [34]. SF 1. Copper-alloy *nummus* of an uncertain issuer. c AD 300–400. Obverse: Illegible, indeterminate. Reverse: Illegible, indeterminate. Die axis uncertain, weight 0.9g. Heavy wear. Moderate corrosion.

Post-medieval

Context [69]. SF 6. Copper-alloy halfpenny of an uncertain 19th century issuer. 1800–1900. Obverse: Illegible, indeterminate. Reverse: Illegible, indeterminate. Die axis uncertain, weight 8.4g. Uncertain wear. Heavy corrosion. Fragmentary.

A late medieval gilded buckle, by Märit Gaimster

A finely decorated and gilded buckle plate (fig 14) was recovered from the fill of Ditch 9. It is formed by a folded copper-alloy sheet that was recessed for the buckle frame and pin at the fold; at this point, the buckle plate was broken or snapped off in antiquity so nothing remains of the back plate except two rivets, one at each corner near the fold, and a single hook or folded-over rivet at the distant end of the plate. One of the rivets retains its slightly burred end, indicating the full thickness of the original strap and buckle plate at around 3mm. The full width of the buckle plate is 28mm, and the length 50mm. While the back plate would have been plain, the front part was embossed with a rectangular motif, within a simple raised frame, of a centaur moving right, with the human face and torso turned towards the viewer. In its left hand the centaur holds a shield, while the right arm is stretched out behind it wielding a sword that has been added secondarily by way of chiselled lines. Beyond the centaur in its frame, the front sheet of the buckle plate is recessed slightly to form a semi-circular end. This part is also embossed and, although it has been punched through in antiquity, it is possible to identify a lion rampant with its front left leg stretched out across the frame around the centaur and striking its shield. Thus, the motif on the buckle plate appears to show a centaur engaged in combat with a lion.

The buckle plate was associated with pottery dating from 1240 to 1300, a date that fits well with other similar finds. Buckle plates featuring mythical and heraldic animals were fashionable in the 13th–14th centuries, with lions in different heraldic stances apparently the most common motif (cf Egan & Pritchard 1991, fig 72 no 500; Hinton 1990, fig 130 no 1145; Margeson 1993, fig 13 no 135; Griffiths *et al* 2007, pl 18 nos 851–2). Two buckle plates with motifs of centaurs are listed on the Portable Antiquities Scheme (PAS) database. One is a similar embossed copper-alloy plate from Lincolnshire, which shows a centaur in the same position, although moving left, as the Staines example; there is, however, neither an identifiable sword nor a shield in this image (PAS ID: NCL-DF7DE7). Another centaur buckle plate, from Norfolk, is of cast copper alloy, inlaid with enamel and gilded; the piece was probably imported from Limoges (PAS ID: NMS-B8B005). Here, the centaur is holding a shield in its left hand and a club in the right. Unlike the Staines plate, too, the animal body of the centaur is that of a lion, indicated by its long and up-curved tail finished in a tuft.

The centaur was popular in medieval imagery, together with a host of other mythical beasts including sirens, dragons and mermaids. More often, the centaur was depicted as an archer, the sagittarius, but the actual meaning of this creature varied from man's internal struggle between good and evil to the centaur symbolising lust and adultery (Collins 1913, 36–7; Grafton *et al* 2010, 187–88). Against that context, the motif of the centaur and the lion on the buckle plate from Staines may be conceived as a representation of the fight between

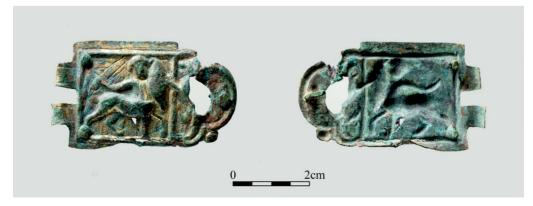


Fig 14 90–106 High Street, Staines. Medieval copper-alloy decorated and gilded buckle plate, SF 12.

good (the lion) and evil (the centaur). As personal objects, figurative, gilded and enamelled buckle plates like this would have been high-status accessories, used on belts and sword belts. Compared to other examples, the Staines plate is quite large; its nearest parallel in size is a buckle plate from Winchester, featuring a lion, with a width of 29mm (Hinton 1990, fig 130 no 1145). Even larger is the Limoges centaur buckle plate from Norfolk, which measures 39mm across (PAS ID: NMS-B8B005).

The animal bones, by Kevin Rielly

DESCRIPTION OF FAUNAL ASSEMBLAGE

This site provided a hand-collected total of 510 fragments accompanied by 206 fragments taken from nine bulk samples. These were allotted to Phases: 1 - natural features, 2 - Roman, 3 - medieval and 4 - post-medieval. In general, the Roman levels date to the latter part of the Roman era (3rd/4th centuries), the medieval between the 11th and 13th centuries, while the post-medieval collections derived principally from 18th/19th century deposits together with a small number dated to the 17th century (table 5: see*Endnote*). Most of the bones were recovered from features within the southern half of the site, accounting for 459 hand-collected and all the sieved bones. The great majority of the hand-collected assemblage was well preserved and had undergone in general a moderate to low level of fragmentation. In addition, there are relatively low levels of dog gnawing, suggesting a relatively rapid rate of burial with little disturbance.

Natural features (Phase 1)

A small number of hand-collected and sieved bones were taken from natural features within two evaluation trenches. These amounted to a few cattle, sheep/goat and pig bones with a concentration of cattle-size indeterminate pieces from a bulk sample.

Roman (Phase 2)

A moderately-sized collection was recovered from the southern features and in particular from the fills of Ditch 4 (66 hand-collected bones) and pit [197] in trench 21 with 71 sieved bones. Cattle and cattle-size fragments dominate these and the general Roman collection, the former including a wide variety of skeletal parts signifying general processing and food waste. Otherwise there is a minor representation of sheep/goat and pig as well as a game component. The few duck bones may be included in this category (although they are more likely to be domestic) with a humerus and a metatarsus possibly from the same adult red deer. These were found within the fill [143] of ditch [149]. The sieved collection provided a single fish bone, unfortunately unidentifiable to species. In addition, there were a few equid bones, five out of seven fragments retrieved from Ditch 4 possibly representing the remains of a single adult individual. The length measurement derived from the complete metacarpus within this collection provided a shoulder height of 1351.9mm (using von den Driesch & Boessneck 1974), that is a medium-sized pony. The disposal of horses in the Roman period in ditches outside the main areas of occupation, often within land later used for human burials/cremations, is well attested (Rielly 2000).

Medieval (Phase 3)

Bones dating to this phase were found in features in most parts of the site, although again principally in the southern area. Comprising roughly equal proportions of cattle and sheep/goat, with a general spread of skeletal parts, this assemblage was accompanied by a minor quantity of pig, equid, dog and, again, probable domestic duck. Cattle would appear to be

largely represented by adult individuals (3rd year or older using ages after Schmid 1972, 75) although also with a few first years and very young calves, the latter indicative of local breeding. In contrast, sheep are represented by approximately similar proportions of subadults and adults. The quantity of data is not large, but it does suggest that cattle were essentially employed for work or dairy purposes, while no such bias was employed in the exploitation of sheep secondary products (milk and wool). Dog and horse bones were limited to the northern and southern parts of the site respectively, the former including a partial articulation and the latter a variety of bones, in each case probably representing single adult individuals. Two mandibular fragments within the equid collection suggest this animal was aged between about 15 and 20 years (after Goody 1983 and Levine 1982).

Post-medieval (Phase 4)

This assemblage was mainly recovered from the southern trenches, with the exception of a pit [5] in trench 13 towards the northern part of the site. There is undoubtedly a spread of features dating across the post-medieval sequence; however, the dating of the fills generally conforms to the 18th and 19th centuries. Of particular interest is a small concentration of tanning pits, clearly in use from the 18th century and located within the south-eastern part of the site (trench 23). They consist of two or three wooden tanks embedded in rectangular clay-lined pits. The bone assemblage is largely composed of cattle bones and these principally of horncores with associated skull pieces. These undoubtedly represent tanning waste, this part of the carcass generally left attached to the skins taken to the tanneries (after Serjeantson 1989, 132 and corroborated by a wealth of deposits with cattle horncores from contemporary tanyards as for example in Bermondsey, see Rielly 2011). They were found within late 18th and also 19th century deposits, in particular within Tanning Pit 1 and pit [5], and then within pit [140] and well [155]. It can be proposed that the earlier collections derive from the on-site tanyard, this clearly terminating in the late 18th century and the later perhaps from some other tanning works continuing into the 19th century. Disposal of the horncores would have followed the removal of the valuable hornsheaf, the central part having no particular use although they could be employed as building materials forming linings to pits and trenches/drains (Rielly 2011). The horncores from pit [5] were originally described as such a lining. However, their conformity, often including a large part of the skull contrasting with examples recovered elsewhere (*ibid*, 165), as well as their distribution, would suggest they represent a waste deposit within the pit fill.

A total of 117 cattle horncores were recovered from these deposits, a large proportion of which could be aged and placed in size categories, here based on length (after Armitage 1982). Thus 29 are subadult (2-3 years), 54 are young adult (3-7 years) and 26 are adult (7-10 years); the twelve complete young adult or older horncores include three shorthorn, four mediumhorn and five longhorn, these 'types' categorised according to length ranges of less than 220mm, 220-360mm and in excess of 360mm respectively. The shortest core has a length of 150mm while the longest is 444mm. Most of the horncores were incomplete; however, it is possible to estimate 'type' using the basal dimensions (after West 1995, 30 and using extensive collections from other PCA sites). Using this method, it was possible to estimate the presence of thirteen shorthorn, twelve mediumhorn and 29 longhorns. The sexing evidence using the same source (*ibid*) would suggest a greater number of castrates among the medium and longhorns and more cows among the shorthorns. Finally, while there is a rather variable array of nuchal shapes among the shorthorns and mediumhorns, the longhorn skull shape is relatively flat or slightly rounded between the horncores. This undoubtedly conforms to the known shape of the unimproved longhorn skull as shown in 19th century illustrations of this 'type' (as described in Armitage 1978, 221 and see Armitage 1982, 50).

In addition to these skull parts, there is a spread of other cattle bones and a few sheep/ goat, pig, rabbit and chicken fragments, all indicative of general food waste.

CONCLUSIONS

The Roman and medieval collections are rather small and do not offer more than a cursory review of animal usage in this area during these periods. They can be compared to contemporary bone assemblages from Majestic House, also on the High Street, situated just to the east, suggesting a predominance of cattle throughout; similar, therefore, to the Roman evidence at this site but not the medieval. The post-medieval collection at the same site again features a wealth of cattle bones, although the principal component of this collection was the recovery of two complete horse skeletons buried together in a single pit this dated to the 18th century (after Armitage 2014 and 2016; Ellis 2016, 138 and 139–140). In contrast, the major post-medieval aspect at the present site is the evidence for tanning activities, here dating from the 17th century, as shown by the tanning pits and the concentrated dumps of cattle horncores. Surrey was noted for its leather industry dating from the 17th century with notable tanneries situated in Kingston from this period, and also further south around Guildford (see Crocker 1999, 43 and 54; Andrews et al 2003, 50-1). It can be supposed that smaller enterprises were also in operation at this time, including this example at Staines. It is of interest that the cattle horncores demonstrate the importance of longhorns. While such cattle were widely used across England during the 18th century it is known that the very best animals of this 'type' were derived from Lancashire, which were then exported to other parts of Britain and in particular to the graziers of the South Midlands and South-East England (Armitage 1982, 51; 1978, 221).

Archive

The site archive will be deposited at Spelthorne Museum under the accession number SMXSP:2020.42.

Endnote

material under the title of the article.

The tables listed below are available on the Archaeology Data Service website: https://doi.org/10.5284/1000221 Select *Surrey Archaeological Collections* volume 103 and the files are listed as supplementary

Table 3 Pottery types by sherd count; estimated number of vessels, weight in grams

Table 4 Distribution of the pottery by ware type and phase (sherd count)

Table 5 Hand-collected and sieved species representation by phase

ACKNOWLEDGEMENTS

Pre-Construct Archaeology Ltd would like to thank Jo Cawdell and Mark Alfandary of Litchford Consulting for commissioning the project on behalf of Property Partners (Two Rivers) Limited and for their help throughout and Nigel Randall of Surrey Council for monitoring the archaeological work on behalf of Spelthorne Council.

The authors would also like to thank Peter Moore for managing the project and Jon Butler for the post-excavation management. Thanks are also extended to Wayne Richards and John Joyce for logistic support, Richard Archer and Charlotte Faiers for the surveying, Ray Murphy for the CAD figures, Daniel Silva and Cate Davies for the finds illustrations and Strephon Duckering for the finds photography. Thanks are also due to the following for assessment reports (the relevant information has been included in the main text): John Shepherd (glass), Amparo Valcarcel (ceramic building material), Kate Turner (environmental and oyster shell) and Märit Gaimster (metal & small finds). A special thank you must go to the field team, without whose hard work the report on the site would not have been possible: Natasha Billson, Patrick Cavanagh, Sote Angeleski, Mauro Puddu and Craig Carvey (Archaeology South-East).

BIBLIOGRAPHY

Manuscript source

TNA: The National Archives, Kew HO 17/718/12–13 1841 Census Staines, Middlesex

Online sources

www.ancestry.com www.findmypast.co.uk finds.org.uk – Portable Antiquities Scheme

Published and secondary sources

- Andrews, P, Lowe, J, Nichols, K, Phillpotts, C, & Andrew, P, 2003 Charter Quay: The spirit of change, the archaeology of Kingston's riverside, Salisbury: Wessex Archaeology
- Armitage, P L, 1978 Hertfordshire cattle and London meat markets in the 17th and 18th centuries, *London* Archaeol, **3.8**, 217–23
- —, 1982 A system for ageing and sexing the horn cores of cattle from British post-medieval sites (17th to early 18th century) with special reference to unimproved British Longhorn cattle, in B Wilson, C Grigson & S Payne (eds), Ageing and sexing animal bones from archaeological sites, BAR Brit Ser, 109, 37–54
- —, 2014 Animal bone: factual data and statement of potential, in C Ellis, Majestic House, Staines-upon-Thames, Surrey: post-excavation assessment and updated project design, CA Project: 770011 and CA Report: 13527, Cotswold Archaeology, 43–7
- —, 2016 Animal bone evidence: summary and horse burials in pit 1196 (available at https://legacy-reports. cotswoldarchaeology.co.uk/report/majestic-house-staines-upon-thames/?report_location=unitary_ authority-78&period_type&site_type&artefact_type&report_number&form_submitted=true; accessed 9 October 2019)
- Atkinson D, & Oswald. A, 1969 London clay tobacco pipes, 7 Brit Archaeol Assoc, 3 ser, 32, 171-227
- Ayto, E, 1988 Eton pipemakers, Soc Clay Pipe Res Newsl, 18, 2-11
- Collins, A H, 2013 Symbolism of animals and birds represented in English church architecture, New York: McBride, Nast & Company
- Crocker, G (ed), 1999 Surrey's industrial past, Guildford: Surrey Industrial History Group
- Crouch, K R, & Shanks, S A, 1984 Excavations in Staines 1975–76: The Friends' Burial Ground site, London Middlesex Archaeol Soc/SyAS Joint Publ, 2
- Driesch, A, von den, & Boessneck, J A, 1974 Kritische Anmerkungen zur Widerristhöhenberechnung aus Längenmaßen vor- und frühgeschichtlicher Tierknochen, *Saugetierkundliche Mitteilungen*, **22**, 325–48
- Egan, G, & Pritchard, F, 1991 Dress accessories c.1150-c.1450, Medieval finds from excavations in London, 3, London: HMSO
- Ellis, C, 2016 Archaeological investigation at Majestic House, High Street, Staines-upon-Thames 2013, SyAC, **99**, 129–48
- Gerrard, J, 2011 New light on the end of Roman London, Archaeol 7, 168, 181-94
- Goody, PC, 1983 Horse anatomy. A pictorial approach to equine structure, London: J A Allen
- Grafton, A, Most, G W, & Settis, S (eds), 2010 The classical tradition, London: The Belknap Press; Cambridge, Mass: Harvard University Press
- Griffiths, D, Philpott, R A, & Egan, G, 2007 Meols: the archaeology of the north Wirral coast. Discoveries and observations in the 19th and 20th centuries, with a catalogue of collections, Oxford University School of Archaeology Monogr, 68
- Hammerson, M J, 1976 Roman coins, in K Crouch (ed), The archaeology of Staines and the excavation at Elmsleigh House, *Trans London Middlesex Archaeol Soc*, **27**, 119–21
- Haslam, P R, Jorgensen, P, & Moore, P, 2017 90–106 High Street, Staines-upon-Thames, Surrey, TW18 4DP: an archaeological evaluation. Pre-Construct Archaeology, unpubl rep no R12779
- Higgins, D, 1981 Surrey clay tobacco pipes, in P Davey (ed), The archaeology of the clay tobacco pipe VI. Pipes and kilns from the London region, BAR Brit Ser, 97, 189–291
- —, 2004 The clay tobacco pipes, in G Keevill, The Tower of London moat: archaeological excavations 1995–9, Oxford Archaeology/Historic Royal Palaces Monogr, 1, 241–57
- Hinton, D A, 1990 Buckles and buckle-plates, in M Biddle (ed), Object and economy in medieval Winchester, Winchester Studies, 7.i-ii, Artefacts from medieval Winchester, Oxford: Clarendon Press, 506–26
- Jarrett, C, 2017 The post-Roman pottery, in R Haslam, P Jorgensen & P Moore, 90–106 High Street, Stainesupon-Thames, Surrey, TW18 4DP: an archaeological evaluation. Pre-Construct Archaeology, unpubl rep no. R12779, 73–80

- Jervis, B, Barber, L, Blackmore, L, Cotter, J, Jarrett, C, Jones, P, Mepham, L, & Sudds, B, 2015 Early Anglo-Saxon pottery in south-east England: recent work and a research framework for the future, *Medieval Ceram*, 36, 17–29
- Jones, P. 1982 Saxon and early medieval Staines, Trans London Middlesex Archaeol Soc, 33, 186-213
- —, 1998 Towards a type series of medieval pottery in Surrey, SyAC, 85, 211–38
 - -, 2010 Roman and medieval Staines: the development of the town, SpoilHeap Monogr, 2
- —, 2015 A guide to the medieval pottery type series of Surrey, with a note on the post-medieval stonewares and London postmedieval pottery codes, Guildford: SyAS
- Levine, M, 1982 The use of crown height measurements and eruption-wear sequences to age horse teeth, in B Wilson, C Grigson & S Payne (eds), Ageing and sexing animal bones from archaeological sites, BAR Brit Ser, 109, 223–50
- Lyne, M, & Jefferies, R S, 1979 The Alice Holt/Farnham Roman pottery industry, CBA Res Rep, 30
- Margeson, Š, 1993 Norwich households: the medieval and post-medieval finds from Norwich survey excavations 1971–1978, E Anglian Archaeol, 58
- McKinley, J, 2004 'Welcome to Pontibus ... gateway to the West', SyAC, 91, 1-69
- MOLA, 2014 Medieval and post-medieval pottery codes (http://www.mola.org.uk/resources/medieval-and-postmedieval-pottery-codes; accessed 24 October 2016)
- MPRG, 1998 A guide to the classification of medieval ceramic forms, Medieval Pottery Research Group Occas Pap, 1
- —, 2016 A standard for pottery studies in archaeology, Medieval Pottery Research Group on behalf of the Prehistoric Ceramics Research Group, the Study Group for Roman Pottery, and the Medieval Pottery Research Group, Historic England
- Orton, C, 1988 Post-Roman pottery from Mark Browns Wharf, in P Hinton, (ed), Excavations in Southwark, 1973– 76, Lambeth 1973–79, London Middlesex Archaeol Soc/SyAS Joint Publ, 3, 307–48
- Oswald, A, 1975 Clay pipes for the Archaeologist, BAR Brit Ser, 14
- Pigot, J, 1826 Pigot & Co's commercial directory containing the cities, towns, sea-ports and villages in Middlesex, Essex, Hertfordshire, Kent, Surrey and Sussex, J Pigot & Co
- —, 1839 Pigot & Co's royal national and commercial directory and topography of the counties of Bedford, Cambridge, Essex, Herts, Huntingdon, Kent, Middlesex, Norfolk, Suffolk, Surrey and Sussex; comprising ... list of all persons in trade, and of nobility, gentry and clergy ... to which is added, a classified directory of London and its suburbs ... with ... county maps, London: James Pigot & Co
- Poulton, R, 2003 Extensive urban survey of Surrey: Staines. Surrey County Archaeological Unit and English Heritage (https://archaeologydataservice.ac.uk/archives/view/surrey_eus_2006/downloads.cfm?REDSQ UIDARCHIVES_7_799BB461-A0C4-488C-B90DF1259EFE2DA8&town=staines; accessed 5 March 2020)
- Reece, R, 1995 Site-finds in Roman Britain, Britannia, 26, 179-206
- Rielly, K, 2000 The animal bones, in A Mackinder, A Romano-British cemetery on Watling Street: excavations at 165 Great Dover Street, Southwark, London, MoLAS Stud Ser, 4, 64–5
- —, 2011 The leather-production industry in Bermondsey the archaeological evidence, in R Thomson & Q Mould (eds), *Leather tanneries – the archaeological evidence*, Exeter: Archetype Publications Ltd in association with the Archaeological Leather Group, 157–86
- SCAU, 1998 Archaeological work at 18–32 London Road, Staines, Surrey County Archaeology Unit postexcavation assessment unpubl rep
- —, 2001 An archaeological excavation on the site of the Old Police Station & 10–16 London Road, Staines, Surrey County Archaeology Unit post-excavation assessment unpubl rep
- Schmid, E, 1972 Atlas of animal bones for prehistorians, archaeologists and Quaternary geologists, London: Elsevier
- Serjeantson, D, 1989 Animal remains and the tanning trade, in D Serjeantson & T Waldron (eds), Diet and craft in towns, BAR Brit Ser, 199, 129–46
- Sudds, B, 2015 The Saxon pottery, in P Boyer, K Anderson, T Woolhouse, B Bishop, B Sudds with N Crummy & J L Schwenninger, Prehistoric pits and an Anglo-Saxon hill-top cremation cemetery at Station Road, Wattonat-Stone, in K Lockyear (ed), Archaeology in Hertfordshire: recent research. A festschrift for Tony Rook, Hertfordshire: University of Hertfordshire Press, 234–42
- Symonds, R, 2002 Recording Roman pottery: a description of the methodology used at Museum of London Specialist Services (MoLSS) and Museum of London Archaeology Service (MoLAS), unpublished document available from MoLAS
- Symonds, R, & Tomber, R, 1991 Late Roman London: an assessment of the ceramic evidence from the City of London, Trans London Middlesex Archaeol Soc, 42, 59–99
- Turner, K, 2018 Environmental assessment, in M Edmonds, An assessment of an archaeological excavation at 90–106 High Street, Staines-upon-Thames, Surrey, TW18 4DP, Pre-Construct Archaeology, unpubl rep no. R13296, 107–17
- Vince, A, & Jenner, A, 1991 The Saxon and early medieval pottery of London, in A Vince (ed), Aspects of Saxo-Norman London: finds and environmental work, London Middlesex Archaeol Soc, Spec Pap 12, 409–35
- West, B, 1995 The case of the missing victuals, Historical Archaeol, 29.2, 20-42
- Yeomans, L, 2004 Spatial determinants of animal carcass processing in post-medieval London and evidence for a co-operative supply network, *Trans London Middlesex Archaeol Soc*, 55, 69–83
- Young, C, 1977 The Roman pottery industry of the Oxford Region, BAR Brit Ser, 43