

**90-106 HIGH STREET  
STAINES-UPON-THAMES  
SURREY  
TW18 4DP**

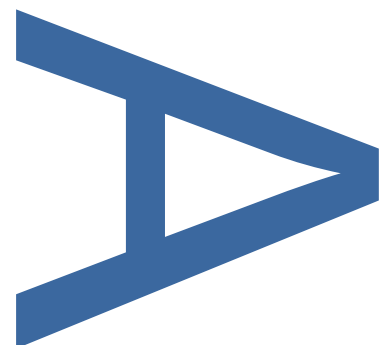
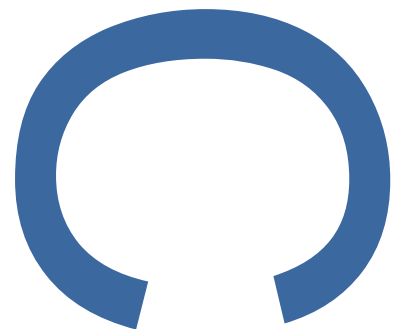
**AN ARCHAEOLOGICAL  
ASSESSMENT**

**LOCAL PLANNING AUTHORITY:  
SPELTHORNE, SURREY**

**PCA REPORT NO: R13296**

**SITE CODE: SMMR15**

**JUNE 2018**



**PRE-CONSTRUCT ARCHAEOLOGY**

**90-106 HIGH STREET  
STAINES-UPON-THAMES  
SURREY**

**EXCAVATION**

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# **An Assessment of an Archaeological Excavation at 90-106 High Street, Staines-upon-Thames, Surrey, TW18 4DP**

**Site Code: SMMR16**

**Central National Grid Reference: TQ 0362 7171**

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## 1 ABSTRACT

- 1.1 Following an earlier archaeological evaluation (Haslam *et al.* 2017), an archaeological excavation was undertaken between February and March 2017 on land at 90-106 High Street, Staines-upon-Thames, Surrey, TW18 4DP. The works were commissioned by Litchford Consulting on behalf of Property Partners (Two Rivers) Limited. The site was a roughly triangular plot of land, the southern and eastern limits are bounded by the High Street and Mustard Mill Road respectively. The northern limit is bounded by a service access road to the 'Two Rivers' complex and irregular western limits are dictated by properties fronting onto Norris Road.
- 1.2 The archaeology was multi-phase with features dating to three main historic periods Roman, medieval and post-medieval.
- 1.3 Geologically the site was underlain by the Shepperton Gravel Member, the local environment was dominated by rivers, and this gravel geology was formed from rivers depositing material to form river terrace deposits. These gravels were not encountered during this excavation but the overbank flooding from these channels formed the floodplain alluvium that made up the sequence of natural deposits identified.
- 1.4 Roman activity took the form of land reclamation with cut features such as ditches and gullies associated with the drainage of marginal land for grazing / agriculture. A large circular cut feature with Roman pottery was excavated and was a quarry pit or a / watering hole for feeding livestock. These features were located predominantly at the western side of the site.
- 1.5 The medieval period was represented by areas of further land reclamation and drainage features, possible boundary ditches and pits containing medieval pottery. These features illustrate the known pattern for the development of medieval Staines starting in the 12th century during the revival of the town and expanding outwards towards the western half of the site through to 13th/14th century when the development of medieval Staines seems to peak.
- 1.6 During the post-medieval period further ground consolidation took place which took the form of various dump deposits. Further features dating from the 17th into the 18th century took the form of industrial features indicative of manufacturing, such as tanning, were found during the excavation. There is strong evidence in the form of rectangular pits and the animal bone assemblage to suggest part of a tanning works was present on the site – possibly established during the early post-medieval period.
- 1.7 Activity continued throughout this period at the back of the properties on the High Street consisting of rubbish pits thought to the late 17th century / early 18th century.
- 1.8 By the 19th century excavated features include domestic rubbish pits, wells and cess pits thought to be in the backyards of individual properties. Cartographic sources from

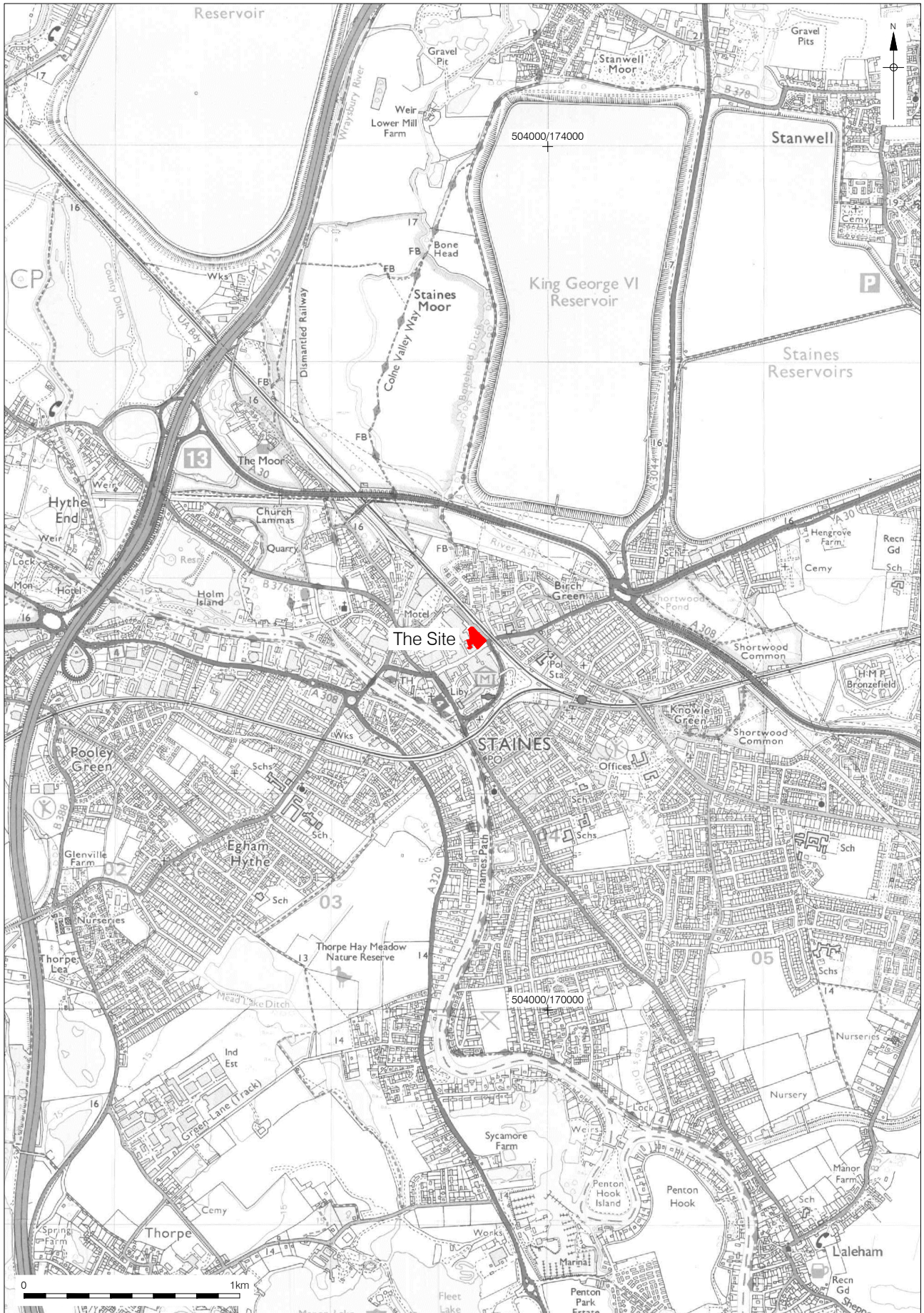
this period show the development of the High Street into the late 19th century when the arrival of the railways led to the growth of the High Street and the overall expansion of Staines.

## 2 INTRODUCTION

- 2.1** This report details the results and working methods of an archaeological field excavation undertaken by Pre-Construct Archaeology Limited between February and March 2017 on land at 90-106 High Street, Staines, Surrey, TW18 4DP, TQ 0362 7171 (Fig. 1). These works took place in advance of a proposed redevelopment of the site comprising demolition of the shops and properties fronting onto the High Street and the construction of a 155 bedroom hotel with ground retail floorspace, reconfiguration of the car park and associated landscaping.
- 2.2** The site was located on land formerly occupied by buildings fronting onto the High Street to the south, the corner of Mustard Mill Road to the east and an associated car park to the north. The archaeological excavation was located in the southern area of the site fronting onto the High Street and was divided into three distinct excavation trenches. Trench 21 to the south-west, Trench 22 in the central area and Trench 23 towards the south-east. These areas were selected in consultation with the planning archaeologist as the part of the site most at risk from high-density piling, deep drainage and other deep impacts that threatened the archaeological resource.
- 2.3** The site is located within an Archaeological Priority Zone as defined by Spelthorne District Council. The site does not contain, nor is adjacent to, any Scheduled Ancient Monuments.
- 2.4** The site was previously the subject of an Archaeological Desk Based Assessment (Fairman 2015). A programme of Historic Building Recording (Matthews 2017) was undertaken on the buildings fronting onto the High Street, both before and during the various stages of demolition in 2016. A programme of Archaeological Evaluation was undertaken in two phases by PCA, the first phase on the northern part of the site in 2016, and the second phase on the southern part after demolition of all the buildings in 2017 (Haslam *et al.* 2017).
- 2.5** The archaeological investigations were commissioned by Litchford Consulting on behalf of Property Partners (Two Rivers) Limited. The field excavation was undertaken by Pre-Construct Archaeology Limited under the supervision of the author and the project management of Peter Moore. The work was monitored for the local planning authority, Spelthorne Council, by Nigel Randall, Archaeology Adviser for Surrey County Council.
- 2.6** Both a series of Written Scheme of Investigation (Moore 2017a) and a Health and Safety Method Statement and Risk Assessment (Moore 2017b) detailing the methodology and work programme for the archaeological investigation were prepared prior to the fieldwork.



**2.7** The complete archive comprising written, drawn and photographic records will be deposited at the Spelthorne Museum under site code SMMR16.

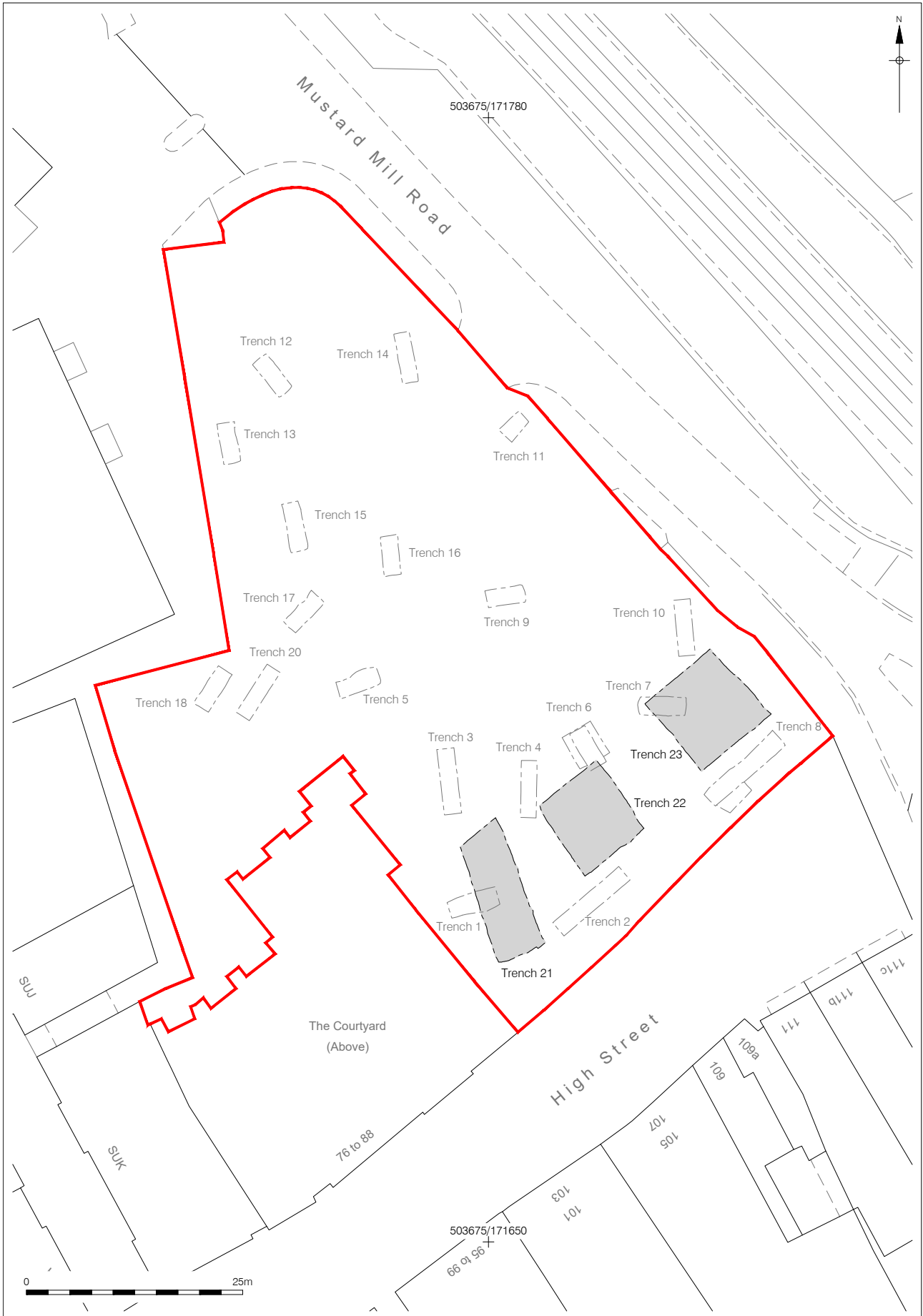


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Figure 1  
Site Location  
1:20,000 at A4



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Figure 2  
 Trench Locations  
 1:625 at A4

### **3 PLANNING BACKGROUND**

#### **3.1 National Policy: National Planning Policy Framework**

- 3.1.1 In March 2012 the Department for Communities and Local Government issued National Planning Policy Framework (NPPF), which provides guidance for planning authorities, property owners, developers and others on the investigation and preservation of heritage assets.
- 3.1.2 In considering any planning application for development, the local planning authority will be guided by the policy framework set by government guidance, in this instance NPPF, by current Local Plan policy and by other material considerations.

#### **3.2 Local Policy: Archaeology in Spelthorne**

- 3.2.1 The study aims to satisfy the objectives of Spelthorne Borough Council, which fully recognises the importance of the buried heritage for which it is the custodian. Relevant saved policy statements for the protection of the buried archaeological resource within the borough are contained within the Spelthorne Borough Local Plan:

#### **ARCHAEOLOGY, ANCIENT MONUMENTS AND HISTORIC LANDSCAPES**

**4.73.** Spelthorne is situated entirely on various alluvial and gravel deposits associated with the Thames, whose river terraces were attractive to ancient settlements. This has resulted in an area rich in archaeological finds and with great potential for further discoveries. From the Neolithic period onwards, significant finds including small settlements have been found across a wide area of Spelthorne with many Roman remains found around the important Roman town of Staines. The Council will seek to protect this archaeological heritage. Government guidance contained in PPG16 paragraph 8 contains a presumption in favour of the preservation of nationally important remains, whether scheduled or not, and their settings, and paragraphs 15 and 16 note the need to protect other important sites identified in the development plan. On the basis of currently available information all Scheduled Ancient Monuments are worthy of preservation, their sites are shown on the Proposals Map. Close liaison will be maintained with the Environment Department of Surrey County Council which holds the archaeological Sites and Monuments Record and with the Surrey County Archaeological Unit which conducts archaeological investigation and research. Any new areas of archaeological importance identified through the national Monuments Protection Programme of English Heritage or local research will be added to the areas covered by the policies which follow. Where archaeological investigation is required in the context of a development proposal, the applicant will be asked to fund the work deemed necessary. Planning conditions or legal agreements will be used where appropriate to secure compliance with policies.



**4.74.** There are four Scheduled Ancient Monuments which are by definition of national importance within the Plan area (see Appendix 5) and which the Council will seek to preserve from any development adversely affecting site or setting. An application for Scheduled Monument Consent must be made to the Secretary of State for the Environment, Transport and the Regions for any proposal affecting these sites. In addition to the scheduled sites and monuments, two others of special local importance have been identified on the basis of current information from the County Sites and Monuments Record which should also be preserved (see Appendix 5). The Council will encourage as appropriate the management and interpretation of these sites and monuments to develop their educational and recreational potential. These sites are identified on the basis of currently available information, and during the currency of the plan, additional sites may be identified to be of national importance following archaeological evaluation, or reassessment of sites on the Sites and Monuments Record.

3.2.2 The subject site is also subject to the following additional policies, as defined by Spelthorne County Council:

**POLICY BE24**

There will be a presumption against any development which would adversely affect a scheduled or other nationally important ancient monument or its setting. Development adversely affecting a site or monument of County archaeological importance will not normally be permitted.

**4.75.** In addition to the above sites and monuments, other areas exist where there is good evidence for the existence of archaeological remains based on previous finds, maps or aerial photographs. These individual sites and areas of high potential are shown on the Proposals Map and are listed in Appendix 5. Any development proposal affecting such an area should include an initial assessment by a qualified archaeologist of its archaeological potential and what, if any, further field evaluation is required. An evaluation should assess the impact of the development upon the preservation of any archaeological remains. Where possible, remains should be left in situ. Proposals for development should wherever possible avoid damage to or disturbance of the archaeological remains. The Council will encourage the local display of archaeological finds, where appropriate, at the Spelthorne Museum or other suitable

location.

Developers are advised to refer to the British Archaeologists and Developers Code of Practice, and to Supplementary Planning Guidance produced by Surrey County

Council entitled "Archaeology and Historic Landscapes" which gives a fuller explanation of Areas of High Archaeological Importance.

In considering proposals for development within areas of high archaeological potential, the Borough Council will:-

(a) require an initial assessment of the archaeological value of the site to be submitted as part of any planning application

(b) expect the applicant to arrange an archaeological field evaluation to be carried out prior to the determination of the planning application, where, as a result of the initial assessment, important archaeological remains are considered to exist

(c) have a preference for preservation in situ, and in such circumstances will impose conditions or seek a legal agreement, where appropriate, to ensure that damage to the remains is minimal or will be avoided

(d) require by planning condition or seek a legal agreement to secure a full archaeological investigation and recording of the site and subsequent publication of results in accordance with a scheme of work to be agreed in writing with the Council prior to the commencement of the proposed development, where important archaeological remains are known or considered likely to exist but their preservation in situ is not justified.

**4.76.** Work in recent years has resulted in sites of major archaeological importance being discovered in the course of gravel extraction, where no previous specific evidence existed for them. In view of Spelthorne's river gravel base, it is reasonable to assume that any large scale development is likely to affect features of

archaeological interest and that discoveries could be made in any size of new development site. Any new development proposal for sites larger than 0.4 hectares and smaller sites where requested should include agreed arrangements for archaeological assessment or evaluation, and where appropriate investigation, and allow for future preservation of remains as deemed appropriate.

#### POLICY BE26

Outside the defined areas of high archaeological potential, the Borough Council will require an agreed scheme of archaeological assessment or evaluation appropriate for the site concerned to be submitted with any new development proposal for a site larger than 0.4 ha, and for smaller sites if deemed necessary. Where evidence of

significant archaeological remains is found then the requirements set out in policy BE25 will apply.

**4.77.** Where other land is identified as of historic interest but is not covered by historic building, conservation area or archaeological protection policies, the Council will nonetheless seek to preserve the historic and amenity value of such land. This may include landscaped gardens and open landscapes. Where such areas are affected by development proposals it is important to record their historic details. The extent of such areas is to be further investigated by Surrey County Council for the County as a whole but in Spelthorne currently known sites are Sunbury Park and Laleham Park.

#### POLICY BE27

The Council will seek to ensure that any proposed development within or adjacent to an area of historic landscape value, or garden of special historic interest, does not detract from its character or appearance. An adequate record will be required where development affecting such an area is permitted. Where necessary the Council will encourage the sensitive restoration of gardens of special historic interest within the Borough.

### **3.3** Site Specific Constraints

3.3.1 The site is located within an Area of High Archaeological Potential and therefore the planning permission included the following condition (Condition 18):

No development shall take place until the applicant has secured the implementation of a programme of archaeological work in accordance with a Written Scheme of Investigation which has been submitted by the applicant and approved by the Planning Authority.

Reason:

The Site, which is located within an Area of High Archaeological Potential, is capable of containing archaeological remains and it is important that the archaeological information should be preserved as a record before it is destroyed by the development.

## 4 GEOLOGY AND TOPOGRAHY

### 4.1 Geology

- 4.1.1 Some of the information below is taken from the geology and topography section in the PCA evaluation report (Haslam *et al.* 2017).
- 4.1.2 Staines-upon-Thames 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).
- 4.1.3 The British Geological Survey (<http://mapapps.bgs.ac.uk/geologyofbritain/home>) identifies the underlying Bedrock geology on site to be the 'London Clay Formation'. This clay, silt and sand deposit formed between 34 and 55 million years ago during the Palaeogene Period. At this time the local environment was dominated by deep seas and the clay, silt and sand was formed during 'infrequent slurries of shallow water sediments' which were then 'redeposited as graded beds'. The bedrock geology is overlain by the Shepperton Gravel Member. These superficial deposits of sand and gravel formed during the quaternary period up to 2 million years ago. During this period the local environment was dominated by rivers, and the gravel member was formed from fluvial deposition of material within channels.
- 4.1.4 During the Holocene period a network of braided river channels forming part of the Thames and its tributaries cut through the gravel member. Alluvium (fine silt and clay) was deposited within these channels as they began to silt up as well as in adjacent lower lying areas as a result of overbank flooding. Upstanding gravel eyots would have existed between these channels and these dryer areas would have been better suited to occupation in antiquity.
- 4.1.5 The archaeological evaluation of the site found no evidence of the gravel eyot located to the west of the excavation area 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 at a maximum height of 14.31m OD and at a minimum level of 13.75m OD.

### 4.2 Topography

- 4.2.1 The River Thames runs roughly east-west approximately 0.4km south-west of the subject site. In addition, the convergence of two tributaries of the Thames occurs c.0.34km west of the site. These form a north-north-west to south-south-east tributary, the Wraysbury River, and a north-north-east to south-south-west aligned tributary, the River Colne to the west and east respectively. The River Colne is known to have been canalized during the later part of the post-medieval period.



4.2.2 The level of the site is variable. The grassed areas in the north vary between 15.69m OD and 14.86m OD. The car parking areas in the east of the site exhibit a slight southerly inclination from 15.28m OD to 15.54m OD from north to south respectively. The western car parking areas also exhibit a southerly inclination from the slightly lower elevations of 15.02m OD to 15.52m OD from north to south. Other than this slight increase in elevation towards the shop frontages the car parking areas appear relatively level.

## **5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND**

### **5.1 Introduction**

5.1.1 Prior to the archaeological excavation, an archaeological desk-based assessment was undertaken (Fairman 2015). This included a detailed study of the historical and archaeological background pertinent to the proposed development. The following is a summary of that study. In addition, there is general background information taken from the written scheme of investigation for the archaeological excavation (Moore 2017).

### **5.2 General**

5.2.1 The archaeological and historical background to the site indicates extensive evidence for prehistoric occupation in the vicinity. However, the focus for occupation is likely to have remained on the central gravel 'island' also known as the Town Island with the subject site lying within lower level ground prone to flooding. A Roman road was established directly along the southern boundary of the site with a Roman settlement occupying the crossing point of the river. The settlement is known to have contracted during the Saxon period, with settlement focussed beyond the immediate vicinity of the site to the north. This pattern reversed during the medieval period and the settlement grew and developed primarily focussed around the ribbon development alongside the former Roman road, with burgage plots to the rear of these properties. Expansion beyond the historic core of the town, i.e. within the gravel 'island', started fully during the post-medieval period, with a real impetus following the arrival of the railways in the mid-19th century. These brought rapid and expansive change to the area with numerous industries being attracted to the area.

### **5.3 Prehistoric**

5.3.1 Numerous archaeologically identified features and findspots of prehistoric material testify to significant prehistoric occupation of the immediate area. The earliest evidence of this period is Mesolithic in date. A presence in the vicinity in this period is inferred by the recovery of residual material within alluvial deposits to the east of the site. The Neolithic is better represented with evidence of human occupation or exploitation deriving from excavations less than 100m west of the subject site. Archaeological work at this location identified three zones of land use, the edge of the town gravel island, a broad alluvium filled channel in the north, and beyond this a second gravel island. By contrast the Bronze Age is extremely well represented, with numerous findspots of material in addition to multiple well provenanced cut features indicative of settlement. A number of these Bronze Age settlement areas continued into the Iron Age.

## **5.4 Roman**

5.4.1 The Roman settlement at Staines was established in the pre-Flavian period and attained an urban character by early Flavian times. As such a Roman presence at Staines is well documented, with the settlement being initially 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 'overlies the line of the Roman road running between London (Londinium) and Silchester (Calleva), with Pontibus lying c.21 Roman miles from the former and c.27 Roman miles from the latter. The Roman settlement was focussed on the higher gravel island to the west of the site.

## **5.5 Anglo-Saxon and Medieval**

5.5.1 By the 7th century the town lay within the territory of St. Albans, later becoming part of the territory of the Middle Saxons, or Middlesex. As in the Roman period, Saxon settlement is likely to have remained focussed on the higher gravel 'island'. The importance of the river crossing at this point is likely to have contributed to this, and there was probably only one bridge west of London until c.1410, giving further impetus to development of the town.

5.5.2 In addition to the numerous well provenanced finds and archaeological features, a large quantity of residual Saxon material, either within later deposits, or within generic dump layers of this date testifies to the Saxon occupation of Staines.

5.5.3 The instatement of a new bridge also demarcated a reversal in the shift towards settlement on the Island of Binbury, attracting settlement back to the former gravel island in the centre of Staines. The town was granted a market and is likely to have comprised a series of burgage plots extending back from the main road, presumably following the Roman highway. Further contractions to the town are noted from both documentary and archaeological sources in the mid-14th century when the main core of the town was centred around the bridgehead and the market. Staines saw a revival in the late 15th and early 16th centuries when its position on the main road from London was no doubt important to its late medieval and post-medieval development.

## **5.6 Post-Medieval**

5.6.1 The bridge which was formerly so important to the development of the town was destroyed during the Civil War of the 17th century, and the ensuing long delay in rebuilding stiffened the area economically. After being rebuilt in wood during the latter part of the 17th century it survived until the late 18th century. A stone bridge replacement was opened in 1803 and, after collapsing almost immediately, an iron replacement was opened in 1807. The iron bridge had become unsafe by the 1820s

and as a consequence a new bridge, opened in 1832, was constructed further upstream where it continues to stand today.

- 5.6.2 Over the course of the next century, the value of the bridge and the necessity for uninterrupted river transport grew, and with it the wealth of the county. This long-term concern with Thames navigation is linked to the growth of London and the growing demands of the population. The ensuing stimulation of farming practices and production effected a horticultural boom in the Thames Valley. Evidence pertaining to the exploitation of the river has been identified archaeologically within the wider area and included features relating to boatyards or slipways wharves and canal workers cottages.
- 5.6.3 As described above, the town experienced a revival during the early post-medieval period, no doubt aided by its position along the main thoroughfare from London. This growth led to the establishment of numerous coaching inns to cater for passing trade. A number of these were located near to the bridge, and as such were convenient for both road and river traffic.
- 5.6.4 With the introduction of the railways river traffic declined, but the population started to grow at a faster rate. Alongside this increase came a diversification and expansion of industry during the later 19th centuries. Industrial premises and works pre-dating this period are few, but have been documented within the area. A Malt House is illustrated from at least the 1840s, and a mill on the river Colne first mentioned in the 15th century produced papier-mâché until 1855 when it became a calico printing works.

## **6 ARCHAEOLOGICAL METHODOLOGY**

- 6.1** Upon completion of the evaluation undertaken in 2016-2017 (Haslam *et al.* 2017), a mitigation scheme was designed (Moore 2017) which consisted of three targeted excavation areas to be undertaken in sequence enabling the movement and storage of spoil due to the spatial constraints of the site.
- 6.2** The archaeological excavation was located towards the southern area of the site and was divided into three distinct trenches. Trench 21 to the south-west, Trench 22 in the central area and Trench 23 towards the south-east. The excavation areas were stepped where required to safely dig to the correct level. These areas were selected in consultation with the planning archaeologist as the part of the site most at risk from high density piling, deep drainage and other deep impacts that threatened the archaeological resource.
- 6.3** The excavation areas were undertaken by a mechanical 360° excavator under archaeological supervision in controlled spits of up to 100mm until archaeological deposits, features or structures were encountered. These were then cleaned, investigated and recorded by archaeological staff using hand tools.
- 6.4** All works were undertaken in accordance with the approved Written Scheme of Investigation (Moore 2017).
- 6.5** All site records were identified using the unique site code SMMR16, which was allocated to the site in 2016 at the start of the evaluation.
- 6.6** The investigation of all significant archaeological deposits, features and structures was undertaken by full-time archaeologists employed by PCA. All significant deposits and features were assigned individual context numbers and recorded using the standard Museum of London single context recording system. Context information was recorded on pro-forma context sheets and all plans and sections were drawn at a scale of 1:20 and 1:10 respectively on polyester based drawing film (permatrace).
- 6.7** A full photographic record of the site was maintained in HQ digital photography.
- 6.8** All finds from the site were retained for off site assessment. Samples were taken from appropriate contexts for off-site processing and assessment.
- 6.9** Feature and site plans were drawn from a site grid established by PCA and surveyed to the OS grid. The site grid was checked by PCA's surveyor at regular intervals.
- 6.10** Site levels and datums were established from spot heights installed on the site at various locations by the PCA surveyor using GPS survey equipment.
- 6.11** Upon completion of all phases of work the archive will be submitted to Leatherhead Museum for deposition under the SMMR16 site code.

## 7 PHASED ARCHAEOLOGICAL SEQUENCE

### 7.1 Phase 1: Natural

- 7.1.1 The underlying drift geology is identified by the British Geological Survey as the Shepperton Gravel Member. This deposit wasn't identified in any of the excavation areas.
- 7.1.2 Natural deposits of alluvium were identified in all of the excavation areas.
- 7.1.3 Tabulated below are the Ordnance Datum heights of the natural deposits by excavation area.

Area	Context Number	OD Height (m OD) Highest	OD Height (m OD) Lowest
Trench 21	[161], [229]	13.94	13.70
Trench 22	[227]	13.75	13.74
Trench 23	[150]	13.85	13.57

- 7.1.4 Cutting the natural layer in Trench 23 [150] was the cut of a large natural feature [228]. It was only partially investigated as it was encountered at a very deep level and it continued beyond the limit of excavation. It had overall recorded dimensions of 3.6m in diameter, a depth of 0.72m and was encountered at 13.65m OD.
- 7.1.5 As it is only partially investigated it is difficult to fully interpret but a natural feature is most likely consisting of either the remains of a paleochannel / abraded stream or a natural pool.

### 7.2 Phase 2: Roman (AD 250-AD 400) (Fig. 3)

#### Excavation Area – Trench 21

- 7.2.1 This particular excavation area which was located in the immediate environs to the main Roman settlement to the west was where the majority of Roman features were encountered.
- Layer [203]
- 7.2.2 Sealing the natural deposits in this area was a layer of moderately compact mid yellowish brown clay with some sandy clay. It was encountered at 14.02m OD with overall dimensions of 15m in length, 6m wide and a thickness of 0.40m and contained a few sherds of pottery dated to AD 250-300.
- 7.2.3 This layer is likely to have derived from deliberately dumping of material to reclaim the land.

#### Linear Features – Ditches and Gullies

- 7.2.4 Ditches and gullies on various alignments cut across the excavation area. Their main purpose seems to be to facilitate drainage of 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 slightly too far to the north to be associated with the road and the curve in ditch [184] which is closest to the road would also suggest that it does not run parallel with the line of the road forming a roadside ditch.
- 7.2.5 Cutting Roman dump layer [203] towards the southern end of the excavation area was a large curvilinear ditch [184] with overall dimensions of 5.7m in length, 1m wide and a depth of 0.49m, encountered at 14.24m OD (Plate 2). The feature continued beyond the eastern limit of excavation and was truncated at the southern end by modern activity.
- 7.2.6 Pottery dated to AD 350-400 was recovered from its silty fill [183] including fragments of a Black Burnished Ware jar and several sherds of Oxfordshire Red Ware beaker fragments and a bowl base (see Appendix 2). Pottery dated to AD 270-400 was recovered from a similar fill [179].
- 7.2.7 Located to the south of the ditch [184] was a small east-west gully [182] which continued beyond the eastern limit of excavation. It had overall dimensions of 3.6m in length by 0.40m in width and a depth of 0.1m and was encountered at 14.02m OD.
- 7.2.8 Pottery dated to AD 250-400 was recovered from the single silty fill [181] of this feature.
- 7.2.9 Approximately 2m to the north of curvilinear ditch [184] down the western side of the excavation area was the truncated remains of another ditch [190]. It was orientated north-south with recorded dimensions of 5.2m in length, 2m in width and a depth of 0.52m and was encountered at 14.09m OD.
- 7.2.10 The single homogenous silty clay fill [189] contained pottery dated to AD 250-270 including fragments of an Alice Holt Farnham Ware jar with grooves on the rim (see Appendix 2).
- 7.2.11 To the east of ditch [190] was the remains of another north-south aligned ditch [194] which was recorded at 14.33m OD with overall dimensions of 3m in length, 0.58m in width and a depth of 0.3m (Plate 7).
- 7.2.12 The silty clay fill [193] contained pottery dated to AD 250-300.
- Pit [197]
- 7.2.13 To the south of ditch [194] and slightly to the north of large ditch [184] was the remains of a deep pit which continued beyond the eastern limit of the excavation. It was recorded at 14.13m OD and measured at least 2m in length by 1.37m in depth.
- 7.2.14 This pit had two fills, an upper fill [195] and a primary fill [196]. The primary fill [196]

contained pottery dated to AD 250-270 including a small rim fragment of Alice Holt Farnham Ware which had some post-firing graffiti which is of some interest (Appendix 2).

#### Burnt Layer [201]

- 7.2.15 Partially sealing the upper fill of pit [197] and ditch [184] was layer [201] which was a soft dark brown silty clay containing frequent amounts of charcoal and burnt material. This layer was encountered at 14.17m OD and had a recorded length of 1.2m, a width of 1m and a thickness of 0.07m.

#### Posthole [192]

- 7.2.16 To the south of the eastern end of ditch [184] was a single posthole [192]. This feature was recorded at 14.03m OD and had an overall diameter of 0.28m and a depth of 0.6m. The fill [191] did not contain any cultural material.

### **Excavation Area – Trench 22**

#### Dump Layer [209]

- 7.2.17 Sealing the natural deposits was a layer of firm yellowish green sandy clay with recorded dimensions of 9m in length by 9m in width and an estimated thickness of 0.4m it was encountered at 14.05m OD.
- 7.2.18 This layer seemed to be a mixed layer of alluvium and greenish sandy clay so has been interpreted as a dump layer, that was laid down during the Roman period as part of the land reclamation taking place. No dating evidence recovered from this deposit.

#### Linear Features – Ditches

- 7.2.19 Two east-west ditches cut layer [209] and were located in the southern part of the excavation area. Ditch [211] was located furthest to the south, had a slight curve to the south and measured 6m in length, 1.4m in width with a depth of 0.37m at 14.10m OD. From the silty fill [210] of this ditch pottery dated to AD 250-300 was recovered.
- 7.2.20 Located c.2m to the north of [211] was ditch [206] which continued beyond the eastern limit of excavation and measured 4m in length, 1.60m in width with a depth of 0.30m at 14.12m OD. From the silty fill [205] of this ditch pottery dated to AD 250-300 was recovered.
- 7.2.21 Ditch [206] was recut as ditch [217] and contained pottery dated to AD 350-400.

#### Large Pit [222]

- 7.2.22 Located in the north-eastern part of the excavation area and cutting layer [209] was a large sub-circular pit [222] (Plates 4 & 5). This large feature was recorded at 13.75m OD and measured 4.3m by 3m and was 1.09m deep. This feature had an organic



primary fill [226] in which was recovered a small quantity of pottery dated to AD 270-400, including a sherd of Oxfordshire White Ware from the rim of a mortarium (Appendix 2). The secondary fill [219] contained a small assemblage of pottery dated to AD 350-400, including various fragments of Porchester D Ware from a hooked-rim jar and a variety of Alice Holt Farnham ware fragments including rim sherds of large bead-rim jars, Black Burnished style jars and other examples of combed decoration (Appendix 2).

### **Excavation Area – Trench 23**

7.2.23 In this excavation area the number of Roman features was markedly less than in the other excavation areas further to the west, with just one ditch located to the western side of the trench.

#### **Dump Layer [153]**

7.2.24 Sealing the natural deposits was a mixed layer of firm mid greenish brown silty clay with overall dimensions of 13m in length, 10.3m in width and a thickness of 0.5m, it was recorded at a highest level of 14.23m OD.

7.2.25 Although this layer was recorded at a higher level than other similar deposits across the excavation areas it is still thought to be part of a sequence of levelling taking place during the Roman period. No finds were recovered from the deposit.

#### **Linear Features – Ditches**

7.2.26 The terminus of a linear ditch [147] was located in the middle of the excavation area and was orientated east-west. It continued beyond the limit of excavation at the western end and had overall dimensions of 5.5m in length, 0.8m in width and a depth of 0.84m at 13.96m OD.

7.2.27 One of the lower fills [146] contained a variety of pottery dated to AD 350-400, including fragments of a highly decorated Nene Valley Ware beaker, fragments of Alice Holt Farnham ware storage jar with combed decoration, a variety of Alice Holt sherds with combed lattice and swirl decoration and several decorated rim fragments (Appendix 2). Upper fills [145] and [152] contained pottery dated to AD 250-400. The primary fill [148] contained no dating evidence.

### **7.3 Phase 3: Medieval (1150-1350) (Fig. 4)**

7.3.1 The features across the three main excavation areas were similar in character to the ones encountered from the Roman period; linear ditches and gullies, but the layout across the site was slightly different in that there was a larger concentration of features towards the eastern side and a smaller concentration towards the west which broadly speaking was the opposite to the distribution of Roman activity.

### **Excavation Area- Trench 21**

- 7.3.2 Only a few features were located in this excavation area and all the pottery was dated to around the 12th century. It was round this time that the medieval settlement started to develop again after the decline of the town during the end of the Roman period.

#### Dump Layer [156]

- 7.3.3 Sealing the Roman features in this area was a dump layer [156] of firm greenish grey silty clay with overall dimensions of 14.6m in length, 7m in width and a thickness of 0.4m which was recorded at a highest level of 14.49m OD. Pottery sherds dated to 1050-1150 were recovered from this layer. As well as a few sherds of residual pottery dated to AD 350-400. Despite the inclusion of Roman pottery in this deposit it is thought that this layer was laid down or at least started to form during the medieval period.

#### Ditch [165]

- 7.3.4 East-west ditch terminus [165] was located at the southern end of the area and was heavily truncated at the eastern end (Plate 8). It was recorded at 15.51m OD with overall dimensions of 5m in length, 1.04m in width with a depth of 0.67m. Two fills were recorded in this ditch with an organic rich primary fill [164] containing pottery dated to 1050-1150. The upper fill [163] contained pottery dated to 1150-1200.

#### Pit [200]

- 7.3.5 To the north of ditch [165] was a sub-circular pit [200] which was recorded at 14.15m OD with overall dimensions of 2.3m in length, 1.2m in width with a depth of 0.6m. Two fills [198] and [199] were recorded in this pit with pottery dated to 1150-1240 recovered from the latter, including the semi-complete remains of a poly-tempered ware curfew. Curfews were used to cover the hot embers of a fire, typically overnight to prevent accidental fires (Appendix 3).

#### Posthole [172]

- 7.3.6 A single isolated posthole [172] was recorded in the far eastern limit of excavation and continued beyond this limit. It was encountered at 14.45m OD with an overall diameter of 0.24m and a depth of 0.21m. The fill contained pottery dated to 1240-1350.

### **Excavation Area – Trench 22**

#### Linear Boundary Ditches

- 7.3.7 Located in the middle of the excavation area was a linear east-west ditch [213] which continued beyond the eastern limit of the excavation. It was encountered at 14.21m OD and had recorded dimensions of 5.82m by 1.45m and a depth of 0.43m. Pottery dated to 1150-1240 was recovered from the single silty fill [212].

7.3.8 Approximately 2m to the south of ditch [213] was another ditch [218] which continued beyond the western limit of excavation. It was recorded at 14.16m OD and had overall dimensions of 5m by 1.10m and a depth of 0.51m. Pottery dated to 1150-1400 was recovered from fills [214] and [220]. In addition, a sherd of residual Saxon pottery was recovered from fill [220] dated from the 5th to 8th century (Appendix 3).

7.3.9 Located towards the south-east corner of the excavation area and cutting the fills of [218] and [217] from Phase 2 was a linear east-west ditch [208] which slightly curved to the south and continued beyond the southern limit of excavation. This ditch was encountered at 14.06m OD and had recorded dimensions of 3.2m by 0.66m and a depth of 0.25m. The single homogenous fill [207] contained pottery dated to 1150-1240.

### **Excavation Area – Trench 23**

#### Linear Boundary Ditches

7.3.10 Located in the south-east corner of the excavation area was a ditch [151] orientated north-east to south-west which continued beyond the southern limit of excavation. It was encountered at 14.19m OD and had overall dimensions of 5.8m by 0.7m and a depth of 0.15m. Pottery dated to 1240-1400 was recovered from its fill.

7.3.11 A north-west to south-east orientated ditch [116] was located along the eastern side of the excavation area and was recorded at 14.28m OD with overall dimensions of 11m in length, 1.08m in width with a depth of 0.65m. The fill [115] contained pottery dated to 1240-1300. In addition to the pottery was a copper-alloy buckle plate embossed with a lion and with traces of gilding (Appendix 6).

7.3.12 The truncated remains of a possible ditch [136] was encountered in the southern end of the excavation area. The remains of this feature were recorded at 14.21m OD with overall dimensions of 5m in length, 0.6m in width with a depth of 0.39m. The single fill [135] contained pottery dated to 1240-1350.

#### Pits

7.3.13 There was a spread of pits across the southern part of the excavation area, but the distribution of these features seems a bit too scattered to create any meaningful associations or groups.

7.3.14 In the far south-western corner of the excavation area was a small pit [118] which cut through the upper fill of ditch [116]. The pit was encountered at 14.28m OD with an overall diameter of 0.5m and a depth of 0.5m. The single fill [117] contained pottery dated to 1240-1300.

7.3.15 Approximately 1m to the east of pit [118] was another small pit [134]. This pit cut the fill of ditch [136] and was encountered at 14.20m OD with an overall diameter of

0.70m and a depth of 0.3m. The fill [133] contained pottery dated to 1240-1300.

7.3.16 To the east another pit [132] was encountered at 14.26m OD with a length of 1.8m, width of 0.6m and a depth of 0.31m. The single fill [131] had pottery dated to 1240-1300.

#### **7.4 Phase 4: Post-Medieval (17th-19th Century) (Fig. 5)**

##### **Excavation Area – Trench 21**

Wells – Barrel Well [155] and Brick-lined [157]

7.4.1 Located in the southern part of the excavation area was the construction cut [155] of a possible barrel well which continued beyond the eastern limit of excavation (Plate 13). It was encountered at 14.41m OD with a recorded diameter of 1.34m OD and a depth of 0.57m.

7.4.2 The construction cut of the well [155] had a clay lining [162] around its edge with pottery recovered from this deposit dated to the 18th century and glass dated to the 19th century but the glass could be intrusive from the later backfill.

7.4.3 The backfill of the well [154] seemed to have been deposited when the well went out of use and contained pottery dated to the mid-19th century.

7.4.4 In the far south-eastern corner of the excavation area was the construction cut [158] and brick-lining [157] of a well. The lining was constructed out of red unfrosted bricks and yellow mortar bonding material with a consistent header coursing / bond pattern. It was recorded at 14.17m OD with an overall diameter of 1.14m and a recorded depth of 0.25m. The bricks were dated to between 1700-1900. The clay backfill [160] unfortunately did not contain any dating evidence.

Rubbish Pits

7.4.5 Several rubbish pits some of which were inter-cutting were located in the middle of the area mainly towards the northern limit of excavation.

7.4.6 Located in the middle of the excavation area was a large pit [167] which was encountered at 14.44m OD and measured 2.2m by 2m with a depth of 0.32m. The single fill of rubble [166] contained pot dated to the early 18th century, glass dated to the 18th century and clay tobacco pipe dated to 1700-1740.

7.4.7 Cutting the western edge of pit [167] was the construction cut [170] of a well or soakaway which measured 1.6m by 0.5m by 0.63m deep.

7.4.8 Located c.1m to the north of pit [167] was the remains of a truncated pit [178] which was recorded at 14.49m OD and measured 0.9m by 0.82m with a depth of 0.2m. The single fill [177] contained glass dated to the 19th century.

- 7.4.9 Cutting the fill of pit [178] and located to the south was another pit [174] which was recorded at 14.46m OD with dimensions of 1.8m in length, 1.10m in width with a depth of 0.39m. The single fill [173] contained pot dated to 1800-1830, glass dated to the 17th/18th century and clay tobacco pipe dated to 1770-1845.
- 7.4.10 The latest pit in this intercutting group was pit [176] which was encountered at 14.46m OD with dimensions of 1.1m in length, 0.5m in width with a depth of 0.5m. Pot dated to the 18th/19th century was recovered from the fill [175].
- 7.4.11 Located slightly to the west of the cluster of intercutting pits was a single pit [188] which was encountered at 14.34m OD and had recorded dimensions of 1.04m in length, 1.02m in width with a depth of 0.41m. The fill [187] contained pottery dated to 1720-1780, glass dated to the 18th century and clay tobacco pipe dated to 1580-1740.

### **Excavation Area – Trench 22**

#### Brick Drains / Soakaways

- 7.4.12 Several small to medium brick-lined rectangular pits were encountered in this excavation area.
- 7.4.13 [221] was encountered at 14.21m OD and had recorded dimensions of 1.08m in length and 0.2m in width and was constructed from bricks dated to 1700-1850.
- 7.4.14 [223] was encountered at 14.27m OD and had recorded dimensions of 0.9m in length and a width of 0.12m and was constructed from dated to between 1700-1900.
- 7.4.15 [224] was encountered at 14.26m OD and had recorded dimensions of 1.1m in length and 0.8m in width and was constructed from bricks dated to 1825-1900.
- 7.4.16 [225] was encountered at 14.18m OD and had recorded dimensions of 1.5m in length, 1.1m in width and a depth of 0.4m and was constructed from bricks dated to 1780-1900.

### **Excavation Area – Trench 23**

#### Tanning Pits

- 7.4.17 Located in the southern part of the excavation area towards the western limit of excavation was a rectangular pit which continued beyond the southern limit of excavation. This feature was encountered at 14.21m OD with recorded dimensions of 2.6m in length, 2.2m in width with a depth of 0.55m. The mixed back fill [128] deposited when the pit went out of use contained pottery dated to 1780-1810, glass dated to the 18th and 19th century and clay tobacco pipe dated to 1730-1910.
- 7.4.18 Approximately 0.5m to the east of [129] was another rectangular tanning pit [100] encountered at 14.26m OD with recorded dimensions of 4.6m in length, 2.3m in width

and a depth of 0.42m (Plates 10 & 11).

- 7.4.19 The lining [121] was a clean clay with traces of organic material thought to be the remains of wood in the forms of planks which would have been positioned vertically on the clay lining to strengthen and support the sides the tanning pits as well as keeping them open. The lining formed three smaller separate pits within the larger construction cut.
- 7.4.20 The pits were back-filled when the tanning pit went out of use with three similar mixed fills [101], [119] and [120]. Cultural material recovered from [101] included pottery dated to 1805-1840, glass dated to between the late 17th and the early 18th century and clay tobacco pipe dated to 1730-1910.
- 7.4.21 Slightly to the east of tanning pit [100] was rectangular tanning pit [110] which was located in the south-east corner of the excavation area running parallel with the eastern limit of excavation (Plate 11). This pit was encountered at 14.18m OD with recorded dimensions of 3.6m in length, 2.1m in width and a depth of 0.27m. The mixed fill of this pit [109] contained pottery dated to 1630-1680.
- 7.4.22 Approximately 1m north of tanning pit [110] was tanning pit [138] which was rectangular in plan and continued beyond the eastern limit of excavation. The pit was divided into three separate tanks with a similar arrangement to pit [100]. This feature was encountered at 13.89m OD with recorded overall dimensions of 3.97m in length, 2.1m in width and a depth of 0.1m. The two mixed fills [137] and [141] contained no dating evidence or cultural material.
- 7.4.23 To the west was another rectangular pit [233] divided into two which measured up to 2.8m by 1.6m by 0.10m deep. The fill [232] contained no dating material.
- 7.4.24 Further to the west was the heavily truncated remains of a tanning pit [127]. This pit was encountered at 14.29m OD and had recorded dimensions of 3m in length, 2m in width and a depth of 0.1m.

#### Brick-Lined Wells

- 7.4.25 Two brick-lined wells were located in the middle of the excavation area.
- 7.4.26 The brick lined well [103] was circular in plan and was constructed of dark red frogged bricks dated to 1850-1900 with no obvious bonding material (Plate 12). It was encountered at 14.17m OD with an overall diameter of 0.8m and a depth of 0.64m. The mixed loose back-fill [102] was dated to the late 19th/early 20th century.
- 7.4.27 Located approximately 0.5m north-east of well [103] was another brick-lined well [107] (Plate 12). This well was also circular in plan constructed out of dark red frogged bricks dated to 1850-1900 with no obvious bonding material. It was encountered at 14.15m OD with an overall diameter of 0.9m and a depth of 0.84m.

#### Rubbish Pits

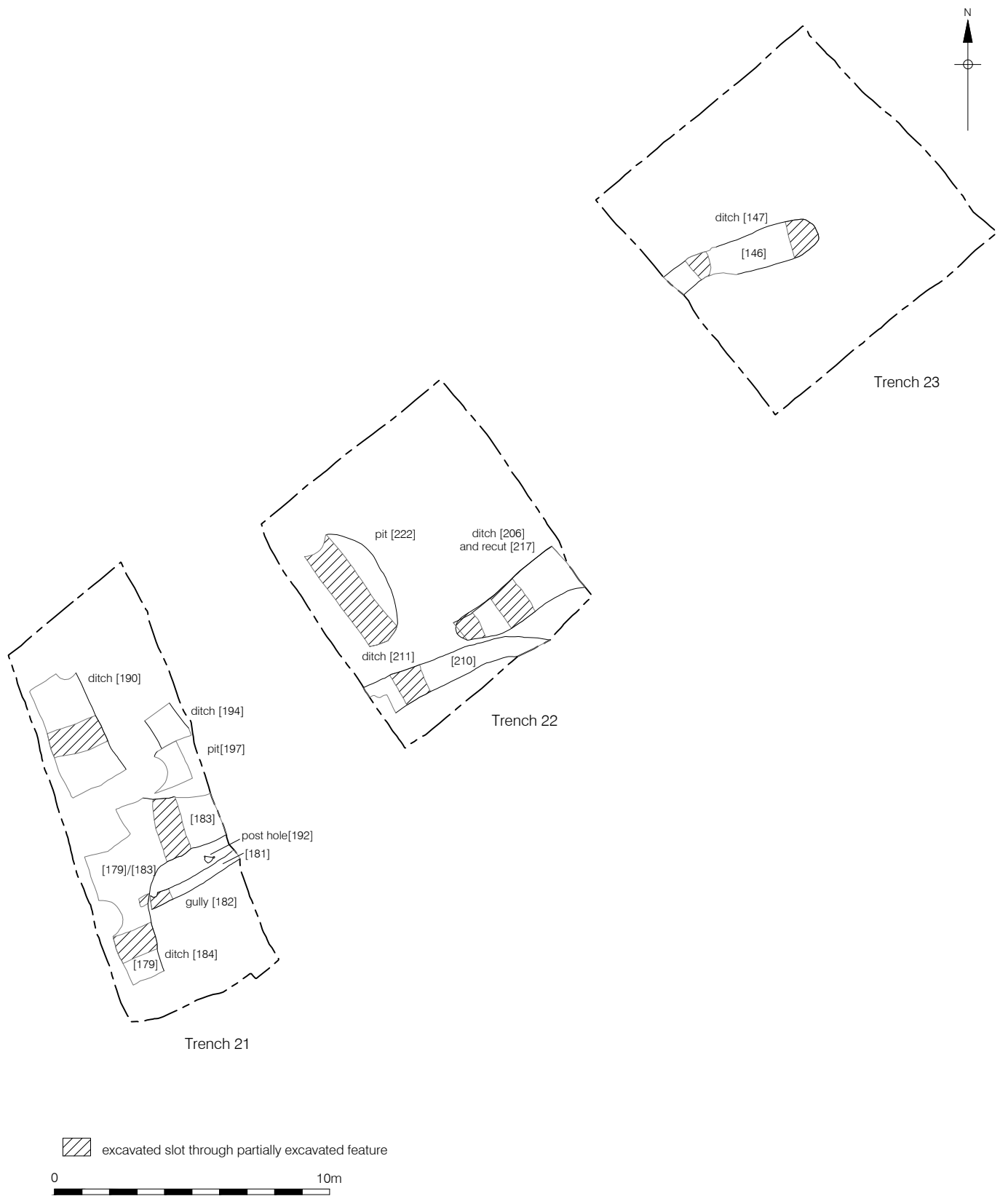
7.4.28 Located towards the north-western corner of the excavation area was a small cluster of pits [114], [123] and [125], which were mostly truncated by later activity. The fill [122] of pit [123] contained pottery dated to the 17th-18th century. These pits were encountered between 14.25m OD and 14.31m OD.

#### Brick-Lined Drain

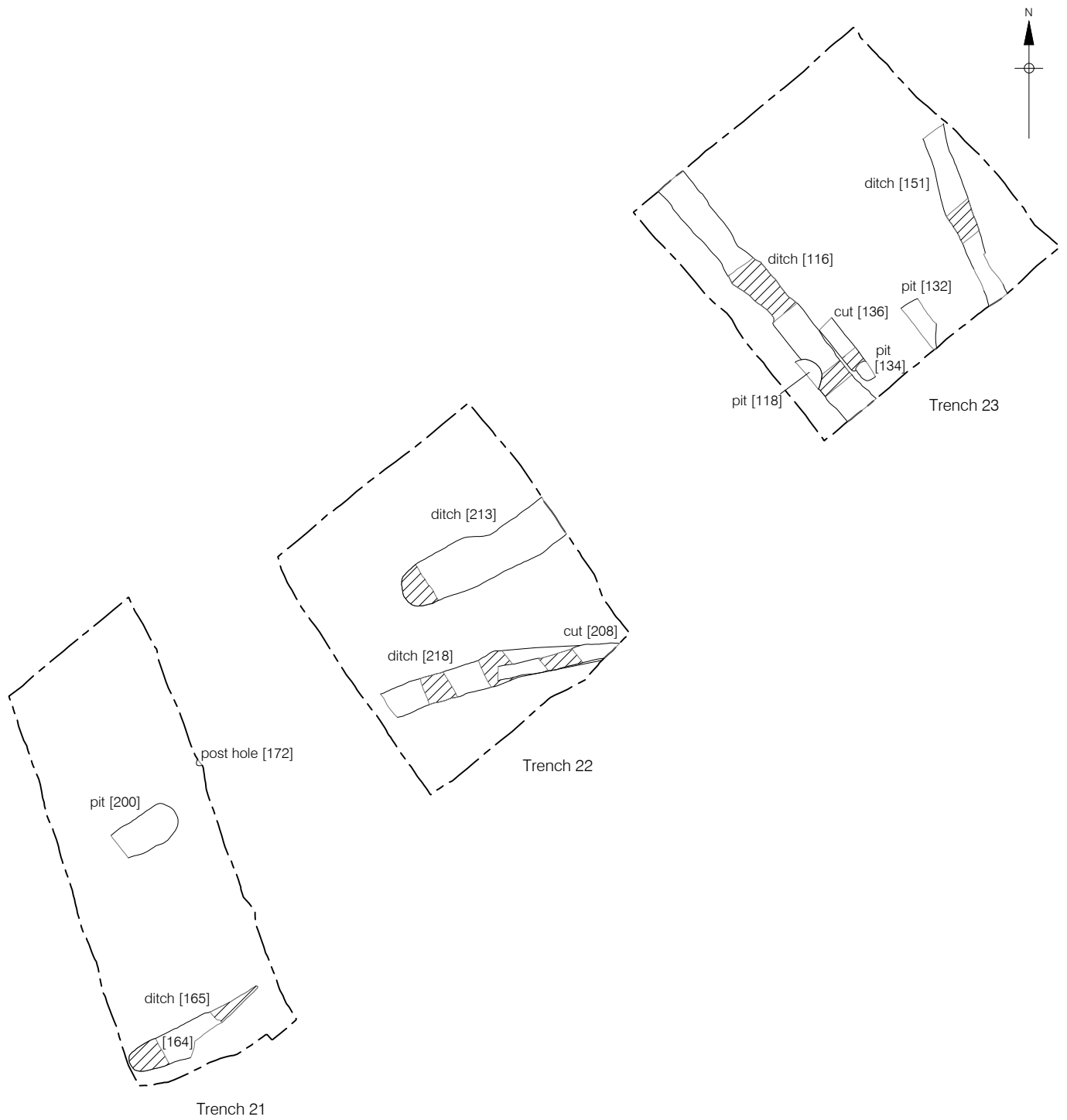
7.4.29 Located in the far south-east corner of the excavation area was a small brick-lined pit. This pit was rectangular in plan with the brick lining [105] constructed out of dark red frogged bricks with a grey yellowy brown sandy mortar. It had recorded dimensions of 1.76m in length, 1m in width and a depth of 0.3m at 14.35m OD. The back fill [108] contained pottery dated to the mid to late 19th century.


### 7.5 Modern

7.5.1 The site had been impacted by drainage and the footings of the buildings that were once standing on the site but this impact has been fairly minimal. Thick layers of modern made-ground and more recent demolition rubble capped the site with a thickness of between 1m to 1.5m which brought ground level to a height of between 15.57m OD and 15.33m OD.







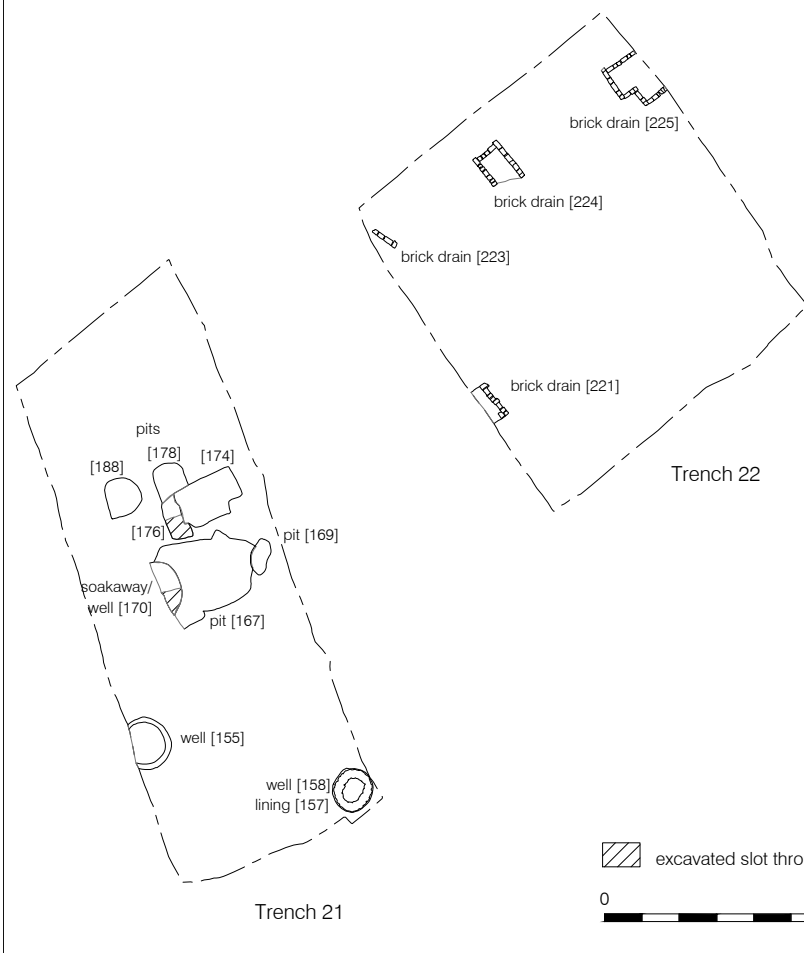
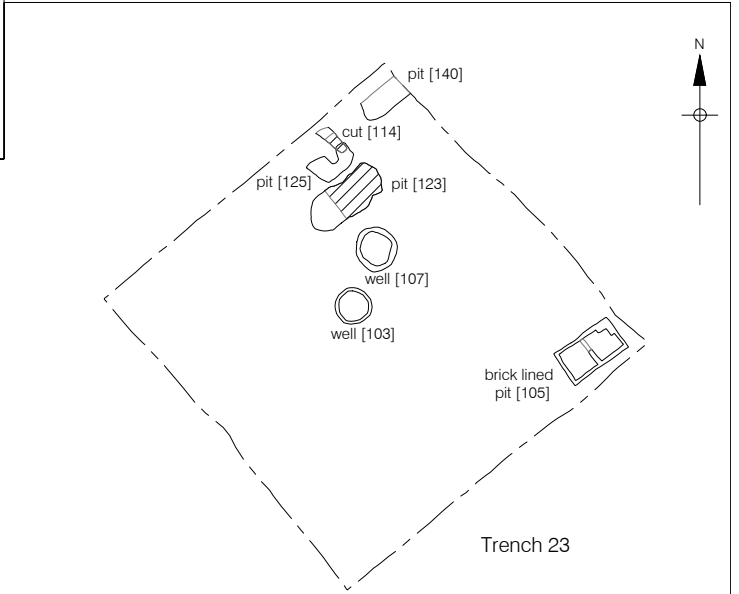
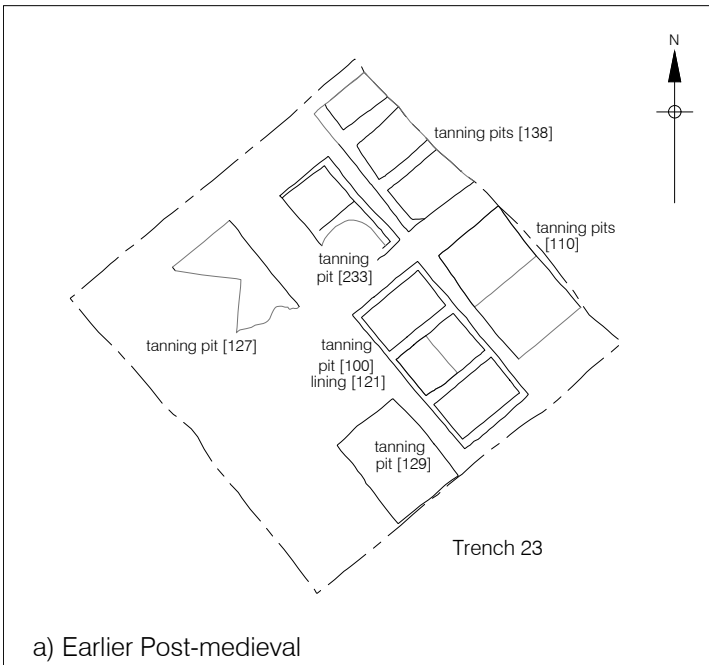
 excavated slot through partially excavated feature

0 10m

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26/04/18 JB

Figure 4  
Phase 3: Medieval  
1:200 at A4



b) Later Post-medieval

## PLATES



Plate 1: Multi-Context shot of Trench 23, looking east



Plate 2: Phase 2 ditch [184] Trench 21, looking south





Plate 3: Intercutting ditches of Phase 2 and Phase 3 in Trench 22, looking south





Plate 4: Working shot of Large Roman Pit [222]



Plate 5: Large Roman Feature [222]





Plate 6: Shot of intercutting Phase 2 and Phase 3 linear features in Trench 22.



Plate 7: Profile of Roman Ditch [194] in Trench 21



Plate 8: East-West Medieval Ditch [165] in Trench 21



Plate 9: Profile of Late Medieval Ditch in Trench 23





Plate 10: Post-Medieval Tanning Pits [100] – Trench 23



Plate 11: Post-Medieval Tanning Pits [100] and [110] – Trench 23





Plate 12: Post-Medieval Brick Lined Wells [103] and [107] – Trench 23



Plate 13: Construction Cut of Post-Medieval Barrel-Well [155] – Trench 21

## **8 ARCHAEOLOGICAL PHASE DISCUSSION**

### **8.1 Phase 1: Natural**

- 8.1.1 Natural alluvial material was identified in all of the excavation area trenches. This material was likely to be deposited by overbank flooding from the Thames to the south or other local water courses such as the Colne, Wraysbury or the Sweeps Ditch that formerly occupied the northern portion of the site. This alluvial material was encountered at a maximum height of 13.94m OD and at a lowest level of 13.57m OD.
- 8.1.2 No evidence of natural gravels were identified or the gravel eyot that forms the natural landscape in this part of Staines, but it is likely that this lay further to the west.

### **8.2 Phase 2: Roman**

- 8.2.1 It seems that where Roman activity is encountered in Staines is dictated by the paleo-topographic conditions. As the gravel eyot which forms the Staines Town Island as defined by Mckinley (2004), Jones (2010) and Ellis (2016) is where Roman activity and occupation is most likely to be encountered. Away from the location of the eyot the surrounding low-lying ground is more susceptible to flooding and seems to be considered marginal during this period. The features indicating Roman activity encountered during this excavation seemed to fit this interpretation. With most of the features consisting of successive phases of ditches and gullies laid out in an irregular pattern with no obvious formal planning often associated with the use of ditches as field boundaries. These features suggest trying to reclaim the land through drainage or at the very least some attempt to manage the seasonal flood waters. The variety in the pottery dates would suggest that these ditches were being cut throughout the Roman period with the earliest pottery dated to AD 50-250 and the latest AD 350-400.
- 8.2.2 The greater concentration of these features at the western side of the site seems to suggest that activity was located very close to the main Roman Town Island. This is certainly logical and fits the landscape models created during earlier investigations which suggest the limit of occupation on this main eyot 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. Although the pottery suggests a late Roman assemblage the town does contract during the late Roman period and became more of a rural settlement. This is reflected in the lack of archaeological remains from the late Roman period with the cutting of ditches not resuming until around the 12th century.

### **8.3 Phase 3: Medieval**

- 8.3.1 The medieval activity on the site was very similar to the Roman period, especially the types of features with ditches and gullies also identified. The main difference was the distribution and location of these features with the overall pattern being reversed when compared with the distribution of Roman features. The medieval activity seems to be concentration towards the east of the site with a greater focus of medieval activity in Trench 23, where linear features alongside pits were identified. This was partly related to later activity with a high level of modern truncation was located in Trench 21 where drainage and activity related to the foundations of modern buildings were identified. This is certainly true to certain extent but only partly explains this survival. Trench 23 had a high level of truncation through later activity, mostly related to the post-medieval period but still had a high concentration of features. One explanation could be the expansion in medieval settlement activity towards the gravel island towards the east known as the London Road Island. Again, mirroring the Roman activity, the pottery recovered seemed to represent most of the medieval period suggesting that activity took place in a piecemeal fashion with ditches being cut when required to facilitate drainage on low lying marginal land. There was a suggestion from the evaluation that the ditches were burgage plots expanding back from the main road following the Roman highway, but the less formalised planning of these ditches suggests these are not those type of property boundaries.
- 8.3.2 There was a predominance of pottery from the 12th century onwards when it is thought that the town started to re-establish itself after a hiatus with a smaller early medieval settlement located on Binbury Island / Church Island located further to the west. The pottery dates show that there is a spread of pottery across the site that seems to get chronologically later towards the east. Trench 21 in the west was predominantly 12th century, Trench 22 in the middle 12th-13th century and Trench 23 the furthest east 13th-14th century. This change is most likely due to the flourishing medieval town and the features encountered on site reflect this expansion. In the 13th and early 14th century the intensity of settlement of the High Street island may have been similar to that which had prevailed in the early Roman town. With expansion not just taking place on areas of the Roman town but development of the surrounding land as well. It is interesting that no activity seems to be taking place after c.1350 on this part of the site as reflected by the pottery. This evidence combined with absence of later activity reflects a contraction of the town overall during the late medieval period. The Black Death which hit medieval England in 1348 probably had the greatest impact on the town's population (Gummer 2010; Sloane 2011). It is thought that the town may have contracted to a core around the bridgehead and market which is located to the west of the Town Island. For some parts of the town this decline continued into the 18th century when once flourishing areas of settlement reverted back to open land used for agriculture.

## **8.4 Phase 4: Post-Medieval**

- 8.4.1 Although a revival of the town seems to have begun in the late 15th or early 16th century, it was during the mid-16th century that the town expanded beyond the gravel islands that were occupied in previous historical periods. The main features of note were the various rectangular and square pits located in Trench 23 mostly down the eastern side of the excavation area. These have been interpreted as tanning pits. The animal bone assemblage certainly supports this interpretation (see Appendix 8). During the evaluation horn core lined pits were recorded which are often associated with tanning. In a wider context the location fits with this industry as it is very close to the main road for bringing the animal skins to tan and the transport of leather to market. Access to communication routes such as the High Street routes would also have been important in transporting the raw materials used such as bark and animal dung. Location near to a water source such as the Sweeps Ditch was also important as the pits needed to be filled and to drain the effluent. Tanning was often on the edge of towns / urban areas as it was a dirty smell process so its location on the eastern side of the town would probably have been ideal. There is also the suggestion that an abattoir may have been present on the neighbouring Prudential site (Jones 2010). This evidence would also add extra weight to the argument of a tanning yard on site as this would provide direct access to some of the raw materials used in tanning.
- 8.4.2 As discussed previously some areas of the town did not recover till the 18th century. The archaeological evidence found on this project would suggest that this was the case in this part of the town. Most of the features dated to the 18th-19th century when the post-medieval features were almost exclusively associated with relatively recent property boundaries. These features took the form of brick-lined drains and soakaways together with several brick-lined wells. These features are undoubtedly water and waste management features associated with domestic properties fronting the High Street which are illustrated on 19th-century maps.
- 8.4.3 During the late 19th century the development of Staines which is seemingly fuelled by the railway would start to give us the layout of the modern town. This impact can be seen when contrasting the tithe map of 1842 with the Ordnance Survey map of 1897.

## 9 ORIGINAL RESEARCH AIMS AND OBJECTIVES AND REVISED RESEARCH QUESTIONS

9.1 The Written Scheme of Investigation (Moore 2017) highlighted the following primary research objectives:

- **To determine the natural topography of the site, particularly evidence for the island to the south-west and how its boundary changed from Roman to Medieval periods.**

As in the evaluation the natural deposits encountered during the excavation were part of the same alluvial sequence thought to originate from overbank flooding from the Thames and the various other river channels surrounding the site, such as the Colne and the Wraysbury.

No evidence of the gravel eyot known as the Town Island, which was the main area where the settlement was located during the Roman and medieval periods, was encountered during this excavation. This excavation has demonstrated that the site is in the low-lying marginal land between the eyots where activity such as land reclamation and drainage for agriculture was taking place. This activity demonstrates and supports the models of expansion and contraction thought to be taking place in the town during these periods.

- **To establish the nature of the Roman activity to the south-west, in particular road side and island edge, development and chronology, characterisation of occupation type, date of abandonment.**

The excavation areas demonstrated that the vast majority of Roman features were located in Trench 21 which is in the south-western part of the site. This fits with the theory that activity is focused near to the Town Island which is the main location for the Roman town. The further away the trenches were away from this gravel eyot the less Roman features were encountered with only one Roman feature present in Trench 23 towards the eastern part of the site.

The main focus of activity seemed to be associated with ditch digging for draining and managing the land to the east of the main Roman town. These ditches did not seem to directly relate to settlement or road side activity but show that the town was expanding with marginal land being exploited. Roman activity lessened during the late Roman period and the town did not expand again till the 12th century. Unfortunately, the evidence from this excavation has not provided any direct evidence of the date of abandonment only that it happened sometime around the 4th century.

- **To establish the nature of the medieval activity and how it may have changed over time, particularly burgage plots and road side structural development extending back from the High Street.**

From previous excavations in Staines it is known that the settlement contracted greatly during the Saxon and early medieval period and seems to be predominantly located on the gravel eyot over to the north-west of Staines known as Binbury Island. The Town Island was not resettled until the 12th century when the settlement area started to expand, and the town reached the same levels of occupation found during the Roman period. The features recorded during this excavation seem to broadly fit this pattern with a small amount of activity taking place during the 12th century and with a high concentration of features from the 13th-14th century located in Trench 23 towards the eastern part of the site. This could also reflect the expansion of the medieval town onto other gravel eyots such as the London Road Island to the east of Staines.

There was no clear evidence of burgage plots and certainly no structural remains were found close to the High Street. It seems that more piecemeal activity was taking place similar to the Roman activity with the cutting of ditches to facilitate drainage and management of marginal land with the intensity of activity reflecting an expanding town / settlement over time.

- **To establish the presence or absence of post-medieval activity at the site, in particular 16th/17th-century activity along the High Street frontage. Did such activity result from the reclamation of the wetter land in this location?**

No evidence of structures was found during the excavation but there was evidence of activity along the High Street from the 17th century onwards. Evidence from the evaluation trenches that suggested tanning was taking place on the site were proven with the excavation of several tanning pits in Trench 23 in the eastern part of the site. The animal bone assemblage supports this interpretation as well as evidence of the presence of a slaughter house established in the 17th century in a neighbouring site to the west also adds weight to this interpretation (Jones 2010).

Later features such as rubbish pits and wells were recorded and thought to date to the 18th-19th century and probably relate to properties fronting on to the High Street.

The reclamation taking place during earlier periods would have had an impact on the development on the lands at the back the properties. In a wider context the town started to expand beyond the gravel islands during the 16th century and this broader more direct land reclamation was essential for this to happen and for industries like tanning to develop.

**9.2** The results of the archaeological excavation raised several new research questions relating to the archaeological remains uncovered.

- Can we learn more about the earlier paleo-environment and the influence of the various watercourses in the area?
- How do the Roman features relate to the projected route of the main Roman road?
- Can we understand the location of the Roman features more accurately in relation to the extent of settlement on the gravel island?
- Can we understand the location of the medieval features more accurately in relation to the expansion of settlement across the gravel islands from the 12th century onwards?
- Can we understand the general environment of the site during the Roman and medieval periods? Is there much difference between these two periods?
- Is there any evidence of how exactly this marginal land is being exploited during the Roman and medieval periods? Are there any signs of cereal crops or grasses associated with meadows used to feed livestock?
- Are there any cartographic or archive sources that inform us on the use and ownership of buildings fronting onto the High Street during the post-medieval period?
- Are there any documentary sources that reference the tanning industry or leather production in Staines?

## **10 IMPORTANCE OF THE RESULTS, FURTHER WORK AND PUBLICATION PROPSALS**

### **10.1 Importance of the Results**

- 10.1.1 All periods of activity recorded during the excavations at Fulham High Street are of some local importance.
- 10.1.2 The results of the archaeological excavation are of local significance as it provides further information on the development of the settlement during the Roman and medieval periods and the use of marginal land around these settlements. The evidence of post-medieval tanning is also of possible local importance.

### **10.2 Further Work**

- 10.2.1 A refining of the phases and the development of activity across the site through the late Roman period will be undertaken and further research will be undertaken into how the town was thought to develop as well as the development of features throughout the medieval period and how it developed from the 12th century onwards.
- 10.2.2 Further documentary and cartographic research needs to be undertaken on Staines High Street to understand the buildings and its occupants.

#### Roman Pottery

- 10.2.3 All of the pottery has been examined and needs no further analysis with the exception of the sherds with post-firing graffito. These are recommended to be sent to Roger Tomlin. The assemblage as a whole needs to be considered in a site wide context, as well as in its local and regional context by comparing it to more other nearby assemblages. Key groups/features will need to be identified and discussed in more detail. It is also recommended to include a report in the publication with some illustrations.

#### Post-Roman Pottery

- 10.2.4 In addition to providing dating evidence for the features from which it was recovered, the primary significance of the assemblage is local, specifically arising from the information it can add to an understanding of medieval and late post-medieval Staines. The range and composition of the assemblage is similar to that observed on other contemporary sites in Staines and more broadly in north-west Surrey and adds to understanding of the date and nature of occupation in the vicinity. The current assemblage should be considered alongside the pottery recovered from the evaluation and a short publication text should be produced on the group as a whole. Further analysis should seek to verify and refine some of provisional fabric



identifications and to find parallels for some of the unsourced coarsewares and glazed wares where possible. Closer comparison with contemporary assemblages from Staines will also be important. Up to 19 illustrations will be required.

#### Glass

- 10.2.5 None of the glass is worthy of special publication, unless the late 19th or early 20th century context [215] is regarded as worthwhile. The vessel fragments would be better published, if necessary, as a photograph – with a detail of the Macasar Oil bottles.

#### Clay tobacco pipe

- 10.2.6 Although small in size, the assemblage has some significance at a local level. Despite Staines being recorded as having its own clay tobacco pipe industry, which there is no evidence for here, the assemblage does contain a number of marked tobacco pipe bowls that were marketed from Eton, Buckinghamshire and especially those associated with the Norwood family. It would appear that the Thames was used for the distribution of clay tobacco pipes to riverside towns in the west of Greater London and beyond. The range of clay tobacco pipe shapes are what would be expected for South East England. There is no evidence for clay tobacco pipe production on the site. The main potential of the clay tobacco pipes is to date the contexts it was recovered from. Additionally the assemblage also relates to activities associated with the study area and complements an understanding of the activities associated with the pottery and glass finds recovered from various features (fill [166], cut [167], fill [173], cut [174] and fill [215], cut [225]). It is recommended that a publication report is written on the clay tobacco pipes and five bowls are illustrated to supplement the text.

#### Metal and small finds

- 10.2.7 The finds, where relevant, should be included in any further publication of the site. Particularly significant objects include the Roman coin and jet bead, and the medieval buckle plate, but also the assemblage of Georgian and Victorian household furnishings. For the purpose of publication and identification it is recommended that a number of metal objects are x-rayed. The Roman coin and medieval buckle plate both require cleaning by conservator for full identification. For archival purposes, it is also recommended that Roman and medieval nails are x-rayed. Following publication, nails and undiagnostic metal objects may be discarded.

#### Building material

10.2.8 The building material assemblage very much reflects the development of Roman Staines. This includes examples of early heater system material with one item of particular intrinsic interest namely a roller stamped design box flue where no match could be made with Black and Betts Corpus (1997). This snapshot of Roman Staines has also revealed a great deal about the fabrics in circulation, with London sandy fabrics prevalent this far west of the provincial capital. No further work is recommended.

#### Animal bone

10.2.9 It is recommended that the assemblages from each of the three major occupation periods are worthy of further work. Information from the first two phases will essentially relate to food preferences and provision related to the current exploitation practices in turn related to meat demand, while the later material can provide evidence related to the organisation of the local tanning industry including data on the 'types' of cattle providing the necessary raw materials. It will of course be important to compare the individual phase data with relevant contemporary collections.

#### Environmental samples

10.2.10 To summarise, the preservation of environmental remains in the Staines High Street samples was variable. In terms of archaeobotanical material, the richest deposits were found in context [164], the fill of a ditch dated to the medieval period, which contained an abundance of charred weed seeds and cereals, and context [186], the fill of a possible palaeochannel, which contained a large concentration of un-burnt weeds seeds. Contexts [196], [201] and [226], taken from two pits and a dump layer, dated to the Roman period, are also significant, as each contained abundant weed seeds and/or charred seeds and cereals. Due to the relative abundance of material in these assemblages (over one hundred specimens in one or more material category) further specialist assessment is recommended prior to publication. This may help to develop our understanding of the wider environmental context of the site across the earliest phases of occupation, as well as yielding information on the nature and scale of cereal cultivation, processing and consumption by occupants during the Roman and medieval periods.

10.2.11 As well as seed remains, contexts [201] and [226] also contained a substantial amount of wood charcoal. Additional assessment of this material may aid in our interpretation of the local landscape during the Roman settlement of the area, albeit only providing a partial reconstruction due to the problems of selection bias. Analysis of the charcoal assemblage may also shed light on the types of wood that are being selected for use in domestic fires. In areas where there is a lack of suitable cultural

remains, this material, along with suitable sized wood fragments and cereal grains, could also be used to refine the chronology of the site, using radiocarbon dating

10.2.12 A summary of these results should be included in any subsequent site publications.

#### Oyster shell

10.2.13 The archaeological excavation produced only a small amount of oyster shell which, based on the location of the site, is likely to have been sourced from the River Thames. The presence of this material may suggest that oyster could have been a dietary component for the occupants of this site during the Roman period however, due to the limited size of these assemblages, no further work is recommended. A summary of the results should be included in any subsequent site publications.

### 10.3 Publication Proposal

10.3.1 The results of the archaeological excavation will be published as a short article in a peer review journal such as Surrey Archaeological Collections. This article will concentrate on the archaeological remains recorded of all periods. The format of the publication will follow that of a typical publication report:

- Abstract
  - Introduction
  - Geological and topographical background
  - Archaeological background
  - Archaeological evidence, by phase
  - Documentary and cartographic evidence
  - Finds assemblage reports
  - Discussion

The illustrations will include:

- Location plans
- Phase plans
- Plans of features and groups of features
- Sections
- Photographs
- Finds illustrations

## **11 CONTENTS OF THE ARCHIVE**

### **11.1 Paper Records**

Context Sheets	233 sheets
Plans	375 sheets
Sections	8 sheets

### **11.2 The Finds**

Pottery	23 boxes
Animal Bone	21 boxes
Ceramic Building Material	6 boxes
Clay Tobacco Pipe	3 boxes
Glass	6 boxes
Metal and small finds	6 boxes
Environmental samples	9 bulk samples

### **11.3 Digital archive**

Photographs	189 digital images
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### 13 BIBLIOGRAPHY

Ellis, C., 2016. 'Archaeological Investigations at Majestic House, High Street, Staines-Upon-Thames 2013'. *Surrey Archaeological Collections* 99, 129-148.

Fairman, A., 2015. *An Archaeological Desktop Assessment of Land at 90-106 High Street, Staines-upon-Thames, Surrey, TW18 4DP*. Pre-Construct Archaeology Ltd Unpublished Report.

Gummer, B., 2010. *The Scourging Angel: The Black Death in the British Isles*. Vintage Publishing.

Haslam, R., Jorgensen, P. and Moore, P., 2017. *90-106 High Street, Staines-upon-Thames, Surrey, TW18 4DP: An Archaeological Evaluation*. Pre-Construct Archaeology Ltd Unpublished Report No. R12779

Jones, P., 2010. *The Roman and Medieval Town of Staines: The Development of the Town*. SpoilHeap Monograph 2. SpoilHeap Publications.

Matthews, C., 2017. *Historic Building Recording of nos 90-106 High Street, Staines-upon-Thames, Surrey, TW18 4DP*. Pre-Construct Archaeology Ltd Unpublished Report.

McKinley, J., 2004. 'Welcome to *Pontibus...* gateway to the West'. *Surrey Archaeological Collections* 91, 1-69.

Moore, P., 2017a. *90-106 High Street, Staines-upon-Thames, Surrey, TW18 4DP: WSI for an Archaeological Excavation*. Pre-Construct Archaeology Ltd Unpublished Report.

Moore, P., 2017b. *90-106 High Street, Staines-upon-Thames, TW18 4DP: Risk Assessment & Method Statement for an Archaeological Excavation*. Pre-Construct Archaeology Ltd Unpublished Report.

Sloane, B., 2011. *The Black Death in London*. The History Press.

**APPENDIX 1: CONTEXT INDEX**

Context	Type	Fill of	Trench	Interpretation	Length	Width	Depth	Levels high	Levels low	Phase
100	Cut		23	Construction Cut	4.6	2.3	0.42	14.26	13.84	4
101	Fill	100	23	Backfill of Pit	2	1.2	0.4	14.26		4
102	Fill	104	23	Backfill	0.82	0.82	0.64	14.17		4
103	Masonry	104	23	Brick Well	0.8	0.8	0.64	14.17		4
104	Cut		23	Construction Cut	0.94	0.94	0.64	14.17	13.52	4
105	Masonry	106	23	Brick Lining	1.76	1	0.3	14.35	14.32	4
106	Cut		23	Construction Cut	1.86	1.1	0.3	14.31	14.06	4
107	Masonry	111	23	Brick Well	0.9	0.9	0.84	14.15		4
108	Fill	106	23	Backfill	1.7	0.9	0.3	14.31	14.3	4
109	Fill	110	23	Backfill	3.6	2.1	0.27	14.18		4
110	Cut		23	Tanning Pit	3.6	2.1	0.27	14.18	13.92	4
111	Cut		23	Construction Cut of Well	1.4	1.3	0.86	14.14	13.3	4
112	Fill	111	23	Construction Backfill	1.2	0.2	0.86	14.15		4
113	Fill	114	23	Mixed Fill	0.9	0.28	0.23	14.3		4

Context	Type	Fill of	Trench	Interpretation	Length	Width	Depth	Levels high	Levels low	Phase
114	Cut		23	Linear Cut	0.9	0.28	0.23	14.3	14.07	4
115	Fill	116	23	Fill of Ditch	10	1.08	0.65	14.28		3
116	Cut		23	Ditch	11	1.08	0.65	14.28	13.55	3
117	Fill	118	23	Fill of Pit	0.5	0.5	0.5	14.28		3
118	Cut		23	Pit	0.5	0.5	0.5	14.28	13.78	3
119	Fill	100	23	Backfill of Tanning Pit	1.3	1.9	0.33	14.19	14.18	4
120	Fill	100	23	Backfill of Tanning Pit	1.2	1.9	0.33	14.16		4
121	Fill	100	23	Construction Backfill	4.6	2.3	0.42	14.26	14.19	4
122	Fill	123	23	Fill of Pit	1.8	1.43	0.5	14.28	14.26	4
123	Cut		23	Pit	0.97	2.3	0.5	14.25	13.94	4
124	Fill	125	23	Fill of Pit	1.12	0.78	0.06	14.16		4
125	Cut		23	Pit	1.12	0.78	0.21	14.31	14.1	4
126	Fill	127	23	Backfill of Tanning Pit	3	2	0.1	14.29		4
127	Cut		23	Cut of Tanning Pit	3	2	0.1	14.29	14.21	4
128	Fill	129	23	Backfill of Pit	2.6	2.2	0.55	14.21	14.19	4



Context	Type	Fill of	Trench	Interpretation	Length	Width	Depth	Levels high	Levels low	Phase
129	Cut		23	Cut of Tanning Pit	2.6	2.2	0.55	14.21	13.7	4
130	Layer		23	Dump layer	13	10.3	0.2	14.31	14.21	3
131	Fill	132	23	Backfill of Pit	1.8	0.6	0.31	14.26	14.21	3
132	Cut		23	Pit	1.8	0.6	0.31	14.26	13.9	3
133	Fill	134	23	Backfill of Pit	0.7	0.44	0.3	14.2		3
134	Cut		23	Pit	0.7	0.44	0.3	14.2	13.9	3
135	Fill	136	23	Fill of Cut	2	0.6	0.39	14.21		3
136	Cut		23	Pit	5	0.6	0.39	14.21	13.82	3
137	Fill	138	23	Backfill of Tanning Pit	3.97	2.1	0.1	14.4	13.88	4
138	Cut		23	Cut of Tanning Pit	3.97	2.1	0.1	13.89	13.8	4
139	Fill	140	23	Fill of Pit	1.3	0.64	0.55	14.3		4
140	Cut		23	Pit	1.2	0.6	0.45	14.3	13.85	4
141	Fill	138	23	Backfill of Tanning Pit	3.97	0.34	0.1	13.89	13.87	4
142	Fill	151	23	Fill of Gully	5.8	0.7	0.15	13.86		3
143	Fill	149	23	Upper Fill of Ditch	1.05	0.7	0.3	13.7		2

Context	Type	Fill of	Trench	Interpretation	Length	Width	Depth	Levels high	Levels low	Phase
144	Fill	149	23	Fill of Ditch	1.05	0.7	0.21	13.49	13.43	2
145	Fill	147		Fill of Ditch	11	1	0.65	14.19		2
146	Fill	147	23	Fill of Ditch	5	1.5	0.84	13.96		2
147	Cut		23	Ditch	5.5	0.8	0.84	13.96	13.15	2
148	Fill	147	23	Organic fill of Ditch	5.5	0.8	0.19	13.15	12.96	2
149	Cut		23	Ditch	1.3	0.7	0.62	13.84	13.22	2
150	Natural		23	Natural Alluvial clay	13	10.3	N.F.E	13.85	13.57	1
151	Cut		23	Ditch/Gully	5.8	0.7	0.15	14.19	13.85	3
152	Fill	147	23	Fill of Ditch	1.3	1.3	0.32	3.25	3.2	2
153	Layer		23	Dump Layer	13	10.3	0.5	14.23	14.21	2
154	Fill	155	21	Backfill of Well	1.34	1.34	0.57	14.1		4
155	Cut		21	Construction Cut of Well	1.34	1.34	0.57	14.41	13.87	4
156	Layer		21	Dump Layer	14.6	7	0.4	14.49	13.96	3
157	Masonry	158	21	Brick Well	1.1	1.14	0.25	14.17		4
158	Cut		21	Construction Cut for Well	1.1	1.14	0.33	14.17	13.84	4

Context	Type	Fill of	Trench	Interpretation	Length	Width	Depth	Levels high	Levels low	Phase
159	Fill	158	21	Construction Fill of Well	1.14	1.1	0.25	14.17		4
160	Fill	158	21	Backfill of Well	0.6	0.54	0.25	14.17		4
161	Natural		21	Natural Alluvial Clay	1.66	1.6	0.2	14.27	13.94	1
162	Fill	155	21	Construction Fill of Well	0.18	0.18	0.3	14.44	14.39	4
163	Fill	165	21	Fill of Ditch	5	0.9	0.2	14.35		3
164	Fill	165	21	Fill of Ditch	5	1	0.41	14.17		3
165	Cut		21	Ditch	5	1.04	0.67	15.51	13.69	3
166	Fill	167	21	Rubble Fill	2.2	2	0.32	14.46	14.4	4
167	Cut		21	Pit	2.2	2	0.32	14.44	14.14	4
168	Fill	169	21	Fill of Pit	0.7	0.6	0.23	14.38		4
169	Cut		21	Pit	1	0.6	0.26	14.43	14.2	4
170	Cut		21	Construction Cut of Well	1.6	0.53	0.63	14.5	13.87	4
171	Fill	172	21	Fill of Posthole	0.24	0.24	0.21	14.45		3
172	Cut		21	Posthole	0.24	0.24	0.21	14.45	14.24	3
173	Fill	174	21	Fill of Pit	1.8	1.1	0.39	14.46		4

Context	Type	Fill of	Trench	Interpretation	Length	Width	Depth	Levels high	Levels low	Phase
174	Cut		21	Pit	1.8	1.1	0.39	14.46	14.07	4
175	Fill	176	21	Fill of Pit	1.1	0.5	0.5	14.46		4
176	Cut		21	Pit	1.1	0.5	0.5	14.46	13.96	4
177	Fill	178	21	Fill of Pit	0.9	0.82	0.2	14.49		4
178	Cut		21	Pit	0.9	0.82	0.2	14.49	14.29	4
179	Fill	184	21	Fill of Ditch	1.5	0.95	0.32	14.21		2
180	Void			Void						
181	Fill	182	21	Fill of Gully	3.6	0.4	0.1	14.02		2
182	Cut		21	Gully	3.6	0.4	0.1	14.02	13.88	2
183	Fill	184	21	Fill of Ditch	2.2	1.1	0.49	14.11		2
184	Cut		21	Ditch	5.7	5.7	0.49	14.24	13.75	2
185	Natural	228	23	Natural Silting	3.6	3.6	0.50	13.65		1
186	Natural	228	23	Natural Silting	3.6	3.6	0.22	13.15		1
187	Fill	188	21	Fill of Pit	1.04	1.02	0.41	14.31		4
188	Cut		21	Pit	1.04	1.02	0.41	14.34	13.93	4

Context	Type	Fill of	Trench	Interpretation	Length	Width	Depth	Levels high	Levels low	Phase
189	Fill	190	21	Fill of Ditch	5.1	2	0.52	14.09	14.07	2
190	Cut		21	Ditch	5.2	2	0.52	14.09	13.57	2
191	Fill	192	21	Fill of Posthole	0.28	0.26	0.6	14.03		2
192	Cut		21	Posthole	0.28	0.26	0.6	14.03	13.97	2
193	Fill	194	21	Fill of Ditch	3	1	0.3	14.33		2
194	Cut		21	Ditch	3	0.58	0.3	14.33	13.66	2
195	Fill	197	21	Fill of Pit	2	1.3	0.5	13.98		2
196	Fill	197	21	Fill of Pit	1.2	0.8	0.6	14.25		2
197	Cut		21	Pit	2	2	1.37	14.13	12.76	2
198	Fill	200	21	Fill of Pit	2.3	1.2	0.2	14.15		3
199	Fill	200	21	Fill of Pit	2.3	1.2	0.4	13.95		3
200	Cut		21	Pit	2.3	1.2	0.6	14.15	13.56	3
201	Layer		21	Burnt Layer	1.2	1	0.07	14.17	14.13	2
202	Void		21	Void						
203	Layer		21	Dump Layer	15	6	0.4	14.02	13.66	2

Context	Type	Fill of	Trench	Interpretation	Length	Width	Depth	Levels high	Levels low	Phase
204	Layer		22	Dump Layer	12	12	0.3	14.5	14.16	3
205	Fill	206	22	Fill of Ditch	4	1.6	0.28	14.12		2
206	Cut		22	Ditch	4	1.6	0.3	14.12	13.82	2
207	Fill	208	22	Fill of Ditch	3.2	0.66	0.25	14.06		3
208	Cut		22	Ditch	3.2	0.66	0.25	14.06	13.81	3
209	Layer		22	Mixed Dump Layer	9	9	0.4	14.05		2
210	Fill	211	22	Fill of Ditch	6	1.4	0.37	14.1		2
211	Cut		22	Ditch	6	1.4	0.37	14.1	13.73	2
212	Fill	213	22	Cut of Ditch	5.82	1.45	0.43	14.21	14.14	3
213	Cut		22	Ditch	5.82	1.45	0.43	14.21	13.78	3
214	Fill	218	22	Fill of Ditch	5	1.1	0.51	14.16		3
215	Fill	225	22	Backfill of Drain	1.4	1.1	0.47	14.26		4
216	Fill	217	22	Fill of Ditch	4.8	0.92	0.38	14.09		2
217	Cut		22	Ditch	4.8	0.92	0.38	14.09	13.76	2
218	Cut		22	Ditch	5	1.1	0.51	14.16	13.56	3

Context	Type	Fill of	Trench	Interpretation	Length	Width	Depth	Levels high	Levels low	Phase
219	Fill	222	22	Fill of Pit	4.3	3	0.9	13.75		2
220	Fill	218	22	Fill of Ditch	1.1	1	0.51	14.08		3
221	Masonry		22	Drain	1.08	0.2	0.42	14.21		4
222	Cut		22	Large Pit	4.3	3	1.09	13.75	13.08	2
223	Masonry		22	Drain	0.9	0.12	0.14	14.27		4
224	Masonry		22	Drain	1.1	0.8	0.1	14.26		4
225	Masonry		22	Drain	1.5	1.1	0.4	14.18		4
226	Fill	222	22	Fill of Pit	1.6	0.7	0.27	3.69		2
227	Natural		22	Natural Alluvial Layer	4.2	4	NFE	13.75	13.74	1
228	Natural		23	Cut of Natural Feature	3.6	3.6	0.72	13.65	12.93	1
229	Natural		21	Layer of Alluvium	14	5.5	0.15	13.7		1
230	Layer		23	Dump Layer	13	10.3	0.2	14.8	14.51	3
231	Layer		21	Dump Layer	14.6	7	0.25	14.75	14.7	3
232	Fill	233	23	Fill of Tanning Pit	2.6	1.6	0.1	14.29	14.27	4
233	Cut		23	Cut of Tanning Pit	2.8	1.6	0.10	14.29	14.27	4

## **APPENDIX 2: Roman Pottery Assessment**

Eniko Hudak

### **Introduction**

The excavation at High St Staines, Surrey (SMMR16) produced a small assemblage of Roman pottery totalling 555 sherds (11.456kg, 9.34 EVEs) and an additional 53 sherds (0.299kg, 0.18 EVEs) were recovered from environmental samples. The pottery was fully quantified and catalogued using the standard measures of sherd count, weight and Estimated Vessel Equivalents (EVEs). The pottery types and fabrics were recorded using standard Museum of London fabric and form codes (Symonds 2002) and some local typologies and corpora to aid identification and dating. The data was entered into an MS Access database, which is based on the standards established by the Museum of London Archaeology Specialist Services.

### **The assemblage**

The assemblage was recovered from 32 individually numbered contexts. Individual context assemblages are mainly small: 27 contexts produced small assemblages of less than 30 fragments, three medium-sized (31-100 sherds), and only two large groups (over 100 sherds). The pottery survived in a variety of states from heavily abraded to fresh with a relatively high mean sherd weight of 19.33g. Some sherds were noted showing signs of burning and sooting, interior limescale, and there were two sherds with post-firing graffiti and one with a perforation through the base.

There is a limited range of fabrics represented in the assemblage (Table 2) with late Roman fabrics dominating the pottery supply: all context assemblages but one post-date AD 250 and 12 of these are dated to the second half of the 4th century AD (Table 1).

The most prominent fabric is the late product of the Alice Holt potteries dating to after AD 250 (AHFA), which accounts for nearly 70% of the assemblage by sherd count (71.3% by weight, 64.9% by EVEs). BB1 (AD 120-400+) and Portchester D ware (PORD, AD 350-400+) follow with 4.6% (4.6%; 6.5%) and 4.9% (3.9%; 5.6%) respectively. Other coarse wares reinforcing the late date of the assemblage, such as the imported Mayen ware and Calcite-Gritted Wares (MAYEN and CALC) are also present in very small quantities.

There is a very small amount of fine wares in the assemblage with a single sherd of late Continental imports present (CGBL). Nene Valley Colour-Coated wares (NVCC, AD 150-400+) with 3.8% of sherd count (2%; 0.4%), and Oxfordshire Red Colour-Coated wares (OXRC, AD 270-400+) with 3.45% (3%; 6.8%) are most common, and there are a few sherds of New Forest Colour-Coated wares (NFCC, AD 200-400+). Amphorae are also scarce with four fragments of Baetican Dressel 20 olive oil amphorae present.



The remaining fabrics are represented by less than 2% each and include some earlier residual material such as Central Gaulish Terra Sigillata (SAMCG, AD 120-250) and Verulamium Region White Ware (VRW, AD 50-200).

### **Contextual analysis**

The majority of the assemblage was recovered from Roman contexts (Phase 2), however, about a fifth of the assemblage was residual in medieval and post-medieval contexts (Phases 3 and 4), and two small fragments were also recovered from Phase 1.

#### *Phase 2 – Roman (Table 3)*

Contexts: [143], [145], [146], [148], [152], [179], [181], [183], [189], [193], [196], [201], [203], [205], [209], [210], [216], [219], [226]

A total of 484 sherds weighing 9.786kg and representing 7.03 EVEs was recovered from Phase 2 contexts. AHFA vessels dominate the assemblage with over 70% of sherd count (72.7% weight and 63.9% EVEs) including 2W hooked-rim, 2F everted-rim, and some very large 2AX late bead-rim jars (Lyne and Jefferies 1979 Classes 1A, 3B, and 4); 4M flanged bowls and 5J plain-rim dishes with combed lattice, chevron, and swirl decoration. There are two fragments of AHFA with post-firing graffiti: a body sherd from [152] with a small cross or 'x' (SF 37) and a rim sherd of an everted rim jar from [196] that could be a number (SF 38).

The second most common fabric is PORD with nearly 5% (2.82%; 6.3%) in forms of typical 2W hooked-rim jars with rilled exteriors, and there is also a fragment of a bead-rim bowl. BB1 is present in slightly smaller quantities with 3.51% of sherd count (3.75%; 4.8%) with a 2F13 jar and a 5J dish. Other coarse wares include MAYEN, CALC, OXWW mortaria and Thameside Kent products (TSK).

Fine wares are mainly NVCC (3.9%; 2.2%; 0.6%) with body and base sherds of various beakers, some of which have rouletted or white barbotine decoration. Although there is less OXRC present in terms of sherd count, it shows a greater variety of forms including Young (1977) type C97 and C100 mortaria, C22 type beakers, and a C50 type dish with white painted decoration on the rim dated to AD 325-400+. There are also a few fragments of Terra Sigillata, most likely to be residual in this period.

The two largest context assemblages of the site were recovered from contexts [146], fill of ditch [147]; and [219], the upper fill of large pit [222]. The composition of these context assemblages agrees with that of the phase assemblage with AHFA being most abundant and PORD providing the post-AD 350 date.

#### *Phases 3 and 4 – Medieval and Post-Medieval*

Contexts: [142], [156], [163], [164], [199], [212], [214], [104], [122], [137], [139]

Phase 3 yielded a total of 109 sherds (1.796kg, 2.2 EVEs), and Phase 4 contexts contained

only 13 sherds (0.166kg, 0.29 EVEs) of Roman pottery, all of which is residual. Yet again the most abundant fabric is AHFA, followed by BB1 and OXRC of the fine wares. Forms include some 2F and 2W jars, 4M bowls and 7C97 mortaria.

### **Conclusions and recommendations**

The Roman pottery assemblage from SMMR16 is an average Late Roman assemblage with Alice Holt Farnham Wares dominating the pottery supply, just as it was indicated by the small amount of pottery recovered from the Evaluation of the site (Hudak 2017). The abundance of Alice Holt products is not unusual given the success of the potteries after AD 270: Alice Holt products were reaching as far north as the Lea Valley; dominated the London and Staines area supply with over 50%/66% of assemblages respectively (Lyne and Jefferies 1979; Symonds and Tomber 1991). The composition of the assemblage also compares well to that of other pottery from Staines (McKinley 2004).

All of the pottery has been examined and needs no further analysis with the exception of the sherds with post-firing graffiti. These are recommended to be sent to Roger Tomlin. The assemblage as a whole needs to be considered in a site-wide context, as well as in its local and regional context by comparing it to more other nearby assemblages. Key groups/features will need to be identified and discussed in more detail. It is also recommended to include a report in the publication with some illustrations.

### **Bibliography**

Hudak, E., 2017. 'The Romano-British Pottery,' in R. Haslam, P. Jorgensen and P. Moore, *90-106 High Street, Staines-upon-Thames, Surrey, TW18 4DP: An Archaeological Evaluation* Pre-Construct Archaeology Ltd Unpublished Report No. R12779, 75-77.

Lyne, M. and Jefferies, R.S., 1979. *The Alice Holt/Farnham Roman pottery industry*. Council for British Archaeology Research Report 30.

McKinley, J., 2004. 'Welcome to *Pontibus...*gateway to the West'. *Surrey Archaeological Collections* 91, 1-69.

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. and Tomber, R., 1991. 'Late Roman London: an assessment of the ceramic evidence from the city of London'. *Transactions of the London and Middlesex Archaeological Society* 42, 59-99.

Young, C., 1977. *Oxfordshire Roman Pottery*. British Archaeological Reports British Series 43.

Context	Size	Spotdate	Notes
104	S	AD270-400	
122	S	AD250-400	single sherd
137	S	AD350-400	samples only
139	S	AD250-400	
142	S	AD250-400	2x SAM poss. resid
143	S	AD350-400	
145	S	AD250-400	
146	L	AD350-400	
148	S	AD200-250	samples only
152	M	AD250-400	
156	S	AD350-400	
163	S	AD350-400	
164	S	AD300-400	
179	S	AD270-400	
181	S	AD250-400	
183	M	AD350-400	
185	S	AD250-400	single sherd, samples only
186	S	AD250-400	single sherd, samples only
189	S	AD250-270	
193	S	AD250-300	
196	S	AD350-400	
199	S	AD250-400	
201	S	AD250-400	samples only
203	S	AD250-300	
205	S	AD250-300	
209	S	AD350-400	samples only
210	S	AD250-300	
212	S	AD250-300	
214	S	AD250-300	
214?	M	AD350-400	could be either 214 or 219, unclear label
216	S	AD350-400	
219	L	AD350-400	
226	S	AD350-400	

Table 1: Context assemblage size and spotdates

Fabric	SC	%SC	W(g)	%W	EVEs	%EVE
AHFA	421	69.24%	8377	71.26%	6.18	64.92%
BAET	4	0.66%	283	2.41%		0.00%
BB1	28	4.61%	543	4.62%	0.62	6.51%
BBS	12	1.97%	182	1.55%	0.68	7.14%
CALC	2	0.33%	20	0.17%	0.07	0.74%
CC	1	0.16%	18	0.15%		0.00%

Fabric	SC	%SC	W(g)	%W	EVEs	%EVE
CGBL	1	0.16%	17	0.14%		0.00%
FINE	1	0.16%	7	0.06%		0.00%
GROG	4	0.66%	314	2.67%	0.11	1.16%
MAYEN	1	0.16%	24	0.20%		0.00%
MHAD	1	0.16%	1	0.01%		0.00%
NFCC	3	0.49%	26	0.22%		0.00%
NVCC	23	3.78%	240	2.04%	0.04	0.42%
OXID	10	1.64%	220	1.87%		0.00%
OXRC	21	3.45%	355	3.02%	0.65	6.83%
OXWC	1	0.16%	26	0.22%	0.05	0.53%
OXWW	5	0.82%	210	1.79%	0.2	2.10%
PKG	1	0.16%	22	0.19%		0.00%
PORD	30	4.93%	458	3.90%	0.53	5.57%
SAM	1	0.16%	5	0.04%	0.04	0.42%
SAMCG	2	0.33%	5	0.04%		0.00%
SAND	11	1.81%	183	1.56%	0.15	1.58%
SHEL	12	1.97%	84	0.71%	0.11	1.16%
TSK	11	1.81%	118	1.00%	0.09	0.95%
VRW	1	0.16%	17	0.14%		0.00%
TOTAL	608	100.00%	11755	100.00%	9.52	100.00%

Table 2: Overall quantification by sherd count, weight (g), and EVEs per fabric

Fabric	SC	%SC	W(g)	%W	EVEs	%EVE
AHFA	343	70.87%	7116	72.72%	4.49	63.87%
BAET	4	0.83%	283	2.89%		0.00%
BB1	17	3.51%	367	3.75%	0.34	4.84%
BBS	12	2.48%	182	1.86%	0.68	9.67%
CALC	2	0.41%	20	0.20%	0.07	1.00%
CC	1	0.21%	18	0.18%		0.00%
CGBL	1	0.21%	17	0.17%		0.00%
FINE	1	0.21%	7	0.07%		0.00%
GROG	4	0.83%	314	3.21%	0.11	1.56%
MAYEN	1	0.21%	24	0.25%		0.00%
MHAD	1	0.21%	1	0.01%		0.00%
NFCC	2	0.41%	23	0.24%		0.00%
NVCC	19	3.93%	212	2.17%	0.04	0.57%
OXID	9	1.86%	201	2.05%		0.00%
OXRC	11	2.27%	221	2.26%	0.33	4.69%
OXWW	4	0.83%	161	1.65%	0.2	2.84%
PKG	1	0.21%	22	0.22%		0.00%
PORD	24	4.96%	276	2.82%	0.44	6.26%
SAM	1	0.21%	5	0.05%	0.04	0.57%
SAND	11	2.27%	183	1.87%	0.15	2.13%

SHEL	8	1.65%	53	0.54%	0.05	0.71%
TSK	7	1.45%	80	0.82%	0.09	1.28%
TOTAL	484	1	9786	1	7.03	1

Table 3: Phase 2 (Roman) quantification by sherd count, weight (g), and EVEs per fabric

## APPENDIX 3: POST-ROMAN POTTERY ASSESMENT

Berni Sudds

### Introduction

A medium sized assemblage of post-Roman pottery was recovered from the excavation phase (contexts [100] and above), amounting to 1068 sherds, representing an estimated 477 vessels (ENV) and weighing 33,637kg. The pottery from the evaluation phase has been reported on previously (Jarrett 2017). The pottery dates from the early Saxon period to the 19th century, although the majority is of late 11th to 13th century date and 18th to 19th century date (Saxon and medieval - 440 sherds/ 278 ENV; post-medieval - 628 sherds/ 199 ENV). The assemblage was collected from 33 contexts, 26 of which are of small size (less than 30 sherds), five are of medium size (31-99 sherds) and two are large (100+ sherds). Twenty sherds are unstratified and a small proportion is considered to be intrusive or residual but although fragmentary, the post-Roman pottery of all periods is generally in good condition.

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), whilst 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 (ENV's) and weight. A summary of the pottery types appears below in Table 1 and the distribution of the pottery by phase and ware type in Table 2. A table of the contexts containing pottery with date ranges and suggested spot dates appears at the end of the report (Table 3).

### The pottery types

Surrey Code	Expansion	ED	LD	SC	ENV	WT
ORG	Grass-tempered ware	400	850	1	1	5
SAND	Sand-tempered ware	400	850	1	1	40
SNC	Saxo-Norman 'chalky' fabrics	900	1150	27	14	436
Q1	Poly-tempered sandy ware	970	1300	24	15	451
GQ1	Coarse poly-tempered sandy ware	970	1300	5	5	97
S3	Shelly/sandy ware	1000	1220	7	7	114
SYSH	Surrey shell-tempered ware	1050	1300	1	1	21
IQ	Ironstone sandy ware	1050	1200	72	64	1408
S2	Medieval shelly ware	1050	1350	7	5	106
QFL	Sand and flint-tempered ware	1080	1200	78	40	3125
LCOAR CALC	Coarse London-type ware with calcareous inclusions	1080	1200	3	1	50
LCOAR	Coarse London-type ware	1080	1200	3	3	34

Surrey Code	Expansion	ED	LD	SC	ENV	WT
FQ2	Fine grey/brown sandy ware	1150	1300	16	11	258
GQ2	Coarse grey/brown sandy ware	1150	1300	10	9	312
Q2	Grey/brown sandy ware	1150	1300	37	20	1278
MISC CW	Miscellaneous unsourced coarseware	1100	1400	17	3	626
MISC WW	Miscellaneous unsourced medieval/post-medieval whiteware	1100	1400	32	9	703
MISC GL	Miscellaneous unsourced glazed ware	1100	1400	17	9	214
HMQ	Hertfordshire/ Middlesex reduced sandy greyware	1170	1400	6	5	64
WW1B	Kingston-type ware	1240	1400	68	47	1378
WW1A	Coarse Border Ware	1270	1500	5	5	89
WW2	Cheam whiteware	1350	1500	3	3	10
MISC SLIP	Miscellaneous unsourced post-medieval slipware	1480	1900	3	1	179
RBOR	Surrey-Hampshire border redware	1550	1900	88	29	4795
WW3B	Surrey-Hampshire border whiteware	1550	1700	9	9	112
TGW	English tin-glazed ware	1570	1846	7	5	113
PMR	London-area post-medieval redware	1580	1900	4	2	358
RBOR SLTR	Surrey-Hampshire border redware with slip-trailed decoration	1580	1800	23	6	2057
RBORB	Surrey-Hampshire border redware with brown glaze	1580	1800	9	8	294
RBORG	Surrey-Hampshire border redware with green glaze	1580	1800	6	6	177
CHPO BW	Chinese blue and white porcelain	1590	1900	3	3	40
TGW D	London tin-glazed ware with blue- or polychrome-painted decoration and external lead glaze (Orton style D)	1630	1680	1	1	6
TGW C	London tin-glazed ware with plain white glaze (Orton style C)	1630	1846	6	1	57
STSL	Staffordshire-type combed slipware	1660	1870	6	1	61
LONS	London stoneware	1670	1926	5	5	200
TGW H	London tin-glazed ware with pale blue glaze and dark blue decoration (Orton and Pearce style H)	1680	1800	2	2	38
TGW SPNG	London tin-glazed ware with sponged decoration	1700	1760	1	1	3
ENGS	English brown salt-glazed stoneware	1700	1900	3	1	296
SWSG	White salt-glazed stoneware	1720	1780	4	3	29
CREA	Creamware	1740	1830	38	6	1231
SWSG SCRIB	White salt-glazed stoneware with scratch blue decoration	1740	1780	17	1	898
ENPO OTR	English porcelain with over-glaze transfer-printed decoration	1755	1800	1	1	12
CREA DEV	Creamware with developed pale glaze	1760	1830	76	12	1293
PEAR PNTD	Pearlware with under-glaze painted decoration	1770	1840	1	1	8
PEAR	Pearlware	1770	1840	21	3	300
PEAR TR	Pearlware with transfer-printed decoration	1770	1840	148	22	1344
PEAR BW	Pearlware with under-glaze blue-painted decoration	1770	1820	22	6	391
PEAR SLIP	Pearlware with slip decoration	1775	1840	1	1	4
TPW	Refined whiteware with under-glaze transfer-	1780	1900	58	22	3612

Surrey Code	Expansion	ED	LD	SC	ENV	WT
	printed decoration					
ENPO HP	English hard paste porcelain	1780	1900	4	2	30
PEAR ERTH	Pearlware with under-glaze polychrome-painted decoration in 'earth' colours	1790	1820	1	1	20
CREA UTR	Creamware with under-glaze transfer-printed decoration	1790	1830	9	2	118
MISC RED	Miscellaneous unsourced late post-medieval redware	1800	1900	2	2	697
BONE	Bone china	1794	1900	5	4	171
SUND	Sunderland-type coarseware	1800	1900	1	1	28
REFW PNTD	Refined whiteware with under-glaze painted decoration	1805	1900	1	1	87
REFW	Refined white earthenware	1805	1900	9	7	582
TPW6	Refined whiteware with under-glaze transfer-printed and over-glaze painted decoration	1810	1900	1	1	34
TPW3	Refined whiteware with under-glaze brown or black transfer-printed decoration	1810	1900	2	2	185
YELL SLIP	Yellow ware with slip decoration	1820	1900	15	6	1405
TPW4	Refined whiteware with under-glaze colour transfer-printed decoration (green, mulberry, grey etc)	1825	1900	2	2	38
ENGS BRST	English stoneware with Bristol glaze	1830	1900	1	1	418
TPW FLOW	Refined whiteware with under-glaze transfer-printed 'flow blue' decoration	1830	1900	5	4	198
MAJO	Majolica	1850	1900	3	1	212
MISC	Miscellaneous unsourced medieval/post-medieval pottery	900	1900	4	3	687

Table 1: Pottery types. SC = Sherd count; ENV = Estimated number of vessels; WT = Weight in grams.

## Distribution

A distribution of the pottery by phase and ware type is summarised below in Table 2. The majority of feature assemblages are small to medium in size, with one large assemblage of over 400 sherds recovered from pit [174]. 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. A small assemblage of medieval pottery was recovered from Phase 2 features but is considered to be intrusive.

Surrey Fabric Code	2	3	4	Unphased	Total
ORG		1			1
SAND		1			1
SNC	3	24			27
GQ1		3	2		5
Q1	4	18	2		24
S3	2	5			7
IQ	6	62	4		72



Surrey Fabric Code	2	3	4	Unphased	Total
S2	1	5	1		7
SYSH			1		1
LCOAR	1		2		3
LCOAR CALC		3			3
QFL	1	77			78
FQ2		16			16
GQ2		8	2		10
Q2	1	33	3		37
MISC CW		17			17
MISC WW		32			32
MISC GL	1	16			17
HMQ	2	4			6
WW1B	7	60	1		68
WW1A	4		1		5
WW2			3		3
MISC SLIP			3		3
RBOR		2	86		88
WW3B		1	8		9
TGW			7		7
PMR			4		4
RBOR SLTR			23		23
RBORB			9		9
RBORG			6		6
CHPO BW			3		3
TGW C			6		6
TGW D			1		1
STSL			6		6
LONS			5		5
TGW H			2		2
ENGS			3		3
TGW SPNG			1		1
SWSG		1	3		4
CREA			38		38
SWSG SCRIB			17		17
ENPO OTR			1		1
CREA DEV			76		76
PEAR			21		21
PEAR BW			22		22
PEAR PNTD			1		1
PEAR TR			148		148
PEAR SLIP			1		1
ENPO HP			4		4
TPW			47	11	58
CREA UTR			9		9
PEAR ERTH			1		1
MISC RED			2		2
BONE			5		5
SUND			1		1
REFW			8	1	9
REFW PNTD			1		1
TPW3			2		2
TPW6				1	1
YELL SLIP			13	2	15
TPW4			1	1	2
ENGS BRST			1		1
TPW FLOW			1	4	5
MAJO			3		3

Surrey Fabric Code	2	3	4	Unphased	Total
MISC			4		4

Table 2: Distribution of the pottery by ware type and phase (sherd count).

### Residual Saxon pottery

The earliest post-Roman pottery is Saxon, including a sand-tempered and an organic-tempered sherd, both dating from the 5th to 8th century. Both are residual in a medieval ditch fills ([212]/ [220]) but suggest contemporary activity in the vicinity of site. Small quantities of similarly dated pottery has been recovered from most sites within the central High Street area, forming part of a larger corpus of residual Anglo-Saxon find from Staines that indicate Saxon occupation of the area (Jones 1982, 197-8).

### Phase 3

Chronologically, the next group comprise the chalky, shelly and ironstone tempered wares (SNC; SYSH; IQ) with Saxo-Norman or 11th-century origins. The ironstone tempered wares are most numerous amongst this group. These equate to the 'Early Surrey Wares' in the London corpus, but have a longer lifespan in Surrey, continuing to be made into the later 12th century (Jones 1998, 220). Some of these early sherds are residual in later features but the lower fill of ditch [165] contained a small assemblage of chalky and ironstone-tempered sherds dating to the late 11th to 12th century. These types also occur in fills [135] and [207], but in addition to a small number of later medieval coarsewares suggesting the material is unlikely to have been deposited prior to the later 12th century. The range of forms recovered is relatively limited, comprised of jars and bowls, typical of the early date, but also a reflection of the relatively small size of the assemblage. Of note are 14 sherds from a squat cylindrical jar with a sagging base, everted neck and a slightly thickened, externally bevelled rim. A single handmade chalky-tempered vessel has combed or incised decoration.

Assemblages dated from the mid/late 12th to 13th century are dominated by sand, flint or poly-tempered coarsewares common to the region (CQ1; Q1; Q2; FQ2; GQ2; QFL), although there are also a small number of Herts/ Middlesex reduced wares (HMQ) and unsourced coarsewares (MISC CW). Jar forms represent the most commonly occurring type, although there are also bowls, dishes, jugs and the semi-complete remains of a poly-tempered ware (Q1) curfew from pit [200]. The latter is domed with a convex perforated top, flared sides and has a strap handle with faint thumb impressions to either side. Curfews were used to cover the hot embers of a fire, typically overnight, to prevent accidental fires. A further sand and flint-tempered ware curfew was recovered from ditch fill [212] with horizontal and diagonal applied thumbed strips and combed decoration.

From c.AD 1240 Kingston-type ware appears on site (WW1B), occurring in significant quantities, both as a coarseware in the form of jars and a frying pan, but most frequently as

glazed jugs. Ditch fill [115] contained a sizable assemblage of Kingston-type ware, but also 17 sherds from an unsourced large rounded jug, with a collared rim and a slashed and thumb decorated strap-handle. The jug is in 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, some like the latter that could be products of the grey/brown tradition, 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 apparently 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, due to fact that 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 (ditch fill [147]) 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 century.

Pit fill [166] 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 Staffordshire-type 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-glaze 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 mass-produced 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 [129], although more fragmentary and dated to late 18th to early 19th century. The latter also includes significant quantities of Surrey-Hampshire border redware, including another slip trailed dish, but also mass-produced 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 and white porcelain (CHPO BW) tea bowl and a London tin-glazed ware with plain white glaze (TGW C) porringer.

The largest single assemblage from site was recovered from the fill of pit [174], 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 same service. The majority of the group is comprised of Creamwares and Pearlwares, although 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 as 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 a couple of plates but 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 to 1830. 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 prescribed and tea drinking began to filter down through the classes.

One of the latest dated groups was recovered from drain fill [215], 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 were 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.

### **Significance of the assemblage and recommendations for further work**

Although residual sherds of Saxon pottery were recovered, the earliest stratified groups are of late 11th to 12th-century date, with the majority of the medieval pottery recovered dating from the later 12th to early 14th century. Relatively small quantities of pottery dating to the late medieval and early post-medieval period were retrieved, but nothing of significance until the 18th and 19th century. The pottery assemblage is consistent with domestic activity, likely derived from properties fronting onto the High Street but demonstrates no particular status or functionally specific form assemblages.

In addition to providing dating evidence for the features from which it was recovered, the primary significance of the assemblage is local, specifically arising from the information it can add to an understanding of medieval and late post-medieval Staines. The range and composition of the assemblage is similar to that observed on other contemporary sites in Staines and more broadly in north-west Surrey (Jones 1982; 1998; Jarrett 2017) and adds to understanding of the date and nature of occupation in the vicinity. The current assemblage should be considered alongside the pottery recovered from the evaluation and a short publication text should be produced on the group as a whole. Further analysis should seek to

verify and refine some of provisional fabric identifications and to find parallels for some of the unsourced coarsewares and glazed wares where possible. Closer comparison with contemporary assemblages from Staines will also be important. Up to 19 illustrations will be required.

### Dating table

Context	SC	ENV	WT	Date range of the pottery		Latest dated pottery		Spot date
0	20	11	1728	1780	1900	1830	1900	-
101	15	13	224	970	1900	1805	1900	1805 - 1840
102	2	2	516	1580	1900	1830	1900	L.19 <sup>th</sup> - E.20 <sup>th</sup> century
104	6	6	70	970	1840	1770	1840	1770 - 1840
108	2	1	37	1780	1900	1780	1900	M/L.19 <sup>th</sup> century
109	4	4	25	1050	1680	1630	1680	1630 - 1680
115	120	74	2620	900	1700	1550	1700	1240 - 1300
117	14	11	304	900	1400	1240	1400	1240 - 1300
122	3	2	47	1050	1900	1550	1900	1600 - 1800
128	38	32	928	970	1900	1770	1840	1770 - 1800
131	10	9	184	900	1400	1240	1400	1240 - 1300
133	9	9	141	900	1900	1720	1780	1720 - 1780
135	14	13	294	1050	1300	1150	1300	1150 - 1200
137	2	2	3	1270	1500	1350	1500	1350 - 1500
145	20	18	529	900	1500	1270	1500	1270 - 1400
154	18	15	533	1550	1926	1820	1900	M.19 <sup>th</sup> century
156	4	4	80	900	1200	1080	1200	1080 - 1200
162	2	2	65	1550	1900	1590	1900	18 <sup>th</sup> century
163	17	10	364	900	1300	1150	1300	M.12 <sup>th</sup> - E.13 <sup>th</sup> century
164	8	8	82	900	1200	1050	1200	1050 - 1200
166	52	25	2526	1150	1900	1780	1900	18 <sup>th</sup> century
168	3	2	276	1580	1800	1580	1800	1680 - 1800
172	3	3	55	1050	1400	1240	1400	1240 - 1300
173	406	67	10493	900	1926	1790	1830	1800 - 1830
175	2	2	53	1550	1900	1550	1900	18 <sup>th</sup> - 19 <sup>th</sup> century
187	3	3	100	1580	1800	1720	1780	1720 - 1780
196	12	11	196	900	1350	1150	1300	1150 - 1300
199	16	8	1839	970	1300	1150	1300	1150 - 1200
201	1	1	1	1000	1220	1000	1220	1000 - 1220
204	68	44	1352	900	1500	1240	1400	1240 - 1350
207	24	8	852	900	1200	1050	1200	1100 - 1200
212	78	26	1720	400	1300	1150	1300	1150 - 1200
215	68	29	5359	1670	1926	1850	1900	1850 - 1900
220	4	3	41	1150	1300	1150	1300	1150 - 1300

Table 3: Pottery by context. SC = Sherd count; ENV = Estimated number of vessels; Wt = Weight in grams.

### Bibliography

Jarrett, C., 2017. 'The post-Roman pottery,' in R. Haslam, P. Jorgensen and P. Moore, *90-106 High Street, Staines-upon-Thames, Surrey, TW18 4DP: An Archaeological Evaluation*. PCA Report No. R12779, 73-80.

Jones, P., 1982. 'Saxon and early medieval Staines'. *Transactions of the London and Middlesex Archaeological Society* 33, 186-213.

Jones, P., 1998, 'Towards a type series of medieval pottery in Surrey.' *Surrey Archaeological Collections* 85, 211-238.

Jones, P., 2015. *A Guide to the Medieval Pottery Type Series of Surrey, with a note on the post-medieval stonewares and London post-medieval pottery codes*. Surrey Archaeological Society.

MOLA, 2014. *Medieval and post-medieval pottery codes*. Accessed October 24th, 2016. <<http://www.mola.org.uk/resources/medieval-and-post-medieval-pottery-codes>>.

MPRG, 1998. *A Guide to the Classification of Medieval Ceramic Forms*. Medieval Pottery Research Group Occasional Paper 1.

## APPENDIX 4: GLASS ASSESSMENT

John Shepherd

### Introduction

A total of seventy-five fragments of glass were recovered from the SMMR16 excavations. All are post-medieval in date. Only one Roman fragment was identified and no medieval fragments were identified, although stratigraphy of this date was recorded.

The post-medieval deposits took the form of rubbish pits thought to be 17th century. Further features dating from the 18th into the 19th century took the form of industrial structures indicative of manufacturing, such as tanning, were also found during the excavation. By the 19th century excavated features include domestic rubbish pits, wells and cess pits thought to be in the backyards of individual properties.”.

With this in mind, a careful search was made to differentiate 17th century vessels from the rest of the post-medieval assemblage. Sadly, nothing could be identified.

### The Glass

The assemblage can be summarised as follows.

#### *Roman (Phase 2)*

[219] A single fragment of thick natural blue-green glass from the body of a square-sectioned, prismatic bottle (Isings 1957, form 50). Mould-blown. Dating to the late first or second century, a very common, ubiquitous vessel form.

#### *Medieval*

No glass was identified for this period.

#### *17th century*

No typical, exclusively 17th-century vessel types could be identified. There is one rim and neck fragment from a common ‘English’ wine bottle that dates to the late 17th century ([166]) and also a number of fragments of such bottles, of different shapes however, that were in use during the late 17th and early 18th century, one of which is more common. These come from contexts [101], [166] and [173].

#### *18th and 19th century*

Glass bottles typical of the 18th century come from contexts [128], [166] (which also includes late 17th- and 18th-century material), [173] (which also includes late 17th- and 18th-century material) and [187].

The majority of the glass comes from bottle forms of the 18th and 19th century, especially cylindrical bottles of the late 18th and 19th century. These include both free-blown contexts [20] and [69] especially, although later machine made glass is present in [69]; and also machine-blown types (contexts [69] and [215]). The latter are likely to date after c.1835.

#### *19th or 20th century*

Overlapping with the 18th and 19th century material are a number of machine made vessels dating from the end of the 19th century and into the 20th century. Again, these are primarily bottles but include a number of smaller phials and drinking vessel fragments.

#### *Special contexts*

[219] – contained one Roman fragment

[215] – the largest assemblage (18 items), dating from the late 19th or 20th century. A domestic assemblage. Vessel forms include four drinking vessels, one custard cup, an inkwell, relief-moulded bowl, two 'Rowlands Macasar Oil' bottles (a type of hair oil for creating the slick, flat hair style of the 19th century) and medicine bottles.

#### **Recommendations**

None of the glass is worthy of special publication, unless the late 19th or early 20th century context [215] is regarded as worthwhile. The vessel fragments would be better published, if necessary, as a photograph – with detail of the Macasar Oil bottles.



## **APPENDIX 5: CLAY TOBACCO PIPE ASSESSMENT**

Chris Jarrett

A small sized assemblage of clay tobacco pipes was recovered from the site (one box). Most fragments are in a fairly good condition, indicating they had not been subjected to too much reburial or were deposited soon after breakage. Clay tobacco pipes occur in 10 contexts as small (under 30 fragments) sized groups.

All the clay tobacco pipes (42 fragments, of which two are unstratified) were recorded in a database format and classified by Atkinson and Oswald's (1969) typology (AO) except that 18th-century bowls are according to Oswald's (1975) simplified typology and are pre-fixed OS. The pipes are further coded by decoration and quantified by fragment count. The tobacco pipes are discussed by their types and distribution.

### **The clay tobacco pipe types**

The clay tobacco pipe assemblage from the site consists of fifteen bowls, 26 stems and one unstratified mouthpart. The clay tobacco pipe bowl types cover the period c.1660 to 1910.

### **Bowl types**

1660-1680

AO13: one heeled bowl with a rounded profile (in this case with a noticeable 'overhang' on the front) and has an average quality of burnishing and a quarter milling of the rim, the latter being poorly executed. This bowl shape may be non-local and possibly from a West Country source. Context [2]

1730-1780

OS12: four, heeled upright bowls with a rounded front and a straight back and thin stems. All of the examples were found in context [166] and three examples were maker marked:

?I ?B: one bowl and the initials are smudged through poor handling (SF 41).

I S: two bowls (SF 28 and 42). Mid 18th-century pipe makers with these initials are fairly common in London, although less frequently documented in West London, Surrey and Buckinghamshire (Oswald 1975) and in Higgins (1981, 237) survey of Surrey clay tobacco pipes there were no examples of this mark recorded in Staines or other Thames side Surrey towns. It is uncertain who the I S pipe maker was.

#### 1770-1845

AO27: three heeled bowls with a rounded front and a straight back. All of the bowls are decorated with large round ended fluting, each bordered with a pair of fine ribs. Two of the bowls (SF 29 and 30) are marked W W on the sides of the heel, as was probably the third bowl (SF 31) which is now missing the heel. One of the bowls (SF 30) has had the heel trimmed to almost a point. All of the bowls were recovered from deposit [173]. A possible pipe maker is William Walshe who was recorded in 1797 in the Eton Public Registers (Oswald 1975, 16) although the maker of these bowls is as yet uncertain. Other contemporaneous bowls initialled W W have been found in Staines, besides Egham and Weybridge (Higgins 1981, 217).

#### 1820-1860

AO28: six spurred tall bowls with a rounded front and a straight back. All of the bowls are decorated or initialled:

With a small ring and dot on each side of the heel and a wheat ear border on the front of the bowl. Context [215], SF 32.

M N: four plain bowls with the initials present on the sides of the spur (context [69], SF 8, context [215], SF 33, SF 34 and SF 36). Probably made by Mary and Anne Norwood, 1847-77, Eton (Oswald 1975, 161).

N N: one bowl with an acorn and oak leaf border on the front of the bowl and the initials on the side of the spur (context [215], SF 35). The pipe maker is unknown, although other pipes with these initials have been recorded in Eton (Ayto 1988, 2; Higgins 1981, 237).

#### 1840-1910

AO30: one rounded bowl without a heel or spur and decorated with scrolls around the rim. These are above rounded flutes with surrounds that continue on to the stem, stopping at a rounded cordon. Additionally, the stem has incuse *sans serif* stamps dated to the c.1870s of 'NORWOOD' on the left side and 'ETON' on the right side. Probably made by Mary and Anne Norwood, 1847-77, Eton, or Richard Norwood, 1839-1903, Eton (Oswald 1975, 161). Context [69], SF 7.

#### **Distribution**

The distribution of the clay tobacco pipes is shown in Table 1 which records the cut, the phase, size and number of fragments, the date range of the latest bowl, the types of bowls present and maker's marks, together with a spot date for each context the material occurs in.

Context	Fill of	Phase	No. of Fragments	Assemblage Size	Context ED	Context LD	Bowls etc. (makers)	Spot date
2	-	-	1	S	1660	1680	X1 AO13	1660-1680
69	-	-	1	S	1820	1850	X1 AO28 (M N: SF 8)	1820-1850
101	100	4	1	S	1580	1910	Stem	1730-1910
102	104	4	1	S	1580	1910	Stems	1730-1910
128	129	4	1	S	1580	1910	Stem	1730-1910
166	167	4	8	S	1730	1780	X 4 OS12 (x1 ?I ? B: SF 41, x2 I S: SFs 28 and 42), x 4 stems	1730-1780
168	169	4	1	S	1580	1910	Stem	1730-1910
173	174	4	12	S	1580	1910	x3 AO27 (SF 31, W W: SFs 29 and 30), x 9 stems	1800-1845
187	188	4	1	S	1580	1910	Stem	18th century
215	225	4	13	S	1820	1850	x5 AO28 (SF 32, x3 MN: SFs 33, 34 and 36, N N: SF 35), x8 stems	1820-1850

Table 1: SMMR16: Distribution of clay tobacco pipes.

### Significance, potential and recommendations for further work

Although small in size, the assemblage has some significance at a local level. Despite Staines being recorded as having its own clay tobacco pipe industry (Higgins 1981, 217), which there is no evidence for here, the assemblage does contain a number of marked tobacco pipe bowls that were marketed from Eton, Buckinghamshire and especially those associated with the Norwood family. It would appear that the Thames was used for the distribution of clay tobacco pipes to riverside towns in the west of Greater London and beyond. The range of clay tobacco type shapes are what would be expected for South East England. There is no evidence for clay tobacco pipe production on the site. The main potential of the clay tobacco pipes is to date the contexts it was recovered from. Additionally, the assemblage also relates to activities associated with the study area and complements an understanding of the activities associated with the pottery and glass finds recovered from various features (fill [166], cut [167], fill [173], cut [174] and fill [215], cut [225]). It is recommended that a publication report is written on the clay tobacco pipes and five bowls are illustrated to supplement the text.

### Bibliography

Atkinson D. and Oswald. A., 1969. 'London clay tobacco pipes'. *Journal of British Archaeology Association*, 3rd series, Vol. 32, 171-227.

Ayto, E., 1988 (April). 'Eton Pipemakers'. *Society for Clay Pipe Research Newsletter* 18, 2-11.

Higgins, D., 1981. 'Surrey clay tobacco pipes', in P. Davey (ed.), *The archaeology of clay tobacco pipe, VI. Pipe and kilns in the London region*. British Archaeological Reports British Series 97.

Oswald, A., 1975. *Clay pipes for the Archaeologist*. British Archaeological Reports British Series 14.

## APPENDIX 6: METAL AND SMALL FINDS ASSESSMENT

Märit Gaimster

Around 40 individual metal or small finds were retrieved from the excavations, along with eleven lumps of metalworking slag. All finds are listed in the table below, and will be discussed here by phase.

### Phase 1: Natural

A small cylindrical jet bead, decorated with three fine circumferential grooves, is a Roman object (SF 40; cf. Crummy 1983, fig. 36 no. 1183); it is likely intrusive here.

### Phase 2: Roman

At least eight finds came from this phase, dominated by five iron nails. There is also a complete copper-alloy coin (SF 24) and three lumps of metalworking slag.

### Phase 3: Medieval

Five objects came from Phase 3 contexts, including three probable iron nails, along with two lumps of metalworking slag. Of particular interest is a copper-alloy buckle plate embossed with a lion passant and with traces of gilding (SF 12). The buckle plate has parallels in other medieval finds (cf. Egan and Pritchard 1991, fig. 72 no. 500; Griffiths *et al.* 2007, pl. 18 nos. 851-52). The type has a suggested date in the 13th-14th centuries (Griffiths *et al.* 2007, 106), something that fits well with the associated pottery dated to 1240-1300.

### Phase 4: Post-Medieval

Phase 4 produced the largest assemblage, with at least 27 metal and small finds. There were also two lumps of metalworking slag. Among the finds is a group of household objects and furnishings, all associated with pottery from the 18th-19th centuries. They include two ivory cutlery handles (SF 18 and 22), a small spoon carved of bone (SF 10), parts of a large serving or basting spoon of copper alloy (SF 20) and the iron blade of a tang-hafted knife (SF 11). Other household-related objects are a bone toothbrush (SF 14), a copper-alloy thimble (SF 17) and a ceramic alley decorated with circumferential bands in black and bluish green, possibly a jack for a game of bowling or skittles (SF 19). Besides iron nails, structural fittings are represented by an iron strap mount or hinge, likely from a door (SF 13). Fittings and fixtures may be seen in a fine copper-alloy ring, perhaps for hanging drapes or curtains (SF 27) and a circular copper-alloy mount with a central opening and two holes for fixing (SF 25).

The function of a section of cattle rib, shaved straight along one side and polished from frequent handling, is unclear (SF 39).

### Significance of the finds and recommendations for further work

Metal and small finds potentially provide key elements of domestic material culture and activities related to the investigated site. At the present site in Staines, a small group of finds testify to well-documented settlement during both during the Roman period and the Middle Ages. The largest assemblage, however, dates from the 18th-19th centuries and represent an element of material culture less frequently represented in archaeological reports (but see Crewe 2012; License 2015).

The finds, where relevant, should be included in any further publication of the site. Particularly significant objects include the Roman coin and jet bead, and the medieval buckle plate, but also the assemblage of Georgian and Victorian household furnishings. For the purpose of publication and identification it is recommended that a number of metal objects are x-rayed; these are marked in the table below. The Roman coin and medieval buckle plate both require cleaning by conservator for full identification. For archival purposes, it is also recommended that Roman and medieval nails are x-rayed. Following publication, nails and undiagnostic metal objects may be discarded.

### Bibliography

Crewe, V., 2012. “Ancient luxury and modern filth”: new insights into 19th-century life at Sheffield Manor Lodge’. *Post-Medieval Archaeology* 46/2, 333-41.

Crummy, N., 1983. *The Roman Small Finds from excavations in Colchester 1971-9*. Colchester Archaeological Report 2.

Egan, G. and Pritchard, F., 1991. *Dress Accessories c.1150 – c.1450*. Medieval finds from excavations in London 3. HMSO. London.

Griffiths, D., Philpott, R.A. and 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 Monograph 68. Oxford.

License, T., 2015. *What the Victorians Threw Away*. Oxbow Books. Oxford.

Phase 1: Natural				
context	SF	description	pot date	recommendations
185	40	Jet bead; cylindrical with three circumferential grooves; L 5mm; diam. 4.5mm; intrusive Roman	Roman	

Phase 2: Roman				
context	SF	description	pot date	recommendations
145		Slag; two lumps; 40 and 60mm diam.	1150-1240	further identify
146		Iron nail; complete with small round head; heavily corroded; L 45mm	350-400	x-ray
152		Iron ?nail; heavily corroded ; L 60mm+	250-400	x-ray
183		Iron nails; two complete but heavily corroded; L 80 and 120mm	350-400	x-ray
189		Iron nail; incomplete and heavily corroded	250-270	x-ray
205		Slag; one medium-size lump only	250-300	further identify
216		Slag; one medium-size lump only	350-400	further identify
219	24	Copper-alloy coin; Roman	350-400	Clean for full ident
		Iron ?objects; three heavily corroded pieces; L 79, 90 and 100mm	350-400	x-ray

Phase 3: Medieval				
context	SF	description	pot date	recommendations
115	12	Copper-alloy buckle plate; tongue-shaped and embossed with ?lion passant; two small domed copper-alloy rivet near broken fold and single central pointed spike at base; heavily corroded with traces of gilding; W 28mm; L 50mm	1240-1300	Clean for full ident
		Iron ?nail; heavily corroded ; L 90mm+	1240-1300	x-ray
		Slag; four medium-size lumps	1240-1300	further identify
117		Iron ?strap; heavily corroded fragment only; W 20mm; L 50mm+	1240-1300	x-ray
135	16	Slag; one substantial lump; 90mm diam.	1240-1350	further identify
199		Iron ?nails; two heavily corroded; L 140 and 160mm	c. 1150-1240	discard

Phase 4: Post-Medieval				
context	SF	description	pot date	recommendations
0	17	Copper-alloy thimble; complete rimmed but heavily corroded; diam. 14mm; ht. 15mm; 18th–19th centuries	n/a	x-ray
101		Iron strap; three corroded pieces; W 35mm	1805-1840	
		Slag; one medium-size lump only	1805-1840	further identify
104		Iron nails; two incomplete heavily corroded	1770-1840	discard
108	10	Bone spoon; complete with shallow oval bowl; plain tapering handle with decoratively carved base; L 95mm; bowl W 22mm	mid- to late 19th century	
	11	Iron knife; complete tang-hafted blade; heavily corroded; blade	mid- to late	x-ray

		base W 20mm; L 102mm	19th century	
109		Iron nails; three incomplete and heavily corroded	1630-1680	discard
122		Slag; one medium-size lump only	17th–18th centuries	further identify
126	13	Iron strap mount/hinge; incomplete; W 30mm; L 165mm+; one <i>in-situ</i> nail for fixing; likely from door	n/a	x-ray
128	14	Bone toothbrush; complete with straight handle and narrow oval head; three rows of even holes for wire-drawn tufts; inscribed 'G .. AUGHTIE // WARRANTED'; L 150mm; head W 10mm	1780-1810	
	27	Copper-alloy ring; incomplete with fine D-section body; gauge 2.2mm; diam. c 33mm	1780-1810	
154		Iron ?horseshoe; gently curved and heavily corroded piece; W 25mm; L 110mm	mid-19th century	x-ray
		Iron nail; complete with small round head; L 70mm; head diam. 15mm	mid-19th century	discard if late date
166		Copper-alloy ?object; heavily corroded 25 x 30mm lump	early18th–mid-19th centuries	x-ray
		Iron strap; heavily corroded fragment only; W 22mm; L 65mm	early18th–mid-19th centuries	x-ray
173	22	Ivory cutlery handle; tapering fragment only with straight end	1800-1830	
175		iron strap; two conjoining pieces; W15mm; L 140mm	18th–19th centuries	x-ray
		Iron nails; two incomplete heavily corroded	18th–19th centuries	discard
177	18	Ivory cutlery handle for pin-hafted implement; rectangular section and straight end; L 100mm	n/a	
	19	Ceramic alley; white with decoration of parallel circumferential lines in black and bluish green; incomplete; diam. 35mm	n/a	
	20	Copper-alloy spoon; bowl and part of handle only of large serving or basting spoon; electroplated; bowl W 52mm; L 77mm	n/a	
	23	Iron mount/fitting; incomplete tapering strap with curved, thickened finial; W 20–25mm; L 98mm+	n/a	x-ray
		Iron nail; incomplete and heavily corroded	n/a	discard
187	39	Bone ?implement; section of cattle rib with one side shaved straight; both sides and edges with polish from handling; both ends split/broken off; W 27–30mm; L 165mm+	1720-1780	further identify
215	25	Copper-alloy mount; circular with raised edge and dished centre with central circular opening flanked by pair of holes for fixing; diam. 50mm; central opening 11mm diam.	1850-1900	further identify



## **APPENDIX 7: BUILDING MATERIAL ASSESSMENT**

Amparo Valcarcel

### **Introduction and Methods**

This sizeable building material assemblage (693 examples 142.84kg) recovered from an excavation (SMMR16) was reviewed was assessed in order to:

- Identify (under binocular microscope) the fabric and forms of the Roman, medieval, post-medieval ceramic building material.
- Identify the fabric and form of whole bricks and mortar used in the post-medieval structures.
- Identify the fabric of the unworked and worked stone in order to determine what the material was made of and from where it was coming from.
- Made recommendations for further study.

The application of a 1kg mason's hammer and sharp chisel to each example ensured that a small fresh fabric surface was exposed. The fabric was examined at x20 magnification using a long arm stereomicroscope or hand lens (Gowland x10). Matches were then made with the London fabric collection as there was found to be great similarity in fabrics. Fabrics unique to Staines were prefixed with STA (*STA1, STA2 and STA3*).

### **Ceramic Building Material**

#### ***Fabrics and Forms***

The assemblage was dominated (75% by size, 44.5% by weight) by a large quantity of Roman ceramic building material, often in a broken up or fragmentary condition with much smaller amounts of medieval roofing (peg tile and curved tile) and the post-medieval brick and pan tile.

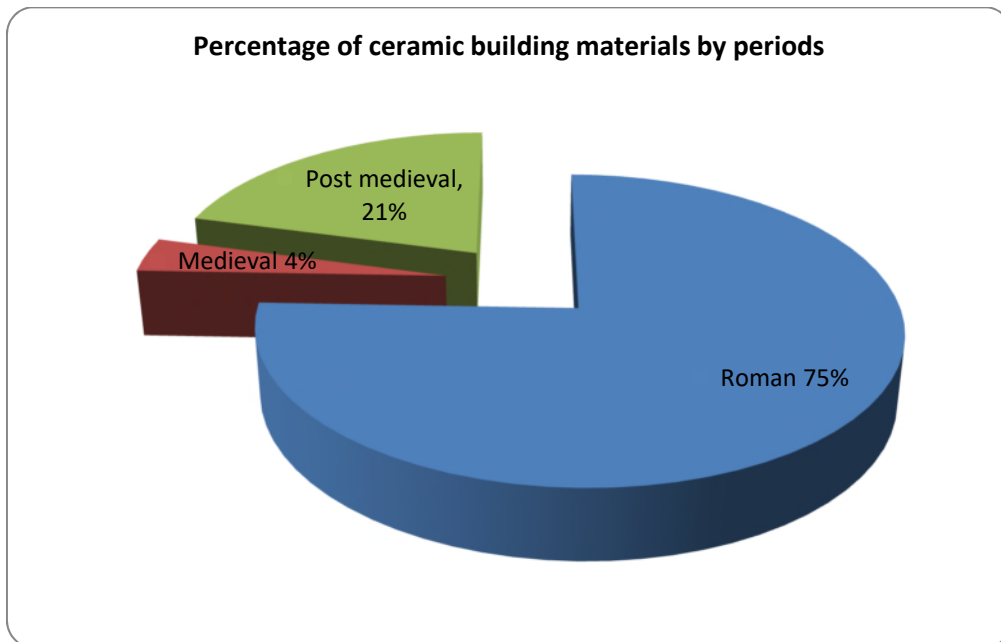


Fig. 1: Building Material percentage by periods excluding stone, daub and mortar.

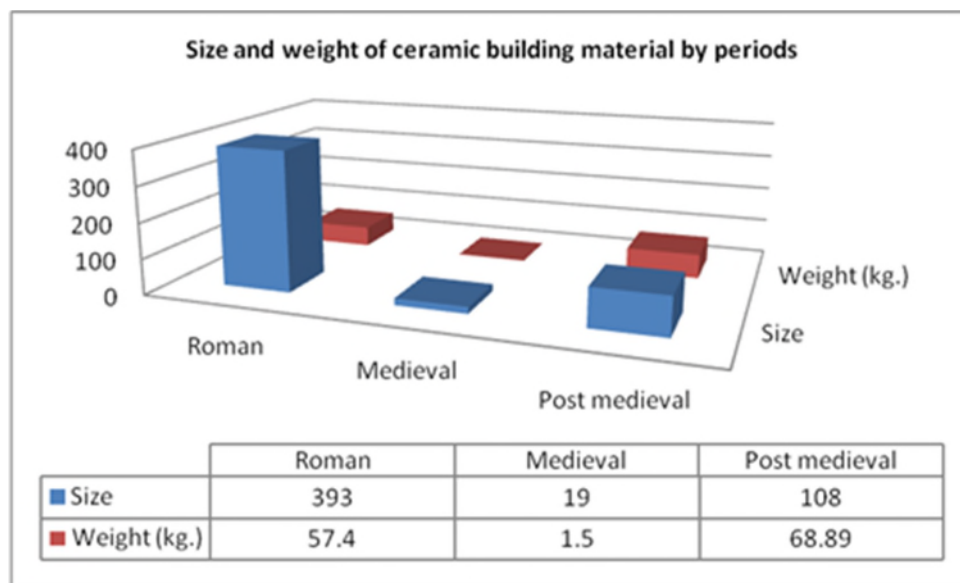


Fig. 2 Size and weight (kg.) of Ceramic Building Material by periods excluding stone, daub and mortar.

**Roman** (293 examples, 57.4kg)

The Roman assemblage from High Street Staines is largely fragmentary and which would suggest that it has been reused, dumped or both. There are a number of characteristics which mark out this assemblage. First is the near total dominance of early Roman fabrics, especially the common London sandy 2815 group (AD 50-160). Other fabrics seen in London that are present here are Eccles, Radlett and Hampshire Grog fabrics. The use of the fabric so far out of central London can only be attributed to the transportation of tile and brick by barge or boat

upstream along the Thames. This fabric clearly has precedence over local clays, which are only represented in small quantity by two silty materials STA 1 and STA 2 [14] [31] [34].

Second is evidence of an early heater system associated with the presence in the form of a knife scored and combed box flue tiles, common in the mid to late first century in central London and a possible roller stamped die [78] which cannot be matched with the existing catalogue (Betts & Black 1997). The fact that cream Eccles fabric (AD 50-80) also turns up in contexts [79] and [210] would support this.

**Medieval** (19 examples, 1.52kg)

Medieval peg tile and curved roofing tile with coarse moulding sand are occasionally found in contexts [2], [13], [67], [72], [128] and [166]; they are made from fabrics that appear similar to established London groups 2271 (1180-1450), 2586 (1180-1450), 2587 (1240-1450) and 2272 (1135-122) but are made from local clays. The medieval assemblage is reduced (19 fragments, 1.52kg.) in size and form compared to the Roman assemblage, suggesting less occupation in this period.

**Post-Medieval** (108 examples, 68.89kg)

*Transitional Bricks* (31 examples, 27.26kg)

A medium sized assemblage of brick was recovered from Phase 4, all of which were found to be from local clays of red sandy fabric (3033type, 3039type, 3046type, 3065type). From Phase 4 the amount of brick fragments recovered increases. The earliest bricks with any quantifiable dimensions came from the period 1600-1700 to 1700/1900, but the great majority of brick is dated to the first half of the 18th century or later. The largest proportion of bricks are shallow (51-56mm), wide (106-115mm) and unfrogged. Frogged and sharp arised indicate that these local fabrics were manufactured until late the 19th century or early 20th century.

*Peg tile*

*2276type* (1480-1900), (47 examples, 6.67kg)

The abundant post-medieval sandy peg tile fabric is ubiquitous throughout the site; attesting to extensive later post-medieval red roofing tile development in this part of Staines.

*2279 Pan tile* (1630-1850), (12 examples, 2.78kg)

The fashion for using curved, nibbed pan tile to roof housing only became important from the second half of the mid-17th century onwards.

*Floor tile (2 examples, 1.95kg)*

*2850L (1450-1800)*

Two examples of unglazed Flemish silty floor tiles were recovered from context [128]. The examples are well made and have sharp arises, indicating a late production (1600-1800).

*Bricks*

*3036, Flemish, cream-yellow hard bricks of uniform colour and texture (1600-1800)*

As well as construction bricks it was not surprising to find later post-medieval paving bricks, such as the yellow-green small Dutch paver 3036 from the fill of a tanning pit [109].

*3032R (1666-1900) Post Great Fire purple clinker rich fabric (10 examples, 16.98kg)*

From the Phase 4 structures are examples of purple post Great Fire bricks, yellow late 18th century-mid 20th century estuarine bricks and well-made red Victorian sandy bricks. The largest proportion of bricks are wide, frogged, well made and with sharp arises, indicating machine manufacture. The presence of these bricks shows a phase of redevelopment in the mid-19th century and probably earlier.

*STA03 (3 examples, 8.19kg)*

Some local fabric brick examples made of orange sandy matrix with red iron oxide and yellow pellets were also present on the site. These bricks are well made, frogged and with sharp arises, typical of a Victorian build.

*3261 Gault brick (1 example, 1.76kg)*

Gault clay when fired produces a smooth heavy yellow clay brick which was widespread in the Victorian period. It became popular in the 18th century, particularly in the latter part when red brick fell out of fashion.

*Daub 96 examples, 3.33kg*

The use of mudbrick seems to have been less common than daub, although abraded fragments are not always easy to distinguish from daub. Three mud bricks were recovered from contexts [183], [101] and [224]. The mud-brick is made of orange-grey firing clay with abundant coarse sand. The bricks ranged in thickness from 49 to 60mm, but no complete dimensions could be recorded. Walls probably combined bricks and tiles with mud bricks or

daub and with stones to level foundations. From contexts [164] and [201] was collected a large group of burnt clay, maybe associated with a hearth.

In general, it was not possible to determine if the daub came from a wall, oven or other structural object.

## Stone

Five rock-types were identified from the assemblage; the geological character, form and use of these are summarised below.

3105 Kentish Ragstone/Hassock stone hard dark grey calcareous sandstone (Kent Ragstone); – Glaucontic sandstone (Hassock stone) - Hythe Beds. Lower Cretaceous (Lower Greensand) Maidstone area, North Downs. 1 example 520g.

An example of ragstone paver was recorded in later Phase 4 from the tanning pit's fill [119] derived from an earlier masonry structure in the vicinity.

3108 York stone Banded green micaceous sandstone, Elland Flags, Namurian, Yorkshire 1 example 3.5kg.

Slabs of York stone associated with 18th- and 19th-century use turn up in a 19th-century pit [105].

3116 Chalk Fine white micritic limestone. Upper Cretaceous Chalk Thames Valley. 2 examples 1.83kg.

Two chunks of chalk rubble were recorded from Victorian pit fills [54] and [101].

3117 Flint. Grey chemically precipitated siliceous rock with conchoidal fracture. Upper Cretaceous Chalk Thames Valley. 1 example 40.7kg.

Walling nodule of this robust locally available sedimentary rock was recovered from a Victorian Phase 4 pit fill [101].

3143 Barnack stone Middle Jurassic (Bajocian) Cambridgeshire, 1 example, 418kg.

One freestone identified and used mainly in later Roman London was the very shelly spar rich oolitic limestone Barnack stone (Middle Jurassic – Bajocian Cambridgeshire). This stone was either used in sarcophagi or monumental architecture (Hayward 2015) and chunks were identified in Phase 2 context [143].

## Mortar

Mortar/ Concrete Type	Description	Use at TBF10
T1	<i>Opus signinum</i> : Pink hard Roman cement with inclusions of red Roman	Recorded from fills and different layers [31][67][78][143][145][146][196][210] and

Mortar/ Concrete Type	Description	Use at TBF10
	brick and tile. (AD 50-400)	always associated with early Roman sandy fabrics.
T2	White Lime mortar (1600-1800)	Post-medieval mortar attached to bricks 3046 and peg tile 2279 from [109] and [128]
T3	Yellowish hard mortar (1700-1900)	Associated with post-medieval STA03, 3046 and 3032 bricks [157][223]
T4	Very green hard concrete (1800-1900)	This late post-medieval and modern concrete was used to bond frogged machine bricks 3032

## Distribution

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
0	2452	Abraded early Roman Brick	1	55	160	55	160	55-160	No mortar
2	2271;2587L	Medieval local and London peg tiles	6	1180	1800	1180	1800	1240-1500	No mortar
10	2452;2279	Early Roman bricks; Post-medieval pan Tile	4	50	1850	1630	1850	1630-1850+	No mortar
13	2271L; 2815	Medieval curved tile; Roman sandy tile	2	50	1800	1180	1800	1180-1450+	No mortar
14	STA1	Silty local <i>tegulae</i>	1	50	400	50	400	50-400	No mortar
17	3046	<b>Local red Victorian brick (frogged)</b>	1	1450	1900	1450	1900	1825-1900	<b>No mortar</b>
31	2452;3104; STA1;3104	Early Roman sandy and local silty fabrics, <i>opus signinum</i>	3	50	400	55	400	55-400	50-400
34	STA2; 2815	Roman sandy and local fabric	3	50	400	50	400	50-400	No mortar
52	2452; 2459a;3006; 2815; 3023;3102	Daub, Roman sandy and Radlett fabrics (inc. combed box flue tile)	50	1500 BC	1666	1500BC	1666	55-160+	No mortar
56	3104; 2459a;2452; 2815	<i>Opus signinum</i> and Roman tile, bricks and <i>tegulae</i> small flange profile	7	50	160	50	160	55-160+	55-160+
61	2815	Roman sandy tiles	3	50	160	50	160	50-160+	No mortar
64	2815;3006	Roman sandy tile and imbrex	5	50	160	50	160	50-160+	No mortar
67	2815;2459a; 3006;2452; 3104;2271	Early Roman sandy fabrics (incl. scored box flue), <i>opus signinum</i> , medieval peg tile	9	50	1800	1180	1800	1180-1450	50-400 (Residual)
69	2452	Early Roman sandy imbrex	1	55	160	55	160	55-160	No mortar
72	2272	Early medieval peg tile	1	1135	1220	1135	1220	1135-1220+	No mortar

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
78	2815;3006; 3116;3104	Early Roman sandy fabrics, (incl. possible roller stamped box flue tile), lump of chalk rubble; <i>opus signinum</i>	8	50	160	50	160	50-160+	50-40
79	2815; 2459a; 2454;3054; 3006	Early Roman sandy, Eccles and Hampshire Grog fabrics (incl. box flue tile)	12	50	160	55	160	70-160	50-400
80	2452	Early Roman sandy <i>tegula</i> and tile	2	55	160	55	160	55-160	No mortar
85	2276	Early post-medieval peg tile	2	1480	1900	1480	1900	1480-1700	No mortar
101	3102;3023; 2586;3046; 2276;3116; 3117	Mud brick; early Roman Radlett tile; post medieval red sandy paver and peg tiles; Chalk and flint (rubble)	9	1500 BC	1900	1480	1900	1600-1800	No mortar
<b>103</b>	<b>3046;3032</b>	<b>Post medieval and post Great Fire frogged bricks, Mortar type 4</b>	<b>2</b>	<b>1450</b>	<b>1900</b>	<b>1666</b>	<b>1900</b>	<b>1850-1900</b>	<b>1850-1900</b>
<b>105</b>	<b>3032;3108</b>	<b>Post Great fire frogged brick; Yorkstone paver; Mortar type 4</b>	<b>1</b>	<b>50</b>	<b>1900</b>	<b>1666</b>	<b>1900</b>	<b>1800-1900</b>	<b>1800-1900</b>
<b>107</b>	<b>3046;3032</b>	<b>Post-medieval red sandy pavers; post Great fire frogged bricks</b>	<b>4</b>	<b>1450</b>	<b>1900</b>	<b>1666</b>	<b>1900</b>	<b>1850-1900</b>	<b>No mortar</b>
109	2452;3046; 3036; 3101PM	Early Roman sandy <i>tegula</i> ; post-medieval red sandy brick; Dutch brick; Mortar type 2	5	50	1900	1450	1900	1600-1800	1600-1800
117	2459a	Early Roman sandy tile	1	50	160	50	160	50-160	No mortar
119	3046;3065; 2279;3032; 3105	Post-medieval sandy red bricks; post-medieval pan tiles; post Great Fire brick; Kentish ragstone paver	1	1450	1900	1666	1900	1780-1900	No mortar
122	2279	Post-medieval pan tile	1	1630	1850	1630	1850	1630-1850	No mortar
128	2586;2276; 2279;3039; 3046;3065; 2850	Medieval/post-medieval peg and pan tiles; post-medieval red sandy bricks; Flemish paver; Mortar type 2	34	1180	1900	1450	1900	1630-1800	1600-1800
131	2459a;2452	Early Roman sandy	2	50	160	55	160	55-160	No mortar

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
		tile and brick							
135	2459a;3006	Early Roman sandy tiles	2	50	160	50	160	50-160	No mortar
137	UNK;3101PM	Small fragments made of sandy fabrics; Mortar type 2	46	50	1900	50	1900	1600-1800+	1600-1800
141	2452;3046	Early Roman sandy <i>tegula</i> ; post-medieval sandy red brick	2	55	1900	1450	1900	1600-1800	No mortar
142	3006;2452	Early Roman sandy combed box flue tile, <i>imbrex</i> and tile	4	55	160	55	160	55-160	No mortar
143	2459a;2452; 3101R;3104; 3143	Early Roman sandy fabrics; <i>opus signinum</i> and <i>caementicium</i> ; Barnack stone rubble	8	50	400	50	400	200-400+	55-160+
144	2459a	Early Roman sandy <i>tegula</i>	1	50	160	50	160	50-160	No mortar
145	3102;2459a; 2452;3104	Abraded daub; early Roman sandy fabrics; <i>opus signinum</i>	15	1500 BC	1666	1500BC	1666	55-160+	55-160+
146	3102;2459a; 3006;2452; 2815;3101R; 3104	Abraded daub; early Roman sandy fabrics (incl. combed and scored box flue tiles); <i>opus signinum</i> and <i>caementicium</i>	41	1500 BC	1666	1500BC	1666	55-160+	55-160+
152	2459a;3006; 2452	Early Roman sandy fabrics (incl. combed box flue tile)	12	50	160	55	160	55-160	No mortar
154	2276	Post-medieval peg tile	1	1480	1900	1480	1900	1450-1900	No mortar
<b>157</b>	<b>3046;3101PM</b>	<b>Post-medieval sandy red bricks Mortar type 3</b>	<b>2</b>	<b>1450</b>	<b>1900</b>	<b>1450</b>	<b>1900</b>	<b>1700-1900</b>	<b>1700-1900</b>
164	3102;2452	Burnt clay; early Roman sandy bricks	17	1500 BC	1666	1500BC	1666	55-160+	No mortar
166	2459a;2452; 2586;2276; 3033;3039; 3046;3065	Early Roman sandy fabrics; medieval/post-medieval peg tiles; post-medieval sandy red bricks	18	50	1900	1480	1900	1700-1900	No mortar
168	2459a;2586; 2276	Early Roman sandy brick; post-medieval peg tiles	4	50	1900	1480	1900	1480-1900	No mortar
173	3006;2452; 2276	Early Roman sandy fabrics; post-medieval peg tiles; Mortar type 3	6	50	1900	1480	1900	1700-1900	1700-1900
175	2452;3023; 2453	Early Roman and sandy tiles; late Roman calcareous tile	5	50	300	140	300	140-300	No mortar



Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
179	2459a;2452	Early Roman sandy fabrics	13	50	160	55	160	55-160	No mortar
181	2459a	Early Roman sandy brick	1	50	160	50	160	50-160	No mortar
183	3102;2459a; 2452;3023	Mud brick; early Roman sandy and Radlett fabrics	33	1500 BC	1666	1500BC	1666	55-160+	No mortar
185	2459a;2452	Early Roman sandy tile and <i>tegula</i>	2	50	160	55	160	55-160	No mortar
187	2459a;2586; 2276;2279; 3101PM	Early Roman sandy <i>imbrex</i> ; post-medieval peg and pan tiles; Mortar type 3	11	50	1900	1480	1900	1630-1900	1600-1800
189	2459a;2452; 2815;3023; 3101R	Early Roman sandy and Radlett fabrics (incl. combed box flue tile); <i>opus caementicium</i>	24	50	250	50	250	55-160+	55-160+
196	2459a;3006; 2452;3104	Early Roman sandy bricks and tiles; <i>opus signinum</i>	26	50	160	55	160	55-160	55-160
199	3006;2452	Early Roman sandy fabrics	5	50	160	55	160	55-160	No mortar
201	3102	Burnt clay (from a hearth?)	66	1500 BC	1666	1500BC	1666	50-400+	No mortar
205	3102;2459a; 3006;2452; 3023	Abraded daub; early Roman sandy and Radlett fabrics	10	1500 BC	1666	1500BC	1666	55-160+	No mortar
207	2459a;2452; 3006	Early Roman sandy fabrics	6	50	160	55	160	55-160	No mortar
209	UNK	Small sandy fabric fragments	1	50	400	50	400	50-400	No mortar
210	2454;2459a; 3006;2452; 2815;3104	Early Roman Eccles and sandy fabrics (inc. box flue tile); <i>opus signinum</i>	19	50	160	55	160	55-160	55-160
212	2452;2815	Early Roman sandy bricks and tiles	4	50	250	50	250	55-160+	No mortar
214	2459a;2452	Early Roman sandy fabrics (incl. combed box flue tiles)	15	50	160	55	160	55-160	No mortar
216	2452	Early Roman sandy <i>tegula</i> and brick	3	55	160	55	160	55-160	No mortar
219	3102;2459a; 2452;2815; 3023	Overheated clay (from an oven?); Early Roman sandy fabrics (incl. scored and combed box flue tiles)	31	1500 BC	1666	1500BC	1666	55-160+	No mortar
220	2459a;2452; 2815;3023	Early Roman sandy and Radlett fabrics	11	50	250	50	250	55-160+	No mortar
221	3046;3032	Post-medieval and post Great Fire bricks	2	1450	1900	1666	1900	1700-1850	No mortar

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
223	3032;STA3; 3101PM	Post Great Fire bricks; local post-medieval brick; Mortar type 3	2	1666	1900	1666	1900	1700-1900	1700-1900
224	3102;STAI3; 3261	Mud brick; local sandy brick; Gault brick	5	1500 BC	1950	1800	1950	1825-1900	No mortar
225	3046;3032; STA3	Post-medieval sandy red, local frogged and post Great Fire bricks	4	1450	1900	1666	1900	1780-1900	No mortar
226	3102;2452	Abraded daub; early Roman sandy tegula and tiles	9	1500 BC	1666	1500BC	1666	55-160+	No mortar

### Phasing

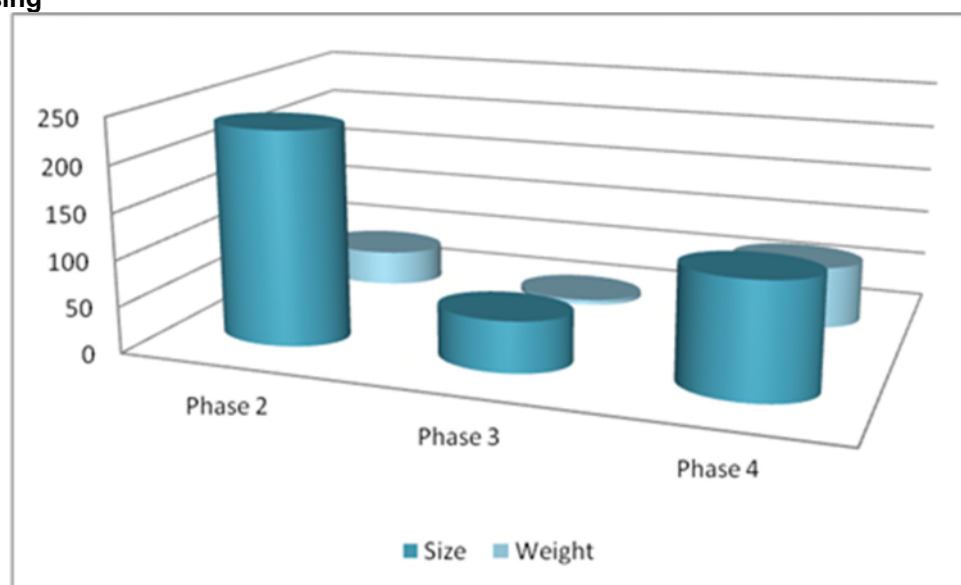


Fig. 3: Comparative phases size and weight (kg) of the ceramic material and stone from different phases

#### Phase 2 (Roman)

A large quantity of Roman ceramic building material was recovered from the site amounting to more than 40kg. All the material was collected from dump and fill deposits. The condition of the material is generally good, although most of them are abraded. The London red sandy 2815 group is the most common fabric with just four fragments of the early yellow Eccles, Hampshire grog and Radlett fabric. Forms noted in the assessed material, included standard types such as brick (determined by thickness rather than form) and roof tile (both *imbrices* and *tegulae*). To a lesser extent other types were also recovered as scored and combed box flue tile, commonly associated with heating systems. No forms had complete dimensions.

Small and abraded fragments of mud brick show the presence of a daub structure in the vicinity. Burnt clay from [201] probably came from a hearth.

### Phase 3 (Medieval)

There is a reduction in the quantity of building material recovered from Phase 3 (55 fragments, 5.2kg). All the material collected from medieval contexts was early Roman, including two combed box flue tiles.

### Phase 4 (Post-medieval)

A medium sized assemblage of building material was recovered from Phase 4 (123 fragments, 82.3kg). Roman ceramic material represents only 13% by size of the assemblage from Phase 4. All the medieval material was recovered from this post-medieval phase. Bricks represent 81% by weight, made from different fabrics (3032, 3033, 3036, 3046, 3039, 3065, 3261). Some bricks, peg and floor tiles show an early post-medieval development of the area, dated 1600 to 1800, although no structures of this date are preserved. Later bricks are associated with an increase in demand for bricks with the expansion of the population in this area in the late 19th century, related to a diversification and expansion of industry. Frogged and machine bricks are more common and are bonded with hard mortars or concrete.

Two different roofing tiles fabrics (2276 and 2279) and forms (pan and peg tiles) suggests the existence of different roof coverings in the area (43% of the post-medieval building ceramic material). Two examples of early post-medieval Flemish unglazed floor tile made of 2850 were also recorded [128].

The stone found on site is related to this post-medieval phase. The availability of paving sandstone from North Britain probably relates to greater ease of access by the railways. The presence of Kentish ragstone, chalk and flint rubble would suggest the demolition of a stone masonry wall. The date range of these stones types are wide, so if it is not possible to create a precise chronology.

Eight different structures (wells, drains, tanning pits) were preserved from Phase 4. All these structures are dated to the 19th century, although bricks from [221] and [223] are possibly earlier, maybe 18th century. The fabrics used in the structures are mainly post Great Fire bricks, especially 3032, bonded with a hard concrete.

## Review

The value of this medium building material assemblage (555 examples 140.08kg) from the excavation at High Street, Staines lies partly in its ability to date the early Roman, medieval and post-medieval layers. The dominance of Roman Ceramic Building Material (74%) largely

reflects Staines importance as a small Roman town by the Thames. The great similarity in fabrics between Staines and *Londinium* would suggest that river transportation of tile and brick was important. What is more there are a number of items of early heated room cavity walling including an early scored and combed box flue tie and a roller stamped design suggesting proximity to such a structure. The medieval and post-medieval fingerprint is by contrast much less significant.

### **Recommendations**

The building material assemblage very much reflects the development of Roman Staines. This includes examples of early heating system material with one item of particular intrinsic interest namely a roller stamped design box flue where no match could be made with the Black and Betts Corpus (1997). This snapshot of Roman Staines has also revealed a great deal about the fabrics in circulation, with London sandy fabrics prevalent this far west of the provincial capital. No further work is recommended.

### **Bibliography**

Adam, J.P., 2001. *Roman building: Materials and techniques*. London. Routledge.

Betts, I.M., Black, E.W. and Gower, J.L., 1997. *A Corpus of Relief-Patterned Tiles in Roman Britain*. Journal of Roman Pottery Studies 7. Oxbow Books.

Hayward, K.M.J., in prep. 'The building materials', in J. Taylor and V. Ridgeway (eds.), *A Bath House, Settlement and Industry on Roman Southwark's north island: excavations along the route of Thameslink Borough Viaduct*. Thameslink Monograph 1. Oxford Archaeology-Pre-Construct Archaeology

## **APPENDIX 8: ANIMAL BONE ASSESSMENT**

Kevin Rielly

### **Introduction**

This site was situated in the central part of Staines, on the western part of the junction of the High Street and Mustard Mill Road. A large number of evaluation trenches were excavated within an area measuring some 50 by 100m, then followed by three larger mitigation trenches located in the southern part of the study area. The combined excavations produced evidence for Roman, medieval and post-medieval occupation, all three represented by ground consolidation deposits, the medieval levels including various features associated with properties fronting onto Staines High Street, this continuing into the 17th century. This was followed by the 18th-century presence of one or more tanyards in this area, reverting back to domestic usage sometime in the 19th century.

Animal bones were found throughout the evaluation and mitigation trenches, the former already described in a previous report (Rielly 2017a). These are represented within each of the aforementioned occupation periods, although in particular within the medieval and post-medieval levels. The great majority of the bones were hand collected, the remainder derived from a series of bulk samples.

### **Methodology**

The bone was recorded to species/taxonomic category where possible and to size class in the case of unidentifiable bones such as ribs, fragments of longbone shaft and the majority of vertebra fragments. Recording follows the established techniques whereby details of the element, species, bone portion, state of fusion, wear of the dentition, anatomical measurements and taphonomic including natural and anthropogenic modifications to the bone were registered. The sample collections were washed through a modified Siraf tank using a 1mm mesh and the subsequent residues were air dried and sorted.

### **Description of faunal assemblage**

This site provided hand collected total of 514 fragments accompanied by 206 fragments taken from 9 bulk samples. All but a small proportion of these bones were phased (as shown in Table 1), where Phase 1 is natural, Phase 2 is Roman, Phase 3 is medieval and Phase 4 is 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 alongside a small number dated to the 17th century. However, the latter may also be residual (see below).

Phase:	1	2	3	4	UD	Total
<b>Area/Trench</b>						
<b>N</b>						
5			1			1
12			1			1
13			5	20		25
14				4		4
15			7			7
16				1		1
17				6		6
18	5		1			6
<b>S</b>						
1		1				1
2			57			57
4		3				3
7			4			4
8			3			3
10			1			1
21		14	23	75		112
23		81	82	115		278
<b>N/S</b>					4	15
<b>Grand Total</b>	<b>5</b>	<b>99</b>	<b>185</b>	<b>221</b>	<b>4</b>	<b>514</b>

Table 1: Distribution of hand collected bones by phase (UD is unphased), trench and general area, where N is north and S is south, the latter occupying the area south of Trenches 5 and 9.

Phase:	1	2	3	4	UD	Total
<b>Area/Type</b>						
<b>N</b>						
Tanning pit			7	20		27
Pit/Ditch				1		1
Construction			1			1
Layer	5		5	9		19
Natural			2	1		3
<b>S</b>						
Pit			23	87		110
Tanning pit				18		18
Ditch		96	124			209
Gully		3	2			5
Construction				43		43
Robber			1			1
Well				24		24
Other cut feature			5	18		23
Layer			15			15
<b>N/S</b>						
Layer					4	4
<b>Grand Total</b>	<b>5</b>	<b>99</b>	<b>185</b>	<b>221</b>	<b>4</b>	<b>514</b>

Table 2: Distribution of hand collected bones by phase (UD is unphased), general area and type of deposit.

Tables 1, 2 and 3 illustrate the distribution of the bones and, as can be seen, faunal material was found within most of the evaluation (1-20) and later mitigation trenches (21-23). As an aid

to interpretation, the site has also been divided into two halves (a northern and a southern, the latter to the south of Trenches 5 and 9). Most of the bone was taken from the southern trenches and in particular from the mitigation excavation.

The great majority of the bones in 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, in all suggesting a relatively rapid rate of burial with little disturbance.

Phase:	1	2	3	4	Total
<b>Trench/Type</b>					
21					
Ditch			44		44
Layer		13			13
Pit		71			71
22					
Layer		27			27
Pit		12			12
23					
Construction				16	16
Ditch		1			1
Other cut feature	22				22
<b>Grand Total</b>	<b>22</b>	<b>124</b>	<b>44</b>	<b>16</b>	<b>206</b>

Table 3: Distribution of sieved bones by phase, trench (all in the southern half of the site) and type of deposit

#### Natural (Phase 1)

Five hand collected bones were retrieved from a layer in Trench 18 and 22 from a bulk sample taken from a natural feature in Trench 23. These amounted to a few cattle, sheep/goat and pig bones from the former and a few cattle fragments but principally a concentration of cattle-size indeterminate pieces from the latter.

#### Roman (Phase 2)

A somewhat more substantial assemblage comprising, all taken from features in the southern half of the site (Tables 1 and 3). These were in particular retrieved from the fills of ditch [147] in Trench 23 (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) alongside a humerus and a metatarsus possibly from the same adult red deer. These were found within the fill [143] of gully [149] in Trench 23. The sieved collection provided a single fishbone (Table 5), unfortunately unidentifiable to species. In addition there were a few equid bones, with five out of seven fragments retrieved from ditch

[147]. These may conceivably represent the remains of a single adult individual, this providing a shoulder height (from a complete metacarpus and using von den Driesch and Boessneck 1974) of 1351.9mm, i.e. medium pony-sized.

<b>Area:</b>	<b>All</b>				<b>S</b>			
<b>Phase:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>2</b>	<b>3</b>	<b>4</b>	
<b>Species</b>								
Cattle	1	50	47	160	48	45	139	
Equid		7	4	4	5	4	1	
Cattle-size	1	26	56	21	23	52	19	
Sheep/Goat	2	7	38	18	5	36	16	
Sheep			1			1		
Pig	1	6	10	2	4	9	1	
Sheep-size			21	8		21	7	
Red deer		2			2			
Dog			7	3		1	2	
Rabbit				1			1	
Small mammal				2			2	
Chicken				2			2	
Goose-size								
Mallard		1	1		1	1		
<b>Grand Total</b>	<b>5</b>	<b>99</b>	<b>185</b>	<b>221</b>	<b>88</b>	<b>170</b>	<b>190</b>	

Table 4: Hand collected species representation by phase, comparing the combined data to that from the southern (S) part of the site.

<b>Phase:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Species</b>				
Cattle	2	1		1
Cattle-size	20	91	15	15
Sheep/Goat		3	5	
Pig		2		
Sheep-size		17	22	
Chicken-size		2	2	
Amphibian		5		
Small rodent		2		
Uniden fish		1		
<b>Grand Total</b>	<b>22</b>	<b>124</b>	<b>44</b>	<b>16</b>

Table 5: Sieved species distribution by phase

### Medieval (Phase 3)

There was a relatively wide distribution of medieval levels with animal bones. However, this collection was principally derived from just three trenches, namely Trench 13 in the north and, in particular, from the two mitigation Trenches 21 and 23 in the south. As with the previous phase, the bone was mainly recovered from cut features, in this case mostly from pits and ditches. Of interest is the recovery of a small collection within the northern Trench 15 described as part of a horncore lining of a possible tanning pit. Given the better representation of such features and indeed of such skull fragments in Phase 4, it is perhaps



more likely that this feature should also be placed within this later phase. Notably this feature provided just one potsherd dated to the 11th/12th centuries. However, no horncores were recovered from this 'lining' suggesting these were rather taken from the fill and perhaps the possibility that the contents of the actual lining were not deemed worthy of recovery.

Unlike the previous phase, the various collections provided an identifiable portion mainly composed of roughly equal proportions of cattle and sheep/goat, accompanied by a minor quantity of pig, equid, dog and again mallard. Both the cattle and sheep/goat collections are composed of a wide variety of skeletal parts. There is a notable proportion of age and size data amongst these assemblages, cattle providing a minor quantity of very young amongst a majority of adult individuals, the former clearly indicative of local breeding. Dog bones were mainly found in northern trenches, specifically 3 each from Trenches 13 and 15 (out of 7 bones). Amongst these, the first is probably a partial articulation of an adult individual comprising a lumbar vertebrae, sacrum and pelvis. All four equid bones were found in Trench 2, with two each in layer [78] and ditch fill [52]. It is conceivable that they may be part of the same individual, with a loose incisor from the former and a mandible from the latter suggestive of one or more animals aged up to 20 years and at least 15 years respectively (ages after Goody and Levine 1982).

#### Post-medieval (Phase 4)

17th-century deposits provided a minor proportion of the bones from this phase, here including the tanpit [110] (Trench 23) and layer [2] in Trench 17. It is conceivable that the latter deposit may indeed be early post-medieval, although it is rather high in the stratigraphic sequence. However, the tanpit is more likely to date to the 18th/19th centuries. This date range accounts for the great majority of the bone-bearing deposits within this phase, here including at least two other tanpits. Notably, a principal aspect of this late assemblage and indeed of several of the cut features is a preponderance of cattle bones and these in turn mainly composed of head parts, especially horncores (see Table 6). The juxtaposition with tanpits 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 the feet still attached. These parts would be removed from the hide at this point, the horns 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 (see Serjeantson 1989, 132 and 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 hornshead, had been sent on to the hornworker, the cores being dumped as waste products within some convenient feature. An alternative explanation is that they may represent disused horncore linings, often used as a constructional part of pits and sometimes drains. However, the good preservation of these parts and the absence of clay on the bones (linings often involved a mixture of horns held in

place with fine clay) would suggest otherwise. In addition, several horncores include much of the nuchal part of the skull (the frontal area between the horns), which would generally be removed when using such items for building purposes (note for example the horncores shown lining a pit at 211 Long Lane, London Borough of Southwark in Rielly 2011, 165).

A total of 117 cattle horncores were recovered, 72 of which are basal ends (where the horn attaches to the skull) and 15 are complete, all of which have provided size data. In addition 40 of these horncores are accompanied by at least half of the nuchal area. These include a wide variety of sizes and shapes (the nuchal area), allowing for a thorough review of the 'types' of cattle represented (here following Armitage 1982 and see Rielly forthcoming).

The other cattle and domesticate bones are suggestive of general food waste tipping, the species range now also including rabbit and chicken.

### **Conclusions and statement of potential**

This site provided a moderate quantity of bones and generally in good condition. The dating evidence for the latter two periods is certainly well defined, with the possible exception of a 'medieval' and an 'early post-medieval' tanpit which may be better placed amongst the later 18th- and 19th-century occupation levels. In addition, there is some residuality amongst the Roman collections although perhaps not sufficiently so to warrant a diminishment of their potential value. The Roman collection is clearly rather small but it does conform to the generally cattle-rich urban collections seen elsewhere in late Roman Britain (as originally documented in King 1978). It is also of interest that this collection includes red deer, which may be suggestive of high status, here following Cool (2006, 116) and see Rielly (2005, 166-7). In other respects, concerning exploitation practices or animal size, this Roman collection can be viewed as of limited value.

The larger medieval collection offers a greater quantity of data, which should allow for a review of domesticate exploitation and size. However, any interpretation would again be limited due to sample size. Clearly, the next phase, dated to the later post-medieval era, offers the greatest potential for further work. This is essentially related to the industrial/craft waste comprising a concentration across the site, but especially in the southern part, of cattle horncores and their associated skull parts. As well as indicating the local presence of a tanyard, in combination with the stratigraphic evidence, these bones can also be used to provide information on the 'type' or more likely 'types' of cattle being imported to Staines during this period. There is also the extensive butchery evidence, indicative of the methods used to produce the raw materials for this industry.

A final point concerns the absence of fish and indeed the poor representation of domestic birds throughout these collections. This is particularly enigmatic when the good condition of the bones is considered as indeed is the relatively good recovery, hand collection augmented by the taking of several bulk samples. No obvious explanation can be suggested, although in

the case of the later collections, it can be proposed that the major proportion of the material was derived from local tanyards with a minimal input of domestic waste.

It is recommended that the assemblages from each of the three major occupation periods are worthy of further work. Information from the first two phases will essentially relate to food preferences and provision related to the current exploitation practices in turn related to meat demand; while the later material can provide evidence related to the organisation of the local tanning industry including data on the 'types' of cattle providing the necessary raw materials. It will of course be important to compare the individual phase data with relevant contemporary collections, however, there is a relative dearth of excavations in this area with suitable animal bone assemblages. One recent example was excavated near Hawthorne Road in Staines which provided just 16 fragments, generally dated to the Roman era (Rielly 2017b).

## **Bibliography**

Armitage, P.L., 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 and S. Payne (eds), *Ageing and sexing animal bones from archaeological sites*. British Archaeological Reports British series 109, 37-54.

Cool, H.E.M., 2006. *Eating and Drinking in Roman Britain*. Cambridge.

Driesch, A. von den and Boessneck, J.A., 1974. 'Kritische Anmerkungen zur Widerristhöhenberechnung aus Längenmaßen vor- und frühgeschichtlicher Tierknochen'. *Saugetierkundliche Mitteilungen* 22, 325-348.

Goody, P.C., 1983. *Horse anatomy. A pictorial approach to equine structure*. London.

King, A.C., 1978. 'A comparative survey of bone assemblages from Roman sites in Britain'. *University of London, Institute of Archaeology Bulletin* 15, 207-32.

Levine, M., 1982. 'The use of crown height measurements and eruption-wear sequences to age horse teeth', in B. Wilson, C. Grigson and S. Payne (eds.), *Ageing and sexing animal bones from archaeological sites*, British Archaeological Reports British series, 223-250.

Rielly, K., 2005. 'The animal remains', in B. Yule, *A prestigious Roman building complex on the Southwark waterfront, Excavations at Winchester Palace, London, 1983-90*, Museum of London Archaeology Service Monograph 23, 158-167.

Rielly, K., 2011. 'The leather-production industry in Bermondsey - the archaeological evidence', in R. Thomson and Q. Mould (eds.), *Leather Tanneries - the archaeological evidence*. Exeter. Archetype Publications Ltd in association with the Archaeological Leather Group, 157-186.

Rielly, K., 2017a. "The animal bone in R. Haslam, P. Jorgensen and P. Moore, *90-106 High Street, Staines-upon-Thames, Surrey TW18 4DP: An Archaeological Evaluation*. Pre-

Construct Archaeology Limited Unpublished Report, 55-58.

Rielly, K., 2017b. *Assessment of animal bone from a Watching Brief at Land to the East of Hawthorne Road, Staines, Surrey (SHRS17)*. Pre-Construct Archaeology Limited Unpublished Report.

Rielly, K., forthcoming. '18th century cattle and cattle plague pits: evidence from 1 Dickens Square, London Borough of Southwark'. *London Archaeologist*.

Serjeantson, D., 1989. 'Animal remains and the tanning trade', in D. Serjeantson and T. Waldron (eds), *Diet and Craft in Towns*. British Archaeological Reports British series 199, 129-146.

Yeomans, L., 2004. 'Spatial determinants of animal carcass processing in post-medieval London and evidence for a co-operative supply network'. *Transactions of the London and Middlesex Archaeological Society* 55, 69-83.

## APPENDIX 9: ENVIRONMENTAL ASSESSMENT

Kate Turner

### Introduction

This report summarises the findings of the rapid assessment of nine environmental bulk samples taken during the archaeological evaluation of land at 90-106 High Street, Staines. These samples were taken from a series of ditches, pits, layers and the fill of suspected palaeochannel, the context information for which is given in Table 1.

The aim of this assessment is to:

1. Give an overview of the contents of the assessed samples;
2. Determine the environmental potential of these samples;
3. Establish whether any further analysis is necessary.

Table 1: Context information for environmental samples, SMMR16

Context No.	Cut	Context type	Context category	Trench number	Phase	Interpretation
137	138	Fill	Backfill	23	4	Backfill of construction cut
148	147	Fill	Natural silting	23	2	Organic ditch fill
164	165	Fill	Backfill	21	3	Lower fill of ditch
185	228	Fill	Natural silting	23	1	Fill of possible palaeochannel
186	228	Fill	Natural silting	23	1	Fill of possible palaeochannel
196	197	Fill	Backfill	21	2	Primary fill of pit
201		Layer	Dump	21	2	Burnt layer
209		Layer	Dump	22	2	Mixed dump layer
226	222	Fill	Backfill	22	2	Primary fill of large Roman pit

### Methodology

Nine environmental bulk samples, ranging from eighteen to thirty-six litres in volume, were processed using the flotation method; material was collected using a 300µm mesh for the light fraction and a 1mm mesh for the heavy residue. The heavy residue was then dried, sieved at 1, 2 and 4mm and sorted to extract artefacts and ecofacts. The abundance of each category of material was recorded using a non-linear scale where '1' indicates occasional occurrence (1-10 items), '2' indicates occurrence is fairly frequent (11-30 items), '3' indicates presence is frequent (31-100 items) and '4' indicates an abundance of material (>100 items).

The light residue (>300µm), once dried, was scanned under a low-power binocular microscope to quantify the level of environmental material, such as seeds, chaff, charred grains, molluscs and charcoal. Abundance was recorded as above. A note was also made of any other significant inclusions, for example roots and modern plant material.

## Results and Discussion

### Residues

Preservation of environmental material in the residue was mixed. Wood charcoal was present in varying concentrations in all of the assessed samples; sample <4>, taken from a burnt refuse layer, yielded the highest concentration, with over one hundred fragments reported over a range of size categories (Table 2). Samples <31>, <32> and <37> also contained between thirty and one hundred significantly sized pieces (>4mm in length/width) from which species may be established. A small amount (<10 pieces) of preserved wood was additionally recorded in samples <31> and <35>.

Seeds were scarce in the heavy fraction; the highest concentration was recorded in sample <31>, taken from the fill of a Roman ditch, which contained a small number (<10) of weed seeds, including specimens of *Rubus* sp. (brambles), *Chenopodium* sp. (goosefoots), *Cruciata* sp. (crosswort), and *Persicaria* sp. (knotweeds). Low concentrations of *Prunus* sp. (cherries) were also found in sample <35>, and *Lathyrus* sp. (peas) in sample <37>. Sample <31> was additionally found to contain a small amount of charred cereals, in the form of recognisable grains of wheat (*Triticum* sp.) and several grains that were too heavily carbonised for species to be determined.

Six of the assessed samples contained terrestrial snail shell; sample <31> yielded the greatest abundance of material, with between thirty and one-hundred shells, including a moderately sized juvenile assemblage and a significant amount of broken shell. Sample <33> also contained a substantial concentration of the latter. The remaining samples each contained less than thirty specimens per samples, with common species including *Zonitoides* sp. and *Succinea* sp. Freshwater shells, of the genus *Planorbis* sp. were recorded in samples <31>, <33>, <34> and <35>, with sample <33> also containing a low number of specimens of *Lymnaea palustris*.

Marine shell was reported in six samples, <30>, <33>, <34>, <35>, <37> and <38>. The highest concentration was identified in sample <37>, taken from the primary fill of a Roman pit feature, which contained a small amount of oyster (*Ostrea edulis*), both complete left and right valves (<10), and fragmented shells. In the remaining samples, it was possible to recognise the fragmented shell as marine in origin, but the pieces were too small for species to be established. The presence of this material in the assessed samples is likely to indicate that oyster formed part of local diet during the Roman period.

Other environmental remains, in the form of small animal bone, large animal bone and/or fragmented bone was recovered from all of the assessed samples except for sample <36>. Samples <30> and <35> contained the greatest abundance, with the former yielding between thirty and one hundred examples of large mammalian material, and the latter containing between thirty and one hundred mammalian bone fragments. Out of large and small mammalian remains, large were the most common, being present in seven out of the nine

assessed samples.

Building material, including brick mortar and/or daub was discovered in samples <30>, <32>, <33>, <35>, <36> and <38>. Brick was the most frequently occurring and was found in five out of six samples, though concentrations were generally low (<30 pieces per sample), apart from in sample <36>, taken from a burnt dump layer, which contained a moderate amount of material. Sample <30> also contained a small amount of mortar, and sample <32> a low frequency of daub.

With the exception of sample <36>, pottery was found throughout the assemblage; none of the samples contained more than thirty fragments, with around fifty percent containing less than ten. A single bead was extracted from sample <33>, along with a small amount of glass in sample <38>.

A small amount of combustion/metalworking residue was recorded in six samples; samples <33> and <34> contained a minimal number of iron fragments, samples <32>, <35> and <38> small to moderate concentrations of hammerscale, samples <32> and <35> less than ten fragments of slag each and sample <30> a small amount of coal. Burnt flint was also reported in five deposits.

All the material collected from the heavy residue has been catalogued and passed to the relevant specialists for further assessment. A full account of the material reported is given in Table 2.

## Flots

All of the processed samples produced flots, ranging in volume from twenty-eight to five-hundred millilitres. Preservation of environmental material in this fraction was generally good across the assemblage, with moderate to abundant amounts of archaeobotanical material identified in around 80% of the sample set.

Evidence for combustion, in the form of wood charcoal, was found in all of the assessed samples; concentrations were variable across the various size categories, though all apart from sample <31> contained over one-hundred fragments in total. With the exception of sample <34>, all of the samples also contained material of a size suitable for species identification; samples <30>, <31>, <33>, <37> and <38> contained less than ten viable specimens each. Samples <31>, <34>, <35> and <37> all additionally contained preserved wood fragments.

Weed seeds were recorded in eight out of nine samples. The largest abundance and diversity of taxa was recognised in samples <31>, taken from the fill of a Roman ditch, <34>, taken from the fill of a possible palaeochannel, <35>, the fill of a Roman pit, and <37>, also taken from a pit dated to the Roman period, all of which contained at least one-hundred identifiable seeds. Common taxa included *Chenopodium* sp. (goosefoots), *Lemna* sp. (duckweeds),

*Sambucus* sp. (elder) and *Urtica* sp. (nettles), all of which were identified in at least seven samples. Specimens of particular note in sample <34> are duckweed and nettle, both of which are present in significant amounts, along with an abundance of partly damaged seeds, preliminarily identified as burnet-saxifrage (*Pimpinella major*). Sample <35> was also found to contain over one-hundred specimens of nettle, as well as substantial concentrations of dock (*Rumex* sp.) and goosefoot. The high frequency of *Carex* sp. (sedges), commonly found on damp or wet ground, in sample <37> may indicate that this deposit became waterlogged during the period of use.

Carbonized seeds were reported in four samples, <31>, <32>, <36> and <37>. <31> and <37> both contained minimal numbers (<10), however samples <32> and <36> yielded moderate to high densities of material, across a relatively wide range of taxa. Sample <32>, taken from the lower fill of a medieval ditch feature, contained specimens from at least twenty-two genera, with principal types reported as large and small grasses (*Poaceae* sp.), medicks/melilots (*Medicago* / *Melilotus* sp.), peas (*Fabaceae* sp.) and goosefoots (*Chenopodium* sp.). A proportion of seeds in this sample were too heavily carbonised for type to be determined using rapid assessment techniques; a more in-analysis would be required for species to be identified. Sample <36>, taken from a burnt dump layer dated to the Roman period, contained a lower frequency and diversity of material than sample <32>, with less than one hundred seeds observed overall. Principal taxa in this deposit were stinking chamomile (*Anthemis cotula*), goosefoot, small and large grasses and vetches/peas (*Vicia* / *Lathyrus* sp.).

Along with charred weed seeds, samples <32> and <36> contained a significant number (>100) of carbonised cereal grains. An abundance of wheat (*Triticum* sp.), including specimens of bread wheat (*Triticum aestivum* and *Triticum aestivum* subsp. *spelta*), was recorded in both samples, along with moderate to abundant frequencies of barley (*Hordeum* sp.). Both samples also contained a small amount (<30 grains) of rye (*Secale cereale*), with possible specimens of oat (*Avena sativa*) additionally observed in sample <32>. A substantial number of grains were reported that were too heavily fragmented or charred for species to be established, likely because of prolonged or high temperature combustion. Samples <30>, <31>, <35> and <38> also yielded a low frequency of wheat grains, though none contained enough to produce a significant assemblage (>100 grains). Sample <32> contained a moderate amount of burnt chaff remains potentially from the early stages of crop processing, including nodes, inter-nodes and stem fragments, which may indicate that large scale cereal processing and consumption could have been carried out in the locality during the medieval period. The proportion of charred weed seeds in this sample may partially support this hypothesis.

In terms of further archaeobotanical material, samples <31>, <33>, <35> and <37> all contained large concentrations of heavily fragmented plant matter, likely to have been preserved as a result of the depositional environment in these features (largely waterlogged



or significantly moist). Samples <33>, <35> and <38> also yielded a small amount of modern plant material, including mosses and grasses, which could have become incorporated during the excavation process, or may be a sign of bioturbation.

With the exception of sample <36>, molluscs were recorded throughout the sample set. The highest density was found in samples <31>, <33> and <34>, all of which contained more than one hundred adult specimens. Shells of the freshwater species *Planorbis* sp. were most frequent in these samples, though terrestrial genera were also present, indicating that these deposits may have become significantly waterlogged for at times, though not constantly, during the period of use. Sample <37> also contained a moderate number of freshwater shells, suggesting changes in hydrology within this deposit. Aside from *Planorbis* sp., the most commonly observed species across the assemblage was *Vallonia* sp., which was recorded in eight samples. Substantial juvenile assemblages were reported in around 65% of the assessed samples, as well as varying frequencies of fragmented shell, that could not be identified.

With regard to other ecofacts; low frequencies (<10 pieces) of small animal/amphibian skeletal material was discovered in four of the assessed samples, along with a small amount of fish bone and/or scales in samples <32>, <37> and <38>. Low to moderate concentrations of insect remains were also recorded in six samples, with the highest abundance in samples <31>, <34> and <35>, likely because of the optimal depositional environment. A further indication that some of the deposits were formed in water, is the occurrence of *Daphnia* ephippia, and/or a small number of ostracods, both of which survive in wet conditions. These were identified in seven samples, the highest abundance of the former being recorded in samples <31>, <34> and <37>; <31> and <37> being taken from Roman pit/ditch features, and <34> from the fill of a possible palaeochannel.

Industrial residue, in the form of coal and vitreous material, was recorded in sample <30>, along with a small amount of clinker and fuel ash slag in sample <32>; other 'cultural' remains were scarce in the flots residues.

A full account of the material reported in the flots is given in Table 3.

### **Conclusions and Recommendations for Further Work**

To summarise, the preservation of environmental remains in the Staines High Street samples was variable. In terms of archaeobotanical material, the richest deposits were found in context [164], the fill of a ditch dated to the medieval period, which contained an abundance of charred weed seeds and cereals, and context [186], the fill of a possible palaeochannel, which contained a large concentration of un-burnt weeds seeds. Contexts [196], [201] and [226], taken from two pits and a dump layer, dated to the Roman period, are also significant, as each contained abundant weed seeds and/or charred seeds and cereals. Due to the relative abundance of material in these assemblages (over one hundred specimens in one or

more material category) further specialist assessment is recommended prior to publication. This may help to develop our understanding of the wider environmental context of the site across the earliest phases of occupation, as well as yielding information on the nature and scale of cereal cultivation, processing and consumption by occupants during the Roman and medieval periods.

As well as seed remains, contexts [201] and [226] also contained a substantial amount of wood charcoal. Additional assessment of this material may aid in our interpretation of the local landscape during the Roman settlement of the area, albeit only providing a partial reconstruction due to the problems of selection bias. Analysis of the charcoal assemblage may also shed light on the types of wood that are being selected for use in domestic fires. In areas where there is a lack of suitable cultural remains, this material, along with suitable sized wood fragments and cereal grains, could also be used to refine the chronology of the site, using radiocarbon dating

Molluscs, known to be a useful proxy for reconstructing environmental change, were well preserved in the bulk of the sampled features.

A summary of these results should be included in any subsequent site publications.

## Bibliography

Cappers, R.T., Bekker, R.M. and Jans, J.E., 2012. *Digitale Zadenatlas van Nederland/Digital seed atlas of the Netherlands (Vol. 4)*. Barkhuis.

Kerney, M.P., 1999. *Atlas of the Land and Freshwater Molluscs of Britain and Ireland*. Colchester. Harley.

Stace, C., 1991. *New flora of the British Isles*. Cambridge. Cambridge University Press.

Table 2: Assessment of environmental residues, SMMR16

Sample No.	30	31	32	33	34	35	36	37	38
Context No.	137	148	164	185	186	196	201	226	209
Feature No.	138	147	165	228	228	197		222	
Volume of bulk (liters)	33	36	36	18	18	36	26	36	36
Volume of flot (milliliters)	52	200	450	28	95	140	500	160	60
Method of processing	F	F	F	F	F	F	F	F	F
<b>HEAVY RESIDUE</b>									
<b>Charcoal</b>									
Charcoal >4 mm	1	3	3	1	1	2	4	3	1
Charcoal 2-4 mm			2				4	1	
Charcoal <2 mm							4	4	
<b>Wood</b>									

Sample No.		30	31	32	33	34	35	36	37	38
<b>Context No.</b>		<b>137</b>	<b>148</b>	<b>164</b>	<b>185</b>	<b>186</b>	<b>196</b>	<b>201</b>	<b>226</b>	<b>209</b>
<b>Feature No.</b>		<b>138</b>	<b>147</b>	<b>165</b>	<b>228</b>	<b>228</b>	<b>197</b>		<b>222</b>	
Wood >4 mm			1				1			
Wood 2-4 mm										
Wood <2 mm										
<b>Seeds</b>										
<i>Chenopodium</i> sp.	Goosefoots		1							
<i>Cruciata</i> sp.	Crosswort		1							
<i>Lathyrus</i> sp.	Peas								1	
<i>Persicaria</i> sp.	Knotweeds		1							
<i>Prunus</i> sp.	Cherries						1			
<i>Rubus</i> sp.	Brambles		1							
<b>Cereals</b>										
<i>Triticum</i> sp.	Wheat		1							
Broken/distorted (No ID)			1							
<b>Molluscs</b>										
<i>Candidula</i> sp.	Terrestrial	1					1			
<i>Cepaea</i> sp.	Terrestrial		1							
<i>Cochlicopa lubrica</i>	Terrestrial		1							
<i>Helix</i> sp.	Terrestrial		1							
<i>Lauria cylindracea</i>	Terrestrial		1							
<i>Lymnaea palustris</i>	Freshwater				1					
<i>Oxychilus</i> sp.	Terrestrial		1							
<i>Planorbis</i> sp.	Freshwater		1		1	2	1			
<i>Potamopyrgus antipodarum</i>	Terrestrial		1							
<i>Succinea</i> sp.	Terrestrial		2			1				
<i>Theba pisana</i>	Terrestrial						1			
<i>Trichia</i> sp.	Terrestrial									1
<i>Vallonia</i> sp.	Terrestrial		2							
<i>Zonitoides</i> sp.	Terrestrial					1	1			1
Operculum						1				
Broken shell			3		4	2	1			
Juveniles (no ID)			3			1				1
<b>Marine Molluscs</b>										
<i>Ostrea edulis</i> (left valve)	Native Oyster								1	
<i>Ostrea edulis</i> (right valve)	Native Oyster								1	
<i>Ostrea edulis</i> (frags.)	Native Oyster								2	
Marine shell (fragments)		1			1	1	1			1
<b>Bone</b>										
Small animal bone		1		1	1		1			1
Large animal bone		3	1	1	1		1		1	1
Bone fragments		2	1	1	1	1	3		1	2
<b>Building material</b>										
Brick		2			1		1	3		1

Sample No.	30	31	32	33	34	35	36	37	38
Context No.	137	148	164	185	186	196	201	226	209
Feature No.	138	147	165	228	228	197		222	
Mortar	2								
Daub			2						
<b>Other material</b>									
Pottery	2	1	2	1	1	2		2	1
Kiln fabric		1							
Bead				1					
Glass									1
Iron				1	1				
Hammer-scale			R			R			1
Slag			1			1			
Coal	1								
Burnt flint	1	1	1			1			1

Key: 1- Occasional, 2- fairly frequent, 3- frequent, 4- abundant

Table 3: Assessment of environmental flots, SMMR16

Sample No.	30	31	32	33	34	35	36	37	38
Context No.	137	148	164	185	186	196	201	226	209
Feature No.	138	147	165	228	228	197		222	
Volume of bulk (liters)	33	36	36	18	18	36	26	36	36
Volume of flot (milliliters)	52	200	450	28	95	140	500	160	60
Method of processing	F	F	F	F	F	F	F	F	F
<b>FLOT RESIDUE</b>									
<b>Charcoal</b>									
Charcoal >4 mm	3	1	2	1		3	3	1	1
Charcoal 2 - 4 mm	4	3	3	2	1	3	4	3	2
Charcoal <2 mm	4	3	4	4	4	4	4	4	4
Frag. of ID size	<10	<10	✓	<5	X	✓	✓	<5	<5
<b>Fragmented wood</b>									
Wood >4 mm		1			1	2		1	
Wood 2 - 4 mm		3			2	2		2	
Wood <2 mm		4			4	4		4	
<b>Seeds</b>									
<i>Aethusa</i> sp.						2		1	
<i>Anthemis cotula</i>						1			
<i>Apiaceae</i> spp.								2	
<i>Apium</i> sp.		1			1			1	
cf. <i>Atriplex</i> sp.		1			1	3		1	
cf. <i>Barbarea</i> sp.		1			2			1	
cf. <i>Callitriches</i> sp.									1
<i>Carduus</i> sp.		1			1			1	
<i>Carex</i> sp.	1	3			2	3		4	

Sample No.		30	31	32	33	34	35	36	37	38
Context No.		137	148	164	185	186	196	201	226	209
Feature No.		138	147	165	228	228	197		222	
<i>Chenopodium</i> sp.	Goosefoots	1	2	1	1	3	4		2	1
<i>Cirsium</i> sp.	Thistles						1			
<i>Clinopodium</i> sp.	Calamints	1	1			1	3			1
cf. <i>Elaeagnus</i> sp.	Silverberry			1						
<i>Erucastrum</i> sp.	Hairy Rocket						1			
<i>Fallopia</i> sp.	Knotweeds						1			
<i>Ficus</i> sp.	Fig									1
<i>Fragaria</i> sp.	Strawberries					1			3	
<i>Fumaria</i> sp.	Fumitory		2			2	1		2	
cf. <i>Geranium</i> sp.	Crane's-bills					1				
<i>Hyoscyamus niger</i>	Henbane		1			1			2	
<i>Ilex</i> sp.	Hollies		1							
<i>Juncus</i> sp.	Rushes	3		1			1			
<i>Lamium</i> sp.	Dead-nettles						1			
<i>Lemna</i> sp.	Duckweeds	1	1		2	4	2		1	1
<i>Lithospermum</i> sp.	Gromwells			1						
<i>Lycopus europaeus</i>	Gypsywort		3				1		2	
<i>Medicago lupulina</i>	Black Medick			1			1			
<i>Papaver</i> sp.	Poppies						1			
<i>Persicaria</i> sp.	Knotweeds		2			3	1		2	
cf. <i>Pimpinella major</i>	Burnet-saxifrages		3			4	3		3	
<i>Polygonum</i> sp.	Knotgrasses		1			1	3			
<i>Potentilla</i> sp.	Cinquefoils		1						2	
cf. <i>Prunella vulgaris</i>	Selfheal					1				
<i>Prunus</i> sp.	Cherries		1						1	
<i>Ranunculus bulbosus/repens</i>	Bulbous/Creeping buttercup		1			1	1		2	
<i>Ranunculus</i> sp.	Buttercups					1				
<i>Rubus</i> sp.	Brambles		2			1	2		2	1
<i>Rumex</i> sp.	Docks		3			2	4		3	
cf. <i>Salvia</i> sp.	Claries		1			1			1	
<i>Sambucus</i> sp.	Elder	1	2	1	2	3	3	1	2	
<i>Solanum</i> sp.	Nightshades		1				1		1	
<i>Sonchus</i> sp.	Sow-thistles								1	
<i>Spergula arvensis</i>	Corn Spurrey		1							
<i>Stellaria</i> sp.	Stitchwort	1					1		1	
<i>Silene</i> sp.	Campions						1			
<i>Urtica</i> sp.	Nettles		3	1	3	4	4		2	2
<i>Viola</i> sp.	Violets		1						1	
Seed coats (no ID)						2			2	
Broken seeds			3			3				
Unknown			1			2	2		2	1
<b>Burnt seeds</b>										
<i>Anthemis arvensis</i>	Corn Chamomile			1				1		
<i>Anthemis cotula</i>	Stinking Chamomile			2				3	1	
Asteraceae spp.	Dasies			2						
cf. <i>Atriplex</i> sp.	Oraches			2						
<i>Brassica</i> sp.	Cabbages			1						

Sample No.		30	31	32	33	34	35	36	37	38
Context No.		137	148	164	185	186	196	201	226	209
Feature No.		138	147	165	228	228	197		222	
<i>Carex</i> sp.	Sedges			1				2	1	
<i>Centaurea</i> sp.	Knapweeds			1						
<i>Chenopodium</i> sp.	Goosefoots			3				3		
<i>Fabaceae</i> sp.	Peas			3						
<i>Fragaria</i> sp.	Strawberries			2						
<i>Hyoscyamus niger</i>	Henbane		1							
<i>Medicago lupulina</i>	Black Medick			1						
<i>Medicago</i> sp. / <i>Melilotus</i> sp.	Medicks / Melilots			3				1		
<i>Persicaria</i> sp.	Knotweeds			1				1		
<i>Plantago</i> sp.	Plantains			1					1	
<i>Poaceae</i> sp. (large)	Grasses			4				3		
<i>Poaceae</i> sp. (Small)	Grasses			3				3		
<i>Potamogeton</i> sp.	Pondweeds			1						
<i>Raphanus raphanistrum</i>	Wild Radish			1				2		
<i>Rubus</i> sp.	Brambles		1							
<i>Rumex</i> sp.	Docks			1				2		
<i>Sambucus</i> sp.	Elder		1					1		
<i>Silene</i> sp.	Campions			1						
<i>Solanum</i> sp.	Nightshades			1						
cf. <i>Vaccinium</i> sp.	Bilberries			1						
<i>Vicia</i> sp./ <i>Lathyrus</i> sp.	Vetches / Peas							3		
<i>Viola</i> sp.	Violets							1		
Unknown				3				2	1	
<b>Cereals</b>										
<i>Avena sativa</i>	Oat			2						
<i>Hordeum</i> sp.	Barley			4				3		
<i>Secale cereale</i>	Rye			2				2		
<i>Triticum</i> sp.	Wheat	2	1	4			1	4		1
Charred stems ( <i>Poaceae</i> sp.)										
Rachis internodes										
Glume base										
Broken/distorted (No ID)										
<b>Other plant macrofossils</b>										
Fragmented plant matter										
Thorns (No ID)										
Woody stems/twigs										
Modern mosses										
Modern aquatic weed										
Modern grasses										
<b>Molluscs</b>										
<i>Candidula</i> sp.	Terrestrial		2		3	2	2		2	3
<i>Carychium</i> sp.	Terrestrial	1	1		1	2	1		1	1
<i>Cecilioides acicula</i>	Terrestrial						2			
<i>Cochlicopa lubrica</i>	Terrestrial		1		1	1	1		1	1
<i>Discus rotundatus</i>	Terrestrial				1					
<i>Helix</i> sp.	Terrestrial		1							

Sample No.		30	31	32	33	34	35	36	37	38
<b>Context No.</b>		<b>137</b>	<b>148</b>	<b>164</b>	<b>185</b>	<b>186</b>	<b>196</b>	<b>201</b>	<b>226</b>	<b>209</b>
<b>Feature No.</b>		<b>138</b>	<b>147</b>	<b>165</b>	<b>228</b>	<b>228</b>	<b>197</b>		<b>222</b>	
<i>Lauria cylindracea</i>	Terrestrial	1	1		1				1	
<i>Lymnaea</i> sp.	Freshwater		1		1	1	1		1	
cf. <i>Mercuria confusa</i>	Freshwater	1								
<i>Oxychilus</i> sp.	Terrestrial		1		1		1		1	
<i>Pisidium</i> sp.	Freshwater					1				
<i>Planorbis</i> sp.	Freshwater	2	3	1	3	4	2		3	1
<i>Succinea</i> sp.	Terrestrial		1			1				
<i>Vallonia</i> sp.	Terrestrial	2	2	1	2	2	2		1	2
<i>Valvata</i> sp.	Freshwater		1							
<i>Vertigo</i> sp.	Terrestrial				1					
<i>Vitrea</i> sp.	Terrestrial						1			
Snail eggs										1
Operculum		1								
Broken shell		3	3		3	3	2		2	4
Juveniles (no ID)		3	3	1	4	2	3		2	3
<b>Bone</b>										
Fish bone				1						1
Fish scales									1	
Small animal bone		1			1		1			1
Bone fragments		1								1
<b>Other remains</b>										
Insect remains			3	2		3	3	1	2	
Insect eggs/worm cases										2
Ostracods			1							
Daphne ephippia			3		1	4	1	1	3	2
Cess' material							1			
Flint flakes					1					1
Soil concretions					4					
Unknown fibers				2						
Fuel ash slag				1						
Coal		3								
Vitreous material		4								
Clinker/burnt coal				2						

Key: 1- Occasional, 2- fairly frequent, 3- frequent, 4- abundant

## APPENDIX 10: HAND COLLECTED MARINE SHELL ASSESSMENT

Kate Turner

### Introduction

An assemblage of whole and fragmented marine shells was recovered during the archaeological excavation of land at 90-106 High Street, Staines. The aim of this rapid assessment was to: (1) determine the degree of fragmentation and preservation of the oyster shell assemblage; (2) quantify the number of oyster shells and (3) record any other marine shells that were present in this assemblage.

### Methodology

The shells from the site were collected via handpicking by on-site archaeologists during the excavation of the site. For each individual species identified within a context, approximately one in five of the shells were collected, in order to keep sampling representative and systematic. These were then transported off site and carefully hand cleaned using a soft toothbrush, to ensure that none of the external features were damaged or removed.

Preliminary recording of the oyster shell involved separating left and right valves specimens, in order to determine the minimum number of individuals in the assemblage (MNI). Recording was carried out on any valves of a size suitable for measurement (this being defined as any specimen whereupon the umbo/ligament scar is present, alongside the internal adductor muscle scar and at least two thirds of the original shell, as per Winder 2011).

### Results

#### Oyster shell

Oysters were hand recovered from three contexts, provisionally dated to the Roman period. The majority of material was found in context [146], the fill of ditch [147], which contained a minimum number of individuals of six, from twelve total left and right valves. All of the specimens identified were of the species *Ostrea edulis*, or Colchester native oyster; the number of measurable left and right valves and broken specimens in the sample set is shown in Table 1. None of the sampled contexts yielded an MNI of greater than ten, thus no further recording was carried out at this stage. No other marine shell was recovered.

Table 1: Quantification of Marine Shell from 90-106 High Street Staines (SMMR16)



Context number	Feature number	Provisional phasing	Dating and Notes	Oyster (LV)	Oyster (RV)	Oyster (UMLV)	Oyster (UMRV)	Fragments	Total Number of Left and Right Valves	Oyster MNI
145	147	2	Roman	1	1	0	1	0	3	2
146	147	2	Roman	3	5	3	1	0	12	6
226	222	2	Roman	5	3	0	0	0	8	5
<b>TOTALS</b>				<b>8</b>	<b>8</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>20</b>	<b>11</b>

Absolute values. **Key:** RV = right valve. LV = left valve. UM = unmeasurable. MNI = maximum number of individuals.

## Conclusions

The archaeological excavation carried out at 90-106 High Street, Staines, produced only a small amount of oyster shell which, based on the location of the site, is likely to have been sourced from the River Thames. The presence of this material may suggest that oyster could have been a dietary component for the occupants of this site during the Roman period however, due to the limited size of these assemblages, no further work is recommended. A summary of the results should be included in any subsequent site publications.

## Bibliography

Winder, J., 2011. *Oyster Shells from Archaeological Sites: A Brief Guide to Basic Processing*.

Online at:

<http://oystersetcetera.files.wordpress.com/2011/03/oystershellmethodsmanualversion11.pdf>

**APPENDIX 11: OASIS FORM**

OASIS ID: preconst1-315241

**Project details**

Project name	An Archaeological Excavation at 90-106 High Street, Staines, Surrey, TW18 4DP
Short description of the project	An archaeological excavation revealed a series of Roman ditches, gullies and pits containing an assemblage of late Roman pottery that suggested Roman activity on marginal land near to the main settlement. Similar activity dated to the medieval period was also revealed with pottery dated from the 12th to the 14th century. Post-medieval activity took the form of rubbish pits and wells in the back yards of properties fronting onto the high street during the 18th and 19th century. Tanning pits were also recorded in the eastern part of the site dating from the 17th century and were likely to be in use into the early 19th century.
Project dates	Start: 20-02-2017 End: 28-03-2017
Previous/future work	Yes / No
Any associated project reference codes	SMMR16 - Sitecode
Type of project	Recording project
Site status	Local Authority Designated Archaeological Area
Current Land use	Vacant Land 1 - Vacant land previously developed
Monument type	PITS Medieval
Monument type	DITCHES Medieval
Monument type	POSTHOLES Roman
Monument type	POSTHOLES Medieval
Monument type	DUMP LAYERS Roman
Monument type	DUMP LAYERS Medieval
Monument type	RUBBISH PITS Post Medieval
Monument type	WELLS Post Medieval
Monument type	TANNING PITS Post Medieval
Monument type	SOAKAWAYS Post Medieval
Monument type	DRAINS Post Medieval
Monument type	MADE-GROUND Post Medieval
Monument type	GULLY Roman
Monument type	GULLY Medieval
Monument type	PITS Roman
Monument type	DITCHES Roman
Significant Finds	POT Roman
Significant Finds	CBM Roman
Significant Finds	ANIMAL BONE Roman
Significant Finds	COIN Roman

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Significant Finds	POT Medieval
Significant Finds	ANIMAL BONE Medieval
Significant Finds	POT Early Medieval
Significant Finds	METAL BUCKLE Medieval
Significant Finds	POT Post Medieval
Significant Finds	CBM Post Medieval
Significant Finds	GLASS Post Medieval
Significant Finds	CTP Post Medieval
Significant Finds	WORKED BONE Post Medieval
Significant Finds	ANIMAL BONE Post Medieval
Investigation type	""Open-area excavation""
Prompt	Planning condition

---

### Project location

Country	England
Site location	SURREY SPELTHORNE STAINES 90-106 Staines High Street
Postcode	TW18 4DP
Study area	1435 Square metres
Site coordinates	TQ 0362 7171 51.434405110727 -0.509148518559 51 26 03 N 000 30 32 W Point
Height OD / Depth	Min: 13.57m Max: 15.52m

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### Project creators

Name of Organisation	Pre-Construct Archaeology Ltd.
Project brief originator	Surrey County Council
Project design originator	Peter Moore
Project director/manager	Peter Moore
Project supervisor	Matt Edmonds
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Property Partners (Two Rivers)

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### Project archives

Physical recipient	Archive	County Museum and Archive Store
Physical ID	Archive	SMMR16
Physical Contents		"Animal Bones","Ceramics","Environmental","Glass","Metal","other"
Digital recipient	Archive	County Museum and Archive Store

Digital Archive ID SMMR16  
Digital Contents "Animal Bones","Ceramics","Environmental","Glass"  
Digital Media "Database","Survey","Text"  
available  
Paper Archive County Museum and Archive Store  
recipient  
Paper Archive ID SMMR16  
Paper Contents "Animal Bones","Ceramics","Environmental","Glass","Stratigraphic"  
Paper Media "Context sheet","Drawing","Map","Matrices","Plan","Section"  
available

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**Project  
bibliography 1**

Publication type Grey literature (unpublished document/manuscript)  
Title An Assessment of an Archaeological Excavation at 90-106 High  
Street, Staines, Surrey, TW18 4DP  
Author(s)/Editor(s) Edmonds, M.  
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Issuer or publisher Pre-Construct Archaeology Ltd.  
Place of issue or London  
publication  

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Entered by Jon Butler (jbutler@pre-construct.com)  
Entered on 19 June 2018

# PCA

## **PCA CAMBRIDGE**

THE GRANARY, RECTORY FARM  
BREWERY ROAD, PAMPISFORD  
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