

# 2–14 WHITGIFT STREET Croydon CR0

London Borough of Croydon

An archaeological post-excavation assessment

April 2007



MUSEUM OF LONDON

Archaeology Service

#### 2–14 WHITGIFT STREET Croydon CR0

London Borough of Croydon

An archaeological post-excavation assessment

Site Code: WHZ06

Project Manager Author Robin Nielsen Portia Askew Kenneth Lymer

Museum of London Archaeology Service © Museum of London 2007 Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED tel 020 7410 2200 fax 020 7410 2201 email molas@molas.org.uk

## **Executive summary**

This report presents the results of an archaeological excavation carried out by the Museum of London Archaeology Service (MoLAS) on the site of 2-14 Whitgift Street, Croydon CRO.

The report is written and structured to conform to the standards required of postexcavation analysis as set out in Management of Archaeological Projects (English Heritage 1991).

The investigation has been carried out subsequent to excavation work carried out on 14 Whitgift Street by the Croydon Natural History Society in 1987-8, and an archaeological excavation undertaken by the Museum of London Archaeology Service between January and February 1995. The excavation in 1987-8 revealed prehistoric, Roman, medieval and early post-medieval cut features, and a range of finds from prehistoric to post-medieval. Further work on the same site in 1995 produced extensive evidence (pits and a boundary ditch) for late Roman activity as well as finds, the latter including thirty-nine 3rd-4th century coins, a ring intaglio and a bronze fibula. Prehistoric struck and burnt flint totalled 141 pieces, probably transported onto the site through soil movement down slope from the higher eastern end. Some medieval material was recovered, notably from one large pit that produced a range of environmental evidence. Archaeological evidence suggests that the area was under cultivation from the medieval period up to the 19th century, when tenement housing was constructed on the site.

The recent archaeological excavation took place between 8th May and 14th July 2006. The results of the excavation mirrored the results seen in the 1995 excavation. Roman pits, the north-east and south-east extent of a Roman ditch (initially found in 1995) and at least three medieval pits, one 17th century pit and an east-west aligned boundary wall were recorded. The spread of the features was sparse with much of the eastern side of the site covered largely by a medieval ploughsoil that produced six residual late Roman coins. Other finds of note included, a bone comb and a medieval iron buckle found within pits. A quantity of residual prehistoric struck flint, including a Mesolithic handaxe, was found during cleaning activity of the natural gravel surfaces.

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Fig 1 Site location

#### Introduction 1

#### 1.1 Site location

The archaeological investigation took place at 2-14 Whitgift Street, Croydon CRO, hereafter called 'the site'. Whitgift Street is located just off Croydon High Street Road (Fig 1). The OS National Grid Ref. for centre of site is 532280 165250. Modern ground level lies between 51.0m and 44.50m OD, with levels falling from the east to west. The MoLAS site code is WHZ06.

#### 1.2 The scope of the project

This post-excavation assessment describes the results of an archaeological excavation, on the site of 2-14 Whitgift Street, Croydon, CRO, by the Museum of London Archaeology Service (MoLAS). This report will attempt to assess the data recovered from each area and thus measure the archaeological potential of the site.

Excavation work was initially carried out on 14 Whitgift Street by the Croydon Natural History Society (CNHS) in 1987-8, (Davison, 1988) and an archaeological excavation undertaken by the Museum of London Archaeology Service (MoLAS) between January and February 1995.

The latter work culminated in an *archaeological excavation report* for the site of 14 Whitgift Street, which covered the whole area of the site (Potter, 2005). This document should be referred to for information on the natural geology, archaeological and historical background of the site, and the initial interpretation of its archaeological potential.

The excavation in 1987-8 revealed prehistoric, Roman, medieval and early postmedieval cut features, and a range of finds from prehistoric to post-medieval. Further work on the same site by MoLAS in 1995 produced extensive evidence (pits and a boundary ditch) for late Roman activity as well as finds, the latter including thirty-nine later 3rd-4th century coins. Prehistoric struck and burnt flint totalled 141 pieces, probably transported onto the site through soil movement down slope from the higher eastern end. Some medieval material was recovered, notably from one large pit that produced a range of environmental evidence. Archaeological evidence suggested that the area was under cultivation from the medieval period up to the 19th century, when the tenement housing was constructed on the site.

Generally, the archaeological remains can be placed within four periods; pre-Roman or undated Roman; late Roman, medieval, and post-medieval. The Late Roman features were nucleated on the western side of the site, consisting of pits and a northeast/southwest aligned boundary ditch, parallel to slope towards the base of the valley. The Roman horizon was sealed by a colluvial layer and a deposit derived from hillwash movement from the higher ground on the east down to the valley bottom in the west. The resultant soil horizon became reworked, probably by agricultural activity in the medieval period. In the early post-medieval period, a change in land use is indicated by the construction of an east-west boundary wall, along with the digging of waste pits, probably indicating rear garden of properties fronting onto the High Street. The final period of activity is represented by the brick wall remains of the 19th century tenement houses. This post-excavation assessment report incorporates specialist reports on pottery (Rupert Featherby, Nigel Jeffrys), clay pipes (Tony Gray), building materials (Ian Betts), registered finds (Nicola Powell), conservation (Kate Roberts), animal bone (Alan Pipe), lithics (Tony Gray), and botanical remains (Kate Roberts).

## 1.3 Circumstances and dates of fieldwork

Conditional Planning Permission for the redevelopment was granted in July 2005 (Application no. 02/3822BY). The following archaeological condition was attached to permission:

7. No development including excavations for drainage and foundation work shall take place within the site 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 Local Planning Authority. The development shall only be carried out in accordance with the agreed programme and by a suitably qualified investigating body acceptable to the Local Planning Authority.

Reason: To safeguard the heritage of the Borough by providing an adequate opportunity to investigate and excavate archaeological remains on the site before development is carried out, in accordance with Policies SP6 and AR1 of the Unitary Development Plan and Policy UC14 of the Second Deposit Draft Replacement Unitary Development Plan (the Croydon Plan).

After consultation with the Borough's archaeological adviser, English Heritage Greater London Archaeology Advisory Service, a method statement for archaeological evaluation of the whole of the development site was prepared (Nielsen, 2006) and subsequently approved by Croydon Borough Council in accordance with the condition.

Archaeological investigation began on 8th May 2006 and continued for 10 weeks, until 14th July 2006. A maximum number of eight staff undertook the excavation work.

All features on the site were planned either from baselines, located and tied in to the Ordnance Survey Grid or penmapped by the MoLAS Geomatics section. The late Roman ditch was sample excavated.

## **1.4 Organisation of the report**

This report has been structured following the guidelines laid down in *MAP2* (English Heritage 1991), the current MoLAS assessment specification, *specifications for archaeological assessments and field evaluations*, (Association of County Archaeological Officers, 1993)

The report is specifically organised to inform the reader of the nature of the project prior to offering an interpretation of the site. The report begins with a brief introduction to the site and outlines the circumstances under which the project was commissioned and discusses the scope of the project in relation to its results. Section 2 places the site within its local context by providing a brief archaeological and historical background to the area.

Section 5 presents the results of the fieldwork; this information will be relayed in a chronological format presented where possible by period. Information from neighbouring sites may also be incorporated into this section.

Section 6 combines stratigraphic data with the finds and environmental assessments in order to fully quantify and assess the archaeological data recovered from the site.

Sections 7 and 8 generally conclude the assessment by analysing the potential and significance of the data recovered. In light of the original research aims, a set of revised research aims are offered.

A brief publication synopsis is outlined in section 9, and section 10 sets out the methodology and tasks necessary to achieve the objectives as defined within sections 7, 8 and 9 prior to publication.

#### Historical and archaeological background 2

#### 2.1 Topography

The site is located on a west-facing slope, overlooking the lower (northern) end of a north-south dry valley. The valley was originally occupied by the River Wandle, as part of a more extensive tributary system of the Thames. Present day ground level lies at 49m OD on the eastern side sloping down to 46.05m OD, on the west. Natural gravel was found approximately 2m below the current ground level (topsoil) at a height of 46.95m OD on the southeastern side, falling away in a north-westerly direction to 43.96m OD.

The site overlies geologically recent river terrace gravel (Taplow Terrace)<sup>1</sup>, deposited along the valley floor as periglacial outwash, one of a series of terraces in the Croydon area which reflect fluctuations of climate and sea level during the Pleistocene (Peake, 1982).

#### 2.2 Archaeological and historical background

The background to the site is fully reported in the published article on the 14 Whitgift Street excavations (Potter, 1998). Briefly, the archaeological findings in these investigations were that hill wash (colluvium), reworked by cultivation, overlay late Roman pits and a ditch which contained pottery, 39 3rd-4th-c coins, a ring intaglio and a bronze fibula. Also recorded was a large medieval pit, possibly a quarry pit, from which environmental material was extracted. Residual prehistoric struck flints, including a few Mesolithic tools and cores, were recovered.

The hill wash, which contained the redeposited prehistoric and Roman finds, was up to a metre thick with its surface at 46.10 to 46.28 m OD. In common with other deposits on the site, (including recent made ground) the deposit sloped down from east to west. The base of underlying archaeological deposits was at between 44.10 and 44.31 m OD. Present ground surface in this area is at c. 47.00 - 47.50 m OD.

During the excavation of an evaluation trench on the 2-12 Whitgift Street (northern) part of the site the presence of hill wash was again confirmed. Here it contained 13/14th-century pottery and sealed a chalk and flint block wall, possibly Roman in date. The hill wash was truncated by a gravel quarry, backfilled with material dating between the 13th and 17th c, and a red brick arched foundation which was associated with a 19th-c outbuilding, a pathway and a garden wall. The surface of the hill wash, which was some 0.75 m thick, was at 46.59 - 45.71 m OD within the area of the evaluation trench. The base of underlying archaeological deposits was at 44.68 -44.79 m OD. Modern ground surface was at c. 48.00 - 48.25 m OD.

<sup>&</sup>lt;sup>1</sup> British Geological Society Sheet 286, scale 1:50,000 (1975)

# **3** Original research aims

All research is undertaken within the priorities established in the Museum of London's *A research framework for London Archaeology*, 2002. This statement sets out the aims considered appropriate to the potential archaeological resource of the site. The subsequent detailed methodology is set in the context of the methods and approaches which are considered most appropriate for archaeological evaluations and excavations on sites in Greater London.

A series of research aims have been formulated in respect of the investigations, reflecting the results of previous investigations on the site. They are listed here as research questions:

- (i) What is the nature and level of natural topography?
- (ii) What are the earliest deposits identified?
- (iii) What are the latest deposits identified?
- (iv) What can be said about the nature of prehistoric activity in the area on the basis of residual and (potentially) non-residual finds on the site?
- (v) What does the evidence indicate regarding the date and nature of Roman activity on the site or in the vicinity?
- (vi) Is there any evidence for the Saxon re-occupation of the area? What is its nature and date?
- (vii) Are there any medieval structural remains and associated artefact and ecofact assemblages present?
- (viii) Are there any post-medieval structural remains and associated artefact and ecofact assemblages present?



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#### Site sequence: interim statement on field work 4

#### 4.1 Introduction

In response to the conclusions drawn from the previous archaeological investigations and after discussion with the Borough's archaoelogical adviser, a Method Statement for an archaeological investigation was compiled for use by the MoLAS team on site (Nielsen, 2006).

The specific purpose of the Method Statement was to present an archaeological strategy for an excavation and watching brief of the areas identified as having archaeological survival and to provide an opportunity for investigation to be carried out prior to construction groundworks.

All archaeological excavation and recording during the archaeological investigation was carried out in accordance with the MoLAS Archaeological Site Manual (MoLAS, 1994).

#### 4.2 **Results of the archaeological investigation**

Although, initially, 16 pile cap locations were designated to be excavated to the natural gravel horizon it was found that proposed formation level, at 45.40m OD lay below the level at which archaeological survival was expected on the eastern side of the site. As a result, a strip, map and record approach was used on this part of the site, allowing amalgamation of individual pile cap areas into much larger areas for investigation. Areas on the site were designated A, B, D, C, and E, with the smaller pile cap areas (denoted by the grid line division laid out on the supplied site  $plan^2$ ) individually excavated as A3 - A6 and B4 – B6 (Fig 2).

Numbers enclosed within square brackets relate to context numbers allocated during the excavations and represent archaeological features and/or deposits.

#### 4.2.1 Topography and geology

The modern ground surface lay at 49m OD to the east and slopes away to the west, at 46.05m OD. Natural gravel (Grp 1) was found at a height of 46.95m OD (Area E) [266] on the southeastern side, falling away in a north-westerly direction to 43.96m OD (Area A), in the northwest corner of the site. The natural deposits varied widely across the site, ranging from orange silty gravel [266] (Area E), at the eastern end of the site, giving way to gravel with pea grit [292] (Pile cap A3), [180] (Pile cap A4), midway across the site.

<sup>&</sup>lt;sup>2</sup> Plan of proposed underground drainage layout dwg No DO1 Rev T4

The deposits within pile cap A4, which were thought to infill a palaeochannel, were found to exist within the main gravel unit as three distinct, but finer minerogenic layers. These layers formed discontinous lenses, which interleaved with the coarser gravels [180]. The fine minerogenic deposits were partially overlain by a thin band of pea grit gravel, which is probably the same unit as the pea grit gravel observed at the top of the gravel unit [292] observed with trench A3.

The irregular nature of the deposit edges and the interleaved contact with the coarser gravels suggest that the deposits are contemporary, and represent episodes of intermittent flow rate reduction, possibly during colder periods when the majority of the water within the channel area would have been tied up within the frozen glacial landscape. The 'feature', which these finer deposits fill may also be formed by periglacial activity, whereby freeze and thaw processes on the gravel surface creates hollows, [190] and [192] (Grp 25), which later infill with finer material brought in by fluvial or wind blown processes. Such lenses of finer material within coarser gravels are often found to occur within Pleistocene gravels. (Halsey, 2006).

On the western side of the site the, natural deposits changed to cobbles [29] and gravel [30], the former component much more evident in the northwest corner of the site. The gravel forms part of the second Wandle terrace, which was deposited under fast flowing fluvial conditions in a cold climate braided river environment sometime during the Pleistocene period.

Above the gravel, an orangey brown clayey silt, c 0.10-0.15m deep had survived over much of the site Areas C, and D, [256], [269], [271], [271] (Grp 49), pile cap A3 [171] (Grp 22) and A4 [179] (Grp 26), though was absent from Area A and only present on the eastern side of Area B [68] (Grp 14). Closer inspection of these deposits was carried out in pile cap trenches A3 and A4. Frequent root disturbance and heavy iron-staining was noted in [171], a deposit likely to be Pleistocene in origin and which may have been formed either by alluvial fans during flood events, or deposited within a more tranquil flowing braided river system. The finer nature of this overlying deposit may indicate a gradual reduction in the flow rate resulting in a fining up sequence from the gravels to the silts and clavs. Dry terrestrial soils would have formed within this unit during the Holocene period, by which time the Wandle would have down cut to its present floodplain position. Evidence of a dry soil was indicated by the iron-stained weathered appearance and from the root disturbance visible within the deposit.

The absence of this deposit toward on the lower slope on the western side of the site is due to erosion. Evidence for its partial survival was found in pile cap areas B4 [288] (Grp 46), B5 [285] (Grp 45), B6 [283] (Grp 44), C5 [231], [232], [236] (Grp 58) where the deposit had become mixed with the underlying natural gravel and was very patchy in places.

#### 4.2.2 The Archaeology

The archaeological features recorded on the site can be divided into five main periods of activity, although the late dated contexts may be subject to change, depending on further analysis of the pottery following comparison with the regional typology. The following periods have been provisionally assigned:

- Roman (AD 43 200)
- Medieval
- Post medieval
- Modern







Fig 3 North facing section showing the topography and archaeological sequence

4m



Fig 4 Plan of the Roman features

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## 4.2.2.1 Prehistoric

No features or structures were positively identified for prehistoric activity on the site, though a total of 111 pieces of residual struck/worked flint were found. The majority of these were found residually within fourteen contexts and 38 were unstratified. The bulk of the assemblage consists of debitage, twelve retouched/utilised pieces that include seven scarpers, a retouched blade/knife, a retouched bladelet, a burin, Mesolithic *tranchet* axe and an obliquely blunted blade.

Of note and found within the hillwash deposits, is a burin [288] (Grp 46), (pile cap B4), a blunted blade/point [272] (Grp 55) (Area D) (Fig 3) of Late Palaeolithic or Mesolithic date, a reworked chert bladelet [40] (Grp 2), the Mesolithic *tranchet* axe [42] (Grp 19) (Area B) and the unstratified retouched knife/blade. The bulk of the assemblage from the site came from the ploughsoil horizon that sealed the Roman features, and thought to be derived from local flint nodules from upslope, to the east of the site. The assemblage indicates substantial prehistoric activity in the vicinity with some material possibly dating to the Bronze Age admixed with Mesolithic material washed from higher upslope (Grey, 2006).

## 4.2.2.2 Roman

Evidence for Roman activity was recorded on the western side of the site (Fig 4). Initially recorded in the 1995 excavation, and dated to the late 3rd/early 4th century, two further stretches of a ditch were uncovered. In Area A, the ditch extension measured 4.70m long by 1.00m wide and 0.40m deep [19] (Grp 2) whilst that recorded in Area B measured 2.70m long by 1.60m wide and 0.60m deep [56] (Grp 17). A very small amount of pottery from both these section, however was dated to the 1st and early 2nd centuries D, though is likely to be residual.

To the west of the ditch, part of a rubbish pit [51] (Grp 12) produced fragments of Roman tile, pottery dated AD 270-400, a copper alloy ring <7> and a coin <9> of Valens dated AD 364-378. Faunal remains included fragments of red deer antler from [52] and [53]. In addition, a very small quanity (2g) of slag was recovered from fill [53].

A second pit [17] (Grp 2) produced pottery of a similar late date AD 250-400. In analysis, the Roman pottery found in conjunction with some of the features was of a late date with few early Roman fabrics, though Late Iron Age wares were present.

A number of other features, that include possible evidence for structures were recorded but undated, but may be of Roman date, as they were sealed by the medieval soil horizon. In the southeast corner of Area B, a group of 105 stakehole/postholes [58-66], [72-79] and [81-166] (Grp 16) was recorded, that yielded one sherd of pottery dated AD150-400. Though densely conctrated, there appear to be some linear formations running northwest/southeast, which may represent fence lines perpendicular to the ditch. A similar group of features was found to the south in pile cap A4 [194-213] (Grp 48) (Fig 7) and in pile cap A5, [221], [224], [226], [246], [239], [241] and [243] (Grp 31) These may possibly be evidence for timber buildings.

Undated pits, of possible Roman date were located in area C4 [276] (Grp 41), C5 [214] (Grp 35), C6-7 [267] (Grp 54), Area A, [21], [36] and [41] (Grp 2). A gulley aligned northwest/southeast in C6-7 on the northern side of the site [270] (Grp 54), may represent a property boundary.



Fig 5 Roman ditch in Area B (view from the east)



Fig 6 ?Roman timber building in Pile cap A4

## 4.2.2.3 Post Roman

Colluvial (hillwash) deposition, up to 0.45m thick, was evident sealing the Roman features on the western side of the site in Area A [14] (Grp 3) (Fig 3), Area B [71] Grp 18, and C5 [231-232], [235] (Grp 58). The base of this deposit contained a high percentage of gravel.

## 4.2.2.4 Medieval/Late medieval

Above the colluvial horizon, was a homogenous layer ranging in depth from 0.25m [259] (Grp 55), in Areas C6-9 and [290/281/286] (Grps92/47/89) in Areas B4-6, thickening to 0.50-1.00m [4], [33] (Grp 4) in Area A and [280] (Grp 42), Area C4, [170/169/244] (Grps 23/29/53), Areas A3/4/5 and D (Fig 3) and [42] (Grp 19) in Area B. This has been interpreted as soil formation, accumulated from downhill movement of soil caused by cultivation upslope in the post-Roman period. A small amount of residual medieval pottery was found within contexts [244] and [259] and six residual Roman coins. The earliest, <14>, recovered from context [259], is a sestertius of Hadrian, dating from AD117–138. Four were recovered from context [170], including two nummi of Constantinian, <1> and <5>, dating from around AD340 to 350, a nummus of Constantine I <3> of a similar date and one of Valens <6> dating from AD364 to 378. A second nummus of Constantine I <2> was found in context [281].

Cut through the soil, were a number of pits (Fig 4). The earliest, [258] (Grp 50) dated AD1270-1500 (Area C8-9).

In Area A, a rubbish pit [9] (Grp 5) contained rat, rabbit, oyster, mussel, cockle and unidentified fish remains, part of an iron horseshoe and an iron ring, possibly from a horse harness. Pot fragments dated the pit AD1480-1550. A similar date was found for other pits of this period; [48] (Grp 8) dated AD1480-1600, which also yielded fragments of a fine-toothed comb <17>, and pit [45] (Grp 20) (Area B).

Part of a north-south aligned chalk and flint wall was uncovered [265] (Grp 53) in the central northern part of the site (C6) though its function is unknown. This was originally recorded in an evaluation carried out in 1994 (Tucker, 1994) and interpreted as Roman in date, but this is unlikely stratigraphically.

## 4.2.2.5 Post medieval

Post-medieval evidence, as with that of the medieval/late medieval period is represented by a garden soil across the site [44/34/32] (Grp 8) Area A, [70] (Grp 71) Area B, [294/293] (Grp 24) Areas A3 and A4, [238] (Grp 34) Area A5, and [274] (Grp 56) (Fig 3), into which four pits, a tree bole, a-chalk built boundary wall and a well were cut.

The well [262] (Grp 11) was recorded at the eastern end of the site (Fig 10). The remains measured 2.25m high and 0.80m in diameter and it was constructed from squared chalk blocks and bricks (Fig 8). Brick samples from the structure showed indented borders on the complete examples taken and suggest a date range of between AD1450–1666. The fill of the well contained tin glazed wares from jars jugs and

bowls dating to the 17th century and animal bone that displayed evidence of butchery and a nearly complete dog skeleton.



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R:\Project\croy\1025\fig07



Fig 8 Early post-medieval well (view from the southeast)



Fig 9 Early post-medieval chalk-lined pit 11





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On the northern side of the site, a circular pit 2.20m in diameter [178] (Grp 38) produced pottery dated AD1480-1550 (Area C5), a quantity of dog bones and a copper alloy coin <4>. A smaller pit [248] (Grp 40) was undated, but was stratigraphically later than [178] and is assumed therefore assumed to be of post-medieval date.

At the western end of the site, was a chalk-built square pit [11] (Grp 5), measuring 1.15m by 1.50m by 0.46m deep (Fig 9). Two nails with remnants of timber adhering were recorded on the inner face in the southeast corner of the pit, suggesting the presence of a timber lining. The backfill of the pit [6] contained insufficient dating evidence, with residual medieval pottery noted. The western side of the feature had been truncated by a square pit measuring 2.36m by 2.85m by 0.60m deep [2] (Grip 6) (Fig 10). The fill of the pit [1] contained largely burnt material and produced a large lace chape <16> and a pottery assemblage of bowls and flared dishes in Surrey Hampshire Border ware and imported Rhenish stoneware drinking vessels in including Frechen jugs. The assemblage dates between AD1630 and 1650. A large lace chape <16> was recovered from context [1].

The remains of an east-west aligned boundary wall, constructed from squared chalk blocks and brick, was recorded in Area A [3] Grp 7 and Areas B4 and B5 [282] (Grp 48). Associated with it were the remains of an adjacent gravel path [25] (Grp 9), recorded in section (not shown) to the north of [3]. Parts of both of these features had been recorded in the 1995 excavation (Potter 1995) and can be seen in cartographic evidence of  $1847^3$ .

<sup>&</sup>lt;sup>3</sup> W Roberts Croydon, in the County of Surrey. Surveyed and valued for the Tithe Commutation (1847)

# 5 Quantification and assessment

## 5.1 Post-excavation review

Preliminary analysis of the stratigraphic archive during production of the assessment has involved; checking and quantification of context and environmental record sheets, site registers, checking and digitisation of hand drawn plans. Stratigraphic matrices have been compiled.

The finds and environmental data have been quantified, processed, recorded and dated where applicable, with assessment reports produced on the building material, lithic assemblages, pottery, botanical remains, faunal remains, slag, registered (small) finds and conservation requirements. All the reports have been integrated during the preparation of this report.

The following presents a brief review/list of the work carried out in post-excavation assessment:

- site matrix checked and established.
- all plan outlines digitised in AutoCAD.
- all photographs cross-referenced and indexed.
- all provisional ceramic dating completed.

— accessioned finds, animal bone, botanical samples, building material, conservation work, slag, environmental samples, and pottery assessments all completed.

The following presents a brief summary of stratigraphic analysis to be done at the next step of analysis:

— establish land use sequence and diagrams

| Stratigraphic archive |   |             |   |  |  |  |  |
|-----------------------|---|-------------|---|--|--|--|--|
| Туре                  | Description                                       | Quantity    | Notes   |  |  |  |  |
| Notes                 | A4 sheets   | 10          | Weekly diary  |  |  |  |  |
| Contexts              | Excavation  | 295         |   |  |  |  |  |
| Plans                 | 'A3' 1:20 (no. of                                 | 95          | Hand drawn  |  |  |  |  |
|                       | sheets)<br>Trench location<br>plan<br>'A1' Trench | 1 file<br>2 | Digital<br>Supplied by client   |  |  |  |  |
|                       | location plans                                    |             | The second se |  |  |  |  |
| Sections              | Sections 'A3' sheets 30 21 sections               |             |   |  |  |  |  |
| Matrices              | 'A4', 'A3'  | 7           | paper and drawing film copies   |  |  |  |  |
| Photographs           |   | 36          | Total number of colour slides<br>(includes duplicate images)  |  |  |  |  |
| Manuscripts           | A4 sheets   | 1           | Method statement for an archaeological investigation  |  |  |  |  |
| Other                 | A4 sheets   | 18          | Site registers (plus extra photo  |  |  |  |  |
|                       | A4 sheets   | 1           | registers)<br>Levels data   |  |  |  |  |

#### The site archive and assessment: stratigraphic 5.2

Table 1 Stratigraphic archive general summary

#### 5.3 Site archive and assessment: finds and environmental

| Building material   | 3 Crates of ceramic building material (bulk material   |  |  |  |  |
|---------------------|--|--|--|--|--|
|                     | discarded after assessment) Total 28.6kg, 1            |  |  |  |  |
|                     | accessioned ceramic item 4 retained boxes              |  |  |  |  |
| Roman pottery       | 405 sherds Total 7.2kg                                 |  |  |  |  |
| Post- Roman pottery | 23 sherds Total 0.2 kg                                 |  |  |  |  |
|                     | 82 sherds. Total 2.1 kg                                |  |  |  |  |
| Clay pipe           | 219 fragments (incl. 5 accessions) (one standard box)  |  |  |  |  |
| Accessioned finds   | 19 objects (7 copper alloy, 2 iron, 1 lead, 1 ivory, 8 |  |  |  |  |
|                     | coins) all have been packed in suitable containers for |  |  |  |  |
| archiving           |  |  |  |  |  |
| Bulk glass          | 2 bags   |  |  |  |  |
| Bulk Soil Samples   | Flots and residues from 4 samples                      |  |  |  |  |
| Animal Bone         | 407  |  |  |  |  |
| Slag                | Total 0.237kg, 8 bags                                  |  |  |  |  |
| Worked flint        | 11 pieces (one standard box)                           |  |  |  |  |

Table 2 Finds and environmental archive general summary

## 5.4 The building material

(Ian Betts)

| Material             | Count | Count as   | Weight | Weight as  |
|----------------------|-------|------------|--------|------------|
|                      |       | % of total | (kg)   | % of total |
| Stone                | 2     | 1          | 2.24   | 7.8        |
| Roman ceramic        | 22    | 9          | 4.05   | 14.1       |
| Medieval ceramic     | 3     | 1.2        | 0.12   | 0.4        |
| Post-med ceramic*    | 213   | 88.8       | 21.99  | 74.8       |
| Mortar               | 1     | <1         | 0.20   | 0.7        |
| Painted wall plaster | 1     | <1         | 0.04   | 0.1        |
| Total                | 242   |            | 28.64  |            |

\* may include a small number of medieval tiles

Table 3 Building material

## 5.4.1 Introduction/methodology

All the building material has been recorded using the standard recording forms used by the Museum of London. This has involved fabric analysis undertaken with a x10 binocular microscope. The information on the recording forms has been added to an Oracle database.

## 5.4.2 Roman ceramic building material

Most of the Roman building material was recovered from contexts [46], [50] and [52]–[54]. The majority was found associated with pottery of late 3rd and 4th century date, although most of the building material is 1st – mid 2nd century. Later types dating to the early/mid 2nd –3rd century are present in contexts [52] and [54].

5.4.2.1 *fabrics* 

*Early Roman fabrics* 2815, 3018, 3023?

Late Roman fabrics 2459B, 3061

Undated fabrics Variant of 3070 or new type

5.4.2.2 forms

*Roofing tile* Fabric: 2815 group, types 2459B, variant of 3070 or new type

All the imbrex and tegula roofing tile is fragmentary, with no size or other features present.

*Flue tile* Fabric: 2815 group, types 3018, 3023?

Although there are only three box-flue tiles, all are in different fabric types, suggesting they were brought in from three separate tileries. There is a combed tile in fabric group 2815 in context [50], another combed tile in silty fabric 3018 in context [53] and the plain side with part of an oval vent hole in a less sandy version of fabric 3023 (near fabric 2459B) also in context [53].

*Brick* Fabric: 2815 group, type 3061

All the brick is fragmentary so it is difficult to determine the type of brick present. Their thickness (30–43mm) would suggest they are of square bessalis or pedalis type or of rectangular lydion shape.

Markings

Signature marks

A tegula and a brick in fabric group 2815 have part of a signature mark (both context [50]). In the case of the tegula it is of semicircular shape with two finger grooves. Not enough of the other survives to identify the shape of the mark.

## 5.4.3 Saxon building material

None.

## 5.4.4 Medieval ceramic building material

5.4.4.1 fabrics

*Late medieval fabrics* 2586, 3090, 3094

5.4.4.2 form

Roofing tile

Three medieval peg tiles can be identified by the presence of glaze splashes (contexts [+], [4], [249]). One tile has part of a round nail hole still visible.

It is possible the there may be other medieval roofing tiles present as it can sometimes be difficult to distinguish them from those of post-medieval date. However, there is no doubt that the vast majority of peg tile on the site are post-medieval.

## 5.4.5 Post-medieval stone building material

Ashlar

Part of an ashlar block measuring 109–114mm in breadth was found with roofing tile in context [254]. This is cut from Reigate stone from Surrey.

Paving

What may be Reigate stone paving was found in context [1] along with roofing tile and brick. It has a crudely worked edge and a partially smoothed upper surface. Mortar is attached to part of the upper surface suggesting it may have been reused at some stage.

## 5.4.6 Post-medieval ceramic building material

5.4.6.1 *fabrics* 

*Early post-medieval fabrics* 3046? (fairly near 3224?), 3215 (silty variant)

Undated fabrics 2271, 2276, 2586, 2815, 3062, 3097

Most of the peg tile are made from clays found in the greater London area (fabrics 2271, 2276, 2586 and 2815), but there are a small number of peg tiles in distinctly different fabric types. Fabric type 3097 is characterised by very small white calcium carbonate inclusions. They tiles almost certainly come from a tilery situated somewhere in north Kent. Fabric 3062 has a fairly sandy texture with silt inclusions. The location of the tilery making these tiles is less certain, although the fabric shows certain similarities to the medieval floor tiles made at Penn in Buckinghamshire.

5.4.6.2 forms

*Roofing tile* Peg tile Fabric: types 2271, 2276, 2586, 2815, 3062, 3097

The vast majority of ceramic building material found on the site is post-medieval peg tile. These are of standard London-area two nail hole type. Most have round nail holes measuring 9–15mm in diameter, but there are also examples with square and diamond shaped holes.

No complete tiles survive but there are a number in fabric type 2276 with complete breadth measurements. These measure 148–162mm in breadth by 12–14mm in thickness.

Two peg tiles in fabric 2276 have finger marks in the tile centre ([254], [263]). It is not certain if these are accidental or they were added for a specific purpose. Another tile in the same fabric has part of a small hoof print ([177] <\*>), whilst a tile in fabric 2586 has a possible batch mark to the side of the right-hand nail hole ([8]).

Ridge tile Fabric: type 2271 Ridge tiles would have covered the top of the buildings with peg tiled roofs. Somewhat surprisingly only one was found on the site ([254]).

#### Orange/red brick

Fabric: types 3046? (fairly near 3224), 3215

All the bricks were probably made in or near to Croydon. Their fabric is very different to the bricks made at the post-medieval brickyards situated elsewhere around London.

| Contexts | Fabric                   | Size (mm)                |
|----------|--------------------------|--------------------------|
| [1]      | 3215 (silty variant)     | ? x 107 x 50-51 (approx) |
| [262]    | 3046? (fairly near 3224) | 218 x 105–106            |
| [262]    | 3215 (silty variant)     | 219 x 107 x 46–51        |
| [263]    | 3215                     | ?                        |

## Table 4 Post-medieval brick

The is no dated typology of brick fabric types from Croydon, but the presence of indented borders on the complete examples from context [262] would suggest a date range of between 1450–1666.

## 5.4.7 Post-medieval plaster

A small unstatified piece of white plaster was found with post-medieval peg roofing tile. There are marks in the top and bottom surface, but its function is uncertain.

## 5.4.8 Assessment work outstanding

None.

## 5.5 Roman pottery

(Rupert Featherby)

## 5.5.1 Summary/Introduction

There are 405 sherds of Roman pottery from twenty-seven contexts, twenty-four are small in size (less than 30 sherds), two are medium (31 to 100 sherds) and one is large (100+ sherds). Four contexts also produced post-Roman pottery. The sherds are generally small to medium sized with a number of sherds being abraded.

## 5.5.2 Methodology

The pottery was spot-dated using standard MoLAS/MoLSS methods. It was quantified by rows, sherds, estimated number of vessels (ENV), estimated vessel equivalent (EVE), and weight and the data entered into the MoLAS/MoLSS Oracle database.

## 5.5.3 Discussion

Table 5 (below) shows the date ranges for WHZ06. Four contexts date to c AD 170, one context dated to the 2nd/3rd centuries, but sixteen contexts date to the 4th/5th centuries and 6 contain either unsourced fabrics or single sherds and are therefore less secure for dating purposes.

| Count of Contexts | Late Date |     |     |     |     |       |
|-------------------|-----------|-----|-----|-----|-----|-------|
| Early Date        | 100       | 120 | 170 | 250 | 400 | Total |
| 50                |           | 1   | 1   |     | 6   | 8     |
| 70                | 1         | 1   |     |     |     | 2     |
| 120               |           |     |     | 1   |     | 1     |
| 200               |           |     |     |     | 2   | 2     |
| 250               |           |     |     |     | 3   | 3     |
| 270               |           |     |     |     | 7   | 7     |
| 300               |           |     |     |     | 1   | 1     |
| 350               |           |     |     |     | 3   | 3     |
| Total             | 1         | 2   | 1   | 1   | 22  | 27    |

Table 5 Date range of assemblage

## 5.5.3.1 Fabrics

Imported wares account for only 7.2% of the assemblage by sherd count (see Table 4), which is just over only one quarter of the inland City average of 25.8%, however, this is common in late Roman assemblages. Amphora at 0.7%, by sherd count, is just more than one third as common as samian at 2.2%, by sherd count. However, both of these are much lower than their respective expected averages with amphorae at 14.3% and samian at 11.5%.

| Origin                | Sherds | %      | Weight | %      | ENVs | %      | EVEs | %      |
|-----------------------|--------|--------|--------|--------|------|--------|------|--------|
| <b>Romano-British</b> | 370    | 91.3%  | 6489   | 90.9%  | 246  | 93.5%  | 6.53 | 94.9%  |
| Imported              | 29     | 7.2%   | 638    | 8.9%   | 12   | 4.6%   | 0.25 | 3.6%   |
| Miscellaneous         | 6      | 1.5%   | 14     | 0.2%   | 5    | 1.9%   | 0.1  | 1.5%   |
| Total                 | 405    | 100.0% | 7138   | 100.0% | 263  | 100.0% | 6.88 | 100.0% |

Table 6 Breakdown by fabric origin

| Ware                  | Sherds | %       | ENV | %     | EVE  | %      | Weight | %             |
|-----------------------|--------|---------|-----|-------|------|--------|--------|---------------|
| Amphora               | 3      | 0.7%    | 3   | 1.1%  | 0    | 0.0%   | 257    | 3.6%          |
| Samian                | 9      | 2.2%    | 8   | 3.0%  | 0.25 | 3.6%   | 51     | 0.7%          |
| <b>Romano-British</b> |        |         |     |       |      |        |        |               |
| Fine wares            | 24     | 5.9%    | 24  | 9.1%  | 0.24 | 3.5%   | 243    | 3.4%          |
| Black-Burnished       |        |         |     |       |      |        |        |               |
| wares                 | 3      | 0.7%    | 3   | 1.1%  | 0    | 0.0%   | 17     | 0.2%          |
| Romano-British        | 1.5    | 2 = 2 ( | _   | 0 70/ | 1.00 | 15.00/ | 1.60   | <b>2</b> 40 ( |
| reduced fine wares    | 15     | 3.7%    | 7   | 2.7%  | 1.03 | 15.0%  | 169    | 2.4%          |
| <b>Reduced</b> wares  | 189    | 46.7%   | 132 | 50.2% | 3.55 | 51.6%  | 2290   | 32.1%         |
| <b>Tempered</b> wares | 95     | 23.5%   | 44  | 16.7% | 0.82 | 11.9%  | 3042   | 42.6%         |
| Oxidised wares        | 61     | 15.1%   | 37  | 14.1% | 0.89 | 12.9%  | 1055   | 14.8%         |
| Miscellaneous wares   | 6      | 1.5%    | 5   | 1.9%  | 0.1  | 1.5%   | 14     | 0.2%          |
|                       |        | 100.0   |     | 100.0 |      | 100.0  |        |               |
| Total                 | 405    | %       | 263 | %     | 6.88 | %      | 7138   | 100.0%        |

Table 7 Breakdown by fabric type

## Early Fabrics

Fabrics dating to the late Iron age/Early Roman period, i.e. *c* 100BC–AD100 were identified within this assemblage in the form of a Gallo-Belgic white ware buttbeaker. No other imported early fine wares were present. Grog-tempered wares represented some 21% of the assemblage by sherd count, being the most common ware identified. Although a portion of this was most likely a late Roman grog-tempered fabric, the majority appears to be early Roman with a small portion quite possibly of late Iron age dating. Unsourced sand tempered wares made up the largest element of the assemblage at 27.9% and although much of this group had affinities to London fabrics such early Roman sand tempered ware 'B', there were enough differences to suggest that they were from another more local source. Black burnished ware types are in very low, 0.7%. Oxidised wares account for only 15.1% by sherd count.

## Late fabrics

Romano-British late fabrics at 13.6% of the assemblage by sherd count represent a relatively high element of sourced wares. Alice Holt/Farnham ware (AHFA), which is dated c AD 250–400, and Oxfordshire wares, dating c AD 240–400 are the most common late Roman fabrics by sherd count, 5.4% and 4.7% respectively. Roman late 'calcite-tempered' ware, dating c AD 300–400, Nene Valley colour-coated ware, dated

c AD 150–400, and Portchester 'D' ware, dating c AD 350–400, have also been identified.

No imported late Roman fabrics were identified.

## 5.5.3.2 Forms

A relatively 'standard' range of vessels have been identified on WHZ06 with jars being the most common at 30.1% by sherd count, bowls were the next most common at 4.2% (see Table 8).

| Form         | Sherds | %     | ENV | %     | EVE  | %     | Weight | %     |
|--------------|--------|-------|-----|-------|------|-------|--------|-------|
| Amphora      | 3      | 0.7%  | 3   | 1.1%  | 0    | 0.0%  | 257    | 3.6%  |
| Beaker       | 32     | 7.9%  | 8   | 3.0%  | 1.78 | 25.9% | 510    | 7.1%  |
| Bowl         | 17     | 4.2%  | 14  | 5.3%  | 0.67 | 9.7%  | 289    | 4.0%  |
| Bowl/Dish    | 3      | 0.7%  | 3   | 1.1%  | 0    | 0.0%  | 40     | 0.6%  |
| Cup          | 3      | 0.7%  | 3   | 1.1%  | 0.25 | 3.6%  | 35     | 0.5%  |
| Dish         | 6      | 1.5%  | 5   | 1.9%  | 0.26 | 3.8%  | 94     | 1.3%  |
| Flagon       | 1      | 0.2%  | 1   | 0.4%  | 1    | 14.5% | 58     | 0.8%  |
| Flagon/Jar   | 1      | 0.2%  | 1   | 0.4%  | 0    | 0.0%  | 130    | 1.8%  |
| Jar          | 122    | 30.1% | 46  | 17.5% | 2.53 | 36.8% | 2887   | 40.4% |
| Jar/Beaker   | 2      | 0.5%  | 2   | 0.8%  | 0.1  | 1.5%  | 9      | 0.1%  |
| Lid          | 1      | 0.2%  | 1   | 0.4%  | 0    | 0.0%  | 29     | 0.4%  |
| Miscellanous | 1      | 0.2%  | 1   | 0.4%  | 0.05 | 0.7%  | 15     | 0.2%  |
| Mortarium    | 6      | 1.5%  | 6   | 2.3%  | 0.24 | 3.5%  | 123    | 1.7%  |
| Unidentified | 207    | 51.1% | 169 | 64.3% | 0    | 0.0%  | 2662   | 37.3% |
|              |        | 100.0 |     | 100.0 |      | 100.0 |        | 100.0 |
| Total        | 405    | %     | 263 | %     | 6.88 | %     | 7138   | %     |

Table 8 Breakdown by form

## 5.5.4 Discussion

As noted above the majority of sourced fabrics are late Roman in origin suggesting that the greatest activity took place during the late Roman period. The low quantities of early Roman fabrics indicates that activity during this period was limited and the small quantity of possible late Iron age fabrics suggests that there was some earlier activity. Given that this excavation was in an area that would have been in the 'country' during the Roman period, the lack of early fabrics is not surprising. Although the assemblage is small, it raises a number of questions relating to the development of the late Roman London hinterland.

## 5.6 Post-Roman pottery

(Nigel Jeffreys)

## 5.6.1 Introduction

This text considers the medieval and later pottery retrieved from the archaeological excavation at Whitgift Street. Up to 109 sherds from a minimum number of 76 vessels (ENV) were recovered from 15 contexts and stored in four shoe-sized boxes together the Roman pottery. The assemblage consists of 14 small-sized groups (contexts yielding fewer than 30 sherds) with one medium-sized group also found (contexts yielding between 30-100 sherds from context [1]).

The condition of the medieval pottery is generally poor, largely comprising body sherds and although the identification of fabric and form can usually be confidentially ascribed, it is not unusual to find contexts containing chronologically mixed ceramic groups. Although the post-medieval pottery is better preserved, with some contexts yielding larger-joining sherds (contexts [1] and [263] in particular), most groups remain characterised by smaller-sized fragments.

## 5.6.2 Methodology

The medieval and later pottery was examined macroscopically, using a binocular microscope (x 20) where appropriate, and recorded on paper and computer, using standard Museum of London codes for fabrics, forms and decoration for the period. The numerical data comprises sherd count, estimated number of vessels (ENV) and weight and entered onto the ORACLE database. This assessment aims to evaluate the character and the date range of the assemblage, determine the research questions the material has the potential to address and identify any areas of further work.

## 5.6.3 Medieval pottery fabrics and forms

The medieval assemblage consists of 27 sherds from 23 vessels (ENV) and weighed up to 278 grammes (providing a mean weight per vessel of 12 grammes). The near equal proportion of sherd to vessel count, together with low mean weight per vessel, reflects the abraded condition of this material and consequently identification could not always be made with any certainty. Found from 14 contexts, the occurrence of apparently residual medieval pottery in [4], [6], [8], [48], [177], [244], [259], [272], and [277] evidences that these deposits had witnessed some disturbance and so this material is not described or discussed further. However, Table 9, nevertheless supplies the *terminus post-quem* and *ante quem* dates provided by the medieval pottery from this site. Only contexts [254], [258] and [280] therefore remain as securely dated medieval landuse.

Generally pottery from locally made sources dominate, in particular the products of the Surrey whiteware industry (15 sherds from 15 vessels), such as Kingston-type ware (KING: dating between c1240 and 1400) and coarse border ware (CBW; dating between c1270 and 1500). These white-fired, sandy earthenwares were one of the main types of pottery used and found in London from the early 13th century until the late 15th century (Pearce and Vince 1988, 6).

| No of      | Late Da | te   |      |      |       |
|------------|---------|------|------|------|-------|
| contexts   |         |      |      |      |       |
| Early Date | 1150    | 1350 | 1400 | 1500 | Total |
| 1050       | 1       |      |      |      | 1     |
| 1080       | 1       |      |      |      | 1     |
| 1240       |         |      | 1    |      | 1     |
| 1270       |         | 3    | 1    | 2    | 6     |
| 1270       |         |      |      | 2    | 2     |
| 1350       |         |      |      | 2    | 2     |
| 1400       |         |      |      | 1    | 1     |
| Total      | 2       | 3    | 2    | 7    | 14    |

Table 9 Medieval pottery by TPQ and TAQ dates and frequency of context

## 5.6.4 Post-medieval pottery fabric and forms

Post-medieval pottery from Whitgift Street comprises 72 sherds from up to 53 vessels and weighed 2461 grammes (providing a mean weight per vessel of 32.3 grammes) with Table 10 providing the *terminus post-quem* and *ante quem* dates applied to this material. The small-size and poor condition of some of the pottery means that fabric and form could not always be identified with confidence. The three most common types, by source of supply and vessel count are summarised below, with products of the Surrey-Hampshire border ware and London coarse red earthenware industry popular, with the London made tin-glazed wares found supplying the 17th-century dates for two contexts.

Most commonly found by vessel count (28 vessels broken into 36 sherds) are locally coarsewares identified mostly as either plain early post-medieval redwares (fabric code PMRE) or its slip-decorated derivatives (PMSRG and PMSRY), which are thought to be made around the London area between c1480 and 1600/1650 (although production centres and kilns sites have yet to be identified). Cauldrons for cooking or as bowls or dishes for food preparation and serving dominate functionality. Less frequent – reflecting the predominant 16th-century date of the assemblage – are later London redware products (PMR) made between c 1580 and 1900 either at Woolwich, where a kiln was uncovered in 1974, or at Lambeth and Deptford, were production is strongly suggested by the large quantities of manufacturing waste recovered (Nenk 1999, 237).

Up to 13 vessels are the white and redware products of the Surrey-Hampshire Border ware industry; essentially a later continuation of the medieval Surrey whiteware industry it made a variety of everyday utilitarian forms, and became one of the most common sources of pottery used in London between c 1550 and 1800 (see Pearce 1992). Bowls and flared dishes for food preparation and serving dominate.

Imported Rhenish stonewares provide most of the drinking vessels in this assemblage with a variety of Frechen made jugs recovered, with the best preserved group recovered in context [1].

| No of      | Late D | ate  |      |      |      |      |      |      |       |
|------------|--------|------|------|------|------|------|------|------|-------|
| contexts   |        |      |      |      |      |      |      |      |       |
| Early Date | 1550   | 1600 | 1610 | 1650 | 1680 | 1690 | 1700 | 1900 | Total |
| 1480       | 2      | 3    |      |      |      |      |      |      | 5     |
| 1580       |        |      | 1    | 1    |      |      |      |      | 2     |
| 1580       |        |      |      |      |      |      | 2    | 1    | 3     |
| 1630       |        |      |      |      | 1    |      |      |      | 1     |
| 1670       |        |      |      |      |      | 1    |      |      | 1     |
| Total      | 2      | 3    | 1    | 1    | 1    | 1    | 2    | 1    | 12    |

Table 10 Post-medieval pottery by TPQ and TAQ dates and frequency of context

## 5.6.5 Discussion

The assemblage consistently provides a late 15th to mid 17th- century date to the recorded landuse sequence. Whilst most deposits yielded less than five sherds, the better preserved groups were recovered from contexts [1] and [263], which contained some profiles and larger sized sherds. Context [1] yielded the best preserved and most frequent group of ceramics, accounting for some 35 sherds and 22 vessels and much of the assemblage's weight. Dating between 1630 and 1650, this material comprises a number Surrey-Hampshire border ware bowls and dishes, supplemented by drinking vessels from the Rhineland and Essex region.

## 5.7 The clay tobacco pipes

(Tony Gray)

## 5.7.1 Introduction/methodology

The clay tobacco pipe assemblage from WHZ06 was recorded in accordance with current MoLSS practice and entered onto the Oracle database. The English pipe bowls have been classified and dated according to the Chronology of London Bowl Types (Atkinson and Oswald 1969), with the dating of some of the 18th-century pipes refined where appropriate by reference to the Simplified General Typology (Oswald 1975, 37–41). The prefixes AO and OS are used to indicate which typology has been applied. Quantification and recording follow guidelines set out by Higgins and Davey (1994; Davey 1997).

## 5.7.2 Quantification

There is a standard box of bulk (214 fragments) and accessioned (five fragments) pipes. They were recovered from two contexts with four fragments unstratified: a detailed breakdown of the assemblage is given in Table 11. The greatest concentration of pipe fragments occurs in context [1] (206 fragments). Fifty-seven pipe bowls were recorded with most of them datable according to current typologies. Only one bears a

| Total no. of fragments   | 219              |
|--------------------------|------------------|
| No. of bowl fragments    | 57               |
| No. of stem fragments    | 158              |
| No. of mouthpieces       | 4                |
| Accessioned pipes        | 5                |
| Marked pipes             | 1                |
| Decorated pipes          | 0                |
| Imported pipes           | 0                |
| Complete pipes           | 0                |
| Wasters                  | 0                |
| Kiln material fragments  | 0                |
| Boxes (bulk\accessioned) | I box bulk/accn. |
|                          |                  |

maker's mark. None are decorated. There are 158 undiagnostic stems and four mouthpieces present.

Table 11 Clay tobacco pipe quantification

## 5.7.3 Condition

Although most of the pipe bowls are complete there are no complete pipes. Nearly all the pipe bowls show evidence of smoking. Apart from damaged bowls there is little sign of wear or excessive fragmentation. Many of the pipes exhibit signs of burning.

## 5.7.4 Provenance and dating of the clay pipes

All clay pipe bowls recovered were made between c 1610 and 1690 with one type AO6 dated c 1610-40 from context [1], fourteen type AO9 dated c 1640-60 from context [1], twenty-nine type AO10 dated c 1640-60, one from context [263], the remainder from context [1], two type AO11 dated c 1640-70 from context [1] and three type AO16 dated c 1640-90 from context [1]. Four pipe bowl fragments were not identifiable and the stems and mouthpieces are not sufficiently diagnostic to date beyond the broad range c 1580-1910 although they almost certainly fit within the seventeenth century date range of the pipe bowls above. Only one pipe bears a maker's mark that is not readily attributable to a specific maker.

| Ctxt  | TPQ  | TAQ  | Bowl | Stem | Mouthpiece | Total |
|-------|------|------|------|------|------------|-------|
| 0     | 1580 | 1910 |      | 4    |            | 4     |
| 1     | 1640 | 1690 | 56   | 152  | 4          | 212   |
| 263   | 1640 | 1660 | 1    | 2    |            | 3     |
| Total |      |      | 57   | 158  | 4          | 219   |

Table 12 Clay tobacco pipe dates, by context

| Late Da | te |  |  |
|---------|----|--|--|
| 2       |    |  |  |

| Early Date | 1640 | 1660 | 1670 | 1690 | Total |
|------------|------|------|------|------|-------|
| 1610       | 5    |      |      |      | 5     |
| 1640       |      | 43   | 2    | 3    | 48    |
| Total      | 5    | 43   | 2    | 3    | 53    |

Table 13 The chronological distribution of datable clay pipe bowls

## 5.7.5 Character of the pipe assemblage

The pipes are most likely of local manufacture or from nearby London. None are imported and none decorated. None bears a maker's name but one has a star on the heel that cannot be identified to a particular maker. All of these seventeenth century pipe bowls have been milled but none show signs of burnishing so they are not of the highest (most expensive) quality. Many fragments show signs of post-depositional burning though a few of these may simply have been heavily smoked before discard. The assemblage is quite tightly dated to the seventeenth century with a *TPQ* of 1640 for both contexts with pipes and for the unstratified group.

## 5.7.6 Marked pipes

One pipe moulded in relief on the base of the heel.

## 5.7.6.1 Moulded marks

**STAR** Type AO11 dated c 1640-70 <10> from context [1]. Maker not known but might represent a public house.

5.7.6.2 Stamped pipes

None.

5.7.6.3 Decorated pipes

None.

5.7.7 Imported pipes

None.

## 5.7.8 Mouthpieces

Four with rounded tips <21> to <24> from context [1].

## 5.7.9 Discussion

The evidence of the clay pipe assemblage is of limited significance in the local context and in relation to the site and is fairly tightly dated as a group for the post-medieval period being confined to the seventeenth century. The pipes were probably manufactured locally but determining their source and distribution is not possible and no further work is recommended.

## 5.8 The accessioned finds

(Nicola Powell)

| Material     | Roman | Post medieval | Unknown | Comment |
|--------------|-------|---------------|---------|---------|
| Copper alloy |       | 3             | 4       |         |
| Iron         |       | 1             | 1       |         |
| Lead         |       |               | 1       |         |
| Ivory        |       | 1             |         |         |
| Coins        | 7     | 1             |         |         |
| Total        | 7     | 6             | 6       |         |

Table 14 Summary of accessioned finds by material and period

## 5.8.1 Introduction/methodology

The accessioned finds, bulk glass and slag were recovered during the excavation at Whitgift Street, Croydon (WHZ06). The finds have been processed in accordance with Museum of London (MoL) standards and the records have been entered onto the Oracle relational database. The finds have been examined briefly for the assessment and the initial identifications confirmed or revised. The finds have also been examined in the light of the available stratigraphic and dating evidence and the metalwork with the benefit of x-radiography. All have been listed in the registered finds catalogue (WHZ06regcat). A summary of the material is given below, and its significance and potential discussed in terms of understanding the function and development of the site itself.

## 5.8.2 Categories by dating and materials

## 5.8.2.1 Post medieval

## Copper alloy

A small corroded object <12> may be a watch key, with loop, winding shaft and a second small protrusion. It was found in context [40]. A large lace chape <16> was recovered from context [1]. It has an edge to edge seam and the narrow end appears open and unfinished. A hook <18> found in context [259] is likely to have been used to fasten closed a casket or small box. It has a loop for fixing to one part of the box and a hook with a stop to fasten it shut.

## Iron

A small horseshoe <20> from context [8] appears plain, with one arm missing. It is in poor condition, being heavily encrusted and corroded.

## Ivory

Fragments of a fine toothed comb <17> were recovered from context [48]. It was examined before conservation whilst preserved in water. It appears to have one curved

end and several sections of the centre of the comb. It is unclear whether it is decorated and should be examined after conservation.

## 5.8.2.2 Unknown date

## Copper alloy

Two incomplete rings <7> and <10> were recovered from the site (contexts [171] and [52] respectively). Ring <7> has a flattened oval section and ring <10> has a rectangular section. Rings served a multitude of purposes throughout many periods, including as part of horse harness and as curtain rings. A complete pin <8> with a globular head was recovered from an unstratified context. A heavily corroded fragment <11> from context [40] appears to be two layers of sheet metal with what may be rivets in place. It may be the remains of a strap end.

## Iron

A heavily corroded ring <13> from context [8] is likely to be from horse harness.

## Lead

Context [170] produced three pieces of lead dross <17>.

## 5.8.2.3 Coins

## Roman

The site produced seven coins of Roman date. The earliest, <14>, recovered from context [259], is a sestertius of Hadrian, dating from 117–138 AD. The remainder are 4th century nummi. Four were recovered from context [170], including two nummi of Constantinian, <1> and <5>, dating from around 340 to 350 AD, a nummus of Constantine I <3> of a similar date and one of Valens <6> dating from 364 to 378 AD. A second nummus of Constantine I <2> was found in context [281], with a second of Valens <9> recovered from context [52].

## Post medieval

A copper alloy coin <4> from context [177] is likely to be later post medieval in date. It is heavily encrusted with dirt.

## 5.8.2.4 Bulk glass

A single sherd of bottle glass was recovered from an unstratified context. Probably from a wine bottle, it is heavily iridescent and can be given a broad post medieval date. It is unclear what date a thin rod of glass found in context [42] may be. It may be the remains of a decorated trail or a by-product of glass making.

## 5.8.3 Functional analysis

The assemblage is too small to attempt any form of functional analysis.

## 5.8.4 Assessment work outstanding

None

## 5.8.5 List of objects for investigative conservation or cleaning

<11> Copper alloy ?Strap end

## 5.8.6 List of objects for illustration

<8> Copper alloy pin

<11>, if identified as strap end after cleaning/investigative conservation

## 5.9 The botanical samples

(Kate Roberts)

## 5.9.1 Introduction/methodology

Five samples of twenty litres and one of forty litres were taken from a variety of contexts, including pit fills and a well fill, dating from the Roman, medieval and postmedieval phases of which four produced flots. At present, dating places these contexts in the post-medieval period. All samples were processed by flotation, using a Siraf flotation tank, and meshes of 0.25mm and 1.00mm to catch the flot and the residue respectively. All the residues and flots were dried. The residues were sorted for finds and environmental material. The flots were briefly scanned using a low-powered binocular microscope, and the abundance, diversity and general nature of plant macrofossils and any faunal remains were recorded on the MoLAS ORACLE database. Tables 14–17 show the contents of the samples.

## 5.9.2 Roman

Charred remains in sample {5} from pit fill [53] included one charred indeterminate cereal grain (Cerealia indet.), still within its chaff, and a moderate amount of charcoal. Waterlogged plant remains were also present. These included elder (*Sambucus nigra*), blackberry/raspberry (*Rubus fruticosus/idaeus*) and pond weed (*Lemna spp.*). All of these seeds are quite 'woody' suggesting that this may be the remnants of a waterlogged assemblage, with only the more robust remains surviving in this soil sample.

## 5.9.3 Medieval

Charred plant remains in sample {2} from pit fill [8] included a small amount of charred cereal grain, consisting of possible rye (cf. *Secale cereale*) and free-threshing wheat (*Triticum aestivum/compactum/turgidum*). Also present in this sample were the charred remains of cornflower/knapweed (*Centaurea* spp.), dock (*Rumex* spp.) and campion (*Silene* spp.), all of which are possible arable weeds. Waterlogged plant remains were present in this sample, mainly consisting of seeds from plants of disturbed ground, including poppy (Papaveraceae indet.), elder (*Sambucus nigra*) and nightshade (*Solanum* spp.).

## 5.9.4 Post-medieval

Sample {1} from refuse pit fill [1] contained a small amount of cereal grain and other charred food remains including stones from plum (*Prunus domestica*) and *Prunus* type and also a possible pepper corn (cf. *Piper nigrum*) or indeterminate fruit berry. Also

present was a small quantity of waterlogged remains, although again it appears that these might be the more robust remnants of an assemblage.

Sample {6} from well fill [263] contained a moderate quantity of cereal grains and some charred seeds. It also contained some waterlogged seeds. Again, it was 'woodier' seeds that survived in this context. The cereal in both of these contexts was dominated by free-threshing wheat (*Triticum aestivum/compactum/turgidum*), with smaller quantities of barley (*Hordeum vulgare s.l.*)

## 5.9.5 Assessment work outstanding

None.

## 5.9.6 Molluscs

Very small quantities of terrestrial and freshwater molluscs were present in sample {6} from well fill [263].

## 5.9.7 Discussion

Little work on archaeobotany from Croydon has been carried out and so little is known, therefore the charred plant remains from these samples have the potential to increase our limited knowledge of diet in Roman, medieval and post-medieval Croydon by looking at both the cereal and fruit remains. The waterlogged remains do not appear to have any potential for further study since only the more robust seeds have survived, and so this is not a representative assemblage.

|            |    |           |             |           |      | CHD<br>Grain | CHD<br>Seeds | CHD<br>Wood | WLG<br>Seeds | WLG<br>Misc |                                       |
|------------|----|-----------|-------------|-----------|------|--------------|--------------|-------------|--------------|-------------|---------------------------------------|
| Samp<br>No | BI | Dating    | Proc<br>Vol | Flot Vol. | Proc | A D          | A D          | A D         | AD           | AD          | Comments                              |
| 140        |    |           | VOI.        |           |      |              |              |             |              |             |                                       |
| 2          | Р  | 1480-1550 | 9           | 125       | F    | 11           | 11           | 31          | 22           |             | LOW CEREAL                            |
| 1          | PR | 1640-1660 | 15.5        | 180       | F    | 11           | 11           | 11          | 21           | 11          | SOME CHARREDCHD CESS, CF PEPPER/BERRY |
| 5          | Р  | 270-400   | 10          | 5         | F    | 11           |              | 21          | 21           |             | ONE PRETTY CEREAL IN CHAFF            |
| 6          | W  | 1670-1690 | 9           | 50        | F    | 21           | 11           | 31          | 21           |             | LOW CEREAL, POOR WLG                  |

Table 15 Botanical Summary

Abundance 1 = 1–10 items, 2= 11–50, 3 = 50+ items

Diversity 1 = 1-3 items, 2 = 4-7 items, 3 = 7+ items

| Subgrp | Context | Sample | BI | Dating | Proc | Wet | Wet Sv | Flot | Flot | Any un-   | Comment                        |
|--------|---------|--------|----|--------|------|-----|--------|------|------|-----------|--------------------------------|
|        |         |        |    |        | Vol  | Sv  | Mesh   |      | Vol  | processed |                                |
|        |         |        |    |        |      | Vol | Size   |      |      |           |                                |
| 3      | 35      | 4      | Р  | 50-400 | 13   | 20  | 1      |      |      | Ν         | MAINLY GRAVEL OCC POT ROMAN?   |
| 14     | 8       | 2      | Ρ  | 1480-  | 9    | 20  | 1      | Y    | 125  | N         | DARK CHARC FLOT. FQ OYSTER OCC |
|        |         |        |    | 1550   |      |     |        |      |      |           | BONE CBM.                      |
| 15     | 1       | 1      | PR | 1640-  | 16   | 40  | 1      | Y    | 180  | N         | INDUSTRIAL .FQ COAL- LGR ONLY  |
|        |         |        |    | 1660   |      |     |        |      |      |           | KEPT, COKE, SLAG, OCC BONE-CBM |
| 37     | 53      | 5      | Р  | 270-   | 10   | 20  | 1      | Y    | 5    | N         | MAINLY GRAVEL. OCC POT,        |
|        |         |        |    | 400    |      |     |        |      |      |           | BONE/ANTLR                     |
| 98     | 263     | 6      | W  | 1670-  | 9    | 20  | 1      | Y    | 50   | N         |                                |
|        |         |        |    | 1690   |      |     |        |      |      |           |                                |

Table 16 Processing information

| Subgrp | Context | Sample | BI | Dating    | Process | Constituent  | Abundance | Diversity | Comment                          |
|--------|---------|--------|----|-----------|---------|--------------|-----------|-----------|----------------------------------|
| 14     | 8       | 2      | Р  | 1480-1550 | F       | BONE FISH    | 2         | 1         | VERTEBRAE, OSSICLES              |
|        |         | 2      | Р  | 1480-1550 | F       | CHD GRAIN    | 1         | 1         | RYE, INDET, TRIFT (C5)           |
|        |         | 2      | Р  | 1480-1550 | F       | CHD SEEDS    | 1         | 1         | CEN,RUM,SIL                      |
|        |         | 2      | Р  | 1480-1550 | F       | INV OSTRACOD | 2         | 1         |                                  |
|        |         | 2      | Р  | 1480-1550 | W       | BONE LMAM    | 1         | 1         |                                  |
|        |         | 2      | Р  | 1480-1550 | W       | BONE FISH    | 1         | 1         |                                  |
|        |         | 2      | Р  | 1480-1550 | F       | WLG SEEDS    | 2         | 2         | SAMNI, VIO, PAP, SOL, AETCY, CAR |
|        |         | 2      | Р  | 1480-1550 | F       | CHD WOOD     | 3         | 1         | SOME LARGE CHUNKS                |
|        |         | 2      | Р  | 1480-1550 | W       | BONE SMAM    | 1         | 1         |                                  |
|        |         | 2      | Р  | 1480-1550 | W       | MOLSCMARINE  | 3         | 1         |                                  |
| 15     | 1       | 1      | PR | 1640-1660 | F       | CHD GRAIN    | 1         | 1         | TRIFT,HORVU (3)                  |
|        |         | 1      | PR | 1640-1660 | F       | CHD SEEDS    | 1         | 1         | PRUSP,PRUDO,CFPIPNI/BERRY        |
|        |         | 1      | PR | 1640-1660 | F       | CHD WOOD     | 1         | 1         | SOME LARGE LUMPS                 |
|        |         | 1      | PR | 1640-1660 | F       | WLG MISC     | 1         | 1         | TREE BUD                         |
|        |         | 1      | PR | 1640-1660 | F       | WLG ROOTS    | 2         | 1         |                                  |
|        |         | 1      | PR | 1640-1660 | F       | WLG SEEDS    | 2         | 1         | LAMI,URTDI,CHE                   |
|        |         | 1      | PR | 1640-1660 | W       | BONE LMAM    | 2         | 1         |                                  |
| 37     | 53      | 5      | Р  | 270-400   | F       | CHD GRAIN    | 1         | 1         | GRAIN IN CHAFF                   |
|        |         | 5      | Р  | 270-400   | F       | CHD WOOD     | 2         | 1         |                                  |
|        |         | 5      | Р  | 270-400   | F       | WLG SEEDS    | 2         | 1         | SAMNI,LAMI,RUBFRID,LEMNA         |
|        |         | 5      | Р  | 270-400   | W       | BONE LMAM    | 2         | 1         |                                  |
| 98     | 263     | 6      | W  | 1670-1690 | F       | CHD GRAIN    | 2         | 1         | WHEAT, OAT/BARLEY (11)           |
|        |         | 6      | W  | 1670-1690 | F       | CHD SEEDS    | 1         | 1         | V/L,CFBRASIN                     |
|        |         | 6      | W  | 1670-1690 | F       | CHD WOOD     | 3         | 1         |                                  |
|        |         | 6      | W  | 1670-1690 | F       | MOLSCFW      | 1         | 1         |                                  |
|        |         | 6      | W  | 1670-1690 | F       | MOLSCTR      | 2         | 1         |                                  |
|        |         | 6      | W  | 1670-1690 | F       | WLG SEEDS    | 2         | 1         | SAMNI,PAP,RUBFRID                |
|        |         | 6      | W  | 1670-1690 | W       | BONE LMAM    | 1         | 1         |                                  |

Table 17 Organic remains in flots

| Sub | Cont | Sam | BI | Dating    | Constituent | Proportion |
|-----|------|-----|----|-----------|-------------|------------|
| grp | ext  | ple |    |           |             |            |
| 3   | 35   | 4   | Р  | 50-400    | POT         | 0          |
|     |      | 4   | Р  | 50-400    | SLAG        | 0          |
| 14  | 8    | 2   | Р  | 1480-1550 | CBM         | 0          |
|     |      | 2   | Р  | 1480-1550 | FE OBJ      | 0          |
|     |      | 2   | Р  | 1480-1550 | POT         | 0          |
|     |      | 2   | Р  | 1480-1550 | SLAG        | 0          |
| 15  | 1    | 1   | PR | 1640-1660 | CBM         | 0          |
|     |      | 1   | PR | 1640-1660 | CLYPIPE     | М          |
|     |      | 1   | PR | 1640-1660 | COAL        | A          |
|     |      | 1   | PR | 1640-1660 | FE OBJ      | 0          |
|     |      | 1   | PR | 1640-1660 | POT         | 0          |
|     |      | 1   | PR | 1640-1660 | SLAG        | A          |
| 37  | 53   | 5   | Р  | 270-400   | POT         | 0          |
|     |      | 5   | Р  | 270-400   | SLAG        | 0          |
| 98  | 263  | 6   | W  | 1670-1690 | CBM         | 0          |
|     |      | 6   | W  | 1670-1690 | FE OBJ      | 0          |
|     |      | 6   | W  | 1670-1690 | POT         | 0          |
|     |      | 6   | W  | 1670-1690 | SLAG        | 0          |

Table 18 Finds present in flots

## 5.10 The slag

(Nicols Powell)

| Context | Sample Number | Weight (g) | Comment           |
|---------|---------------|------------|-------------------|
| 1       | 1             | 22         |                   |
| 4       |               | 26         |                   |
| 8       | 2             | 7          |                   |
| 35      | 4             | <1         |                   |
| 53      | 5             | 2          |                   |
| 67      |               | 35         | With small stones |
| 263     | 6             | 7          |                   |
| 281     |               | 173        | Six pieces        |
| Total   |               | 273        |                   |

Table 19 Slag: summary

## 5.10.1 Introduction/methodology

The slag was recovered during the excavation at Whitgift Street, Croydon (WHZ06). It has been processed in accordance with Museum of London (MoL) standards and the records have been entered onto the Oracle relational database. The slag has been examined briefly for the assessment and the initial identification confirmed or revised. It has also been examined in the light of the available stratigraphic and dating evidence. It has been included in the registered finds and bulk glass catalogue (WHZ06regcat). A summary of the material is given below, and its significance and potential discussed in terms of understanding the function and development of the site itself.

## 5.10.2 Categories by dating and materials

Slag with a total weight of 273g was recovered from the site. It seems to represent different stages of the metalworking process. Samples 1, 2, 4, 5 and 6 produced small pieces of slag, included in the total.

## 5.10.3 Functional analysis

The slag assemblage is small, and may represent metalworking carried out on or near the site.

## 5.10.4 Assessment work outstanding

None.

## 5.11 The animal bone

(Alan Pipe)

## 5.11.1 Introduction/methodology

Hand-collected and wet-sieved animal bone, mainly from pit groups with smaller quantities from well, external cultivation and ditch deposits, was recorded directly onto the MoLAS/MoLSS Oracle 8 animal bone assessment database. Each context and sample group was described in terms of weight (kg), estimated fragment count, species, carcase-part, fragmentation, preservation, modification, and the recovery of epiphyses, mandibular tooth rows, measurable bones, complete long bones, and sub-adult age groups. The assemblage was not recorded as individual fragments or identified to skeletal element. All identifications referred to the MoLSS reference collection. Fragments not identifiable to species or genus level were generally allocated to an approximate category; particularly unidentified fish, 'ox-sized' and 'sheep-sized', as appropriate. Each context and sample assemblage was then grouped with the available dating and feature description.

## 5.11.2 Summary, general

The bulk of the group derived from adult ox *Bos taurus*, 'ox-sized, sheep/goat *Ovis aries/Capra hircus* and 'sheep-sized' fragments with smaller quantities of pig *Sus scrofa*, horse *Equus caballus* and dog *Canis familiaris*. Wet-sieved samples produced single finds of rabbit *Oryctolagus cuniculus* mandible and rat *Rattus sp*. upper limb from [8] {2}. Cat *Felis catus* upper and lower limb were recovered from [4]. Fragments of red deer *Cervus elaphus* antler were recovered from [52] and [53]. There was no recovery of human bone. Fragments of unidentified fish were recovered from [8] {2} and [263] {6}. There was no recovery of amphibians, or wild 'game' birds or mammals.

The major domesticates were represented mainly by elements of the vertebra, rib, upper limb and lower limb, areas of moderate and good meat-bearing quality, with only occasional recovery of the head and feet. There was no recovery of ox or sheep/goat horncore. Clear evidence of butchery was seen on 'ox-sized' vertebra/rib from [171] and [263]; and on 'sheep-sized' vertebra/rib from [249]. A single pig upper limb bone from [1] had been burnt. All bird and mammal fragments derived from mature individuals; there were no foetal, neonate or infant examples. There was no evidence for working, gnawing or pathological change.

The group produced some evidence for age at death of the major domesticates, with four mandibular tooth rows and 75 epiphyses; metrical evidence comprised 14 measurable bones including 12 complete longbones.

## 5.11.3 Analysis of potential

The hand-collected and wet-sieved assemblage has some limited potential for further study of the local meat diet, and patterns of waste disposal, particularly with reference to carcase-part selection, age at death, and stature, of the major domesticates; particularly cattle, sheep/goats and pigs. Further identification to species or genus level of the fish will allow fuller interpretation of their significance as a dietary component. Measurement of the complete horse and dog longbones will allow comment on stature and proportion.

In view of the lack of amphibians and small 'wild' mammals from the samples, there is no potential for interpretation of local habitats.

## 5.11.4 Significance

The hand-collected and wet-sieved animal bone is of some local significance in terms of the local meat diet, with particular emphasis on carcase-part selection, age composition and stature of and cattle, sheep/goats and pigs. There is considerable significance in terms of comparison with contemporary local sites. There is no regional or wider significance.

There is no significance for interpretation of local habitats.

| GROUP | FEATURE              | CONTEXT | SAMPLE | WT (kg) | FRAGS   | PRES   | NOS | LMAM   | SMAM | FISH | BIRD | AMPH | MANDIBLES | MEAS | EPIPHYSES | LONGBONES |
|-------|----------------------|---------|--------|---------|---------|--------|-----|--------|------|------|------|------|-----------|------|-----------|-----------|
| 6     | pit, rubbish         | 1       | 0      | 0.650   | >75mm   | good   | 5   | <10    | 0    | 0    | 0    | 0    | 0         | 0    | 1         | 0         |
| 6     | pit, rubbish         | 1       | 1      | 0.150   | 25-75mm | good   | 25  | 11-100 | 0    | 0    | 0    | 0    | 0         | 0    | 0         | 0         |
| 4     | external cultivation | 4       | 0      | 0.800   | >75mm   | good   | 30  | 11-100 | 0    | 0    | 0    | 0    | 0         | 5    | 10        | 3         |
| 5     | pit                  | 6       | 0      | 0.225   | >75mm   | good   | 7   | <10    | 0    | 0    | 0    | 0    | 0         | 1    | 2         | 1         |
| 5     | pit                  | 8       | 0      | 0.250   | >75mm   | good   | 20  | 11-100 | 0    | 0    | 0    | 0    | 0         | 1    | 5         | 1         |
| 5     | pit                  | 8       | 2      | 0.050   | 25-75mm | good   | 1   | 11-100 | 0    | <10  | 0    | 0    | 1         | 0    | 0         | 0         |
| 2     | pit                  | 16      | 0      | 0.550   | >75mm   | good   | 10  | <10    | 0    | 0    | 0    | 0    | 1         | 1    | 3         | 1         |
| 7     | external cultivation | 32      | 0      | 0.050   | 25-75mm | good   | 1   | <10    | 0    | 0    | 0    | 0    | 0         | 0    | 0         | 0         |
| 19    | external cultivation | 42      | 0      | 0.050   | 25-75mm | good   | 1   | <10    | 0    | 0    | 0    | 0    | 0         | 0    | 0         | 0         |
| 20    | pit                  | 46      | 0      | 0.150   | 25-75mm | medium | 15  | 11-100 | 0    | 0    | 0    | 0    | 0         | 0    | 0         | 0         |
| 18    | pit                  | 48      | 0      | 0.075   | 25-75mm | good   | 10  | <10    | 0    | 0    | 0    | 0    | 0         | 0    | 6         | 0         |
| 12    | pit                  | 50      | 0      | 0.300   | 25-75mm | medium | 30  | 11-100 | 0    | 0    | 0    | 0    | 0         | 0    | 0         | 0         |
| 12    | pit                  | 52      | 0      | 0.550   | >75mm   | medium | 30  | 11-100 | 0    | 0    | 0    | 0    | 0         | 0    | 3         | 0         |
| 12    | pit                  | 53      | 0      | 1.050   | >75mm   | good   | 50  | 11-100 | 0    | 0    | 0    | 0    | 0         | 0    | 5         | 0         |
| 12    | pit                  | 53      | 5      | 0.100   | 25-75mm | good   | 25  | 11-100 | 0    | 0    | 0    | 0    | 0         | 0    | 0         | 0         |
| 18    | ditch/ drain         | 55      | 0      | 0.050   | 25-75mm | good   | 5   | <10    | 0    | 0    | 0    | 0    | 0         | 0    | 0         | 0         |
| 22    | natural              | 171     | 0      | 0.010   | 25-75mm | good   | 4   | <10    | 0    | 0    | 0    | 0    | 0         | 0    | 0         | 0         |
| 38    | pit                  | 177     | 0      | 0.375   | >75mm   | good   | 25  | 11-100 | 0    | 0    | 0    | 0    | 1         | 1    | 4         | 1         |
| 51    | pit                  | 249     | 0      | 0.325   | >75mm   | good   | 5   | <10    | 0    | 0    | 0    | 0    | 0         | 0    | 4         | 0         |
| 51    | pit                  | 254     | 0      | 0.050   | >75mm   | good   | 6   | <10    | 0    | 0    | 0    | 0    | 0         | 0    | 0         | 0         |
| 55    | external cultivation | 259     | 0      | 0.150   | >75mm   | good   | 2   | 11-100 | 0    | 0    | 0    | 0    | 1         | 0    | 0         | 0         |
| 11    | well                 | 263     | 0      | 1.600   | >75mm   | good   | 80  | 11-100 | 0    | 0    | 0    | 0    | 0         | 5    | 30        | 5         |
| 11    | well                 | 263     | 6      | 0.075   | 25-75mm | good   | 20  | 11-100 | 0    | <10  | 0    | 0    | 0         | 0    | 2         | 0         |
| TOTAL |                      |         |        | 7.635   |         |        | 407 |        |      |      |      |      | 4         | 14   | 75        | 12        |

Table 20 Hand-collected and wet-sieved animal bone summary

## 5.12 Molluscan remains

(Alan Pipe)

| CONTEXT | SAMPLE | WT (kg) | PRES   | NOS | oyster | mussel | cockle |
|---------|--------|---------|--------|-----|--------|--------|--------|
| 8       | 2      | 0.700   | medium | 100 | 100    | frags. | nil    |
| 249     | 0      | 0.150   | medium | 3   | 3      | nil    | nil    |
| 263     | 0      | 0.010   | medium | 2   | 1      | nil    | 1      |
| TOTAL   |        | 0.860   |        | 105 | 104    | frags. | 1      |

Table 14 Contents of mollusc shell archive

## 5.12.1 Introduction/methodology

Hand-collected and wet-sieved marine/estuarine mollusc shells from pit fills [8] and [249], and well fill [263], were recorded directly onto Table 14 (above). Each context and sample group was described in terms of weight (kg), estimated shell count, species and preservation. The assemblage was not recorded as individual shell counts for each taxon. All identifications referred to the MoLSS reference collection.

## 5.12.2 Marine/estuarine molluscs

The recovered assemblage derived entirely from economically important marine/estuarine bivalve molluscs. The group mainly contained common/flat oyster *Ostrea edulis*, recovered from all three contexts, with fragments of common mussel *Mytilus edulis* from [8] and a single valve of common cockle *Cerastoderma edule* from [263]. Preservation was generally moderate, and there was no identifiable encrusting flora or fauna. All three species are fished from the outer Thames estuary, and are commonly recovered from archaeological sites in London and the surrounding area.

## 5.12.3 Assessment work outstanding

There is no outstanding assessment work.

## 5.12.4 Analysis of potential

The hand-collected and wet-sieved mollusc shell assemblage has no potential for further study.

## 5.12.5 Significance

The mollusc shell assemblage is of no local, regional or national significance beyond that it indicates local consumption of common/flat oyster, and to a lesser extent, common mussel and common cockle, all of which are commercially fished from the outer Thames estuary and retrieved from archaeological sites throughout the London area.

## 5.13 Lithics

(Tony Gray)

## 5.13.1 Introduction/methodology

One hundred and eleven pieces of struck/worked flint were submitted for analysis from fourteen contexts or unstratified (excluding nineteen pieces of field flint that were either unstratified or saved from six contexts). The material was identified and recorded according to standard MoLAS practice.

The assemblage consists of ninety-seven pieces of debitage (sixty-eight flakes, twentysix blades and blade-like flakes blades and three cores and core fragments) and twelve retouched/utilised items. The retouched/utilised pieces include seven scrapers, a retouched blade/backed knife, a retouched bladelet, a burin, a Mesolithic tranchet axe and an obliquely blunted blade. The scrapers include an unstratified/surface side scraper and an end scraper (both on flakes), an end scraper on a thick corticated flake, another end scraper and a 'hollow' end/nosed scraper (both on flakes) from context [4], an end scraper reworked a patinated flake utilising a battered proximal end (platform removed) from context [259] and an end scraper on a broad flake again utilising a battered proximal end (platform removed) from context [280]. The knife on a retouched blade utilising a cortex convex backed surface is unstratified. The burin is worked on a thick shattered flake with minimal retouch down one side to the tip from context [288]. The obliquely blunted blade/point from context [272] is Late Palaeolithic or Mesolithic and retouched entirely down one side and covered with a thick white patina. The Mesolithic tranchet axe is a bifacially worked elongated core tool with some cortex remaining and white patina from context [42]. The remaining worked piece is a steeply retouched chert bladelet from context [40] The breakdown of this assemblage is tabulated in Table 2 below and in an accompanying excel file.

The debitage includes a large flake in black flint with multi-directional striking and core a fully utilised and abraded core in black flint with some patinated facets from context [170] and a flake core in black flint with multi-directional striking from plus a flake/blade remnant core from context [259]. The abundant knapping debitage includes sixty-eight flakes and twenty-six blades and blade-like flakes that include several snapped off blade ends and blade segments. Knapping debitage of fresh appearance (without patination) is abundant from contexts [280] and [288]. Several of the flakes are primary and many flakes exhibit features of hard hammer striking appearing as shattered or very irregular pieces. Some of the material is patinated with two pieces reworked on patinated flakes. The *tranchet* axe and the obliquely blunted blade are patinated (the latter very heavily so) indicating exposure to a chalk environment.

The raw material is varied and often of poor quality in opaque or translucent grey flint, chert, mottled grey and black flint and frequently corticated. Derivation is from local nodules from upslope. The assemblage is residual with episodes of washing downslope. Occasional pieces from the surface are abraded from hillslope motion. It probably represents more than one episode of prehistoric settlement activity ranging from Mesolithic (sometimes patinated material) to possibly Bronze Age where some of the technology is opportunistic and *ad hoc* and the knapping debitage is of fresh appearance.

| Ctxt | Flakes | Blades, blade- | Cores, core | Retouched | Wt | Comments                                |
|------|--------|----------------|-------------|-----------|----|---|
|      |        | like flakes    | fragments   | forms     |    |   |
| 0    | 28     | 7              |             | 3         |    | Side scraper; end scraper; retouched    |
|      |        |                |             |           |    | blade; 5 field flint                    |
| 1    |        | 2              |             |           |    | Blade-like flakes; 4 field flint        |
| 4    |        |                |             | 4         |    | 2 end scrapers; 'hollow' end scraper;   |
|      |        |                |             |           |    | retouched blade; 5 field flint; 2 burnt |
|      |        |                |             |           |    | flint                                   |
| 16   |        | 1              |             |           |    |   |
| 40   |        | 1              |             |           |    | bladelet                                |
| 42   |        |                |             | 1         |    | Patinated Meso tranchet axe             |
| 55   |        | 1              |             |           |    | Curved blade                            |
| 170  |        | 1              | 2           |           |    | Large flake core multi-directional;     |
|      |        |                |             |           |    | fully utilized patinated core; blade    |
|      |        |                |             |           |    | end                                     |
| 171  | 5      | 3              |             |           |    |   |
| 249  |        | 3              |             |           |    | 2 blade ends; blade segment; broken     |
|      |        |                |             |           |    | nodule; 2 field flint                   |
| 259  | 15     | 2              | 1           | 1         |    | End scraper; multi-directional core; 2  |
|      |        |                |             |           |    | core flakes; 2 field flint              |
| 269  | 1      |                |             |           |    |   |
| 272  | 2      | 2              |             | 1         |    | Obliquely blunted blade; bladelet;      |
|      |        |                |             |           |    | blade end; 1 field flint                |
| 275  | 2      |                |             |           |    |   |
| 280  | 13     | 3              |             | 1         |    | End scraper; 3 bladelets                |
| 281  |        |                |             |           |    | 2 field flint                           |
| 286  |        |                |             |           |    | Nodule fragment                         |
| 288  | 4      |                |             | 1         |    | Burin; 1 field flint; 1 burnt flint     |

Table 21 Breakdown of struck/worked flint assemblage

## 5.13.2 Discussion

The flint assemblage indicates substantial prehistoric activity with abundant knapping debris (some primary) and crude end scrapers from some contexts of possible Bronze Age date plus earlier Mesolithic material perhaps washed from higher upslope and patinated from exposure to chalk. Several episodes of prehistoric activity are represented. Of the retouched/utilised pieces scrapers predominate indicating hide preparation.

# 6 Potential of the data

## 6.1 Realisation of the original research aims

• What is the nature and level of natural topography?

The natural topography consists of gravel at a height of 46.95m OD on the southeastern side, sloping away in a north-westerly direction to 43.96m OD. The composition of the natural varied widely across the site, ranging from orange silty gravel, at the eastern end of the site, giving way to gravel with pea grit, midway across the site with dense angular flinty gravel on the western side.

• What are the earliest deposits identified?

The earliest deposits identified and dated relate to the later part of the Roman period (3rd and 4th century). The evidence consists of a Roman ditch aligned northeast/southwest and a handful of pits, on the western side of the site. Part of the ditch was excavated in 1995 and dated to the 3rd to 4th century. The undated concentration of postholes and stakeholes in Area B and pile cap Areas A4 and A5 may represent an earlier Roman phase given the presence of some residual Late Iron Age/early Roman pottery in the assemblage.

• What are the latest deposits identified?

A post-medieval ploughsoil was recorded across the site into which an east-west boundary wall and path had been cut. Both these had also been partly excavated in 1995, but no date was ascribed. Similarly, no dating evidence was found during the 2006 phase of excavation. The boundary wall has been assumed to post-date 1847 as a tithe map of this date shows this area as open land and the path to the early 19th century (Davison and Potter 1998, 232).

• What can be said about the nature of prehistoric activity in the area on the basis of residual and (potentially) non-residual finds on the site?

No features or structures were positively identified for prehistoric activity on the site, and the bulk of the flint assemblage was residual in context, from the ploughsoil horizon. It is clear, however, that a considerable amount of prehistoric activity, from at least the Mesolithic period onwards, was taking place in the area and/or, presumably, on higher round to the east. No tangible evidence for occupation on the site could be identified.

• What does the evidence indicate regarding the date and nature of Roman activity on the site or in the vicinity?

The evidence suggests that occupation on the site and in the area developed in the later part of the Roman period, though there is some residual evidence for early Roman and possibly Late Iron Age activity. The majority of the pottery from the site is of a late date and confirms the data from the 1995 excavation. A similar assemblage was found featuring Alice Holt/Farnham dated c AD 250–400, and Oxfordshire wares, dating c AD 240 with Nene Valley colour-coated ware, dated c AD 150–400, and Portchester 'D' ware, dating c AD 350–400. The pottery assemblage may provide information regarding trade, both internal and external.

• Is there any evidence for the Saxon re-occupation of the area? What is its nature and date?

No evidence for Saxon re-occupation was identified on the site.

• Are there any medieval structural remains and associated artefact and ecofact assemblages present?

Structural remains were limited to a handful of cut features and a flint and chalk wall [252], though no associated artefacts and ecofacts were found associated with the latter. The medieval pottery found within the cut features was sparse and often found alongside Roman and post-medieval pottery. Similarly the ecofact assemblages from this period were few. Charred cereal grains and were found within one pit [9]. In pit [8] bones from rabbit, rat fragments of unidentified fish were identified.

• Are there any post-medieval structural remains and associated artefact and ecofact assemblages present?

Post-medieval structures on the site consisted of an east-west aligned truncated foundation trench for a chalk and brick built boundary wall [3/282] and path, a well [263] and four pits [2], [11], [178] and [248]. No dating evidence was associated with the wall and path. However, both these structures had been recorded during the 1987-88 and 1995 excavations and a mid 18th century date ascribed to them. The well produced a pottery assemblage of Surrey-Hampshire border ware dated between 1630 and 1650 in conjunction with cereal grains and charred seeds and well preserved animal bone that included horse, dog, sheep/goat and ox. Pit [178] produced a quantity of dog bones, and an 18th century coin. Pit 1 contained, alongside Surrey border wares, imported Rhenish stoneware drinking vessels, Frechen jugs and a large assemblage of clay pipes, dating to the 17th century.

## 6.2 General discussion of potential

The potential of the data retrieved at WHZ06 to answer the research questions can be made in detail following the full integration of the stratigraphic data with the pottery data. Assessment of the charred plant remains will provide information on cereal diet, along with the non-charred remains in order to shed light on the local environment of the site. Further analysis of the bone has some limited potential for study of the local diet with study of the horse and dog bone to elicit comments on stature and proportion. The data could be integrated with the evidence found during the 1995 excavation, and documentary evidence in order to determine possible late medieval/post medieval property divisions on the site.

•

# 7 Significance of the data

The stratigraphic, artefactual, and ecofactual data from the site are of local and possibly regional significance.

# 8 Publication project: aims and objectives

## 8.1 Revised research aims

The archaeological excavation at 2-14 Whitgift Street has contributed to answering the original research questions. However, the assessment has suggested that a number of further questions warrant investigation during the analysis and integration of the stratigraphy with the finds. These are listed below:

- RR1 How does the flint assemblage on the site compare to others from the vicinity?
- RR2 What does this assemblage tell us about the late Roman development of the area?
- RR3 What is the animal bone evidence for local consumption of fish, beef, mutton and pork?
- RR4 Does disposal of animal bone waste show intra-site variation?
- RR5 How does the fish and meat diet compare with contemporary local and London sites?
- RR6 *What stature and build characteristics are indicated by the horse and dog bones?*
- RR7 To look at diet based on the plant remains recovered from this site and compare it to other sites of a similar date in the area.
- RR8 *What is the nature of the slag and does it indicate metalworking on or near the site?*

## 8.2 Preliminary publication synopsis

It is suggested that the site be published as an article of approximately 2,000 words with illustrations in the *London Archaeologist*.

## Introduction

Circumstances and dates of the fieldwork General archaeological and historical background Methodology and summary review of the relevant project research aims.

#### Topographic and geological background

A summary account of the topography and geology of the site.

- Roman (43-400 AD)
- Medieval
- Post medieval

## Early Roman period

Discussion relating to the nature of the findings from the site, identified during postexcavation assessment.

The organization and consequent function of a pre Roman or early Roman landscape will be further analysed and interpreted using comparative evidence from other archaeological sites in the area.

#### Late Roman Period

Discussion relating to the nature of the findings from the site, identified during postexcavation assessment with reference to the 1995 excavation.

#### Medieval Period

Discussion relating to the nature of the findings from the site, identified during postexcavation assessment with reference to the 1988 and 1995 archaeological investigations.

## Post – medieval period

Discussion relating to the nature of the findings from the site, that were identified during post-excavation assessment with reference to cartographic evidence and the 1988 and 1995 archaeological investigations.

The proposed publication will incorporate a number of figures to illustrate:

- 1: Site Location
- 2: Areas of Investigation
- 3: Phased archaeological plans of relevant areas
- 4: Illustration of selected finds.

# 9 Publication project: task sequence

All work carried out on this project is subject to the health and safety policy statement of MoLAS as defined in *Health And Safety Policy*, MoLAS 2005. This document is available on request. It is MoLAS policy to comply with the requirements of the Health and Safety at Work Act 1974, the Management of Health and Safety at Work Regulations 1992 and all Regulations and Codes of Practice made under the Act which affect MoLAS operations.

## 9.1 Stratigraphic method statement

The phased and indexed preliminary grouping structures will be placed on the ORACLE database and then will form the basis for all further analysis of human activity on the site. They will be analysed both sequentially and spatially, in conjunction with environmental, finds, and other dating information, to produce integrated accounts of the site sequence.

Task 1: Group descriptions. Each group will comprise a plan derived from the GIS, showing the formative subgroups, and a textual description including likely date and elevation information.

Task 2: Define land uses. The groups will be organised through the use of group matrix, GIS and dating evidence, into the various forms of land use which they comprise (open areas, structures, roads, etc).

Task 3: Land use descriptions. Interpretative text will be written about each land use element including a definition of structures, open areas, etc, their broad form and apparent function on a site wide basis. The groups forming each land use will be mapped on the oracle database. Some plots of structures may be produced through GIS.

Task 4: Define Periods. The general chronological phases of activity across the site will be identified from the group matrix and defined land uses. These periods will form the chronological framework of the site.

Task 5: Period description. A textual summary, built from land use and group texts where appropriate, will be formed for each of the periods. Plots of each period will be produced using the GIS and hand-annotated with conjecture and retained features.

Task 6: Attend project meetings. As part of the project team, stratigraphic specialists will attend regular project meetings to discuss progress and content.

## 9.2 General finds method statement

Task 7: Finds review

## 9.3 Building material method statement

Task 8: Comparision with other Roman building material assemblages (if available)

Task 9: The building material assemblage should be compared with the stratigraphical sequence and all available dating evidence

Task 10: Write publication report

Task 11: Editing publication report

## 9.4 Roman pottery method statement

Task 12: Full integration of spot-date information with stratigraphic sequence on the ORACLE database and checking of discrepancies to finalise phasing. Production of combination reports, interpretation, preparation of dating table and writing of contributing text to the chronological narrative

Task 13: Research and write text on the late Roman period in the area in relation to this site with reference to nearby late Roman sites

Task 14: Preparation of figure list using Oracle, the selection, preparation, packaging of pottery and attendance at Finds Review

Task 15: Illustration of six Vessels by Drawing Office

Task 16: Check pencil illustrations

Task 17: Editing

## 9.5 Post-Roman method statement

Task 18: Description of the range of fabrics and forms of pottery from pit [1] and well fill [263]

Task 19: Quantification of one box and inputting

Task 20: Illustration of up to five vessels by Drawing Office

Task 21: General text about the material recovered

#### 9.6 Accessioned finds method statement

Task 22: Further analysis of accessioned finds after conservation

Task 23: Accessioned finds text for inclusion in the site publication

## 9.7 Botanical method statement

Task 24: Extraction and identification of the plant remains from four samples

Task 25: Data entry into Oracle and creation and editing of tables

Task 26: Collating stratigraphic and dating information

Task 27: Text for publication

## 9.8 Animal bone method statement

Task 28: Recording the hand collected bones onto Oracle database

Task 29: Publication text

## 9.9 Conservation method statement

Task 30: Analysis and investigative work on <11> Copper alloy ?Strap end

Task 31: Illustration of <8> Copper alloy pin by Drawing Office

Task 32: Archival/illustration preparation

## 9.10 Lithics method statement

Task 33: Illustrate (photograph?) selected pieces including the Mesolithic axe and obliquely blunted blade

Task 34: Write lithics report

## 9.11 Graphics method statement

Task 35: Prepare stratigraphic drawings

Task 36: Illustration of approximately 11 vessels (see Tasks 15 and 20)

Task 37: Illustration of 1 accessioned find (see Task 31)

Task 38: Illustration of lithics (see Task 34)

## 9.12 Photographic method statement

Task 39: Publication photographs

## 9.13 Documentary research method statement

Task 40: Research into proximal and parallel sites

## 9.14 Integration of publication text method statement

Task 41: Stratigraphic publication text

Task 42: Integration of specialist text

Task 43: Internal edit

Task 44: Specialist edits

Task 45: Text corrections

Task 46: Illustration corrections

## 9.15 Project management and production method statement

Task 47: Project Management

Task: 48: Production sign-off

Task 49: Technical/copy edit

Task 50: Layout

## 9.16 Archiving

Task 51: Preparation and submission of archive

# **10** Publication project: resources and programme

Financial resources sufficient to cover the work proposed in this document and illustrated in the table below have been sought via a separate document.

| Task No. | Done by                          | Task Description            | Time required |
|----------|----------------------------------|-----------------------------|---------------|
| 1        | Senior Archaeologist             | Group descriptions          | (person days) |
| 2        | Senior Archaeologist             | Define land uses            | 3             |
| 2        | Senior Archaeologist             | Land use descriptions       | 3             |
| 3        | Senior Archaeologist             | Dafina Dariada              | 0.5           |
| 4        | Senior Archaeologist             | Define Periods              | 1             |
| 5        | Senior Archaeologist             | Period description          | 1             |
| 0        | Senior Archaeologist             | Froject meetings            | 1             |
| /        | Finds Specialists                | Finds review                | 3             |
| 8        | Building Materials               | Comparison with other       | 2             |
|          | Specialist                       | Roman building material     |               |
|          |                                  | assemblages                 |               |
| 9        | Building Materials               | Comparison with             | 1             |
|          | Specialist                       | stratigraphic sequence      |               |
|          |                                  | and all available dating    |               |
|          |                                  | evidence                    |               |
| 10       | Building Materials               | Building material           | 2             |
|          | Specialist                       | publication report          |               |
| 11       | Building Materials<br>Specialist | Editing publication report  | 0.5           |
| 12       | Roman Pottery Specialist         | Full integration of spot-   | 1.5           |
|          |                                  | date information with       |               |
|          |                                  | stratigraphic sequence      |               |
|          |                                  | and contributing text       |               |
| 13       | Roman Pottery Specialist         | Research and write text     | 2             |
|          |                                  | on the late Roman period    |               |
|          |                                  | in the area                 |               |
| 14       | Roman Pottery Specialist         | Preparation of figure list  | 0.5           |
| 15       | Drawing Office                   | Illustration of six Vessels | See task 36   |
|          |                                  | by Drawing Office           |               |
| 16       | Roman Pottery Specialist         | Check pencil illustrations  | 0.5           |
| 17       | Roman Pottery Specialist         | Editing                     | 0.25          |
| 18       | Post-Roman Pottery               | Description of the range    | 1             |
|          | Specialist                       | of pottery from pit [1]     |               |
|          |                                  | and well fill [263]         |               |
| 19       | Post-Roman Pottery               | Quantification and          | 1             |
|          | Specialist                       | inputting                   |               |

| Task No. | Done by                        | Task Description            | Time required |
|----------|--------------------------------|-----------------------------|---------------|
| 20       | Drawing Office                 | Illustration of up to five  | (person days) |
| 20       | Drawing Office                 | vessels by Drawing          | See task 50   |
|          |                                | Office                      |               |
| 21       | Post-Roman Pottery             | General text about the      | 1             |
|          | Specialist                     | material recovered          | -             |
| 22       | Accessioned Finds              | Further analysis of         | 1             |
|          | Specialist                     | accessioned finds after     |               |
|          |                                | conservation                |               |
| 23       | Accessioned Finds              | Accessioned finds text      | 0.25          |
|          | Specialist                     |                             |               |
| 24       | Archaeobotanist                | Extraction and              | 1             |
|          |                                | identification of the plant |               |
|          |                                | remains from four           |               |
|          |                                | samples                     |               |
| 25       | Archaeobotanist                | Data entry into Oracle      | 0.25          |
|          |                                | and creation and editing    |               |
| 2.6      |                                | of tables                   | 0.05          |
| 26       | Archaeobotanist                | Collating stratigraphic     | 0.25          |
| 27       |                                | and dating information      | 0.5           |
| 27       | Archaeobotanist                | Text for publication        | 0.5           |
| 28       | Animal Bone Specialist         | Recording the hand          | 2             |
|          |                                | Oracle database             |               |
| 29       | Animal Bone Specialist         | Publication text            | 2.5           |
| 30       | Conservator                    | Analysis and                | 1             |
| 50       |                                | investigative work on       | 1             |
|          |                                | <11> Copper alloy           |               |
|          |                                | ?Strap end                  |               |
| 31       | Drawing Office                 | Illustration of <8>         | See task 37   |
|          |                                | Copper alloy pin            |               |
| 32       | Conservator                    | Archival/illustration       | 1             |
|          |                                | preparation                 |               |
| 33       | Drawing                        | Illustrate (photograph?)    | See task 38   |
|          | Office/Photographer            | selected pieces             |               |
| 34       | Lithics Specialist             | Write lithics report        | 1.5           |
| 35       | Drawing Office                 | Prepare stratigraphic       | 3             |
|          |                                | drawings                    |               |
| 36       | Drawing Office                 | Illustration of             | 1             |
|          |                                | approximately 11 vessels    |               |
| 37       | Drawing Office                 | Illustration of 1           | 1             |
| 20       |                                | accessioned find            | 0.5           |
| 38       | Drawing<br>Office/Photographer | Illustration of lithics     | 0.5           |
| 39       | Photographer                   | Publication photographs     | 1             |
| 40       | Senior Archaeologist           | Research into provimal      | 2             |
| 10       |                                | researen mito proxima       |               |

|          |                                     | and parallel sites             |                                |
|----------|-------------------------------------|--------------------------------|--------------------------------|
| Task No. | Done by                             | Task Description               | Time required<br>(person days) |
| 41       | Senior Archaeologist                | Stratigraphic publication text | 5                              |
| 42       | Senior Archaeologist                | Integration of specialist text | 1                              |
| 43       | Editor                              | Internal edit                  | 1                              |
| 44       | Finds and Environmental Specialists | Specialist edits               | 1.5                            |
| 45       | Senior Archaeologist                | Text corrections               | 0.5                            |
| 46       | Drawing Office                      | Illustration corrections       | 0.5                            |
| 47       | Project Manager                     | Project Management             | 6                              |
| 48       | Project Manager                     | Production sign-off            | 0.25                           |
| 49       | Editor                              | Technical/copy edit            | 0.5                            |
| 50       | Drawing Office                      | Layout                         | 3                              |

It is intended that publication analysis will commence on approval of this Assessment Report and Updated Project Design. It is anticipated that the publication will be ready for submission within six months of commencement.

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