218-220 BOROUGH HIGH STREET LONDON BOROUGH OF SOUTHWARK

ASSESSMENT OF AN ARCHAEOLOGICAL EXCAVATION & WATCHING BRIEF

BOU 13

OCTOBER 2013

PRE-CONSTRUCT ARCHAEOLOGY

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EXCAVATION

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An Archaeological Excavation and Watching Brief at 218-220 Borough High Street, London Borough of Southwark, London

Report Number: R11512

Site Code: BOU 13

Central NGR: TQ 3237 7971

Local Planning Authority: London Borough of Southwark

Commissioning Client: Jasper Properties Ltd

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1 ABSTRACT

1.1 This report presents the results and working methods of an archaeological excavation and subsequent watching brief carried out by Pre-Construct Archaeology Ltd at 218-220 Borough High Street, London Borough of Southwark, London SE1. The site is located along the west side of Borough High Street and bounded to the north by 214-216 Borough High Street and 5-11 Vine Yard, to the south by 222-224 Borough High Street and by 8 Vine Yard to the west. Borough High Street forms the eastern boundary of the site, which is centred at TQ 32378 79717 and is within an Archaeological Priority Zone as identified in the Unitary Development Plan of Southwark.

1.2 Two previous significant archaeological investigations have been carried out on the site. The first of these consisted of a single evaluation trench excavated within a 19th-century basement in 1979 and the other was the archaeological evaluation carried out in 2008 by MoLAS (now MoLA). Both of these demonstrated that archaeological deposits survived and identified features, deposits and finds dating from the Roman period to the present. Although the east end of the site had been truncated by the construction of a 19th–century basement, some deep cut features survived below the basement slab.

1.3 The current excavation and subsequent watching brief revealed the same ditch as previously excavated in 1979 but on this occasion the finds were dated exclusively to the Roman period. Other remains consisted of medieval ground raising deposits, early post-medieval external yard surfaces and walls, an 18th- or 19th-century well and a late 19th-century Cornish boiler.

2 INTRODUCTION

2.1 An archaeological excavation followed by a watching brief was carried out by Pre-Construct Archaeology Ltd at 218-220 Borough High Street, London Borough of Southwark, London SE1 1JX (Fig. 1). The site was centred on NGR: TQ 32378 79717. The excavation was carried out between 8th and 14th February 2013 after which a watching brief was carried out intermittently until the ground reduction work had been concluded on the 18th June 2013.

2.2 The archaeological work was commissioned by Ramboll UK on behalf of Jasper Properties Ltd and was monitored by Dr Christopher Constable, the Senior Archaeology Officer for the London Borough of Southwark and Andy Shelley of Ramboll UK on behalf of the client. Tim Bradley was project manager for Pre-Construct Archaeology Limited and the post-excavation project was managed by Jon Butler. The archaeological site work was supervised by the author.

2.3 The site has previously been the subject of three archaeological investigations and a desk based assessment. In 1979 a single trench excavated within the basement revealed Roman dated stake-holes and small pits cut into the natural gravel which were sealed by medieval dump deposits which were cut by a possible ditch and various pits dating to the 12th and 13th century together with an 18th century cellar floor, dumping and 19th-century pitting. A brick well/soakaway contained the personalised crockery of Hinton's Eating House (Thompson et al. 1998, 184; Lerz 2008). In 2008 a Desk Based Assessment was undertaken by Gifford (Brown 2008). This was followed the same year by an archaeological evaluation by MoLAS which revealed alluvial silts overlain by post-medieval ground make-up deposits and features dating from the 16th to the 18th centuries. A series of external 16th-century gravel and brick surfaces were recorded, as well as the remains of a brick and flint wall footing and brick surface dating to the 18th century (Lerz 2008). In 2012 a geotechnical investigation only revealed natural terrace gravels (Miles 2012). These three investigations demonstrated that archaeological deposits survived below and identified features, deposits and finds dating from the Roman period to the present. Although the east end of the site had been truncated by the construction of a 19th-century basement, some deep cut features survived below the basement slab.

2.4 The present archaeological investigation consisted of the excavation of a lift pit, a watching brief on the removal of a 19th-century boiler and a ramp area, together with monitoring of the reduction of the basement area at the front of the site followed by excavation of all features exposed.

2.5 Following the completion of the project the site archive will be deposited in its entirety with the London Archaeological Archive and Research Centre (LAARC) under the unique site code BOU 13).

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Figure 1
Site Location
1:12,500 at A4

3 PLANNING BACKGROUND

3.1 National Guidance

3.1.1 The Department of Communities and Local Government (DCLG) issued a new series of planning guidelines, the National Planning Policy Framework, in March 2012. This document superseded the previous guidance contained in Planning Policy Statement 5. The policies regarding archaeology set out in the NPPF are contained in **Section 12 Conserving and enhancing the historic environment**. These state:

126. Local planning authorities should set out in their Local Plan a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. In doing so, they should recognise that heritage assets are an irreplaceable resource and conserve them in a manner appropriate to their significance. In developing this strategy, local planning authorities should take into account:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
- the wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring;
- the desirability of new development making a positive contribution to local character and distinctiveness; and
- opportunities to draw on the contribution made by the historic environment to the character of a place.

127. When considering the designation of conservation areas, local planning authorities should ensure that an area justifies such status because of its special architectural or historic interest, and that the concept of conservation is not devalued through the designation of areas that lack special interest.

128. In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

129. Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a

proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.

130. Where there is evidence of deliberate neglect of or damage to a heritage asset the deteriorated state of the heritage asset should not be taken into account in any decision.

131. In determining planning applications, local planning authorities should take account of:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
- the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and
- the desirability of new development making a positive contribution to local character and distinctiveness.

132. When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.

133. Where a proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:

- the nature of the heritage asset prevents all reasonable uses of the site; and
- no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and
- conservation by grant-funding or some form of charitable or public ownership is demonstrably not possible; and
- the harm or loss is outweighed by the benefit of bringing the site back into use.

134. Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use.

135. The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.

136. Local planning authorities should not permit loss of the whole or part of a heritage asset without taking all reasonable steps to ensure the new development will proceed after the loss has occurred.

137. Local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites and within the setting of heritage assets to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to or better reveal the significance of the asset should be treated favourably.

138. Not all elements of a World Heritage Site or Conservation Area will necessarily contribute to its significance. Loss of a building (or other element) which makes a positive contribution to the significance of the Conservation Area or World Heritage Site should be treated either as substantial harm under paragraph 133 or less than substantial harm under paragraph 134, as appropriate, taking into account the relative significance of the element affected and its contribution to the significance of the Conservation Area or World Heritage Site as a whole.

139. Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.

140. Local planning authorities should assess whether the benefits of a proposal for enabling development, which would otherwise conflict with planning policies but which would secure the future conservation of a heritage asset, outweigh the disbenefits of departing from those policies.

141. Local planning authorities should make information about the significance of the historic environment gathered as part of plan-making or development management publicly accessible. They should also require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.

3.1.2 The provisions set out in the new guidelines superseded the policy framework set out in previous government guidance namely Planning Policy Statement 5 (PPS 5) 'Planning for the Historic Environment'. Planning Policy Statement 5 had itself replaced Planning Policy Guidance Note 16, PPG 16, which was issued in November 1990 by the Department of the Environment.

3.1.3 Although PPG 16 has been superseded the Unitary Development Plans of most local authorities, or Local Development Frameworks where these have been adopted, still contain sections dealing with archaeology that are based on the provisions set out in PPG 16. The key points in PPG16 can be summarised as follows:

3.1.4 Archaeological remains should be seen as a finite and non-renewable resource, and in many cases highly fragile and vulnerable to damage and destruction. Appropriate management is therefore essential to ensure that they survive in good condition. In particular, care must be taken to ensure that archaeological remains are not needlessly and thoughtlessly destroyed. They can contain irreplaceable information about our past and the potential for an increase in future knowledge. They are part of our sense of national identity and are valuable both for their own sake and for their role in education, leisure and tourism.

3.1.5 Where nationally important archaeological remains, whether scheduled or not, and their settings, are affected by a proposed development there should be a presumption in their physical preservation.

3.1.6 If physical preservation in situ is not feasible, an archaeological excavation for the purposes of 'preservation by record' may be an acceptable alternative. From an archaeological point of view, this should be as a second best option. Agreements should also provide for subsequent publication of the results of any excavation programme.

3.1.7 The key to informed and reasonable planning decisions is for consideration to be given early, before formal planning applications are made, to the question of whether archaeological remains are known to exist on a site where development is planned and the implications for the development proposal.

3.1.8 Planning authorities, when they propose to allow development which is damaging to archaeological remains, must ensure that the developer has satisfactorily provided for excavation and recording, either through voluntary agreement with archaeologists or, in the absence of agreement, by imposing an appropriate condition on the planning permission.

3.2 Regional Guidance: The London Plan

3.2.1 The over-arching strategies and policies for the whole of the Greater London area are contained within the Greater London Authority's London Plan (July 2011) which includes the following statement relating to archaeology:

Policy 7.8
Heritage assets and archaeology

Strategic

A London's heritage assets and historic environment, including listed buildings, registered historic parks and gardens and other natural and historic landscapes, conservation areas, World Heritage Sites, registered battlefields, scheduled monuments, archaeological remains and memorials should be identified, so that the desirability of sustaining and enhancing their significance and of utilising their positive role in place shaping can be taken into account.

B Development should incorporate measures that identify, record, interpret, protect and, where appropriate, present the site's archaeology.

Planning decisions

C Development should identify, value, conserve, restore, re-use and incorporate heritage assets, where appropriate.

D Development affecting heritage assets and their settings should conserve their significance, by being sympathetic to their form, scale, materials and architectural detail.

E New development should make provision for the protection of archaeological resources, landscapes and significant memorials. The physical assets should, where possible, be made available to the public on-site. Where the archaeological asset or memorial cannot be preserved or managed on-site, provision must be made for the investigation, understanding, recording, dissemination and archiving of that asset.

LDF preparation

F Boroughs should, in LDF policies, seek to maintain and enhance the contribution of built, landscaped and buried heritage to London's environmental quality, cultural identity and economy as part of managing London's ability to accommodate change and regeneration.

G Boroughs, in consultation with English Heritage, Natural England and other relevant statutory organisations, should include appropriate policies in their LDFs for identifying, protecting, enhancing and improving access to the historic environment and heritage assets and their settings where appropriate, and to archaeological assets, memorials and historic and natural landscape character within their area.

3.3 Local Guidance: Archaeology in the Borough of Southwark

3.3.1 This study aims to satisfy the objectives of the London Borough of Southwark, which fully recognises the importance of the buried heritage for which they are the custodians. The Southwark Plan, adopted in July 2007, contains policy statements in respect of protecting the buried archaeological resource. These statements are outlined below:

Policy 3.19 Archaeology

Planning applications affecting sites within Archaeological Priority Zones (APZs), as identified in Appendix 8, shall be accompanied by an archaeological assessment and evaluation of the site, including the impact of the proposed development. There is a presumption in favour of preservation in situ, to protect and safeguard archaeological remains of national importance, including scheduled monuments and their settings. The in situ preservation of archaeological remains of local importance will also be sought, unless the importance of the development outweighs the local value of the remains. If planning permission is granted to develop any site

where there are archaeological remains or there is good reason to believe that such remains exist, conditions will be attached to secure the excavation and recording or preservation in whole or in part, if justified, before development begins.

Reasons

Southwark has an immensely important archaeological resource. Increasing evidence of those peoples living in Southwark before the Roman and medieval period is being found in the north of the borough and along the Old Kent Road. The suburb of the Roman provincial capital (Londinium) was located around the southern bridgehead of the only river crossing over the Thames at the time and remains of Roman buildings, industry, roads and cemeteries have been discovered over the last 30 years. The importance of the area during the medieval period is equally well attested both archaeologically and historically. Elsewhere in Southwark, the routes of Roman roads (along the Old Kent Road and Kennington Road) and the historic village cores of Peckham, Camberwell, Walworth and Dulwich also have the potential for the survival of archaeological remains.

PPG16 requires the council to include policies for the protection, enhancement and preservation of sites of archaeological interest and of their settings.

3.4 Site Specific Background

3.4.1 The study site falls within an Archaeological Priority Zone, as defined by the Southwark Unitary Development Plan:

5.1.2 Borough/Bermondsey/Riverside

This large zone incorporates the Roman and medieval settlement and the historic settlement areas of Bankside, Bermondsey and Rotherhithe. The archaeological potential of the Southwark riverside accounts for the inclusion of the strip of land parallel to the river outside of these known historical settlement areas.

3.4.2 Following discussions between the Client's representative (Ramboll UK), and the Senior Archaeology Officer for Southwark Council (Dr Chris Constable), a programme of archaeological investigation has been agreed as follows:

3.4.3 Excavation for the New Basement:– The proposed basement broadly follows the extent of the existing basement. The contractors will remove the roof of the basement (current ground level), and remove the existing basement floor, leaving a 1m easement around the perimeter of the basement floor. The FFL of the existing basement is at c.1.95m OD, and the area within the existing basement needs to be reduced to 0.43m OD (construction level for the new basement). The top of natural gravels are likely to be encountered at c.1.25m OD. As outlined above, a brickearth silt should be expected between the underside of the existing floor and the top of natural sand/gravel, with archaeological cut features possible through both the

brickearth and gravel horizons. Following the removal of the basement slab archaeological excavation will proceed below the basement slab to the formation level of the new basement (o.43m OD).

3.4.4 Excavation for the Lift Pit to the Rear of the Basement:- A lift pit is proposed to the rear (west) of the basement. The lift pit will measure approximately 2.5m x 2.5m x 1.85m deep (construction level of 2.43m OD). The area of the lift pit will be archaeologically excavated to the construction level, a depth with should expose the full post-medieval archaeological sequence.

3.4.5 Watching Brief on Site Grading (if required) and Removal of the Easement Strips Within the Basement:- Should any limited grading of the ground level outside the area of the proposed basement and lift pit be required, this will be undertaken as an archaeological watching brief exercise. The removal of the easement around the perimeter of the basement will also be undertaken as a watching brief.

4 GEOLOGY AND TOPOGRAPHY

4.1 The British Geological Survey describes the bedrock geology as London Clay which is overlain by sand and gravel of the Kempton Park Gravel Formation. The superficial deposits were laid down during the Anglian glaciations and represent the youngest of the gravels in the Middle Thames River Terrace Deposits (British Geological Survey, 2013).

4.2 Topographically the site is mostly flat although this is a result of continuous ground raising and levelling efforts starting as early as the medieval period.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

5.1 The archaeological and historical background of the site has been extensively discussed in the preceding archaeological Desk Based Assessment prepared by Gifford (Brown 2008) and will therefore not be discussed in great detail below.

5.2 Prehistoric

5.2.1 A number of prehistoric finds and features have been recorded in the vicinity of the site. These consist primarily of chance finds of flint tools in the fills of channels or on the marshy ground near to the sand islands such as the Neolithic/ Bronze Age arrowhead which was recovered from an evaluation at 289-299 Borough High Street in 1990 (289BHS90). Prehistoric features are few in the vicinity consisting of field boundaries and drainage ditches as well as post-built structures at 1-5 Swan Street (SWN98) and a Bronze Age hearth, flintwork and a possible late Iron Age burial further north, at 120-126 Borough High Street (124BHS77) (Lerz 2008).

5.3 Roman

5.3.1 Settlement activity in Roman Southwark was centred on two gravel eyots commonly referred to as the north and south islands. From the north island the Thames was bridged and Road 1 (tentatively dated AD 45-60) extended southward from the bridgehead across the higher ground of both the north and south islands. To the south the road intersected with Watling Street and Stane Street leading to the Kent and Sussex coasts respectively. It is believed that the intersection of these roads was in the vicinity of the present day intersection of Swan Street, Silvester Street and Great Dover Street approximately 120m to the southeast of the study site (Beasley 2006, 25).

5.3.2 The early settlement seems to have developed along the sides of the main road from where it extended out along the later secondary roads to become a major suburb of Londinium. A number of clay and timber buildings have been excavated along Borough High Street. At least some evidence for iron and bronze working has been also been found in the vicinity and it has been suggested that Roman Southwark may have been an artisan area. Agricultural activities have been recorded in the vicinity of Lant Street and Borough High Street (Lerz 2008).

5.4 Saxon

5.4.1 No Saxon activity has been recorded in the immediate vicinity of the site (Brown 2008).

5.5 Medieval

5.5.1 Medieval Southwark consisted initially of a small settlement clustered around the bridgehead at London Bridge, which was rebuilt in stone in 1176. St George's Church, which is located to the northeast of the study site is believed to have first been constructed in the 12th century, although it has subsequently been rebuilt on a number of occasions. By the 16th century the

settlement had spread south along Borough High Street to near St George's Church. The archaeological evaluation carried out within the study site in 2008 revealed medieval alluvium and a ground raising deposit (Lerz 2008).

5.6 Post-medieval

5.6.1 Southwark continued to grow throughout the post-medieval period as has been confirmed by both previous archaeological work in the area and by cartographic evidence. The latter shows the development of the area from a semi-rural neighbourhood to a more urbanised environment with residential, commercial and industrial premises lining the streets including Borough High Street (Lerz 2008).

5.6.2 From 1828 to 1843, number 96 Blackman Street (now 220 Borough High Street) was occupied by John Hinton and his family, who also operated Hinton's Eating House at the property. One of the distinguishing features, which separated Hinton's Eating House from many of the 200 or so contemporary eating houses in London was the use of personalised ceramics (Gooch 2007). An archaeological evaluation carried out at the property in 1979 uncovered a circular brick-lined structure, which contained personalised ceramics with the name of the eating house (Brown 2008). The current excavation also recovered fragments of a tea plate whose transfer printed design incorporated a badge on the rim with the writing "Hinton's Eating House, 96 Blackman Street, Boro" (see Jarrett's pottery assessment in this report). Following the departure of the Hinton family in the 1840s Joshua Evans is listed as operating a "dining room" on the premises. It is likely that Joshua's tenure represents the continued operation of the eating house established by John Hinton. The "dining rooms" continued in operation until at least 1852, although the business ceased to exist on the premises prior to 1882 (Post Office Directory Offices 1852 and 1882).

5.6.3 The adjoining property to the north, now 218 Borough High Street but formerly 97 Blackman Street, was from at least 1832 occupied by J. Mann listed in the 1832-1834 London Directory as a butcher (Brown 2008). A butcher's shop continued to operate on the property until between 1841 and 1852. In the 1841 Post Office Directory the proprietor of the butcher shop is listed as Richard Lamport. Following the closure of the butcher the northern property became occupied by Daniel Haywood and Co Ltd, zinc merchants. When the adjoining eating house closed down between 1852 and 1882 the zinc merchants expanded the business to include both the properties within the study site (Post Office Directory Offices 1841, 1852 and 1882).

5.6.4 By 1901 a zinc merchant still operated at the property, but the business was by this time owned by Frederick Braby and Co. Ltd. Still under the ownership of Braby the company occupying 218-220 Borough High Street was by 1918 listed as a structural engineering business rather than zinc merchants. Fredrick Braby and Co. Ltd., which was established between 1839 and 1850, was a substantial engineering company with branches in several

cities around the UK. In addition to structural engineering the company also specialised in the manufacturing of wide range of products made from zinc, tin, lead and iron. Although the business continued to operate until 1979 the premises at 218-220 Borough High Street were abandoned sometime between 1942 and 1947 after which the two properties were occupied by Distil Manufacturing Co. (1921) Ltd, a coffee essence manufacturer. The site seems to have been cleared of buildings in the 1970s (Brown 2008).

6 ARCHAEOLOGICAL METHODOLOGY

6.1 The archaeological excavation was carried out in accordance with the Written Scheme of Investigation (Bradley 2012). The works consisted of the archaeological excavation of a trench (Trench 1) in preparation for the installation of a lift in the northwestern part of the site. A watching brief was conducted during the removal of a 19th-century boiler immediately to the northeast of this trench. A watching brief was also conducted on the preparation of a new ramp to allow access to the basemented area along the street frontage (Trench 2). The reduction of this basemented area was also monitored, with all archaeological features that were revealed being the subject of an excavation (Trench 3) (Fig. 2).

6.2 The initial excavation of the lift shaft and later the basement, down to the top of the archaeological sequence was carried out using a 360˚ mechanical mini digger fitted with a flat bladed ditching bucket. Initial ground reduction was carried out in spits of no more than 100mm under constant archaeological supervision. When archaeologically significant deposits were reached these were cleaned and examined using hand tools.

6.3 All recording systems adopted during the investigations were fully compatible with those most widely used elsewhere in London; that is those developed out of the Department of Urban Archaeology Site Manual, now published by Museum of London Archaeology (MoLAS 1994). Individual descriptions of all archaeological and geological strata and features excavated and exposed were entered onto pro-forma recording sheets. All plans and sections of archaeological deposits were recorded on polyester based drawing film, the plans being at scale of 1:20 and the sections at 1:10. The OD heights of all principal strata were calculated and indicated on the appropriate plans and sections.

6.4 A photographic record of the investigations was made using a high resolution digital camera.

6.5 Levels were calculated from a Temporary Bench Mark with a value of 3.47m OD which was established using a GPS system.

6.6 The complete site archive including site records, photographs and finds will be deposited at the London Archaeological Archive Research Centre, (LAARC) under the site code BOU 13.

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Figure 2
Trench Location
1:250 at A4

7 ARCHAEOLOGICAL SEQUENCE

7.1 Phase 1: Natural

7.1.1 The earliest deposit encountered during the excavation was a layer of loose moderately well sorted naturally deposited gravel, [50], comprising rounded pebbles , generally measuring between 20-30mm in diameter, in a reddish yellow fine to medium sand matrix. Frequent widespread thin horizontal lenses of iron stained fine light yellow sand occurred throughout the deposit. This deposit was only seen in Trenches 2 and 3 where it was sealed by a deposit of brickearth. The top of the natural terrace gravel sloped down slightly from 1.30m OD in the western part of Trench 2 to 1.10m OD in the eastern part of Trench 3 over a distance of approximately 12.30m.

7.1.2 It was originally thought that across much of the eastern part of the site the brickearth, [45], sealing the terrace gravels had been truncated by the construction of basements at both 218 and 220 Borough High Street during the 19th century. However, comparing the heights at which the deposit was first seen in Trench 2, where it had not been truncated by basementing, with those in Trench 3 inside the 19th-century basements it became apparent that this truncation to the brickearth in this area had been negligible. In Trench 2 the top of the deposit was measured at 1.45m OD while in Trench 3 it survived to approximately 1.40m OD in the west and 1.35m OD in the east. The deposit comprised loose light reddish yellow to mid brown fine grained clayey sand with very occasional rounded pebbles.

7.2 Phase 2: Roman

7.2.1 In the eastern part of the site, running roughly parallel to the southeast boundary and Borough High Street beyond it, a *c.*1.46m wide ditch, [47], had been cut into the brickearth (Fig. 3; Plate 1). It extended northeast and southwest beyond the limits of the excavation. The southern part had been excavated archaeologically during the 1979 evaluation and the middle portion had been truncated by the installation of a drain and associated inspection chamber in the early 20th century. To the south of the manhole a *c.*3.00m long section of the ditch survived undisturbed and a 1.60m long segment survived to the north. Excavation of the northern segment allowed for the full width of the ditch to be examined and both sides recorded. The northern section was thus excavated in full and this yielded fragments of Roman ceramic building material fragments, animal bone fragments and a single sherd of pottery dated AD 50-160.

7.2.2 The ditch had a ‘U’ shaped profile with moderately steep sides gradually giving way to a slightly concave base. Only the basal portion of the feature had survived the construction of the 19th-century basements. This comprised the lower 0.25m of the ditch, which contained only the primary fill, [46]. The primary fill consisted of very dark grey soft moist clayey silt with occasional iron staining, very occasional small sub-rounded pebbles and molluscs, both whole

and fragmented. An environmental sample from the ditch fill contained moderate quantities of charcoal, low quantities of waterlogged seeds, including *Persicaria* sp. (smartweed), Chenopodiaceae (goosefoot), cf. *Silene*/*Stellaria* sp. (campion/stitchwort) and *Carex* sp. (sedge) and one charred seed, identified as *Scrophularia* sp. (figwort). Due to the later truncation it was not possible to stratigraphically relate the ditch to any of the other deposits sealing the brickearth elsewhere on site. However, the fact that it only produced Roman finds while the other deposits overlying the brickearth yielded much later finds is indicative of the ditch's comparative antiquity when considered alongside the other post-brickearth deposits.

7.3 Phase 3: Medieval

7.3.1 Sealing the brickearth in Trench 2 was an alluvial deposit measuring up to 0.78m in thickness. This comprised soft mid-brown to light greenish grey clayey silt, [51], containing occasional iron staining and very occasional small rounded pebbles. It extended across Trench 2 entirely and continued beyond the western limit of the trench. The evaluation trench excavated by MoLAS in 2008 truncated the alluvial deposit to the southwest of Trench 2 while it was truncated to the northeast by a modern drain and to the southeast by the 19th-century basements. At the highest point the alluvial layer was recorded at 2.23m OD, which is comparable to a similar alluvial layer seen during the 2008 evaluation at a maximum height of 2.25m OD and also to an alluvial layer, [52], recorded in Trench 1 at 2.18m OD. Although no finds were recovered from the layer during the current phase of work, the 2008 evaluation recovered sherds of medieval pottery dated *c*.970-1380 from the corresponding deposit.

7.3.2 In both Trenches 1 and 2 the alluvial deposit was sealed by a 0.66m thick ground raising deposit, [31] and [40], of mottled dark greyish brown to dark brown friable organic sandy silt containing frequent chalk flecks, moderately frequent charcoal flecks and occasional sub-rounded pebbles (Fig. 7). The excavation of these deposits produced sherds of pottery dated 1480-1500 as well as tile fragments that could only broadly be dated to 1480-1800.

7.4 Phase 4: 16th Century

7.4.1 Extending across the 15th-century ground raising deposit, [40], but only seen in the northern part of Trench 2 was a 0.24m thick metalled gravel surface, [39] (Fig. 7). As exposed it measured 1.60m north-south by 1.90m east-west and was first encountered at 2.87m OD. To the north it had been truncated by a concrete encased drain and to the east by the basement of 218 Borough High Street. It was only partially exposed and continued west beyond the limits of the excavation. No finds were recovered from the gravel surface.

7.4.2 The gravel surface was sealed by a 70mm thick compacted mortar surface, [38], extending across Trench 2 (Fig. 7), although, like the preceding gravel surface the mortar floor had also been truncated to the north and east by the drain and basement respectively. It extended west beyond the limits of the trench, but as exposed measured 3.62m north-south by 1.30m east-

west and was first seen at 2.99m OD. The mortar surface comprised very light brownish grey compacted fine sandy lime mortar with moderately frequent very small rounded pebbles and tile fragments dated 1480-1800.

7.4.3 Sealing the mortar surface was a 20mm thick rammed clay floor. This comprised light brown compact lime mortar rich clay, [41], with frequent small sub-rounded pebbles (Fig. 7). It extended across much of Trench 2 although it had been truncated to the north by the drain which had truncated the underlying deposits as well as by the basement to the east and to the west it extended beyond the limits of the excavation. It was first observed at a height of 3.02m OD.

7.4.4 Overlying the clay floor and extending across most of Trench 2 was a 0.25m thick deposit of dark greyish brown mottled stiff sandy clay, [37], with moderately frequent sub-rounded pebbles (Fig. 7). It extended west beyond the limits of the trench and as seen measured 3.62m north-south by 1.30m east-west. To both the north and east it had been truncated, so its true extent is not known. Excavation of the deposit yielded sherds of pottery dated 1550-1600.

7.5 Phase 5: 17th Century

7.5.1 In Trench 1 the 15th-century ground raising deposit [31], was cut by a large sub-circular posthole measuring 0.50m north-south by 0.56m east-west by 0.41m in depth. The sides of the cut were gently to moderately sloping with a sharp break of slope at the top and a gradual break at the base. Posthole [28] had been partially truncated by a later pit, [23], to the east and it extended north and west beyond the limits of the trench (Fig. 4a). It contained three identifiable fills. Filling the lower 0.28m of the posthole was a deposit of dark brown to dark reddish brown friable sandy silt, [28], with frequent clinker and occasional sub-rounded pebbles, which contained tile fragments dated 1666-1800 as well as residual sherds of medieval pottery dated 1350-1450. The lower fill was overlain by what was interpreted as a post pad, [25]. It comprised a circular spread of compacted mid-creamy yellow lime mortar measuring approximately 0.25m in diameter. It contained frequent small chalk flecks, but no other discernible inclusions. The post pad was sealed by the upper fill, [26], of the posthole, which was near identical to the lower fill except for having frequent mortar flecks throughout the deposit. Excavation of the upper fill produced sherds of pottery dated 1550-1700 as well as tile fragments dated 1480-1800. Taking into account all the finds from the various fills it is likely that the posthole was dated 1666-1700.

7.5.2 The eastern side of the posthole had been partially truncated by a large pit extending across much of Trench 1. To the north it had been truncated by the construction cut, [32], for a later wall, [30], and to the east by the large concrete pad encountered during the evaluation carried out in 2008. As could be judged from the surviving part of the pit it appeared to have been

either sub-oval or sub-rectangular in shape (Fig. 4a). The south and west sides were both relatively steeply sloping and slightly concave in shape. At the top the break of slope was sharp and at the bottom more gradual, creating a more subtle transition from the sides into a slightly concave base. As seen the pit measured 0.82m north-south by 1.56m east-west by 0.45m deep and was first seen at 2.85m OD. It was filled by two fills; [20] filling the lower 0.18m and [24] filling the upper 0.27m. The lower fill, [20], consisted of a deposit of firm mid-greenish grey fine sandy silt with moderately frequent flint gravel clasts and occasional chalk flecks and mollusc fragments together with pottery sherds dated 1550-1700. Fill [24] comprised soft mid-dark greenish grey fine sandy silt with occasional chalk flecks and small rounded flint pebbles. It produced pottery sherds dated 1480-1550 and tile and brick fragments dated 1664-1725.

7.5.3 Partially sealing the upper fill of the pit were the remains of a working surface constructed from tile fragments, [22]. It comprised a 30mm thick rammed layer of grey silt, into the top of which had been pressed fragmented roof tiles, which could only broadly be dated 1480-1900. To the north the surface seemed to have been worn away entirely. The surviving part of the tile surface measured 0.60m north-south by 1.57m east-west and was first seen at 2.85m OD. To the south it had been truncated by the construction cut, [9], for a later wall, [1], and to the east by the evaluation trench excavated in 2008. During the 2008 evaluation a similar rudimentary surface laid with brick and tile fragments was recorded at approximately the same height. This had been dated to a narrower interval, namely 1450-1666. It is likely that the crude surface recorded during the current investigation was the western continuation of the surface recorded in 2008.

7.5.4 The tile surface was overlain by two successive gravel surfaces, [21] directly overlying the tile surface and [17] sealing [21]. Both of these were located within the southern part of the trench. The edge of both of the gravel surfaces seemed to follow the alignment of the earlier property boundary shown on 17th- and 18th-century maps. This boundary is still evident in the western part of the northern property boundary. Surface [21] comprised a 50mm thick deposit of gravel contained within a compact light to mid-brownish yellow sand matrix. It measured 0.40m north-south by 1.56m east-west and was first observed at 2.89m OD. Sealing it, surface [17] comprised gravel and clinker in a very dark grey compact slightly sandy silt matrix. It measured 0.69m north-south by 1.62m east-west by 80mm thick and was first seen at 2.95m OD. Pressed into the top of the gravel surface was a copper alloy pin fragment (sf1). Both of these gravel surfaces were recorded to the south during the 2008 evaluation.

7.5.5 Sealing the gravel surface and extending north across most of Trench 1 was a surface consisting of fragmented unfrogged red bricks, tiles, roughly hewn chalk block fragments and whole flint cobbles, [15] (Fig. 4b; Plate 2). These had been laid in a bed of mid-greyish brown silty clay. The chalk block fragments were likely fragments of roughly hewn building blocks

reused within the lower part of the surface. A similar surface was recorded in the northern section of the 2008 evaluation trench where it was described as 'the bricks were laid on their beds and that part of the surface seemed to be supported by roughly hewn reused stone blocks' (Lerz 2008). This is somewhat consistent with surface [15] recorded during the current investigation, although here approximately half of the bricks were laid on their edge while the remaining were laid on bed. The top of the surface sloped down from 3.09m OD in the east to 2.94m OD in the west. Pottery recovered from the bedding of the surface was dated 1580-1700, while the tiles and bricks were dated 1664-1725. It is likely then that the surface was laid down during the second half of the 17th century.

7.5.6 In the central part of the surface the bricks and cobbles were sealed by a *c*.3-5mm thick patch of charcoal rich silt, [16], measuring 0.42m north-south by 0.31m east-west. In the northwest corner of the trench the charcoal patch was sealed by a 20mm thick spread of friable light grey crushed lime mortar, [14], with frequent charcoal flecks. This spread measured 0.26m north-south by 0.72m east-west. To the north the mortar spread and the underlying brick surface were truncated by robber cut [13]. Excavation of the mortar spread yielded fragments of roofing tile dated 1480-1800 as well as a single clay tobacco pipe stem fragment dated 1580-1900.

7.5.7 Sealing the lime mortar deposit and extending across most of the trench was an up to 0.19m thick layer of loosely compacted gravel, [7]. It had been truncated to the north by a later robber cut, [13], and to the south by the construction cut, [9], for a later wall, [1]. The surface comprised small sub-rounded flint gravels in a yellowish brown to dark yellowish brown silty sand matrix. As seen it measured 2.00m north-south by 2.50m east-west and was first seen at 3.20m OD in the southeast corner of the trench. From here it dipped down towards the centre, where it was recorded at 3.03m OD before rising again to the west. At the western extreme of the trench the top of the surface was observed at 3.13m OD. The excavation of the gravel surface produced clay tobacco pipe fragments dated 1640-1660 and tile and brick fragments dated 1480-1700.

7.5.8 Along the northern edge of the trench, cutting the top of the upper fill, [24], of pit [23], but with no discernible relationship to the surfaces in the southern part of the trench, was the construction cut, [32], for wall [30]. The construction cut was aligned along a northwest-southeast axis and extended north, east and west beyond the limits of the trench. Only the south side of the cut was seen and this was near vertical with a sharp break of slope at both the top and bottom with a flat base. As seen the cut measured 0.29m north-south by 1.64m east-west by 0.18m deep. Lining the base of the construction cut was a thin layer of mortar with brick and tile fragments forming the foundation of the wall. The wall itself had been constructed using handmade unfrogged red and orange bricks measuring 234mm x 115mm x 55mm dated 1664-1725. Only the lowest course of the wall survived and not enough of this

was visible to accurately determine the coursing. The bricks had been bonded using a light greyish brown moderately fine sandy lime mortar. As exposed the top of the wall was seen at 2.86m OD. It is likely that this wall was related to the brick and cobble surfaces to the south.

7.5.9 In the eastern end of the trench a brick threshold, [19], had been built into wall [30] (Fig. 4a; Plate 2). This consisted of an area of bricks laid on edge. The threshold measured 0.30m north-south by 0.60m east-west by 0.11m high although only the western part of it survived. To the east it had been truncated by a large concrete pad. Unfrogged red bricks measuring 225mm x 105mm x 60mm had been used in the construction of the threshold. These were bonded with a similar mortar to that used in the construction of the wall, suggesting that the threshold was part of the original build. The bricks were dated 1450-1700, although, as was evident from the residual mortar present on many of the bricks, these had been reused. A single sherd of post-medieval redware found within the mortar meant that the *terminus post quem* of the threshold was 1580, although considering the date of the wall itself the threshold must have been constructed after 1664.

7.5.10 To the west of the threshold and partially resting on top of it was the sill, [18], of another doorway (Fig. 4b). Only the threshold survived and this had been constructed of unfrogged red bricks measuring 234mm x 115mm x 55mm. Like the earlier threshold, the bricks of [18] had been laid on edge. They had been bonded with light grey lime mortar with frequent charcoal flecks. Overall the sill measured 0.34m north-south by 0.54m east-west by 0.12m high and was first seen at 3.05m OD.

7.5.11 Following the construction of threshold [18] part of wall [30] was demolished as was evident from robber cut [13], which followed exactly the alignment of the wall (Fig. 4c). To the south the robber cut truncated the series of surfaces and thus obscuring their relationship to the brick wall. The sides of the cut were near vertical with a sharp break of slope at the top and base. It measured 0.40m north-south by 2.10m east-west by 0.37m deep and was first seen at 3.24m OD. Following the removal of the wall the cut was backfilled with a mixture of compacted brick rubble, light grey lime mortar and dark brown silt. The fill contained sherds of pottery dated 1650-1800 and the brick fragments from the rubble were dated 1664-1725.

7.5.12 Two postholes, [6] and [11], were cut into the top of gravel surface [7] along the northern edge of the trench (Fig. 4c). Posthole [6] was located in the northwest corner of the trench. It was sub-circular in plan and measured 0.58m north-west by 0.42m east-west by 0.19m deep. The sides of the cut were near vertical with a sharp break of slope at both the top and base. Filling the posthole was a friable deposit of dark brown sandy silt, [5], with frequent small sub-rounded pebbles and occasional flecks of ceramic building material. Tile fragments recovered from the backfill could be dated only broadly to 1480-1900 and clay tobacco pipe fragments to 1580-1910.

7.5.13 The second posthole, [11], was located in the northeast corner of the trench. Like [6] it was sub-circular in shape, although the eastern half had been truncated away by a large concrete pad. The sides of the cut were near vertical with a sharp break of slope at both the top and base. As seen the posthole measured 0.38m north-south by 0.28m east-west by 0.30m deep. It was filled by a friable deposit of mid-greyish brown fine sandy silt, [10], with occasional charcoal flecks. Excavation of the fill yielded sherds of pottery dated 1630-1660 as well as tile fragments dated 1480-1700. Clay tobacco pipe stem fragments were also produced by the fill, although these could only broadly be dated 1580-1910.

7.6 Phase 6: 18th Century

7.6.1 Gravel surface [7] in Trench 1 was truncated to the south by the construction cut, [9] for wall [1]. The construction cut was rectangular in plan and its sides were vertical with a sharp break of slope at the top and base. It extended south and west beyond the limits of the trench. As seen the cut measured 0.98m north-south by 1.62m east-west by 1.21m deep. The wall, [1], contained within the construction cut formed the northeast corner of a cellar or cess pit (Fig. 5; Plate 2). It had been constructed using a mixture of frogged yellow bricks and unfrogged red brick measuring 220mm x 105mm x 65mm and 210mm x 100mm x 60mm respectively. The bricks of the east wall had been laid in Flemish bond while the bricks of the north wall were laid one brick wide (65mm) in stretcher bond. In both the east and north walls the bricks were bonded with moderately coarse light grey sandy lime mortar with occasional charcoal flecks. While many of the bricks were early post-Great Fire bricks these were reused alongside later bricks. Considering the mortar and the range of bricks it is likely that the wall is of 18th-century date. Following the construction of the wall the north side of the construction cut was backfilled with a deposit of soft mid- to dark greyish brown sandy silt with moderately frequent mortar fragments and occasional small rounded pebbles.

7.6.2 In Trench 3 the natural gravel was cut by the construction cut, [49], for a circular brick-lined well, [48] (Fig. 5; Plate 3). The sides of the cut were vertical with a sharp break of slope at the top; the base was not reached during this investigation. Laid directly against the sides of the cut was the brick lining of the well. This had been constructed from bricks measuring 225mm x 100mm x 58-60mm laid in regular courses with the headers facing the centre of the well. Virtually all of the bricks used in the construction of the well could be dated to between 1450 and 1700, although these had clearly been reused as many of the bricks had retained some residual mortar from their original use. However, the mortar type bonding the brick was of an 18th-century date. The well had been excavated during the 1979 evaluation as was evident from the amount of soda cans, crisp packages, cellophane wrappers and plastic bags within the backfill of the feature. During the 1979 evaluation a relatively high quantity of personalised crockery bearing the name of Hinton's Eating House was found within the well.

7.6.3 Sealing the Phase 4 made ground deposit, [37], in Trench 2 was a 0.16m thick compacted mortar surface, [36]. This comprised light yellowish brown lime mortar and crushed chalk with occasional charcoal and brick flecks. The brick flecks were restricted to the upper 20-30mm, which formed a harder skin, the top of which had clearly been worn. Excavation of the mortar surface yielded pottery dated 1680-1800 as well as fragments of ceramic building material dated 1664-1725. The surface was first seen at 3.36m OD.

7.6.4 It was sealed by a layer of made ground, [35], comprising friable dark brown sandy silt and loose brick rubble. The layer extended west beyond the limits of the trench and had been truncated to the north, south and east. As seen it measured 3.60m north-south by 1.30m east-west by 0.18m thick and was first encountered at 3.50m OD.

7.7 Phase 7: 19th Century

7.7.1 Cutting the Phase 6 made ground layer, [35], in Trench 2 was sub-circular rubbish pit, [34] (Fig. 6). It measured 1.06m north-south by 1.12m east-west by 0.90m deep and had near vertical sides with a sharp break of slope at the top and a more gradual break at the base. To the east it had been truncated by the construction of the present basement. It was filled with a loose deposit comprising dark grey to dark greyish brown silty sand and clinker, [33], with moderately frequent small sub-rounded pebbles. The fill produced pottery sherds dated 1840-1870.

7.7.2 In Trench 3, to the north of the well, but with no discernible relationship to it were the remains of a roughly northwest-southeast aligned vaulted brick culvert, [43] (not illustrated). It had been truncated to the west by the construction of the west wall of the current basement and to the southeast by a modern drain. The construction cut, [44], for the culvert was cut into the top of the 'brickearth' horizon, [45], It was linear in plan with vertical sides and a sharp break of slope at both the top and at the base, which sloped down slightly towards the southeast. Shallow frogged brown bricks measuring 230mm x 100mm x 60mm had been used to construct the culvert. These were laid in regular courses which were bonded with soft mid-grey sandy lime mortar. The bricks were dated 1750-1900. Filling the construction cut around the culvert was a deposit of loosely compacted dark greyish brown silty sand and rubble with frequent small sub-rounded pebbles and pottery dated to 1805-1900.

7.7.3 Filling the cellar formed by the Phase 6 wall, [1], in Trench 1 was a deposit of loose light- to mid-grey lime mortar, [4], with frequent charcoal and brick flecks. This was first seen at a height of 3.23m OD. Excavation of the cellar infill produced 19th-century pottery.

7.7.4 Sealing the backfill of the cellar and extending across Trench 1 entirely were two successive made ground deposits, [2] and [3]. The lower of these, [3], comprised loose dark brown silty sand with occasional clinker and charcoal flecks. This was sealed by [2], which consisted of a

moderately compact deposit of mottled mid-grey to dark greyish brown sandy silt and brick rubble. Both of these deposits yielded pottery consistent with a 19th-century date.

7.7.5 In the northern part of Trench 1, and built directly on top of the compacted fill of the Phase 5 robber cut, [13], was a roughly northwest-southeast aligned brick wall, [53] (Fig. 6; Plate 2). At the eastern end it had been truncated by the large concrete pad cutting through most of the sequence and at the west end it continued beyond the limits of the trench. The wall was first seen at 3.97m OD, directly below the modern concrete slab covering the site. It had been constructed of fireclay bricks, which could only be dated to the 19th century although the mortar suggested a date after 1850. The wall formed the south wall of the chamber for a Cornish boiler, [56].

7.7.6 To the north of wall [53] were the remains of a Cornish boiler, [56] (Fig. 6: Plates 4-7). Only the western end (1.70m) survived; the eastern end had been truncated by the same concrete pad that truncated wall [53]. The boiler had been constructed from ½ inch thick rolled steel sheets which had been riveted together using a typical lap joint technique. The diameter of the rivet mandrels could not be determined as none of the rivets were removed from the boiler. However, both the factory heads and shop heads measured ½ inch in diameter, so the mandrel diameter could not have exceeded this. Typically the buck-tail is deformed so that the diameter of the shop head is 1 ½ times larger than the diameter of the mandrel. This would suggest that the rivet mandrels were 1/3 inch in diameter although this remains speculative.

7.7.7 The external diameter of the boiler measured 4 ft and the internal diameter was 3 ¾ ft. Near the west end (the front end) the top the steel boiler plates were perforated by a large oval opening with a fitting plate, which presumably used to house the main steam line or a safety valve. Two smaller holes to the east of the larger oval hole were fitted with pipes and may originally have connected to gauges or safety valves. Inside the boiler and extending from end to end was a smaller furnace tube with an external diameter of 2 ½ ft. At the west end the furnace tube was divided horizontally into two segments by a steel fire grate. The upper part of the furnace tube was, at the west end, blocked by a semi-circular steel plate riveted to the boiler end. This contained the furnace feed, which was provided through a small steel door. At the west end the lower part of the furnace tube was open, acting as an ash pit allowing for the easy removal of ash. A brass plate on the front face of the boiler contained the name of the manufacturer and read “F. BONE/BOILERMAKER/BERMONDSEY” (Plate 7).

7.7.8 Built across the top of the boiler were two brick floor segments, [54] and [55]. These had been constructed over the void between the sides of the boiler and the chamber walls and were supported by brick arches springing from the chamber walls. The brick arches had been constructed using fireclay voussoir bricks while the floors had been laid using standard fireclay bricks measuring 210mm x 100mm x 65mm. Like the chamber wall, [53], the bricks and mortar used for the brick floors were consistent with a 1850-1900 date.

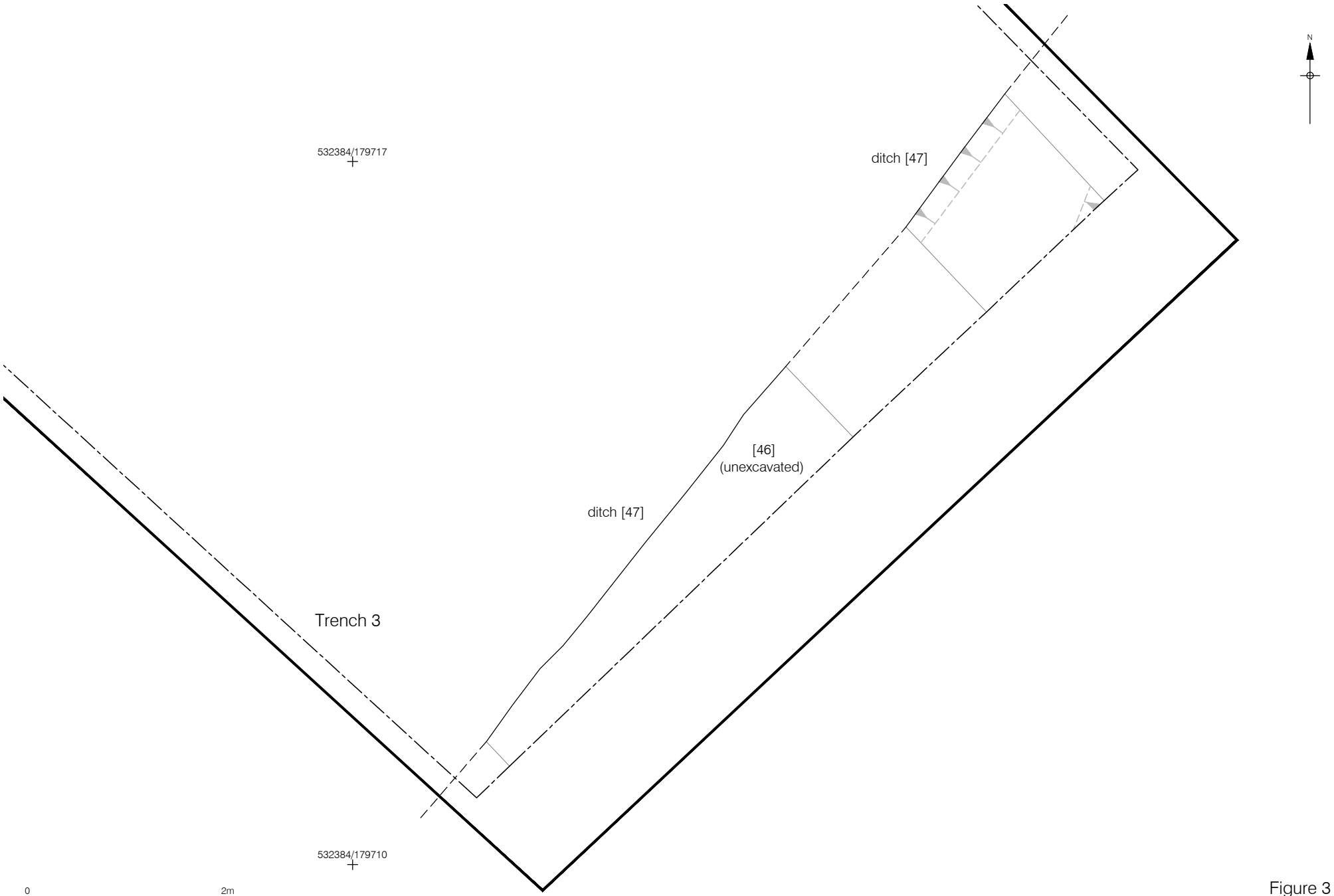

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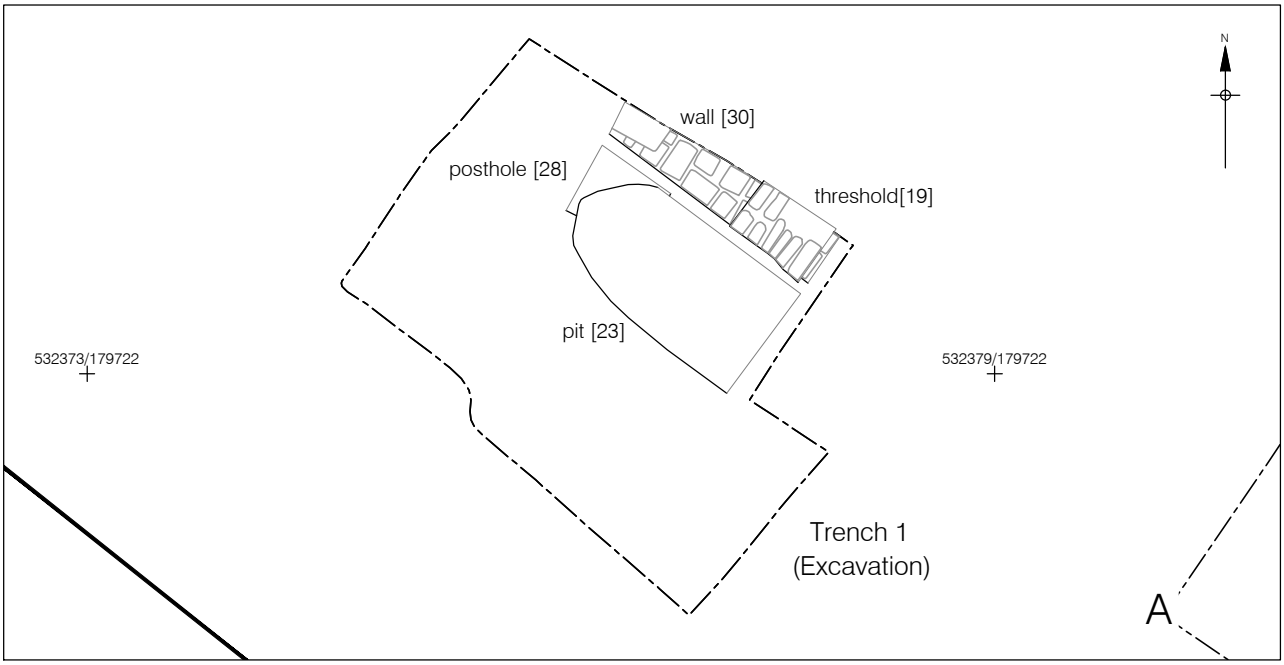
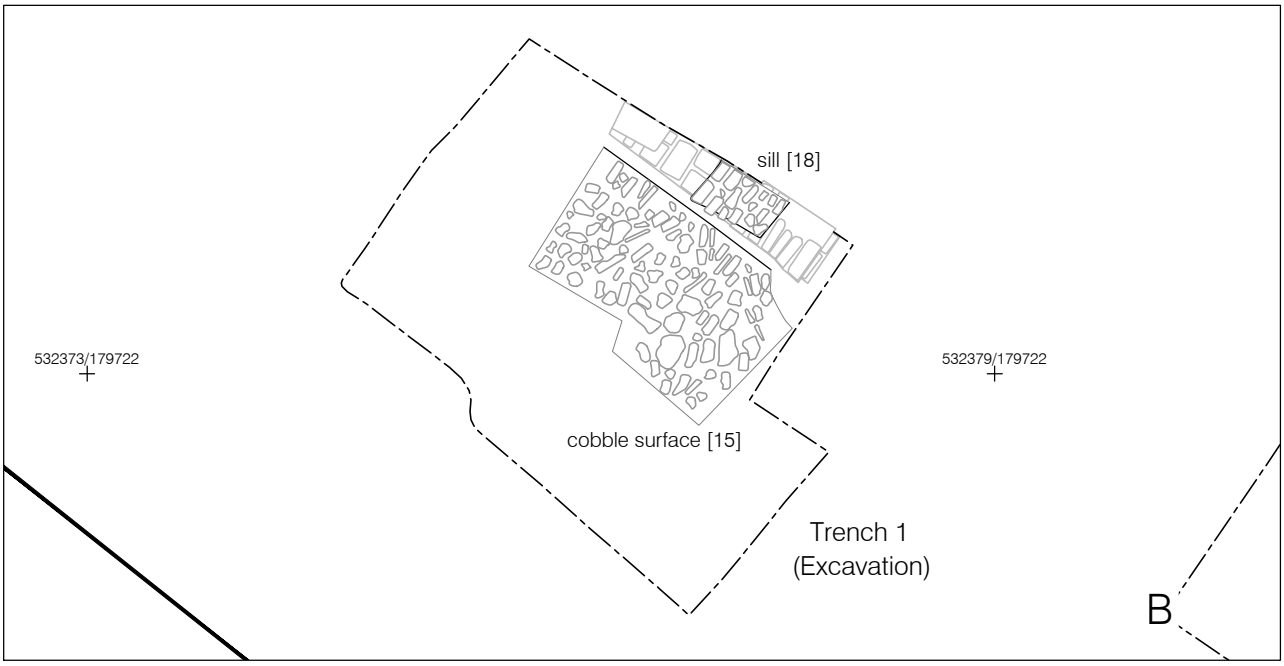
Figure 3
Phase 2: Roman
1:50 at A4





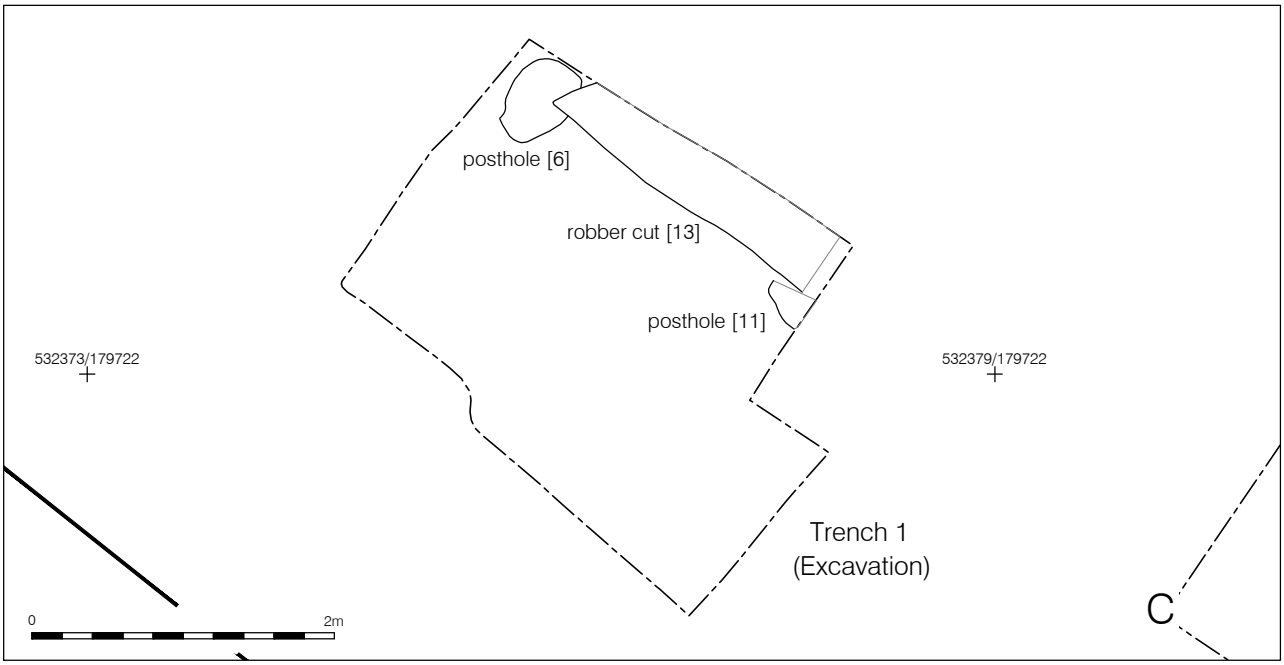


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Figure 4
Phase 5: 17th Century
1:50 at A4

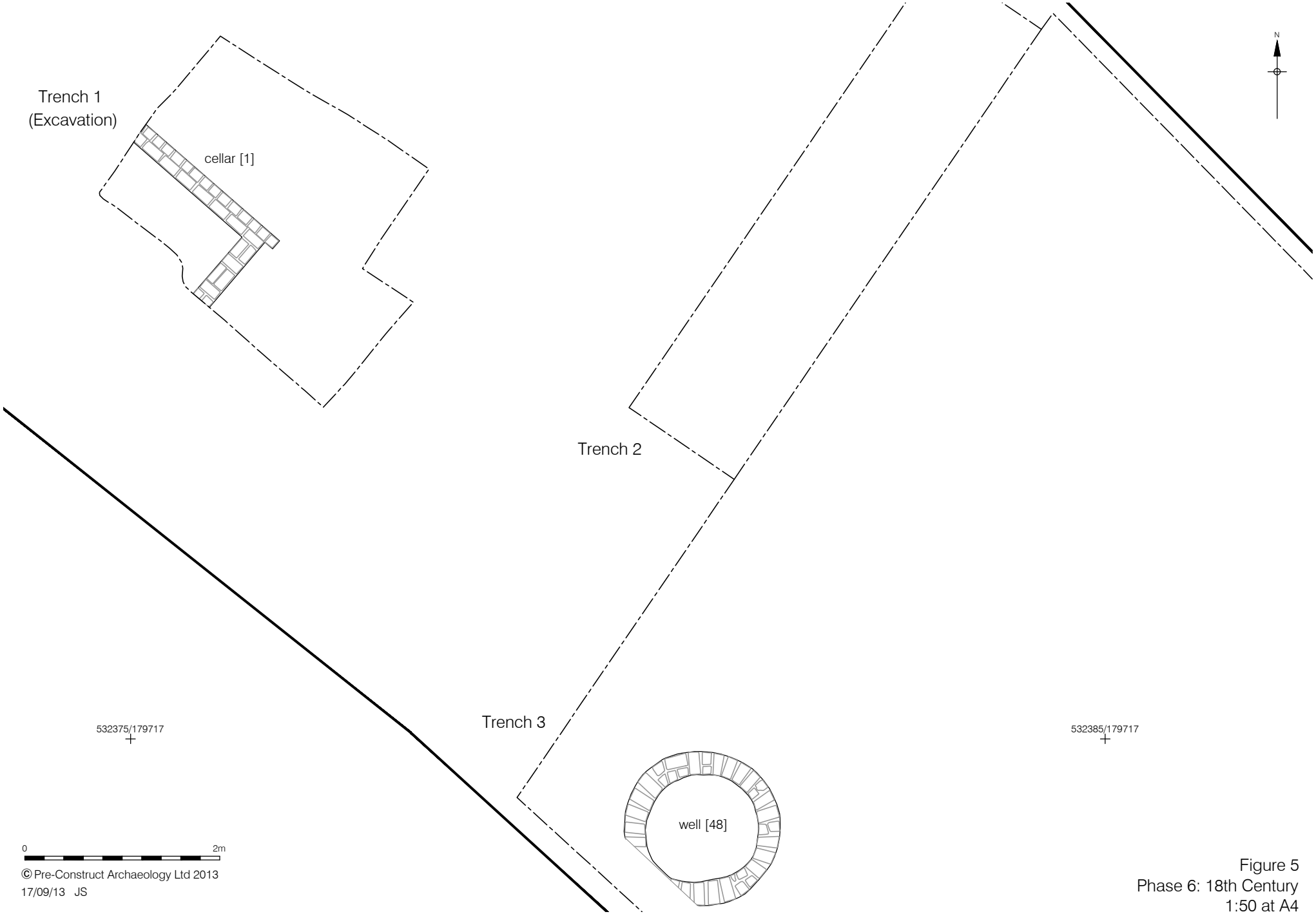

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Figure 5
Phase 6: 18th Century
1:50 at A4

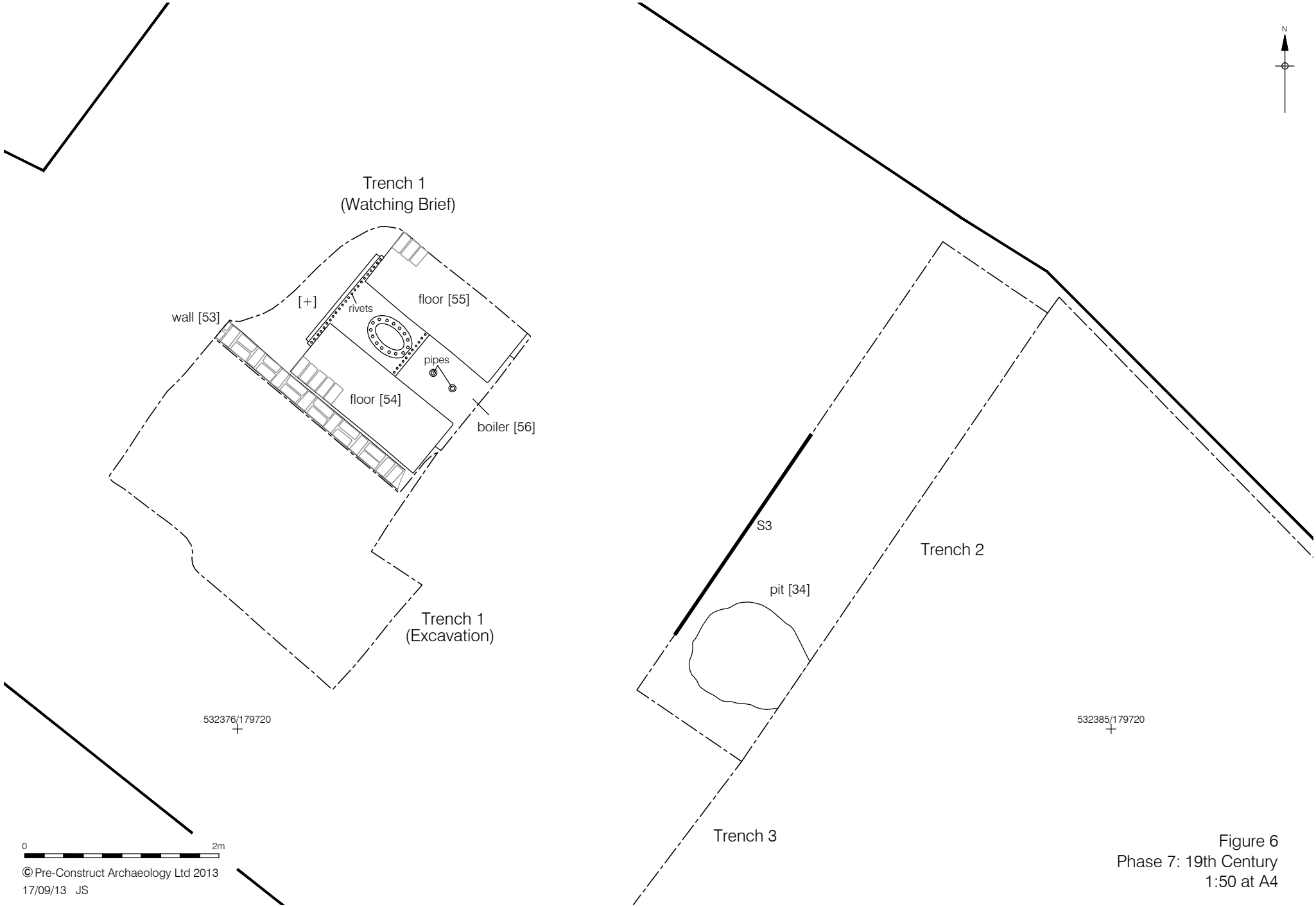

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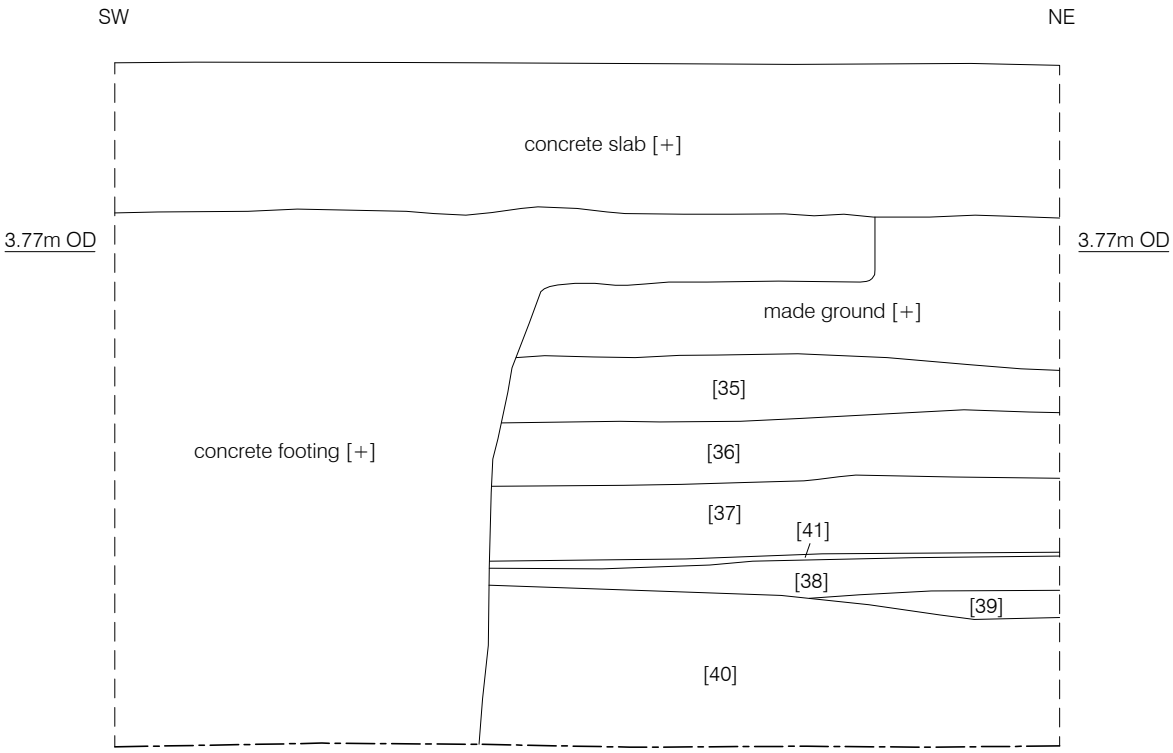
Figure 6
Phase 7: 19th Century
1:50 at A4



Section 3
Trench 2
Southeast Facing

0 1m

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Figure 7
Section 3
1:20 at A4

Plate 1: Possible Roman ditch [47], facing east.

Plate 2: Yard surface [15] and wall [30], facing north.

Plate 3: 18th-century well [48], facing southwest.

Plate 4: 19th-century Cornish boiler, facing east.

Plate 5: Interior of Cornish boiler showing the internal furnace tube, facing west.

Plate 6: West end (front end) of Cornish boiler, facing east.

Plate 7: Name plate on west end of Cornish boiler, facing east.

8 PHASED DISCUSSION

8.1 Phase 1: Natural

8.1.1 The natural gravel was encountered at a maximum height of 1.30m OD in the western part of Trench 3. From here it sloped gently down towards the east, where, by the eastern boundary of the site, it appeared at 1.10m OD. This is consistent with the level of the natural gravels recorded during the 2008 evaluation carried out by MoLAS, which recorded the highest observed point of the gravel at 1.30m OD. Sealing the natural gravel was a layer of brickearth the top of which had been truncated by the construction of the present basement. The brickearth thus survived in truncated form to 1.50m OD. During the 2008 evaluation brickearth was not seen although the underlying gravels were recorded. The natural gravels were described as being sealed by a "0.50m thick mixed deposit of alluvial sands and clay". This deposit yielded fragments of peg roof tiles dated 1480-1800. It is possible that the alluvial sands and clays recorded during the 2008 evaluation were contained within a large cut, whose sides were not seen due to the small size of the excavated trench or that the alluvial clays and brickearth are in fact the same deposit.

8.2 Phase 2: Roman

8.2.1 The current excavation recorded the basal portion of a roughly north-south aligned ditch at the eastern extreme of the site. In the southeast corner of the site it was discovered that the ditch had been excavated archaeologically apparently during the 1979 investigation. The 1979 excavation described the ditch as containing medieval pottery. During the current excavation a slot was excavated in the northeast corner through a 1.60m long section of the ditch. While there was a paucity of finds the excavation of the fill only produced Roman pottery and tile fragments dated AD 50-160. It is not known how big the 1979 assemblage of finds from the ditch was, so it is difficult to determine whether the finds recovered then were intrusive. The 1979 evaluation uncovered a number of postholes and small pits, which were possibly of Roman date. While the 2008 evaluation did not encounter any Roman features residual possible Roman tile fragments were found within later deposits. The ditch may represent a drainage or boundary feature. A worn, reused Roman column base [15] in Wheatley Limestone – a stone commonly associated with mid-late first century activity in Southwark, was perhaps the most significant Roman find on site but it was found residually within later dated deposits.

8.3 Phase 3: Medieval

8.3.1 This phase consisted of the alluvial deposition of sediments followed by the deliberate raising of the ground. The latter is likely to have taken place during the last decades of the 15th century while the former did not yield any finds. Both of these deposits were also encountered

during the 2008 evaluation, which recovered early to mid-medieval (970-1350) pottery from the alluvial silts.

8.3.2 The presence of the alluvial sequence demonstrates that the area was low lying and prone to flooding during the early to mid-medieval period and efforts to remedy this were being made during the later part of the 15th century by raising the ground level.

8.4 Phase 4: 16th Century

8.4.1 Evidence for activity was only seen within the northern of the two properties (218 Borough High Street) where a number of successive surfaces were laid down. These consisted of a rammed clay floor laid down directly on top of the ground raising deposit, followed by a gravel surface, which was succeeded by a compacted mortar floor. The surfaces in this phase were only seen within a narrow strip measuring 1.30m wide (Trench 2) immediately northwest of the basement of the northern property. None of these surfaces were present in the excavated area within the southern property, which may suggest that the site had been already been divided into two properties by this time. Alternatively, the difference between the sequence here and the southern property could be explained by one area being internal and the other external.

8.5 Phase 5: 17th Century

8.5.1 This phase was characterised by activity within the southern property (220 Borough High Street). The initial activity (shown in Figure 4A) included pitting along the northern boundary of the property, which was then followed by the construction of a brick wall demarcating the northern property boundary. In the eastern part of Trench 1 the wall contained a doorway, although all that survived of this were the remains of a brick laid threshold. The presence of a doorway connecting the two properties would perhaps suggest that rather than being two separate properties at this time the area to the north of the wall was an interior space and the area to the south exterior. This was further supported by the construction of an external brick and cobble surface sometime between 1664 and 1700. The addition of the external surface raised the ground level to a point above the threshold of the door, which was then raised by the construction of another brick sill.

8.6 Phase 6: 18th Century

8.6.1 During the 18th century the interior floor of the building was replaced by a mortar floor and within Trench 3 a brick-lined well was constructed. The well had been constructed using predominantly older reused bricks, though the mortar used to bond these was of 18th-century date.

8.6.2 In the southern part of the site a small cellar or cess pit was constructed. Only a small portion of the structure was within the excavation area (Trench 1) and it is therefore difficult to determine its function.

8.7 Phase 7: 19th Century

8.7.1 A brass plate on the front face of the boiler contained the name of the manufacturer and read "F. BONE/BOILERMAKER/BERMONDSEY". It is likely that this refers to the boiler maker Francis George Bone (1837-1895) of South London Boiler Works. Francis George Bone does not appear in the census records for the area for the year 1861 although by the time of the 1871 census he is listed as living in Southwark where he worked as a boiler maker (England Census 1861 and 1871). Sometime during the late 1870s, but before 1880 Francis had patented a tubular Cornish boiler with fixed Galloway tubes rather than the standard Cornish boiler which did not have these (The Engineer, Feb. 13 1880).

8.7.2 As it seems that Francis George Bone was not active as a boiler maker until the (late) 1860s the boiler bearing his name cannot have been manufactured prior to this although Cornish boilers were used as early as 1812. It must also have been made prior to Bone's death in 1895. This date range fits well with the date of the bricks used to construct the encasing chamber of the boiler. These were 19th-century fireclay bricks, but likely to postdate 1850. It is likely that the boiler was installed after Daniel Haywood and Co Ltd set up the zinc merchant at 220 Borough High Street to power the industrial equipment at the zinc works.

8.7.3 Within the eastern part of the site a vaulted brick culvert was constructed although only a small part of this had survived the later construction of the present basement and associated drainage. The culvert was aligned roughly northwest-southeast and as far as could be determined the internal gradient fell towards the southeast. This suggests that it fed into the main sewer which was presumably located in the vicinity of Borough High Street.

8.7.4 Also prior to the construction of the present basement a rubbish pit was dug just to the west of the back wall of the later basement. This contained personalised ceramics with the name of Hinton's Eating House. During the 1979 evaluation the backfill of the brick-lined well within the present basement was excavated and this produced similar personalised crockery. Hinton's Eating House was located at 96 Blackman Street (now 218 Borough High Street) between 1828 and 1843 and it is likely that the rubbish pit is of this date.

8.7.5 In the southwest part of the site the Phase 6 basement was backfilled and the ground level raised to close to the present level. Following the abandonment of the boiler in the north part of the site the boiler room was backfilled and the ground here also raised to close to the present level.

9 RESEARCH OBJECTIVES

9.1 Original Research Objectives

9.1.1 What evidence is there for prehistoric occupation of the site?

No evidence was found for prehistoric occupation on the site.

9.1.2 Can the results of the archaeological investigation contribute to our understanding of the ritual Roman landscape of the area, which includes pits previously recorded at Swan Street (Beasley 2006), the Tabard Square temple and ritual landscape (Killock & Shepherd in prep), as well as the burial activity recorded at Southwark Bridge Road, Lant Street (Sayer & Sudds in prep), Great Dover Street (Mackinder 2000) and Trinity Street (Killock in prep)?

Due to the limited evidence for Roman activity on the site it can contribute little if anything to our understanding of the ritual Roman landscape of the area with the possible exception of helping to delineate the area of activity.

9.1.3 Following on from the recent archaeological investigations at the Church of St George the Martyr by MOLA, can the results of the investigations further refine the location and/or extent of the east-west 'Borough Channel' thought to run to the north of the site?

The current investigation found no direct evidence for the 'Borough Channel', however alluvial deposits found on the site may have been from flooding events from these feature.

9.1.4 How does the site contribute to our understanding of the shifting settlement (or lack thereof) towards the bridgehead in the later Roman period?

While the only evidence for Roman activity on the site was a north-south aligned ditch, previous investigations carried out within the site in 1979 reported postholes and small pits thought to be Roman in date. If these features were indeed Roman in date then they were restricted to the southern part of the site. It is possible that these represent peripheral activity around the area of settlement during the Roman period.

9.1.5 What evidence is there for the medieval development of the site? Is there any further evidence of the medieval ditch previously recorded on the western part of the site?

During the current investigation the ditch which was described in 1979 as being in the western part of the site. It was clearly the same ditch as described during the 1979 evaluation as evidence of it having previously been archaeologically excavated was seen. The current investigation recovered only Roman pottery and tile fragments from the fill of the ditch

although the 1979 report states that it produced late medieval pottery. This means that either the finds from the current investigation were residual or that the finds from the 1979 excavation of the ditch were intrusive.

A previous evaluation had been carried out in 2008 by MoLAS (now MOLA) just to the east of Trench 1 of the current excavation. Both the evaluation and the current investigation found evidence for alluvial deposition during the medieval period followed by deliberate ground raising during the late medieval period.

9.1.6 What evidence is there for the development of the site in the post-medieval period? Can the activity dating from the 16th to 18th centuries recorded during the evaluation of the site be further elucidated, especially during the excavation of the lift pit?

The post-medieval deposits and features recorded during the current investigation were consistent with those recorded in 2008 by MoLAS although no additional evidence for their exact use could be elucidated. However, the brick and cobble yard surface recorded both during the 2008 evaluation and the present investigation appears to have been laid against the south wall of a building with a doorway leading out into the yard.

Evidence for the 19th-century Eating House established on the property by John Hinton was seen in the form of personalised crockery bearing the name of the eating house. This is consistent with the discovery of a larger assemblage of personalised crockery within a brick-lined well during the 1979 evaluation.

In the northern part of the site a Cornish boiler was uncovered. This is likely to represent activity associated with the late 19th/early 20th-century zinc merchants operating on the site.

10 CONTENTS OF THE ARCHIVE

10.1 Paper Records

• Contexts		56 sheets
• Plans		34 sheets
• Sections	3 Sections	3 sheets
• Environmental Sheets		2 sheets

10.2 Finds

• Pottery	1 box
• Clay Tobacco Pipe	1 box
• Ceramic Building Material	3 boxes
• Small finds / Metal	1 box

10.3 Samples

• Environmental Bulk Samples	2

10.4 Photographs

• Digital Shots	31

11 IMPORTANCE OF THE RESULTS, FURTHER WORK & PUBLICATION PROPOSAL

11.1 The results of the archaeological excavation are of low significance consisting of a possible Roman ditch and post-medieval occupation activity. It is felt that the site does not have the potential to make a significant contribution to our understanding of the development of the area.

11.2 No further work is recommended.

11.3 It is recommended that the publication consists of an inclusion in the Annual Excavation Round-up published in London Archaeologist.

12 ACKNOWLEDGEMENTS

12.1 Pre-Construct Archaeology Ltd would like to thank Andy Shelley of Ramboll UK for commissioning the work on behalf of Jasper Properties Ltd who funded the archaeological investigations. Thanks are also due to Dr Christopher Constable, Senior Archaeology Planning Officer for monitoring the site for the London Borough of Southwark.

12.2 The author would also like to thank Tim Bradley for his project management and Jon Butler for his post-excavation management and editing this report, Jennifer Simonson for the CAD illustrations and Richard Archer for the survey work. Thanks are also due to Chris Cooper for the logistics, David Jamieson for the on-site fieldwork and the following specialists: Chris Jarrett (pottery & clay tobacco pipe), Kevin Hayward (CBM), Berni Sudds (CBM), Kevin Rielly (animal bone), Märit Gaimster (small finds) and Dan Young of QUEST.

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APPENDIX 1: CONTEXT INDEX

Context	Grid Square/Trench	Type	Description	Pot Date	CTP Date	CBM Date	Phase
1	TR 1	Masonry	Brick wall			18th	6
2	TR 1	Layer	Made ground	1825-1900		1480-1900	7
3	TR 1	Layer	Made ground	19th		1480-1700	7
4	TR 1	Deposit	Backfill of basement	19th			7
5	TR 1	Deposit	Fill of [6]		1580-1910	1480-1900	5
6	TR 1	Cut	Posthole				5
7	TR 1	Layer	Gravel surface		1640-1660	1480-1700	5
8	TR 1	Deposit	Fill of [9]				6
9	TR 1	Cut	Constriction cut for [1]				6
10	TR 1	Deposit	Fill of [11]	1630-1650	1580-1910	1480-1700	5
11	TR 1	Cut	Posthole				5
12	TR 1	Deposit	Fill of [13]	1650-1800	1580-1910	1664-1725	5
13	TR 1	Cut	Robber cut				5
14	TR 1	Layer	Mortar spread		1580-1910	1480-1800	5
15	TR 1	Layer	Brick and coble surface	1580-1700	1660-1680	1664-1800	5
16	TR 1	Layer	Burnt deposit over (15)				5
17	TR 1	Layer	Metalled surface				5
18	TR 1	Masonry	Brick floor			1664-1725	5
19	TR 1	Masonry	Brick floor	1580-1700		1450-1700	5
20	TR 1	Layer	Gravel surface	1550-1700			5
21	TR 1	Layer	Gravel surface				5
22	TR 1	Layer	Tile surface			1480-1900	5
23	TR 1	Cut	Pit				5
24	TR 1	Deposit	Fill of [23]	1480-1550		1664-1725	5
25	TR 1	Deposit	Middle fill of [28]				5
26	TR 1	Deposit	Upper fill of [28]	1550-1700		1480-1800	5
27	VOID	VOID	VOID	VOID			
28	TR 1	Cut	Posthole				5
29	TR 1	Deposit	Lower fill of [28]	1350-1450		1666-1800	5
30	TR 1	Masonry	Brick wall			1664-1725	5
31	TR 1	Deposit	Made ground = (40)	1480-1500		1480-1800	3
32	TR 1	Cut	Construction cut for [30]				5
33	TR 2	Deposit	Fill of [34]	1840-1870			7
34	TR 2	Cut	Rubbish pit				7
35	TR 2	Layer	Made ground				6
36	TR 2	Layer	Mortar surface	1680-1800		1664-1725	6
37	TR 2	Layer	Made ground	1550-1600		1480-1900	4
38	TR 2	Layer	Mortar surface			1600-1800	4
39	TR 2	Layer	Gravel surface				4
40	TR 2	Layer	Made ground = (31)				3
41	TR 2	Layer	Clay floor				4
42	TR 2	Deposit	Fill of [44]	1805-1900			7
43	TR 2	Masonry	Brick culvert			1750-1900	6
44	TR 2	Cut	Construction cut for [43]				*6*
45	TR 1, 2, 3	Layer	Brickearth	Natural			1
46	TR 3	Deposit	Fill of [47]	50-160		50-160	2

47	TR 3	Cut	North-south aligned ditch	50-160		50-160	2
48	TR 3	Masonry	Circular brick lined feature	1480-1600		1450-1700	6
49	TR 3	Cut	Construction cut for [48]	1480-1600			6
50	TR 2, 3	Layer	Natural gravel	Natural			1
51	TR 2	Layer	Alluvium				3
52	TR 3	Layer	Alluvium				3
53	TR 1	Masonry	Brick wall			1850-1900	7
54	TR 1	Masonry	Brick floor			1850-1900	7
55	TR 1	Masonry	Brick floor			1850-1900	7
56	TR 1	Boiler	Cornish boiler			1870-1895	7

APPENDIX 2: POTTERY ASSESSMENT

Chris Jarrett

Introduction

A small sized assemblage of pottery was recovered from the site (1 box). The pottery dates from the Roman, medieval and post-medieval periods. Very few sherds show evidence for abrasion and were probably deposited fairly rapidly after breakage. The fragmentation of the pottery ranges from sherd material to vessels with complete profiles and one vessel is intact (a 19th-century London stoneware blacking paste pot: context [3]). The average sherd weight is 33.7g which indicates the pottery is as a whole moderately fragmented. Pottery was recovered from eighteen contexts and individual deposits produced only small (fewer than 30 sherds) groups of pottery.

All the pottery (77 sherds or 71 ENV, weighing 2597g (none of which is is unstratified) was examined macroscopically and microscopically using a binocular microscope (x20), and recorded in an ACCESS database, by fabric, form, decoration, sherd count, estimated number of vessels (ENV's) and weight. The classification of the pottery types is according to Museum of London Archaeology. The pottery is discussed by types and its distribution.

THE POTTERY TYPES

The breakdown of the period dating of the pottery is follows:
Roman: 2 sherds, 2 ENV, 121g
Medieval: 9 sherds, 9 ENV, 138g
Post-medieval: 66 sherds, 60 ENV, 2338g

Roman

Unsourced sand-tempered wares (SAND), AD 50-400, 1 sherd, 1 ENV, 10g, form: unidentified.
Verulamium region white ware (VRW), AD 50-160, 1 sherd, 1 ENV, 111g, form: flagon.

Medieval

London area glazed wares

London-type ware (LOND), 1080-1350, 1 sherd, 1 ENV, 3g, forms: jug.
Late London-type ware (LLON), 1400-1500, 1 sherd, 1 ENV, 19g, form: unidentified.

Non-local glazed wares

Late medieval Hertfordshire glazed ware (LMHG), 1340-1450, 1 sherd, 1 ENV, 4g, form: unidentified.

Surrey whitewares

Coarse Surrey-Hampshire border ware (CBW), 1270-1500, 2 sherds, 2 ENV, 22g, form: unidentified.
Coarse Surrey-Hampshire border ware cooking pot with bifid rim (CBW BIF), 1380-1500, 1 sherd, 1 ENV, 43g.
Cheam whiteware (CHEA), 1350-1500, 2 sherds, 2 ENV, 43g, form: drinking jug.
Kingston-type ware (KING), 1240-1400, 1 sherd, 1 ENV, 4g, form: jug.

Post-medieval

Surrey-Hampshire border wares

Surrey-Hampshire border whiteware with green glaze (BORDG), 1550-1700 5 sherds, 5 ENV, 90g, forms: dish; flared, jug.
Surrey-Hampshire border whiteware with yellow glaze (BORDY), 1550 -1700 4 sherds, 3 ENV, 84g, forms: chamber pot, dish; rounded.
Early Surrey-Hampshire border whiteware (EBORD), 1480-1550 3 sherds, 3 ENV, 5g, form: unidentified.
Surrey-Hampshire border redware (RBOR), 1550-1900 2 sherds, 2 ENV, 353g, form: chamber pot.
Surrey-Hampshire border redware with green glaze (RBORG), 1580-1800 2 sherds, 1 ENV, 103g, form: jar; rounded.

Coarse London area post-medieval redwares

London-area post-medieval redware (PMR), 1580-1900 2 sherds, 2 ENV, 72g, form: chamber pot.
London-area early post-medieval redware (PMRE), 1480-1600 14 sherds, 14 ENV, 517g, forms: bowl or dish, jar, pitcher.
London-area post-medieval slipped redware with clear (yellow) glaze (PMSRY), 1480-1650 1 sherd, 1 ENV, 14g, form: jug.

English/local tin-glazed earthenware

English tin-glazed ware (TGW), 1570-1846 3 sherds, 3 ENV, 116g, forms: albarello, bowl; small rounded.

Tin-glazed ware with external lead glaze (Orton style A) (TGW A 1612-1650 1 sherd, 1 ENV, 10g, form: dish.
Tin-glazed ware with pale blue glaze and dark blue decoration (Orton and Pearce style H) (TGW H), 1680-1800 1 sherd, 1 ENV, 4g, form: bowl.

Essex fine red earthenwares

Post-medieval Essex black-glazed redware (PMBL), 1580-1700 1 sherd, 1 ENV, 15g, form: unidentified.
Post-medieval fine redware (PMFR), 1580-1700 1 sherd, 1 ENV, 23g, form: unidentified.

Factory made/twice fired earthenwares (Industrial finewares)

Creamware with developed pale glaze (CREA DEV), 176-1830 6 sherds, 3 ENV, 191g, form: bowl; medium rounded, chamber pot, plate: dinner size.
Pearlware with under-glaze blue painted decoration (PEAR BW), 1770-1820 1 sherd, 1 ENV, 68 g, form: dish; oval.
Pearlware with under-glaze polychrome painted decoration (earth colours) (PEAR ERTH), 1790-1820 2 sherds, 1 ENV, 65g, form: plate; oval.
Plain refined white earthenware (REFW), 1805-1900 1 sherd, 1 ENV, 203 g, form: plate; oval.
Refined white earthenware with sponged or spattered decoration (REFW SPON), 1805-1900 1 sherd, 1 ENV, 5g, form: unidentified.
Transfer-printed refined whiteware (TPW), 1780-1900 1 sherd, 1 ENV, 15g, form: plate.
Transfer-printed refined whiteware with new colour decoration (type 4) (TPW4), 1825-1900 1 sherd, 1 ENV, 48g, form: plate; tea sized.

The most interesting pottery vessel in the assemblage is a tea plate with a green transfer-printed 'Sicilian' design incorporating a badge on the rim containing 'HINTON'S/Eating House/96 BLACKMAN ST./BORO'. John Hinton ran this establishment during the period 1828-43 (Gooch 2007).

Imported pottery

Chinese blue and white porcelain (CHPO BW), 1590-1900 1 sherd, 1 ENV, 4g, form: plate.
Dutch red earthenware (DUTR), 1300-1650 3 sherds, 3 ENV, 72g, form: unidentified.

Dutch slipped red earthenware (DUTSL), 1300-1650 1 sherd, 1 ENV, 5g, form: jug.
Frechen stoneware (FREC), 1550-1700 1 sherds, 1 ENV, 14g, form: jug.
Raeren stoneware (RAER), 1480-1610 2 sherds, 2 ENV, 19g, form: drinking jug.

Unsourced German stoneware (GERST), 1480-1900 1 sherd, 1 ENV, 3g, form: unidentified.

Non-local wares

Staffordshire-type mottled brown-glazed ware (STMO), 1650-1800 1 sherd, 1 ENV, 9g, form: tankard.
Wealden buff ware (WEAL), 1480-1900 1 sherd, 1 ENV, 6g, form: unidentified.

Stonewares

English stoneware (ENGS), 1700-1900 1 sherd, 1 ENV, 59g, form: bottle; cylindrical.
London stoneware (LONS), 1670-1926 1 sherd, 1 ENV, 146g, form: blacking paste pot.

Distribution

The distribution of the pottery is shown in Table 1 and this displays the size of the group, the number of sherds, ENV, weight, the pottery types in the deposit and a spot date for the group. The pottery was recovered from Phases2-7.

Context	Phase	Assemblage size	SC	ENV	Weight (g)	Context ED	Context LD	Pottery types	Context considered date
2	7	S	3	3	55	1825	1900	CHPO BW, TGW, TPW4	1825-1900
3	7	S	6	5	402	1670	1900	BORDY, LONS, RBORG, TGW	19th century
4	7	S	2	2	74	1700	1900	ENGS, TPW	19th century
10	5	S	1	1	10	1612	1650	TGW A	1630-1650
12	5	S	5	5	98	1650	1800	GERST, PMR, PMSRY, STMO	1650-1800
15	5	S	5	4	101	1580	1700	BORDG, BORDY, FREC, PMBL	1580-1700
19	5	S	1	1	23	1580	1700	PMFR	1580-1700
20	5	S	9	9	211	1550	1700	BORDG, CHEA, DUTR, KING, PMRE	1550-1700
24	5	S	10	10	301	1480	1550	CBW, EBORD, LLON, PMRE, RAER	1480-1550
26	5	S	1	1	17	1550	1700	BORDY	1550-1700
29	5	S	1	1	4	1340	1450	LMHG	1350-1450
31	3	S	12	12	171	1480	1600	CBW, CBW BIF, CHEA, DUTR, DUTSL, LOND, PMRE, RAER, WEAL	1480-1500
33	7	S	11	7	843	1770	1840	CREA DEV, PEAR BW, PEAR ERTH, RBOR, REFW	1840-1870
36	6	S	1	1	4	1680	1800	TGW H	1680-1800
37	4	S	4	4	114	1550	1700	BORDG, PMRE	1550-1600
42	7	S	3	3	52	1805	1900	RBOR, REFW SPON, SAND	1805-1900
46	2	S	1	1	111	50	160	VRW	50-160
48	6	S	1	1	6	1480	1600	PMRE	1480-1600

Table 1. BOU13: Distribution of pottery types showing individual contexts containing pottery, what phase the context occurs in, the assemblage size, the number of sherds, ENV and weight, the date range of the latest pottery type (Context ED?LS), the fabrics present and a suggested deposition date. SC: sherd count, ENV: estimated number of vessels.

Significance, potential and recommendations for further work

The pottery assemblage has little significance at a local level. The ceramic profile of the site typically follows that of Southwark and the London area. The tea plate made for Hinton's eating house has been previously published from another Borough High Street archaeological excavation where plates of the same type were recorded in a range of sizes (Gooch 2007). The main potential of the pottery is as a dating tool for the deposits it was recovered from. None of the pottery requires illustration. There are no further recommendations for work on the assemblage.

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APPENDIX 3: CLAY TOBACCO PIPE ASSESSMENT

Chris Jarrett

Introduction

A small sized assemblage of clay tobacco pipes was recovered from the site (1 box). Most fragments are in a fairly good condition, indicating they had not been subjected to too much redeposition or were deposited soon after breakage. Clay tobacco pipes occur in six contexts as small (under 30 fragments) sized groups.

All the clay tobacco pipes (twelve fragments and none are unstratified) were recorded in an ACCESS database and classified by Atkinson and Oswald's (1969) typology (AO). The pipes are further coded by decoration and quantified by fragment count. The tobacco pipes are discussed by their types and distribution.

The clay tobacco pipe types

The clay tobacco pipe assemblage from the site consists of two bowls and ten stems. The clay tobacco pipe bowl types are dated 1640-1680:

1640-1550
AO9: one spurred bowl with a rounded profile and slightly taller than the norm. The bowl has full milling of the rim and has a fair quality of finish. It was recovered from context [7].

1660-1680

AO15: one spurred bowl with a rounded profile with a damaged rim that shows evidence of milling. The bowl has a fair quality of finish and was found in context [15].

Distribution

Table 1 shows the distribution of the clay tobacco pipes, showing the phase, number of fragments, size of the assemblage, the date range of the latest bowl type (Context ED/LD), the types of bowls present or parts, together with a spot date for each context tobacco pipes occur in. The material was recovered from Phase 5.

Context	Phase	No. of fragments	Assemblage size	Context ED	Context LD	Bowl type/part	Context considered date
5	5	1	S	1580	1910	Stem	1580-1910
7	5	6	S	1640	1660	AO9	1640-1660
10	5	1	S	1580	1910	Stem	1580-1910
12	5	1	S	1580	1910	Stem	1580-1910
14	5	1	S	1580	1910	Stem	1580-1910
15	5	2	S	1660	1680	AO15, stem	1660-1680

Table 1. BOU13. Distribution of the clay tobacco pipes.

Significance, Potential and recommendations for further work

The clay tobacco pipes have little significance at a local level and the bowl forms present are typical for London and particularly Southwark, where spurred mid 17th-century types are more frequently found. The only potential the clay tobacco pipes have are to date the contexts they were found in. None of the pipes merit illustration. There are no recommendations for further work on the assemblage.

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APPENDIX 4: CERAMIC BUILDING MATERIAL ASSESSMENT

Berni Sudds & Kevin Hayward

Introduction

Seventy-seven fragments (14.9kg) of ceramic building material and stone were recovered from 218-220 Borough High Street Southwark (BOU13). The assemblage was in the main dominated by post-medieval building material. The wall of the brick tank structure [70] and associated features [71] [72] had kiln brick and re-used early post-Great Fire brick and the structure should be dated to probably at its earliest the mid-late 18th century with modifications during the 19th century.

Given the sites locality it was not surprising that a small quantity of Roman tile and brick was present [46] and the sole representation of worked stone was part of a worn, reused Roman column base [15] in Wheatley Limestone – a stone commonly associated with mid-late first century activity in Southwark. Just one medieval peg tile was recovered. Whilst a small quantity of re-used Tudor brick attest to the recycling from an early post-medieval structure in the vicinity.

Recommendations

The assemblage on the whole is unremarkable and it is recommended that no further work should be carried out.

BOU13 CBM spot dates

Context	Date range of the building material		Latest dated material		Comments and spot date
Tank Buttress					19th century fireclay brick, probably post c.1850.
E Wall	1664	1725	1664	1725	Brick 1664-1725, reused more than once – latest mortar post 1750.
Wall of tank	1664	1725	1664	1725	1664-1725 + reused.
1	1664	1900	1666	1900	Reused transitional and post-Great Fire bricks. 18th century+
2	1480	1900	1480	1900	1480 – 1900
3	1180	1900	1480	1900	1480 – 1700
5	1180	1900	1480	1900	1480 – 1900
7	1180	1900	1480	1900	1480 – 1700
10	1450	1900	1480	1900	1480 – 1700
12	1450	1900	1664	1725	1664 – 1725
14	1480	1800	1480	1800	1480 – 1800
15	1450	1900	1664	1725	1664 – 1800 (bricks reused)
18	1450	1725	1664	1725	1664 – 1725+ (bricks reused)

Context	Date range of the building material		Latest dated material		Comments and spot date
19	1450	1700	1450	1700	1450 – 1700+ (bricks reused)
22	1480	1900	1480	1900	1480 – 1900
24	1450	1800	1664	1725	1664 – 1725
26	1480	1800	1480	1800	1480 – 1800
29	1480	1900	1666	1900	1666 – 1800
30	1664	1725	1664	1725	1664 – 1725+
31	1480	1900	1480	1900	1480 – 1800
36	1480	1900	1664	1725	1664 – 1725
37	1480	1900	1480	1900	1480 – 1900
38	1480	1900	1480	1900	1600 – 1800
43	1666	1900	1666	1900	1750 – 1900
46	55	160	55	160	55 – 160
48	1450	1700	1450	1700	Brick 1450 – 1700. Mortar more likely 18th century+

APPENDIX 5: THE METAL FINDS ASSESSMENT

Märit Gaimster

Introduction

Three metal finds were retrieved from the excavation; they are listed below. Along with two incomplete iron nails, the finds included an incomplete copper-alloy pin with a sturdy shank (sf 1). Pins like these were commonly used in the early modern period to fasten a head-dress or perhaps to pin up clothing to keep it out of the dirt (Egan 2005, 51; cf. Gaimster *et al.* 2002, 174-79).

Recommendations

No further work is recommended for this group of finds; the iron nails may be discarded.

context	sf	description	pot date	recommendations
5		iron nail; incomplete	19th century	discard
12		iron nail; incomplete	1650-1800	discard
17	1	copper-alloy pin; sturdy pointed end only; gauge 2mm; L 43mm+	1580-1700	

Bibliography

Egan, G., 2005. *Material culture in London in an age of transition. Tudor and Stuart period finds c 1450-c 1700 from excavations at riverside sites in Southwark*. Museum of London Archaeology Service Monograph 19.

Gaimster, D., Hayward, M., Mitchell, D. and Parker, K., 2002. 'Tudor silver-gilt dress-hooks: a new class of treasure find in England', *Antiquaries Journal* 82, 157-96.

APPENDIX 6: ANIMAL BONE ASSESSMENT

Kevin Rielly

Introduction

This site is located just south of Borough Tube Station and consisted of three trenches. These provided occupation evidence dating from the Roman period through to the modern era. The earliest feature consists of a portion of a north-south ditch, this overlain by alluvial deposits dated to the medieval period, followed by made ground dating to the end of this period and then by evidence for development from about the 16th/17th centuries. A rather small collection of bones was found in one Roman and one medieval deposit, all of which were well preserved and minimally fragmented. All of these bones were collected by hand.

Methodology

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

Context:	**31**	**46**
Species		
Cattle	2	2
Dog	1	
Chicken	1	
Cattle-size	3	
Equid	1	
Sheep/Goat	2	
Sheep-size	1	
Pig	1	
Grand Total	**12**	**2**

Table 1: Counts of animal bone in each context

Description of faunal assemblage

The site provided just 14 bones (all hand collected), 2 taken from the fill [46] of ditch [47] and 12 from a made ground deposit [31] (see Table 1). These have been dated between AD 50-160 and 1480-1500 respectively. The two cattle pieces from the Roman fill (a calcaneus and a metatarsal) may conceivably belong to the same adult animal. There are obviously very few bones per species, however, it can be seen that cattle and sheep/goat are represented by a mixture of parts, here representing both butchers and consumer waste. Amongst the non-food component there is an equid cervical vertebrae, which exhibits a slight concretion of cessy materials. It can be supposed that this item was redeposited. The dog is represented by a tibia shaft fragment, this clearly from a middle-sized individual.

Conclusion and recommendations for further work

While the bones are in good condition and apparently well dated, the small quantity precludes any further analysis.

APPENDIX 7: ENVIRONMENTAL ARCHAEOLOGICAL ASSESSMENT

D. S. Young

Quaternary Scientific (QUEST), *School of Archaeology, Geography and Environmental Science, University of Reading, Whiteknights, PO Box 227, Reading, RG6 6AB, UK*

Introduction

This report summarises the findings arising out of the environmental archaeological assessment undertaken by Quaternary Scientific (University of Reading) of a sample (sample <2> (46)) from 218-220 Borough High Street, London Borough of Southwark (Site Code: BOU13). The sample was taken from a Roman ditch fill uncovered during an archaeological excavation and watching brief at the site.

Methods

Rapid assessment

One sample was processed by wet sieving by Pre-Construct Archaeology Ltd using 1mm and 300-micron mesh sizes. Each sample was scanned under a stereozoom microscope at x7-45 magnifications, and the concentration and preservation of remains was estimated for each class of macrofossil (Table 1). Preliminary identifications of the waterlogged and charred seeds have been made using modern comparative material and reference atlases (e.g. Cappers *et al.* 2006). Nomenclature used follows Stace (2005).

Results of the Rapid Assessment

Moderate quantities of charcoal were found within sample <2> (46), of which low quantities were identifiable (>2mm in diameter). Low quantities of waterlogged seeds were recorded, including *Persicaria* sp. (smartweed), Chenopodiaceae (goosefoot), cf. *Silene*/*Stellaria* sp. (campion/stitchwort) and *Carex* sp. (sedge). One charred seed was recorded, identified as *Scrophularia* sp. (figwort).

No waterlogged wood, Mollusca, bone, insects or artefacts were recorded within the sample.

Table 1: Results of the rapid assessment of the sample from 218-220 Borough High Street, London Borough of Southwark (Site Code: BOU13).

				Charred					Waterlogged		Mollusca		Bone				
Sample number	Context number	Context description	Fraction (e.g. flot, residue, >300µm)	Charcoal (>4mm)	Charcoal (2-4mm)	Charcoal (<2mm)	Seeds	Chaff	Wood	Seeds	Whole	Fragments	Large	Small	Fragments	Insects	Artefacts
<2>	(46)	Roman ditch fill	>300µm	-	-	1	-	-	-	1	-	-	-	-	-	-	-
			>1mm	1	1	2	-	-	1	1	-	-	-	-	-	-	-

Key: 0 = Estimated Minimum Number of Specimens (MNS) = 0; 1 = 1 to 25; 2 = 26 to 50; 3 = 51 to 75; 4 = 76 to 100; 5 = 101+

Conclusions and Recommendations

The assemblage of waterlogged and charred seeds recorded within the samples is too small to allow a full interpretation of the habitat characteristics of the sample; however, all of the species recorded were herbaceous, and were indicative of a relatively damp, open environment. No further analysis of the seed assemblage is recommended; however, low quantities of charcoal within the sample are suitable for identification, and depending on the species recorded, may be suitable for radiocarbon dating.

Bibliography

Cappers, R.T.J., Bekker R.M. & Jans J.E.A., 2006. Digital Seed Atlas of the Netherlands. Groningen Archaeological Series 4. Barkhuis, Netherlands.

Stace, C., 2005. *New Flora of the British Isles*. Cambridge: Cambridge University Press.

APPENDIX 8: OASIS FORM

OASIS ID: preconst1-159143

Project details	
Project name	218-220 Borough High Street
Short description of the project	An archaeological excavation and subsequent watching brief was carried out by Pre-Construct Archaeology Ltd at 218-220 Borough High Street. The site had previously been subject to two archaeological evaluations; the first in 1979, which recorded a medieval ditch and a circular brick lined feature containing 19th century pottery personalised to Hinton's Eating House; and the second in 2008, which recorded a number of external yard surfaces overlying medieval ground raising and alluvial deposits. The current work revealed possibly the same ditch as 1979 but with exclusively Roman pottery together with post-medieval pitting, surfaces, brick walls and the remains of a late 19th century boiler.
Project dates	Start: 04-02-2013 End: 18-06-2013
Previous/future work	Yes / No
Any associated project reference codes	BOU13 - Sitecode
Any associated project reference codes	BHV08 - Sitecode
Any associated project reference codes	molas1-47109 - OASIS form ID
Type of project	Recording project
Site status	Local Authority Designated Archaeological Area
Current Land use	Vacant Land 1 - Vacant land previously developed
Monument type	DITCH Roman
Monument type	PITS Post Medieval
Monument type	POSTHOLES Post Medieval
Monument type	WALLS Post Medieval
Monument type	WELL Post Medieval
Monument type	BOILER Post Medieval
Monument type	FLOORS Post Medieval
Significant Finds	POTTERY Roman

Significant Finds	POTTERY Medieval
Significant Finds	POTTERY Post Medieval
Significant Finds	CBM Roman
Significant Finds	CBM Post Medieval
Significant Finds	CTP Post Medieval
Significant Finds	CU PIN Post Medieval
Investigation type	'"Full excavation"',"'Watching Brief"'
Prompt	Planning condition

Project location

Country	England
Site location	GREATER LONDON SOUTHWARK SOUTHWARK 218-220 Borough High Street, London Borough of Southwark, SE1 1JX
Postcode	SE1 1JX
Site coordinates	TQ 32378 79717 51 0 51 30 01 N 000 05 33 W Point
Height OD / Depth	Min: 1.10m Max: 1.30m

Project creators

Name of Organisation	Pre-Construct Archaeology Ltd
Project brief originator	Ramboll
Project design originator	Pre-Construct Archaeology Ltd
Project director/manager	Tim Bradley
Project supervisor	Paw Jorgensen
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Jasper Properties Ltd

Project archives

Physical Archive recipient	LAARC
Physical Contents	"Ceramics","Metal","other"

Digital Archive recipient	LAARC
Digital Media available	"Images raster / digital photography","Images vector","Spreadsheets","Text"
Paper Archive recipient	LAARC
Paper Media available	"Context sheet","Matrices","Plan","Report","Section"

Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	An Archaeological Excavation and Watching Brief at 218-220 Borough High Street, London Borough of Southwark, SE1 1JX
Author(s)/Editor(s)	Jorgensen, P.
Date	2013
Issuer or publisher	Pre-Construct Archaeology Ltd
Place of issue or publication	London
Description	Unpublished client report

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