GARDEN BRIDGE MAIN GROUND INVESTIGATION,
THE QUEEN'S WALK, SOUTH BANK, LONDON BOROUGH OF LAMBETH, SE1 9LT



AN ARCHAEOLOGICAL SURVEY
AND WATCHING BRIEF



LOCAL PLANNING AUTHORITY:
LONDON BOROUGH OF LAMBETH

SITE CODE: QWA15

PCA REPORT NO: 12185

AUGUST 2015



PRE-CONSTRUCT ARCHAEOLOGY

GARDEN BRIDGE MAIN GROUND INVESTIGATION, THE QUEEN'S WALK, SOUTH BANK, LONDON BOROUGH OF LAMBETH, SE1 9LT

AN ARCHAEOLOGICAL SURVEY AND WATCHING BRIEF

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GARDEN BRIDGE MAIN GROUND INVESTIGATION, THE QUEEN'S WALK, SOUTH BANK, LONDON BOROUGH OF LAMBETH SE1 9LT: AN ARCHAEOLOGICAL SURVEY AND WATCHING BRIEF

Local Planning Authority: London Borough of Lambeth

Planning Refs: N/A

Site Code: QWA15

Central National Grid Reference: TQ 3115 8053

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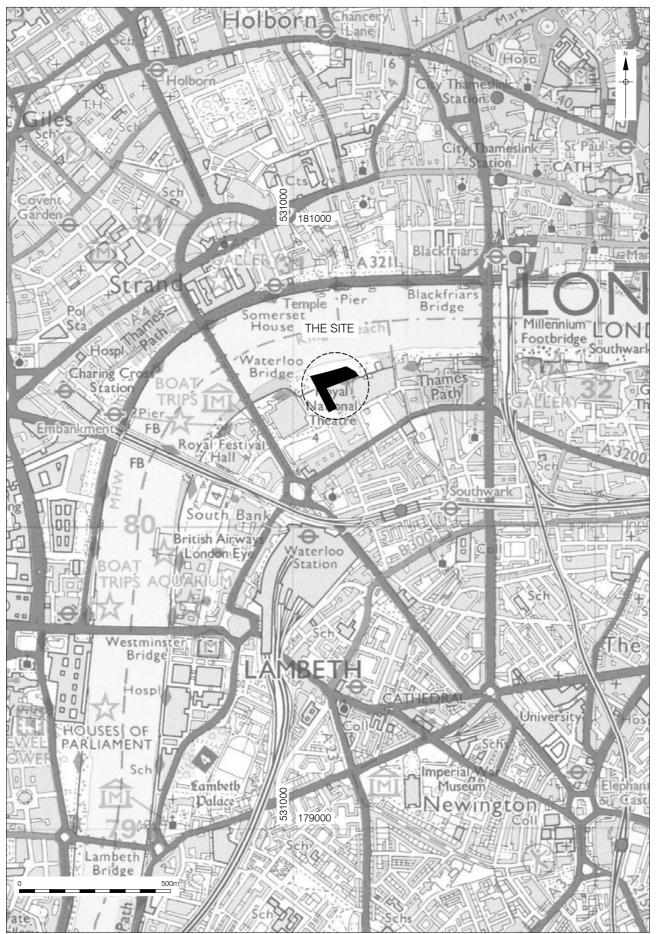
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1 Abstract

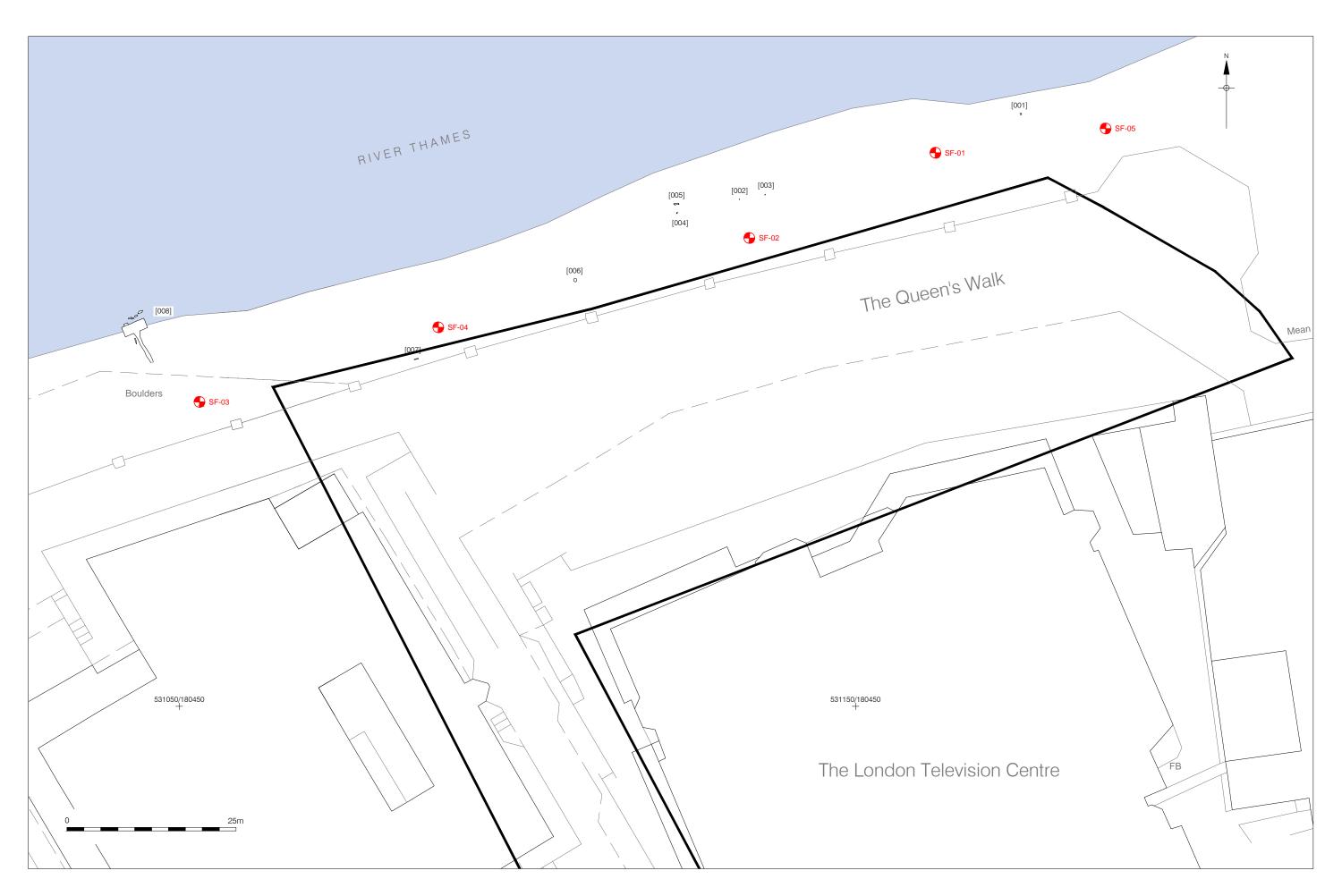
- 1.1 This report details the results and working methods of an archaeological survey and watching brief undertaken by Pre-Construct Archaeology Ltd. prior to and during ground investigation works in advance of the proposed construction of the Garden Bridge, on the south side of the Thames in front of the ITV studios. The fieldwork was carried out between the 25th of February and 11th of June 2015 and was commissioned by the main contractor, Fugro Seacore Limited.
- 1.2 The archaeological works consisted initially of a precise total station location survey of archaeological features and structures previously identified on this part of the foreshore. This locational information allowed the main contractor to locate proposed boreholes and legs of the jack-up platform used for coring, away from these archaeological features. The archaeological watching brief was then undertaken on five boreholes. In addition a previously unknown structure, probably relating to a former jetty, was observed to the side of the legs of the barge. This was subsequently recorded and surveyed.
- 1.3 The survey recorded previously identified features and some not obviously noted before, though all appeared to be of 19th- to 20th-century date and associated with moorings, jetties and boat remains.
- 1.4 The watching brief on the boreholes identified a general sequence of river silts overlying sands and gravels, which overlay the London Clay.

2 Introduction

- 2.1 An archaeological watching brief was undertaken by Pre-Construct Archaeology Ltd. (PCA) during ground investigation undertaken in advance of the proposed construction of the Garden Bridge across the Thames between Queen's Walk on the South Bank to Victoria Embankment on the north. While the ground investigation works took place on both sides of the River Thames, archaeological monitoring works were only required on the southern foreshore adjacent to Queen's Walk, in front of the ITV Studios, London Borough of Lambeth (Figure 1). The work was centred at National Grid Reference TQ 3115 8053.
- 2.2 The works comprised an initial precise total station survey (on the 25th of February 2015) to record previously identified (but only roughly located) archaeological features and structures in the vicinity (Lakin 2014). This survey was then used by the main contractor Fugro Seacore Limited (FSL), to locate its proposed boreholes and the legs of the jack-up platform used as a platform for coring, away from the known archaeological features. The archaeological watching brief was undertaken on five boreholes dug through the south bank of the River Thames from the barge (between the 1st and 11th of June 2015). In addition a further archaeological foreshore feature was observed at a particularly low tide which was then recorded and surveyed.
- 2.3 PCA was commissioned to undertake the archaeological work by FSL. The survey work was undertaken by Richard Archer and the watching brief was undertaken by the author. The project was undertaken in accordance with the archaeological specification contained within the project's overall ground investigation specification (Hopkins and Hope 2014).
- 2.4 Following the completion of the project the site archive will be deposited in its entirety with the London Archaeological Archive and Research Centre (LAARC) identified by the unique code QWA 15.
- 2.5 The project was monitored by Mark Stevenson of Historic England and project-managed for PCA by Peter Moore. The Archaeological Survey was carried out by Richard Archer and Jennifer Wilson both of PCA. The watching brief was supervised by the author.



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3 Geology and Topography

- 3.1 The British Geological Survey shows the site to be underlain by the sedimentary clay, silt and sand of the London Clay formation, deposited during the Palaeogene Period between 56 and 34 million years ago. Above this are materials formed from rivers depositing mainly sand and gravel detrital material in channels to form river terrace deposits, with fine silt and clay from overbank floods forming floodplain alluvium above, and deposited during the quaternary era, upper deposits being of recent, Holocene date (http://mapapps.bgs.ac.uk/geologyofbritain/home.html).
- 3.2 The area of the site lay entirely within the foreshore and tidal range of the River Thames, towards the southern bank of the foreshore. The area of investigation lay on land that sloped gradually downwards into the Thames from south-east to north-west, being entirely covered by the river at high tide and exposed at lower tidal levels.

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4 Archaeological and Historical Background

- 4.1 A site Walkover was conducted in December 2013 which detailed a number of archaeological features (Lakin 2014). The purpose of this was to locate features previously identified by the Thames Archaeological Survey.
- 4.2 This walkover listed a total of 19 archaeological features, most of which were mooring posts or blocks, with the occasional modern Jetty.
- 4.3 The River Thames foreshore is the location of many archaeological and historical features ranging from prehistoric timber circles to post-medieval jetties. Areas where the foreshore has not been heavily modified, or the river heavily dredged have the potential to yield important remains which may make a valuable contribution to knowledge. Furthermore, river defences themselves are often of historic importance, in addition to the potential for archaeological remains immediately behind them.

5 Planning Background

5.1 The development of the site is subject to planning guidance and policies contained within the National Planning Policy Framework (NPPF), the London Plan and policies of the London Borough of Lambeth, which fully recognises the importance of the buried heritage for which it is the custodian.

5.2 **National Planning Policy**

- 5.2.1 In March 2012, the government published the National Planning Policy Framework (NPPF). In summary, current national policy provides a framework which protects nationally important designated Heritage Assets and their settings, in appropriate circumstances seeks adequate information (from desk based assessment and field evaluation where necessary) to enable informed decisions regarding the historic environment and provides for the investigation by intrusive or non-intrusive means of sites not significant enough to merit *in-situ* preservation. Relevant paragraphs within the NPPF include the following:
 - 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.
 - 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.
 - 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.

- 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.
- 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.

5.3 Regional Guidance: The London Plan

5.3.1 The London Plan, published July 2011, includes the following policy regarding the historic environment in central London, which should be implemented through the Local Development Framework (LDF) being compiled at the Borough level:

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.

5.4 Local Planning Policy

5.4.1 The local planning authority responsible for the study site is the London Borough of Lambeth, which is currently developing its new Local Plan and hopes to adopt in late 2015. Current policy regarding development and the historic environment, and development specific to the study site is contained within the Lambeth Core Strategy adopted in 2013 as part of the new Local Plan as follows:

Policy Q19 - Historic environment strategy

- 10.66 The historic environment is an irreplaceable resource which contributes significantly to Lambeth's local distinctiveness, economy and quality of life. Lambeth, in turn, as an inner London borough, makes a significant contribution to the distinctiveness of central London. The historic environment is key to delivering sustainable development and is the main component of Lambeth's distinctiveness and is of interest to residents and visitors alike. In order to ensure that the historic environment continues to play a positive strategic role, the Council will:
- (i) use its planning powers (including enforcement powers) to ensure that special regard is paid to sustaining and enhancing the historic environment;
- (ii) use, where appropriate, statutory powers (including non-planning legislation) to sustain or enhance the historic environment; especially where they might address issues preventing heritage at risk from being brought back to viable use / good repair;
- (iii) support initiatives to sustain or enhance the historic environment and bring heritage at risk back to viable use / good repair (such as the national 'heritage at risk' initiative);
- (iv) continue the designation of local heritage assets with the input of local people, groups and national amenity societies to ensure that Lambeth's historic environment gains the recognition it deserves;
- (v) prepare appraisals, guidance documents and SPDs, securing the input and support of local people, local groups and other parties, and use these in decision making to help guide development in a positive manner;
- (vi) request that copies of significant heritage statements, desk based assessments and record documents are submitted to the London Historic Environment Record (HRE);
- (vii) appoint an Historic Environment Champion to raise the profile of built heritage within the council and across Lambeth; and
- (viii) use established best-practice guidance from English Heritage, national amenity societies and other organisations, the British Standard publication BS7912:1998 'guide to the principles of the conservation of historic buildings' and locally prepared SPD documents to deliver best practice in relation to management and alteration of heritage assets.

Policy Q25 - River Thames

- (a) When making proposals along the River Thames applicants should be able to show that their proposals:
- (i) enhance the character of the river frontage, views from the river and from the opposite bank;
- (ii) preserve the setting and approaches of the Thames Bridges;
- (ii) maintain and create publicly accessible spaces routes along the river;
- (iv) are contextual reinforcing the distinctiveness of the wider city river front;
- (v) respect the unique character of the Albert Embankment as a piece of historic engineering;
- (vi) protect, restore and enhance the draw dock, slipways, steps, stairs and other historic features associated with the river; (vi) reinforce connections from the city to the river; and
- (viii) maintain access to the foreshore at Lack's Dock.
- (b) Proposals for permanent moorings on the River Thames:
- (i) will only be permitted for uses which require such a location and which provide public access and enjoyment of the river;
- (ii) should be located outside the area between Lambeth Bridge and Waterloo Bridge. In the stretch between Lambeth Bridge and Vauxhall Bridge, permanent moorings should be restricted in number and to non-prominent locations close to these bridges. East of Waterloo Bridge they should be restricted to developments necessarily related to the South Bank Centre or to open space;

- (iii) should not adversely affect the open aspect, historic setting or security of the river frontage, archaeology of the foreshore and banks between Vauxhall Bridge and Waterloo Bridge;
- (iv) should not impede views across the river from the riverside, particularly of landmark buildings, and should be in scale with the river scene;

Draft Lambeth Local Plan February 2013 168 10.89 A special quality is required of buildings and the spaces between buildings to make an important contribution to London's image and status as a 'World City' and as an important tourist destination.

- 10.90 The river Thames frontage is Lambeth's window to the city and presents an opportunity to ensure that new development harnesses the positive characteristics of central London as a whole contributing to the city's unique character.
- 10.91 The creation of a homogeneous waterfront of 'anywhere' architecture, development that block sunlight and daylight to the riverside and which presents incompatible uses (such as parking / servicing and private space) to the river side are considered unacceptable.

6 Archaeological Methodology

- In accordance with an approved written scheme of investigation and a site specific health and safety method statement and risk assessment (Moore 2015), an archaeological survey exercise was undertaken. This consisted of surveying the known archaeological features on the south bank and adding any additional features not previously recorded. The Survey was carried out using a total station theodolite.
- An archaeological watching brief was also carried out monitoring five boreholes (SF-01, SF-02, SF-03, SF-04, and SF-05) along the south bank. This was done from a jack-up platform called the Skate 2D, which had an in built cable-percussion rig. The author observed the drilling from a safe location on the deck of the barge and recorded the deposits and their depths. The boreholes were monitored to the top of the London Clay.
- 6.3 The author also observed a previously unrecorded structure on the foreshore which was recorded and photographed. Recording of the deposits was accomplished using the single context recording method on pro-forma context and planning sheets, as presented in PCA's Operations Manual 1 (Taylor and Brown 2009). Contexts were numbered and are shown in this report within squared brackets. Plans were drawn at a scale of 1:100, due to the nature of excavation within the coffer dam, no sections were visible.
- 6.4 The areas monitored were located by means of measured survey.
- The completed archive, comprising all written, drawn and photographic records, will be deposited with the London Archaeological Archive and Research Centre under the unique Site Code QWA 15.

7 Feature Survey and Geotechnical Watching Brief Results

7.1 This section describes the features that were identified and surveyed during the initial site investigation in February 2015 (with the addition of another feature identified during later work) and the sequences recorded during the geotechnical watching brief in June 2015.

7.2 Feature Survey

7.2.1 Seven features along the foreshore were identified and recorded during the February investigation, some of which had previously been recorded, though not accurately located during the earlier walkover survey (Hopkins and Hope 2014). An additional jetty feature was identified, recorded and surveyed at the time of the geotechnical investigations. The features are shown in Figure 2 and summarised in Table 1:

001	A110 -FLM07	Large Square Post	Timber	Large, in-situ square timber post. Identified in 2014 Walkover Report as being part of A110.	-1.61	531174.428 / 180537.617
002	B210	Small Square Post	Timber	Small, in-situ square timber post. Similar to post 003 to east. Seen in 2014 Walkover Report.	-1.01	531132.825 / 180524.964
003	B210	Small Square Post	Timber	Small, in-situ square timber post. Similar to post 002 to west. Seen in 2014 Walkover Report.	-0.90	531136.594 / 180525.658
004	-	Structure	Timber	In-situ vertical timber posts. Probably associated with underlying metal drainpipe and with structure 005 to north. Not recorded in 2014 Walkover Report.	-1.32	531123.625 / 180522.990
005	A102 - FLM07	Structure	Timber	In-situ remains of probable timber box. Probably associated with underlying metal drainpipe and with structure 004 to south. Identified in 2014 Walkover Report	-1.32	531123.525 / 180524.265
006	1	Circular Object	Metal	Remains of large, metal cylindrical tank. Probably modern. Probably not in-situ. Not recorded in 2014 Walkover Report.	-0.36	531108.539 / 180513.008
007	-	Timber	Timber	Loose nautical timber, containing nails. Not in-situ. Washed against River wall. Not recorded in 2014 Walkover Report.	-0.26	531085.076 / 180501.374
008		Jetty	Chalk/ Timber	'T-shaped' chalk jetty structure with surrounding driven timber piles. Not recorded in 2014 Walkover Report.	-	531043.000 / 180505.000

Table 1: Surveyed Features (Arup Equiv. = Features also recorded during walkover survey)

7.2.2 Features [001], [002], [003] and [005] were previously described in the walkover survey report and do not require further discussion here. Additionally feature [004] was probably associated with [005] whilst feature [007] was a loose timber and

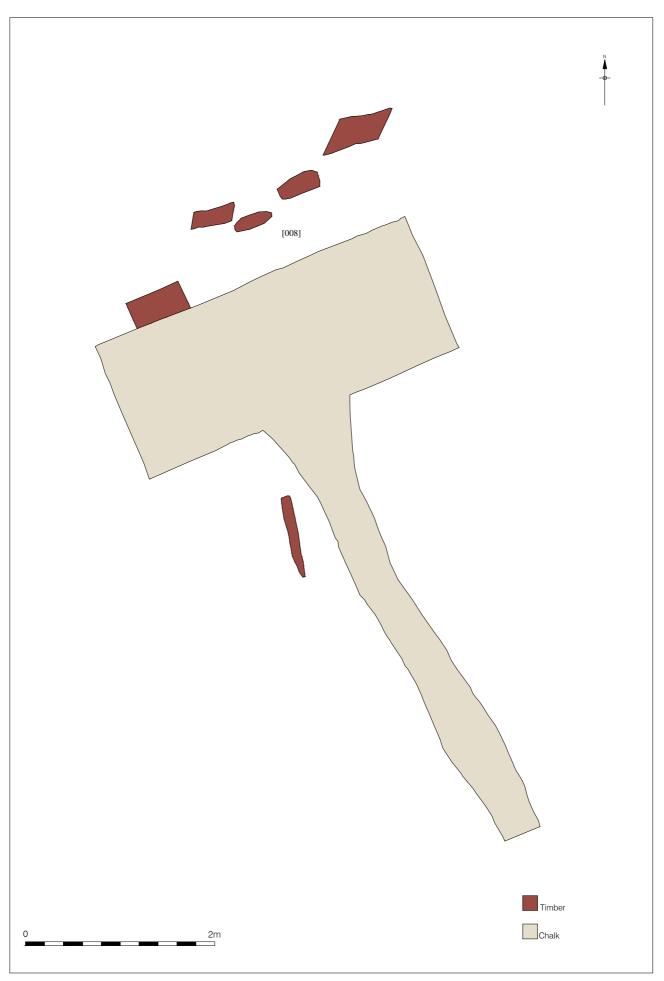
probably not related to any *in situ* structures. However, two features not previously described should be highlighted here:

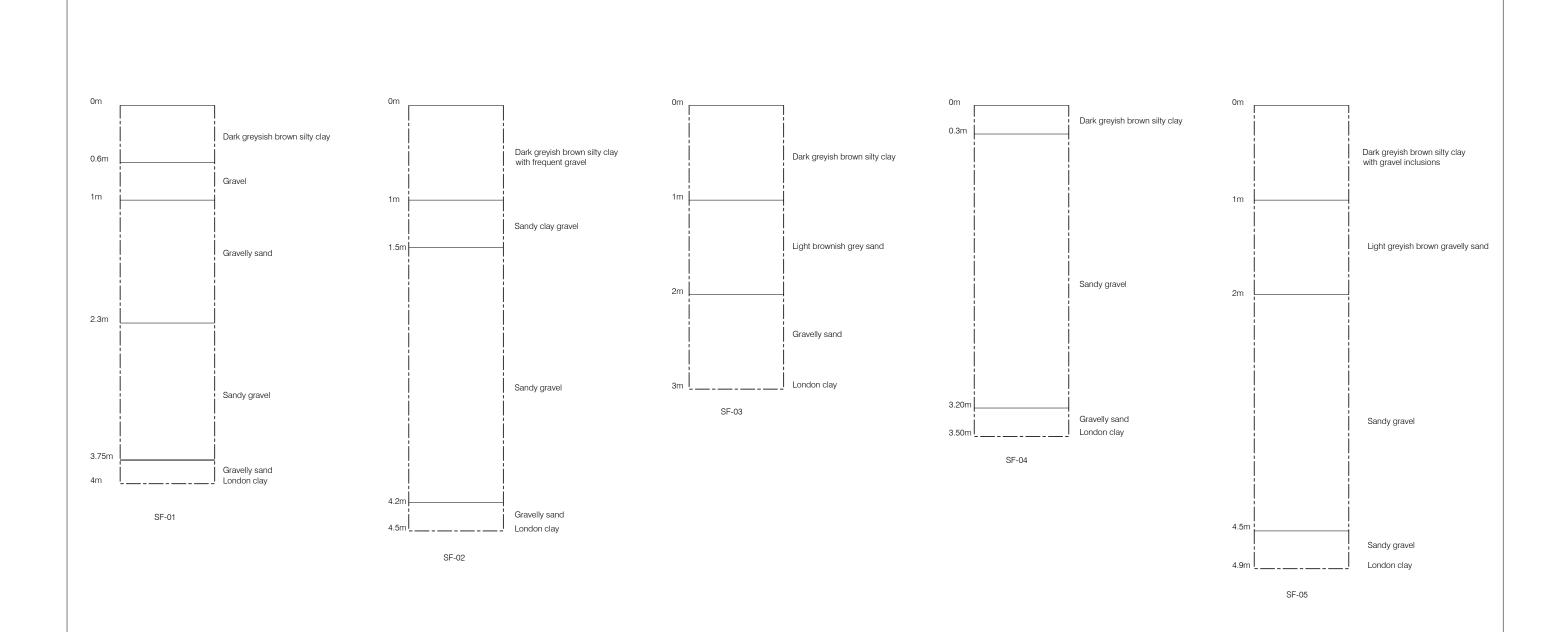
7.2.3 Feature [006] (Plate 1) was a large, cylindrical tank identified in the area between [004] and [006]. Its function was unclear though it may have been of recent origin and was probably not in situ. More significant was feature [008] (Plate 2) identified at the western end of the survey area during the geotechnical investigations. This structure was constructed of chalk and timber and aligned perpendicular to the river. At its widest point, the main 'T-shaped' chalk structure measured 3.6m north-east to southwest, whilst it was up to 7.60m long with the remains of external wooden posts extant. It was thought to represent the remains of a former jetty, though it remains undated as no associated artefactual materials were recovered.

7.3 **Borehole Survey**

- 7.3.1 The sediment sequences in five boreholes sunk from the deck of the barge were recorded along the study area. The locations of the boreholes are shown in Figure 2 and the borehole logs summarised in Figure 4. Because measurements of borehole depth were recorded from the deck level of the jack-up platform, absolute elevations AOD were not recorded and the upper level cannot be assumed to be constant for all sequences. Deck level lay approximately 7m above the surface of the upper recorded sedimentary deposit in each core.
- 7.3.2 The earliest horizon observed during the watching brief was the London clay which is an Eocene deposit and therefore holds no archaeological potential. This was observed in all five boreholes in SF-01 this was observed 11.4m below the deck of the barge. In SF-02 it was observed 11.5m below the deck of the jack-up platform. In SF-03 it was observed 10m below deck level. In SF-04 it was observed 10.50m below deck level and in SF-05 it was observed 12m below the deck level.
- 7.3.3 In all five boreholes a sequence of yellowish brown sand and gravel bands were observed which relate to river deposits (contexts [14], [15], [16], [17] and [18]), although these have archaeological potential no dateable evidence was seen within the boreholes. In SF-01 this horizon was seen between 8m and 11.4m below the deck line and was represented by 4 distinct bands. In SF-02 this horizon was observed between 7.3m and 11.5m below the deck level and is represented by 4 distinct bands. In SF-03 this horizon is seen between 8m and 10m below the deck level and is represented by 2 bands. In SF-04 it is seen between 7.3m and 10.5m below the deck level and is represented by 2 different bands. In SF-05 this horizon was observed between 8.1m and 12m below the deck line.
- 7.3.4 The banding found within the natural sands and gravels can be explained by a constant build up of material on the river bed, and the fact that over time the river flow

- in the Thames has changed speed, with deposition of the different size materials, either mostly sands or mostly gravels reflecting these changes.
- 7.3.5 In all the boreholes overlying the sands and gravels was a dark, silty clay that contained pot, clay tobacco pipe, ceramic building material, leather and iron objects (contexts [9], [10], [11], [12] and [13] and see Appendix 3) and was observed at depths of 7.3 to 8.1m below the deck level.





0 2m

8 Phased Archaeological Sequence

8.1 Phase 1: Pre-Holocene Deposits

8.1.1 The earliest deposit recorded was Eocene London Clay, an estuarine material deposited between 56 and 34 million years ago and therefore of no archaeological value. The surface of this material was recorded at depths between 10m and 12m below the deck of the barge

8.2 Phase 2: Quaternary River Deposits

8.2.1 The London Clay was overlain by banded sand and gravel deposits. The lower deposits may have related to material laid down in the pre-Holocene era but the upper deposits were river alluvium laid down during the Holocene era. No finds were recovered but these upper deposits are likely to have been deposited sometime between the early post-glacial and post-medieval periods.

8.3 Phase 3: Post-Medieval

8.3.1 The stratigraphic sequence was capped by layers of dark, silty clay alluvium, deposited more recently by the River Thames. Finds recovered from this material were generally dated to the 18th to 20th centuries. In addition to the sedimentary material a number of features of post-medieval date were also recorded during the survey. These have not been accurately dated but are likely to have been of 19th- and 20th century origin.

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9 Discussion and Conclusions

- 9.1 Archaeological monitoring of the geotechnical boreholes recorded sedimentary sequences that would be expected in this part of the Thames basin. The area was underlain at depth by Eocene London Clay, which was overlain by significant deposits of Quaternary river sands and gravels, which although having the potential to contain anthropogenic materials, did not in the small samples exposed. Overlying the upper course river deposits were more recent, finer silt alluvial deposits, which contained artefactual material indicating deposition no earlier than the 18th century.
- 9.2 A number of features identified, recorded and located during initial survey of the area were also of post-medieval date and probably did not pre-date the 19th century. These features appeared to all have been associated with past nautical uses of the Thames foreshore, mostly for mooring boats and in some cases, parts of boats themselves.
- 9.3 A number of the features had been previously identified by the 2014 walkover survey, which in turn had recorded some features identified during the Thames Archaeological Survey in 1999, whilst a small number of other features had not previously been noted, indicating the continual exposure and masking of features and deposits in the foreshore area.
- 9.4 Because of the erosive nature of the river all of the exposed features will inevitably degrade over time. However, any groundworks associated with the construction of the Garden Bridge in this area may also impact directly or indirectly on preserved features and deposits in the area.

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10 Acknowledgements

- 10.1 Pre-Construct Archaeology would like to thank Glen Close of Fugro Seacore Limited for commissioning the fieldwork on behalf of Ove Arup & Partners and the field crew of Fugro Seacore Limited for their assistance on site.
- 10.2 The author would also like to thank Peter Moore for Project Management, Peter Boyer for editing this report, Richard Archer and Jennifer Wilson for carrying out the foreshore survey, Chris Jarrett for analysing the finds and Ray Murphy for producing the illustrations.

11 Bibliography

- Hopkins, A. and Hope, V. 2014 *Garden Bridge Trust, Garden Bridge, Technical Specification* for *Ground Investigation*, Ove Arup & Partners Ltd. Document Ref. SPEC/230838/001
- Lakin, D. 2014 Transport for London, *Garden Bridge, Archaeology Walkover Survey,* Ove Arup & Partners Ltd. Document Ref. 230838-30
- Moore, P. 2015 Archaeological Investigations at The Garden Bridge (Southern Thames Foreshore) London Borough of Lambeth; Site Specific Health and Safety Method Statement & Risk Assessment, Pre-Construct Archaeology Limited
- Taylor, J. with Brown, G. 2009 Fieldwork Induction Manual: Operations Manual 1, Pre-Construct Archaeology Limited

Internet Source

British Geological Survey Map Viewer: http://mapapps.bgs.ac.uk/geologyofbritain/home.html

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APPENDIX 1: PLATES



Plate 1: Cylindrical Tank [6]



Plate 2: Chalk and Timber Jetty [8], Looking North

APPENDIX 2: CONTEXT INDEX

Site Code	Cxt	Type	Location	Description	Date	
QWA15	1	Timber	Survey	Square timber post	Post-med.	3
QWA15	2	Timber	Survey	Square timber post	Post-med.	3
QWA15	3	Timber	Survey	Square timber post	Post-med.	3
QWA15	4	Timber	Survey	Vertical timber post	Post-med.	3
QWA15	5	Timber	Survey	Timber box	Post-med.	3
QWA15	6	Metal	Survey	Cylindrical tank	Post-med.	3
QWA15	7	Timber	Survey	Loose nautical timber	Post-med.	3
QWA15	8	Structure	Survey	Chalk and timber jetty	Post-med.	3
QWA15	9	Layer	SF01	silty clay river mud	Post-med.	3
QWA15	10	Layer	SF02	silty clay river mud	Post-med.	3
QWA15	11	Layer	SF03	silty clay river mud	Post-med.	3
QWA15	12	Layer	SF04	silty clay river mud	Post-med.	3
QWA15	13	Layer	SF05	silty clay river mud	Post-med.	3
QWA15	14	Layer	SF01	natural sands and gravels	Holocene	2
QWA15	15	Layer	SF02	natural sands and gravels	Holocene	2
QWA15	16	Layer	SF03	natural sands and gravels	Holocene	2
QWA15	17	Layer	SF04	natural sands and gravels	Holocene	2
QWA15	818	Layer	SF05	natural sands and gravels Holocene		2

APPENDIX 3: FINDS SPOT DATING

Finds spot dating Index

Chris Jarrett

Introduction

The finds recovered from QWA15 are listed by their material type and context. A spot date for the material in each context is given where possible.

Pottery

Context [11], spot date: c. 1820-1900

London area coarse post-medieval redware (PMR), 1580-1900, one sherd, 1 estimated number of vessels (ENV), 11g, form: unidentified (unglazed sherd with internal glaze splashes, possible early flower pot).

Plain yellow ware (YELL), c. 1820-1900, three sherds, 1 EN), 29g, form: flared bowl

Clay tobacco pipe

Context [10], spot date, c. 1730-1910

Bowl fragment surviving as part of a heel/spur and a medium thick stem with a wide bore, *c.* mid 17th-early 18th century

Bowl fragment with a probable spur, thin stem, fine bore, *c.* 1730-1910

Stem fragment, thin diameter, medium bore, c. 18th century

All of the fragments of clay tobacco pipe appear slightly water worn.

Context [11], c. 1730-1910

Stem fragments, two, thin diameter and fine bore, c. 1730-1910

Ceramic building material

Context [10], spot date: 1770-1900

Kent yellow 'stock' brick, fabric 3035, 1770-1940, one fragment, 119g

Post-medieval roof tile, c. 1480-1900, one fragment, 65g

Context [4], c. 1820-1900

Post-medieval roof tile, c. 1480-1900, two fragments, 57g

Slag

Context [11]

One fragment of a reduced 'slag' like material with a gently undulating surface and a core with fine voids, 20g.

Leather shoe

Context [9]

One fragment of the sole of a shoe consisting of two layers of leather joined together by rivets/hob nails. The nails form a border around the edge of the sole and three internal evenly spaced columns of 'nails'. 'Post-medieval.

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Metal finds

Context [10], spot date: post-medieval

One fragment of wire, 188mm in length, 3mm in diameter, bent in a U-shape and slightly rusty. Post-medieval.

Oyster shell

Context [11]

One oyster shell fragment, 8g

Significance potential and recommendations for further work

The finds have no significance at a local level being entirely fragmentary. The pottery consists of those types typically found in the London area, while the clay tobacco pipes are in such a condition that they are difficult to assign to a bowl type and so date better, whilst maker marks are entirely absent from the assemblage. The ceramic building material infers little upon the types of building that they were derived from. The metal find and possible slag are also too nondescript to relate to any activities associated with them. The leather sole of the shoe may be dated more accurately and assigned to gender with further research. The oyster shell, recorded as one fragment reflects only that this food source was typically part of the diet of Londoners in the past. Some of the finds do have the potential to date the contexts they were found in. Additionally the majority of the finds infer post-medieval activity on or in the vicinity of the site. There are no recommendations for further work on the material, although their importance could be reassessed if more artefacts are recovered from further archaeological work on the site.

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APPENDIX 4: OASIS FORM

OASIS ID: preconst1-218560

Project details

Garden Bridge Survey and Geotechnical Investigations Project name

Short description of

the project

The archaeological works consisted initially of a precise total station location survey of archaeological features and structures previously identified on this part of the foreshore. This locational information allowed the main contractor to locate proposed boreholes and legs of the barge used for coring, away from these archaeological features. The archaeological watching brief was then undertaken on five boreholes. In addition a previously unknown structure, probably relating to a former jetty, was observed to the side of the legs of the barge. This was subsequently recorded and surveyed. The survey recorded previously identified features and some not obviously noted before, though all appeared to be of 19th- to 20th-century date and associated with moorings, jetties and boat remains. The watching brief on the boreholes identified a general sequence of river silts overlying sands and gravels, which overlay the London Clay.

Start: 25-02-2015 End: 21-07-2015 Project dates

Previous/future

work

Yes / Not known

Any associated project reference

codes

QWA15 - Sitecode

Type of project Recording project

Site status Local Authority Designated Archaeological Area

Current Land use Coastland 2 - Inter-tidal

Monument type JETTY Post Medieval

MOORING Post Medieval Monument type

Significant Finds POTTERY Post Medieval

Significant Finds CLAY TOBACCO PIPE Post Medieval

Significant Finds **BUILDING MATERIAL Post Medieval**

Significant Finds **LEATHER Post Medieval**

"Watching Brief" Investigation type

Project location

Country England

Site location GREATER LONDON LAMBETH LAMBETH Garden bridge

Postcode SE1 9LT

Study area 2200.00 Square metres

Site coordinates TQ 3115 8053 51.5079625095 -0.109988581879 51 30 28 N 000

06 35 W Point

Project creators

Name of Organisation

PCA

Project brief originator

ARUP

Project design originator

Peter Moore

Project

director/manager

Peter Moore

Project supervisor David Taylor

Type of

sponsor/funding

body

Developer

Name of sponsor/funding

body

Fugro Engineering Services

Project archives

Physical Archive

recipient

LAARC

Physical Archive ID QWA15

Physical Contents "Ceramics", "Leather"

Digital Archive recipient

LAARC

Digital Archive ID

QWA15

Digital Media available

"Survey"

Paper Archive recipient

LAARC

Paper Archive ID

QWA15

Paper Media available

"Context sheet","Drawing","Plan","Report","Survey "

Project bibliography 1

Grey literature (unpublished document/manuscript)

Publication type

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South Bank, London Borough of Lambeth SE1 9LT: An

Archaeological Survey and Watching Brief

Author(s)/Editor(s) Taylor, D.

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