



**1 BEAR GARDENS/2 ROSE ALLEY**  
**Southwark**  
**London SE1**

London Borough of Southwark

An archaeological evaluation report

March 2009

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An archaeological evaluation report

Site Code: BGU08

National Grid Reference: 532255 180440

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## Summary (non-technical)

*This report presents the results of an archaeological evaluation carried out by the Museum of London Archaeology on the site of 1 Bear Gardens/2 Rose Alley, London Borough of Southwark. The report was commissioned from MOL Archaeology by RPS Planning & Development Ltd on behalf of the client Macro Investments Ltd.*

*Following discussions, and in co-ordination with the London Borough of Southwark six evaluation trenches were excavated on the site.*

*The results of the field evaluation were necessary in order to refine the initial assessment of the archaeological potential of the site. These results indicated that there was no structural evidence of the Davies Bear Gardens (c 1660–1682), that has recently been identified on the Union Works site (PSE02) to the west of Bear Gardens. A north-south aligned brick wall of early to mid 18th century date, recorded on the western side of the evaluation site, may represent the foundations of tenement properties depicted on Rocque's map of 1746 and described in a lease dated 1776..*

*Dumped deposits recorded on the site contained animal bones, waste glass and delft pottery fragments.*

*Several brick footings are probably related to the current building and are late 19th or early 20th century in date.*

*In the light of the revised understanding of the archaeological potential of the site, the report concludes that the recorded archaeological deposits could be excavated archaeologically (i.e. preservation by record) in advance of any development ground reduction.*

**Contents**

**1 Introduction..... 5**

1.1 Site background..... 5

1.2 Planning and legislative framework..... 7

1.3 Planning background ..... 7

1.4 Origin and scope of the report ..... 7

1.5 Aims and objectives..... 7

**2 Topographical and historical background..... 9**

2.1 Topography ..... 9

2.2 Medieval ..... 9

2.3 Post-medieval..... 9

**3 The evaluation..... 11**

3.1 Methodology ..... 11

3.2 Results of the evaluation ..... 12

3.3 Assessment of the evaluation ..... 21

**4 Archaeological potential ..... 32**

4.1 Realisation of original research aims ..... 32

4.2 General discussion of potential..... 32

4.3 Significance ..... 33

**5 Proposed development impact and recommendations ..... 34**

**6 Acknowledgements ..... 35**

**7 Bibliography..... 35**

**8 NMR OASIS archaeological report form..... 38**

8.1 OASIS ID: molas1-54363 ..... 38

**Appendix 1 Post-medieval pottery ..... 41**

8.2 Introduction..... 41

8.3 The pottery ..... 41

8.4 Potential and significance ..... 42

**9 Appendix 2 Ceramic building material ..... 44**

9.1 Summary ..... 44

9.2 Discussion ..... 44

**10 Appendix 3 Clay tobacco pipes ..... 45**

10.1 Introduction/methodology ..... 45

10.2 Quantification ..... 45

10.3 Condition ..... 45

10.4 Provenance and dating of the clay pipes ..... 45

10.5	Character of the pipe assemblage .....	46
<b>11</b>	<b>Appendix 4 Accessioned Finds .....</b>	<b>49</b>
<b>12</b>	<b>Appendix 5 Animal bone .....</b>	<b>50</b>
12.1	Introduction/methodology .....	50
12.2	Summary .....	50
12.3	Interpretation and potential .....	51

## List of Illustrations

*Front cover: The 18th century brick wall [42] found in trench 1*

Fig 1 Site location	6
Fig 2 Areas of investigation	22
Fig 3 Section 1	23
Fig 4 Brick wall in trench 1 and trench 2	24
Fig 5 Section 2	25
Fig 6 Brick footings in trench 3	26
Fig 7 Section 3	27
Fig 8 Brick footings in trench 4	28
Fig 9 Section 4	29
Fig 10 Brick footings and earlier surface in trench 5	30
Fig 11 Section 5	31
Fig 12 Section 6	31

## 1 Introduction

### 1.1 Site background

The evaluation took place at 1 Bear Gardens/2 Rose Alley, hereafter called 'the site'. This is bounded by Bear Gardens to the west, Rose Alley to the east, the dilapidated Empire Warehouse to the north and the Shakespeare Education Centre at 58 Park Street to the south. *This is the continuation of the overall strategy for the site, which started with the extensive archaeological assessment of the Empire Warehouse in September 2008 (see below).*

The OS National Grid Reference for centre of site is 532255 180440. The level of the basement slab varied between c 3.25 and 3.49m OD. Modern ground level immediately adjacent to the site is c 3.38m OD.

A Written Scheme of Investigation (WSI) was prepared by RPS Planning & Development Ltd, which covers the whole area of the site (RPS 2008). This document should be referred to for information on the natural geology, archaeological and historical background of the site and the initial interpretation of its archaeological potential.

An archaeological field evaluation was subsequently carried out on a series of trenches between 25/11/08 and 09/12/08. The Museum of London Site Code is BGU08.

### 1.2 The Empire Warehouse evaluation

An archaeological evaluation at Empire Warehouse (Museum of London site code EWH08), found there were no structural remains that could be identified as relating to the Hope Theatre. Across the site a sequence of waterlain deposits were recorded with concentrations of animal bones within a number of apparently truncated cut features. Animal bones recovered included the remains of horses, 10 large dogs, and several bear bones presumed to have derived from bear baiting taking place on Bankside. The largest group of animal bones (Context Number [38]) was associated with pottery dated to the last quarter of the seventeenth century, with the suggestion that this material was deposited over a relatively short period of time. Other archaeological features included a pit filled with building debris, a possible timber drain and a brick tank that probably belongs to the 18th century iron foundry.

In addition three geo-technical boreholes sunk between minus 1.51m and minus 1.87m OD revealed a series of organic alluvial clays, with one (BH2), revealing a dark brown fibrous organic clay located at minus 0.98m OD.

The report (Mackinder, 2008), concluded previous development activity on the site had removed archaeological remains of the Hope Theatre and truncated archaeological deposits containing animal bone presumed to have derived from nearby animal baiting arenas.



Fig 1 Site location



### 1.3 Planning and legislative framework

The legislative and planning framework in which the archaeological exercise took place is summarised in the Written Scheme of Investigation (WSI) which formed the project design for the evaluation (RPS, 2008).

The site lies within the Borough/Bermondsey/Riverside Archaeological Priority Zone (APZ) as defined in the Southwark Plan (adopted 2007)

### 1.4 Planning background

This archaeological evaluation was carried out in advance of a proposed development at Empire Warehouse and 1 Bear Gardens/ 1-2 Rose Alley, Southwark.

### 1.5 Origin and scope of the report

This report was commissioned by RPS Planning & Development Ltd on behalf of Macro Investments Ltd and produced by the Museum of London Archaeology Service (MoL Archaeology). The report has been prepared within the terms of the relevant Standard specified by the Institute of Field Archaeologists (IFA, 2001) and as agreed with London Borough of Southwark.

Field evaluation and the evaluation report which comments on the results of that exercise, are defined in English Heritage guidance (English Heritage, 1998) as intended to provide information about the archaeological resource in order to contribute to the:

- formulation of a strategy for the preservation or management of those remains; and/or
- formulation of an appropriate response or mitigation strategy to planning applications or other proposals which may adversely affect such archaeological remains, or enhance them; and/or
- formulation of a proposal for further archaeological investigations within a programme of research

### 1.6 Aims and objectives

All research is undertaken within the priorities established in *A research framework for London Archaeology* (Museum of London, 2002).

The following research aims and objectives were established in the WSI (RPS, 2008)<sup>1</sup>:

- is there potential for geo-archaeological deposits which may provide data on the palaeo-topography of north Southwark?
- what is the nature of the industrial archaeological remains of the post-medieval period located on the site? Is there any evidence for the 17th century pottery and glassworks?

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<sup>1</sup> Those aims in the WSI specific to the Hope Theatre and the Empire Warehouse part of the development have not been repeated here.

- is there any evidence for the 18th century tenements on the site?
- in general, what is the level of truncation across the site?
- are there specific areas where truncation is more extensive than the established general level of truncation?

## **2 Topographical and historical background**

### **2.1 Topography**

The site is located on the south bank of the Thames and the underlying geology of the area is that of alluvially deposited clays. This part of north Southwark comprises several areas of higher natural sand and gravel islands (eyots) interspersed with large glacially formed channels filled with alluvial clays. The site is located in an area of varying topography, nearby at Skinmarket Place, 50m to the west sands and gravels were observed at a height of 0.66m OD. At Anchor Terrace, 100m to the south-east, the gravels were recorded between minus 2.60m and minus 3.64m OD (Blatherwick, 1999).

### **2.2 Medieval**

There is little evidence of occupation on Bankside before the 13th century; a causeway is mentioned in 1218-19 (Carlin 1996, 40) so there may have been a causeway on top of a riverside embankment. The bishops of Winchester were undertaking land reclamation with draining and embanking in the twelfth and thirteenth centuries (Carlin 1996, 40). In the later medieval period the Bankside area became infamous for its inns and brothels.

### **2.3 Post-medieval**

The Agas map of 1560-90 date shows fishponds, two animal baiting arenas and dog kennels on the Bankside area. Later the area became the site of theatres such as the Rose and the Globe. Philip Henslowe acquired the lease of land in the late-sixteenth or early-seventeenth century, on which the Hope Theatre was built in 1614. This new playhouse had a movable stage so that the building could also be used for animal baiting.

The Hope was pulled down in 1656 but a final arena, the Davies Bear Garden was built c 1660/62 at the southern end of Bear Gardens. Recent excavations at Union Works (PSE02) have found the curved brick walls of this arena to be located mainly on the west side of Bear Gardens. W. W Braines (1924, 98) had postulated the small square either side of Bear Gardens (first seen on Rocque's map of c 1746) mirrored the interior of the Davies Bear Garden. Emerging archaeological information would suggest that this is not the case.

With the demise of the theatres and the Davies arena being demolished in 1682, there was a succession of industries, with a pottery, glasshouses and several foundries or ironworks in the area.

Rocque's map of c 1746 shows buildings around the small open square at the southern end of a small street and marked as Mr Davies Coal Yard. By 1776 a lease refers to this as Glasshouse Square.

The more detailed 1792-99 Horwood map shows individual houses at the southern end on both sides of Bear Gardens built around the small square

In 1873 there were still three small properties on the east side of the 'glasshouse yard' with their back yards on Rose Alley.

By 1894 there were now two properties separated by a small covered alleyway with two buildings on Rose Alley. The 1914 Ordnance Survey map appears to show one large property that extended from Park Street to Empire Warehouse although this may be the result of mapping conventions as subsequent maps show individual buildings fronting Bear Gardens and Rose Alley.

The buildings were not damaged during the war (LCC bomb damage map). At some time in the mid-20th century the current configuration was established, as by the 1966 OS map the site was only two properties (1 Bear Gardens/2 Rose Alley) and separate from 58 Park Street.

### **3 The evaluation**

#### **3.1 Methodology**

Six evaluation trenches were excavated, four were inside the building and two were outside.

The slab was broken out and cleared by contractors. The contractors assisted with the hand dig under MOL Archaeology supervision and when archaeological deposits were reached the trenches were excavated by MOL Archaeology.

The locations of evaluation trenches were recorded by MOL Archaeology geomatics section. This information was then plotted onto the OS grid.

A written and drawn record of all archaeological deposits encountered was made in accordance with the principles set out in the *Archaeological Site Manual* (MOL 1994). Each deposit or feature (wall, pit etc) was given a separate context number, in this report they are the numbers within square brackets [ ]. Levels were calculated using the nearest OS benchmark of 4.65m OD that is located on Cardinal Cap Alley/Bankside.

The site has produced: 1 trench location plan; 58 context records; 6 section drawings at 1:20; 21 other plans and 11 digital photographs. In addition 15 boxes of finds were recovered from the site.

The site finds and records can be found under the site code BGU08 in the MoL archive.

### 3.2 Results of the evaluation

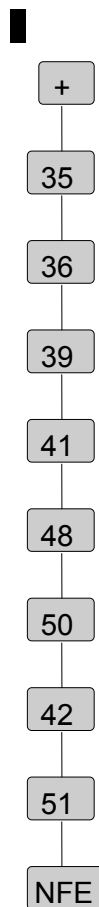
For trench locations see fig 2

#### 3.2.1 Evaluation trench 1

See figs 3 and 6

<b>Trench 1</b>	
Dimensions	1.80m N/S x 2.10m E/W
Depth of trench	1.50m
Top of slab	3.39m OD
Thickness of slab	70mm
Thickness of make-up	50mm
Natural	Not applicable

#### Trench matrix



#### Stratigraphic sequence

The bottom of the trench was probed to a depth of 1.10m by hand auger (to c 1.00m OD). The first 0.50m was a dark grey silty-clay similar to [50] but at c 1.58m OD the deposit became a more solid waterlain clay with flecks of chalk, shell and charcoal. The final 0.20m (c 1.28m OD) was a solid grey blue clay with no inclusions.

The lowest recorded deposit in the evaluation trench [51] recorded at 1.94m OD comprised mortary fragments possibly derived from the construction of the overlying brick wall [42]. This wall [42] ran almost north-south, the highest survival was at

2.58m OD, and it was 0.50m wide and 0.64m high. This wall was also picked up in trench 2 further to the south and recorded as [44]. The wall was well built and a brick sample was broadly dated 1550-1700, though an 18th century date is more likely. A layer of pottery sagger fragments probably acting as a levelling course was noted in this wall. The use of the sagers means this wall was built after the short-lived Bear Garden pothouse was known to have been in operation (pre-1671 to c 1705: Britton 1987, 47). In addition, in trench 2 the wall was half trench built, as to the west of wall [44] there was a possible construction cut [38], meaning the deposits found to the east were *in-situ* when the wall was built.

To the east of wall [42] there was a dump of redeposited silty-clay [50] dated 1660-1680; above this were two deposits of industrial waste. The first deposit [48], dated 1630-1700, was a red/black sandy silt with fragments of glass waste, the next deposit [41], dated 1700-1740, was a grey/black gritty silt with fragments of both glass and pottery waste.

If these deposits were *in situ*, this would suggest that the wall was constructed post-1710-1740 which would agree with the presence of the sagers and indicate possible re-use of earlier building material. This would make this wall ([42]/[44]) early to mid 18th century in date.

Above these was an undated deposit of brick and mortar fragments [39] that is probably the demolition of the top of wall [42]. This was sealed by a 0.45m thick silty deposit [36] with coal and clinker fragments; this was undated (though a similar deposit in trench 2, [28], was dated 1700-1740) and was probably a consolidation dump. The highest archaeological deposit was a yard surface [35] made up of flint cobbles at 3.20m OD. This is probably 19th century in date and relates to the current building.

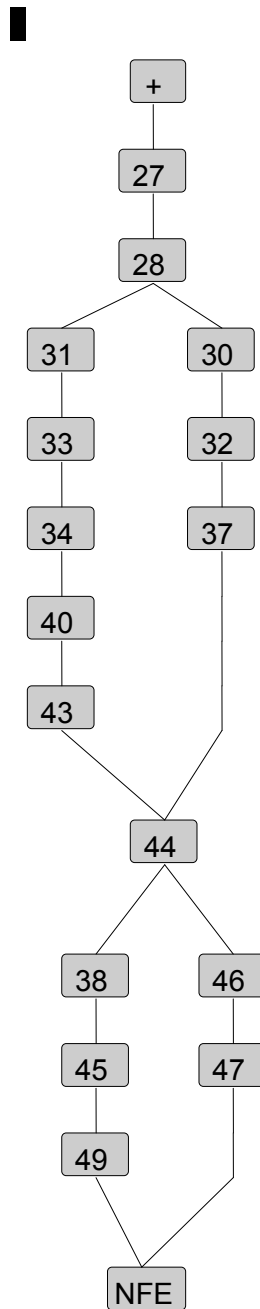
This surface is probably the continuation of [27] that was seen in trench 2 to the south.

### 3.2.2 Evaluation trench 2

See figs 4 and 6

Dimensions	1.50m N/S x 2.40m E/W
Depth of trench	1.50m
Top of slab	3.44m OD
Thickness of slab	70mm
Thickness of make-up	10mm
Natural	Not applicable

#### Trench matrix





### Stratigraphic sequence

The base of the trench was probed but the auger could only penetrate a further 0.30m before hitting obstructions these were probably just bricks or large pebbles.

The lowest recorded deposits were a silty clay [49] and a waterlain silt [47] recorded at an upper height of 1.94m OD. Above this was a rubble layer [45], and a mortar deposit [46] associated with a north-south running brick wall [44]. This wall was a continuation of wall [42] seen in trench 1. The highest survival was 2.37m OD and it was 0.50m wide and 0.50m high. A possible construction cut [38] was noted on the west side of this wall, this was backfilled with [37], dated 1660-1680, which included an upper limb, a lower limb, foot and toe from a brown bear (see Appendix 5). The animal bone specialist report indicates that the bone assemblage appears to suggest 'waste deposits' indicating that this is material that was residual material on the site and is not located within a primary context. To the east side of the wall there were a series of deposits the first was an ashy dump [43], this was followed by a dump [40] dated 1580-1700, that was overlain by a looser mortar deposit [34]. Finally there were two silty deposits; [33] dated 1630-1700 and [31] dated 1680-1710.

To the west of the wall there was only one dump [32] dated 1600-1690. This was overlain by a mortar deposit [30], dated 1630-1680, and was associated with the demolition of wall [44]. All these deposits were sealed by a thick deposit [28] dated 1700-1740, that was probably the same consolidation dump as [36] seen in trench 1. The highest archaeological deposit was a yard surface made up of flint cobbles [27] at 3.12m OD. This is probably 19th century in date and relates to the current building.

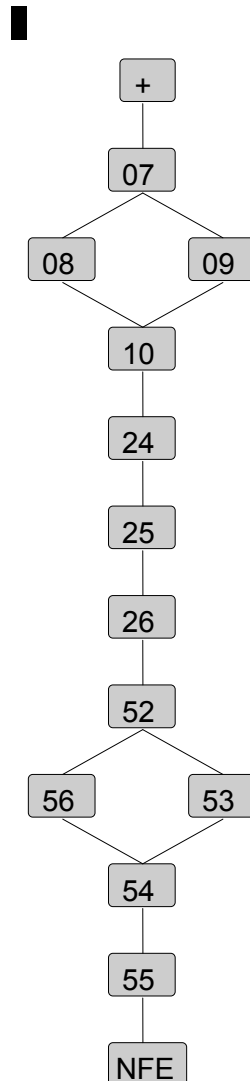
This surface is probably the continuation of [35] that was seen in trench 1 to the north.

### 3.2.3 Evaluation trench 3

See fig 7

<b>Trench 3</b>	
Dimensions	1.30m N/S x 2.50m E/W
Depth of trench	1.50m
Top of slab	3.26m OD
Thickness of slab	0.20m
Thickness of make-up	0.10m
Natural	Not applicable

#### Trench matrix



#### Stratigraphic sequence

The base of the trench was probed but the auger could only penetrate a further 0.40m before hitting obstructions, these were probably bricks or large pebbles.

The lowest recorded deposit was a silty, possibly waterlain, dump [55] recorded at an upper height of 1.57m OD (this did not appear on the section). Above this was a more organic dump [54]. This was overlain by a rubblely deposit [53] and a silty deposit [56] with several animal bones. Both of these were sealed by a silty dump [52] dated 1550-1700. There was an L shaped cut [26] 0.23m deep and filled with a rubblely fill [25]: this may be evidence of a robbed wall foundation. This cut was sealed by two deposits, the first was a mortary dump [24] dated 1680-1710 and the second was a sandy dump [10], dated 1690-1710, with glass waste and crucible fragments.

Two parallel yellow brick footings [08] and [09] running north-south are probably to support a floor. The final deposit [07] was yellow brick rubble around these brick footings and is probably associated with the current building so dated to the late 19th century.

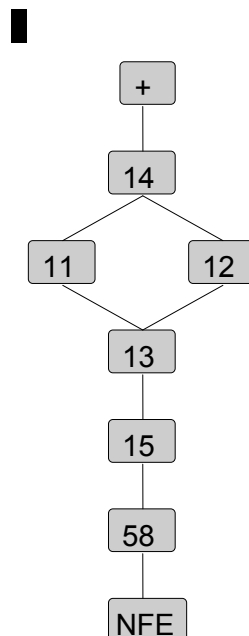
### 3.2.4 Evaluation trench 4

See figs 8 and 9

The position of this trench was changed slightly to avoid a live service.

Trench 4	
Dimensions	1.30m E/W x 2.10m N/S
Depth of trench	1.50m
Top of slab	3.27m OD
Thickness of slab	0.20m
Thickness of make-up	0.10m
Natural	Not applicable

#### Trench matrix



#### Stratigraphic sequence

The base of the trench was not probed due to the lack of space.

The earliest deposit was a mortar dump [58] above this was a silty dump [15], dated 1690-1710, that included glass crucible fragments. Above this was a rectangular yellow brick structure [13], of unknown function, this was 1.60m east-west and 0.60m north-south.

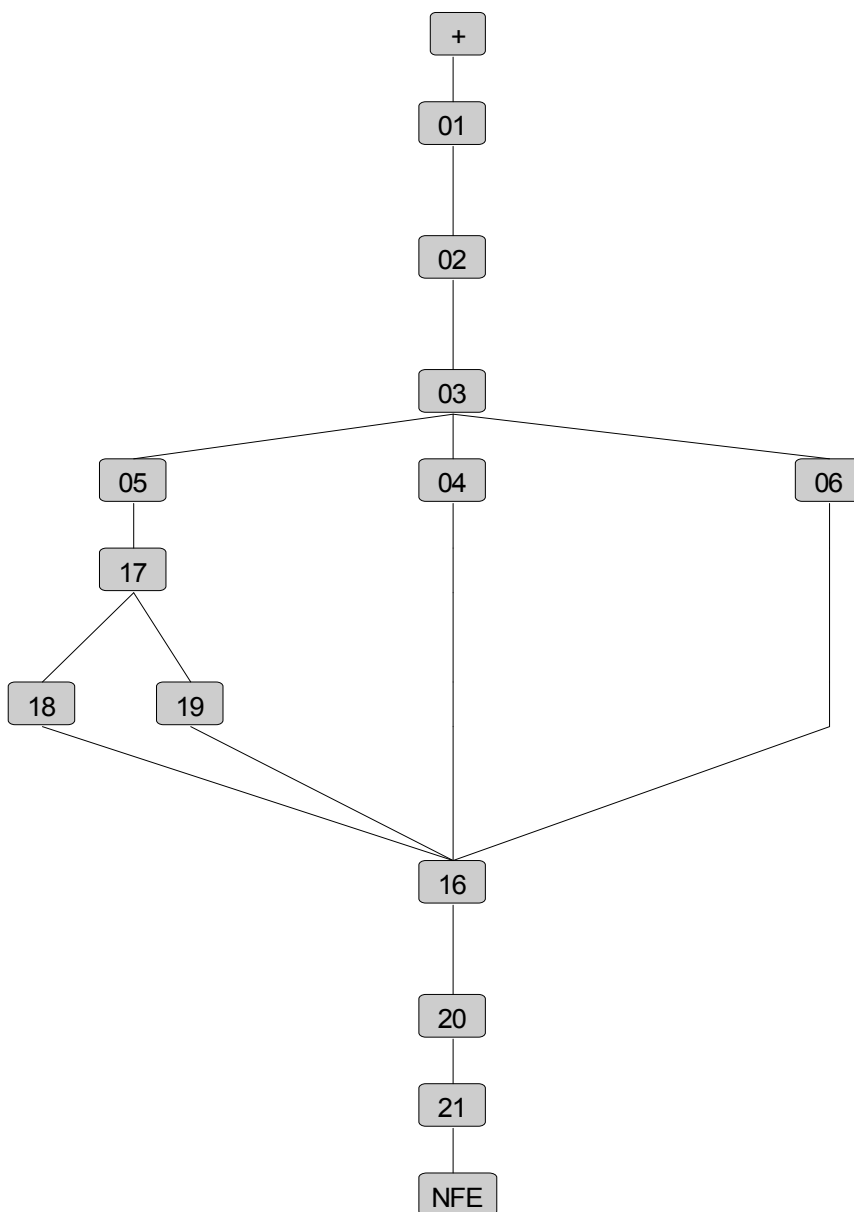
Two parallel yellow brick footings [11] and [12] were built against and over the offset foundation course of [13], these were running north-south and are probably to supports to a floor. The final deposit [14] was yellow brick rubble around these brick footings and is probably associated with the current building so is dated to the late 19th century.

### 3.2.5 Evaluation trench 5

See figs 10 and 11

<b>Trench 5</b>	
Dimensions	1.50m N/S x 2.50m E/W
Depth of trench	1.50m
Top of slab	3.49m OD
Thickness of slab	0.20m
Thickness of make-up	None
Natural	Not applicable

#### Trench matrix



### Stratigraphic sequence

The base of the trench was probed a further 0.65m by hand auger, at c 1.80m OD the deposits became a solid grey clay with small flecks of charcoal.

The earliest deposit was a clayey silt [21] recorded at an upper height of 2.45m OD, dated 1690-1710. This included a relatively large pottery assemblage [see Appendix 1] and an upper and lower limb from an adult brown bear (see Appendix 5). Above [21] there were several bricks laid on edge [20] that may be part of a highly truncated floor surface (this was only seen in the southeast section of the trench and is not shown on the section). This was sealed by a sandy dump [16], dated 1680-1710, that included glass waste fragments. The remains of two small pits [18] and [19] cut this deposit, both were filled with the same fill [17], dated 1840-1900, as co-joining fragments of pottery came from both pits. This deposit contained a large amount of pottery, and an imported decorated clay tobacco pipe that was from France (see Appendix 3).

Laid above [16] there was a floor or yard surface [06] at 2.64m OD, that was made up of fragments of ceramic crucibles from glass making that were laid on edge. This surface is probably late 17th or early 18th century in date, as the local glass works only existed between c 1671 and 1726.

Two brick structures were also built on the top of deposit [16]. The first was a rectangular yellow brick structure [04], this was 0.12m north-south and 2.50m east-west and was very similar to [13] that was found in trench 4. Along the northern edge of the trench there was an east-west running yellow brick wall [05]. Both these brick structures were built from the top of deposit [16] suggesting this was the construction level. Both of these footings and the surface [16] were sealed by a mortar deposit [03].

Two parallel yellow brick footings [02] were built between [04] and [05]; these were running north-south and are probably to supports to a floor. The final deposit [01] was yellow brick rubble around these brick footings and is probably associated with the current building so is dated to the late 19th century.

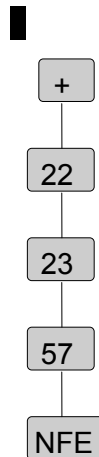
### 3.2.6 Evaluation trench 6

See fig 12

This trench was moved to the centre of the room to avoid a live service.

<b>Trench 6</b>	
Dimensions	1.50m N/S x 2.40m E/W
Depth of trench	1.50m
Top of slab	3.19m OD
Thickness of slab	0.10m
Thickness of make-up	0.10m,
Natural	Not applicable

#### Trench matrix



#### Stratigraphic sequence

The base of the trench was probed but the hand auger could only penetrate a further 0.30m before hitting obstructions, these were probably bricks or large pebbles. The only deposits in this trench were three dumps, the earliest was a silty clay dump [57] dated 1630-1700, that included some animal bones. Above this was a sandy silt dump [23] dated 1670-1700, that included both glass and pottery waste fragments. The highest deposit was an undated clayey silt [22] with coal and clinker fragments.

### 3.3 Assessment of the evaluation

GLAAS guidelines (English Heritage, 1998) require an assessment of the success of the evaluation 'in order to illustrate what level of confidence can be placed on the information which will provide the basis of the mitigation strategy'. In the case of this site the six trenches were positioned across the site and were of sufficient depth as to provide an understanding of the type of deposits and the level of survival of across the site. Discussions with the Archaeological Officer to the Local Planning Authority (held both before and during the evaluation) indicated that the scope and extent of the evaluation was sufficient to be able to have confidence in the results of the evaluation and enable the LPA to respond to archaeological issues that development may face.



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Fig 2 Areas of investigation



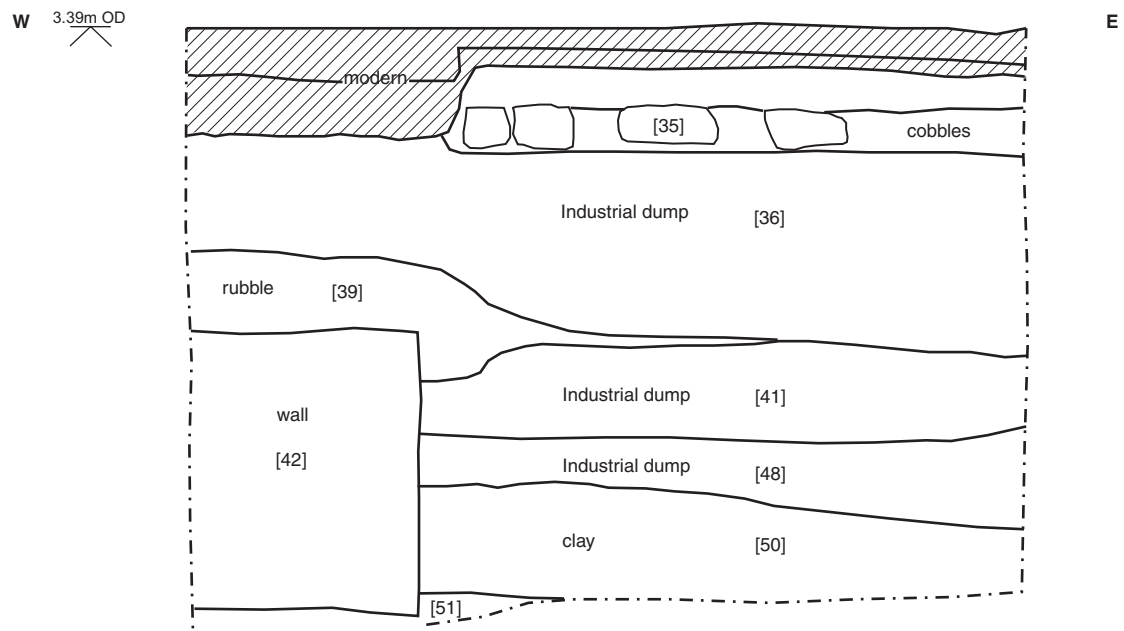


Fig 3 Section 1



Fig 4 Brick wall in Trench 1 and Trench 2

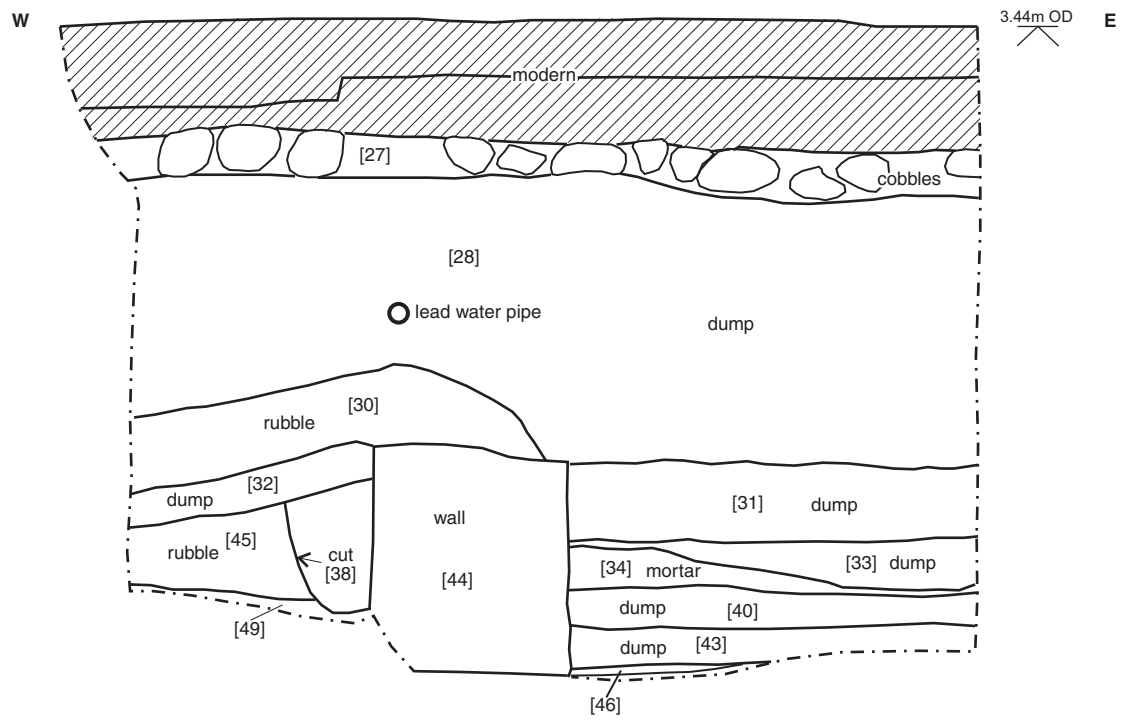
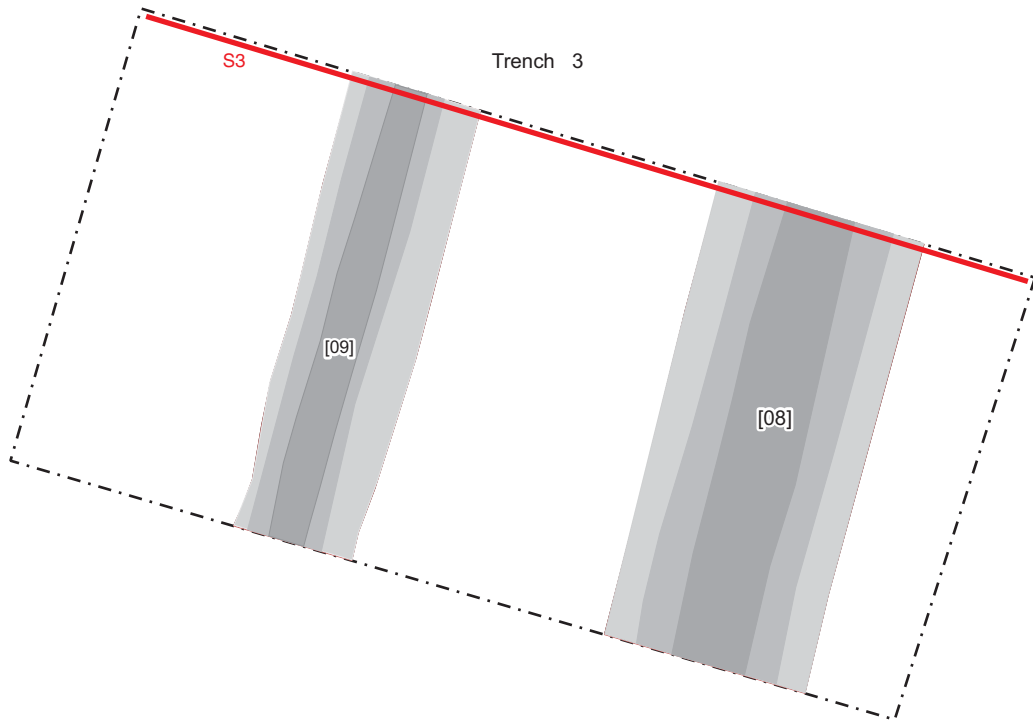


Fig 5 Section 2



532245/180437  
+



532245/180433  
+

0 1m

Fig 6 Brick footings in Trench 3

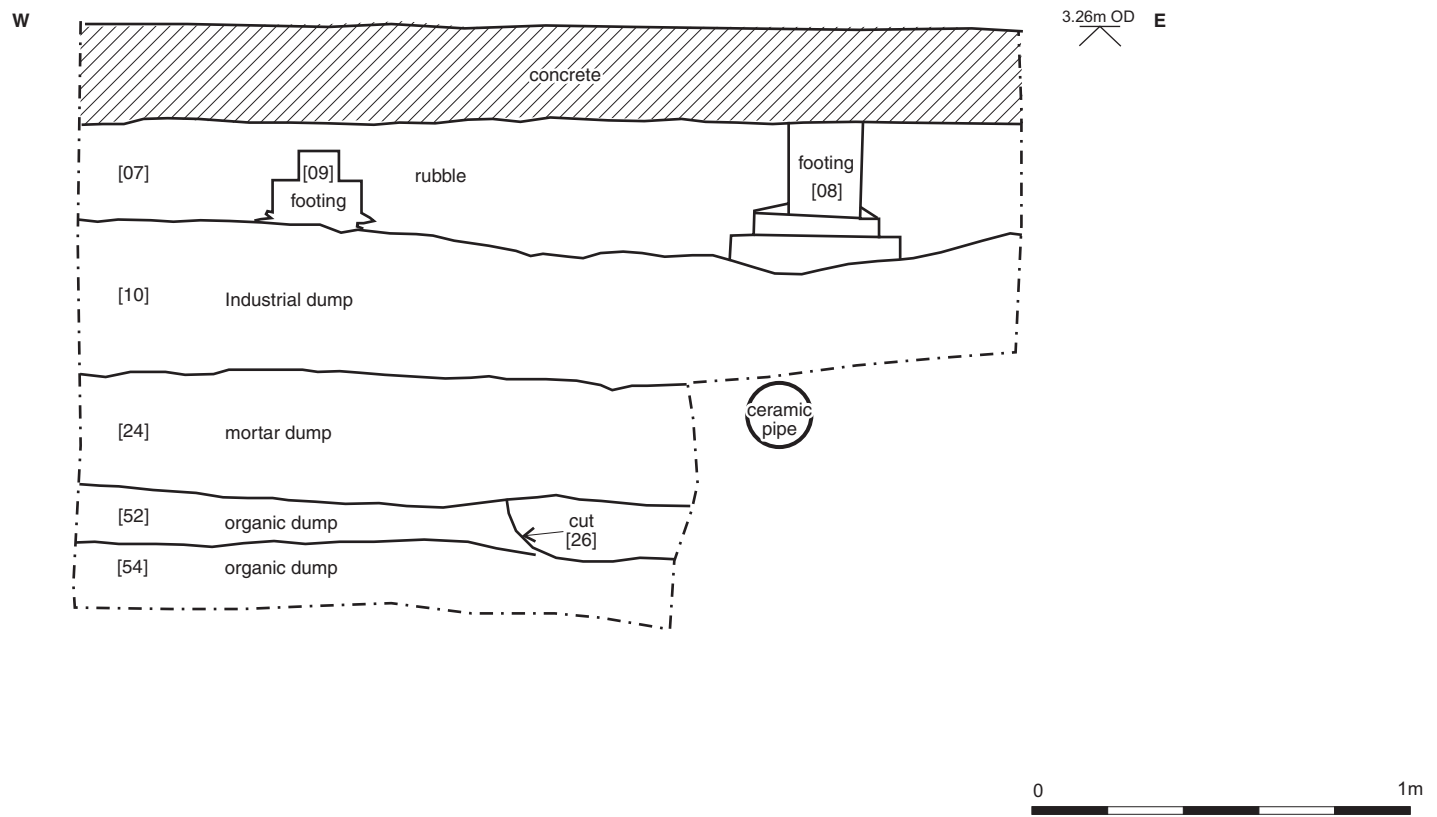
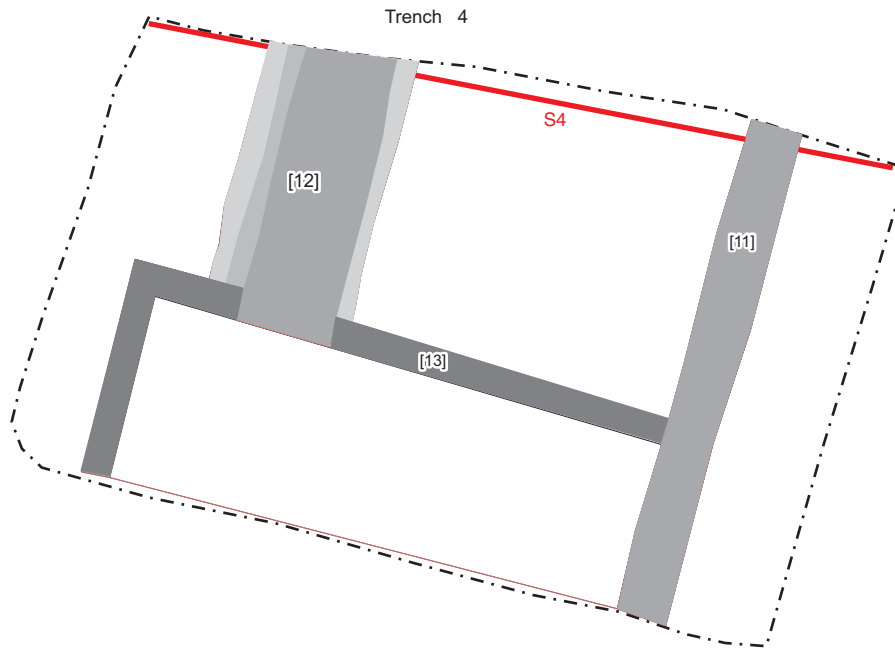


Fig 7 Section 3



532245/180437



532245/180431



Fig 8 Brick footings in Trench 4

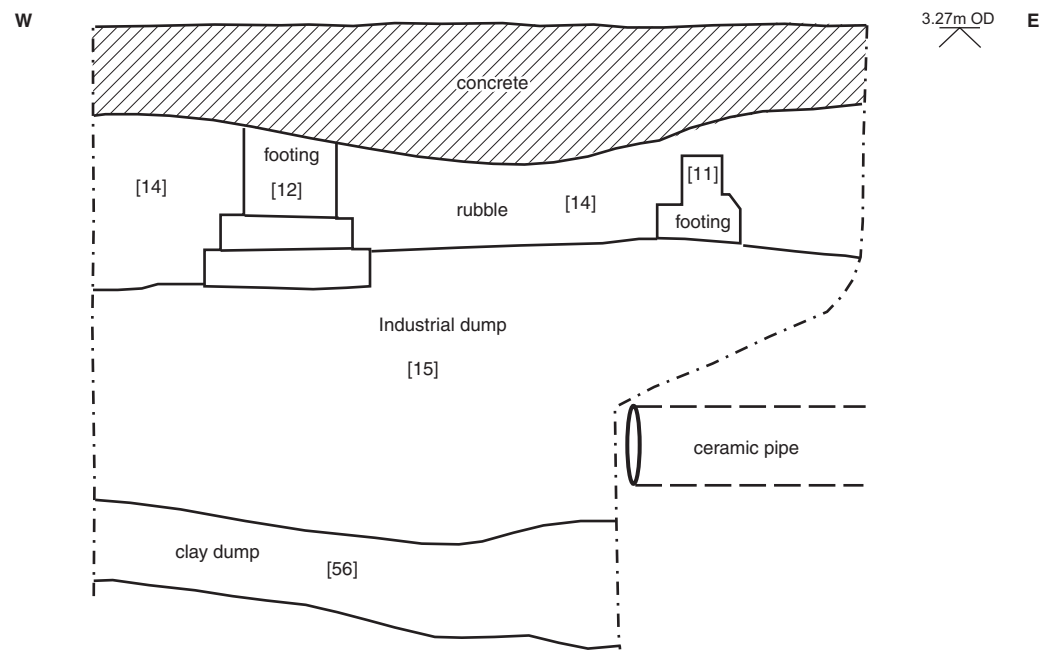


Fig 9 Section 4

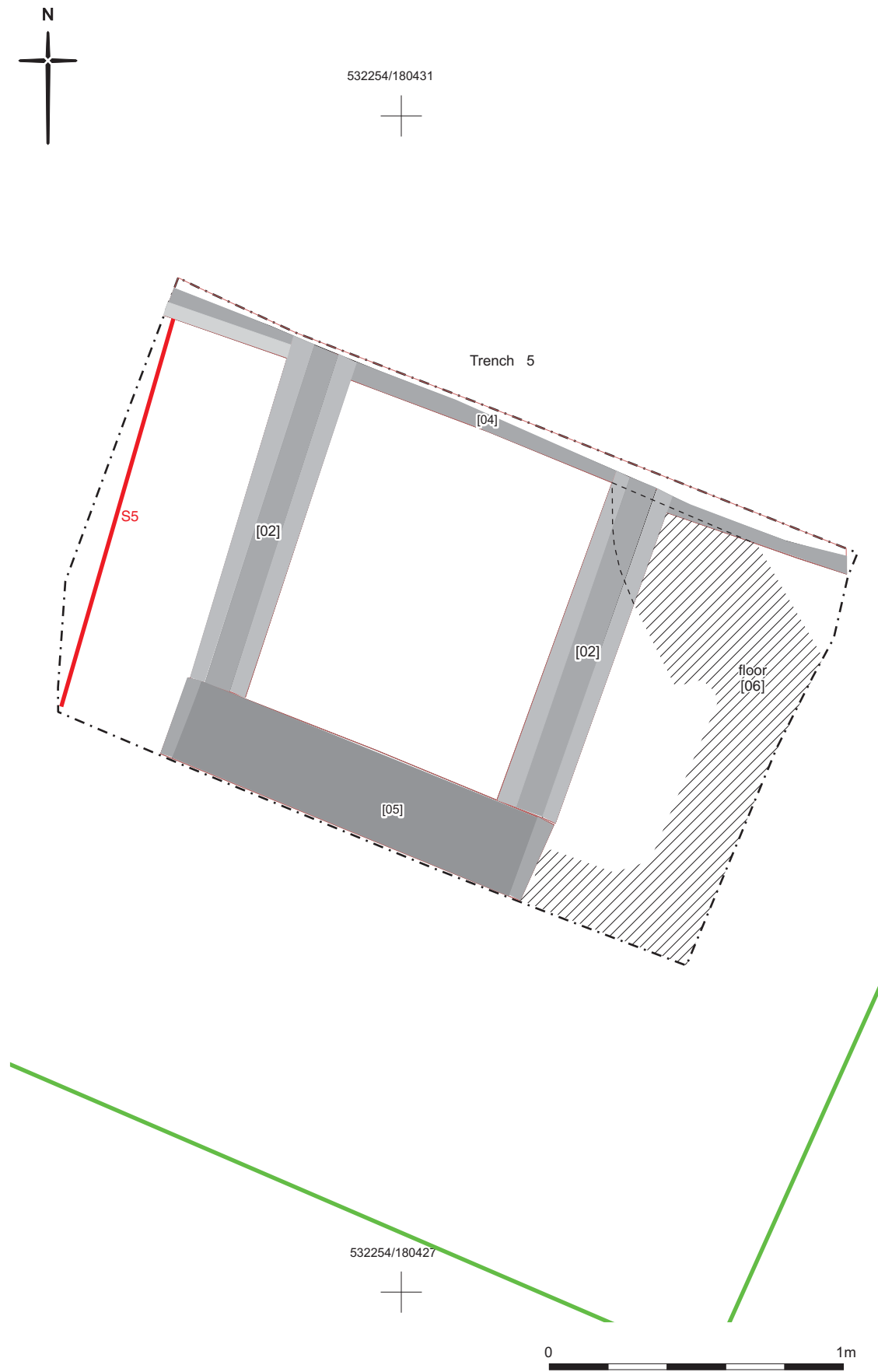


Fig 10 Brick footings and earlier surface in Trench 5



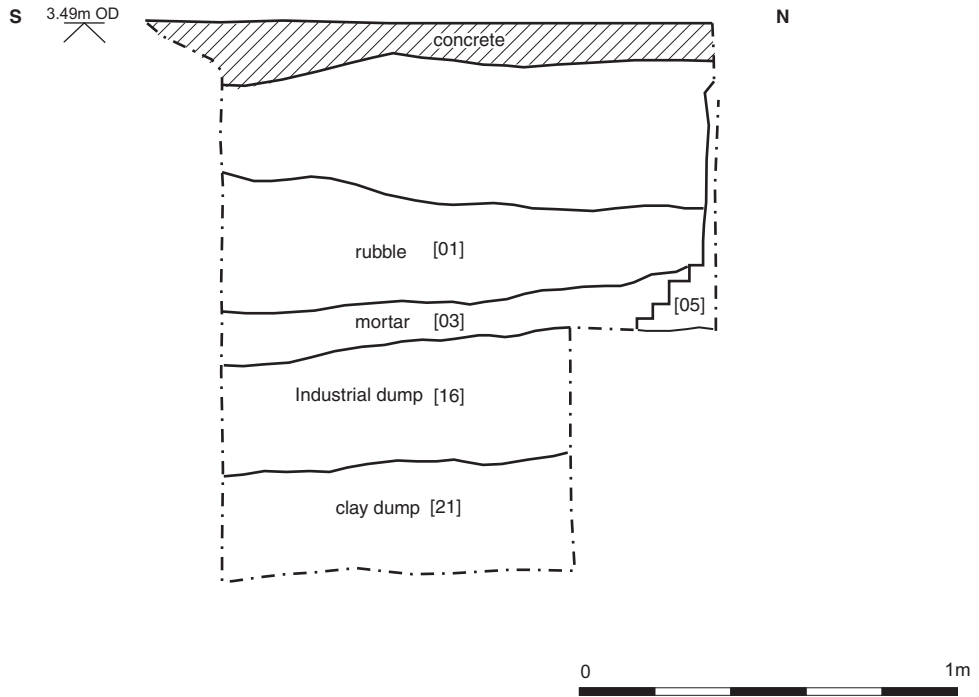


Fig 11 Section 5

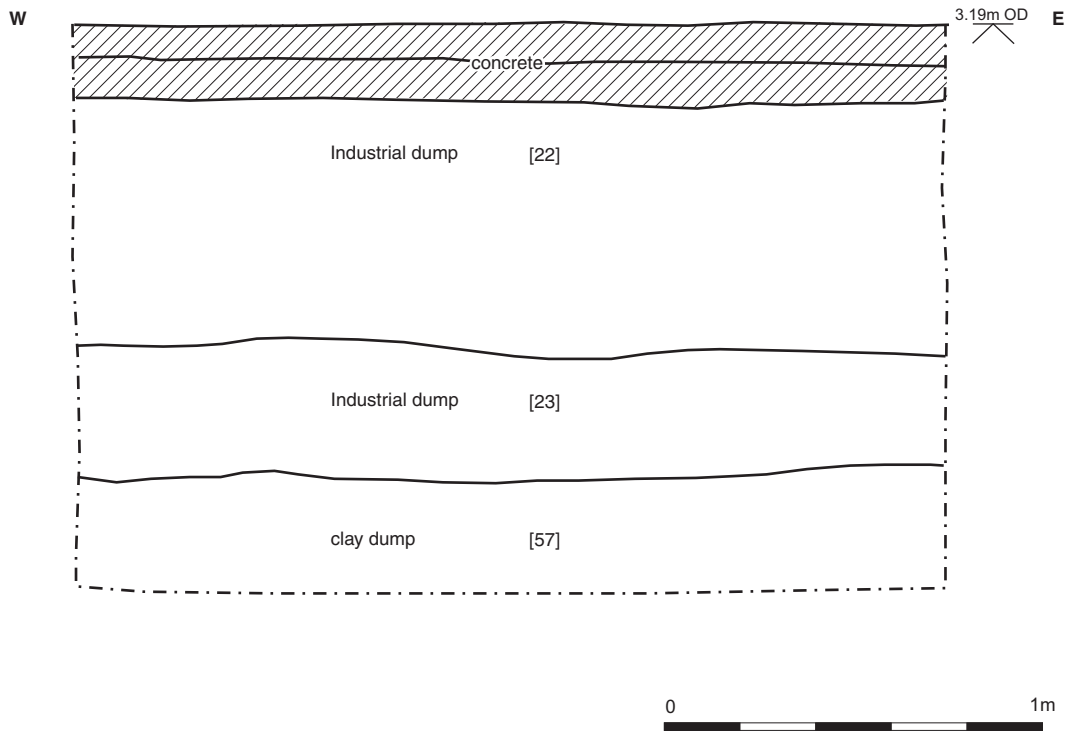


Fig 12 Section 6

## 4 Archaeological potential

### 4.1 Realisation of original research aims

The evaluation allows the following research aims to be answered;

- *is there potential for geo-archaeological deposits which may provide data on the palaeo-topography of north Southwark?*

Although the investigations did not reach the waterlain clays and silt deposits that were found on the earlier Empire Warehouse (EWH08) evaluation, they were found by hand augering at c 1.58m OD in trench 1 and c 1.80m OD in trench 5.

- *what is the nature of the industrial archaeological remains of the post-medieval period located on the site? Is there any evidence for the 17th century pottery and glassworks?*

The only post-medieval industrial remains encountered were dumps of debris associated with the 17th century glassworks and pottery.

- *is there any evidence for the 18th century tenements on the site?*

The wall found in trench 1 and trench 2 may be evidence of the 17th century tenements; however no floor surfaces could be definitely identified as being associated with them. There was a cobbled surface [27] and [35] in trenches 1 and 2 (outside the current building) but this is probably late 19th or even early 20th century in date. A possible floor (or yard) surface [06] was found in trench 5 and may be of early 18th century date as it was made up of glass crucible fragments probably from the local glassworks.

- *in general, what is the level of truncation across the site?*

The general level of truncation is; inside the building c 3.00m OD rising to c 3.30m OD to the south east, and 3.27m OD outside the building in the courtyard.

- *are there specific areas where truncation is more extensive than the established general level of truncation?*

There did not appear to be any areas of the site where truncation is more extensive.

### 4.2 General discussion of potential

The evaluation has shown that the potential for survival of ground surfaces (horizontal archaeological stratification) on the site is limited. The average depth of archaeological deposits where they do survive is likely to be c 1.50m deep. There is evidence of residual deposition of dog and bear bones, presumably derived from animal baiting on Bankside.

### **4.3 Significance**

Whilst the archaeological remains are undoubtedly of local significance there is nothing to suggest that they are of regional or national importance. However, there is the possibility that deposits containing animal remains, similar to those found on Empire Warehouse (EWH08), exist at levels below those reached in this evaluation.

## 5 Proposed development impact and recommendations

Design Proposals for the development of Empire Warehouse and 1 Bear Gardens/2 Rose Alley are at an early stage, with a number of studies currently being completed to help inform that process. Preliminary *co-operative and positive* discussions have taken place, on site, with the Planning Archaeologist at the London Borough of Southwark and these will continue as Design Proposals progress.

The assessment above (Section 4) does not suggest that preservation *in situ* would be the only appropriate mitigation strategy. MOL Archaeology considers that any archaeological deposits could be excavated archaeologically in advance of any ground reduction (i.e. preservation by record).

## 6 Conclusions

Archaeological evaluation of the site involved the archaeological recording of six evaluation trenches, positioned across the site and to a sufficient depth so as to provide a detailed understanding of the type of deposits and the level of archaeological survival.

The results of the archaeological evaluation indicated that no structural remains were identified as being associated with the Davies Bear Gardens. Deposit recorded suggested that the site may indeed have been open land in the late-17th century, as shown on Morden & Lea's map of 1682 (Blatherwick, 1999, 12 & 15). The presence of the animal bones provides residual evidence of the animal baiting activities known to have taken place on Bankside.

The only recorded structural remain was a north-south wall, of little significance which will not affect development. This may be early to mid 18th century in and may represent the foundations of tenement properties forming the east side of the open square (Glasshouse Square) depicted on Rocque's map of 1746 and described in a lease dated 1776.

Industrial dumps containing late 17th century material are typical of this part of Bear Gardens with glass waste and pottery waste from the local industries.

The later brick footings (and the associated rubble) found in trenches 3, 4 and 5, the brick wall in trench 5 and the two rectangular brick structures in trenches 3 and 5 are all yellow brick suggesting a late 19th century date. These may relate to the current building of earlier manifestations of the current building. Interestingly, these were all found along the southern part of the site adjacent to the boundary with 58 Park Street and not outside to the west in the area of the Glasshouse Square.

Based upon the results of this evaluation and that of Empire Warehouse to the north, carried out in September 2008, it is considered that it will be possible to design a development scheme within English Heritage guidance (English Heritage 2007) which will be acceptable to the Local Planning Authority. Discussions with the Archaeological Officer to the Local Planning Authority (held both before and during the evaluation) indicated that the scope and extent of the evaluation was sufficient to be able to have confidence in the results of the evaluation and enable the London Borough of Southwark to respond to archaeological issues that may arise and in a positive manner that will not impede any development..

### Acknowledgements

The author would like to thank Simon Blatherwick (RPS Planning & Development Ltd) who commissioned the evaluation on behalf of the client Macro Investments Ltd, and the workers of KPM Construction Ltd for on site assistance during the works. The project was monitored by Chris Constable Planning Archaeologist at the London Borough of Southwark. Derek Seeley of MOL Archaeology managed the project.

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## 7 NMR OASIS archaeological report form

### 7.1 OASIS ID: molas1-54363

#### Project details

Project name 1 Bear Gardens/2 Rose Alley

Short description of the project Six trenches were investigated. An early to mid 18th century brick wall is probably one seen alongside Glasshouse Square on the Rocque map c 1746. Apart from several bear, dog and horse bones, there was no structural evidence of the final bear baiting arena, the Davies Bear Gardens (c 1660/1682-1682), that has recently been identified on the Union Works site (PSE02) on Bear Gardens. Several late 17th century dumps contained waste glass and delft pottery fragments related to the local Bear Gardens industries. Several brick footings are probably related to the current building and are late 19th or early 20th century in date.

Project dates Start: 25-11-2008 End: 09-12-2008

Previous/future work No / Not known

Any associated project reference codes BGU08 - Sitecode  
EWH08

Type of project Field evaluation

Site status Local Authority Designated Archaeological Area

Current Land use Industry and Commerce 4 - Storage and warehousing

Monument type WALL Post Medieval

Monument type POTTERY Post Medieval

Methods & techniques 'Targeted Trenches'

Development type Urban residential (e.g. flats, houses, etc.)

Prompt Direction from Local Planning Authority - PPG16



Position in the planning process      Pre-application

Project location

Country      England

Site location      GREATER LONDON SOUTHWARK SOUTHWARK 1 Bear Gardens/2 Rose Alley

Postcode      SE1

Study area      250.00 Square metres

Site coordinates      TQ 32255 80440 51.5068955296 -0.09410754125510 51 30 24 N  
000 05 38 W Point

Project creators

Name of Organisation      MoL Archaeology

Project brief originator      Local Authority Archaeologist and/or Planning Authority/advisory body

Project design originator      RPS Planning

Project director/manager      Derek Seeley

Project supervisor      Tony Mackinder

Type of sponsor/funding body      Client

Name of sponsor/funding body      Macro Investments Ltd

Project archives

Physical Archive      LAARC

recipient

Digital Archive recipient LAARC

Paper Archive recipient LAARC

Project bibliography  
1

Publication type Grey literature (unpublished document/manuscript)

Title 1 Bear Gardens/2 Rose Alley, London SE1

Author(s)/Editor(s) Mackinder, T

Date 2009

Issuer or publisher MoL Archaeology

Place of issue or publication London

Description A4 spiral bound with figs  
[Add Empire Warehouse report to Project Bibliography]

Entered by Tony Mackinder (tmackinder@molas)

Entered on 22 January 2009

## Appendix 1 Post-medieval pottery

Jacqui Pearce

### 7.2 Introduction

A total of 640 sherds from a minimum of 458 vessels (weight 26,678g) were recovered from 20 contexts, one of which ([21]) is large (more than 100 sherds), six are of medium size (30–100 sherds) and the rest are small (fewer than 30 sherds in each). The pottery was spot-dated in accordance with current Museum of London Archaeology procedure and the data recorded on the Oracle database, using standard codes for fabric, form and decoration. Quantification was carried out by sherd count, estimated number of vessels (ENV) and weight in grams.

### 7.3 The pottery

Two sherds of residual medieval pottery were recorded, each dating to c 1350–1500. All remaining pottery is post-medieval in date, and mostly relates to delftware production processes. All but two contexts are dated to the 17th to early 18th century. Since much of the material recovered consists of undecorated biscuit delftware and kiln furniture (more than 40% of all sherds), close dating on the basis of decorative style is not possible. Most of the forms identified were in use throughout the middle decades of the 17th century and into the first quarter of the 18th century if not later. This hindered close dating of contexts in which no other diagnostic fabrics or forms were present. It is suggested, however, that most of the pottery was made and discarded at least after c 1630, with much of the completed, decorated delftware dating to the period c 1630–80. It seems likely also that a high proportion of the material was made during the last quarter of the 17th or early years of the 18th century. In numerous instances, the spot dates can be refined by the dating obtained from the clay pipe evidence, which is focused largely on the period c 1680–1710. This is precisely the time when the short-lived Bear Garden pothouse is known to have been in operation (pre-1671 to c 1705: Britton 1987, 47). There is therefore a strong possibility that the delftware waste recovered from BGU08 was derived from this factory. The date at which it was established is unknown, but could have been several years earlier, if the finds from the evaluation did indeed originate there. It is also possible, however, that some at least of the delftware waste derived from the nearby pothouses at the Clink and Montague Close since potting debris from many sources is widely distributed across this area of Southwark. Nonetheless, there is a degree of uniformity in the biscuit delftware shapes, as well as in details of construction, that suggests a single source is more likely.

Biscuit delftware constitutes 23.3% of all sherds (28.8% ENV). This is the first stage of production, the first of two firings that takes place before the application of glaze and decoration. The main forms identified are chargers with a wide footrim base, chamber pots, bowls, caudle cups or mugs, dishes, drug jars of various sizes, ointment pots and porringers (both rounded and straight-sided). There are also sherds from jugs or bottles, spouted (or wet) drug jars, upright candlesticks, pedestal salts with rim support scars and plates, a form that was made in delftware mainly after c 1670. Many of these same forms are also mirrored in the finished, decorated delftware found on the site. Much of this is decorated in styles typical of the period c 1630–80, characterised by blue and white or polychrome decoration, manganese speckling (rare on the site) or plain white glaze. A number of vessels are clearly wasters since the colours have run badly, making them more or less unsaleable. There are also examples of sherds with serious glaze faults that would again have

rendered them useless. It therefore appears that both biscuit and glazed delftware waste was discarded together on the site, alongside wares that were saleable and may indeed have been in everyday use. There are sherds from two plates decorated in the style known as 'chinamen among grasses' which was popular c 1670–90, but no obvious 18th-century types.

Fragments of kiln furniture used in the production of delftware were found alongside the material described above, totalling 17.5% of all sherds (24.5% ENV). This consists mostly of saggars, large cylindrical containers used to keep vessels separated and safe during firing. They were found in a variety of sizes, some with large U-shaped cut-outs to allow for handled vessels to be stacked inside. Some retain traces of glaze from the vessels they held, and some have been vitrified during use. One vessel retains part of a triangular peg-hole designed for pegs of the same section that were used in separating plates in the sagger. Two such pegs were also found. In addition there were seven trivets, which separated large dishes or chargers. Four of these are very unusual in having a raised letter in their centre on one side. In three cases this is a letter O and one is a T. There were also the remains of three shelves made in the same fabric as the saggars.

Other pottery recovered from contexts that included delftware waste would have been in everyday domestic use and is typical of fabrics and forms found across London during the 17th century. This includes Essex-type fine redwares in the form of Metropolitan slipware, which was used in London c 1630–1700, and post-medieval black-glazed ware, which was favoured for drinking vessels throughout the century. London-area redwares provided heavy-duty kitchen and storage vessels such as bowls and dishes, cauldrons and pipkins, jugs and storage jars, while Surrey-Hampshire border wares, both white- and redwares, were chosen for a wide range of domestic vessels. Imported pottery is limited chiefly to Rhenish stonewares. The large context [21] provides a good example of domestic ceramics found in association with delftware production waste.

Relatively little 18th-century pottery was recorded, consisting mostly of wares used after c 1760. Two contexts are dated to the 19th century, with the medium-sized context [17] deposited during the second half of the century.

#### **7.4 Potential and significance**

The pottery from BGU08 certainly has potential for further work, especially if it can be linked more closely with the short-lived Bear Garden pothouse. The initial indications from the spot-dating are that this may well be possible. Although very considerable quantities of delftware waste have been recovered from numerous sites excavated in Southwark and Lambeth, some of which have recently been published by Museum of London Archaeology (Tyler et al 2008), there is always ample scope for further study of this important industry, one that made London a major focus of ceramic production in the 17th century and beyond. This would involve comparison with waste from excavations on other nearby sites along this stretch of the south bank of the Thames, especially those closest to the site reported here. The significance of the material discovered already extends beyond the limits of the immediate locality and is capable of contributing to our wider understanding of London's ceramic industries in the 17th century and later.

**Dating – Post-Roman pottery**

<b>Context</b>	<b>Sherd count</b>	<b>TPQ</b>	<b>TAQ</b>
[06]	4	1800	1830
[10]	20	1690	1710
[15]	14	1690	1710
[16]	32	1680	1710
[17]	53	1840	1900
[21]	245	1690	1710
[23]	60	1670	1700
[24]	5	1680	1710
[28]	7	1700	1740
[30]	1	1630	1680
[31]	69	1680	1710
[32]	4	1600	1690
[33]	4	1630	1700
[37]	2	1660	1680
[40]	2	1580	1700
[41]	64	1700	1740
[42]	30	1550	1700
[48]	1	1630	1700
[50]	16	1660	1680
[52]	1	1550	1700
[57]	7	1630	1700

## 8 Appendix 2 Ceramic building material

Ian M. Betts

### 8.1 Summary

Three fragments of building material were recovered from BGU08 (contexts [21], [31], [42]). These comprise two pantiles and a brick measuring 220mm long x 105mm broad x 60mm thick. The building material from the site has been fully recorded and the information added to the Oracle database.

Listed below is a summary of the building material in each context:

Context	Fabric	Type	Date
[21]	2279	Pantile	1630–1800
[31]	3259	Pantile	1630–1800
[42]	3046 near 3032	Brick	1550–1700

### 8.2 Discussion

The pantiles are probably contemporary with the associated pottery dated 1680/90–1710. Pantiles were often used on industrial and more minor buildings, so they may have roofed one of the industrial buildings which were present in the area from the late 17th century onwards.

The brick is dated 1550–1700, but is more likely to be of 17th century date. It is not normally possible to date bricks precisely based on size and fabric, but there are various features which can be used to suggest a likely date.

The fabric and thickness of the brick mentioned below is more consistent with a 17th century rather than 16th century date, but this cannot be taken as 100% proof of a 17th century date: hence the date range of 1550–1700. Also, it is important to note that 16th and 17th century bricks were frequently reused in later structure, such as drains, cess pit and well lining etc.

## 9 Appendix 3 Clay tobacco pipes

Tony Grey

### 9.1 Introduction/methodology

The clay tobacco pipe assemblage from BGU08 was recorded in accordance with current MoL Archaeology practice and entered onto the Oracle database. The English pipe bowls have been classified and dated according to the Chronology of London Bowl Types (Atkinson and Oswald 1969), with the dating of some of the 18th-century pipes refined where appropriate by reference to the Simplified General Typology (Oswald 1975, 37–41). The prefixes AO and OS are used to indicate which typology has been applied. Quantification and recording follow guidelines set out by Higgins and Davey (1994; Davey 1997). Square brackets ([ ]) refer to individual context numbers and angular brackets < > are unique MoL accession numbers.

### 9.2 Quantification

There is one standard box of bulk (95 fragments) and a quarter box of accessioned (sixteen fragments) pipes. They were recovered from thirteen contexts: a detailed breakdown of the assemblage is given in Table 1. The greatest concentration of pipe fragments occur in contexts [17] (eleven fragments), [21] (thirty-seven fragments) and [41] (twenty-two fragments). 105 pipe bowls were identifiable. Eleven pipes bear a maker's mark and eight are decorated. There are five undiagnostic stems and no mouthpieces.

*Table 1 Clay tobacco pipe quantification*

<b>Total no. of fragments</b>	111
<b>No. of bowl fragments</b>	106
<b>No. of stem fragments</b>	5
<b>No. of mouthpieces</b>	0
<b>Accessioned pipes</b>	16
<b>Marked pipes</b>	11
<b>Decorated pipes</b>	8
<b>Imported pipes</b>	1
<b>Complete pipes</b>	0
<b>Wasters</b>	0
<b>Kiln material fragments</b>	0
<b>Boxes (bulk/accessioned)</b>	1 box bulk/acc.

### 9.3 Condition

Although some of the pipe bowls are complete there are no complete pipes. Several are fragmentary and many damaged and there is a high breakage rate. Most of the pipe bowls show evidence of smoking with some heavily smoked and scorched or burnt. Several identifications are inferred from extant pipe heels.

### 9.4 Provenance and dating of the clay pipes

All clay pipe bowls recovered were made between c 1610 and the end of the 19th-century. The earliest pipe dated contexts are [23] (a sandy silt dump in Trench 6), dated by a type AO18 pipe bowl c 1660-80, [32] (a dump west of wall in Trench 2) dated by an AO16 c 1660-90, [37] (a backfill of a construction cut [38] in Trench 2)

dated by five AO15 pipes and an AO18 to c 1660-80 and [50] (a dump of redeposited silty clay in Trench 1) dated by five AO15 types to that same date range. The latest pipe dated context is [17] (in the fill of pits [18] / [19] in Trench 5) dated by an unusual imported decorated pipe from France c 1840-1900 with nine type AO27 pipes residual in this group dated c 1780-1820. The majority of pipe forms date from c 1660-1710. Context [21] (a clay deposit in Trench 5) is pipe dated by four type AO19 pipe bowls to c 1690-1710 with a further fourteen pipes dated 1660-80 and thirteen pipes dated 1680-1710 present in this group. Makers' marks may assist in dating and locating places of production for some of the pipes (see list of makers below).

Table 2 Clay tobacco pipe dates, by context (B – bowl; M – mouthpiece; S – stem)

Context	TPQ	TAQ	B	S	M	Total
[10]	1690	1710	5			5
[15]	1690	1710	7			7
[16]	1680	1710	4			4
[17]	1840	1900	11			11
[21]	1680	1710	33	4		37
[23]	1660	1680	1			1
[24]	1680	1710	2			2
[28]	1700	1740	2			2
[31]	1680	1710	1			1
[32]	1660	1690	7	1		8
[37]	1660	1680	6			6
[41]	1700	1740	22			22
[50]	1660	1680	5			5
<b>Total</b>			<b>106</b>	<b>5</b>		<b>111</b>

Table 3 Chronological distribution of datable clay pipe bowls (ED – earliest date; LD – latest date)

				LD					
ED	1640	1660	1690	1680	1710	1740	1820	1900	Total
1610	1								1
1640		1	1						2
1660				59					59
1680					23				23
1700						4			4
1780							8		8
1840								1	1
<b>Total</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>59</b>	<b>23</b>	<b>4</b>	<b>8</b>	<b>1</b>	<b>105</b>

## 9.5 Character of the pipe assemblage

The pipes are nearly all of London manufacture with no apparent regional types and only one import, <13> [21] from France. Twelve pipes bear a maker's initials or symbol with twelve different makers represented. Only one shows obvious signs of burnishing so they are not of the highest (most expensive) quality. The pipes are from a diverse range of makers, often fragmentary and with high levels of residuality. Only two early pipes are present dating from 1610-60. Only one pipe from the Victorian period is present, the French import. Of the eight bowls that are decorated



seven bear only leaves down the seam of the bowl and one is the enamelled French pipe. One stem bears decoration <20> [21] (see list of decorated pipes below).

### **9.5.1 Marked pipes**

#### *9.5.1.1 Moulded marks*

All are moulded in relief on the sides of the heel

**A...** <22> [28] OS10 1700-40

**IB** <21> [28] OS10 1700-40. Maker unknown but Oswald, 1975 has a long list of possibles on page 131

**JH** <17> [17] AO27 1780-1820. Maker: John Hedges, 1811-21, Grays Inn Lane or John Hurst, 1808, Smithfield (Oswald 1975, 138)

**JW** <18> [17] AO27 1780-1820. Maker: possibly James Woodroffe, 1799-1817, Old Street or James Webb, 1803, Portland Street or James Weeks, 1820, Old Street (Oswald 1975, 148)

**TD** <23> [32] AO16 1640-90

**TE** <16> [17] AO27 1780-1820

**WA** <19> [21] AO22 1680-1710. Maker: possibly William Avory, 1679, St. Clement Danes or William Allen, 1707-36 (Oswald 1975, 130)

**...T** <15> [17] AO27 1780-1820

**...B** <24> [41] OS10 1700-40

**Double crown** <14> [17] AO27 1780-1820

#### *9.5.1.2 STAMPED PIPES [format??]*

**EE** <9> [16] AO20 1680-1710 with **crown** and **Tudor rose** separating the initials within a circular frame stamped in relief on the back of the bowl facing the smoker. Maker: possibly Edmund Evans, 1658, Finsbury Place, (Oswald 1975, 135)

**TD** <23> [32] AO16 1640-90. The mark is relief stamped on the base of the heel

#### *9.5.1.3 Decorated pipes*

**Leaves down the seams of the bowl** <10>, <11>, <12>, <14>, <15>, <16>, <17> [17] AO27 1780-1820

**Stamped and rouletted stem** <20> [21] pipe form/type unknown

#### *9.5.1.4 Imported pipes*

**Enamelled** <13> [17] pipe from northern France (or Belgium) with the form of a Dutch egg-shaped forward-slanted bowl and relief decoration of motifs including a sunflower, bee, leaves, heron and a lobster enamelled in red, yellow and green

#### *9.5.1.5 Mouthpieces*

None

### **9.5.2 Significance of the data**

The evidence of the clay pipe assemblage from BGU08 is significant in the local context of the Southwark Bear Gardens and may help, alongside the pottery, in dating/phasing. Most of the pipes used and discarded in this entertainment district later occupied by houses were probably manufactured locally. The range of makers and the rather fragmentary state of the assemblage indicate a variety of sources and users over time and reflect redeposition at the site. The pipes occur mainly in dump and makeup layers but the largest group [17] is from Trench 5, fill of pits [18] / [19] with eight pipes dated c 1780-1820, two earlier pipes and only one late pipe, the French decorated item dated c 1840-1900. The French import <13> [20] is an elaborate and expensive 'fancy' pipe perhaps sold locally or brought in by a visitor.

## 10 Appendix 4 Accessioned Finds

Geoff Egan

### Glass working in the late 17th/early 18th Centuries

The focus of interest in the registered and other non-ceramic finds is the moderate sized assemblage of glass-working material. Contexts numbers are in square brackets [ ] and unique MoL accession numbers are in angular brackets < >.

The crucibles comprise several fragments of the massive refractory-ceramic crucibles (sieges) recovered from six contexts; [6], [10], [15], [21], [23] & [41]. Three of the eight pieces from [10] are rilled walling, and two from [21] have a residue of pale green glass.

The glass waste fragments comprises; [10] pale green runnels, [21] pale-green trails and colourless waste, [24] pale-green spillage, apparently onto a mould/moulding tool for the pushed-in base of a wine-type bottle. An unusual item is [41] a lump of dirty, pale to darkish green tank metal incorporating fragments of coke.

Possible products or cullet (glass for recycling), although none of these fragments is definitely a waster so the possibility these fragments were introduced from elsewhere. From [10] there were walling and neck fragments from dark green wine-type bottles. From [21] there was <3> an edge fragment with characteristic rounded edge from pale-green crown window glass, <6> from [21] Colourless walling fragment from a sizeable, ?oval bottle. Also from [21] was a top and base of at least two dark-green wine-type bottles dated c.1660-1700. an unusual find was <8> from [31] this was a thick, colourless rim, perhaps the base of a bell-jar (a horticultural growth forcer for vegetables) – if so, this is an exceptionally high-quality version.

Glassware – perhaps unconnected with the industry (from contexts apparently lacking definitive glass-making material) comprises: [16] top of dark-green wine-type bottle c.1680-90, and two fragments of pale blue-green window glass. [17] lower part of moulded, elongated octagonal, dark green bottle, [50] walling and base of dark green oval wine-type bottle (slightly pushed-in) c. 1680-90.

This small assemblage is assignable to the late 17th century, possibly into the early 18th century. Closely comparable material, presumably from the same Bear Gardens glass-working industry of c.1671-1726, was recovered from the adjacent BAN95 site (Egan 2000). There the production of green wine-type bottles, window glass and a variety of colourless vessels was attested. The present, far smaller assemblage has a much more limited range (though it includes similar waste and pieces of crucibles). There are a couple of specific vessel fragments in colourless (crystal) glass, which are not paralleled on BAN95. The vessel walling <6> and thick rim <8> are both from vessels of unusual forms, perhaps respectively from an oval bottle and a very up-market or specialist horticultural forcing vessel.

There is a growing body of evidence from sites such as BAN95, BAK99, NGW00 and PSE02 in the Bear Gardens/Bankside area for the products and glass making waste derived from the Bear Gardens glass works.

## 11 Appendix 5 Animal bone

Alan Pipe

Contents of animal bone archive

	Weight (g)	No. fragments	No. boxes
Animal bone (hand-collected)	16650	209	9 standard archive boxes
Animal bone (wet-sieved)	nil	nil	nil

### 11.1 Introduction/methodology

This report identifies, quantifies and interprets the hand-collected animal bone from contexts [15] – [57]. Each context group was recorded directly onto Excel spreadsheets and described in terms of weight (kg), estimated fragment count, species, carcass-part, fragmentation, preservation, modification, and the recovery of epiphyses, mandibular tooth rows, measurable bones, complete long bones, and sub-adult age groups. The assemblage was not recorded as individual fragments or identified to skeletal element. All identifications referred to the Osteology Section reference collection and Schmid 1972.

### 11.2 Summary

This assemblage provided 16.650 kg, estimated 209 fragments, of generally well-preserved hand-collected animal bone with a minimum fragment size generally greater than 75 mm. There was no wet-sieved bone.

The bulk of the hand-collected bone derived from adult horse *Equus caballus* and dog *Canis familiaris* with smaller numbers of adult and juvenile ox *Bos taurus*, sheep/goat *Ovis aries/Capra hircus* and pig *Sus scrofa*.

Wild species were represented only by adult brown bear *Ursus arctos* upper and lower limb from [21] and upper limb, lower limb, foot and toe from [37]. There was no recovery of fish, amphibians, wild birds, poultry or human bone.

Although the bulk of the assemblage derived from adults, there were occasional finds of younger animals. Calf bones were recovered from [21], [23] and [41], with a fragment of foetal or neonate skull from [32]. A fragment of lamb skull was recovered from [21] and a lamb or kid upper limb from [57]; a fragment of juvenile pig skull was recovered from [23]. All horse, dog and brown bear bones derived from robust adults. The major domesticates were represented by bones from all major skeletal areas although recovery of horncore was limited to one fragmented ox example from [15].

Clear evidence of butchery was seen on upper limb bones of adult ox [23]; horse and brown bear. Horse lower limb from [21] showed evidence of severe canine gnawing; a horse vertebra from [32] showed evidence of pathological change. There was no evidence of burning, working or any other modification.

The group produced some evidence for age at death of the major domesticates with 20 mandibular tooth rows and 85 epiphyses; metrical evidence comprised 40 measurable bones including 12 complete longbones.

### 11.3 Interpretation and potential

In general, the hand-collected assemblage appears to suggest waste deposited largely as a resultant by-product of local bear-baiting, an activity known and documented in the post-medieval history of the area and indeed indicated by one of the site street names. Recovery of definitely-identified adult brown bear bones, together with those of adult horse and dog, some bearing evidence of butchery and canine gnawing, strongly indicates the animals used in this activity, together with disposal of dead animals arising from it. Recovery of ox, sheep/goat and pig bones may indicate waste from human (or dog) consumption of beef, lamb, mutton and pork.

The hand-collected assemblage has some definite potential for further study of local patterns of activity and waste disposal associated with bear-baiting itself and perhaps the activities such as feeding of the dogs.

In view of the lack of wet-sieved bone and the consequent absence of invertebrates and small vertebrates, there is no potential for interpretation of local habitats or conditions.

#### **Animal bone from BGU08**

CONTEXT	TAXON	PART	AGE	MODIFICATION
[15]	horse	foot	adult	
[15]	horse	upper limb	adult	
[15]	ox	horncore	adult	
[21]	bear, brown	lower limb	adult	
[21]	bear, brown	upper limb	adult	butchered
[21]	dog	head	adult	
[21]	horse	lower limb	adult	gnawed
[21]	horse	toe	adult	
[21]	ox	foot	infant	
[21]	ox	upper limb	adult	
[21]	ox	vertebra	adult	
[21]	ox-sized	rib		butchered
[21]	sheep	head	juvenile	
[21]	sheep/goat	head	adult	
[23]	dog	lower limb		
[23]	ox	head	adult	
[23]	ox	upper limb	juvenile	butchered
[23]	pig	head	juvenile	
[24]	dog	head	adult	
[24]	horse	lower limb	adult	
[24]	horse	upper limb	adult	
[32]	dog	head	adult	
[32]	dog	vertebra	adult	
[32]	horse	toe	adult	
[32]	horse	upper limb	adult	
[32]	horse	vertebra	adult	pathology
[32]	ox	head	foetal/neonate	
[32]	ox	vertebra		

[32]	sheep/goat	head	adult	
[37]	bear, brown	foot	adult	
[37]	bear, brown	lower limb		
[37]	bear, brown	toe	adult	
[37]	bear, brown	upper limb		
[37]	horse	foot	adult	
[37]	horse	lower limb	adult	
[37]	horse	toe	adult	
[37]	horse	upper limb	adult	
[41]	ox	foot	adult	
[41]	ox	lower limb	juvenile	
[43]	horse	foot	adult	
[43]	horse	lower limb	adult	
[43]	horse	upper limb	adult	
[43]	ox	lower limb	adult	
[48]	dog	head	adult	
[50]	dog	lower limb	adult	
[50]	dog	rib		
[50]	horse	lower limb		
[52]	dog	upper limb	adult	
[52]	horse	rib		
[52]	horse	upper limb	adult	
[52]	horse	vertebra	adult	
[57]	dog	head	adult	
[57]	dog	lower limb	adult	
[57]	dog	upper limb	adult	
[57]	horse	head	adult	
[57]	horse	lower limb	adult	
[57]	horse	toe	adult	
[57]	horse	upper limb		butchered
[57]	pig	lower limb		
[57]	sheep/goat	foot		
[57]	sheep/goat	upper limb	juvenile	