



C261 ARCHAEOLOGY EARLY EAST
Post-Excavation Assessment and
Updated Project Design
Stepney Green Shafts (XRV10, CRL14)
Document Number: C261-MLA-T1-RGN-CRG03-50004v2

Contractor Document Submittal History:

Revision:	Date:	Prepared by:	Checked by:	Approved by:	Reason for Issue:
1.0	1.11.13	Dave Sankey	Elaine Eastbury	Lucy Whittingham	For CRL Review
2.0	22.4.14	Dave Sankey	Elaine Eastbury	Lucy Whittingham	Revisions from comment sheet C261-MLA-T1-XCS-CRG03-50001 with revised UPD
		<i>Dave Sankey</i>	<i>E Eastbury</i>	<i>LS Whittingham</i>	

CROSSRAIL REVIEW AND ACCEPTANCE STATUS	
This decal is to be used for submitted documents requiring acceptance by CRL.	
<input checked="" type="checkbox"/>	Code 1. Accepted. Work May Proceed
<input type="checkbox"/>	Code 2. Not Accepted. Revise and resubmit. Work may proceed subject to incorporation of changes indicated
<input type="checkbox"/>	Code 3. Not Accepted. Revise and resubmit. Work may not proceed
<input type="checkbox"/>	Code 4. Received for information only. Receipt is confirmed
Reviewed/Accepted by: (signature)	<i>[Signature]</i>
Print Name:	<i>J. CARVER</i> Date: <i>20/04/14</i>
Acceptance by CRL does not relieve the designer/supplier from full compliance with their contractual obligations and does not constitute CRL approval of design, details, calculations, analyses, test methods or materials developed or selected by the designer/supplier.	

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd.



©British Museum

Stepney Green Shafts and Stepney City Farm Stepney Green London E1

Post-excavation assessment and updated project design

XRV10

© **Museum of London Archaeology**

Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED
tel 0207 410 2200 fax 0207 410 2201 email generalenquiries@mola.org.uk

Museum of London Archaeology is a company limited by guarantee registered in England and Wales with company registration number 07751831 and charity registration number 1143574.
Registered office: Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED

Executive summary

This report is intended to provide an assessment of the excavated data and Updated Project design of the archaeological Evaluation, Excavation, Targeted and general Watching Briefs at the Crossrail Stepney Green Shafts worksite and in adjacent areas of Stepney City Farm and Stepney Green Road, where ancillary construction activities took place. The site lies between Stepney Green Road, Stepney High Street, Stepney Way and parts of Stepney Green Park, London E1 3DG. This work was commissioned by Crossrail Ltd and conforms with national and regional standards and advice (English Heritage 1991, 2006, 2009 and 2013)

The principle remains recorded were those of a late-medieval and Tudor moated mansion, variously called King John's Palace, King John's Court, Worcester House and (possibly) John Fenne's Great Place in historic documents and maps. Excavated remains included a major western park or estate wall and an eastern wall possibly defining the limit of the village of Stepney. A large ditch or moat ran parallel to the western wall and turned through 90 degrees east in an 'L-shape'. Set into this ditch was a possible brick latrine. A second much broader (9.4m-wide) moat created an "island" on which the footings of brick walls form a large courtyard. Parallel and east of, the eastern wall was a 16th-century brick culvert, which lines up with a (reportedly) 15th-century brick culvert excavated in the 1970s.

The outer wall of the moat was demolished and the moat filled in during the later 16th- or early 17th-century and a cesspit (or drain trap) set into it. Finds from this feature included whole cooking/storage vessels and tableware, as well as Façon de Venise fine glass vessels. The date of these finds is compatible with ownership of the site by Henry Somerset, 1st Marquis of Worcester, from whom the property was sequestered during the Commonwealth period.

A 17th-century nonconformist meeting house built in the grounds of Worcester House was not located. Worcester House was converted to a Baptist college in the early 19th century and the New Meeting House (Congregational Church) constructed. Several 19th-century cesspits and 19th- and early 20th-century houses and small factories to the west of Garden Street, were excavated. These had been totally destroyed by bombing during the Second World War.

The archaeological evidence can be tied in with cartographic and documentary sources, including a number of prominent occupants and owners. Remains of this period and those of the later evolution of the site have the potential to contribute to the historical identity of Stepney.

It is recommended that the archaeological results be integrated into a journal article for LAMAS and be synthesised into a popular book covering the history of the 'Worcester House Estate' area of Stepney Green from the late 15th to early 19th century (CRL14). The format of a Crossrail popular book will also provide the opportunity to transcribe and include any oral histories relating to the area pre and post war and the impact of the Stepney Meeting on this area of London. Long term plans for a permanent on-site display have been proposed and information which could be included on such boards has been suggested in an appendix which the popular book would complement.

Contents

1	Introduction.....	7
1.1	Site location.....	7
1.2	Circumstances and dates of fieldwork	7
1.3	Organisation of the report	10
2	Historical and archaeological background	11
2.1	Topography	11
2.2	Archaeology and History.....	11
3	Original objectives and research aims.....	15
4	Site sequence: interim statement on field work	16
4.1	Natural and topography	16
4.2	Prehistoric	16
4.3	Late-medieval and Tudor (Fig 2).....	16
4.4	17th- and 18th-centuries (Fig 3).....	24
4.5	19th century (Fig 4)	28
5	Quantification and assessment	31
5.1	Post-excavation review.....	31
5.2	The site archive and assessment: stratigraphic	31
5.3	Site archive and assessment: finds and environmental.....	32
5.4	The building material	32
5.5	The pottery	40
5.6	Clay (tobacco) pipes.....	46
5.7	The accessioned finds.....	50
5.8	The plant remains.....	52
5.9	The animal bone.....	55
5.10	Conservation	57
6	Potential of the data.....	58
6.1	Realisation of the original research aims	58
6.2	General discussion of potential.....	59
6.3	Documentary records – assessment of potential	60
6.4	Building material, pottery and finds	62
6.5	Clay tobacco pipes	63
6.6	Botany	63
6.7	Animal Bone	64
7	Significance of the data.....	65
8	Updated Project Design –Publication project: aims and objectives	66

8.1	Revised research aims	66
8.2	Preliminary publication synopsis	67
8.3	Publication project: task sequence.....	68
9	Publication project: resources and programme	71
10	Acknowledgements	74
11	Bibliography.....	75
12	Appendix: Recommendations for public display boards.....	79
12.1	Ceramic Building material	79
12.2	The pottery	79
12.3	Accessioned Finds	82
12.4	Animal Bone	83
13	Appendix: management, delivery and quality control.....	84

List of Figures

Historic Fig 1 King John's Tower in nineteenth century ©British Museum

Historic Fig 2 First Stepney Meeting House ©British Museum

Fig 1 Site location and archaeological trenches

Fig 2 Late medieval and Tudor structures and features

Fig 3 17th and 18th-century structures and features

Fig 4 19th-century structures and features

List of Photos

Photo 1 North wall of New Meeting House, Congregational Church

Photo 2 Stepney Green in 1968 with burnt-out "Minty's" Baptist Chapel

Photo 3 "Minty's" during Stepney City Farm's stewardship

Photo 4 Wall [196] looking west

Photo 5 Parallel walls in former Stepney Green Park, immediately below ground level, looking north

Photo 6 "Estate" wall (Sgp120) immediately below ground level outside the City Farm office

Photo 7 Culvert exposed in south of two new soakaways

Photo 8 Side view of possible latrine

Photo 9 Possible latrine structure (after north side removed), and a wall dug into ditch or early moat

Photo 10 Substantial walls of the main house, supporting chimney breasts

Photo 11 Main shaft excavation with southern arm of L-shaped ditch [284] near, and moated house with bridge baseplate to rear

Photo 12 Tudor-Stuart remains in south area of Evaluation Trench 2

Photo 13 Cess pit or trap at the south-west corner of Worcester House

Photo 14 Wooden "trunk-main"

Photo 15 Volunteer excavator with mercury jar

Photo 16 Drains crossing the moat and "island" of Worcester House

Photo 17 Baptist College wall and cess pits cutting through Tudor foundations

Photo 18 Substantial foundations of the Congregational Church

List of Tables

Table 1 Stratigraphic archive

Table 2 Finds and environmental archive general summary

Table 3 Building material

Table 4 Post-medieval brick

Table 5 Summary of total quantity of pottery

Table 6 Preliminary list of suggested finds for illustration and reconstruction

Table 7 Clay tobacco pipe quantification

Table 8 Clay tobacco pipe dates, by context (B – bowl; M – mouthpiece; S – stem)

Table 9 Marked and decorated clay pipes

Table 10 Clay tobacco pipes recommended for illustration

Table 11 Finds and environmental archive general summary

Table 12 Recommended environmental samples for analysis

Table 13 Contents of animal bone archive

1 Introduction

1.1 Site location

The site comprises the Crossrail Stepney Green Shafts worksite, Stepney City Farm and parts of Stepney Green Road. It is bounded by Stepney Green (road), Stepney High Street, Stepney Way and Stepney Green Park. The centre of the site lies at National Grid reference 535780 181640. Modern road level near to the site lies at c 9m OD. This site coincides with the area of a historic mansion and surrounding gardens, known variously as King John's Palace, King John's Court, Worcester House, and (potentially) John Fenne's Great Place. For simplicity, the historic house shall be referred to as Worcester House in this report

All levels in this document are quoted in metres Above Tunnel Datum (m ATD). To convert Tunnel Datum to Ordnance Datum subtract 100m, i.e. 101m ATD = 1m OD

The scope of the project

This post-excavation assessment describes the results of archaeological Evaluation trenches, Excavation, General and Targeted Watching Briefs undertaken by Museum of London Archaeology (MOLA) at Stepney Green Shafts, including the whole of the worksite area, as well as neighbouring Stepney City Farm and parts of Stepney Green Road, as part of the wider Crossrail development.

The overall aim of work on site was to identify the extent and survival of archaeological deposits which would be removed by the Crossrail works and where appropriate in situ preservation by archaeological record. Where the removal of remains was unavoidable (for instance, in the area of the shafts), remains were excavated.

Initial assessment of antiquarian records, documentary records relating to Worcester House has shown that a variety of wills and other documents have the potential to illuminate the significance of individual finds. A list of potentially useful records is discussed in this document later in section 6.3.

This report will assess the data recovered from the archaeological investigations at the site. The aim of this post-excavation assessment is to assess the archaeological potential and significance of any findings made during the works and to begin to understand them in their wider context, whether: local, regional, national or international. It will also consider the appropriate means of disseminating the results of excavation to a wider audience.

The archaeological works on site and the resulting report were commissioned from MOLA by Jay Carver on behalf of the client Crossrail. All fieldwork was carried out under event code (site code XRV10).

1.2 Circumstances and dates of fieldwork

The archaeological work was carried out in fulfilment of a condition placed on planning consent, and was part of a programme of archaeological works designed for the Crossrail Early East project.

The overall framework within which archaeological work was undertaken is set out in the Environmental Minimum Requirements (EMR) for Crossrail (Crossrail 2005); Schedules 9, 10 and 15 of the Crossrail Act (2008) concern matters relating to archaeology and the built heritage. It is intended that agreements setting out the detail of the works and requiring relevant consultations and approvals of detail and of mitigation arrangements will be entered into by the nominated undertaker with the relevant local planning authorities (and English Heritage in relation to listed buildings)

and with the Department of Culture, Media and Sport (DCMS) and English Heritage in relation to Scheduled Ancient Monuments (SAMs).

An archaeological excavation as defined by the Institute for Archaeologists is 'a programme of controlled, intrusive fieldwork with defined research objectives which examines, records and interprets archaeological deposits, features and structures and, as appropriate, retrieves artefacts, ecofacts and other remains within a specified area or site on land, inter-tidal zone or underwater. The records made and objects gathered during fieldwork are studied and the results of that study published in detail appropriate to the project design' (IFA, 2001)¹.

A number of Method Statements, Written Schemes of Investigation and Addenda to these guided the works on site. While other versions of these may exist elsewhere the versions listed below with the dates of the archaeological interventions were those relevant while works were undertaken on site:

Evaluation Trial Trenches and Targeted and General Watching Briefs

General Watching Brief water pipe trench at Stepney City Farm 21/07/10.

General Watching Brief groundworks at Stepney City Farm 20/08/10

General Watching Brief protective measures at Stepney City Farm 31/01/11 to 04/02/11

Targeted Watching Brief on a sewer diversion Garden Street 13/01/11 to 02/02/11

Evaluation Trenches 1 to 9 Stepney City Farm and Stepney Green Park 06/12/10 to 21/01/11

Community Archaeology Event Trenches 1 to 3 Stepney City Farm 24/01/11 to 29/01/11

- Crossrail Site Specific Written Scheme of Investigation and addendum – Document Number: C123-JUL-T1-RGN-CR094-SH005 Z-00001
- The Method Statement for an Archaeological Evaluation and Watching Briefs at Stepney Green Shaft R.2 – Document Number: C261-MLA-T1-GMS-CR094-SH005-

Excavation of main shaft area and associated targeted watching briefs

Archaeological Excavation of a trench over the area of the main shafts excavation 22nd June 2011 – 18th August 2011

Targeted watching brief during the protection of the standing remains of the Baptist Chapel and Congregational Church with hoardings 7th August 2011

Targeted watching brief monitoring ground reduction to create the working area (this includes foundations for plant, grout tanks 5th July 2011 – 30th July 2011

- Crossrail Site Specific Written Scheme of Investigation – Document Number: C123-JUL-T1-RGN-CR094-SH005_Z-00001 Rev 4

¹ Attention may also be drawn to paragraph 1 (under 'The Role of Archaeologists') of the *Code of Good Practice On Archaeological Heritage in Urban Development Policies* established by the Cultural Heritage Committee of the Council of Europe which points out that archaeology can 'add value' to a development, influencing overall concept and/or architectural design:archaeological work will thereby contribute to the urban landscape of the future (CHCE, 2000).

- Crossrail amendment to SS-WSI: C123-JUL-T1-TPL-CR094_SH005_Z-00001– Stepney Green Shaft – Document Number: C123-XRL-T1-RGN-CR094-50001
- Method Statement for Archaeological Targeted Watching Briefs and Excavation at Stepney Green Shaft(Phase 2) Document Number: C261-MLA-X-GMS-CRG03-50002
- Addendum to Method Statement for Archaeological Excavation at Stepney Green Shaft (Phase 2) – Geoarchaeological and Brick Sampling Strategy Document Number: C261-MLA-X-GMS-CRG02-500002
- Addendum to Method Statement for Archaeological Excavation at Stepney Green Shaft (Phase 2) – Photographic Aerial Shots Document Number: C261-MLA-X-GMS-CRG02-500002

Community excavation, targeted and general watching briefs

Bulk excavation of Shafts at Stepney Green (Mitigation) – General Watching Brief 27-02-2012 to 09-03-2012

Four trial pits in advance of Two new facility buildings footings and drainage at Stepney City Farm – General Watching Brief 01-02-2012 to 10-02-2013

Two soakaways for two new facility buildings footings, utilities water main and drainage at Stepney City Farm – Targeted and General Watching Briefs 06-02-2012 to 10-08-2012

New worksite area – General Watching Brief 20-06-2012 to 25-06-2012

Levelling (monitoring) points and Boreholes – General Watching Brief 25-06-2012 to 14-09-2012

Fire water main – General Watching Brief 29-08-2013 to 03-09-2013

Community Excavation – Stepney City farm 20-07-2013 to 29-07-2013

- Crossrail Site Specific Written Scheme of Investigation – Document Number: C123-JUL-T1-RGN-CR094-SH005_Z-00001 Rev 4
- Crossrail amendment to SS-WSI: C123-JUL-T1-TPL-CR094_SH005_Z-00001– Stepney Green Shaft – Document Number: C123-XRL-T1-RGN-CR094-50001
- The Method Statement for an Archaeological Evaluation and Watching Briefs at Stepney Green Shaft R.2 – Document Number: C261-MAL-X-GMS-CRG03-50002.
- Addendum to Method Statement Stepney Green Shafts and City Farm, General Watching Briefs and Targeted Watching Brief (XRV10) Document Number: Supplier Document Number: LIM_MS_TWB_Access_Shaft_v1_15-12-11.doc

All excavations were fully recorded in plan in accordance with procedures laid out in the above listed WSIs and in the Museum of London Archaeological Site Manual (MoLAS, 1994). The trench locations and the baselines employed for the archaeological recording were located by a variety of means, both directly by MOLA's surveying team and also by onsite Crossrail engineers. The location information was then plotted onto either the Crossrail London Survey Grid or the British National Grid depending on the format of the pre-existing template.

1.3 Organisation of the report

The Post-excavation assessment and updated project design report is defined in the relevant GLAAS guidance paper (Paper VI) as intended to 'sum up what is already known and what further work will be required to reach the goal of a well-argued presentation of the results of recording and analysis' (VI/1). English Heritage GLAAS guidance has emphasised the need for post-excavation assessment to be 'brief and transitional' and act as a 'gateway' to further analysis and eventual publication (EH, GLAAS, 2009 VI/1). This follows national English Heritage advice (EH 2006 MORPHE), combining post-excavation assessment with other execution stages (fieldwork, analysis, presentation) as a continuous process.

The post-excavation document has been written in response to the proposed publications (CRL14) as set out in the Crossrail Post-Ex strategy document (CR-XRL-T1-STP-CROO1-50001). This report contains a summary of the recommendations made for publication and is presented in the following sections. Section 2 introduces this document and summarises the circumstances of fieldwork and archaeological background. The original research aims for the project are set out in Section 3. The archaeological features and deposits recorded during the investigations are described in Section 4.

This is followed by the quantification and assessment of the finds and environmental assemblages from the site in Section 5. In sections 6 and 7 the potential and significance of the findings are considered. Section 8 provides a discussion of the publication project including a discussion of the revised research aims in view of the data collected and the potential for future research. A preliminary publication synopsis is given and the task sequence necessary for this described with a breakdown of the methodologies to be implemented at the next stage of analysis. Section 9 describes resources and programme of continuing work.

Within the report the archaeological data is broken down into specific numbered units. For example [145] refers to the specific context number allocated to a feature during the excavation. During the analysis process, these are amalgamated into larger units: subgroups (sgp1). Larger groupings (Group Land Use and Period) shall be undertaken at analysis. Context numbers are distinguished in the text by square brackets [1], accessioned finds by chevron brackets <1> and environmental samples by the use of curly brackets {1}.

2 Historical and archaeological background

2.1 Topography

The geological and topographical setting is covered in detail in the Crossrail WSI (Crossrail, 2010a) and is summarised below.

The site lies on the Taplow Thames terrace gravels, which overlie London Clay across the site. In the northern and western parts of the site these are overlain by brickearth (Langley Silt complex).

The ground level rises gradually from north to south (109.58 –110.27m ATD). There is a significant increase in the south-east corner, in the vicinity of the former congregational church, where the level rises to 111.34m ATD. This may be as a result of raising the ground level rather than removing the foundations. Information from geotechnical boreholes (SG9, 10, 15R, 12A, 12, 17, 13, 11A) within the site and in the immediate vicinity demonstrated that Made Ground was present across the whole site at an average depth of 2.00m. SG10 showed an increase of 0.5m in the depth of the Made Ground, which may result from the construction of Mowlem House, a former secondary school. The Made Ground was overlying occasional areas of alluvial deposition and a layer of River Terrace Deposits, suggesting that the natural geology of the area had not been significantly truncated by human activity.

The area is generally flat with the exception of the farm, parts of which are raised c 0.5 to 1m above the level of the surrounding streets. In particular, the ground where the Congregational Church originally stood is c1m higher than that to the north and east. This indicates that the floor of the church was raised above its contemporary ground level and indeed a basement is documented, probably infilled with demolition debris after the church was damaged by bombing in WWII. Crossrail borehole SG11R encountered probable brick foundations from the church c 0.7m thick at c1.2m bGL (below ground level) (Crossrail 2005).

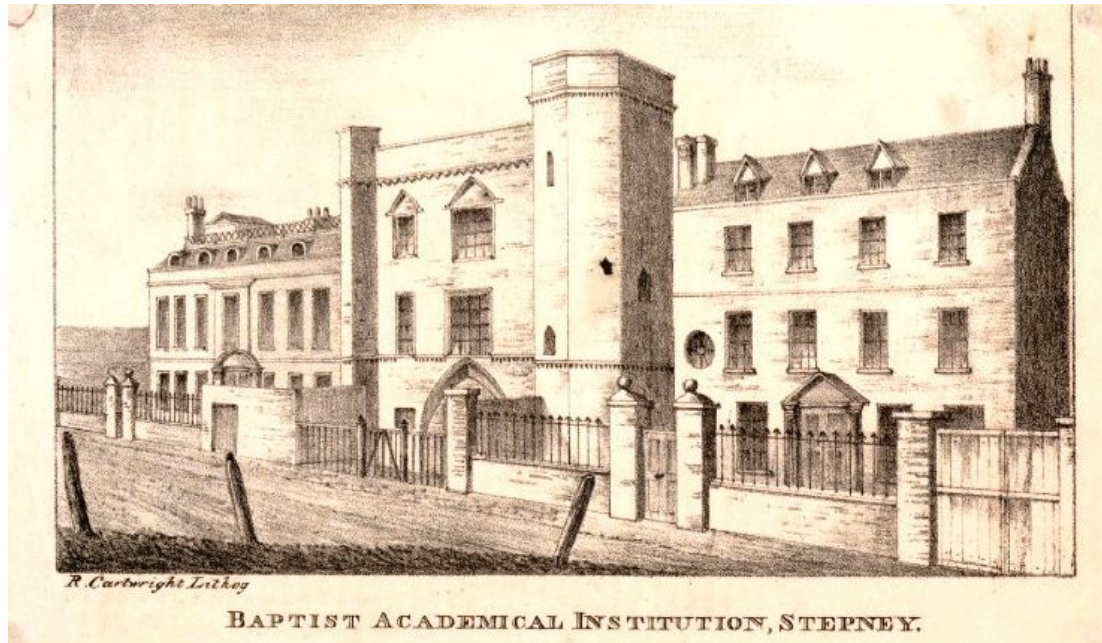
2.2 Archaeology and History

On the east of the site fragments of two Late Bronze Age or Early Iron Age pots were found (SHS79) indicating there was potential for later prehistoric remains.

Residual and individual Roman finds in the surrounding area indicate that there may have been some activity in the area (Crossrail 2008b, 11)

Despite the proximity of St Dunstan's church and Stepney High Street, it was considered that there was only limited potential for medieval activity prior to the 15th century. Later maps suggest that the site lay outside the main village area.

The site contains known post-medieval remains: the below-ground remains of the 16th-century (and later) Worcester House were left in situ after the 1985 evaluations in the northern corner of the site (sitecode: WOR85, Bob Cowie pers. comm.). These exposed the foundations of a turret of the brick gatehouse, which survived to the 19th century as "King John's Tower" and which lent its name to the 19th-century King John Street.



Historic Fig 1 King John's Tower in nineteenth century ©British Museum

On the east side of the site, beneath Stepney City Farm excavations in 1979 exposed the remains of a brick culvert, dated to late 15th century-early 16th century (Mills 1982 324-6). Mills speculates that this drain or culvert was connected with either Worcester House or the (Mercer's) Great Place.

The Victoria County History speculates that Worcester House may have been Fenne's Great Place "...let to Lord Darcy in the 1520s." (VCH1998, 13-19), which may be traced in documents to the conveyance from Hugh Kingston to John Fenne in 1466 (op cit 19-52). It is known that Henry Somerset, Catholic supporter of Charles I and 1st Marquis of Worcester, owned the house in the first half of the 17th century. The property was sequestered by Parliament during the Commonwealth, and the name "Worcester House" is first encountered in unsuccessful actions in the House of Lords to recover the property by the descendants of Henry Somerset.

From the middle of the 17th century, the property was in the hands of successive Puritan, protestant ministers. First it was in the possession of William Greenhill, who was appointed Vicar of St Dunstan's in 1658, whilst continuing to minister to Stepney Meeting (a protestant congregation dating from 1644) at Worcester House. He was ejected from St Dunstan's at the Restoration, although he retained his position as pastor to the Meeting until 1671, when he was succeeded by Matthew Mead, who had been living at Worcester House since 1663. Stepney Meeting House was built in 1673 in the gardens of Worcester House and facing Bull Lane (Stepney Way). Matthew Mead's son Richard became an eminent physician, and was given the Stepney Meeting House by his father (ODNB 2007) where he remained in residence 1703. After this it seems likely that the religious connection continued throughout the 18th century and although the house is recorded as divided into four messages in 1795 (Lysons 1795) and passed through many hands, it is transmitted to the Baptist Church in its entirety as a college or seminary at the beginning of the 19th century.. The ruins of the Chapel of the Baptist College stand at the north end of the former Garden Street.



Historic Fig 2 First Stepney Meeting House ©British Museum

The growth of the college at the north of the site was matched by the enlargement of the Congregational Church (Stepney Meeting), who built a New Meeting House next to the old one (Photo 1), and then constructed a school over much of the former gardens.

In the 19th century the remaining open areas were then filled in by the demand for housing and work space constructed along a new road, Garden Street, dividing the former Worcester House estate.



Photo 17 North wall of New Meeting House, Congregational Church

The Baptist College sold the site in 1840, and the area of Worcester House gardens to the south and east were built over by housing (Photo 2). King John's Tower was demolished at this point and the street providing access to the new houses was named after it. Their Chapel was retained and is remembered fondly by older residents as "Minty's".



Photo 18 Stepney Green in 1968 with burnt-out "Minty's" Baptist Chapel

World War II bombs devastated much of the area, with a V2 rocket demolishing much of Stepney High Street and the Congregational Church was damaged beyond repair. Other houses remained relatively unscathed and a terrace facing Stepney Green was still occupied until 1960s, although the "Minty's" was a burned ruin. The area was cleared in the 1970s but without any redevelopment, was squatted by the local community association, who set Stepping Stones City farm (now Stepney City Farm).



Photo 19 "Minty's" during Stepney City Farm's stewardship

3 Original objectives and research aims

The overall objectives of the investigation were to establish the nature, extent and state of preservation of any surviving archaeological remains that would be impacted upon by the development. Specifically, archaeological investigations had the potential to:

- Recover archaeological remains of prehistoric date relating to occupation of the area;
- Recover archaeological remains of medieval date relating to the expansion of Stepney Green;
- Recover archaeological remains of post-medieval, or earlier date relating to Worcester House or its predecessor;
- To establish the presence or absence of archaeological remains surviving below the foundations of buildings shown on the 19th-century Ordnance Survey map;
- Record the character and extent of archaeological remains identified during trial trenching. Preserve *in situ* any archaeological remains identified by evaluation.

Selected research themes derived from *A Research Framework for London Archaeology 2002* (MOL 2002) are included in the *WSI* (Crossrail 2010a) and are set out below.

Evidence relating to the religious buildings and history of the site may contribute to the following research themes:

- To examine the changing roles and diversity of religions in London society at different times; and
- To identify the extent to which religious minorities and non-conformists had a distinct material culture in London, and developing archaeological models for future analysis.

All research was undertaken within the priorities established in the Museum of London's *A research framework for London Archaeology, 2002*

4 Site sequence: interim statement on field work

4.1 Natural and topography

A thin layer of natural brickearth was encountered at approximately 1.5m below ground level, 107.9m ATD, overlying Taplow Gravel Terrace Gravel

4.2 Prehistoric

A group of heavily truncated features exposed in Evaluation Trench contained undecorated small fragments of prehistoric pot in them. The pottery is thought to be residual and the features to have been the infilled impression of tree roots, probably of much later date (possibly even post-medieval). However, their presence as residual finds should be compared to prehistoric remains found in 1979, nearer Stepney High Street, when the site is considered as a whole.

4.3 Late-medieval and Tudor (Fig 2)

The earliest surviving structures on the site, within later buildings, are some walls of the main house [235] and [238] (Sgp10) and the remains of foundations thought to have been part of King John's Tower [78] (Sgp49). It is likely that the "estate" walls discussed below were on boundaries that were established in the middle ages. The L-shaped ditch (or narrow moat) 1.2m deep x <4m wide [220] [284] (Sgps3 and 9), was also likely to have been dug in the 15th century (Fig 2) There were no finds stratified below it, from which to derive a terminus post quem for the construction of this ditch and though there are dated finds and pottery (including residual medieval material) recovered from the ditch it relates only to the date at which the ditch was backfilled.

Parallel north-south aligned free-standing 'estate (park- or garden-) walls are considered to demarcate the property of Worcester House. These include wall [196] (Sg2) (Photo 4) excavated in the main shaft contained bricks dated 1500-1600. This wall [329][330] (Sgp119) continued in an extension of the worksite area of Stepney Green Park (west of Garden Street) and contained bricks dated as 1450-1600. A second wall [344] was built alongside [330] (Sgp119, Photo 5) in the park west of Garden Street, and may have been part of the later continuing evolution of the boundary. In this regard, it may be significant that wall [196] had a series of protruding buttresses on the east side, the same side as wall [344] (Sgp149).



Photo 20 Wall [196] looking west

Two further lengths of 'estate' boundary wall (originally the same wall) were recorded on the east side of the site, within Stepney City Farm, along the east side of King John Street. The northern length [331] (Sgp121, Photo 6) was observed in elevation 1m long 0.7m deep (to limit of excavation at this point). The southern stretch of this wall [332] (Sgp120) was 4.5m long and 0.38m wide and was observed partly in elevation and part in plan (where the trench diverted eastwards). In elevation it was observed as 0.6m deep. Both lengths were made of "Tudor"-Style, 2-inch thick bricks 230mm x 100-110mm x 55mm, and a brick sample from the southern exposure were dated 1500-1600. They were laid in English bond (alternate courses of header and stretchers). At this juncture it is probably salient to add that brick dates are not necessarily as precise as they may appear and a degree of latitude may be added to the beginning and the end dates (see Betts, below).



Photo 21 Parallel walls in former Stepney Green Park, immediately below ground level, looking north



Photo 22 “Estate” wall (Sgp120) immediately below ground level outside the City Farm office

Outside and east of the ‘estate’ were the remains of a north-south aligned brick culvert or drain [320] (Photo 7). This was made of red brick stretchers 220mm x 100mm x 55mm set in two walls 220mm-thick, separated by 260mm-wide gap, filled with dark grey silt [319] (Sgp132).



Photo 23 Culvert exposed in south of two new soakaways

This brick drain aligns with one excavated further north in 1979. It will have connected to the Common Sewer (or “Black Ditch”) which directed water from Bethnal Green to Limehouse and in this era may have been relatively unpolluted. It

may have supplied water to Mercers Great Place (famously once “let” to Thomas Cromwell).

Also, possibly forming part of a larger watercourse was a substantial late medieval L-shaped ditch exposed at the southern end of the Excavation Trench (Fig 2). The south end of ditch [220] (sgp3) and all of [284] (sgp4) were backfilled relatively quickly with homogenous brown-grey brickearth [283] [229] (Sgps 5-6). Cut into ditch fill [229] was a late 15th- or 16th-century brick structure [210] (Sgp7) possibly a latrine) (Photo 8 and 9) north of which were a series of ditch fills [217], [218] and [219]. The curved top of the brick structure may have filled in the underside of a stone superstructure. The ditch (Sgps5-6) may have been part of the network of drains connected to – or part of – the water course known as the Common Sewer (or ‘Black Ditch’) which flowed from Bethnal Green and divided Mile End from Whitechapel. A later wall [212] (sgp21), attached to the possible latrine [210] is thought to have been built after the removal of Worcester House in the 18th or 19th centuries.



Photo 24 Side view of possible latrine



Photo 25 Possible latrine structure (after north side removed), and a wall dug into ditch or early moat

The most significant remains are those of the main phase of Worcester House. Unfortunately the floor levels of this building have been truncated by later activity, but some details of the superstructure may be gleaned from bricks and tile reused in later drains and moulded-stone fragments found elsewhere.

It was defined by a 9m-wide moat [279/249] and an outer wall of 700mm widening to 1m at the base ([233] sgp9 excavation, dated by bricks as 1450-1550 and [153] sgp78 evaluation, dated by bricks as 1500-1666). A wall this substantial probably implies that the moat (sgp9, cuts [279], [249]) not only lapped at its edge (and thereby it functioned as a retaining wall) but also that it stood to a considerable height forming a significant 'security' feature.

The plan of the moat and its truncation to the south-west suggests that it may have been crossed by a bridge (Fig 2). An elm baseplate [287], found across the western edge of the causeway is thought to have originally been paired with another on the east side of the natural gravel 'causeway'. It is likely that they lay just below the water level of the moat and that mortices held tenoned uprights of a bridge crossing the moat. There is no door in the inner "island" wall [47] (sgp68 evaluation, dated 1500-1600) [270] (sgp9 Excavation) opposite the end of the baseplate, lending support to the idea that it supported a bridge at a higher level. If this interpretation is correct, the location of such a bridge is still curious. It would have exited or arrived at the south-west corner of the 'island' and/or possible building. The moat may originally have continued north of the main house. Observations made within a utilities trench (Mains-water connection) included fragmentary remains of a brick wall with yellow mortar [339], which were observed over 3.7m across the north end of Garden Street, at 8.18m OD (approx.. 0.78m below ground). They were set into a bank of brown sandy pebbly silt [338] (sgp144), and on the south side a brick "re-facing" [340] (sgp146) continued below the level of [339] (sgp145) and [338] (sgp144). Although observations were limited as to depth, these are interpreted as part of the "re-facing" of a moat bank. Slightly over 9m south of [340] was a 0.38m-wide fragment of wall [341] (sgp148), the distance between the two being the same as the inner and outer moat walls.

The main house had gables on the moat. A series of walls in the north-east corner of the excavation trench, founded onto natural brickearth, were the physical remains of the rooms within Worcester House [235], [237], [238] (sgp10 1450-1550), [269] (sgp100, 1550-1666), equivalent to walls [50], [52](sgp69) in the evaluation. They were the foundations for substantial chimney breasts (Photo 10) and the west outside wall. Fragments of moulded stone in a secondary context [281] indicate that parts of the building had stone window mullions. Fragments of green-glazed stove fragments indicated the wealth of the interior as did glazed Dutch floor tiles recovered from the L-shaped ditch/moat and from moat silt deposits (sgp 6, 11).



Photo 26 Substantial walls of the main house, supporting chimney breasts

The larger part of the house was outside the area of the shafts excavation. An evaluation trench exposed a southern group of structures (sgp 54) (Photo 11), including a structural wall (to the west of the trench) made of 55mm-thick soft red bricks [101]. 5.7m of wall [101] was exposed with one section having a series of holes for floor joists. Burnt wood, possibly from floor boards or joists, was also found here, maybe from flooring. A sleeper wall [89] of 60mm-thick bricks may have been associated with the wooden floor it once supported, and a parallel east wall [83], a curved north wall [93] and an internal wall [84]. The structural wall [101] was associated with a series of partition walls [87] and [90] and a brick floor [104] [86] [88] [92] laid over a clay water-sealant course I [182] (sgp37). The partition walls and brick floor were also made of 60mm-thick soft red bricks.

Isolated wall fragments on the west side of the site [162] [165], along with [333] [334] (sgp120), the corner of a brick-walled structure [162] and wall [165] indicate the surrounding context was one of further outbuildings and/or dividing garden walls.



Photo 27 Main shaft excavation with southern arm of L-shaped ditch [284] near, and moated house with bridge baseplate to rear



Photo 28 Tudor-Stuart remains in south area of Evaluation Trench 2

4.4 17th- and 18th-centuries (Fig 3)

It would appear that both the moat and the later parts of the L-shaped ditch continued to be open simultaneously and may have been filled around the same time. The context of the filling of these features is likely to have been changes by Henry Somerset (before he was made 1st Marquis of Worcester). Apart from a single glass bottle fragment in fill [258], which is dated to later than 1650, the pottery is consistent with the moats being filled c 1610. The moat fills (sgp11) [257], [258], [276], [277], [288], [294], [295] have produced a significant assemblage of finds including leather, wood in the form of a bowling ball and 17th-century pottery. Bricks in the outer part of the moat fill may be from the demolition of the outer moat wall.

A brick cess pit or drain trap cut [254] (sgp13) cut into the backfilled moat (Photo 13). It was set on a series of mortise, tenoned and pegged baseplates [297], [298], [299], and [300]. The lower fill [251] contained several complete, or near complete, cooking pots. Fragments of the same vessels in both lower and upper fills [250] show that it was filled at the same time (sgp14). The pottery assemblage is consistent with the period of occupation of the site by Henry Somerset. It also contained a collection of glass that has been identified as mid to late 17th-century. A small globular glass flask is consistent with a liquor bottle for a high-value product sold in small quantities. Taken together with a thin-walled soda glass Venetian, or *façon de Venise*, goblet or footed beaker (<106>) decorated twisted bands of white and blue glass trails (*vetro a fili* decoration), which dated to the first half of the 16th-century, the most likely context of the filling of the cess pit is the change of occupation from Henry Somerset to William Greenhill.



Photo 29 Cess pit or trap at the south-west corner of Worcester House

The buildings in the southern area of Evaluation Trench 2 (Fig 3) were continuously modified in the later 17th and 18th centuries. Rebuilds and modifications include walls [81] (sgp61) [85] (sgp58) and [91] (sgp59) and pier base [82] (sgp55). A northern group of structures of the same period include a structural wall [102] [103] (sgp56) and two layers of brick floors made with 66mm-thick brick [95] [96] (sgp57), built over the top of the main structural walls in trench 1 [77]. The greater thickness of bricks, but still made with soft red bricks, is indicative of a later 17th- or 18th-century date.

In the Community Excavation trench in Stepney City Farm, amongst the demolition material [404] used as a hard bedding-layer for an isolated fragment of flooring (sgp151) was a small mercury jar (Photo 15). It may be significant that mercury was used pharmaceutically (notably in the treatment of syphilis, giving rise to the bawdy saying “one night with Venus and a lifetime with Mercury”), its dates are consistent with the occupation of Worcester House by Dr Richard Mead. Isolated fragments of the brick floor, truncated on all sides by 19th-century foundations, were exposed in a community-excavation trench west of King John Street [402] [403] (also sgp151). The circumstances of excavation combined with the degree of truncation mean that there is a degree of intrusive finds. Bricks from [402] date 1500-1600 but they may be reused, or the mercury jar and other intrusive finds may have been within an unrecognised cut and repair to the floor.

Fragments of walls [342] and [343] in Garden Street and King John Street (Subgroups 147 and 122, respectively) may indicate the line of a perimeter wall on the Stepney Green Road frontage, possibly replacing the earlier moat.

A hollowed tree “trunk-main” water pipe [337] (sgp142) (Photo 14) found in Stepney Green Road is most likely to fit within the 17th or 18th-centuries period of occupation in Stepney Green.

Although Stepney Meeting House was constructed during the 17th century, no evidence for it was found in Evaluation Trenches 8 or 9. Individual features in trench 8, a line of rounded linear pits [41] filled with topsoil and dirty brickearth [40], are thought to have been planting holes for a fruit orchard (sgp110), which, although undated, is typical of historic representations of the general area in the 17th century.



Photo 30 Wooden "trunk-main"



Photo 31 Volunteer excavator with mercury jar

The excavated remains of Worcester House, the moat and the earlier L-shaped ditch were crossed by a series of brick drains (Photo 16), possibly of late 17th or 18th-century date. Drains [252], [265], [267], [271] (sgp18) cut through the area of the house and the silted-up moat. Any relationship to the trap or cess pit [254] (sgp13) cut into the backfilled moat had been removed by modern truncation. A second drain [286] (sgp17) to the north of ditch [284] (sgp4) aligns with brick drain [206] (sgp16) made of re-used late-medieval and/or Tudor building material. These features may have evolved as a drainage system over a period of time but are and not have been a single construction.



Photo 32 Drains crossing the moat and “island” of Worcester House

4.5 19th century (Fig 4)

The most profound transformation within Stepney green took place in the 19th century. The north end of the site was remodelled in the early 19th century as a result of ‘Worcester House’ being acquired by a Baptist college or seminary. To the north of the excavation a chapel was built which aligned with and re-used the foundations of Worcester House. A series of red-brick walls with lighter-cream lime mortar were set into the earlier Worcester House remains and it clear that they were constructed to fit within the earlier foundations [241](sgp24). The brick type is 18th- or 19th-century (Betts, below). The line of the walls indicates that the main building reused much of the earlier foundations and the projected line of the Baptist Chapel is continued with both Worcester House and this later brickwork, where it corresponds with a red-brick wall [51](sgp69) recorded during the evaluation. A substantial change in layout was the construction of Garden Street, which begins to be laid out, starting from the north, at the same time as the Baptist Chapel was built (during the Napoleonic Wars).

To the west of the projected line of the Baptist Chapel wall, there were the remains of brick-lined cess pits built onto the west face of the later wall above and cutting through the earlier walls [56][55][54], [59][58][57](sgp71), [62][61][60](sgp70) (Photo 17). One of three cess pits [261], [262] (sgp25), had been dug through the walls of Worcester House, It contained tumbler and wine glass fragments (<127>, <131>) and Clay tobacco pipe dated 1820–40. The other cess pits were fully examined during the evaluation of the site... Comparison with Ordnance Survey maps indicate that the building footprint was adopted by domestic terrace accommodation following the removal of the Baptist College to Regent’s Park, to which the cess pits might relate.



Photo 17 Baptist College wall and cess pits cutting through Tudor foundations

A brick culvert [336] (sgp142) in Stepney Green Road may well have replaced the earlier wooden pipe. Its bricks broadly date to the late 18th- or early 19th-century.

Potentially early 19th-century quarrying was identified at the south of the site [8] (sgp114) where the ground was consolidated by concrete [7], [2] (Saps 115 and 118). This concrete may be a 19th-century garden feature as it was covered by a mortar spread overlaid by slate [6] (sgp115). This was cut through [5] (sgp116), and overlaid with nightsoil [4], [3](sgps116 and 117)] to make the ground up to the level at which the foundations of the Congregational Church (New Stepney Meeting House) were found at 110.73m ATD.

The remains of the Congregational School (Photo 18) were recorded. In its final phase this school included walls [36],[38] and [39], construction cut [37], a concrete floor at 109.6m ATD [33], bedding [34] and a construction fill [33] (all sgp111) in trench 8. A further wall [44] (sgp107) on large concrete pads was recorded in trench 7. This is larger than the 'Sunday School' marked on the 1870 map, as the school had expanded over a range of buildings off an entry passage. Earlier use is represented by a cess pit [26] (sgp106) [27] [28] (sgp105), and shallow features [17] [16] and [20] [21] (sgp103).



Photo 18 Substantial foundations of the Congregational Church

By far the most complete remains were those of 19th-century buildings on the west side of Garden Street, demolished after being damaged in WW2 bombing. They included a small paved internal courtyard which previously had a small well [116] (sgp96). 19th-century cess pits [113] [112] (sgp99) and [115] [114] (sgp100), a square posthole [111] [110] (sgp98) and an oval rubbish pit [109] (with clinker infill [108], sgp97) were indicative of domestic settlement further to the south of Garden Street with some small-scale industrial activity. Cess pits were also recorded on the far west of the site (sgp75) [157] [156],

The remains of buildings fronting onto King John Street included walls and concrete floors above earlier remains [97] (sgp63) [105] (sgp64, to 109.7m ATD) and external dump [107] (sgp65).

5 Quantification and assessment

5.1 Post-excavation review

The following sections outline the current position of all work pertaining to the forthcoming publication:

- *site matrix checked*
- *subgrouping finished Subgroup matrix done*
- *plans digitised*
- *photographs cross referenced and indexed*
- *all provisional ceramic dating done*
- *finds assessed and summarised*

5.2 The site archive and assessment: stratigraphic

All of the records listed in Tables 1 and 2 will be retained as part of the site archive Table 1 gives details of the numbers of contexts, plans, sections and photographs for each of the site codes which form part of the event code XRV10.

Type	Description	Quantity	Notes
Contexts	All work	347	Includes watching briefs at all stages including initial site preparation and evaluation and ancillary geotechnical investigations
Plans	MOLA Archive-standard drawing sheets –various scales (Note, many plans cover more than one sheet)	1113	54 Evaluation phase (including TWBs and GWBs) 57 Excavation and TWBs and GWBs, including subsequent watching briefs Includes 26 main – often composites – plans
Sections	'MOLA Archive-standard drawing sheets	16	
Matrices		72	Paper copies
Photographs		1160	Images on Oracle

Table 1 Stratigraphic archive

5.2.1 Recommendation for analysis

(Analysis tasks 1-5, section 8.3.1 and tasks 57–61 section 8.3.13)

The first tasks of analysis will be to arrange the stratigraphic data into structural components (Grps and LU) within a chronological framework (periods). This information will be entered onto the MOLA Oracle database. The archaeological description of features in the publication text will be minimal but will form the foundation by which the evolution of Stepney's historical identity can be traced.

Further potential for the stratigraphic analysis is discussed in section 6.2 and 6.3.

5.3 Site archive and assessment: finds and environmental

Table 2 contains a summary of finds and environmental material which will be retained as part of the site archive.

Building material	A total of 347 fragments of building material were recovered (bulk of material discarded after assessment). Total 55.43kg 130 brick samples (not weighed) Seven shoe boxes of retained bulk building material 2 boxes of painted wall plaster. Total 350 KGs
Post-Roman pottery	1.734kg c 2080 shreds. Total 20.01 kg
Clay pipe	204 fragments
Bulk soil samples	13 floats (4 wet, 9 dry); flora from 3 residues. Unprocessed soil retained from 10 samples.
Animal Bone	Estimated 1386 fragments. Total 18.840 kg
Clay pipes	boxes (1 bulk, 1 accessioned) = 217 fragments
Accessioned finds	Total 80 objects; (including 12 bone, 2 ceramic, 22 Copper Alloy, 27 glass); all have been stabilised by conservation and packed in suitable containers for archiving

Table 2 Finds and environmental archive general summary

5.4 The building material

I J Betts

Table 3 Building material

Material	Count	Count as % of total	Weight (kg)	Weight as % of total
Stone	6	1.73	7.70	13.89
Medieval ceramic*	106	30.55	19.95	35.98
Post-med ceramic**	209	60.23	24.42	44.06
Mortar	2	0.58	1.56	2.81
Wall plaster	24	6.92	1.80	3.25
Total	347		55.43	

* includes some types which continue into the post-medieval period

** not including weight of brick samples

5.4.1 Introduction/methodology

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

5.4.2 Roman building material

None.

5.4.3 Saxon building material

None.

5.4.4 Medieval building material

FABRICS

2271, 2586, 2587, 2816

FORMS

Roofing tile

Peg tile

Fabrics 2271, 2586, 2587

There are a number of glazed medieval peg tiles in the moat silt (subgroup 11), some associated with peg tile of post-medieval date. The medieval examples are of standard two round peg hole type, with peg holes between 13mm and 14mm diameter. There is also what could be either a paw or finger print. Probable medieval peg tiles were also found in brickearth deposits (sgp 5), a clay deposit (sgp 103) and an internal foundation deposit (sgp 151).

All are in London area fabrics, indicating manufacture at tiliary in or close to London, possible at Stepney itself. As early as 1366 a licence was granted to John de Wendover to dig a piece of ground in Stepney to make tiles, almost certainly roofing tiles. A short time later a tiler Jon Clark at work in a field in Stepney was killed in a dispute.

Nib roofing tile

Fabric 2816

A solitary nib tile was recovered from the fill of the ditch/moat (context [218], sgp 6). This has knife trimmed sides, a distinguishing feature of many nib tiles used in London, and part of the nib surviving. Nib tiles, which are relatively rare in London, were probably used in the 13th and 14th centuries.

Ridge tile

Fabric 2586

The top of peg and nib tiled roofs were normally covered by a line of curved ridge tiles. Two possible medieval examples were found on the site, one from a brickearth deposit (sgp 5), and the other from the backfill of the ditch/moat (sgp 6).

5.4.5 Post-medieval ceramic building material

FABRICS

Tudor fabrics

1678, 1977, 2191, 2194, 2309, 2497, 2504, 2850, 3063, 3080, 3246

Later fabrics

2275, 3032, 3035, 3090, 3094, 3202, 3259, 3498

Undated fabrics

2276, 2320, 2586, 2587, 2816, 3042, 3033, 3039, 3206, 3216

FORMS

Floor tile

Low Countries 'Flemish' glazed

Fabrics 1678, 1977, 2191, 2194, 2309, 2497, 2504, 2850, 3063, 3080, 3246

A number of plain glazed Low Countries floor tiles were recovered from the backfill of the ditch/moat and from moat silt deposits (sgps 6, 11). Other Low Countries floor tiles were recovered from a fill of a cesspit or trap (subgroup 14) and from the infill of a well (sgp 30).

These have a plain brown, green or yellow glaze and would have been laid in a chequerboard pattern with the lighter yellow tiles alternating with the darker green and brown examples. These tiles all date to the late 15th to 16th century.

Stove tile

Two small pieces of green glazed stove tile were recovered from moat silt (subgroup 11, context [219] (<39>, <40>). These are made with a distinctive hard white clay which is a characteristic of the products of the border ware potters (pot fabric BORDG) working around 1550–1700. The use of tiled stoves was restricted to the wealthiest members of society, so it must have come from a building of high social status.

Roofing tile

Peg tile

2276, 2586, 2587, 2816, 3216

The majority of post-medieval peg roofing tiles came from brickearth deposits (sgp 5), the backfill of the ditch/moat (subgroup 6), moat silt (sgp 11) and from an internal foundation deposit (subgroup 151). Both two square nail hole and two diamond nail hole types are represented. One tile from the moat silt has an unusual top cutaway (context [258]) whilst another, from a cess pit fill (sgp 26, context 262), has a burnt edge suggesting possible use in a hearth or oven structure.

Peg tiles rarely survive intact in London, but three complete examples were used in the brick drain (context [265], sgp 18). This measure 261–265mm in length, 149–

157mm in breadth by 13–16mm in thickness. All are of two round nail (or peg) hole type.

Pantile

Fabrics 2275, 3090, 3094, 3202, 3259

The majority of pantiles were recovered from the infill of a well (sgp 30) and a cess pit (sgp 32). Other pantiles came from industrial rubbish (sgp 97) and an internal foundation deposit (sgp 151). Pantiles began to appear in increasing numbers from the 1630, although they were used spasmodically before this date. The vast majority of London pantiles were from the Netherlands, until production started at Tilbury around in c 1694. It is not certain whether the examples from XRV10, which occur in a variety of fabrics, are of Dutch or English origin.

Pantiles rarely survive intact so the one complete and three virtually complete examples found in the infill of a cess pit (sgp 32, context [190]) are worthy of note. These measure 341–363mm in length, 222–237mm in breadth by 13–16mm in thickness. Other finds in the cess pit fill date to 1850–1880, but the pantiles could be of earlier date.

Hip tile

Hip tiles were used where two roof lines set at different angles joined. These tiles are relatively rare in London, although it can be difficult to distinguish small fragments from ridge tile. One definite hip tile was recovered from backfill of the ditch/moat (sgp 6, context [216]) where it was found with other finds dated to 1600–1610.

Chimney pot / garden furniture

Found unstratified was a large piece of a decorated circular object with an internal diameter of approximately 230mm. This could be either a chimney pot or a piece of garden furniture. It would appear to be made of some kind of mortar. There are in fact two mortar layers. The initial object was made from a circular pinkish-white mortar layer 14mm thick. On to this was attached a second pinkish mortar layer (up to 45mm thick) applied as decoration.

Brick

Contexts	Fabric	Size (mm)	Date range
[47]	3046	218–223 x 108–110 x 51–57	1500–1666
[50]	3033, 3046	226 x 106–109 x 56–61	1500–1666
[51]	3032, 3046	217 x 103–106 x 59–64	1750–1900
[52]	3033, 3046	208–232 x 97–113 x 55–63	1500–1666
[53]	3032, 3046	217–226 x 99–107 x 54–56	1666–1800/1900
[73]	3033	226–229 x 109–111 x 56–60	1500–1666
[78]	3046	229–231 x 111–117 x 49–56	1450/1470–1600
[153]	3046	221 x 105–106 x 54–60	1500–1666
[162]	3033	225 x 113 x 54–56	1500–1666
[165]	3046	? x 103–107 x 53	1500–1666
[166]	3046	221–222 x 108–110 x 54–55	1500–1666
[184]	3032	215–223 x 101–102 x 63–69	1800–1900

[194]	3032, 3035	218–229 x 98–106 x 58–67	1800–1900
[197]	3032, 3033, 3046	218–230 x 96–111 x 48–64	1800–1900
[204]	3032, 3035	224–x c 227 x 96–109 x 63–65	1750–1900
[206]	3042	228–230 x 107–109 x 54–63	1550–1666
[210]	3206	229–237 x 109–114 x 49–58	1450/1470–1550
[216]	3065	? x 106 x 48–60	1480–1600
[229]	3046, 3260	216–230 x 103–108 x 52–61	1480–1600
[233]	3046	220–226 x 106 x 50–57	1470–1555/1600
[235]	3033	216–226 x 104–105 x 49–56	1450/1470–1550
[238]	3046	217–222 x 106–114 x 51–63	1450/1470–1600
[241]	3032, 3036	211–218 x 98–106 x 55–62	1700–1900
[252]	3033, 3042	230–236 x 106–112 x 54–60	1500–1600
[254]	3033, 3039, 3042	201–224 x 99–106 x 50–62	1500–1666
[256]	3039?	c 210 x 90–92 x 51–56	1500–1600
[264]	3498	? x 100 x 55	1500–1700
[265]	3032, 3033	216 x 93–113 x 54–63	1666–1900
[267]	3032?, 3035	219–225 x 101–106 x 59–67	1800–1900
[269]	3033, 3046	225–226 x 105–109 x 53–67	1550–1666
[270]	3046	221–225 x 106–111 x 52–57	1500–1600
[271]	3033, 3046	218–233 x 105–111 x 54–60	1500–1600
[286]	3033, 3042	222–230 x 103–111 x 52–61	1500–1666
[293]	3032	219–222 x 97–104 x 59–63	1700–1900
[320]	3046 near 3033, 3206	213–227 x 103–107 x 51–59	1500–1600
[322]	3033, 3206	227 x 103–107 x 52–62	1500–1600/1666
[327]	3033	? x 106 x 53–60	1500–1600/1666
[329]	3206	224 x 105 x 50–59	1500–1600
[330]	3206	230–237 x 104–c 113 x 52–62	1500–1600
[332]	3033	c 223 x 106–107 x 52–56	1500–1600
[402]	3046	215 x 110 x 52–59	1500–1600
[404]	3032 near 3033, 3033	? x? x 50–54	1500/1550–1700

Table 4 Post-medieval brick

Brick samples make up the majority of the post-medieval building material collected. Many are very similar in fabric (3033, 3046), colour (red or orange) and size (218–236 x 99–113 x 49–63mm), suggesting they may be of similar date. Although dating brick on size needs to be treated with caution, many would appear to have been made around 1500–1666 which would suggest they formed part of Worcester House. Some bricks, such as those from a brick drain (see below) would appear to have been reused in later structural features.

Many bricks have sunken margins, a feature more commonly associated with pre-1666 London-made bricks. Sixteenth–mid 17th century bricks were found associated with the following structural remains:

- The north wall of the south side of the moat (context [47], sgp 68)
- The west side of Worcester House wall (context [50], sgp 68)
- An internal wall (context [52], sgp 69),

- A north-south wall of King John's Tower (context [78], sgp 49)
- The south-west corner of the outer moat wall context [153] (sgp 78)
- East-west and north-south walls outside the moat (contexts [162], [165], sgp 74)
- Western external moat wall (context [166], sgp)
- Brick wall - latrine? (context [210], sgp 7)
- Outer moat wall (context [233], sgp 9)
- Internal House walls (contexts [235], [238], sgp 10)
- Brick drain (context [252], sgp 18)
- Brick cesspit or drain trap (context [254], sgp 13)
- Internal return wall off 238 (context [269], sgp 100)
- Brick drains (contexts [271], [286], sgps 17, 18)
- Brick culvert (context [320], sgp 132)
- North-south wall site centre (context [327], sgp 138)
- Estate wall (contexts [329], [330], sgp 119)
- North-South wall (context [332], sgp 121)

A small number of bricks of pre-1666 date from a possible brick latrine (context [210], sgp 7) and the fill of the ditch/moat (context 229, sgp 6) have fabrics characterised by a scatter of white calcium carbonate or crushed shell inclusions (fabrics 3206, 3260). It is not certain if these are London-made or were obtained from brickyards situated elsewhere. One, from the moat/ditch fill, has the impression of the full thickness of the wooden mould used to make the brick. The mould impression is 16mm wide, although this is a slight under-estimate as the impression would have shrunk slightly when the brick was fired.

Of particular importance are a number of shaped bricks, which would have formed some kind of decorative architectural feature. Three bricks, found reused in a brick drain, (context [271], sgp 18) are semi-circular in shape, whilst another, from the backfill of the ditch/moat, has the header end cut to a point (context [216], sgp 6). Other bricks of interest include a grey 'glazed' header from a brick drain (context [286], sgp 17) which may originally have been used in decorative brick diaper work, and a 'waster' from a construction backfill deposited dated to 1580–1700 (context [264], sgp 18). This brick, and other overfired examples (contexts [50], [52], [82], [256]), represents evidence of brickmaking somewhere in the vicinity (this is discussed in more detail below). Despite being overfired some bricks were still used as walling, although probably not in a prominent location.

Sharp edged London-made dark red bricks (fabric 3032) measuring 212–223 x 93–104 x 59–69mm were recovered from contexts [51], [194], [197], [204], [241], [265], [265] and [267]. Many are frogged suggesting a 18th or 19th century date.

Later dark red brick (fabric 3032) was also found in context [53], although these have more rounded edges and so could be slightly earlier (1666–1800/1900). They were found reused with earlier red brick (fabric 3046) of probable 1550–1666 date. Evidence of reuse comes in the form of two different mortar types attached to the brick sides. The earliest mortar is cream in colour; this is overlain by a light grey mortar layer.

Yellow stock brick of probable Victorian date was recovered from contexts [194], [204] and [267]. One (context [194]) has been crudely cut to a wedge shape suggesting it comes from a brick arch. Another has a diagonal pressure mark on the stretcher face showing the stacking arrangement when the brick was laid out to dry prior to firing. A dark red brick (context [241]) has a similar feature.

Evidence for brick production

As discussed earlier, there are a number of warped and overfired bricks from the site, suggesting that some of the late 15th–mid 17th century brick may have been made in Stepney.

The bricks recovered from the outer brick wall of the moated house (context [233]) and the other brick features listed above are typical of many thousands of Tudor and Stuart bricks made in London during the late 15th–mid 17th centuries. Such bricks are normally orange to bright red in colour and are soft and fairly friable. There are also occasional stones and small pebbles where the clay was insufficiently prepared before brickmaking.

Tudor and Stuart London bricks were normally made in wooden moulds. Clay was thrown into the mould and the excess clay was then scrapped off, leaving striations on the brick surface. To stop the clay sticking to the sides of the wooden mould, the mould was normally dipped in sand. Similarly the wooden bench or table on which the bricks were made was also covered with sand. Again this prevented the wet clay from sticking to the brick makers work bench. The remains of this sand can be seen on the bottom and edges of the most bricks, including the examples from XRV10.

Once the clay had been added to the mould the mould, with the clay still inside, was taken to the drying ground – or ‘place’ as it was normally called. This was done by an assistant – usually a women or child – known as the ‘bearer-off’, whilst the brick maker was forming a further brick in a separate mould. The bearer-off removed each brick at the ‘place’ so that it lay flat on the ground. This ground was sometimes strewn with grass or straw to prevent sticking. Sometimes, as in the case of the bricks from XRV10 sand was used instead as glass and straw marks are not present.

After in initial period of drying the bricks were turned on edge and stacked in an open ‘honeycomb’ arrangement. Marks on the edges of certain bricks how bricks were arranged diagonally to one another.

Most bricks in the Tudor and Stuart periods were fired not in permanent kilns but in temporary clamps. Clamps were large stacks of ‘green’ (unfired) bricks interspersed with fuel – which were set on fire and allowed to burn themselves out. The whole firing process, depending in the weather and an amount of fuel and bricks needed, could take several weeks. The firing of bricks could produce unexpected problems, during the 16th century in Islington there were complaints that the brickyards were a ‘chieffnurserie’ of many of the vagabonds then troubling the City, Westminster and Southwark. The warmth of the brick kilns made then a popular sleeping place for the poor seeking work in London.

During any brick firing, which would probably have achieved a maximum temperature of around 1000 to 1200 degrees, a certain percentage of bricks would be overfired and warped whilst others would be brown and underfired. Overfired bricks could be sold off cheaply as hard-core, whilst underfired brick could be re-fired again to the correct temperature provided they still remained intact. Overfired and vitrified bricks had another use – they could be set into walls to produce a decorative pattern. This decorative work can be seen on a number of Tudor brick buildings in London, notably Lambeth Palace gatehouse built by Cardinal John Morton around 1490.

In 1625 the size of bricks in ‘the Citie of London and Confines of [the] same’ was fixed by royal proclamation at 6 x 4 3/8 x 2 1/4 inches (229 x 111 x 57mm) although this was widely ignored. In is, however, of interest that the bricks from context [233], despite dating to the late 15th–mid 16th century, are close to the approved 1625 standard (220–226 x 106–110 x 50–57mm). This suggests the 1625 standard was

recognising established practice regarding brick size, rather than introducing a new size of London brick.

It is difficult to say precisely where the bricks from XRV10 were made. London may not have any natural building stones but it does process abundant supplies of raw materials for brickmaking. Areas to the east of the City, including Deptford, had long been established as brickmaking centres, and newer ones too were being opened up, for examples in Hackney and north of St Giles in the Fields. They were sometimes the cause of complaint because of the noxious fumes they generated.

The bricks from XRV10 were almost certainly made close to where they were used. Brickmaking in Stepney has a long history. The account of the Episcopal manor of Stepney shows that in 1462/3 the Bishop received £12 2s.10d. for the rents of the brickfields. According to McDonnell the existence of the Stepney brickfield was due to the ability of the brick manufactures to outbid those who wanted the land for agriculture. The land had by that time become more valuable for industrial purposes.

Bricks were initially used for more minor structural work such as chimneys and as components in stone walls. Buildings largely or wholly of brick survive from the first half of the 15th century in the area around London, but nearer the city only from the 1480s. Notable brick buildings dating to the first four decades of the 16th century include Charterhouse Wash House Court (early 16th century), Bridewell Palace (1515–22) and the Augmentations Office next to Westminster Hall (1536–7). The XRV10 bricks date to the period of expanding brick use, when brick were increasingly used for major structural work.

Dutch paving brick

Fabric 3036

A small, hard, yellow Dutch paving brick measuring 153 x c 64 x 34mm was recovered from a rubbish pit fill (context [146], sgp 82). Dutch paving bricks first arrived in substantial quantities in London around 1630 and were in widespread use during the mid-17th–18th centuries. They were set in a herringbone pattern in the floor to provide a tough hard wearing surface. The XRV10 example was clearly used in such a floor as there are wear marks on one stretcher face.

Floor tile / brick

Fabric variant of 2320

Found with the Dutch paving brick (see above) was a flat red tile measuring 29mm in thickness. The fabric (a possible finer variant of 2320) is undiagnostic, so the function of this tile is uncertain. It may be an unglazed floor tile or a thin brick.

Wall plaster

Fragments of pale creamish-white wall plaster were recovered from the infill of a well (contexts [203], [204], sgp 30). This plaster was found with other artefacts dating to 1807/1810–1900, suggesting a possible 19th century date.

Mortar

From the moat (context [288], sgp 11) was a piece of mortar with a flattish surface.

Stone

The only stone collected was a large cobble stone from a well cut (context [197], sgp 2) (stone type still to identify), dark grey roofing slate and a cut slab of what may be a variant of French Caen stone 52–56mm in thickness from a well infill (context [204], sgp 30). The latter has a smooth upper surface suggests it may have been used as paving, or is part of some kind of monument or inscription. All the stone was found in 19th century contexts.

5.4.6 Recommendations for analysis

(Analysis tasks 6–9, section 8.3.2)

Brick samples from walls should be used to date the numerous structures across the site. Internal features and décor may be recreated by, of floor and stove tiles. Roofs were peg tiled, except for the later period, when pan tiles were introduced. Their location, even where in secondary contexts, may be used to help recover information of the layout and appearance of buildings. The potential for further analysis of the building material is discussed in section 6.

5.4.7 Recommendations for illustrations

? Reconstruction drawing of a stove tile or contemporary photograph

Shaped brick – context [216]

Shaped brick – context [271]

5.5 The pottery

Lyn Blackmore

Post-Roman pottery	1.734kg	2000 shreds, 498 ENV
--------------------	---------	----------------------

Table 5 Summary of total quantity of pottery

5.5.1 Medieval (c 1050 – 1480)

5.5.1.1 Summary/Introduction

During the excavation phase of work and subsequent watching brief a small assemblage of hand-collected pottery ranging in date from the 14th/15th to 19th centuries was recovered from seven fills of six contexts ([205], [216], [259], [276], [283], and [404]).

5.5.1.2 Methodology

The pottery was examined macroscopically and using a binocular microscope (x 20) where appropriate, and recorded on paper and on the MOLA Oracle database using standard Museum of London Archaeology codes for fabrics, forms and decoration. The numerical data comprises sherd count, estimated number of vessels and weight.

5.5.1.3 *Fabrics and Forms*

The earlier fabrics comprise south Herts-type greyware (SHER, SHER FL; four sherds) and Mill Green ware (MG; two sherds), while the later wares comprise coarse Surrey-Hampshire border ware (CBW; six sherds), late London slipware (LLSL; five sherd), and Langerwehe stoneware (LANG; four sherds). Together these span the whole period from 1270–1500. Given the date of the post-medieval sherds, however, it is likely that the most sherds date to the later 15th century.

5.5.1.4 *Distribution*

Most of the medieval sherds were recovered during the second phase of evaluation work on the site. All are residual, but most date to after c 1350/1400 and so presumably derive from the Great Place owned by John Fenne in the 15th century. Six of these sherds were found in the moat ([279] sgp9), which also contained a few medieval artefacts. Eleven sherds are from the fill of ditch/moat (sgp3) [220] [284], three are from general surfaces ([259] sgp12, [404] sgp151).and one is residual later brick drain [206] (sgp16).

5.5.2 *Post-medieval (c 1500–1900)*

5.5.2.1 *Summary/Introduction*

A large assemblage of pottery ranging dating from the 16th to 19th centuries was recovered from 39 fills of 32 features. Most groups have less than 30 sherds, but six have between 30 and 99 sherds, while four have more than 100 sherds. Sherd size and condition is variable, ranging from small to some near complete vessels.

5.5.2.2 *Methodology*

The pottery was examined macroscopically and using a binocular microscope (x 20) where appropriate, and recorded on paper and on the MOLA Oracle database using standard Museum of London Archaeology codes for fabrics, forms and decoration. The numerical data comprises sherd count, estimated number of vessels and weight. Group size is determined as small (less than 30 sherds), medium (30 to 100 sherds), large (over 100 sherds) and very large (multiple boxes). The finds from the evaluation were recorded by Jacqui Pearce (Pearce 2011), while those from the excavation and later phases of work were recorded by the present writer.

5.5.2.3 *Fabrics and forms*

The pottery falls into 59 different types based on fabric and decoration and these in turn fall into eight broad classes defined by either source area or general tradition. The collection can also be divided into two chronological groups, the first dating to the 16th to early 17th century, the second of 18th- to 19th-century date.

16th to early/mid-17th century

The assemblage is dominated by redwares from the London area (total 423 sherds, 194 vessels, c 20.6kg). Most sherds are of London-area early post-medieval redware (PMRE; 208 sherds, 112+ENV) and the related bichrome-glazed ware (PMBR; 56 sherds, 11 ENV), with a few sherds of London-area early post-medieval calcareous redware (PMREC) and one sherd with metallic glaze (PMREM), all of which date to

1480-1600. In addition there are 125 sherds (54 ENV, c 71.5kg) of slip-decorated and slip-coated coated redware (PMSL, PMSR/G/Y). These wares were mainly current between c 1480 and 1600/1620. Only one sherd of the later London-area post-medieval redware (PMR), which came into general circulation 1580, is from a context that does not also include significantly later material. Most sherds are from cauldrons/pipkins, followed by jars and dishes. These include a near complete large cauldron, mostly found in [251] but also present in [250] (PMSRY; rim diameter 245mm, height c 275mm), and two substantially complete vessels: a pipkin with ladle handle and a large, externally sooted PMRE jar with neatly faceted base and rather cruder internal knife trimming, both from [251]. Other forms include jugs, bowls, flower pots, and single occurrences of a chafing dish, a colander (PMSRG), a goblet, a lid and a porringer. One cauldron from [250] is near complete. The colander ([284], which has incised decoration on the rim, and a jar with faceted base ([281] merit illustration. A few sherds from [250] and [251] have glaze over the broken edge or cracks in the surface and seem to be from seconds or sub-standard vessels. Redwares from Essex, which were introduced around 1580, are much less common, with only one sherd of fine post-medieval redware (PMFR) and two of post-medieval black-glazed ware (PMBL).

In second place are Surrey-Hampshire border whitewares (BORD/B/G/Y), with 94 sherds (53 ENV, 2.627kg). There is also one sherd of the redware equivalent (RBOR), which came into use c 1580, from a context that appears to be of 17th-century date ([148]). Tripod pipkins are the most common form, followed by drinking jugs and dishes; other forms comprise a bowl, jars, porringers, a skillet and the complete base of a brazier ([251]; the latter and a large straight-sided dish ([250]) are unusual and merit illustration.

Tin-glazed wares are rare, with only eight sherds from a dish, a chamber pot and three albarelli, including a complete small base that is either from Antwerp or the Aldgate pottery (Blackmore 2005). Non-local wares are also limited, comprising two sherds from Cistercian ware (CSTN) mugs and one of Midlands purple ware (MPUR). Imports, by contrast, are well represented, with 121 sherds (51 ENV, 2911g) in fabrics that are typical for this period. Stonewares from Raeren (RAER) and Frechen (FREC) in Germany, and Dutch redwares (DUTR, DUTSL) are the main types. These include part of a Raeren anthropomorphic jug with incised and stabbed decoration, the upper part of a Frechen jug with applied face mask of Holmes type IV, which dates to the early 17th century (Holmes 1951, 175), and a substantially complete slipped redware (DUTSL) cauldron with pinched arched handles, one with a kiln scar on the top from [251], represented by 43 sherds, that merits illustration. Other wares comprise sherds of South Netherlands maiolica (SNTG), Martincamp stoneware (MART, MART3), north Italian marbled slipware (NIMS), the complete rim of a Spanish olive (OLIV) and a small, near complete so-called mercury jar from [404] (MERC; to be illustrated). These small jars were probably produced at a number of centres around the Mediterranean; the very thick walls of some has led to the suggestion that they were designed to hold mercury, but scientific analyses have failed to confirm this, and they may contained a variety of precious commodities. A jar of similar baluster-shaped form has been found at North Lane, Canterbury (Macpherson-Grant 1978, fig 23, no 63).

18th- to 19th-century wares

The remainder of the group mainly consists of mass-produced late 18th- to 19th-century wares that would have been used in the kitchen, dining room or bedroom, but a few more heavy duty forms in coarser fabrics are also represented. These include 29 sherds (13 ENV) of London-area post-medieval redware (PMR) and 26 sherds (9

ENV) of Surrey Hampshire border redware (RBOR), both of which came into general circulation c 1580 and continued until c 1900. The former comprise seven flower pots, a substantially complete large deep flared bowl from [190], three other bowls and a jar. The Surrey-Hampshire border redwares include four paint pots, three bowls, a pipkin and a small flared dish for use with flowerpots. Other general purpose wares include 22 sherds of English stoneware (ENGS), including the latter including a near complete jar from [262] and part of a bottle stamped 'Fulham'.

The bulk of the collection comprises industrial finewares, which total 292 sherds (122 ENV, 7.262kg). The range of fabrics and forms is relatively limited, dominated by tea and table wares in factory-made refined earthenwares from a variety of sources. The earliest is creamware (40 sherds, 13 ENV), which dates from 1740 and spans the later 18th to mid-19th centuries. Forms include a near complete large rounded bowl, probably used in a kitchen and five plates, including a soup plate, two of them with the very popular and widely available royal pattern rim. Pearl ware, introduced in 1770, amounts to 81 sherds from 19 vessels. In addition to six plain plates and a jar, one tea bowl and a saucer have painted decoration in blue (PEAR PNTD), while one tea bowl, one saucer and a large bowl are decorated with earth colours (PEAR EARTH). The remaining six vessels (36 sherds) have transfer printed decoration (PEAR TR1, PEAR TR2), including a near complete straight-sided jar from [262] and two substantially complete vessels from [204] (already reconstructed, to illustrate). These comprise a saucer with Chinese landscape, and a bowl with a landscape scene near Delhi with temples and girl with a buffalo in foreground; known as Monopteros pattern (after the round temple with roof; Coysh and Henrywood 1982, 250–2), this was probably made by John Rogers and sons between 1784 and 1815). Bone china (BONE, BONE LUST), was made from 1794 and amounts to 29 sherds from 13 vessels, including a near complete cream jug with overglaze painting in the Chinese *famille rose* style ([57], to illustrate). Other forms comprise an eggcup base, cups and two saucers, some with Chelsea sprig pattern, with applied blue details.

Transfer-printed wares are the dominant group, with 115 sherds from 57 vessels. Most have the more common underglaze blue designs such as 'willow', 'wild rose' and 'Eton College', dated from 1780 (TPW1) or from 1807 (TPW2) depending on the type of engraving. These are mostly found on dinner and tea plates, with further examples on saucers, a cup, jug and tureen lid. The most notable finds are a near complete large bowl/punch bowl from [190] (to illustrate) which has an alpine landscape known as 'Zurich' inside the base with alternating panels of figures in landscape and roses around upper body and exterior, a bowl c 80% complete from [262]. A small TPW2 jar from [262] has part of an inscription reading 'nly by/ a(?)nicott/o the L/t.'. Transfer-printed wares with other underglaze colours, such as black, brown, green and mauve (TPW3, TPW4, TPW6), amount to 12 vessels. Of particular note is a very unusual two-handled chamber pot with lustre painting and transfer prints in black (TPW3; to illustrate). That inside the base shows a shocked male face with the motto 'Oh what I see / I will not tell'. Outside, two panels between the handles also have text in them; the more complete reads '.ame you'd no.. / .. Safe and oft it use; .. / ..when you in it want to p-s / Remember they who gave you this'. Other items include joining sherds from two cups with a floral pattern in green ([57] sgp71 and [262] sgp26) and a plate marked on the back with the pattern name 'Windsor star' ([156] sgp75)), all in TPW4. A matching cup and saucer with the label 'Kaolin ware, Tripod' on the back have polychrome decoration of lilies with underglaze prints and overglaze painting (TPW6). The latest type in this group is 'flow blue' (TPW FLOW), introduced after c 1830, represented by two sherds from contexts [54](sgp71) and [60](sgp70).

Also in this group are 26 sherds (19 ENV) of refined white earthenware (REFW), which date to after 1800 and comprise a range of jars, kitchen and table wares. Two bowls and a saucer have simple painted decoration (REFW PNTD), and the saucer ([112] sgp99), with part of a motto or verse written in cursive script, is probably derived from a nursery set. In addition, two vessels have zones of banded slip (REFW SLIP). Vessels of this kind formed part of the kitchen crockery in daily use by most households at this date.

In addition, there are 40 sherds of non-local earthenware, mainly comprising bowls and dishes and a few other forms in Sunderland slipware (SUND; 4 sherds, 4 ENV), dating to after 1905, and yellow ware (YELL, YELL SLIP; 33 sherds, 14 ENV), dating to after 1820, with three sherds from a Rockingham ware (ROCK) teapot. All imports are of Chinese porcelain (CHPO), amounting to 22 sherds from six vessels, the most complete being a *famille rose* saucer (CHPO ROSE) painted with a harbour scene, found mainly in [204] sgp30, but also in [199] sgp30 (to illustrate).

5.5.2.4 Distribution

16th to early/mid-17th century

In all, 604 sherds (300 ENV, 26.674kg) are from the earlier post-medieval deposits associated with the manor house. The dating below is based on the pottery alone; some groups also have clay pipe and/or bottle glass and so probably date to after 1650. Fills [216], [217], [229] (sgp6), [283] (sgp5) of ditch [220]/ [284] (sgps 3 and 4), yielded 116 sherds (54 ENV, 2.7kg), including the post-medieval redware colander (to draw). Sherd links were noted between [216]/ [217]. Most of the pottery dates to the 16th century, possibly before 1575, but [216] contains one sherd of north Italian marbled slipware, which, unless intrusive, suggests that this layer dates to after 1600, but, from the other finds, not necessarily later than c 1610.

The moat ([249]/ [279]) contained 91 sherds (73 ENV, c 2.2kg) of post-medieval pottery, recovered from fills [258], [259], [276] and [294]. No pottery was recovered from the lower fills, but [276] contained 31 sherds dating to 1550–1600, while [194] contained five sherds of similar date. The 55 sherds from the overlying deposit [258]/ [259] are also of similar date (1600–1610); although some bottle glass dating to after 1650 was also found.

The most important group is from cesspit [251](sgp14), dated to 1570-1600, which contained 194 sherds from c 43 household vessels (11.5kg), some substantially complete (eg a post-medieval redware cauldron) and including at least three illustratable items: the complete base of a brazier, a post-medieval redware jar with faceted base and a Dutch slipped redware cauldron. This group may represent primary deposition.

The pottery from fill [250](sgp14) and construction fill [281] of cesspit [254](both sgp13) is more fragmented than the above, with fewer sherds from a larger number of less complete vessels (116 sherds, 74 ENV, c 68.5kg) with a date of c 1600-1610. Of note are a redware vessel with upright rim (to draw) and the base of an Antwerp-style tin-glazed jar, possibly from the Aldgate factory. The other features of this date (ditches, well, wall) contained only small amounts of pottery, and the largest group is from make-up layer [404], which contained a near complete mercury jar (to illustrate).

18th- to 19th-century wares

Pottery from this period is more abundant by sherd count but less so by weight (433 sherds, 178 ENV, 19.275kg). A number of sherds are from the first phase of evaluation work in trenches 3, 4, 5, 6 and 7, but most are from the excavation. The majority date to the early to mid 19th century.

Some 271 sherds are from 11 cesspits; on the whole the groups are small but [261] (sgp25) contained 135 sherds from 44 vessels. The pottery and other finds from this feature all date to c 1825-30, suggesting that this feature was associated with the Baptist College rather than one of the small houses facing Garden Street that replaced it. Most of the group comprises tea wares; none have yet been selected for illustration but there are several profiles. Cesspit [191] (sgp31) contained 42 sherds from eight vessels, including the chamber pot with motto and a bowl (to illustrate). Well [148](sgp80) contained little pottery, but 132 sherds from 39 vessels were recovered from three fills of well [198](sgp29), comprising a good group of table wares with at least four illustratable pieces; this group could date to c 1807-1810; joining sherds were found in fills [199] and [204] (both sgp30). The remaining groups are all of small to medium size; some could date to the 18th century (eg posthole fill [110] (sgp98), pit fill [146] (sgp82) but they could be contemporary with the main activity across the site.

5.5.2.5 Assessment work outstanding (all periods)

None.

5.5.2.6 Recommendations for analysis

(Analysis tasks 10–18, section 8.3.3)

The pottery from XRV10 should be compared with the assemblages from SHS79 and WOR85, and the combined assemblage examined against the historical record, as regards changes in status of the occupants. Particularly, changes between 17th-c pottery and earlier. The potential for further analysis of the pottery is discussed in section 6.3.

5.5.2.7 Recommendations for illustrations

Up to 15 vessels are recommended as possible illustrations

Ctx	Fabric	Form	Decorat ion	SC	Illu strate	Disp lay	Reco nstru ct	Comments
57	BONE	JUG CRM	FLOR	1	Y	Y		whole apart from handle; heavy; overglaze painting in <i>famille rose</i> style ?REFW
190	PMR	BOWL 2HFL	-	11	Y	Y	Y	75% whole; large, deep
190	TPW2	BASIN WASH	LAND	8	Y	Y	Y	95% whole; Zurich pattern in base and in cartouches internally and externally

								(alternating with roses); all join
190	TPW3	CHP	LUST	14	Y	Y	Y	whole base, part lower body; lustre arcs, face inside 'OH WHAT I SEE I WILL NOT TELL'; also 2 external panels with text
199	CHPO ROSE	SAUC	-	2	Y	Y	Y	as [204]; 2 rims
204	CHPO ROSE	SAUC	LAND	9	Y	Y	done	near whole; harbour scene; joins [199]
204	PEAR TR1	SAUC	CHIN	11	Y	Y	done	85–90% whole, Chinese landscape
204	PEAR TR2	BOWL	LAND	13	Y	Y	done	Monopteros pattern; Delhi landscape with girl and buffalo
250	BORDY	DISH STR	-	3	Y			porringer-type rim, large diameter, flat base
251	BORDY	BRAZ	-	1	Y			whole base
251	DUTSL	CAUL	-	43	Y	Y	Y	profile; most join
251	PMRE	JAR	FACT	15	Y	Y	Y	whole base, neatly faceted, crudely knife-trimmed inside
250 251	PMSRY	CAUL	-	32	Y	Y	Y	profile; c 95% whole
283	PMSRY	COL	INCD	1	Y			rim, incised+stabbed decoration
404	MERC	JAR		1	Y			whole, chipped rim

Table 6 Preliminary list of suggested finds for illustration and reconstruction

5.6 Clay (tobacco) pipes

Jacqui Pearce

5.6.1 Introduction/methodology

The clay tobacco pipe assemblage from XRV10 was recorded in accordance with current Museum of London 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).

5.6.2 Quantification

Total no. of fragments	204
No. of bowl fragments	65
No. of stem fragments	131
No. of mouthpieces	8
Accessioned pipes	46
Marked pipes	41
Decorated pipes	22
Imported pipes	0
Complete pipes	0
Wasters	0
Kiln material fragments	0
Boxes (bulk\accessioned)	2 boxes

Table 7 Clay tobacco pipe quantification

5.6.3 Character and dating of the clay pipes

Fragments of clay tobacco pipes were recovered from 23 contexts. All are typical of London manufacture. The largest number came from context [190] (cesspit sgp32, 14 bowls, 95 stem fragments and eight mouthpieces). Two contexts yielded single stem fragments only (contexts [247] and [256]) and are therefore undatable. Two contexts [248] and [318] are dated to c 1640–60 (sgp12 and sgp133) on the basis of single pipe bowls of types AO9 and AO10. Context [313] includes one type AO18 pipe bowl (c 1660–80) and two of type AO22, which dates to c 1680–1710, although a latest date of c 1730–80 has been assigned on the basis of pipe bowls of types OS11 and 12 (sgp135). There is also one bowl of type AO22 (c 1680–1710) in context [1], which was found together with four type OS12 pipes dating to c 1730–60 (residual in construction fill of 19th-c Congregational Church wall foundation? sgp118). The only other 18th-century pipes are a single type OS10 bowl found in context [4], which is dated to c 1700–40, and a type OS12 in context [5] (sgp116 c 1730–80).

Ctx	TPQ	TAQ	B	S	M
1	1730	1780	5		
4	1700	1740	1		
5	1730	1780	1		
16	1840	1880	1		
20	1800	1900		2	
26	1820	1840	1		
54	1840	1880	1		
57	1820	1840	2	1	
60	1820	1840	1		
108	1800	1820	5		
112	1820	1840	1		
156	1840	1880	2		
187	1840	1880	2		
190	1850	1880	14	95	8
200	1820	1840	2		
204	1780	1820	9	5	
247	1580	1910		1	

248	1640	1660	1		
256	1580	1910		1	
262	1820	1840	7	24	
266	1850	1880	2	2	
313	1730	1760	6		
318	1640	1660	1		
Total			65	131	8

Table 8 *Clay tobacco pipe dates, by context (B – bowl; M – mouthpiece; S – stem)*

All remaining contexts date to the late 18th to 19th century. These can mostly be associated with the period during when the Baptist College was in use (after 1810), or with the cesspits linked with slum housing on the site in the late 19th century. Most pipes were probably made after c 1800, despite the broad date range of c 1780–1820 given to types AO27 and AO27A, the most numerous forms recorded on the site (15 and 12 examples respectively). These pipes were easily broken because of their brittle bowls and long, thin, curved stems, both before and after burial, resulting in the large number of stem fragments, all from this type, recorded in context [190](sgp32). This context, however, which comes from the fill of a cesspit associated with late 19th-century housing, has been dated to c 1850–80 by the presence of two pipe bowls of type AO29 and one AO30; it also yielded two type AO28 pipes, dated to c 1820–60, so a date of deposition in the 1850s seems most likely. Late 19th-century pipes were also found in contexts [266] (drain disuse sgp19), [16] (external dump sgp103), [54], [156] and [187] (cesspits, sgps 71, 75, and 36), all dating after c 1840. In most of these, earlier pipes are mixed in with later types, as in context [190].

In the medium-sized context [190] there are six pipe bowls with simple types of common decoration in the form of moulded leaf or wheatsheaf seams on the bowl. Nine of the bowls from the same context have moulded maker's initials in relief on the sides of the heel or spur. Other decorative forms include ribbed bowls of type AO27 with moulded leaf seams. The most elaborately decorated pipes are three examples all from the same maker and of the same style recovered from context [204]. They are all of type AO27, which is dated to c 1780–1820 by nine examples of this form. The decoration consists of the three ostrich feathers of the Heir Apparent (Prince of Wales) moulded on the back of the bowl, facing the smoker, with a moulded leaf seam on the front of the bowl and delicately moulded foliate decoration along the seams and sides of the stem. The initials SS are moulded in relief on the sides of the heel and the maker's name and address along the sides of the stem. Unfortunately, none of the stems are sufficiently complete to allow the name to be read clearly. The closest reading based on all three examples, appears to be S STOLTIE (?) / THE CHURCH....STREET STEPNEY. No pipe makers of this name are recorded in available records consulted for this assessment. The only other pipe marked with a full surname is a type AO28 bowl from context [200]. This has the name KEEN stamped upside down in a circle on the back of the bowl, with the initials MK moulded in relief on the sides of the spur. These stand for Michael Keens, who is recorded in Limehouse Fields in 1836 (Oswald 1975, 140). Five pipe bowls of types AO27 and AO27A are marked with the initials IF, which stands for John Ford of Stepney, known to have been working between 1805 and 1865 (ibid, 136). It is likely that some of the other marked pipes recorded on the site were also made locally; further work on the identification of makers' marks is recommended.

5.6.4 Marked pipes

Ctx	Acc	Form	ED	LD	Dec	Mark	I/R	M/S	Pos
108	6	AO27	1780	1820	WB	??	R	M	SH
112	10	AO28	1820	1840	LB	?SC	R	M	SS
190	44	AO27	1780	1820		CI	R	M	SH
1	4	OS12	1730	1780		CS	R	M	SH
1	5	OS12	1730	1780		CS	R	M	SH
262	108	AO28	1820	1840		DB	R	M	SS
1	6	OS12	1730	1780		DOTS	R	M	SH
313	143	OS12	1730	1780		ER	R	M	SH
204	54	AO27	1780	1820	RIBV2 / LB	FC	R	M	SH
5	8	OS12	1730	1780		FLEUR-DE-LIS	R	M	SH
190	46	AO29	1840	1880	LB	HG	R	M	SH
60	4	AO28	1820	1840	LB	HS	R	M	SS
156	11	AO29	1840	1880	OAKS	HS	R	M	SH
108	9	AO27A	1800	1840	WB	I?	R	M	SH
204	57	AO27	1780	1820		IE	R	M	SH
262	111	AO27	1780	1820		IE?	R	M	SH
108	7	AO27	1780	1820	WB	IF	R	M	SH
108	8	AO27	1780	1820	WB	IF	R	M	SH
190	43	AO27A	1800	1840		IF	R	M	SS
204	53	AO27	1780	1820	RIBV2 / LB	IF	R	M	SH
57	107	AO27A	1800	1840		IF	R	M	SS
190	50	AO27A	1800	1840	WB	IT	R	M	SS
16	1	AO29	1840	1880		J?	R	M	SH
200	82	AO28	1820	1840		KEEN (inverted) / MK	I/R	S/M	BF/SS
262	109	AO27A	1800	1840	WB	OO	R	M	SS
190	134	AO28	1820	1840		OO	R	M	SS
313	142	OS11	1730	1760		R / CROWN R	R	M	SH
204	51	AO27	1780	1820	POW / LBB	SS / SID...THE CHURCH	R	M	SH/SL
204	55	AO27	1780	1820	POW / LBB	SS / S STO..STEPNEY	R	M	SH/SL
204	56	AO27	1780	1820	POW / LBB	SS / S STOLTIE.. / STREET STEPNEY	R	M	SH/SL
204	58	AO27	1780	1820		SS	R	M	SH
262	110	AO28	1820	1840		STARS?	R	M	SS
204	52	AO27	1780	1820		TC	R	M	SH
190	49	AO27A	1800	1840	LB	WC	R	M	SS
200	81	AO27	1780	1820		WG	R	M	SH
190	47	AO27A	1800	1840	WB	WI	R	M	SS
190	45	AO27A	1800	1840	LB	WM	R	M	SS
108	5	AO27A	1800	1840		WS	R	M	SH
57	3	AO28	1820	1840		WS?	R	M	SS
4	7	OS10	1700	1740		WW	R	M	SH
190	42	AO27A	1800	1840		WW	R	M	SS
187	41	AO29	1840	1880	LB				
190	48	AO30	1850	1910	FTH				
266	112	AO30	1850	1910	LB / FOL				
266	113	AO29	1840	1880	LB				

Table 9 Marked and decorated clay pipes

5.6.5 Assessment work outstanding (all periods)

None.

5.6.6 Recommendations for analysis

(Analysis tasks 10–18, section 8.3.3)

The names of clay pipe manufacturers should be identified. The clay pipe assemblage from this site should be compared with those of sites in the area, to investigate local production and distribution networks. Also, clay pipes should be considered in the context of the wider finds groups from which they were recovered, to understand their wider place within general site development. The potential for further analysis of the clay pipes is discussed in section 6.3.

5.6.7 Recommendations for illustrations

Six clay tobacco pipes have been selected for illustration.

Ctx	Acc	B	Form	ED	LD	Dec A	Dec B	Dec C	Marks	I/R	M/S	Pos	Maker
200	82	1	AO28	1820	1840				KEEN	I	S	BF	Michael Keens
204	51	1	AO27	1780	1820	POW	LBB	LS	SS	R	M	SH	S Stoltie
204	55	1	AO27	1780	1820	POW	LBB	LS	SS	R	M	SH	S Stoltie
204	56	1	AO27	1780	1829	POW	LBB	LS	SS	R	M	SH	S Stoltie
204	53	1	AO27	1780	1820	RIBV2	LB		IF	R	M	SH	John Ford
266	112	1	AO30	1850	1910	LB	FOL						

Table 10 Clay tobacco pipes recommended for illustration

5.7 The accessioned finds

5.7.1 Introduction/methodology

The finds have been accessioned in accordance with MOLA procedures and the records are held on the Oracle database. The iron and copper-alloy artefacts have been X-rayed and the coins cleaned for identification. All objects were examined individually, with the aid of x-rays where appropriate.

5.7.2 Finds summary by period

5.7.2.1 Early post-medieval (c 1480–1640)

The earliest registered finds are from a cess pit (sgp 14) and two moats (sgps 6, 11) associated with the late medieval/ early Tudor manor house. The silting and backfills of both moats are dated by ceramics to the late 16th–early 17th century with a small amount of residual late medieval material. The brick-lined cess pit which is cut into the earlier moat contained several complete late 16th-century cooking pots.

The registered finds from the earlier (ditch-like) moat include, from the bottom sediments [218], an imported cobalt blue glass flask- or bottle- base <80> and a piece of green window glass <78>, from overlying silts [217] dated c 1550–1575, a

coin (<16>), a small and narrow horseshoe with rectangular nail-holes (<64>, [217]) (eg Clark1995, Type 3, Fig 84), a twisted copper-alloy loop from a purse-mesh (a late medieval/ 16th century form of protective reinforcement against cut-purse thieves; Egan 1998, 62–4, Fig 52) and a copper-alloy lace-chape <138> and, from the backfill [216] dated c 1600–1610, a fragment of high quality imported 16th-century Venetian or North European (*'façon de Venise'*) vessel with a cobalt blue decorative trail <72>. The finds from the later brick-built moat include, from the bottom sediments [288], part of an early to mid-16th-century shoe (<124> and a wooden bowling ball <122> and, from the silting [276], part of an iron rowel spur <85> and a copper-alloy dress pin with a hollow domed head <93>. There are also some less datable finds from both moats: a small iron wall-hook (<63> [216] and short lengths of copper-alloy wire <23> [217], <91> [258].

The finds from the cess pit (fills [250] and [251] dated c 1570–1600) consist of pieces (mainly bases) from a distinctive type of tall pedestal beaker made in England from a very thin-walled natural green 'forest' or 'potash' glass with decorative optic-blown vertical ribs (<99>– <105>, <134>, <136>) (Willmott 2002, 47, Type 4.2), as well as a green glass flask-rim <104>, three fragments from a high quality Venetian colourless glass beaker or goblet (<106>) decorated with twisted bands of opaque white and blue glass trails (*vetro a fili* decoration; Willmott *ibid*, 16–17) and a knife with a plain scale-tang bone handle (<94>).

These mainly domestic/dress-related finds from the moats and cesspit are probably all related to the manor house although some (eg the horseshoe) could have been thrown into the moat by a passer-by. They are closely dated by late 16th to early 17th-century pottery from the same contexts although some (eg the shoe) are earlier 16th century.

5.7.2.2 *Later post-medieval (Late 18th and 19th century)*

All remaining finds date to the late 18th to 19th century and were found in cesspits and soakaways, many of which are associated with late 19th-century slum housing to the west of Garden Street.

Finds from an early to mid 19th-century cesspit, possibly connected with a Baptist College on the site (sgp 26, [262]) include small fragments of clear lead glass tumblers and wine or spirit glasses (<127>– <132>), a wooden brush (<123>), two bone knife-handle terminals (<95>, <96>) and some small corroded pieces of metal. A larger group of finds from a later 19th-century cesspit associated with the slum dwellings (sub-group 30, [199], [203], [204]) includes bone and brass buttons (<30>, <31>, <34>, <71>, <15>), a small bone domino (<36>), an oval brooch or locket with a corroded plain copper-alloy (brass) frame enclosing an amber-coloured cut-glass cameo (<22>), an oval blue 'paste' glass imitation gemstone (<26>), a small clear glass bottle and larger glass stopper (<27>, <18>) (both probably pharmaceutical) and pieces from corroded iron and brass blades and tools (<18>, <61>, <59>, <60>) possibly connected with small fragments of possible copper-alloy waste and two crucible fragments <38>. Another group of finds from a similar late 19th century cess pit (sub group 32) includes pieces from a cut or pressed glass candlestick (<25>), tumbler and wine glass fragments (<127>, <131>), an octagonal ink bottle and a circular domed and grooved bone mount <29>, possibly from the top of a small container.

The finds from the later cess pits or soakaways are typical everyday mid to late Victorian objects, mainly domestic with a small element of industrial waste. The people living in the area were poor and the objects reflect this. The only decorative or

leisure items are the base from a mass-produced type of glass candlestick, two very simple items of jewellery and a small poor-quality domino.

5.7.3 Recommendations for analysis

(Analysis tasks 23–27, section 8.3.5)

Most of the early post-medieval (16th- and 17th-century) registered finds appear to be directly related to the use and disuse of the manor house. Analysis would concentrate on cataloguing these finds and discussing their function in relation to the life of the inhabitants of the house in the mid to late 16th century, possibly with reference to finds from other manor houses and palaces.

The potential for further analysis of the accessioned finds is discussed in section 6.

5.7.4 Recommendations for illustrations

This will depend on the form of publication but might include shoe <124>, wooden bowling ball <122>, dress pin <93>, spur <85>, horseshoe <64>, wooden brush <123>, imported glass <72>, <80>, <106>, English glass <101>, <251> (maybe a group 16/17thc glass photograph as the pieces are small), bone knife <94>, oval cameo brooch <22>, domino <36>

5.7.5 Recommendation for Conservation

A possible list of objects for further cleaning and investigative conservation, include: <94> [251] Bone handled knife. ?Clean for photography/display.

<22> [204] Oval brooch (pin missing) with ?amber or onyx cameo. ?Clean brass frame for photography/display. Identify cameo material.

5.8 The plant remains

Anne Davis

Bulk soil samples	13 flots (4 wet, 9 dry); flora from 3 residues. Unprocessed soil retained from 10 samples.
-------------------	---

Table 11 Finds and environmental archive general summary

5.8.1 Introduction/methodology

A total of seventeen soil samples, ranging from ten to 40 litres in volume, were taken on site for environmental analysis. Four, ten litre, samples were taken alongside geoarchaeological monolith tins from sections 1 and 5 through the late medieval/Tudor L-shaped ditch (samples {9} to {12}), and a further five from section 4 through the Tudor moat (samples {20} to {24}). Three more samples ({2}, {3} and {5}) were taken from fills of the L-shaped ditch and one ({14}) from the moat during excavation. Two further samples ({30} and {31}) came from fills of a 17th/18th century brick cesspit cut into the moat, one ({4}) from a silty drain fill and one ({1}) from the 19th century infill of a well.

All samples were processed by flotation using a modified Siraf flotation tank, with meshes of 0.25mm and 1.00mm to catch the flot and residue respectively. No flot was recovered from samples {9}, {11}, {12} or {14}. The flotation residues were sorted by eye for artefacts and environmental material. The flots, or sub-samples of approximately 100 ml where large, were scanned briefly, using a low-powered binocular microscope, and the abundance, diversity and nature (method of preservation, specific features) of plant macrofossil assemblages and any faunal or artefactual remains were recorded on the MOLA Oracle database.

5.8.2 Charred remains

Charcoal fragments, generally small, were seen in almost all the samples, and were abundant in several. Other charred plant remains were relatively rare in most samples, but a very large assemblage of charred plant remains was seen in sample {3} from fill [217] of the L-shaped ditch. Although only a small sub-sample was scanned it was obvious that the whole flot included thousands of charred cereal grains, the majority apparently from free-threshing wheat (*Triticum aestivum/turgidum/durum*), and many rachis (chaff) segments, also from wheat. In addition hundreds of charred peas (*Pisum sativum*) were seen, suggesting that the whole assemblage may have resulted from the accidental burning of foods in storage. A smaller number of cereal grains was seen in the underlying deposit [218] {2}, and several other samples contained a few (<10) charred grains and seeds of wild plants.

5.8.3 Waterlogged and mineralised remains

Preservation of organic remains was very variable, with quite large assemblages surviving in some of the moat fills and those of cesspit fill [251] {31} and well fill [204] {1}, while few were seen in most fills of the L-shaped ditch. Of the five samples from fill [283] in the east-west part of the L-shaped ditch (sgp5) only {5} and {10} produced flots, each of which contained quite a varied assemblage of waterlogged plant remains. The majority of these were seeds from plants of disturbed habitats, including cultivated and waste ground, with occasional remains of wetland plants. Several fig (*Ficus carica*) seeds and charred cereal grains in {5} suggest that domestic food waste or faecal matter was occasionally dumped here. A rather larger assemblage was present in sample [218] {2}, from the north/south arm of the same ditch. It included a little domestic food waste in the form of sloe (*Prunus spinosa*) stones, grape (*Vitis vinifera*), fig and hemp (*Cannabis sativa*) seeds. Very many seeds of blackberry (*Rubus cf. fruticosus*) may have come from the same source, or from brambles growing in the ditch. Seeds of wild plants again came mostly from plants of disturbed ground, including weeds of cultivated and waste places. Although very occasional seeds of marginal wetland plants were seen in all these samples there was little evidence that the ditch contained water on a regular basis.

Samples {20} to {24} ([275] to [277]), from the sequence through the Tudor moat fills (sgps 11 and 12, section 4), again contained quite diverse plant assemblages, almost certainly including dumped material as well as naturally occurring remains. Further work will be necessary to detect changes through the sequence with any reliability, but there were some indications that seeds of nitrogen-rich waste ground, such as white horehound (*Marrubium vulgare*) and stinging nettle (*Urtica dioica*) may have been particularly prevalent towards the top of the sequence, with arable weeds and aquatic plants more common in the lowest fill {24}, perhaps suggesting that the moat

contained water when this lowest deposit was accumulating. Once again, occasional remains of food plants were seen, including fruits of beet (*Beta vulgaris*) in three samples. This lowest fill also contained a large number of flax (*Linus usitatissimum*) seeds, perhaps indicating that the moat was used for flax retting.

The lower fill, [251]{31} of a cesspit cut into the moat produced a large waterlogged plant assemblage containing many wood and leaf fragments, as well as a few broken pieces of acorn (*Quercus sp.*) cup, suggesting that trees, or at least an oak tree, may have stood close by. Human waste include stones and pips of several fruits, small pieces of hazelnut (*Corylus avellana*) and walnut (*Juglans regia*) shell, and a few fragments thought to come from a large Cucurbit, probably marrow or pumpkin. Very few plant remains were preserved in sample {30} from the overlying deposit (lower and upper fills sgp14), or in [280] {4} from a drain fill (sgp19)

Another interesting assemblage was seen in well fill [204]{1}, in which many of the plant macrofossils were mineralised and included remains of a number of common fruits but also seeds of black pepper (*Piper nigrum*) and allspice (*Pimento dioica*). Both are from exotic plants and would have been imported from South-East Asia and the West Indies respectively. A possible seed of leek (*Allium porrum*) was also seen (sgp30).

5.8.4 Faunal remains

Invertebrate remains in bulk samples were generally scarce, but occasional beetle fragments were recorded from samples {5} and {2} from the L-shaped ditch, {20}, {22} and {24} from the moat fills, and a very large assemblage was present in cesspit fill {31}. Small assemblages of molluscs were also found in samples {22} and {23}.

Water flea eggs (Cladoceran ephippia) were seen in most of the samples from the moat and (aquatic) caddis fly larval cases in sample {24}, suggesting that the moat contained standing water, at least periodically, during the deposition of these sediments.

Fish bones were present in samples from the cesspit fills [250] and [251] (sgp14) and in well fill [204], and a mole humerus was identified from the latter (A Pipe, pers comm).

5.8.5 Artefactual remains

Fragments of ceramic building material were found in the majority of samples, and were abundant in samples {1} and {2}. Sample {1} also contained large amounts of iron objects and clinker while sample {3} was rich in pottery, glass and copper objects. Relatively small amounts of these artefacts were seen in other samples.

5.8.6 Assessment work outstanding

None.

5.8.7 Recommendations for analysis

(Analysis tasks 28–32, section 8.3.6)

Samples from the L-shaped ditch {2}, {5} and {10} and moat {20} and {24}, along with insect remains, where they have survived. Should be examined with a view to providing information on the surrounding environment and how that relates to local activities and industries. For instance more detailed study of sample [277] {24},

should confirm whether the moat was being used for retting flax, prior to the extraction of fibres for the manufacture of linen cloth. This needs to be considered in relation to Hemp seeds found in sample [218] {2}, the north arm of the L-shaped moat. Were they evidence of hemp grown for fibres? The potential for further analysis of the archaeobotany samples is discussed in section 6.

In order to fulfil the research aims of the project it is recommended that the following samples should be fully recorded and analysed.

details	section	SGP	context	Sample
L-shaped ditch/moat fill (south)		5	283	5
L-shaped ditch/moat fill (south)	e facing section 1	5	283	10
L-shaped ditch/moat fill (north)	n facing section 5	6	217	3
L-shaped ditch/moat fill (north)	n facing section 5	6	218	2
moat silt (S. arm)	w facing section 4	11	277	24
moat silt (S. arm)	w facing section 4	11	276	23
moat silt (S. arm)	w facing section 4	11	276	22
moat sediment (W arm)	w facing section 4	12	275	20
moat sediment (W arm)	w facing section 4	12	275	21
brick cesspit cut into moat		14	251	31
infill well, W. of Garden St - houses		30	204	1

Table 12 Recommended environmental samples for analysis

5.8.8 Recommendations for illustrations

None

5.9 The animal bone

Table 13 Contents of animal bone archive

	Weight (g)	No. fragments	No. boxes
Animal bone (hand-collected)	17340	639	9 standard archive boxes
Animal bone (wet-sieved)	1500	747	1 standard archive box

5.9.1 Introduction/methodology

This report, quantifies, identifies and assesses the animal bone from contexts [199] – [283]. Hand-collected animal bone from contexts [199] – [283] and wet-sieved animal bone from samples; [204] {1}, [217] {3}, [218] {2}, [250] {30}, [251] {31}, [275] {21}, [280] {4}, [283] {5}, [283] {10} and [283] {12} was recorded directly onto Excel spreadsheets 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. All identifications referred to the MOLA reference collection; and Schmid 1972. Fragments not identifiable to species or genus level were allocated to family level or an approximate category, particularly 'cattle-sized' or 'sheep-sized' as appropriate. Estimation of age followed Schmid 1972, 75.

5.9.2 Summary, post-medieval

This assemblage provided 18.840 kg, 1386 fragments, of well-preserved hand-collected and wet-sieved animal bone with a minimum fragment size generally in the 25-75 mm range. The bone groups mainly derived from ditch, drain and pit groups dated from early post-medieval to the 19th century.

The bulk of the hand-collected bone derived from adult ox (cattle) *Bos taurus* and sheep/goat *Ovis aries/Capra hircus* with smaller groups of pig *Sus scrofa*, chicken *Gallus gallus*, goose, probably domestic goose *Anser anser domesticus* and mallard or domestic duck *Anas platyrhynchos*; single fragments of horse *Equus caballus* [205], [218]; and occasional recovery of dog *Canis lupus familiaris* [217], [258] and [276].

Game species comprised wood pigeon *Columba palumbus* [283] {5}, fallow deer *Dama dama* [216] and rabbit *Oryctolagus cuniculus* [203], [204], [217], [250], [251], [258], [276] and [283].

Fish produced a more diverse group including marine/estuarine, freshwater and migratory species; ray, probably thornback ray or roker *Raja clavata* [258] and [283], herring (family) *Clupeidae* [251] and [283] probably herring *Clupea harengus*, cod *Gadus morhua* [204], [217] and [276], whiting *Merlangius merlangus* [283], plaice or flounder *Pleuronectidae* [217], mackerel *Scomber scombrus* [283], gurnard *Triglidae* [217] and [283]; carp (family) *Cyprinidae* including dace *Leuciscus leuciscus* [283]; and salmon (family) *Salmonidae* [283] and eel *Anguilla anguilla* [204],

Wet-sieving also produced a sparse fauna of small wild vertebrates derived from frog or toad; [217] {3}, [218] {2} and [251] {31}; hedgehog *Erinaceus europaeus* [218] {2}; field or short-tailed vole *Microtus agrestis* [218] {2} and [251] {31}; with unidentifiable fragments of mouse or vole [204] {1}, [217] {3}, [204] {1}, [217] {3} and [251] {31}.

There was no recovery of human bone.

There were no foetal or neonate animals and only very sparse recovery of very young animals; infant calf [217], [250], [251], [276] and [280]; infant sheep/goat [251]; and infant pig [276].

Clear tool mark evidence of butchery was noted on cattle and sheep/goat with occasional examples on chicken and rabbit. There was no tool mark evidence for working of horn, bone or antler. Evidence of rodent gnawing was noted on sheep-sized long bone from [199] only; there was no evidence for canine gnawing or for burning, pathological change or any other modification.

The largest and most significant groups are:-

5.9.2.1 The L – shaped ditch (small moat)

Fills [216], [217], [218] and [283] of this feature together produced 5.71 kg/347 fragments of animal bone derived mainly from cattle and sheep/goat with occasional recovery of pig [216] and [218], fish, poultry and game. Recovery of poultry comprised occasional fragments of adult chicken [216] and [283]; and goose [217] and [283]. Game produced a single metatarsal (hind-foot) of fallow deer [216]; with occasional fragments of wood pigeon [283] and rabbit [217] and [283]. Fill [217] also included an incomplete skeleton of an adult dog; fill [218] included a fragment of adult horse innominate (pelvis), one of only two fragments of this species from the whole assemblage.

Fill [283], produced a small, 0.60 kg/83 fragments, but very distinctive and diverse group derived, particularly in sample {5}, from marine, freshwater and migratory fish,

poultry and game, with a few unidentifiable fragments of cattle- and sheep-sized rib and long bone.

5.9.2.2 *The moat*

Fills [258] and [276] of this feature produced 6.60 kg/280 fragments of animal bone derived predominantly from the better meat-bearing elements of adult cattle and sheep/goat with comparatively minor recovery of marine fish, poultry, pig and game. Fish produced fragments of roker or thornback ray and cod; poultry produced occasional fragments of chicken [258], [276] and goose [276]; pig produced single fragments of infant, juvenile and adult pig [258], [276]; game produced occasional fragments of rabbit from [258] and [276].

5.9.2.3 *Cess-pit fills*

Cess pit fills [250] and [251], probably dated as 17th century, produced 5.55 kg/540 fragments of animal bone derived predominantly from adult and juvenile cattle and sheep/goat with occasional recovery of juvenile pig [250], adult chicken from [250] and [251], adult goose from [250] and infant calf from [250] and [251]. Cattle and sheep/goat were represented mainly by elements of good meat-bearing quality; vertebra, upper and lower leg, but with some recovery of head and foot elements. Chicken and goose mainly produced elements of prime meat quality with some recovery of foot elements indicating primary carcase preparation. Recovery of other species was extremely sparse; fish produced a single vertebra of herring (family) from [251]; game produced elements of at least two rabbits, an adult and a juvenile, from [250] only. Recovery of local wild fauna comprised fragments of juvenile frog or toad and an adult field or short-tailed vole, both from [251]. Fill [258] also included a fragment of a dog head element.

5.9.3 *Assessment work outstanding*

There is no outstanding assessment work.

5.9.4 *Recommendations for analysis*

(Analysis tasks 36–41, section 8.3.8)

Comparative analysis of animal groups in three main assemblages, L-shaped ditch, moat and cess-pit fills has the potential to reveal spatial and temporal distribution patterns of consumption and disposal, dietary preference and social status. The potential for further analysis of the animal bone is discussed in section 6.7.

5.10 Conservation

An assessment of the conservation needs for registered finds was given previously in Crossrail Stepney Green Excavation TWB report (CRL Doc No C261-MLA-X-RGN-CR140-50047 v3). There are new recommendations for cleaning in advance of photography see 5.7.5.

6 Potential of the data

6.1 Realisation of the original research aims

The overall objectives of the investigation were to establish the nature, extent and state of preservation of surviving archaeological remains impacted upon by the development.

Specific Original Research Aims were addressed as follows:

- *Original Research Aim -- Recover archaeological remains of prehistoric date relating to occupation of the area;*
Realisation – The only evidence of prehistoric dates were a few undiagnostic sherds in secondary contexts. There may have been prehistoric occupation and use of this area but the evidence has been obscured by subsequent truncations.
- *Original Research Aim -- Recover archaeological remains of medieval date relating to the expansion of Stepney Green;*
Realisation – remains of Stepney earlier than 1400 were in the form of residual finds in later contexts. With portable objects, they may have travelled subsequently to site. Building material, however, suggest that there was a phase of medieval building whose structural remains were swept away with by later construction.
- *Original Research Aim -- Recover archaeological remains of post-medieval, or earlier date relating to Worcester House or its predecessor;*
Realisation – substantial remains of Worcester House were recovered and investigated, from the 15th- to the 18th-century. Remains from this period were widespread across all of the site, including Stepney City Farm area. Also a contemporary brick drain was discovered east of a wall presently considered to demarcate the eastern edge of the Worcester House estate.
- *Original Research Aim -- To establish the presence or absence of archaeological remains surviving below the foundations of buildings shown on the 19th-century Ordnance Survey map;*
Realisation – not only building remains but wells and cess pits were excavated that are thought to relate to buildings on 19th- and early 20th-century OS maps.
- *Original Research Aim -- Record the character and extent of archaeological remains identified during trial trenching. Preserve in situ any archaeological remains identified by evaluation.*
By means of extensive archaeological monitoring, construction and ancillary operations had minimal impact on buried archaeological remains. Where remains were affected, they were fully recorded

Selected research themes derived from *A Research Framework for London Archaeology 2002* (MOL 2002) are included in the *WSI* (Crossrail 2010a) and are set out below.

Evidence relating to the religious buildings and history of the site may contribute to the following research themes:

- *Original Research Theme -- To examine the changing roles and diversity of religions in London society at different times;*

Realisation – the size and scale of religious institutions on this site is an indicator of their role. The survival of remains, such as those of the former Baptist College Chapel, into the 20th-century, allows personal memories to be compared with archaeological remains, and living testimony of the importance of religious buildings in general social life, such as that of teenagers playing badminton at “Minty’s” (the former Baptist College Chapel, Vera Hulton pers comm.)

- *Original Research Theme -- To identify the extent to which religious minorities and non-conformists had a distinct material culture in London, and developing archaeological models for future analysis.*

The excavated material has potential to address this in analysis. The integration of environmental and finds data with archaeological structures and features has the potential to map profound social changes, and compare leisure pursuits

6.2 General discussion of potential

Remains earlier than the 15th century are limited to residual finds such as the medieval spurt <85>. Their potential is limited to indicating the possibility of earlier occupation and structures present on the site, but this was not substantiated by any structural evidence.

The record of stratified structural remains has the potential to map changing landuse patterns across the site through a period from the 15th century to the impact of WW2. The proximity of the watercourse known as the Black Ditch, or Common Sewer, together with its location near to strategic transport communications, the City of London and Limehouse, and Wapping, docks, contributed to Stepney’s desirability as a rich “dormitory detached village-suburb” for London. A series of grand houses were clustered around the village, which acted as the centre for vast manorial landholdings. The remains on this site cover the area not just of the moated house, but also its late medieval gardens and/or park. Key issues from the excavated record include the mapping through time in changes in landuse and activities in the wider area of Worcester House.

The stratified sequence provides evidence from the 16th- to the 19th-century. This coincides with the occupancy of the 1st Marquis of Worcester, Henry Somerset, and ancestor of the Dukes of Beaufort and an important catholic convert, who funded Charles I. The period also coincides with the occupancy by William Greenhill, member of the Westminster Assembly of Divines, who established the Stepney Meeting as well as (probably) being imposed on the living of St Dunstan’s by Cromwell followed at Worcester House by Matthew Mead, who may have been responsible for building the first Stepney meeting House, and his son Richard Mead who became a famous doctor. There is the potential to relating finds to these historical figures. The fine glassware may have been the property of Henry Somerset, and the mercury jar part of Richard Mead’s medical equipment, for example.

The comparison with surviving moated mansions of the Late-medieval/Tudor period has a great deal to add both to the interpretation of structural remains and for the relationship of faith, politics and social interpretations.

There is significant potential to synthesise the stratigraphic and finds records with historical documentary sources. The group value of the remains is enhanced by the

coherent set of remains between perimeter walls. The historical significance of the site is at times increased by figures who acted upon the national political and religious spheres, at a time of profound social changes.



Photo 33 Late-medieval and Tudor mansion, and Catholic recusant stronghold

Similarly, at the other end of the social scale, the division of the property into small dwellings during the 19th century allows a comparison to be made between individual cess pits or well fills and persons recorded at those addresses in census returns. The site has the potential to illustrate larger themes in social history as it follows the conversion of a privileged, enclosed and inward-looking private residence, through to relatively more open, outward-looking religious and institutional buildings, through to the congested world of 19th-century London, and even the effect of war and the long recovery of the East End following it, culminating in the creation of the City Farm.

6.3 Documentary records – assessment of potential

The potential for historic documentary research is great. The following historical records which may be accessed include:

Will of John Fenne, Stoke Fishmonger and Merchant of the Staple of Calais of London, November 1474 PROB 11/6/259

John Fenne, son and heir of John Fenne late merchant of the Staple of Calais to Richard Algor of London, girdler: Indenture of sale of a barn and garden in Stepney: Middx. 1518-19 E 210/10299 and: Quitclaim of a barn, etc., in Stepney (1494/5) E 210/5874

Will John Fenne (John Affenne, John at fen), son and heir of John Fenne Prev Guildhall MS 9171/10 f. 40v (Now at London Metropolitan Archive, possibly DL/C/B/004/MS09171/010)

Will of Matthew Mead, Gentleman of Stepney, Middlesex, 01 December 1699 PROB 11/453/253

'Survey of Stepney Meeting'; ground plan by H. Smith, architect, of 14 Fenchurch Street; 23 Jun 1825. W/SMH/A/23/1 1825

"Design for Enlarging Stepney Meeting"; plans, sections and elevations, by H. Smith, undated [c.1825] W/SMH/A/23/2 [c.1825]

"Design for the Proposed Enlarging of Stepney Meeting No. 2"; plans, section and elevations, by H. Smith, undated [c.1825; this is a different scheme to the above.] W/SMH/A/23/3 [c. 1825]

"Design for Vestries to Stepney Meeting No. 1"; plans, sections and elevations, by H. Smith, undated [c.1825] W/SMH/A/23/4 [c. 1825]

"Design for Vestries to Stepney Meeting"; plan, sections and elevations, by H. Smith, undated [c.1825; this is a different scheme to the above] W/SMH/A/23/5 [c. 1825]

Details of doors in 'fence wall', by H. Smith, undated, c.1825. W/SMH/A/23/6 [c. 1825]

Basement plan of Stepney Meeting House, undated, on tissue, [damaged]; Searle, son and S elf, Architects, Bloomsbury Place [c. 1862] W/SMH/A/23/16 [c. 1862]

Ground plan of Stepney Meeting Schools, undated; Chas G. Searle and Sons, Architects, 66 Ludgate Hill, undated. W/SMH/A/23/17 n.d

Plans, sections, elevations and details of partitions, Stepney Meeting Schools; 2 items, on tissue, Searle Son and Hayes, Architects, 66, Ludgate Hill, undated. [1877; see W/SMH/A/14/4] W/SMH/A/23/18 [1877]

Draft ground plan, showing drains, of temporary school premises, Garden Street, Stepney, London School Board, undated. W/SMH/A/23/19 n.d

Trustees' book, (1634)-1797; contains a schedule of deeds and papers belonging to the Trustees of Stepney Meeting covering the period 1634-1750, with additions in pencil to 1797; a copy of the Trustees' resolutions made between, 7 Mar 1749 and 25 Nov 1775; a copy of Mr Bowles' accounts for the receipts of rents, 1749-17770; Trustees' accounts after John Adams was appointed Receiver, 1771-1775; a copy of Mr Bowles' accounts with the tenants of the Trustees, 1750-1770; accounts with the tenants after John Adams was appointed, 1771-1775; and accounts of sums of money paid to Samuel Brewer, 1750-1775. W/SMH/A/12/2 (1634)-1797

Draft notes on title deeds, (1676-1804), undated and various schedules of deeds, 1920s and undated. W/SMH/A/13/8 (1676-1804); 1920s; n.d

Draft schedule of deeds re the school buildings (1699-1906), undated. W/SMH/A/13/9 (1699-1906); n.d

Notes of the ownership of land in Garden Street, Stepney, undated, [191?] W/SMH/A/13/21 [191?]

Memorandum of agreement for tenancy of No. 2 Room, Stepney Meeting Hall, Garden Street, 14 Mar 1925. W/SMH/A/13/25 1925

Document certifying that the Rev. John Minty may reside in 40, Lawrence Road, London E3, owned by the Deacons of Stepney Meeting House, 7 Oct 1958. W/SMH/A/13/26 1958

Draft notes re events in the Church's history, undated, covers the period 1650-1671. W/SMH/A/25/1 n.d. (1650-1671)

Pamphlet entitled "Stepney Meeting Independents; Story of the First 150 years, from 1644-1796", by T.Wilson Booth, 1913. W/SMH/A/25/4 (1644-1796); 1913

Archives and libraries consulted include The British Museum, British Library manuscripts, National Archives (Kew), The London Metropolitan Archive and Tower Hamlets Local History Library and Archives. Although 16th- and 17th-century plans and maps exist they either have a very limited view of the property (Mercers have an early 16th-century plan but it only shows the garden wall on the southern perimeter of the site, for instance) or the representation of the property is limited to a standardised representation of buildings, and does not represent the buildings on the ground. The first map or plan that attempts an accurate representation is that of Joel Gascoyne (var. Gascoigne) 1702/3 'Actual Survey of the Parish of St Dunstan'

6.4 Building material, pottery and finds

The large number of brick samples collected has the potential to help with the identification and dating of the numerous brick walls from the site. Evidence for internal decorative features is provided by the floor and stove tiles. The roofing material used on the buildings was initially peg roofing tile, but pantiles were used in a later period.

Most of the early post-medieval (16th- and 17th-century) registered finds appear to be directly related to the use and disuse of the manor house. With the other finds they have the potential to throw light on the life of the inhabitants of the house in the mid to late 16th century, possibly with reference to finds from other manor houses and palaces.

The medieval pottery has potential as dating evidence and can be used to relate the site to the medieval activity evidenced just to the east at Stepney Green (SHS79), where a larger assemblage of slightly earlier date was found (Blackmore 1982, 333-6).

Correlation of the finds and the stratigraphy shows that for the earlier post-medieval period there are useful groups from the moat, the ditch and cesspits [250] and [254], including some substantially complete pots, which can be related to adjacent structures and compared both with each other and with other contemporary features. The overall dating of these assemblages suggests that they might represent a clearance of the property after the death of the Marquis of Worcester in 1644 and/or after the sequestration of the property after the Civil War. As might be expected for the area there is a good range of imports, but despite the apparent status of the site, this is not immediately apparent from the pottery: several redware sherds are from vessels that may have been sold as seconds, and although the paucity of tin-glazed pottery might reflect dating, the clay pipes and glass suggest that this is not the case and that other factors may also need to be considered, such as a decline in the wealth of the owner of the property, or selective disposal, the better pieces being retained and only damaged items being discarded.

There appears to be a hiatus in activity for some 150 years, but there are a number of late 18th to 19th century groups. All the pottery recovered is typical of everyday domestic usage across London in the early to mid 19th century; although such utilitarian household 'china' would have been widely available to households across the social spectrum, there is little of particularly high quality in the sample collected (Pearce 2011). This is further reflected in the types of decoration represented. As such, the pottery can inform on life in the area at this time.

The post-medieval pottery thus has potential as dating evidence and a number of vessels are quite complete and can be reconstructed for illustration and display. The finds can thus be used to offer a comment on the nature of activity in those parts of the site area where they were found, thereby enriching the chronological narrative

and contributing to a better understanding of the history of Stepney. Furthermore, the imported pottery from the site reflects the fact that it lies in an area close to the Thames that was largely occupied by merchants and sailors. Indeed, imported wares are common on all post-medieval sites downstream from the Tower of London, an area increasingly given over to waterfronts and dockyards from the late 16th century onwards. It is currently unclear whether pottery was found during the earlier work on the site of the moated house (WOR85), but other 16th-/17th- and/or 18th-/19th-century assemblages that are broadly contemporary with those from XRV10 have been found just to the east at Stepney High Street (SHS79; Blackmore 1982, 336-43, within Stepney City Farm and part of this site) and along the waterfront directly to the south, for example at Glasshouse Fields (Blackmore in prep), at Butcher Row (Schwab and Nurse 1977), Victoria Wharf, Limehouse (Stephenson 2001; Tyler 2001), and at Old Sun Wharf Narrow Street where an exceptional assemblage of imports was found (OSW94; Jarrett 2005; Killock and Meddens 2005, 3; Meddens 2008). The later groups can also be compared with those from other sites of the same date in east London, such as Stratford Langthorne Abbey (Blackmore et al 2013) and in Whitechapel (Sygrave 2005).

6.5 Clay tobacco pipes

The clay pipe assemblage from XRV10 yielded a large number of marked examples that have good potential for further work aimed at identifying their makers and thereby further refining the dating of the contexts in which they were found. Three pipe makers have been identified at assessment as having connections with Stepney: S Stoltie (?), Michael Keens and John Ford, all working in the 19th century. Further local connections, as well as more detail on the known pipe makers, may be uncovered at assessment by examining published material on clay pipes from other sites excavated in Stepney and through consulting documentary records, including trade directories.

Given the size and variety of the pipe assemblage, further work should aim to compare the finds from XRV10 with those of similar date from other sites in this area of London, with a view to examining local production and distribution networks. There is also potential for examining the clay pipes in relation to other finds, in order to understand their place within the wider context of development and use of the site.

6.6 Botany

The majority of the soil samples contained large and diverse plant assemblages, and further study and analysis of these would contribute substantially to the interpretation of the site. Analysis of the wild and cultivated plants from samples [218] {2}, [283] {5} and [283] {10} will provide information about the natural environment in and around the L-shaped ditch, and samples [275] {20} to [277] {24} will give similar information from the moat. Study of insect and mollusc remains from the same samples, where they have been shown to have survived, will assist in this.

More detailed study of sample [277] {24}, should confirm whether the moat was being used for retting flax, prior to the extraction of fibres for the manufacture of linen cloth.

Apart from the charred grain from [217] {3}, information on the diet of the site's inhabitants during the Tudor period is likely to be limited, although more detailed study of the samples will no doubt identify a wider range of food species. The large assemblages from the cesspit sample [251] {31} and well [204] {1} will demonstrate the much wider range of exotic and home-grown foods available during the later post-medieval period.

6.7 Animal Bone

Analysis and comparison of the animal bone groups recovered in the three main assemblages; the L-shaped ditch, the moat and the cess-pit fills, will indicate possible spatial and temporal patterns of consumption and disposal, perhaps linked to dietary preference and social status.

In view of the scarcity of amphibians and small mammals in the wet-sieved sample groups, there is little potential for interpretation of local habitats and conditions at more than popular or display board level.

7 Significance of the data

After discussion and advice from the English Heritage Inspector of Ancient Monuments, it was agreed that the aspects of the archaeological remains that pertain to Worcester House and King John's Tower are of national significance (high importance). They compare with above-ground remains of a similar moated house at Scadbury Manor, proposed for addition to the Schedule of Ancient Monuments, and comply with the criteria set out for scheduling.

The EH National Research Agenda notes that the themes it discusses 'are by no means exhaustive, but are offered as a general framework upon which to construct specific research designs'. Whilst much of the focus of the document is on the move from single-site to multi-site based synthesis it is also made clear that the 'multi-site synthesis advocated...will not abrogate the need for particular cases of site-specific research and publication'.

Similarly the *Capital Concerns* document notes that the nine themes are 'presented as outline sketches, neither exhaustive individually nor prescriptive as a set' (p7).

The site has the potential to illuminate two profound transformations in London, and Stepney's, history: that is the nature and character of the Tudor/17th-century transformation of aristocratic and medieval social structures, in favour of more commercial interests. A change which was intrinsically bound up with the growth of literacy and the democratisation of religious ideology in the reformation, which – in turn – gave way to a more objective scientific enquiry.

The waterlogged, mineralised and charred plant assemblages have local significance in relation to the understanding of the area and its vegetation, and the diet and activities of its inhabitants, during the Tudor and later post-medieval periods.

The clay pipes have an important role in clarifying the site sequence and in understanding the social context in the 19th century in particular. Their significance is not limited to the local sphere alone and they have a wider regional importance in relation to clay pipe manufacture, distribution and use at a regional level.

The hand-collected animal bone is of limited local significance only, particularly in terms of meat diet, with emphasis on the skeletal representation and age-selection of cattle, sheep/goat, pig, fish, poultry and game. There is no wider significance or significance in terms of local habitats.

8 Updated Project Design –Publication project: aims and objectives

8.1 Revised research aims

The following Revised Research Aims have been derived from the Assessment:

- RRA1. Synthesise finds and environmental data, structural remains and deposits with historical records tell of the distribution and scope of activities across the site, through time
- RRA2. Locate the likely use and position of shaped bricks
- RRA3. Refine the dating of building material in the light of a synthesised stratigraphic sequence of land use
- RRA4. What is the source of the medieval pottery? Is it from the property known as King John's Court, or the Great Place?
- RRA5. How does the medieval pottery relate to that found in 1979? What is the reason for the different periods represented in the two assemblages?
- RRA6. Was any pottery recovered from the excavation of Worcester House (WOR85)? If so, how does it compare with the present finds?
- RRA7. What is the source of the post-medieval pottery? Is it from the property known as Worcester House?
- RRA8. How does the post-medieval pottery relate to that found in 1979?
- RRA9. What is the reason for the difference between the status of the 16th-/17th-century property and the pottery found on the site?
- RRA10. Do the cesspit groups and the other larger groups represent a clearance of the property after the sequestration of the main property after the Civil War?
- RRA11. Do any of the 17th-century groups derive from the smaller properties created during the sub-division of the original property?
- RRA12. What is the source of the 19th-century pottery? Can the different groups be related to different properties?
- RRA13. If so, how does their composition reflect the nature of the buildings they are associated with?
- RRA14. How does the quantity and range of imported pottery compare with that on sites in the general area?
- RRA15. Identify the names of clay pipe manufacturers from marked examples and refine dating accordingly
- RRA16. Compare the marked clay pipes with other examples from nearby sites. How does this affect distribution patterns of the products of known manufacturers?
- RRA17. Consider the clay pipes in relation to other finds from the same contexts.
- RRA18. What can the charred, waterlogged and mineralised plant assemblages tell us about diet and status on the site? How do they change through time?
- RRA19. Can the plant assemblages provide any information about past activities and land-use on the site, especially the use of the moat for flax processing?
- RRA20. What can the plant assemblages tell us about the vegetation in and around the ditch and moat, and is there any evidence of changes through time?
- RRA21. What are the characteristics of the local meat diet in terms of the selection of species, carcass-part, age-group and butchery technique?
- RRA22. What does comparison of the bone groups from the L- shaped ditch, the moat and the cess-pit fills indicate about the intra-site distribution of consumption and waste disposal?

8.2 Preliminary publication synopsis

Worcester House has played a role in national political events and had a lingering impact on the local landscape, with both Garden Street and King John Street named after it. The remains of an inward-oriented, defended, moated manor house and its transformation to an externally oriented, ideologically motivated, college, together with its subsequent transformation to an inner London suburb, from what had been a detached dormitory village, illustrates profound changes that took place from the wars of the Roses to the present day. Publication of the results of work carried out with the area of Stepney Green is best suited to a book within the Crossrail series. The chronological development of the area will be traced ending in a transcription of collected oral histories relating to 20th-century Stepney Green and its non-conformist identity.

Working title: Worcester House medieval moated mansion to Stepney City Farm
Principal Author: David Sankey
Format: Crossrail book series

Total word count: 20,000 max

Total figure count: max 40

stratigraphic photographs and drawings (location plans, colour phase plans, reconstruction of buildings, aerial photography, events/people, finds illustration)

Themes/sections:

Introduction (1,000 words)

Background to excavation – historical background ref to Prehistory (1979 High Street excavation)

Chapter 1 Medieval and Tudor moated mansion (3,000 words)

Worcester House – the Moated Mansion, history of area as shown by historical maps, images. Short text and images of medieval, late 16th and 17th finds in relation to the status of this household. Life in a late-medieval / Tudor wealthy household. Broader theme: Catholic Henry Somerset in a protestant heartland – character of the area in the early post-medieval period and influence of local residents

Chapter 2 The Baptist College (2,500 words)

- The influence of this institution on the area and its status. Who funded the building of the Stepney Meeting House/New Meeting House? Local residents of influence? How and why did the area transform a rich catholic private household to protestant puritan institution and how did this affect the area in terms of buildings and society

Chapter 3 19th and 20th-century Stepney (2,000 words)

19th-century development of the area – housing and working areas – sale of Baptist College and growth of inner London suburb. Garden Street, health (cess pits) and cholera, ethnicity and migration?

Chapter 4 Life in 19th-century inner London suburb (1,500 words)

Oral history on life in 20th century Stepney Green with reference to the area with a non-conformist historical background.

8.3 Publication project: task sequence

All work carried out on this project is subject to the health and safety policy statement of MOLA as defined in Health And Safety Policy, MOLA 2013. This document is available on request. It is MOLA policy to comply with the requirements of the Health and Safety at Work Act 1974, the Management of Health and Safety at Work Regulations 1992 and all Regulations and Codes of Practice made under the Act which affect MOLA operations.

8.3.1 Stratigraphic method statement

1. Check that all the assessment data, including final dating evidence is present on relevant databases and up to date.
2. Define group sequence by arranging subgroups into groups. The groups will be defined using stratigraphic, spatial and chronological analysis, the subgroup matrix and dating evidence.
3. Map subgroups to groups on the MOLA ORACLE database with description at a rate of c 200 subgroups per day. Create group matrix.
4. Define land use sequence by arranging groups into identified buildings and other structures create land use diagram and define periods at a rate of c 20 groups per day.
5. Map and describe land uses to the MOLA ORACLE database

8.3.2 Building Material method statement

6. To examine further the likely use and position of the shaped bricks (consultation with brick expert Terry Smith)
7. Compare BM with stratigraphic and other dating evidence
8. Write publication report (journal article, revise for popular book)
9. Finds review

8.3.3 Pottery method statement

10. Liaison with field archaeologist regarding development of stratigraphic interpretation
11. Preparation of report on the distribution of the pottery, with discussion of key groups from moat, ditch and cesspits, and any other groups identified as of interest
12. Consider combinations of pottery and other finds to help refine interpretation and dating
13. Write summaries of medieval and later pottery assemblages by ware type, based on the above
14. Write discussion of the pottery in the local and regional context, addressing the research aims (journal article , extract sections for popular book)
15. Final selection of finds for illustration, liaison re finds illustration/photography and checking of drawings
16. Review text and make corrections
17. Archive deposition
18. Project meetings

8.3.4 Clay Pipes

19. Integrate site phasing site with clay pipes data
20. Identify the makers of marked pipes, and parallels

21. Research the distribution of pipes by identified makers, and compare with other sites in the vicinity
22. Preparation of publication text (journal text and extract for popular book).

8.3.5 Accessioned finds method statement

23. Integration of finds with stratigraphic data
24. Catalogue 80 finds on Oracle
25. Research and write text for journal and/or popular publication
26. Attend finds review
27. Review text

8.3.6 Botanical method statement

28. Scanning, id & recording of plants from 10 rich waterlogged samples
29. Sorting, id & recording of plants from 1 rich charred sample
30. Data entry, production & editing of tables
31. Analysis of results, research and production of text for journal and/or popular publication
32. id Bowling ball wood species

8.3.7 Insect method statement

33. Retrieval of 4 samples from Camberwell, paraffin flotation, packaging and dispatch
34. Liaison with specialist
35. Specialist id insect parts and report on 4 samples

8.3.8 Animal bone method statement

36. Recording onto database
37. Analysis and report production (journal)
38. Report production (for journal and/or popular publication)
39. Review text and archive
40. Selection of bones for display board text/images

8.3.9 Conservation method statement

41. objects for further cleaning and investigative conservation, include:
<94> [251] Bone handled knife. ?Clean for photography/display.
<22> [204] Oval brooch (pin missing) with ?amber or onyx cameo. ?Clean brass frame for photography/display. Identify cameo material

8.3.10 Graphics method statement

42. Geomatics: georeference relevant historic maps with site plans to locate building survey records in relation to archaeology.
43. Geomatics: GIS10/CAD preparation of phase plans and figures
44. DO Preparation of final publication figures to include stratigraphic figs and maps
- 45: DO Finds illustration
- Up to 2 items of ceramic building material
- Up to 15 pottery vessels
- Up to 6 clay tobacco pipes
- Up to ** accessioned finds

- 46: Head of Graphics design, layout, typeset and production management
- 47 DO Purchase of external images

8.3.11 Photographic method statement

- 48 Studio photography of artefacts
- 49 Preparation of stratigraphic photographs and external images for publication

8.3.12 Documentary research method statement

- 50 Transcribe ancient wills and agreements into modern English, after securing copies of originals from NA and LMA
- 51 digitise 1 OS map + Horwood and Gascoyne (as Rocque, already digitised) to use as backdrop to Archaeology)
- 52 Compare 19th-c documents of Congregational Church and schools with structural remains
- 53 Locate cesspits on OS maps compare with Census returns
- 54 Book and arrange archive visits
- 55 Further research of archive documents, select archive images for publication
- 56 Integrate documentary work into publication text

8.3.13 Integration of publication text method statement

- 57 compile final texts with integrated results of finds and environmental analysis and historic documents/oral history
- 58 Organise, record and transcribe oral histories
- 59 Check images and captions, and textual integration
- 60 Proof reading by author
- 61 Archive preparation and deposition

8.3.14 Project management method statement

- 62 Project management
- 63 Crossrail liaison and management
- 64 Production management
- 65 Managing editor to edit, copy edit and proof read
- 66 Production costs

9 Publication project: resources and programme

Task No.	Staff	Task Description	person days
Stratigraphic tasks			
1	D Sankey	Check assessment data	1
2	D Sankey	Define group sequence	2
3	D Sankey	Map subgroups to groups on ORACLE	1
4	D Sankey	Define land use sequence	1
5	D Sankey	Map and describe land uses on ORACLE	2
Ceramic Building Material			
6	I Betts	Consult and discuss the orig location of shaped bricks	0.25
7	I Betts	The building material assemblage compared with the stratigraphy etc.	1.25
8	I Betts	Write publication report	3.5
9	I Betts	Attend Finds Review	0.25
Pottery			
10	L Blackmore	Development of stratigraphic interpretation	0.25
11	L Blackmore	Preparation of report on the distribution of the pottery, with discussion of key groups from moat, ditch and cesspits, and any other groups identified as of interest	5
12	L Blackmore	Examine combinations of pottery and other finds to help refine interpretation and dating	1
13	L Blackmore	Write summaries of medieval and later pottery assemblages by ware type, based on the above	2
14	L Blackmore	Write discussion of the pottery in the local and regional context, addressing the research aims above	2
15	L Blackmore	Final selection of finds for ill/photo	1.
16	L Blackmore	Review text	1
17	L Blackmore	Archive deposition	0.25
18	L Blackmore	Project meetings	0.5
Clay Pipes			
19	J Pearce	Integrate clay pipe data with site phasing	0.5
20	J Pearce	Identify the makers of marked pipes	1
21	J Pearce	Research the distribution of pipes by identified makers, and compare with other sites in the vicinity	1
22	J Pearce	Preparation of publication text	1
Accessioned Finds			
23	B Richardson	Integration of finds with stratigraphic data	0.5
24	B Richardson	Catalogue 80 finds on Oracle	2.25
25	B Richardson	Research and write text for journal and/or popular publication	2
26	B Richardson	Attend finds review	0.25

27	B Richardson	Review text	0.25
Botany			
28	A Davis	Scanning, id & recording of plants from 10 rich waterlogged samples	7.5
29	A Davis	Sorting, id & recording of plants from 1 rich charred sample	1.5
30	A Davis	Data entry, production & editing of tables	1.5
31	A Davis	Analysis of results, research and production of archive report	8
32	A Davis	id Bowling ball wood species	0.5
Insects			
33	S Matthews	Retrieval of 4 samples from Camberwell, paraffin flotation, packaging and dispatch	1.25
34	Ext	Liaison with specialist	0.5
35	Ext	Specialist time	TBC
Animal Bone			
36	A Pipe	Recording onto database	5
37	A Pipe	Analysis and report production (journal)	5
38	A Pipe	Report production (popular)	2
39	A Pipe	Review text and archive	0.5
40	A Pipe	Selection of bones for display board text/images	1
Conservation			
41	Conservation	Cleaning for photography	2.
Graphics			
42	Geomatics	georeference relevant historic maps with site plans to locate building survey	1.5
43	Geomatics	GIS10/CAD preparation of phase plans and figures. Digitise 1 OS map + Horwood and Gascoyne (as Rocque, already digitised) to use as backdrop to Archaeology	3
44	DO	Preparation of final publication figures to include stratigraphic figs and maps	4
45	DO	Findings illustration	5
46	Tracy Wellman	Design, layout, typeset	10
47	Tracy Wellman	Purchase of external images	TBC
Photography			
48	A Chopping	Studio photography of finds	1
49	A Chopping	Prep strat photos	0.5
Documentary Research			
50	D Sankey	Transcribe ancient wills and agreements into modern English, after securing copies of originals from NA and LMA	5
51	D Sankey	Examine digitised OS map + Horwood, Gascoyne and Roque	2
52	D Sankey	Compare 19th-c documents of Congregational Church and schools with structural remains	2
53	D Sankey	Locate cesspits on OS maps compare with Census returns	1
54	D Sankey	Book & arrange archive visits	1.5
55	D Sankey	Further research of archive documents,	12

		select archive images	
56	D Sankey	Integrate documentary research into text	5
Publication text			
57	D Sankey	Write publication text (journal article, extract for popular book) select strat figs for publication	22
58	D Sankey	Organise, record and transcribe oral histories	3
59	D Sankey	Attend project meetings and liaise	2
60	D Sankey	Review text and proof reading	2
61	D Sankey	Preparation of site archive for deposition	1
Project Management			
62	L Whittingham	Project Management	15
63	E Eastbury	Crossrail management	5
64	T Wellman	Production management	3
65	S Wright/S Hirst	Edit and copy edit	3
66	Production	Production costs	TBC

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

10 Acknowledgements

MOLA would like to thank Jay Carver for commissioning this report for Crossrail, and Bruno Guillaume, Bruno; Glenn Carr, Phillip Mulconroy; Manuel Perez-Beato (Dragados Sisk), Gwyn Williams (G Williams Consultancy Ltd), Fintan Crawley and Brendan Power (Crossrail) for their assistance on site.

The excavation and watching briefs were supervised by the author, who wrote the report, with thanks to Robert Hartle and Sam Pfizenmaier (MOLA supervisors). Also thanks to Maggie Cox (photography), Mark Burch, Catherine Drew, Raoul Bull and Moises Hernandez Corderz (geomatics), Mary Ruddy and Virgil Yendell (geoarchaeology), Ian Betts (Building Material), Lyn Blackmore (pottery), Beth Richardson (the accessioned finds), Anne Davis (plant remains), Alan Pipe (animal bone). The fieldwork was managed by MOLA Contracts Manager Elaine Eastbury and post-excavation by Lucy Whittingham

11 Bibliography

- Atkinson, D R and Oswald, A, 1969 London clay tobacco pipes, *J British Archaeol Assoc* 32, 171–22
- ACAO, 1993 Model briefs and specifications for archaeological assessments and field evaluations, Association of County Archaeological Officers
- Archaeological Archive Forum, 2011 *Archaeological Archives: a guide to best practice in creation, compilation transfer and curation*
http://www.archaeologyuk.org/archives/aaf_archaeological_archives_2011.pdf
- BADLG, 1986 *Code of Practice, British Archaeologists and Developers Liaison Group*
- Blackmore, L, 1982 The pottery, in Mills, P S, Excavations at Stepney High Street, E1, *Trans London Middlesex Archaeol Soc* 33, 330–43
- Blackmore, L, 2005 The pottery, in *Holy Trinity Priory Aldgate, City of London: an archaeological reconstruction and history* (eds J Schofield and R Lea), MoLAS Monogr Ser 24, 227–47, London
- Blackmore, L, 2010 The pottery from Glasshouse Fields (GAF04): distribution and discussion unpub MOLA report
- Blackmore, L, Cowie, R, Jeffries, N, Pearce, J, Pipe, A, Richardson, B, and Stewart, K, 2013 View from a cesspit: a late Georgian household in West Ham Abby, *London Archaeol*, 13.10, 265–70
- Clark, J (ed), 1995 *The medieval horse and its equipment, c 1150–c 1450*, HMSO Medieval Finds Excav London 5, London
- Coysh, A W, and Henrywood, P R, 1982 *The dictionary of blue and white printed pottery 1780–1880*, Woodbridge
- Crossrail, 2005a *Assessment of Archaeology Impacts, Technical Report, Part 2 of 6, Central Section*. Crossrail (doc No. 1E0318-E2E00- 00001)
- Crossrail, 2005b *Environmental Statement*
- Crossrail, January 2006, *Amendment of Provisions 1*
- Crossrail, November 2006a, *Amendment of Provisions 3*
- Crossrail, November 2006b, *Archaeological Programming Assessment, Report Number 1E0318-G0E00-00006 (Rev B)*
- Crossrail, 2008a, *MDC3 Archaeology, Updated Baseline Assessment* (Document Number 20032008-87MB-YYK5)
- Crossrail, 2008b, *MDC – Work Package 3 Archaeology Detailed Desk-based Assessment, Stepney Green Shafts* (Document Number CR-SD-STG-EN-SR-00001)
- Crossrail, June 2010a *C123 Stepney Green Shaft Site-specific Written Scheme of Investigation* (Document No C123-JUL-T1-TPL-CR094_SH005_Z-00001, Revision 4.1)
- Crossrail, October 2010b *Addendum to SSWSI: Trial Trench Evaluation and Detailed Excavation – Stepney Green Shaft* (Document Number: C123-JUL-T1-RGN-CR094_SH005_Z_00001)
- Davey, P 1997 *Clay pipes from Bolsover church*, unpub archive rep

- DCLG [Department of Communities and Local Government], March 2012 *National Planning Policy Framework*.
- DCLG [Department of Communities and Local Government], EH [English Heritage] & DCMS [Department for Culture, Media and Sport], March 2010 *PPS5 Planning for the Historic Environment: Historic Environment Planning Practice Guide*.
- Egan, G, 1998 *The medieval household: daily living c 1150–c 1450*, HMSO Medieval Finds Excav London 6, London
- English Heritage 1991 *Exploring our Past. Strategies for the Archaeology of England*, English Heritage
- English Heritage 1991 *Management of Archaeological Projects (MAP2)*
- English Heritage 1997 *Sustaining the historic environment: new perspectives on the future*
- English Heritage 1998 *Capital Archaeology. Strategies for sustaining the historic legacy of a world city*
- English Heritage 2006 *The Management of Research Projects in the Historic Environment: the MORPHE Project Managers Guide*
- English Heritage Greater London Archaeology Advisory Service, 2009 *Archaeological Guidance Papers 1-5*
- English Heritage 2013 *Management of Research Projects in the Historic Environment, Planning Policy Note 6: Writting Standards and guidance V3.0*
- Gascoyne J 1995 (1703 orig.) *An Actuell Survey of the Parish of St Dunstan Stepney alias Stebunheath Being one of the Ten Parishes in the County of Middlesex adjacent to the City of London*, engraved by John Harris. Facsimile on 8 sheets published by the London Topographical Society / London Guildhall Library, London
- Gaimster, D, Goffin, R, Blackmore, L, 1990 The continental stove-tile fragments from St Mary Graces, London, in their British and European context, *Post-Medieval Archaeol* 24, 1–49
- Higgins, D A and Davey, P, 1994 *Draft guidelines for using the clay tobacco pipe record sheets*, unpub rep
- Holmes, M R, 1951 The so-called 'Bellarmine' mask on imported Rhenish stoneware, *Antiq J* 31, 173–9
- Institute for Archaeologists (IFA), 2001 *By-Laws, Standards and Policy Statements of the Institute for Archaeologists (rev. 2001), Standard and guidance: excavation*
- Institute for Archaeologists (IFA), supplement 2001, *By-Laws, Standards and Policy Statements of the Institute for Archaeologists: Standards and guidance – the collection, documentation conservation and research of archaeological materials*
- Jarrett, C, 2005 The pottery, in Killock and Meddens, 34-52
- J House of Lords 1660, *Journal of the House of Lords: volume 11: 1660-1666 (1767-1830)*, pp. 134-135. URL: <http://www.british-history.ac.uk/report.aspx?compid=14031>
Date accessed: 15 February 2012
- Killock, D, and Meddens, F, with Armitage, P, Egan, G, Gaimster, D, Jarrett, C, Keys, L, Phillpotts, C, Sabel, K, Tyson, R, Willmott, H, 2005 Pottery as plunder: a 17th-century maritime site in Limehouse, London, *Post-Medieval Archaeol* 39(1), 1–91

- Lysons, D. 1795 "Stratford-le-Bow." *The Environs of London: volume 3: County of Middlesex*: 489-502. URL <http://www.british-history.ac.uk/report.aspx?compid=45448>
Date accessed 18th January 2012
- Macpherson-Grant, N C, 1978, The Pottery, in P Bennet, Excavations at 16-21 North Lane, Canterbury, *Archaeol Cant* XCIV 174-190
- McDonnell, K G T, 1978 *Medieval London suburbs*, London and Chichester
- Meddens, F, 2008 *Pirates of the East End*, London
- Mills P.S 1980 Excavations at Stepney High Street, EI in *Trans. London Middlesex Archaeol Soc* 33, 324 – 344
- MOLA 2011a, C261 Early East Section Fieldwork Report Archaeological Evaluation and Watching Briefs Stepney Green Shaft (XRV10), (Document Number: C261-MLA-X-RGN-CR140-50003)
- MOLA 2011b, C261 Early East Section Method Statement for an Archaeological Targeted Watching Briefs and Excavations at (C123) Stepney Green Shaft, (Document Number: C261-MLA-T1-GMS-CRG03-50002)
- MOLA 2011c, C261 Early East Section, Addendum to Method Statement for Archaeological Excavation at Stepney Green Shaft (Phase 2) – Geoarchaeological and Brick Sampling Strategy, Doc. No. C261-MLA-X-GMS-CRG02-500002, 11.08.11
- MOLA 2012 , C261 Early East Section Fieldwork Report Archaeological Excavation and Watching Briefs Stepney Green Shaft (XRV10), (Document Number C261-MLA-X-RGN-CR140-50047)
- Museum of London, 1994 *Archaeological Site Manual 3rd edition*
- Museum of London, 2002 *A research framework for London archaeology*
- MOLA 2013 *Health and Safety Policy*
- ODNB 2007 Anita Guerrini, 'Mead, Richard (1673–1754)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Oct 2007
- Oswald, A, 1975 *Clay pipes for the archaeologist*, BAR 14, Oxford
- Pearce, J, 2011 Finds from Stepney Green (XRV10), unpublished MOLA report
- Schwab, I, and Nurse, B, 1977 Butcher Row, Ratcliffe, E14, *Trans London Middlesex Archaeol Soc* 28, 215–51
- Smith, T P, 1985 *The medieval brickmaking industry in England 1400–1450*, BAR British Ser 138
- Smith, T P, no date *Bricks in 17th-century London*, Museum of London Archaeology, unpublished archive report
- Stephenson, R, 2001 The ceramic finds, in Tyler, 77-82
- Thompson, A, Westman A, and Dyson, T (eds), 1998 *Archaeology in Greater London 1965-90: a guide to records of excavations by the Museum of London*, Archaeol Gazetteer Ser Vol 2, London
- Tyler, K, 2001 The excavation of an Elizabethan/Stuart waterfront site on the north bank of the River Thames at Victoria Wharf, Narrow Street, Limehouse, London E14, *Post-Medieval Archaeol* 35, 53–95
- Schofield, J, 1995 *Medieval London houses*, New Haven and London

VCH 1998, Stepney: Manors and Estates, A History of the County of Middlesex: Volume 11: Stepney, Bethnal Green, (Baker, TFT Editor) pp. 19–52 *Victoria County History*, London

Sygrave, J, 2005 Development and industry in Whitechapel, excavations at 27–29 Whitechapel High Street and 2–4 Colchester Street, London E1, *Trans London Middlesex Archaeol Soc* 56, 77–96

Willmott, H, 2002 *Early post-medieval glass in England, 1500–1670*, CBA Res Rep 132, York

12 Appendix: Recommendations for public display boards

12.1 Ceramic Building material

Examples of decorative brickwork can be paralleled on other high class Tudor buildings and could be discussed as significant evidence of the Tudor Manor house in Stepney.

Various elements of the Tudor house will portray the style of building and rooms found in a Tudor manor House, for example floors would have contained plain glazed floor tiles laid in a chequerboard pattern with lighter yellow coloured examples alternating with darker green and brown glazed examples. The owners of the Tudor building must have had sufficient wealth to install a freestanding stove for heating in at least one room. Stove tiles were initially used in Royal buildings and the homes of the aristocracy. Peg tiles were used to cover the buildings on the site at last until the mid-17th–18th century when pantiles first appear in the substantial numbers in the London area. It is probable, however, that at XRV10 the use of peg tiles for roofing still continued. The XRV10 pantiles could be either Dutch or English. Their importation coincides with the upturn in importation of hard wearing yellow paving bricks from the Netherlands from the mid-17th century. These bricks, which are present on XRV10, were often used to pave courtyards or stable blocks.

12.2 The pottery

Medieval (c 1050-1480)

The medieval history of the site is of importance to its later development. All 22 of the medieval sherds of pottery recovered from the site are residual, but most date to after c 1350/1400 and so presumably derive from the Great Place owned by John Fenne in the 15th century. Six of these sherds were found in the moat ([279]), which also contained a few medieval artefacts. Nine sherds are from ditch [220], while three are from other ditches ([206], [284]) and three are from general surfaces ([259], [404]). It would be possible to write something on the sources of the different wares and the range of forms. Some sherds could be photographed to illustrate the text.

The potential of the pottery would be increased if it were possible to include finds from the Stepney High Street excavation (SHS79), where a larger amount of medieval pottery was found.

Post-medieval: Tudor to early 17th century

Although broken, some vessels are quite complete and have the potential for restoration and display; exhibition panels would be more meaningful if complete vessels could be shown, and while it is possible to provide examples from other sources, it would be of greater interest to the general public to see finds from the site itself.

Four themes can be presented, the first being daily life in the 16th- to 17th centuries. Most of the pottery falls into the functional categories of food preparation, eating and

drinking, and some text could be written on these themes, perhaps with a contemporary recipe. The combination of pottery and glass or utensils in the panel illustrations would help bring this to life. As might be expected for a manor house, there is a good range of imports and tablewares, but despite the apparent status of the site, several of the kitchen wares are pieces that may have been sold as seconds. The most important single group is from cesspit [251].

A second theme is craft and industry. Although this is not well represented, there is a complete base from a brazier, and a complete 'mercury' jar, made in the Mediterranean area, and a story could be built up around the latter, discussing what the contents were and what they may have been used for (eg pharmaceutical recipes, the working of precious metals or alchemy).

The third theme is the development of Stepney as an area occupied by merchants and sailors as the dockland area expanded eastwards along the Thames. The imported pottery (German stonewares, Dutch redwares and tin-glazed ware, French and Mediterranean wares) can be used to illustrate this, although, as above, there is better evidence from the 1979 excavations and from sites closer to the waterfront. A map could be produced to show the docklands area with relevant sites. As above, it would also be possible to present an annotated map with the sources of the pottery. In addition, there is a base from an albarello that could be imported or from Aldgate, the first tin-glazed pottery kiln in London.

Finally, there is the question of when the pottery was discarded, and how it reflects the status of the site. The overall dating of the assemblages from the moat, the ditch and cesspits [250] and [254], suggests that they might represent a clearance of the property following the sequestration of the property after the Civil War. The quality of the pottery might reflect a decline in the wealth of the owner of the property, or selective disposal, the better pieces being retained and only damaged items being discarded.

Table 1 16th- to 17th-century pottery for illustration/photography

Cont ext	Fabric	Form	Decor ation	SC	Illu strate	Disp lay	Reco nstru ct	Comments
216	NIMS	BOWL		1	Y			
217	SNTG	VASE		1	Y			base
250	BORDY	DISH STR	-	3	Y			porringer-type rim, large diameter, flat base
250 251	PMSRY	CAUL	-	32	Y	Y	Y	profile; c 95% whole
250	OLIV	JAR		1	Y			Whole rim
250	TGW	ALB		1	Y			Whole base ?Aldgate
251	BORDY	BRAZ	-	1	Y			whole base
251	DUTSL	CAUL	-	43	Y	Y	Y	profile; most join
251	PMRE	JAR	FACT	15	Y	Y	Y	whole base, neatly faceted, crudely knife-trimmed inside
258	MART	COST		5	Y			
	RAER	JUG	FACE	1	Y			
283	PMSRY	COL	INCD	1	Y			rim, incised+stabbed

								decoration
318	FREC	JUG	FACE	1	Y			Holmes type IV
404	MERC	JAR		1	Y			whole, chipped rim

12.2.1.1 Post-medieval: Baptist chapel

Cesspit [261] contained 135 sherds from 44 vessels. The pottery and other finds from this feature all date to c 1825-30, suggesting that this feature was associated with the Baptist College rather than one of the small house facing Garden Street that replaced it. Most of the group comprises tea wares; none have yet been selected for illustration, but there are several profiles and these finds would make a nice group could be assembled for photography when combined with other objects from the pit.

12.2.1.2 Post-medieval: Tenements

There are a number of late 18th to 19th century groups associated with the small slum dwellings but the best are from cesspits [191] and [251]. All the pottery recovered is typical of everyday domestic usage across London in the early to mid 19th century; although such utilitarian household 'china' would have been widely available to households across the social spectrum, there is little of particularly high quality in the sample collected (Pearce 2011). This is further reflected in the types of decoration represented. As such, the pottery can inform on life in the area at this time. The forms mainly comprise kitchen wares, table wares and sanitary wares, and can be presented with other finds linked to these functions. The most interesting, from the public view, is probably the very unusual two-handled chamber pot with lustre painting and transfer prints in black (TPW3). That inside the base shows a shocked male face with the motto 'Oh what I see / I will not tell'. Outside, two panels between the handles also have text in them; the more complete reads '...ame you'd no.. / .. Safe and oft it use; .. / ..when you in it want to p-s / Remember they who gave you this'.

Table 2 18th- to 19th-century pottery for illustration/photography

Cont ext	Fabric	Form	Decor ation	SC	Illu strate	Disp lay	Reco nstru ct	Comments
57	BONE	JUG CRM	FLOR	1	Y	Y		whole apart from handle; heavy; overglaze painting in <i>famille rose</i> style ?REFW
190	PMR	BOWL 2HFL	-	11	Y	Y	Y	75% whole; large, deep
190	TPW2	BOWL PNCH	LAND	8	Y	Y	Y	95% whole; Zurich pattern in base and in cartouches internally and externally (alternating with roses); all join
190	TPW3	CHP	LUST	14	Y	Y	Y	whole base, part lower body; lustre arcs, face inside 'OH WHAT I SEE I WILL

								NOT TELL'; also 2 external panels with text
199	CHPO ROSE	SAUC	-	2	Y	Y	Y	as [204]; 2 rims
204	CHPO ROSE	SAUC	LAND	9	Y	Y	done	near whole; harbour scene; joins [199]
204	PEAR TR1	SAUC	CHIN	11	Y	Y	done	85–90% whole, Chinese landscape
204	PEAR TR2	BOWL	LAND	13	Y	Y	done	Monopteros pattern; Delhi landscape with girl and buffalo

12.3 Accessioned Finds

Potential for future display boards

There are three possible themes for future display boards: the Tudor manor house, the 18th century Baptist College and finds from Victorian slum dwellings.

Tudor manor house

The displayable/photographable finds fall into the following categories:

Dress and dress accessories – part of a shoe <124> with soles from others; a copper-alloy dress pin (used for fastening clothing and headdresses) <93>. The short lengths of copper wire <91>, <23> may have come from headdresses but no way of proving this. *Horse-related items* – part of spur <85>; horseshoe <64>

Leisure items – bowling ball

Eating and drinking – everyday glass drinking vessels (very fragmentary but possibly <99>, <101>, <103>, <104>), luxury glass drinking vessel fragments <72>, <106>; bone-handled knife <94>. And the pottery of course.

Money – coins <16>, <18>, <87>

Structural – small pieces of window glass eg <78> (green), eg <216>, <74>, <75> (blue). Also a piece of lead window came <97> from [282]. Obviously there are stone mouldings, bricks and floor tiles as well (Ian Betts report)

Baptist College

Is cesspit subgroup 26 related to the college? If so there is a wooden brush <123>, plus small fragments of wine glass eg <128>, <131>, and some thin crumpled cloth <125>.

Victorian slum dwellings

Dress and dress accessories – buttons eg <30>, <31>, <34>, <71>, <15>, jewellery - oval cameo brooch (<22>), glass imitation glass gemstone (<26>)

Eating and drinking small tumbler and wine glass fragments (<127>, <131>), (also a complete clear glass salt and a near-complete pale green decorative Victorian drinking glass <13> from [54] and [57] both 'ashy fill'- same area?)

Decorative items for the home – base of a glass candlestick <25>

Writing - octagonal ink bottle

Leisure - domino <26>

Health - small glass bottle may be medicinal; glass stopper

Industry - pieces from corroded iron and brass blades and tools (<18>, <61>, <59>, <60>) possibly connected with small fragments of possible copper-alloy waste and two crucible fragments <38>.

12.4 Animal Bone

Analysis and comparison of the animal bone groups recovered in the three main assemblages; the L-shaped ditch fills [216], [217], [218] and [283], the moat [258] and [276] and the cess-pit fills [250] and [251], will indicate possible spatial and temporal patterns of consumption and disposal, perhaps linked to dietary preference and social status.

This small but well-preserved hand-collected and wet-sieved assemblage derives from consumption of beef, mutton, pork, fish, poultry and game, with only a very minor contribution from local wild small vertebrate fauna. In view of the good preservation state and diversity of species and carcase-part recovery, the assemblage merits analysis with regard to interpretation of the local meat diet and patterns of waste disposal in terms of selection of carcase-part and age-group; and butchery technique.

There is also definite potential for production of an interesting and informative display board designed to illustrate:-

1. The main component species - cattle and sheep/goat.
2. The diversity of the other important faunal groups – fish, poultry and game
3. The distribution and availability of the fish and game species
4. Evidence for age group and butchery
5. The wild fauna

In view of the scarcity of amphibians and small mammals in the wet-sieved sample groups, there is little potential for interpretation of local habitats and conditions at more than popular or display board level.

13 Appendix: management, delivery and quality control

Museum of London Archaeology is a company limited by guarantee registered in England and Wales with company registration number 07751831 and charity registration number 1143574. The Registered Office is Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED). It has its own independent Board of Trustees but works in partnership with the Museum of London via a Memorandum of Understanding.

MOLA is a 'Registered Archaeological Organisation' with the archaeological professional body, the Institute for Archaeologists (IfA). The *IfA Register* is a rigorous Quality Assurance scheme for archaeologists. In order to be accepted, MOLA has passed a Board resolution to comply with the IfA Code of Conduct and Standards, to demonstrate that compliance through bi-annual re-registration, to submit to regular IfA inspections, and to ensure that all MOLA activities are under the overall direction of a Member grade (MifA) 'responsible post-holder'. The Registered Organisation scheme also provides procedures for investigating and handling of external complaints.

MOLA subscribes to and abides by the general principles and specific terms of the *Code of Good Practice On Archaeological Heritage in Urban Development Policies* established by the Cultural Heritage Committee of the Council of Europe, and adopted at the 15th plenary session in Strasbourg on 8-10 March 2000 (CC-PAT [99] 18 rev 3). In particular to the following points: ...*archaeologists shall be aware of development costs and adhere to agreed timetables* (Para 3 'The Role of the Archaeologist'), with all work '*carried out to written statements setting out standards timetables and costs*' (para 4 *ibid*).

MOLA further subscribes to and ensures that its activities comply with and/or are guided by the following policies, procedures and guidance:

- Appropriate local and regional planning authority archaeology guidance – eg for London: English Heritage, *Archaeological Guidance Papers 1-5* (1998)
- Appropriate Archaeological Research Framework for the region – eg for London: English Heritage Archaeology Division, *Research Agenda* (1997); Museum of London, *A research framework for London archaeology* (2002); and *Historic Environment Research Strategy for Greater London* (in prep. CBA/MoL/Rowsome).
- English Heritage, *Management of Archaeological Projects* (MAP2), (1991)
- English Heritage Centre for Archaeology, *Guidelines* (various)
- Museum of London Archaeological Service, *Archaeological Site Manual* (1994)
- Museum of London Archaeological Service, *Archaeological Finds Procedure Manual* (2006)
- National archive disposition standards including Museum and Galleries Commission, *Standards in the Museum Care of Archaeological Collections* (1992) and Society of Museum Archaeologists, *Towards an Accessible Archaeological Archive: the Transfer of Archaeological Archives to Museums: Guidelines for Use in England, Northern Ireland, Scotland and Wales* (1995)

- Relevant local archive deposition standards, eg for London, Museum of London, *General Standards for the preparation of archaeological archives deposited with the Museum of London*, (2009).

MOLA governance and organisational strategy are determined by the Senior Management Group (SMG), led by the Chief Executive Officer and comprising the Finance Director, the Head of Operations, and three Directors heading the Planning, Development Services and Research & Education divisions. The SMG reports regularly to an independent Board of Trustees, who oversee MOLA's performance and strategic direction. As a charitable company MOLA is monitored and regulated by the Charities Commission.

MOLA is structured to reflect its project orientation. Within Development Services the Director manages the Client Team of c 10 Project Managers (PMs). Individual PMs are responsible for developing new work for MOLA, and thereafter for designing, budgeting and delivering projects for clients. They remain the principal point of contact for the client for the duration of each project.

PMs drive projects through successive stages in accordance with client needs, forming project teams by drawing upon the skills available within MOLA Operations teams. PMs ensure that projects are completed to the highest standards within time and budget. Financial monitoring of projects against budget is undertaken by the Finance Director and PMs at monthly review meetings. Project management software is employed by MOLA Operations to plan resourcing and track and adhere to programme and budget. Project team meetings are held throughout the programme, allowing refinement of research strategies in the light of on- or off-site findings or analysis. Recording, excavation, and sampling strategies may be modified to provide optimum information retrieval in support of the research objectives. At post-excavation phase internal project management is normally devolved to a designated Post-Excavation Project Manager.

All archaeological field work is controlled and monitored on a day to day basis by the on-site Site Supervisor (SS), who reports to the designated Project Manager. Together with PMs and the Field Manager (responsible for H&S) they also liaise as necessary with the client's agents and principal contractors regarding all enabling works and H&S..

All written documentation, eg initial '*written scheme of investigations*' ('*wsis*'), evaluation reports, post-excavation *Assessment Reports* and final publications undergo stages of internal review and sign-off prior to final issue to clients. For both field and reporting work PMs and SSs meet and liaise with the client and the Local Authority's archaeological advisor or officer to ensure delivery according to *wsis* and to review progress, research aims, archaeological procedures, and site strategies as appropriate..

At all stages, what constitutes an appropriate archaeological response will be assessed against criteria of local, regional and national significance and within frameworks of valuable archaeological research topics identified in local or regional Archaeological Research Frameworks (where these exist).

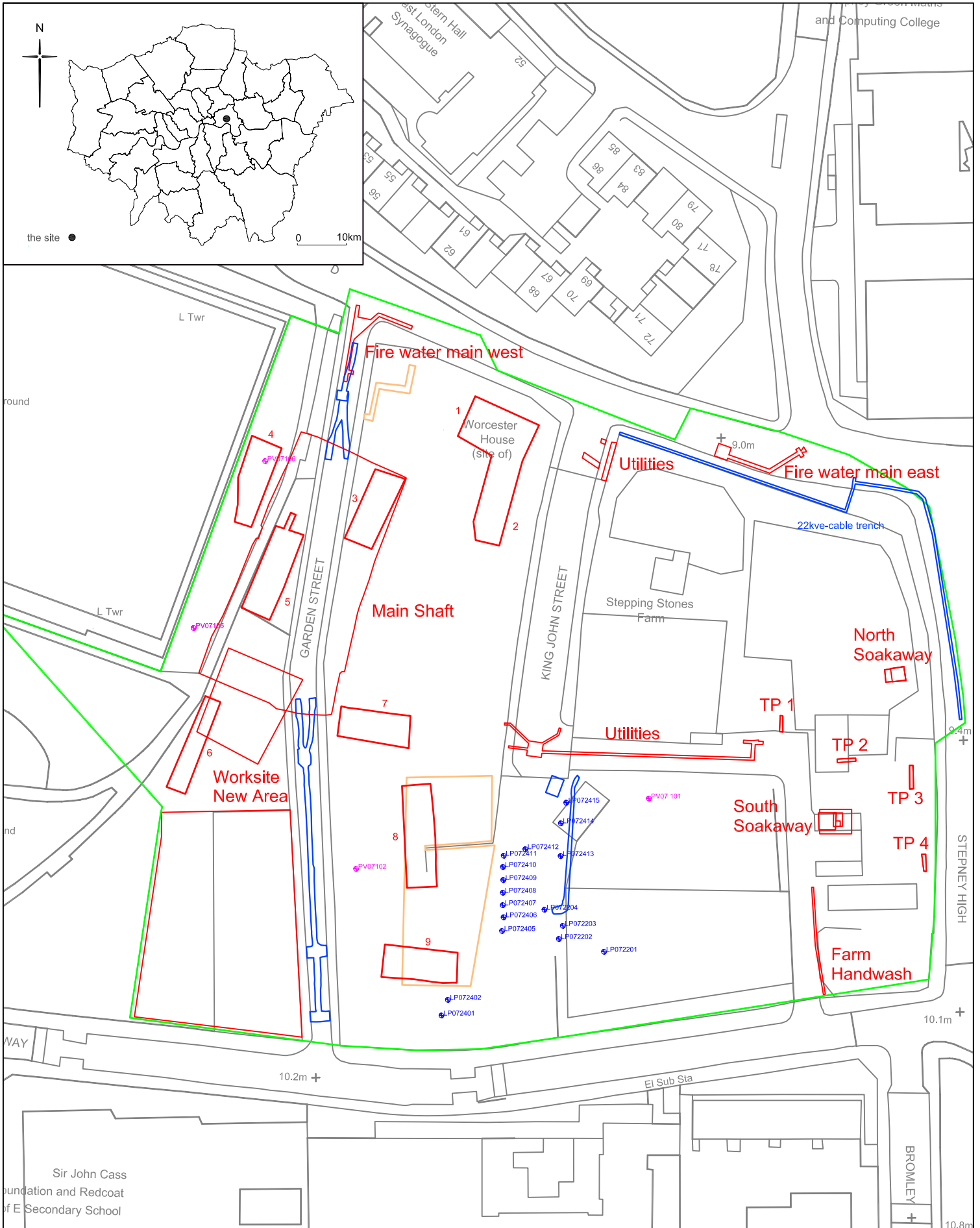


Fig 1 Site location and archaeological trenches.

- ▭ Site outline
- ▭ Excavation and evaluation trenches
- ▭ General watching brief
- ▭ Targetive watching brief
- PV Borehole
- LP Levelling point

0 1:1000 @ A4 50m

Based upon the Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. TFL 100032379 2010.

Site Code: XRV10

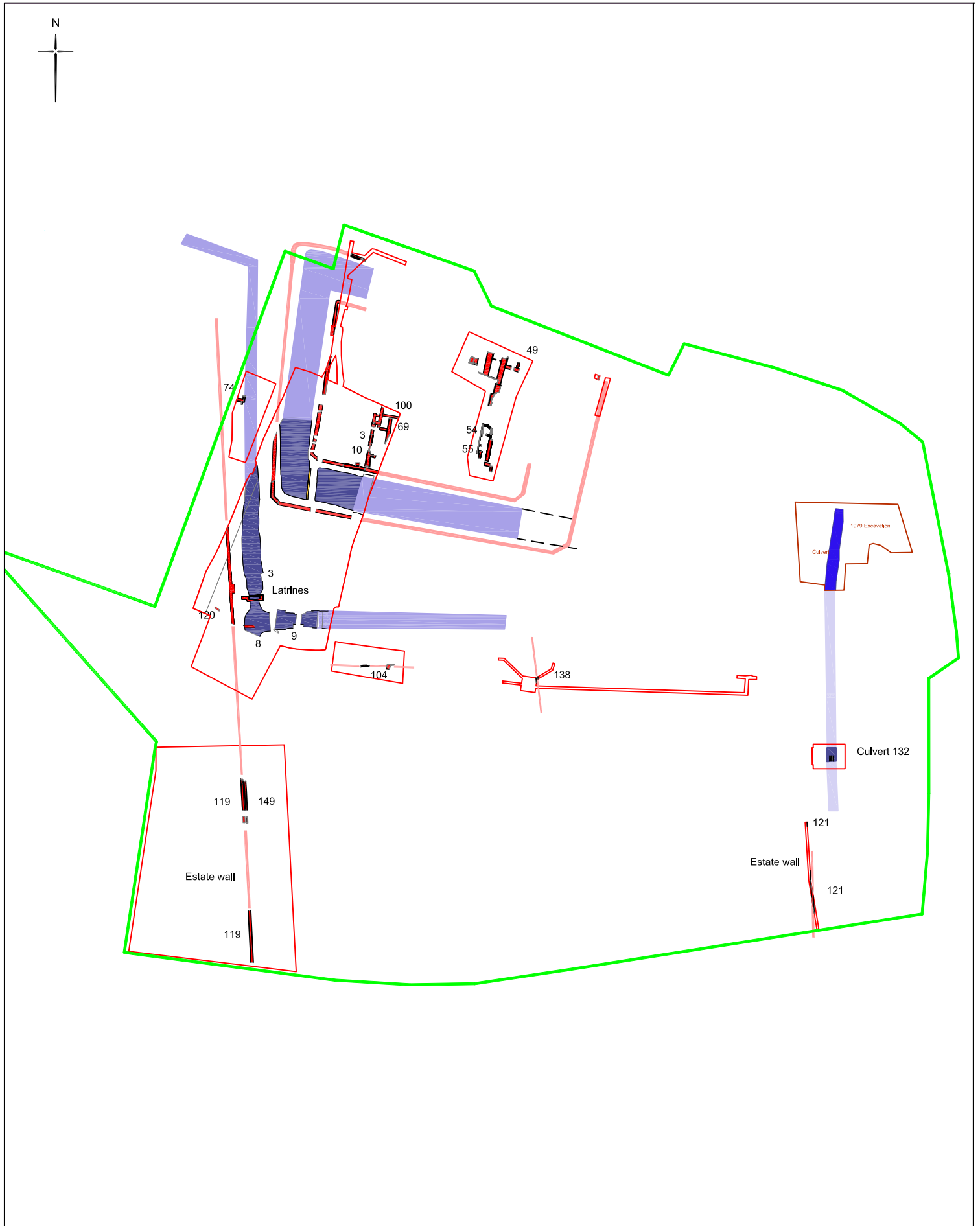


Fig 2 Late-medieval and Tudor structures and features.

Site Code: XRV10

- Site outline
- Trench edge
- Tudor wall
- - - Tudor wall conjecture
- Tudor Moat
- Tudor Moat conjecture

0 1:1000 @ A4 50m

Based upon the Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. TFL 100032379 2010.



Fig 3 17th- and 18th-century structures and features.

Site Code: XRV10

- Site outline
- Trench edge
- 17th/18th century
- Rocque map 1746
- Tudor retained
- Drain
- Drain conjecture

0 1:1000 @ A4 50m

Based upon the Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. TFL 100032379 2010.

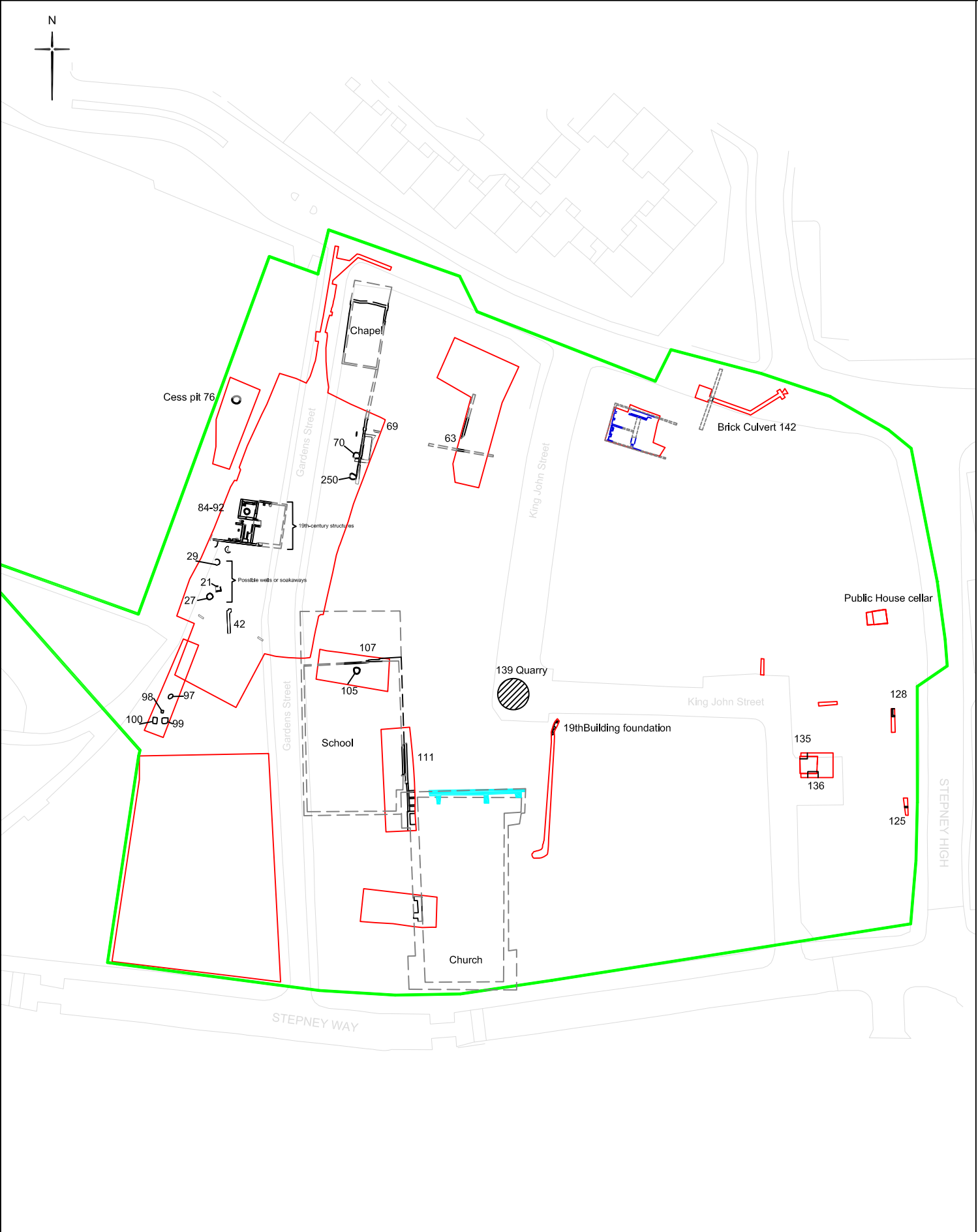


Fig 4 19th century structures and features.

- ▭ Site outline
- ▭ Trench edge
- ▭ 19th century buildings
- ▭ Church foundations

0 1:1000 @ A4 50m

Based upon the Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. TFL 100032379 2010.

Site Code: XRV10