

120 CHEAPSIDE London EC2

City of London

A post-excavation assessment report

July 2008



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A post-excavation assessment report

Site Code: CDP04 National Grid Reference: 532329 181240

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Executive summary

This report is intended to inform the reader of the results of archaeological excavations undertaken at 120 Cheapside, London EC2 between June and December 2005. The excavations uncovered evidence of multi-phase occupation on the site from the early Roman period through to the post-medieval, with a particular emphasis on 2nd century Roman and late Saxon/early medieval material. The report summarises what was found, the post-excavation work that has been carried out and its significance. Proposals for further analytical work will be presented in a separate Updated Project Design document, alongside the results from the adjacent site 14-18 Gresham Street. The report is written and structured in a particular way to conform with the standards required of post-excavation analysis work as set out in *Management of Archaeological Projects* (English Heritage, 1991).

The first part of this report (Sections 1-5) deals with the site assessment. The planning background and excavation history of the site (Section 1) is followed by a summary of the historical and archaeological background (Section 2). Original research aims, first set out in the Project Design, are described in Section 3. The archaeological sequence, as excavated, is described in Section 4. Section 5 quantifies the archive – stratigraphic, finds and environmental – and its assessment.

The archaeological sequence on the site was representative of the Roman, late Saxon, medieval and post-medieval periods. The majority of the Roman material came from the 2nd century AD, although some ephemeral evidence was found of 1st century clay and timber buildings ranged along Roman Cheapside. The northern part of the site appears to have been largely open throughout the entire Roman period, indicating possible intentional urban planning. The 2nd century material will be studied in relation to other sites in the immediate vicinity, several of which have been excavated during the past 5 years. Late Roman evidence was limited to pitting and the accumulation of 'dark earth' and other external dumped deposits.

There was a substantial assemblage of late Saxon and early medieval material which will also be studied with reference to other nearby sites to greatly increase knowledge and understanding of the development of the early medieval city. Later medieval and post-medieval activity was truncated but with documentary sources can also help to establish contemporary land boundaries and building plots.

The final part of the stratigraphic sequence section details the results of the standing building survey conducted in the cellars below Mitre Court. These date to the 18th century, with rebuilds in the mid or late 20th century.

Sections 4 and 5 form the basis for summarising the potential of the data collected (Section 6) and its significance (Section 7). Revised research aims and proposals for the publication of the results will be presented separately to this document. Acknowledgements, a completed OASIS form and a bibliography complete this report (Sections 8-10).

Contents

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1	Int	roduction	8
	1.1	Site location	8
	1.2	The scope of the project	. 8
	1.3	Circumstances and dates of fieldwork	13
	1.4	Organisation of the report	. 13
2	His	torical and archaeological background	15
	2,1	Topography	15
	2.2	Prehistoric	15
	2.3	Roman	15
	2.4	Saxon	16
	2.5	Medieval	16
	2.6	Post-medieval	· 16
3	Ori	ginal research aims	17
4	Site sequence: interim statement on field work		19
	4.1	Introduction	19
	4.2	Natural and topography	19
	4.3	Prehistoric	20
	4.4	Roman	20
	4.4.1	Early Roman activity (c AD43 –100)	20
	4.4.2	Early-mid 2nd century Roman activity (100-160 AD)	23
	4.4. 3	Later 2nd century Roman activity (160-200 AD)	27
	4.4.4	Late Roman activity 200-400 AD	28
	4.5	Late Saxon activity (900-1050 AD)	30

[CDP04] Post-Excavation Assessment

4.6 Early medieval activity (1050-1150)	32
4.7 Medieval and late medieval activity (1150-1500)	34
4.8 Post-medieval activity (1500-present)	34
4.9 Standing Building Survey on cellars below Mitre Court	38
5 Quantification and assessment	46
5.1 Post-excavation review	46
5.1.1 Tasks completed for stratigraphic archive	46
5.1.2 Outstanding tasks for stratigraphic archive	. 46
5.2 The site archive and assessment: stratigraphic	46
5.3 Site archive and assessment : finds and environmental	47
5.3.1 The building material	47
5.3.2 The flint	57
5.3.3 The clay tobacco pipes	58
5.3.4 The Roman pottery	60
5.3.5 Post-Roman pottery	71
5.3.6 The accessioned finds	80
5.3.7 The coins	88
5.3.8 The metalworking slag	89
5.3.9 The botanical samples	98
5.3.10 The animal bone	103
5.3.11 Conservation	105
5.3.12 The leather	107
6 Potential of the data	108
6.1 Realisation of the original research aims	108
6.2 General discussion of potential	112
7 Significance of the data	116

0

[CDP04] Post-Excavation Assessment

8 Acknowledgements	119
9 NMR OASIS archaeological report form	120
9.1 OASIS ID: molas1-41118	120
10 Bibliography	125

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List Of Figures

Front cover: Carnelian intaglio from Roman finger ring showing the god Mars

Fig 1 Site location	10	
Fig 2 Areas of excavation	11	
Fig 3 Early Roman activity on the southern side of the site	21	
Fig 4 Photograph of mosaic in trench 12	22	
Fig 5 Photograph of building in trench 14	24	
Fig 6 Building excavated in trench 12 southern extension	26	
Fig 7 Later Roman activity on the site	29	
Fig 8 Late Saxon activity on the site	31	
Fig 9 Medieval activity on the site	33	
Fig 10 Medieval and late medieval activity on the site	35	
Fig 11 Post-medieval activity on the site	36	
Fig 12Photograph of medieval cellar steps in trench 4 under excavation	37	
Fig 13 Top of steps to cellars, in Mitre Court, looking northwest	40	
Fig 14 Looking down steps to western cellar from Mitre Court	40	
Fig 15 Plan of cellars	41	
Fig 16 Drawing of central part of section 2, showing earlier wall core [5014]	42	
Fig 17 North wall of southern passage below western and eastern cellars, looking		
northeast	43	
Fig 18 Detail of partition cross-wall and eastern wall of eastern cellar, looking		
northeast	43	
Fig 19 Brick buttresses (with bottling machine) at south end of eastern cellar, looki	ing	
southwest	44	
Fig 20 North wall of northern passage between western and eastern cellars, looking	3	
northwest	44	
Fig 21 Western wall of eastern cellar, northern passage to western cellar, looking		
southwest	45	
Fig 22 Western cellar, looking south		

List of Tables

•

Table 1 Details of fieldwork interventions	12		
Table 2 Finds & Environmental Archive General Summary			
Table 3 Details of mud bricks	49		
Table 4 Details of Roman tiles	52		
Table 5 Procuratorial tile stamps	53		
Table 6 Post-medieval bricks	56		
Table 7 Breakdown of struck/worked flint assemblage	57		
Table 8 Clay tobacco pipe quantification	58		
Table 9 Clay tobacco pipe dates, by context	59		
Table 10 The chronological distribution of datable clay pipe bowls	59		
Table 11 Breakdown by fabric type	61		
Table 12 Breakdown by form	63		
Table 13 List of vessels put forward for illustration/photography	65		
Table 14 Date range of assemblage	66		
Table 15 Early assemblages selected for possible quantification	67		
Table 16 Contexts dated AD 120–160 for comparative analysis with nearby sites	69		
Table 17 Summary of medieval pottery by fabric type.	75		
Table 18 Summary of post-medieval pottery by fabric type	77		
Table 19 Summary of sherd count by stratigraphic land-use	79		
Table 20 Summary of accessioned finds by material and period	80		
Table 21 Quantification table	89		
Table 22 Smithing hearth bottoms (statistical data)	94		
Table 23 Summary of botanical data	100		
Table 24 Summary of conservation work	105		

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[CDP04] Post-Excavation Assessment-

1 Introduction

1.1 Site location

The archaeological project assessed within this document is located in the City of London and comprises 120-122 Cheapside and 4-9 Wood Street, and is bounded by Cheapside, Wood Street, and Milk Street (Fig 1). The centre of the site lies at National Grid reference 532329 181240. The Museum of London Archaeology Service (MoLAS) was commissioned to undertake an archaeological excavation and watching brief by Bovis Lend Lease on behalf of the developers Land Securities in advance of redevelopment of the site. Modern pavement level near to the site lies at c 17.40m OD and the site footprint included basements of varying depths which ensured archaeological survival of varying degrees across the site.

There are no Scheduled Ancient Monuments or Listed Buildings within the site boundary. All archaeological works were monitored by the Corporation of London's Archaeology and Planning Officer.

1.2 The scope of the project

This assessment refers to the areas of excavation shown on Fig 2. A total of 22 pile caps and drainage sumps were excavated down to natural brickearth and gravels, with another 4 trenches excavated down to a specified impact level. A further 5 pile caps were monitored by MoLAS Senior Archaeologists under watching brief conditions. Initially the archaeological works took place in the basement during the demolition of the standing building. This work commenced during June 2005 and continued until September 2005. A second phase of excavation took place after demolition, between October and December 2005 with a further three months of intermittent watching brief on groundworks. The records from an earlier evaluation carried out during 2004 under the same site code as the excavation (CDP04) are also incorporated into this assessment and any future analysis (MoLAS 2004b).

The chronological scope of the archaeological remains recovered is multi-period, with a significant amount of 2nd century AD Roman material, along with earlier and later Roman and medieval material. A smaller amount of post-medieval material survived to varying degrees largely due to truncation by the standing (and earlier) buildings.

This document draws upon analysis and interpretation of the material recovered from the excavations to address research aims of local, regional and national significance. The proposed publication project will introduce updated aims and objectives raised by the discoveries on the site. This is to be presented in another document (MoLAS, in prep), as the results from the excavations at 120 Cheapside are intended to be published to a wider audience alongside the results from excavations at 14-18 Gresham Street (GHM05). The 14-18 Gresham Street project was undertaken immediately after the 120 Cheapside works and the sites share a party wall so the intention is to integrate the results to produce a cohesive text enabling interpretation and discussion of a wider geographical area. The sites will be placed within their study area of the City of London and aspects of a number of nearby sites will be examined and compared with the data where these contribute directly to the stated project research aims.

There was also an additional phase of works carried out in the basement of the standing building between 20-25th July 2005. This involves a standing building recording exercise to RCHME Level 3, the results of which are included within section 4 of this report.

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Fig 1 Location map

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Fig 2 Areas of excavation

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Trench number	Engineering	Start date	End date	Additional
	details			comments
1 .	Pile cap	29-06-2005	19-08-2005	
2	Pile cap	13-07-2005	08-08-2005	
3/C1	Pile cap and	14-11-2005	09-12-2005	Merged to one
	sump			excavation
				area
4	Pile cap	27-06-2005	22-07-2005	
5	Pile cap	27-06-2005	28-07-2005	
6	Pile cap	19-10-2005	04-11-2005	
7 .	Pile cap	30-06-2005	05-08-2005	
8	Pile cap	05-07-2005	04-08-2005	
9	Pile cap	15-07-2005	19-08-2005	2 phases
10	Pile cap	07-11-2005	19-11-2005	
11	Pile cap	05-07-2005	05-08-2005	2 phases
12	Pile cap	22-07-2005	02-09-2005	2 phases
13	Pile cap	02-11-2005	10-11-2005	2 phases
14	Pile cap	02-11-2005	01-12-2005	
15	Pile cap	24-11-2005	24-11-2005	Watching brief
16	Pile cap	24-11-2005	24-11-2005	Watching brief
17	Pile cap	28-11-2005	28-11-2005	Watching brief
18	Pile cap	26-11-2005	26-11-2005	Watching brief
19	Pile cap	29-11-2005	29-11-2005	Watching brief
20	Pile cap	28-10-2005	10-11-2005	2 phases
21	Pile cap	14-10-2005	01-11-2005	
22	Pile cap	10-10-2005	28-10-2005	
23	Pile cap	18-10-2005	04-11-2005	
24	Pile cap	20-10-2005	10-11-2005	Impact level
	_			excavation
27	Ground beam	14-11-2005	28-11-2005	As above
28	Ground beam	21-10-2005	07-11-2005	As above
29	Ground beam	14-10-2005	01-11-2005	Additional
				excavation,
				replaced trench
				26
F1	Drain sump	11-01-2005	13-01-2006	
PC1	Drain sump	17-10-2005	25-10-2005	

Table 1 Details of fieldwork interventions

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1.3 Circumstances and dates of fieldwork

The archaeological works on the site were carried out as required to fulfil archaeological Condition 27 on Planning Consent, which was granted to the proposed redevelopment on 21st March 2005 (ref 04/00489/full). The redevelopment of 120 Cheapside involved the total demolition of all buildings standing on the site and the construction of a new mixed use (office and retail) building.

The work commenced on 27th June 2005 and continued until 2nd September 2005. A second phase of excavation took place after demolition, between 10th October and 12th December 2005 with a further three months of intermittent watching brief on groundworks. Two Senior Archaeologists managed a team of 15 Archaeologists on average. Trench 20 was commenced in Phase 1 but due to constraints with the demolition timetable was backfilled with Terram and recommenced in Phase 2.

During the excavations all archaeological remains were fully recorded in plan. The archaeology surviving behind the sections of the pile caps was conserved behind a Terram membrane. During the watching brief they were recorded in section or plan as appropriate. Extensive shoring was necessary for the pile caps, sumps, crane bases and drainage run trenches, all of which were deep and often narrow. The first phase within the basement was carried out under artificial lighting. Barrel hoists were used for the removal of spoil with the help of a team of attendants from MCGees. The location of pile caps for the new development altered during the excavations and it was necessary to return to four of the pile caps after the initial excavation was completed (numbers 9, 11, 12 and 13). The backfill was removed by hand and further excavations were undertaken along the perimeters of these caps, the results of which were integrated with those from the initial pile cap excavation.

1.4 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).

The principle underlying the concept of post-excavation assessment and updated project design were established by English Heritage in the *Management of Archaeological Projects 2* (MAP2), (1991). More recent GLAAS guidance has emphasised the need for this stage to be seen as 'brief and transitional', the document acting as a 'gateway' to further analysis and eventual publication (EH, GLAAS, 1999 VI/1).

This document summarises the archaeological and historical background to the site (section 2) and lists the original research aims proposed in the Project Design and Method Statement (MoLAS, 2005) (section 3). It describes, in interim terms, the discoveries made on the site during archaeological investigations (section 4), and details the work undertaken for the assessment of the site archive (section 5). It correlates initial observations with the original and revised research aims (section 6) and discusses the wider significance and potential of the site (section 7). The proposals for publication and updated research aims are presented in another document, integrated with the results from the adjacent site 14-18 Gresham Street (MoLAS, in prep).

2 Historical and archaeological background

A full background to the archaeology and history of the site was presented in the *Archaeological Assessment* (MoLAS 2004a) therefore only a brief outline is given here.

2.1 Topography

The site at 120 Cheapside is located on an area of high ground on a gravel terrace c 450m north of the River Thames, with the valleys of two watercourses (the Walbrook stream c 300m to the east and the larger Fleet River c 700m to the west) running towards the Thames on either side of this hill. The underlying bedrock of the area is Eocene London Clay above which lies Pleistocene (Quaternary) Taplow gravel deposits of the River Thames. In places the gravels are capped by Langley Silt or 'brickearth', an orange/brown *loess* deposit. The site lies at approximately 17.80m OD, with brickearth seen at levels of c 10.60m OD and the gravels at 9.80m OD.

2.2 Prehistoric

There have been no finds from the earlier prehistoric periods (c 450,000–4,000 BC) in the immediate vicinity of the site although several Mesolithic axes have been recovered from the Thames. It is thought that the scarcity of later prehistoric evidence from the Neolithic (4000–2000BC), Bronze (2000–600BC) and Iron (600BC–AD43) Ages in the City is due to later Roman activity. However excavations on 30 Gresham Street to the east revealed a prehistoric palaeochannel on a north-south alignment, around which a number of hollows were found, containing flint flakes and sherds of Neolithic pottery (MoLAS 2002, 4).

2.3 Roman

The Roman city of *Londinium* was founded sometime between the invasion of Britain in AD 43 and AD 60, when the town is first documented. The first buildings were centred around the northern side of modern London Bridge although the Roman road precursor of Cheapside was one of the earliest planned features of the city, possibly dating to AD 50–55. The site at 120 Cheapside lies within the north-western part of the walled Roman town, c 100m south of Cripplegate Fort, c 100m south-west of the amphitheatre, and c 70m west of the bathhouse at 100-116 Cheapside. Extensive evidence of Roman activity dating throughout the period has been found on all the sites bounding 120 Cheapside, including early roundhouses to the west (GSM97), mosaic floors and a bath house to the east (MLK76; GM37), large scale water lifting mechanisms also to the east (GHT00) and a road and masonry buildings to the north (GHM05).

2.4 Saxon

The Roman City was largely abandoned following the departure of the Roman army and the primary area of early to mid Saxon settlement (*Lundenwic*) developed to the west of the Roman town in the area of the Strand and Covent Garden. During the early to mid Saxon period, the old Roman city apparently fell into disuse and in many places 'dark earth' has been recorded. The exact nature of this deposit is much debated but it is generally believed to represent soils from the use of the land for cultivation (Hall and Merrifield 1993, 16). The area of the site was not re-occupied until the mid to late 9th century and was formed as a *burh*, a fortified town within the old Roman walls. Cheapside was an important part of the settlement and a regular street grid layout has been identified (Vince 1990, 124). The western street grid was aligned with Cheapside and is mentioned in the Queenhithe charters dated to AD898/9 (*Ibid*, 126). It was an important street and was probably a market centre. The place name derives from the Old English *Ceap* or *Chepe*, meaning 'market'. By the late 11th century the southern street frontage was approximately along its present line.

2.5 Medieval

During the later medieval period Cheapside formed London's chief market place (Weinreb and Hibbert 1983, 147) and running back from the major street were a series of bazaar-like enclosures or stalls selling particular goods produced by craft guilds. The street names today reflect this: Milk Street to the east (*Melcstrate* by c 1140) and Wood Street to the west (*Wodestrate* by c 1156). In 1290, by order of King Edward I, the 'Cheapside Cross' was erected at the corner of Wood Street and Cheapside to commemorate the funeral procession of Queen Eleanor. Mitre Court, within the northern part of the site, takes its name from the Mitre Tavern, which was in existence as early as 1475.

2.6 Post-medieval

After the Great Fire of 1666 the City was rebuilt in stone and brick, with several buildings standing on the site visible on contemporary maps (MoLAS 2004a). In the middle of the 19th century, Cheapside rivalled the West End as London's chief shopping centre (Weinreb and Hibbert 1983, 148). Wood Street, which borders the area of proposed development on its west side, was noted for its drapers, milliners and haberdashers at this time (*Ibid.* 996). The entire area suffered extensive damage during the Blitz and was rebuilt during the 1950s and 60s as office blocks and retail outlets.

3 Original research aims

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

The following archaeological research objectives were compiled after consultation with appropriate specialists, and in particular with consideration of the results of previous archaeological investigations both on the site and on other sites in the area. They were listed in the original Project Design and Method Statement (MoLAS 2005).

Pre-Roman and prehistoric

1. Is there any evidence for pre-Roman settlement activity? In particular is there any evidence for any of the immediately pre-Roman activity as found at the 10 Gresham St site to the northwest?

Roman

- 2. What evidence is there for Roman settlement in the area? How does this differ from/compare with the activity from nearby sites, especially the 30 Gresham Street site to the north east? What kind of settlement was there (domestic, industrial, etc)?
- 3. Is there any evidence for a Roman bathhouse or bathhouse related structures? Is there any evidence for any other water-management features (as at 30 Gresham Street for example)?

Saxon and early medieval

- 4. What evidence is there for the establishment of the Late Saxon/medieval street plan (Milk St, Wood St) and the buildings fronting on to it?
- 5. Is there any evidence for the date of the establishment of the late Saxon *Ceap* and the market stalls which flanked it?

Medieval

6. Is there any evidence for the location of the Cheapside Cross at the corner of Wood Street and Cheapside?

Post-medieval

- 7. Is there any evidence for the survival of remains of the Mitre Tavern?
- 8. What evidence is there for the development of the area in the post-medieval period?

Modern

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9. What evidence is there for the impact of modern building techniques (piling etc) on the survival of archaeological remains?

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4 Site sequence: interim statement on field work

4.1 Introduction

The text and plans included in this section have been drafted prior to full analysis of the site data and are derived from preliminary spot dating, stratigraphic and documentary information. They attempt only to give an impression of activity during the defined periods and do not include all excavated features. It is likely that some of the interpretation will be subject to revision as a result of further analysis.

In this and subsequent sections of the assessment context numbers (allocated during the fieldwork stage to individual deposits or features) are shown in square brackets [] and subgroup numbers (assigned during the post-excavation process to groups of related contexts) are shown in round brackets (sgp). In some cases there are many subgroups that could be used to illustrate the stratigraphic interpretations and only a selection have been used in the text.

4.2 Natural and topography

The underlying natural deposits encountered on the site consisted of silty orange clay (brickearth) seen at levels of c 10.55m OD above compact terrace gravels at c 10.20m OD. Natural gravel was observed at slightly higher levels (c 10.60m OD) towards the southern end of the site in trench 3. The topography was more level than had been expected, given that on immediately adjacent sites there were marked variations in levels of natural caused by marshy areas (GSM97 to the west) and deep natural watercourses cutting the gravels (GHT00 to the east).

Trench 1 contained a naturally formed irregular shaped feature that had perhaps been utilised for water retrieval (or provision of water to animals) during the early Roman period, as the sides of the feature (probably a water-filled tree throw hole) had been trampled and disturbed, although no finds were recovered from these deposits. In trench 20 in the centre of the site there was another shallow hollow feature filled with grey silts that appeared to represent a naturally formed depression. There was no evidence of manmade cutting on the sides of this and there was no cultural material seen in its basal fills. The upper fills were largely Roman domestic dumps containing pottery dated to 120-140 AD, similar to those seen elsewhere across the site and probably indicate the period of disuse of the feature. It was expected that water-filled features would be found on the site given the high proportion of similar features on nearby sites, but the examples seen on 120 Cheapside seem to have only been relatively small and therefore very limited in their potential to provide water for industrial or domestic purposes. However, the presence of these features does indicate a topographical influence on later Roman landuse with boggy or ponded areas less likely to have been built upon.

4.3 Prehistoric

No stratigraphic evidence of pre-Roman activity was seen on the site, and although several worked flints were recovered from Roman deposits their potential to indicate prehistoric activity is limited due to their residuality.

4.4 Roman

4.4.1 Early Roman activity (c AD43 –100)

There was not a substantial amount of early activity on the site (Fig 3), as evidenced by the pottery dating which is largely within the 2nd century AD. Only 15% of the contexts dated to the period prior to AD 100. However there were some indications of early activity, shown by the presence across the entire site of many shallow features, such as ditches and postholes, probably associated with ephemeral occupation during the early years of the Roman city. The ditches could represent drainage or land boundaries, the postholes possibly part of a temporary structure or shelter. In trench 5 was a deep ditch running downhill east-west lined with timber planks and probably relating to early drainage of the site. The fills of this drain contained pottery between 50–100 AD, the dumps over the drain were later and dated to 120–160 AD. The period of use of this drain may relate to water management activity on the GHT00 site to the east, as the drain ran towards the east.

The most definitive closely dated evidence for early building on the site came from the south of the area and the Roman Cheapside frontage. Here in trench 3 a clay and timber building dating to the third quarter of the 1st century AD had been destroyed by fire. Timbers forming a wall had burnt and collapsed in situ and the remnants of plaster adhering to these timbers was clearly visible. This fire event may perhaps relate to the Boudiccan fire of AD 60/61 or a more localised fire event. Above the destruction layers were deep slumped dumps of building material and burnt daub. A timber lined drain ran east-west through the trench, and appeared to feed into a deep pit or well to the south of the building. A pit cutting the destruction layer was also closely dated to the end of the 1st century, and probably relates to the disuse of the building.

Trench 12 also contained evidence of 1st century clay and timber buildings. The stratigraphically earliest features in the trench were directly on top of redeposited brickearth and represented a building with an internal timber wall division running east-west. To the north of this was a small truncated area of mosaic (Fig 4) sitting on a bed of thick mortar above an *opus signinum* floor. To the south of the timber wall was a second area, presumably within the same building. At the bottom of this sequence were the remains of timbers dividing the two rooms described above. These timbers had burnt during the period 50-120 AD and the building had been rebuilt over them.



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Fig 4 Photograph of mosaic in trench 14

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Fig 5 Photograph of building in trench 14

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The only other significant deposit dating to the 1st century AD was an external dump in trench 9, from which a small assemblage of pottery was recovered. The extent of dumping across the site will be further explored within this document although this remains the only 1st century example. It is likely in fact that the series of dumps recorded in trench 9 were actually fills of a large quarry pit, the sides of which were not seen within the small confines of the trench. This would therefore suggest that the earliest fills were rapidly overlain by later dumping into the pit and that the 1st century date may relate to the later years of this timescale. This trench also produced a very large assemblage of procuratorial stamped building material which could prove very significant.

4.4.2 Early-mid 2nd century Roman activity (100-160 AD)

The vast majority of the Roman material excavated from the site dated to the first half of the 2nd century (Fig 3), and most of that fell within the 120-140/160 AD period. The evidence from this date centres around the clay and timber buildings seen around the extremities of the site - trench 14 at the west, trench 11 to the east and trench 12 at the south, potentially fronting onto the Roman road below modern Cheapside. This pattern is reflected on the site directly opposite across Cheapside; Bow Bells House (BBB05) where clay and timber buildings fronted the Roman road leading westwards from the city, with open areas for pitting to the rear of the buildings. The BBB05 open areas were also used for dumping, capping earlier quarry pits, suggesting that the extensive dumping seen at 120 Cheapside is not an unusual activity for the area during this period (MoLAS 2006).

In trench 14 a clay and timber building had been constructed directly on top of redeposited brickearth. This building was aligned roughly north-south with its long axis parallel with modern Wood Street with lower stratigraphy consisting of a beam slot lined with timbers with the remains of a brickearth wall above. The date ranges for this period of construction straddled the end of the 1st century/beginning of the 2nd AD. The internal face of this wall was keyed plaster, which had survived to a maximum height of 0.45m (Fig 5). A series of stakeholes lined the beam slot cut and there was evidence of the first phase of the building having been destroyed by a fire event, as there was an extensive deposit of in situ burnt timbers, some faced with decayed plaster. This burning episode dated to 70-140 AD. To the south of this building was the remains of a second building, possibly a later phase. This building had a clear timber wall division running north-south with separate areas either side; to the east was a thick opus signinum floor, to the west was a beaten brickearth floor slab exhibiting evidence of burning, possibly a small scale industrial area or hearth. Above these structural remains were extensive destruction deposits, with deep dumps of ceramic building material and domestic rubbish representing the disuse of this building. The earliest of these closely dated to 120-130 AD. Both these areas of building stratigraphy had slumped into a deep square-cut well below. In trench 27 to the south more evidence of similar building stratigraphy was excavated and further work may enable this to be directly related to the buildings in trench 14.

In trench 11 at the eastern side of the site there appeared to have been a small degree of activity during the later 1st century AD, as shown by a series of external surfaces and brickearth slabs dated to 50-100/160 AD and a robber cut dated 50-100 AD. This phase was followed by dumping before a further phase of building occurred with brickearth walls constructed with associated external and internal surfaces. The subsequent demolition of this or later buildings took place during the mid 2nd century AD and there was little activity after that period.

The building in trench 12 that contained the mosaic and subsequently suffered a fire event was rebuilt during the 2nd century, with a thick brickearth slab laid down over the demolition debris. A series of occupation layers and brickearth floor slabs dated 100-120 AD were below two areas of timber floor, observed nailed down onto an earlier brickearth slab (Fig 6). Associated with this timber floor was a flagstone/tile floor and an upstanding area of wall plaster providing a clear divide between distinct areas, probably rooms, within a building. This was all closely dated to 100-120 AD. Over this entire area was a demolition layer dated to 120-160 AD, suggesting that the period of occupation of this building was relatively short. This deposit contained clay or daub that has been burnt under intense heat, along with cinder that had been fused together due to the high temperatures within the fire. This was very similar to material found in demolition deposits in trench 11 and in later deposits of dumped fire debris in trench 12 and all three examples may have come from the same fire. There was no evidence of later rebuilding after this date on any part of the site and the rest of the 2nd century activity is characterised by external dumping, either into large quarry pits that could not be recorded accurately due to the small size of the trenches, or onto open ground behind the Cheapside frontage.



Fig 6 Building excavated in trench 12 southern extension

Elsewhere on the site the early to mid 2nd century activity was characterised by more ephemeral clay and timber buildings, seen in trenches 4, 8 and 10, generally over earlier dumping often containing large amounts of painted wall plaster. These may not have been inhabited domestic buildings, but rather smaller outhouses or something similar. In trench 10 two walls dating to 70-160 AD had been robbed later during the Roman period.

Possible evidence of metalworking was recovered from trench 1, where a series of postholes, structural cuts and deep square pits may represent a small industrial working area. The square pits resembled water tanks or wells, and a substantial amount of hammerscale, ash and charcoal were recovered from one of these which dated to 50-160 AD. A timber lined drain ran through the southern edge of trench 3, and appeared to feed into a deep well or pit to the south. This may relate to drainage of the area to the front of a building in this trench dated 120-160 AD. There was some possible evidence of bone working having been undertaken on the site with a variety of unfinished needles and some waste found within dumps in trenches 6 and 13.

There was less structural evidence in the northern and central parts of the site, where the ground was used for rubbish disposal and levelling, with the clay and timber buildings ranged around the extremities. Extensive dump deposits containing large amounts of building material and domestic pottery were excavated in trenches 5, 7, 9, 13, 20, 21, 22, 23, 27 and 29, all dating to the early-mid 2nd century. It appears that here the ground was used for rubbish disposal and pitting rather than the construction of buildings.

4.4.3 Later 2nd century Roman activity (160-200 AD)

The site does not appear to have been built upon during the later Roman period and activity was drastically reduced. The examination of the samian wares collected will aid the refinement of this period. However it is possible to identify some limited occupation. Generally this takes the form of pitting through earlier buildings, identifying the date of their abandonment and disuse. There is also some dumping on the site that may date to this period although the date ranges for mid-late 2nd century pottery are notoriously variable. The concentration of the activity during this period to the areas mentioned above as having been used predominantly for dumping and pitting may also be significant: trenches 7, 8, 9, 13, 20 and 28 (to the northern part of the site) were the only trenches where deposits definitively dated to this timescale were found and all were external dumps.

4.4.4 Late Roman activity 200-400 AD

As is usual with sites in this part of the city there is very little evidence of late Roman structural development, with no rebuilding or masonry seen on 120 Cheapside (Fig 7). This is also the case at Bow Bells House, where a strikingly similar percentage of the Roman assemblage dated to this period (12% on each site) (MoLAS 2006). Instead the occasional activity is characterised by extensive pitting. The pottery assemblages from these features and deposits are very mixed and may not merit further study. The pitting is distributed across the site and was seen in trenches 1, 3, 5, 7, 8, 9, 22, 27 and 28, with all these pits dating to 250/270-400 AD.

A dark silty deposit was observed in many of the trenches across the site, with a particular distribution towards the northern and central areas, seen at depths of up to 2.4m (trench 24). This dated to the late Roman period, with some excavated areas closely dated to 350-400 AD (trench 13 and watching brief at north). It was tentatively interpreted during the excavations as 'dark earth', a deposit commonly encountered in the city amongst late Roman stratigraphy but notoriously difficult to characterise. It does appear to be an anthropogenic (man-made) accretionary soil, initially developed in the underlying deposits (its lowest paler layer is essentially the weathered upper part of the underlying deposits, modified by soil formation), but building up through the addition of domestic waste and organic decay at the same time as soil forming processes (rooting, worms, general weathering etc) mixed the soil profile. Pollen evidence suggests the dark earth may represent an area of waste ground – but this interpretation is very likely to be biased in favour of the more durable pollen and spores of waste ground plants that have survived within it as opposed to plants of cultivation, meadowland or gardens (Jane Corcoran, pers comm).

In some areas on the site this deposit may in fact be the result of intercutting pit fills, where the edges of pits were not observed due to the small size of archaeological intervention areas. The Cheapside and Milk Street area appears to be where the accumulation began earliest (Watson 1998, 102) and there was evidence from the site that it was forming by the end of the 3rd century AD (trenches 1, 4, 12, 20 and 24 for example). Further analysis of the dating and stratigraphy of the site will confirm whether activity was continuing on the site during this period of 'dark earth' formation.



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4.5 Late Saxon activity (900-1050 AD)

There was a significant amount of late Saxon material recovered from the site (Fig 8) and this fits well with previous excavations in the area. The development of the area to the north of Cheapside during the 9th century AD respected the line of Roman Cheapside and the site falls within an area of intensive activity during this period.

In the northern part of the site there were some significant features excavated that date to this period, with stakeholes and structural cuts in trenches 6 and 7 possibly representing ephemeral remains of sunken floored buildings. Trench 29 contained beam slots and occupational debris from this period. Pits dating to this period were seen in trenches 13, 21, 22, 27, 28 and 29. There is a clear spatial distribution to these pits, with them all found in the central and northern parts of the site. Further work will define this further, as their location may relate to burbage plots and street patterns. During excavation they appeared to have been used for the disposal of cess, as the organic backfills were interleaved with layers of straw and sawdust. Two fragments of crucibles were found within a pit fill in trench 21 and dumping in trench 23, and although in both instances there was also later medieval pottery recovered they may indicate metalworking on the site during the Late Saxon period as they are typical of examples found in the vicinity. The external dumping dating to this period is also found in the central and northern area in trenches 13, 23, 24 and TC1, which was located between trenches 21 and 6 and excavated during the watching brief phase.



Fig 8 Late Saxon activity on the site

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4.6 Early medieval activity (1050-1150)

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The activity dating to this period was predominantly characterised by pitting across the site, seen in trenches 1, 3, 6, 8, 13, 14, 20, 21, 22, 23 and 29 (Fig 9). There were however, some isolated areas of chalk and gravel masonry seen in trenches 5 and 7 along the eastern side of the site, possibly relating to properties fronting onto early medieval Milk Street which was running along its present line by the end of the 11th century AD (MoLAS 2004a). This masonry was constructed using alternate layers of compacted orange gravel and chalk blocks and generally formed the bottom courses of foundations that had later rebuilds or additions of chalk and greensand, indicating the continuation of building plots and locations through the medieval period. There was also some external dumping seen in trenches 1, 6 and 24, which resembled the earlier late Roman 'dark earth' in form, containing domestic debris and organic matter. In trench 6 the early stakeholes were overlain by this material, providing a date for the disuse of the possible late Saxon building in this part of the site. Trench 29 contained extensive evidence from this period, with layers of occupation debris and external dumps as well as cut features, some of which may relate to structures in the area. There was also possible evidence of a structural cut in watching brief area TC1, located close to trench 29 and this part of the site seems to hold the most potential for activity of the early medieval period.







Key Pit Masonry

CITY1059PXA08#09

10m

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4.7 Medieval and late medieval activity (1150-1500)

The medieval period (1150-1350) was represented by deep cut chalk and greensand foundations across the northern and eastern sides of the site (Fig 10), often rebuilt on top of the earlier medieval gravel and chalk foundations, evidence of the reuse of property boundaries and building plots from the earlier phase as mentioned above. There appears to have been something of a hiatus in activity on the site during this period, although this may be due to truncation by later occupation as the medieval pottery assemblages are often associated with later medieval pottery. There are, however, examples of medieval assemblages in cut features such as pits (trenches 24 and 28, watching brief piles 41 and 30) and stakeholes (trench PC1) and associated with chalk masonry (trench 28). All these features are found to the central and northern parts of the site, presumably due to the fact that the edges of the site were bounded by buildings during this period and did not have deep cut features such as pits below them.

The later medieval period (1350-1500) is slightly better represented with several pits containing pottery and finds from the period. There is a definite spatial pattern to these too, with them only being found in trenches 23 and 28 in the north eastern part of the site. Further work on contemporary plot boundaries and street layouts will enable interpretation of their relative location to buildings of the period.

In trench 4 there was very well-preserved surviving structural evidence from this period. A set of cellar steps within chalk walls led down towards the southern limit of the trench and carried on downwards beyond the trench edge so unfortunately were not fully excavated. The bottom of the staircase was not reached. The treads of the steps were greensand slabs and the surrounding walls unrendered, coursed, mortared chalk rubble. The structure appeared to be part of a medieval cellar constructed below an undercroft or half cellar, which explained its unusual depth in relation to the contemporary ground level. Backfill over within the cellar steps contained material dated to 1480-1600.

4.8 Post-medieval activity (1500-present)

There was relatively little post-medieval activity recorded on the site (Fig 11), probably due to the extensive truncation caused during the various periods of rebuilding on the site, particularly during the late 19th century and after the Second World War (MoLAS 2004a). However there were some cut features and structural remains observed on the site, including brick-lined wells in trenches 3 and 10, a tile hearth in trench 28, and pits in trenches 9, 10 and 23.

There was also a brick culvert running north-south across the eastern edges of trenches 11 and 12. This had been constructed within a tunnel as there was no cut visible on the surface of the trench and the brickwork protruded from below into Roman levels. The bricks were dated to 1800-1940, the period during which a significant amount of tunnelled culverts, sewers and drains were installed throughout London.



Fig 10 Medieval and late medieval activity on the site

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Fig 12 Photograph of medieval cellar steps in trench 4 under excavation

4.9 Standing Building Survey on cellars below Mitre Court

Two brick-lined barrel-vaulted cellars were ranged from north to south and side-byside under Mitre Court. The cellars were reached by a single flight of brick steps running westwards down into the west cellar. The head of these steps was over the vault of the east cellar, and the opening was protected by wrought-iron railings and a wrought-iron and glass canopy ([12605007]) (Figs 13 and 14).

The cellars were both about 3m wide and between 2.20 and 2.45m high. The west cellar, about 20m in length, extended further to the north than the east cellar. They were about 1.3m apart, and two relatively narrow openings had been made to connect them, cutting through their brick walls and vaults and exposing the core of their walls and earlier features between them (Fig 15).

An earlier wall ran from north to south between the two cellars (Fig 16), its core [5014], at least 0.94m wide, consisting of a mixture of materials, including roughly hewn Reigate stone, chalk blocks, bricks, tiles, flint nodules and fragments of limestone laid very irregularly and set in grey lime mortar flecked with charcoal. The mixture of materials and the mortar are characteristic of rebuilding shortly after the Great Fire of 1666. This core was faced to its west with coursed, roughly dressed stones at its base and red bricks above, [5015], the face running immediately behind the existing east wall of the west cellar. At this depth such a face would originally have formed the east wall of another large cellar, a predecessor of the existing west cellar. The core had been truncated to its east by the later construction of the existing east cellar, but its surviving width suggests that it could have served as the foundations of, presumably, the east wall of a building above ground. Ogilby's and Morgan's map of 1672 shows a detached building apparently in the western half of what was then Mitre Yard, which could possibly have been this building; alternatively these foundations may have been at the rear of buildings shown as fronting on to Wood Street further to the west.

The west and east cellars were constructed later, supplanting the late 17th-century cellar and, by implication, impinging on the former limits of the building above ground. The walls and vaults were of red brick, laid mainly to English bond, the bond being more uniform in the vaults, set in soft, light brown, sandy lime mortar. In sectional profile the walls of both cellars tended to lean outwards very slightly, which was presumably intentional. The brickwork and method of construction of these cellars were generally of 18th-century type. Rocque's map of 1746 shows the building in the western half of Mitre Yard as attached to the buildings further to its west, so possibly more radical rebuilding had taken place by then. Cheapside at this time (as earlier) was celebrated for its shops and these would presumably have required suitable storage space, such as these cellars would have provided.

The cellar walls had many fixtures and fittings attached at various times, and several brick cross-walls had been added to subdivide the cellars, some later removed. The east cellar, originally separate from the west cellar, may have been entered by an opening near the north end of its east wall, subsequently blocked; the south wall of this cellar had also been rebuilt, or at least heavily reinforced, using 20th-century machine-made bricks. The south end of the west cellar was separated off with timber partition walls and partially glazed doors, probably of late 19th or early 20th century date. The Goad insurance map of 1886 shows the steps in Mitre Court leading down to the cellars, which are marked 'Norton and Boyce Wine Vaults'.

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An excavation carried out in 1953 by Guildhall Museum below 4–9 Wood Street (in the north-west corner of the site) revealed a cesspit filled with objects dating from the first half of the 18th century. This cesspit was in the middle of a long wine cellar, ranged from west to east, terminating in a doorway, later bricked up, which originally led to other wine cellars under Mitre Court, i.e. those described here. This supports the early 18th-century date of the brick cellars on the site, and indicates that the cellarage was previously more extensive, being partly destroyed by construction in the 1950s of the latest building.

The lower portions of the cellar walls were rendered with cement, while areas of the vaults had been waterproofed with a plastic or similar sealant. The latter, at least, and other late 20th-centiry additions, such as steel doors, a WC in the north end of the west cellar, pyramidal concrete roof lights over the north end of the east cellar, and electrical fittings, may be attributed to the use of the cellars in this period as a bar, called 'The Hole in the Wall'. The latest building on the site housed a post office until it was demolished in 2005.



Fig 13 Top of steps to cellars, in Mitre Court, looking northwest

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Fig 14 Looking down steps to western cellar from Mitre Court

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Fig 15 Plan of cellars

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Fig 17 North wall of southern passage below western and eastern cellars, looking northeast



Fig 18 Detail of partition cross-wall of eastern cellar, looking northeast





Fig 19 Brick buttresses (with bottling machine) at south end of eastern cellar, looking southwest



Fig 20 North wall of northern passage between western and estern cellars, looking northwest

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Fig 21 Western wall of eastern cellar, northern passage to western cellar, looking southwest



Fig 22 Western cellar, looking south

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5 Quantification and assessment

5.1 Post-excavation review

In order to produce this report, an interim statement on the results of the fieldwork was produced (section 4). In this section a quantification and assessment is made of all the major classes of stratigraphic, finds and environmental material recovered from the site. An assessment has been made (section 6.1) of the degree of realisation of the original research aims along with a general discussion of potential of the excavated archive (section 6.2). The significance of this material is then reviewed (section 7).

5.1.1 Tasks completed for stratigraphic archive

1: Completion of checking of site archive – plans, sections, context sheets, environmental sheets & registers

- 2: Compilation of context matrices
- 3: Location of sections and identification of contexts represented
- 4: Compilation of area plan matrices
- 5: Delineation of subgroups on context matrices
- 6: Compilation of subgroup matrices
- 7: Production of subgroup descriptions
- 8: Addition of spot date data to subgroup matrix
- 9: Drawing of date phased subgroup matrix
- 10: Entry of stratigraphic information into MoLAS Oracle IND3D database

11: Mapping of context data in MoLAS Oracle IND3D database to MoLAS subgroup database

- 12. Preparation of plans for digitisation
- 13: Preparation of sections for digitisation
- 14: Digitisation of contexts using Penmap software
- 15: Production of site summary, GLSM form, and deposit survey form
- 16: Archive quantification
- 17: Project progress review meetings

5.1.2 Outstanding tasks for stratigraphic archive

18: Editing of IND3D parent context data to ensure correlation with ArcView data.

19: Linking of ArcView and Oracle data

20: Archive research on nearby sites

21: Liaison with specialist services including stratigraphically led prioritisation of artefactual data and identification of residuality

5.2 The site archive and assessment: stratigraphic

Table 1. Stratigraphic archive						
Туре	Description	Quantity	Notes			
Contexts	Excavation Evaluation	2254 51				
Plans	'A4' 1:20 (no. of sheets)	1328				
Trench notes	Evaluation plans and sections	15	Includes bore hole and auger logs			
Sections	'A4'	12	At 1:10 and 1:20			
Matrices		Yes	Context and subgroup versions			

5.3 Site archive and assessment : finds and environmental

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Building material	64 crates and boxes
Roman pottery	21203 sherds, 683.16 kgs, 191.5 boxes
Late Saxon and medieval	1610 sherds, 54 kg, 18 boxes
pottery	
Post-medieval pottery	59 sherds, 1kg, 0.5 boxes
Accessioned finds	588 objects, including 48 copper alloy, 33 iron, 1 composite (lead/iron), 17 lead, 422 glass (all recorded on Oracle – 12 fragments catalogued below), 2 ceramic, 48 worked bone, 16 stone, 1 wood; all have been stabilised by conservation and packed in suitable containers for archiving
Clay pipes	15 fragments, 0.25 box
Struck/worked Flint	18 pieces, 0.5 box
Leather	2 small bags of waste and shoe fragments
Slag	31.9 kgs slag and related debris
Bulk Soil Samples	Dry flots and sorted flora from 55 samples + wet flots from 3 samples
Animal Bone	Hand collected: 229.083 kg, approximately 9687
	fragments, in 90 boxes
	Wet sieved: 12.604 kg, approximately 3920
	fragments, in five boxes
Human Bone	4 fragments, disarticulated, assessed with animal bone

Table 2 Finds & Environmental Archive General Summary

5.3.1 The building material

By Ian Betts and Terence Paul Smith

5.3.1.1 Introduction/methodology

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

5.3.1.2 Roman stone building material

Stone tesserae

With the exception of two hard chalk tesserae from context [205] and [1713] all the other stone tesserae was found associated with the *in situ* stone mosaic from context [1034]. Unfortunately, it is not possible to examine the mosaic fragments themselves as they are still being conserved, but a small sample of the loose tesserae found with the mosaic has been examined.

The stone types identified in the loose tesserae are: dark grey Kimmeridge cementstone from Dorset, imported bluish-grey fine grained marble and cream coloured septaria (or altered hard chalk). There are also ceramic tesserae made from an orange firing clay, probably a type of Roman pottery. Cleaning and mounting of the mosaic may reveal further stone types.

Roofing

A fragment of bluish-grey roofing slate was found associated with Roman roofing tile in context [535].

Paving

There are a few cut or laminated stone fragments which were probably used as paving. These are made from a fine grained laminated sandstone ([417], [534]), a fine grained light grey siltstone ([857]) and Purbeck marble from Dorset ([839]).

There is also a curved fragment of Purbeck marble from [1097]. It is possible this may be part of a stone vessel, but it is so damaged that it could equally have been used for some other function.

Rubble

The stone rubble comprises Kentish ragstone from Kent, Hassock sandstone from the same quarry source, chalk, a fine pale grey quartzitic sandstone and what appears to be a light grey limestone.

Rather more unusual is a fragment of volcanic pumice, possibly Italian, which was used for cleaning the skin ([1898]). This may well have come from nearby Cheapside Baths.

5.3.1.3 Roman mud brick, daub and keyed daub walling

There is relatively little unfired daub, keyed daub and mud brick present in comparision to the volume of fired ceramic building material. There are a number of daub fragments with wattle and/or lath marks from contexts [1233], [691], [1628], [1664] and [1686] and key daub with wattle and, more commonly, lath marks from contexts [233], [311], [459], [527], [661] and [1628]. The keying seems to have consisted of a simple chevron pattern.

There are a number of partially complete mud bricks present which are listed below (Table 3). Some have sanded bases and sides showing that they were made in a sanded mould in the same way as fired ceramic brick. Clay attached to certain mud bricks show they were mortared into position by a daub-like material

Context	Breadth (mm)	Length (mm)
[175]	138-148	62-72
[186]	<i>c</i> 147	68-73
[300]	149	72
[526]	?	67-80
[1932]	146	75-78

Table 3 Details of mud bricks

5.3.1.4 Roman ceramic building material

5.3.1.4.1 FABRICS

Early Roman fabrics Fabric group 2815, fabrics 2454, 2455, 3023, 3028, 3054, 3060.

Late Roman fabrics

Fabrics 2453, 2456, 2457, 2459B, 3026, 3050, 3058, 3061, 3229.

Undated fabrics 3009.

5.3.1.4.2 FORMS

A number of tegulae and bricks ([139], [281], [293], [535], [545], [1376], [1950] and [1770]) have a worn surface on their top, bottom or corner edge indicating they were use as rough paving.

Various tegula and imbrices and a small number of bricks are either overfired (grey coloured) or underfired (brown coloured). Some of the former are partly vitrified and are so distorted they must be 'wasters' from tile manufacture. Many of these underfired and overfired tiles came from contexts [835], [837] and [839]. A number had procuratorial tile stamps present, which strongly suggests than many of these overfired and underfired tiles represent the waste products from procurtorial tile manufacture somewhere in or close to London.

Tesserae Fabric group 2815 Red ceramic tesserae are scattered in 16 contexts, but in very small numbers. Most have a single example, whilst the highest number (eight tesserae) was found in context [301].

Roofing tile Fabric group 2815, fabrics 2454, 2456, 3023, 3050, 3060.

No roofing tiles with complete length or breadth measurements survive, with the exception of what may be part of either a ridge tile or unusually straight sided imbrex from [837]. This measures 188mm in breadth by 17-18mm in thickness. The small thickness measurement of this tile would suggest it is more likely to be an imbrex. Another possible ridge tile (or thick imbrex), measuring 26-27mm in thickness, was recovered from [837] <46>. Both these ridge or imbrex tiles have procuratorial stamps.

One tegula, possibly made by the *Classis Britannica* tilery thought to have been located near Hastings (fabric 3058 near 3200), has a round nail hole inserted to add an attachment.

Half Box-flue Fabric group 2815.

A fragment of thick tile ([1512]) with a knife-scored sanded base could be a fragment of 1st century half-box flue.

Box-Flue tile Fabric group 2815, 3054-flue?

Box-flue tiles with a variety of keying methods are present. Dating from the 1st to early 2nd century AD are a number of tiles scored with a sharp knife and some sort of blunt tool. Where they survive the vent holes in the plain sides are square or rectangular in shape. One tile has a complete knife scored face measuring 155mm in breadth (thickness 17mm) with a square/rectangular vent hole in the adjacent plain side ([204]).

Of late 1st-mid 2nd century AD date are a number of combed tiles which have both square/rectangular and round/oval vent holes in their plain sides. There are also a number of plain sides with both vent hole types.

Two relief-patterned (also called 'roller-stamped') tiles of probable early-mid 2nd century date are present. One is keyed with die 13 the other with die 78 (Betts *et al* 1994, 82-86, 131).

There is also a fragment of relief-patterned tile in fabric 3054 with either die 24 and 113. It is not certain if this tile, which is probably of late 1st-early 2nd century date, is a flue or voussoir tile.

Hollow Voussoir? Fabric group 2815. A small number of tiles with combed keying on adjacent sides could be part of hollow voussoir tiles. These tiles were principally used in the vaulted roofs of bath buildings.

Solid Voussoir Fabric group 2815.

There is one definite [518] and at least one probable [1666] solid voussoir from the site. The former, which would have been lydion shaped, measures 304mm in breadth and widens from 29mm (top edge) to 46mm (opposite broken edge). They were used principally in arch construction.

Armchair voussoir? Fabric group 2815.

A very unusual shaped brick from context [1193] may be part of what is called an 'armchair' voussoir. As with hollow voussoirs, they were used in vault construction. The brick has been made in a specially shaped mould, not cut to shape after the initial moulding process.

Wall tile? Fabric group 2815.

What may be a wall tile with a knife keyed sanded base was recovered from context [233]. This does not have any notches near the surviving corner (as is standard on London wall tiles), but the middle side edge goes inwards, suggesting that this may have been used as some kind of attachment notch.

Brick

Fabric group 2815, fabrics 2454, 2456, 3023, 3050, 3060.

The majority of the brick is fragmentary, but based on thickness (mostly around 28–46mm); most would appear to be of bessalis, pedalis or lydion type (Brodribb 1987, 3). Part of a bessalis pila brick measuring 196mm in breadth by 31–33mm in thickness was found in context [1108]. There are also a number of thicker bricks (57–72mm) which are probably fragments of bipedalis or sesequipedalis brick, including the large thick fragments from context [1855].

There are a number of individual bricks of interest. There is a plinth brick from context [514], a possible distorted rectangular brick from context [428] measuring c 135mm in breadth by 38–45mm in thickness, and what may be a combed brick from context [534]. There is also part of a mould-made shaped brick from context [1522] and another brick with an unusual semi-circular indentation in the top or bottom edge [806].

Bricks, along with other Roman ceramic building material, were made in sanded moulds. Sometimes the base of the mould was used to push the clay down along the tile edges to produce a sunken margin. A few bricks from the site have this feature. Much rarer is an impression showing the full width of the mould which is the feature present on a brick from context [1064]. The mould is 26mm wide and widens out to what would have been the mould corner. This slight widening may have helped the tilemaker with gripping the mould when lifting it from the clay, or alternatively it may represent addition strengthening in the corner area.

Tegula mammata

Fabric group 2815 near 3226, fabric 2454.

Only two tegula mammatae are present, one measuring 269mm in breath (thickness 35–37) and has what appears to be a central nib ([1838], fabric 2454). The other, which is less complete, has a nib in the top right corner ([2005], fabric 2815).

Opus spicatum

Fabric group 2815, fabric 3028.

These small rectangular shaped *opus spicatum* paving bricks were set on end in a herringbone pattern to form a tough hard wearing floor surface. Most of the paving bricks found on the site show clear wear marks on their stretcher face, so they must have been used in an *opus specile* pavement. The size of the more complete tiles is listed below (Table 4).

Context	Fabric	Length	Breadth*	Thickness
[221]**	2815	131	67	26
[302]	2815	106	<i>c</i> 75	25.
[404]	3028	101	71	27
[477]	2815	102	73	25–27
[651]	2815	97–105	70–74	24-28
[665]	2815	101	72–74	25
[829]	2815	?	c 74?	19-21
[1058]	2815	?	?	25-26
[1727]	2815 nr 3028	97	c 68	25-27
[1914]	2815	101	73	24-25
[1932]	2815	100-103	?	23-26

Table 4 Details of Roman tiles

* the wear on the stretcher face can make this measurement less certain

** underfired

Markings on tiles and bricks

Stamps

The site produced one of the largest collections of procuratorial stamped tile ever found in London. Two different die stamps are present, Betts (1995, 208) die types 2A and 3, which are both lettered PPBRILON. The stamps are very similar in appearance,

suggesting they may be roughly contemporary in date. There are certain subtle differences between the stamps, but it is not always possible to detect these on overfired tiles with blurred stamps, or on examples with only one or two letters surviving. The vast majority of these came from trench 9. These stamps are listed as either die 2A or 3 in Table 5 below.

Table 5 Procuratorial tile stamps

Context	Accession	Tile type	Die type
[739]	<47>	Imbrex	3
[835]	<*>	Tegula	3
[835]	<49>	Tegula	2A or 3
[835]	<43>	Imbrex	3
[835]	<50>	Imbrex	2A or 3
[837]	<*>	Tegula	2A or 3
[837]	<*>	Tegula	2A .
[837]	<*>	Imbrex	2A
[837]	<784>	Tegula	2A
[837]	<44>	Imbrex	3
[837]	<45>	Imbrex	2A or 3
[837]	<*>	Tegula?	2A
[837]	<364>	Imbrex	2A
[837]	<46>	Imbrex or ridge tile	2A (stamped twice)
[839]	<*>	Tegula	2A
[839]	<4>	Imbrex	3
[839]	<722>	Imbrex	2A
[839]	<48>	Imbrex? (or ridge tile)	2A
[839]	<337>	Imbrex	3
[839]	<338>	Imbrex	2A
[839]	<365>	Imbrex?	2A
[839]	<*>	Imbrex	3
[1577]	<723>	Tegula	3
[1776]	<*>	Tegula	3

Signature marks

Most of the signature marks present are of the usual semi-circular type with between one and three finger grooves. There are, however a number of more elaborate signatures present as well, including two new types in fabric 2452 (nos 73–74), one new type in fabric 2459B (no. 37) and a further new type in fabric 3006 (no. 100).

Tally marks

Two tally marks are present, both in the form of an X. One is on the bottom edge of a tegula whilst the other, somewhat unusually, is located on the outer flange edge near the lower cutaway ([1842]).

Animal prints

There is the usual selection of animal paw and hoof prints which are found on most large tile assemblages from London. One animal pushed its paw into the side of an imbrex and distorted it to such a large extent it is doubtful if it could ever have been used on a roof ([148]). Another unusually deep mark, also a large paw print, was found on a tegula from context [1789]. More unusual are the small rodent foot prints visible in the top surface of a tegula from context [444], whilst from context [801] is a clear snail shell imprint.

5.3.1.5 Saxon building material

None

5.3.1.6 Medieval ceramic building material

Very little medieval material was recovered.

5.3.1.6.1 FABRICS Early medieval fabrics 2273.

Late medieval fabrics 2586, 2894, 3031.

5.3.1.6.2 FORMS *Floor tile* Penn. Fabric 2894.

A decorated Penn tile from Penn in Buckinghamshire was recovered from context [1158] <785>. This has Eames (1980) design 1933 (Hohler 1942, type P128) and probably dates to the period 1350–90.

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Roofing tile Curved and Shouldered peg tile Fabric 2273

A few fragments of early curved and shouldered peg tile are present. Many of the curved tiles have a pristine lead glaze suggesting they may never have been used on a roof, or were only used for a short period before removal.

Thick tile Fabric 2273

The most unusual medieval tile from the site comprises two fragments in early roofing tile fabric type 2273. One ([134]) measures 36mm in thickness and has a brownish-

green glaze, whilst the other ([127]) measures 37mm thick and has a brown glaze. These would seem to be too thick to be roofing tiles, but seem unlikely to have been used for flooring either as neither show signs of wear. Their purpose is therefore still uncertain.

Peg tile Fabric 2586

Part of a glazed two round nail hole peg tile was found in context [290].

Brick Fabric 3031

Late medieval yellow brick, probably imports from the Low Countries, were found in contexts [1134 and [1159].

5.3.1.7 Post-medieval ceramic building material

Only a very small quantity of post-medieval building material was collected.

5.3.1.7.1 FABRICS *Later fabrics* 3032, 3035, 3064.

Undated fabrics 2276, 2278, 2586.

5.3.1.7.2 FORMS *Wall tile* Tin glazed Fabric 3064

An 18th century blue on white tin-glazed delftware wall tile was found unstratified on the site. The tile, which is probably Dutch in origin, has part of a biblical scene ([+] <336>).

Roofing tile Peg tile Fabrics 2276, 2278, 2586

These are of two round and two square nail hole type. The tile in fabric 2278 (which could be medieval) is probably an import from north-west Kent ([918]). One tile has hoof imprints in the top surface ([900] <*>).

Brick

Fabric types 3032, 3035

Table 6 Post-medieval bricks

Contexts	Fabric	Size (mm)	Date range
[166]	3032	?	1666–1900
[416](b)	3032	? x 103 x 65	1800–1900
[416] (b)	3035	? x 103 x 62–68	1800–1940
[1630]	3032	227 x 92–93 x 62–65	1666–1900
[1952]	3032	? x 107 x 65–66	1700-1900

5.3.1.8 Post-medieval mortar

What may be mortar from the inside of a lettered brick frog was recovered from context [1862].

5.3.1.9 Assessment work outstanding

None.

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5.3.2 The flint

By Tony Grey

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5.3.2.1 Methodology

Eighteen pieces of flint were submitted for analysis from eleven contexts including eight pieces of field flint to discard and one piece of burnt flint. The total of struck/worked flint was nine pieces from six contexts. The material was identified and recorded according to standard MoLAS practice. The assemblage of struck/worked flint consists of eight pieces of debitage (three flakes, two blade-like flakes, two blades and a core) and one retouched flake. The retouched piece is a small, thick, corticated and iron-stained flake with retouch down one side. The core is a large, pyramidal, multi-platform, corticated core with several blade and large flake removal scars. The breakdown of this assemblage is tabulated in Table 7 below.

The assemblage is fairly evenly distributed across six contexts. The pieces are residual within these contexts. The material is of variable quality in a variety of colours generally representing secondary/derived flint sources of gravels and nodules with flint colours ranging from pale to dark grey and black. Four of the pieces are corticated. Several are iron-stained reddish. The technology is flake and blade based. Some of the technology is fairly *ad hoc* and a Bronze Age date might be suggested. Nodules for use in a flint-faced Roman building might be present as well.

Ctxt	Flakes	Blades, blade-like flakes	Cores, core fragments	Retouched forms	Wt	Comments
562						One burnt flint.
659						One field flint to discard.
775						One field flint to discard.
862		1				Snapped distal end of corticated blade.
1078						One field flint to discard.
1087				1		Small, thick flake retouched one side.
1106	1	-	1			Large pyramidal, multi- platform core; flake; one field flint to discard.
1124	2					Two small flakes; three field flint to discard
1146						Gravel fragment to discard.
1352		2	2			Two small blade-like flakes, one primary/corticated.
1476		1				Small blade.
Total	3	4	1	1		

Table 7 Breakdown of struck/worked flint assemblage

5.3.3 The clay tobacco pipes

By Tony Grey

5.3.3.1 Introduction/methodology

The clay tobacco pipe assemblage from CDP04 was recorded in accordance with current MoLAS 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).

5.3.3.2 Quantification

There is a quarter of a standard box of bulk (14 fragments) and accessioned (one fragment) pipes. They were recovered from six contexts: a detailed breakdown of the assemblage is given in Table 8. The greatest concentration of pipe fragments occurs in context [1181] (six fragments). Five pipe bowls were recorded, all of them datable according to current typologies. Only one pipe bears a maker's mark. None are decorated. There are ten undiagnostic stems. No mouthpieces are present.

Total no. of fragments	15
No. of bowl fragments	5
No. of stem fragments	10
No. of mouthpieces	0
Accessioned pipes	1
Marked pipes	1
Decorated pipes	0
Imported pipes	0
Complete pipes	0
Wasters	0
Kiln material fragments	0
Boxes (bulk\accessioned)	I/4 box
	bulk/accn.

Table 8 Clay tobacco pipe quantification

5.3.3.3 Condition

Although some of the pipe bowls are complete there are no complete pipes. Some of the pipe bowls show evidence of light smoking. Apart from damaged bowls there is little sign of wear or excessive fragmentation. Some may have been discarded after one smoke.

5.3.3.4 Provenance and dating of the clay pipes

All clay pipe bowls recovered were made between c 1660 and 1840. The earliest pipe dated context is [1181], dated by a type AO15 pipe bowl c1660-80. Context [12] is a pipe dated by a type AO15 pipe bowl to c 1680-1710. The latest pipe dated context is [1631], dated by a type AO28 pipe to c 1820-40. A type AO15 dated c 1660-80 is residual within this context. Only one pipe bears a maker's mark. The type AO28 dated c 1820-40 from context [1631] <725> bears the name JARMAN on the bowl, facing the smoker, and might be identified as made by Mary Jarman, working from 1809-37 at Half Moon Street in Piccadilly.

Table 9 Clay tobacco pipe dates, by context

Ctxt	TPQ	TAQ	B	S	Μ	Total
12	1680	1710	2	2		4
300	1580	1910		1		1
1095	1580	1910		1		1
1181	1660	1680	1	5		6
1470	1580	1910		1		1
1631	1820	1840	2			2
Total			5	10	0	15

(B - bowl; M - mouthpiece; S - stem)

Table 10 The chronological distribution of datable clay pipe bowls

	LD				
ED	1680	1710	1840	Total	
1660	2				2
1680		2			2
1820	-		1		1
Total	2	2	1		5

(ED – earliest date; LD – latest date)

5.3.3.5 Character of the pipe assemblage

The pipes are all of London manufacture. None are imported and none decorated. One pipe bears a maker's name. One of the later 17th century pipes has been milled. None show obvious signs of burnishing so they are not of the highest (most expensive) quality.

5.3.3.6 Marked pipes

The pipe bowl with a maker's name has been accessioned. **JARMAN** within a scroll on a type AO28 <725> dated c 1820-40 from context [1631], incuse, stamped on the back of the bowl facing the smoker. The maker may be Mary Jarman, 1809-37, Half Moon Street (Oswald 1975, 139).

5.3.4 The Roman pottery

By Amy Thorp

5.3.4.1 Introduction

All stratified Roman pottery was spot-dated from the site; this comprised 21203 sherds from 762 contexts. The vast majority (606) of these contexts were small in size (less than 30 sherds). Of the remaining contexts 113 were medium (30-100 sherds), 39 large (100+ sherds), and 4 very large (500+ sherds). There are 128 contexts containing post-Roman pottery amounting to a total of 1669 sherds.

The condition of the pottery was good with a high quantity of medium to large sherds and most pottery appeared relatively fresh. Signs of burning and abrasion on sherds are consistent with domestic use and there are no obvious fire deposits. Some of the material was covered with a heavy residue which appeared micaceous. This is likely to have been caused by a post-depositional process. It should be noted though that this residue sometimes made it difficult to determine mica-dusting on fine wares.

5.3.4.2 Methodology

The pottery was spot-dated using standard MoLAS methods. It was quantified by sherds, weight and estimated number of vessels (ENV). The resulting data has been entered into the MoLAS Oracle database. Percentages presented in the course of this report are based on sherd count unless otherwise stated.

5.3.4.3 Fabrics

Romano-British fabrics clearly dominate CDP04, with imported fabrics only amounting to 23.9% of the assemblage. This is slightly below the average of 25.8% calculated for City sites in Brigham and Woodger (2001). Low quantities of imports fit well with the majority of the assemblage being 2nd century AD. The range of imported fine wares supports this conclusion. Lyon Colour-coated ware (LYON) is the only fabric present in this category from prior AD 100 and with only two sherds is probably residual. Imported fine wares from Central Gaul are only represented by a few sherds of each fabric type; and in the case of Central Gaulish Glazed Ware (CGGW) are from one vessel. These imports are most common in the Trajanic period (AD 100–120) when the full range of colour-coated wares from the area appeared (Davies et al 1994, 203). There are a small number of Trajanic contexts at CDP04 which may explain the presence of Central Gaulish imports. Cologne Colour-coated ware (KOLN) and Moselkeramik Black-slipped ware (MOSL) are the only other imported fine wares present in noticeable (though still small) quantities. The former continues to support a 2nd-century emphasis and more importantly could point towards the Antonine period (AD 140-160). MOSL dates to AD 200-275 indicating some continuation of activity on the site into the 3rd century AD.

Analysis of the reduced wares at CDP04 reveals several areas of potential interest. Foremost among these is the proportion of sherds from the black-burnished ware industries. The City average for these wares is 12.1%; this site is almost half that total at just 6.7%. Most other fabrics types are relatively close to the City averages (Table 11); other differences are readily explainable, such as lower quantities of amphorae and tempered wares caused by a lack of early material. Dating implications are evident when black-burnished wares are compared to other reduced industries. Highgate C sand-tempered ware (HWC) exceeds all other reduced fabrics at 35.7%. Comparing black-burnished fabrics on this basis they only equate to 17.3%, while Alice Holt Surrey ware (AHSU) is just behind at 14%. These patterns all indicate a mid 2ndcentury emphasis (possibly as specific as the Hadrianic period AD 120-140). An essential task for publication would be to analyse the black-burnished wares in more detail. Sherd averages for Black-burnished 1 ware (BB1), Black-burnished 2 ware (BB2) and Black-burnished-style ware (BBS) are at present fairly equal. The low overall average of these wares could be caused by a lack of later Black-burnished 1 ware. This low figure may be the result of truncation of late Roman levels or may genuinely reflect an absence of late contexts. Subsequent phasing of the site will define which factors are most influential.

Table 11 Breakdown by fabric type

This table shows the comparison of city averages with CDP04 (Brigham and Woodger 2001)

Fabrics	% of sherds - CDP04	% of sherds - city averages
Amphora	10.5	13.9
Samian	11.6	9.6
Fine wares, Imported	0.4	0.9
Fine wares, Romano-British	2.2	3.5
Black-burnished wares	6.7	12.1
Fine wares, Reduced	. 3.3	3.7
Reduced wares	31.1	28.9
Tempered ware	2.2	4.4
Oxidised wares	31.3	22.6
Miscellaneous wares	0.7	0.5
Total	100%	100%

A mid 2nd-century emphasis also seems likely from quantities of other fabric types. This is especially evident among the oxidised wares. Fabrics from the Verulamium region are by far the most common comprising 67.2% of all oxidised wares. Verulamium region white ware (VRW) is the clear leader among these at over 87%. Comparison of the quantities of VRW with Verulamium region coarse white-slipped

ware (VCWS) is an area for further study on this site. The combined production date of the two fabrics covers the whole of the 2nd century AD. Refinement of dates at CDP04 may be possible through the analysis of proportions of these fabrics. The oxidised wares also reconfirm the lack of late 1st-century material, as Eccles ware (ECCW) is virtually absent and Hoo ware (HOO) represents less than 1%.

The Romano-British fine wares and amphorae provide further early to mid 2ndcentury indicators. London mica-dusted ware (LOMI) and London fine mica-dusted ware (LOMIF) total almost half the Romano-British fine wares. According to Davies et al (1994) this is a strong feature of both the Hadrianic and Antonine periods. The proportions of amphora fabrics tie in with these patterns. Furthermore, there are two Baetican stamps on Dressel 20 vessels displaying the letters 'Q.F.C'. This stamp is known to be from around the period AD 120–160 (Callender 1965, 224).

Key to understanding any late 2nd-century activity at CDP04 is the presence of samian fabrics. East Gaulish samian ware (SAMEG) is critical as its production began in the late 2nd century AD at AD 150. Finer dating of Central Gaulish samian ware (SAMCG) sherds through decoration, form or stamp analysis could also provide useful information. Further analysis of all the samian present should be highlighted as a critical task once phasing is complete. An accurate identification of the origin of samian sherds has been problematic in many cases. The overall appearance and density/variety of inclusions has often differed to that usually expected. It was also noticed that a number of sherds had unusual forms of decoration, which again might provide finer dating periods. Expert analysis of the samian would not only provide more dating information for CDP04, but also a better understanding of the non-classic fabric samples present.

Fabrics taking CDP04 into the 3rd century AD are few and far between. There are a range of fabrics present from the late Oxford industries. Oxford red colour-coated ware (OXRC) is the most noticeable of these with a total of 10.8% of the Romano-British fine wares. Nene Valley colour-coated ware (NVCC) is the more common fabric in this category at 13.5%. These quantities are still very small though when compared to earlier material. In the case of NVCC it is a particular form which is of more interest. The only other notable late fabric is Alice Holt Farnham ware (AHFA), but again the quantity is overwhelmed by earlier material (1.1% of the reduced wares).

5.3.4.4 Forms

A wide range of vessel forms were identified. Jars and bowls are the most common categories; totalling 10.8% and 9.4% of the assemblage respectively (Table 12). In this case ENV (Estimated number of vessels) have been used to compare the types as it is clear there is bias with sherd count. Amphora vessels highlight this problem as they can create considerably more sherds than other forms because of their size. The form categories compare very closely to the City averages with the exception of jars. The average percentage of this form (by sherd count) is 11.35%, this is half that usually expected on a City site. The proportions of unknown forms (ie: body sherds) is the only category that produced a higher figure than the City average. After phasing it would be possible to analyse what may be causing this reduction in jar forms.

Forms	Sherds	%	ENV	%
Amphora	2345	11.06	967	6.5
Amphora seal	16	0.08	15	0.1
Beaker	780	3.68	583	3.9
Bowl/Dish	400	1.89	321	2.2
Bowl	1704	8.04	1400	9.4
Colander.	1	0.00	1	0.0
Counter	4	0.02	4	0.0
Crucible	1	0.00	1	0.0
Cup	458	2.16	357	2.4
Dish	1078	5.08	848	5.7
Flagon/Jar	622	2.93	325	2.2
Flagon	755	3.56	525	3.5
Jar/Beaker	449	2.12	358	2.4
Jar	2407	11.35	1619	10.8
Lamp	3	0.01	3	0.0
Lampholder	, 1	0.00	1	0.0
Lid	580	2.74	454	3.0
Misc	15	0.07	13	0.1
Mortarium	542	2.56	370	2.5
Seria/Dolium	22	0.10	12	0.1
Strainer	4	0.02	3	0.0
Tazza	27	0.13	19	0.1
Unguentarium	· 6	0.03	2	0.0
Unguentarium/Amph stopper	10	0.05	8	0.1
Unknown	8973	42.32	6715	45.0
Total	21203	100%	14924	100%

Table 12 Breakdown by form

Given the strong emphasis on 2nd-century fabrics it is not surprising that there are noticeable quantities of forms that would fit this pattern. However, the majority of these forms have date ranges that span from the late 1st century AD through to the mid 2nd century AD. The proportions of bowl forms greatly assist in separating out groups which are dated to tighter periods. At present it is immediately clear that moulded-rim 4A and round-bodied 4F bowls are by far the most common at CDP04. Together these two types of vessel account for nearly a third of the bowl assemblage. Subsequent to phasing of the site it would be worthwhile comparing the percentages of these forms in several 2nd-century groups. Davies et al (1994, 179) highlight the significance of the percentages of bowl forms in each ceramic phase through the 2nd century AD.

Examination of the beaker forms provides another possible link to mid 2nd-century groups. Poppy-head beakers (3F) have a noticeable presence at 15.1% of all beaker forms. This proportion is extremely likely to have been reduced by body sherds of such beakers being included under the general beaker category (3). The barbotine dot decoration diagnostic of poppy-head beakers is also present on two other beaker forms. Therefore, unless the rim form is present it is not possible to categorise the sherd as a 3F. Beaker sherds with barbotine dot decoration account for over 40% of all material in this category. If even only half of these were from poppy-head beakers this would be a firm mid 2nd-century indicator.

The trends in dish forms in samian firmly continue the above patterns. The Dragendorff 18 and 18/31 forms (5DR18, 5DR18R, 5DR18/31 and 5DR18/31R) provide almost 50% of all samian dishes. In comparison the Dragendorff 31 forms (5DR31, 5DR31R) amount to less than 5%. As the latter forms only started to appear in the mid-2nd century (Webster 1996, 35), it suggests there are only a few later 2nd-century groups.

The flagon assemblage at CDP04 is not what would be immediately expected. Given the dominance of 2nd-century material evident elsewhere a high proportion of ringnecked flagons (1B) were expected. These are present in significant numbers (20.9% of this category) but are overwhelmed by general flagons classed as simply a '1'. During spot-dating variations of the flagon form which could not be classed under a pre-existing category were very prominent. Examination of these more 'unique' flagons may be useful (alongside other dated forms) when select groups of material have been chosen. It is interesting to note that there appeared to be a lot of experimental vessels (in addition to the flagons mentioned) present at CDP04. 'Experimental' features include vessels which appear to have combined elements from different forms, unusual methods of decoration, and possible kiln wasters or seconds. A number of these variations have been chosen for illustration/photography (see Table 13 at the end of this section).

There are a range of more unusual forms present within the assemblage. These include seriae/dolia, tazze, face/cup jars and unguentaria. Seriae/dolia appear to have functioned as large storage jars and were in some cases used for the fermentation of wine. The remaining vessels may have had a ritual function; although other purposes are known and re-use/adaptation of vessels is also possible. The presence of high quantities of these forms was also highlighted at the nearby site of GSM97. This site has produced the largest quantities of seriae/dolia, tazze and face/cup jars to date. Other sites in the Cheapside/Gresham Street area including BAZ05 and GYE92 have also produced noticeable quantities of particularly seriae/dolia. The presence of quantities of these forms (especially seriae/dolia and face/cup jars) may simply be due to the dominance of 2nd-century contexts of these sites. However, it is still important to record their presence for future reference.

The scarcity of late fabrics has meant a comparable lack of late forms. Late forms present in reasonable numbers are expected including a small range of the Oxford mortaria and flanged bowls (4M). A specific NVCC sherd with barbotine figure decoration is a notable exception and of special importance. The figure depicted is likely to represent the head of a hydra from a mythical scene of Hercules' second labour. This conclusion has been drawn from comparison with a head on a sherd at Balkerne Lane, Colchester (Webster 1989, 13: Fig 3). The rarity of this decoration would warrant the sherd being photographed for the publication (Table 13).

Twelve vessels have been chosen for possible illustration. Most of these have been chosen for their unique nature; some demonstrating the experimental vessels discussed above. Other examples will be used within the chronological narrative. Comments on each vessel have been included in Table 13.

Context	Form and Fabric	Comments				
299	Nene Valley colour-coated ware beaker with barbotine figure decoration (NVCC 3 BFD).	Decoration – possibly head of hydra. Another similar at Balkerne Lane, Colchester. Photograph?				
519	Verulamium region coarse white-slipped ware flagon (VCWS 1).	Variation – cannot find exact match. 2 handles.				
534	Oxidised ware flagon with rouletted decoration (OXID 1 ROD).	Very unusual form. Large vessel with interesting combination of features. Crudely finished.				
534	Oxidised ware bowl (OXID 4).	Unusual flanged bowl, almost mortarium like rim.				
584	Oxidised ware collared flagon (OXID 1A).	Unusual variation – looks like a 1A as rim has been folded over.				
598	Verulamium region white ware double-handed flagon with flaring rim (VRW 1M).	All of rim present and one handle.				
775	Verulamium region coarse white-slipped ware jar with applied face decoration (VCWS 2FACE).	Mouth and ear visible. VL [800].				
795	Oxidised ware necked jar (OXID 2T).	Closest to 2G, not figure 7 rim. More of flagon mouth. Reconstruct for illustration – whole? Local?				
800	Verulamium region coarse white-slipped ware jar with applied face decoration (VCWS 2FACE).	Parts of both eyes and nose present. Part of rim. VL [775] – similarity of firing and slip.				
835	Marbled ware bowl (MARB 4).	Marsh form 37? Northgate product? – LOXI fabric slipped and marbled. Sherds join. 70-140?				
1628	Sand-tempered ware ovoid beaker with incised decoration (SAND 3B? NCD).	Very unusual form, possible seria				
1949	Verulamium region marbled ware dish with simple rim (VRMA? 5J).	VRW fabric but has been slipped/painted. Probably imitating PRW dec/form *Photograph*.				

5.3.4.5 Discussion

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Early Roman pottery (pre-AD 100)

The date ranges for CDP04 are shown in Table 14. A distinct lack of early material was evident during the spot-dating process. Confirming this only 15% of the contexts date to prior AD 100 and almost all are small in size. There are two contexts [818] and [1738] which are a notable exception, being large assemblages dated AD 70–100. However, it is important to note that there are relatively few vessels in each of these groups. This is particularly the case in context [1738] where a VRW flagon, AHSU jar and HWC jar account for over 50% of the sherds present.

No. of Contexts						•		L	Date								
E Date	70	80	100	120	130	140	150	160	170	180	200	250	270	275	300	400	Total
40			3													2	5
50	3	2	58	7		4	3	47	18	2		4			2	35	185
55			1														1
60			6					3									9
70		1	44	11		7		52		4	3						122
85				1													1
90				4				8									12
100				23	1		4	34	1								63
115						1	1										2
120					2	21	9	131	1		6	27			2	10	209
130								1									1
140								1			1	2			1		5
150								1			9	17			6	6	39
170												5			2		7
180															5	5	10
200												4		3		10	17
220													1				1.
240																1	1
250									1						6	27	33
270																29	29
300																2	2
350																8	8
Total	3	3	112	46	3	33	17	278	20	6	19	59	1	3	24	135	762

Table 14 Date range of assemblage

It is perhaps the location which makes the latter of these contexts ([1738]) more interesting. Context [1738] is contained within subgroup 939 and is a pit. This feature is tightly dated with the remaining context in the subgroup [2057] at AD 50-80. Despite context [2057] being a small assemblage it contains a Samian bowl (4RT12) specific to this period. Subgroup 939 is from Trench 3 and was thought to have evidence of early Roman buildings. Pottery analysis confirms that this trench, in the south-east corner of the site, definitely has the most potential for early Roman activity. In addition to the specific contexts mentioned almost all of the medium size assemblages (pre-AD 100) are from this area. Analysing these contexts together provides a potential group for further quantification (Table 15). Occupation evidence is indicated with both floor and make-up levelling features represented. Signs of the Boudiccan fire (AD 60/61) were thought probable from a layer of timbers burnt *in situ* found in Trench 3. Further analysis of early groups following phasing would be essential to examine whether the pottery supports this conclusion.

Context	Date range	Sherd count	Feature		
1842	70–100	44	Make-up levelling		
1907	50–100	54	Make-up levelling		
2058	50–100	49	Floor		
2065	50–70	30	Floor		
2179	50-80	32	Pit		

Table 15 Early assemblages selected for possible quantification

Early 2nd-century pottery (AD 100–140)

The dominance of 2nd-century activity is clear with 55% of the contexts concentrated in this period. This is perhaps not unexpected as sites in the nearby area such as BAZ05 (to the northeast) and GSM97 (to the west) have also produced concentrations of material from this period. There is also the 2nd-century fort at Cripplegate and the amphitheatre in the nearby area. There are some definable patterns within the 2ndcentury contexts at CDP04. A small number of contexts are dated AD 100–120 (Trajanic period), but well over a third fall into the Hadrianic and Antonine periods (AD 120–160). This is an even higher proportion than at GSM97 where 25.8% of the contexts dated to this latter period.

Immediately apparent is the fact that three of the four very large assemblages from the site fall into this period. These contexts are [775], [800] and [835]; vessel links between the first two contexts have already been established. At present all these assemblages have been identified as external dumps. Following phasing of the site it will be clear whether any of these dumps could be associated with other features (in particular occupation related). Material from the early 2nd century AD is well quantified and the CDP04 material is not unusual enough to warrant further work. However, reviewing the overall composition of these groups in comparison to similar phases on nearby sites is worthwhile. This will assist in answering the research aim of comparing the evidence for and nature of Roman settlement at CDP04.

When identifying additional early to mid 2nd-century groups for similar examination it is clear that not all the material can be used. As mentioned above a significant proportion of the contexts at CDP04 are from this period. However, most of these are too small to be statistically viable. Therefore, it is recommended that only large and medium assemblages (the latter only above 75 sherds) dating to AD 120–160 are reexamined (see Table 16 below for list of potential contexts – to be reviewed following phasing). Two large assemblages are already of special importance; context [1537] and [1925] from subgroups within Trench 14. Two clay and timber buildings were found in this trench. One of these buildings contained an *opus signinum* floor and related artefacts indicating a possible high-status dwelling. Context [1925] from subgroup 595 has already been identified as occupation debris.

Context	Date range	Sherd count	Feature
233	120140	128	Destruction debris (in situ)
404	120–160	96	Make-up, levelling
444	120–160	139	Pit
487	120–160	91	Pit
598	120–160	. 78	External dump
666	120-140	169	Destruction debris (re-deposited)
774	120–160	131	Pit
839	120–160	296	
909	120–160	199	External dump
919	120–160	300 .	Structural cut
1152	120–160	154	External dump
1237	120-160	98	Pit
1332	120–160	229	External dump
1398	120–160	94	Pit .
1466	120–160	125	Make-up, levelling
1512	120–160	173	. Pit
1537	120-160	130	Ditch
1577	120–140	93	External dump
1898	120140	140	Pit
1925	120-130	174	Occupation debris
1949	120160	269	Make-up, levelling
1983	120–150	109	Make-up, levelling

Table 16 Contexts dated AD 120-160 for comparative analysis with nearby sites

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Mid to late 2nd-century pottery (AD 140–200)

At present there is only a tiny proportion (around 1.5% of the assemblage) of contexts that date to this specific period. However, recognising assemblages from this period is already known to be problematic (Symonds and Tomber 1994, 82). The number of contexts that span from AD 140/150 across a wider period account for around 6% of the material. During spot-dating unusual characteristics were noticed in both the fabric and decoration of samian sherds. It is intended that the examination of the samian will provide a key to analysing the later 2nd-century contexts at CDP04.

The decorated samian from all groups with an AD 140 or AD 150 start date will need to be sent to an expert. Refined dating will allow all groups from the Antonine period (AD 140–200) to then be compared. If this task is successful it will provide vital data on the composition of such groups. The proportions of the coarse ware industries will be particularly important. A large assemblage which stands out as an additional candidate for this task is context [935]. Currently this assemblage is dated AD 200–400. However, there are only two sherds of Much Hadham oxidised ware (MHAD) causing this dating. If these sherds are intrusive the assemblage falls back to potentially AD 150–200. Decorated samian sherds have been identified in this context from both the Central Gaulish and East Gaulish production centres.

Late Roman Pottery (post AD 200)

Late Roman contexts are sparse at CDP04, with just 12% of the assemblage post AD 200. As discussed, this is reflected in the lack of late fabrics and forms. On closer inspection a high proportion of even those assemblages that fall into the 12% are inappropriate for further work. The reason for this is that they are either mixed in with large quantities of post-Roman pottery or the context is only dated on one or two late sherds. Therefore, there are no contexts that form a consistent group of late material that would warrant inclusion in the publication of this site.

5.3.5 Post-Roman pottery

By Lucy Whittingham

5.3.5.1 Summary/Introduction

This site produced an assemblage of 1669 sherds (55kg) from 128 contexts, primarily of early medieval date. The majority of the sherds are poorly preserved and do not reconstruct into vessels. All of the sherds have been identified with reference to the MoLAS medieval and post-medieval London type series from which a summary fabric code can be assigned to every sherd and a spot-date calculated from the fabrics present in each context. Basic quantification for assessment purposes records sherd count, estimated number of vessels (ENV), fabric type, vessel form and various attributes such as decoration and glaze characteristics. The size of each context assemblage has been calculated and summarised as small (less than 30 sherds), medium (31-100 sherds) or large (100 sherds or more). These assessment records are entered on the MOLAS Oracle database and will be stored with the site archive. Eight vessels are worthy of illustration.

5.3.5.2 Medieval pottery (c. 900-1500)

5.3.5.2.1 FABRICS

The medieval assemblage is considerable in size (1610 sherds, 54 kg) and comprised closely-dated groups of pottery which form a good chronological sequence dating from 900/970 to 1500. Within the whole assemblage four clear ceramic phases can be identified (and used as indicators of chronological periods) as Late Saxon, Saxo-Norman/early medieval, medieval and late medieval.

5.3.5.3 Late Saxon

The late Saxon material forms 41% of the medieval pottery assemblage (667 sherds) dating from 900 to 1050 and defines the overlapping period between late Saxon and Saxo-Norman/early medieval phases of occupation. Between 900 and 970 Late Saxon shelly ware (LSS) is the major ceramic component (28% of the medieval assemblage), occurring primarily as jars but also in a wide range of bowls, spouted bowls, dishes, and a lamp (ILL). By c 970 early medieval sandy ware (EMS), together with Late Saxon shelly ware, is the most common element of 29 contexts. Early medieval sandy ware is a large component of the medieval assemblage (13%) occurring in jars (ILL), pitchers, spouted pitchers (ILL) and a well-preserved example of a rounded bowl (ILL).

5.3.5.4 Saxo-Norman/early medieval

By 1050 a larger range of fabric types enter the ceramic sequence. A typical suite of Saxo-Norman/early medieval wares dating from 1050 to 1150 include a wide range of local and regional coarsewares as well as imported continental glazed wares. These form a substantial part of the medieval assemblage (26%). Three coarseware products dominate the assemblage; early Surrey ware (ESUR) at 7%, early medieval shell-tempered ware (EMSH) at 5% and early medieval sand- and shell-tempered ware (EMSS) at 3%. The other components of these assemblages include small quantities of early medieval flint-tempered ware (EMFL), early medieval grog-tempered ware (EMGR), early medieval Surrey iron-rich sandy ware (EMIS), local greyware (LOGR), coarse London-type ware (LCOAR) and coarse London-type ware with shell inclusions (LCOAR SHEL).

Regionally imported wares also form a small contribution (1%) of the assemblage in the form of two Stamford-type ware (STAM) pitchers, three Ipswich/Thetford-type ware (THET) pitchers with applied thumbed strips and one white Thetford-type ware (THWH) pitcher.

European imported wares of this early date are well represented by Andenne-type ware (ANDE) pitchers and costrels, north French yellow-glazed ware (NFRY) jugs, a Normandy gritty ware (NORG) pitcher (ILL) and numerous red painted ware (REDP) pitchers (ILL).

5.3.5.5 Medieval

The medieval assemblage ranging from 1140 to 1350 is poorly represented by a limited number of fabrics totalling 3% of the medieval assemblage. These small assemblages contain twenty nine London-type ware (LOND) jugs in various definitive styles; plain baluster jugs (LOND BAL) baluster jugs with north French-style decoration (LOND NFR) dating from 1180 to 1270 and later forms which include baluster jugs with white slip decoration (LOND WSD), dating from 1240 onwards, and tulip-necked baluster jugs (LOND TUL) dating from 1270-1350. A very small sample of Kingston-type ware jugs are represented by single examples in definitive forms; a highly decorated style jug, (KING HD) dating from 1240–1300, a metal copy jug (KING METCO) dating from 1270–1350 and a narrow-necked baluster jug (KING NAR) (ILL) dating from 1310–1400. South Hertfordshire-type greyware (SHER) jars are the only other English products which are contemporary at this date. Continental imports are limited to a single Saintonge pegau.

5.3.5.6 Late Medieval

The later medieval assemblage, dating from 1350 to 1500, is a more major part of the pottery assemblage (24%) in comparison to the earlier material which appears to represent a hiatus in occupation on the site. Surrey/Hampshire coarse border ware (CBW) is one of the larger components (17%) found in a wide range of cooking pots with flat (CBW FT) or bifid rims (CBW BIF), cisterns (CBW CIST), and large rounded jugs (CBW LGR). Other Surrey/Hampshire whitewares include examples of
Cheam whiteware (CHEA) jugs and jars and a 'Tudor green' ware (TUDG) lobed cup. Regional imports include a late medieval Hertfordshire glazed ware (LMHG) cooking pot and Mill Green coarsewares (MG COAR) and jugs from Essex. The Mill Green ware jugs are of diagnostic forms; conical jugs (MG CON) dating from 1240–1350 and squat jugs (MG SQU) dating from 1290–1350. One locally produced vessel may be an example of late London-type ware (LLON) dating from 1400–1500.

European imports are limited to two examples of Dutch red earthenware (DUTR) cauldron.

5.3.5.7 Forms

5.3.5.7.1 SAXO-NORMAN

Within the coarsewares which dominate these assemblages (c 900/970–1050) there is a large and clear range of different vessel forms. Within late Saxon shelly ware (LSS), the range includes jars, storage jars and bowls as the most common forms with additional dishes, spouted bowls and a pedestal lamp (ILL). Vessels in early medieval sandy ware (EMS) are limited to jars and the occasional spouted pitcher of which one particular highly decorated example survives as a near complete vessel (ILL).

Vessels of intrinsic interest are 2 early medieval coarse whiteware crucibles (EMCW). The highly refractory fabric in these small rounded crucibles is typical of examples found particularly in the vicinity of Gresham Street and are commonly associated with copper alloy and silver smithing in the Saxo-Norman period (Bayley *et al* 1991). Some contain traces of red copper alloy residue on the interior surface indicating that these are metalworking crucibles, though further confirmation would be needed by XRF analysis.

5.3.5.7.2 EARLY MEDIEVAL

After 1050 the early medieval assemblage is dominated by classic examples of cooking pot/jars. In early medieval shell-tempered ware the hand-built cooking pots are classic examples with typical squared rims (see Vince and Jenner 1991 fig 2.44. nos 95–98). Similarly all of the examples of early Surrey ware cooking pots have the typical everted rim (Ibid; fig 2.58 nos 139 and 140). Jars/cooking pots are the most common vessel found in all of the early medieval wares (EMSH, ESUR, EMSS, EMFL, EMIS, EMGR). Other vessels, such as bowls, occur as a small quantity in EMSH and LOGR as do pitchers in EMSS.

Coarse London-type ware (LCOAR) vessels are found in both cooking pots and jugs. The cooking pots are primarily of squared rim form. Jugs are usually glazed with a thick lead glaze and occasionally decorated with lattice patterns painted with white slip. The small number of Coarse London-type ware with shell inclusions (LCOAR SHEL) vessels are only found as early rounded jugs. Glazed Andenne ware pitchers have the classic broad collar rim as in Vince and Jenner (1991, fig 2.112 no. 274) and applied vertical thumbed strips or rows of roller-stamped decoration on the body. These are more commonly found than the one example of a costrel. The European imports from France (ANDE) and the Rhineland (REDP) produce pitchers and

beakers as do some of the glazed English regional wares such as those from Stamford. Two Stamford ware pitchers are represented by the strap handle as in Vince and Jenner (1991, fig 2.101 no. 224).

5.3.5.7.3 MEDIEVAL

The small assemblage of medieval and late medieval vessels have been discussed with their fabric types as the forms are an implicit indicator of date.

5.3.5.8 Post-medieval (c 1500–1900)

5.3.5.8.1 FABRICS

The post-medieval assemblage is very small, being represented by 59 sherds from 28 vessels (1 kg) ranging from late 16th/early 17th-century material to early 19th-century industrial finewares. The two phases of post-medieval pottery are equally represented though the earlier material has a greater range of both English and Continental wares, all of which are typical of Tudor and Stuart London.

Red earthenwares and Surrey/Hampshire border wares are the primary component forming 20% of the total number of post-medieval sherds found in London-area early post-medieval redware (PMRE), the coarser London-area post-medieval redware (PMR), Surrey-Hampshire border whiteware with green or yellow glaze (BORDG/Y) and Surrey-Hampshire border redware with brown glaze (RBORB). Where these wares occur as contemporary material in the same context, for example in cess pit fill [1091], they can be dated closely as 1480–1600. However the majority of these sherds occur as single sherds dispersed between contexts and therefore represent a broader date range with the redwares occurring between 1480-1600 and the Surrey/Hampshire borderwares succeeding these from 1550-1700. Surrey/Hampshire border redware is also a later variant being introduced in c 1580 into the ceramic sequence. Surrey/Hampshire borderware whiteware with green or yellow glaze (BORDG/Y) is the second largest component of these assemblages, forming 10% of the total number of post-medieval sherds. Tin-glazed earthenwares are poorly represented in this assemblage though they ought to be a contemporary product of the late 16th and 17th centuries. Two vessels, a plate with manganese glaze (TGW MANG) and a pale blue vase with dark blue decoration (TGW H) can be characterised as late 17th-century vessels by their diagnostic decorative styles. Two types of European stoneware imports are also typical of this period but again represent earlier and later products. Raeren stoneware drinking jugs, which occur more frequently in this assemblage, are common imports in London between 1480 and 1610, whereas Westerwald stoneware tends to be a later product dating 1590 to 1900 and is represented here by one single jug.

The second component of the post-medieval assemblage is represented by early 19thcentury industrial finewares. These wares are found primarily in two groups of material which contain Pearlware with type 2 blue transfer-printed decoration (PEAR TR2), plain and decorated creamware (CREA, CREA BAND), refined whiteware with underglaze painted decoration (REFW) and London stoneware (LONS).

[CDP04] Post-Excavation Assessment

Fabric	No of	Sherds as	ENV	ENV	Weight	Weight
	Sherds,	%		as %	U	as %
ANDE	19	1.2	18	2.7	353	.6
CBW	128	8.0	74	11.0	2429	4.5
CBW	1	2	.1	1	.1	52
CBW	3	81	5.0	3	.4	1816
CBW	3	13	.8	3	.4	305
CBW	9	51	3.2	18	2.7	1828
CBW	3	5	.3	3	.4	136
CHEA	10	.6	3 .	.4	164	.3
DESUR	1	.1	1	.1 ·	8	.0
DUTR	17	1.1	2	.3	225	.4
EMCW	4	.2	2	.3	40	.1
EMFL	3	.2	3	.4	42	.1
EMGR	7	.4	6	.9	. 184	.3
EMIS	5	.3	5	.7	90	.2
EMS	214	13.3	79	11.7	6760	12.4
EMSH	92	5.7	49	7.3	2955	5.4
EMSS	52	3.2	47	7.0	1422	2.6
ESUR	115	7.1	64	9.5	2683	4.9
KING	16	1.0	11	1.6	186	.3
KING	1 .	3	.2	1	.1	130
KING	1	1	.1	1	.1	238
KING	1	2	.1	1	.1	780
LCOAR	21	1.3	16	2.4	489	.9
LCOAR	4	4	.2	4	.6	86
LLON	1	.1	1	.1	62	.1
LMHG	5	.3	1	.1	76	.1
LOCO	2	.1	1	.1	73	.1
LOGR	36	2.2	30	4.5	775	1.4
LOND	16	1.0	10	1.5	660	1.2
LOND	8	23	1.4	12	1.8	574
LOND	1	1	.1	1	.1	104
LOND	2	15	.9	2	.3	637
LOND	3	6	.4	4	.6	596
LSS	447	27.8	150	22.3	22079	40.5
MG	2	.1	2	.3	7	.0
MG	1	25	1.6	1	.1	252
MG	4	44	2.7	5	.7	1062
MG	1	29	1.8	1	.1	663
MISC	1	1	.1	1	.1	11
NFRY	2	.1	2	.3	42	.1

[CDP04] Post-Excavation Assessment

NORG	5	.3	1	.1	475	.9
REDP	5	.3	5	.7	130	.2
REDP	5	5	.3	5	.7	99
REDP	4	38	2.4	4	.6	1584
REDP	1	1	.1	1	.1	6
SAIN	1	.1	1	.1	21	.0
SHER	7	.4	6	.9	163	.3
SSW	6	.4 .	2	.3	161	.3
STAM	2	.1	2	.3	48	.1
THET	15	.9	5	.7	750	1.4
THWH	3	.2	2	.3	42	.1
TUDG	1	.1	1	.1	1	.0
sum	1610	674	54554	.25		

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Fabric	No,of,Sherds,	Sherds,as,%	ENV	ENV,as,%	Weight	Weight,as,%
BORDG	5	8.5	2	7.1	33	3.6
BORDY	1	1.7	1	3.6	57	6.3
CREA	5	8.5	4	14.3	75	8.2
CREA	1	14	23.7	1	3.6	75
ENGS	2	2	3.4	2	7.1	112
LONS	1	1.7	1	3.6	21	2.3
PEAR	3	10	16.9	3	10.7	138
PMR	4	6.8	3	10.7	109	12.0
PMRE	1	1.7	1	3.6	6	.7
PMRE	1	1.7	1	3.6	22	2.4
Μ						
RAER	6	10.2	3	10.7	113	12.4
RBORB	1	1.7	1	3.6	28	3.1
REFW	1	4	6.8	1	3.6	30
TGW	1	1.7	1	3.6	4	.4
TGW	1	1	1.7	1	3.6	36
TPW2	1	1.7	1	3.6	38	4.2
WEST	1	1.7	1	3.6	13	1.4
sum	59	28	910	.00		
sum	1669	702	55464	.25		

Table 18 Summary of post-medieval pottery by fabric type

5.3.5.9 Forms

These late 16th to early 17th-century assemblages contain a variety of kitchenware, tableware and general domestic household vessels. Kitchen wares such as pipkins, jars dishes and bowls which are multi-functional are the most popular vessel forms in London-area early post-medieval redware (PMRE) and Surrey-Hampshire border whiteware with green or yellow glaze. Other specific vessel types are part of a distilling base in London-area post-medieval redware and chamber pots in Surrey/Hampshire red borderware. There are no fine tablewares of this earlier period in this assemblage but coarse drinking vessels are represented by a Surrey/Hampshire border whiteware porringer and the Rhenish stoneware drinking jugs.

Within the early 19th-century industrial fineware assemblage are a wide range of vessels including hygiene vessels in the form of Creamware chamber pots and stoolpans, storage vessels in the form of Creamware cylindrical jars and brown stoneware bottles and tablewares in the form of a blue transfer-printed tureen.

5.3.5.10 Discussion

There is a clear chronological sequence of medieval fabrics and forms represented within this large post-Roman assemblage. Four medieval periods are well represented

by late Saxon material (LSS and EMS) dating from 900 to 970 and 970 to 1050, Saxo-Norman/early medieval material from 1050 to 1150, medieval from 1140 to 1350 and late medieval from 1350/1400 to 1500. The late Saxon and early medieval assemblage (900–1150) is the largest group of pottery found on the site. At this stage of the analysis it is not clear how well these groups relate to the stratigraphy in terms of spatial distribution but the initial phasing would suggest that there are well stratified groups of material and that the level of residuality is low. The question of residuality will need to be examined further at analysis stage.

The late Saxon and early medieval assemblages, which constitutes the largest component of the medieval assemblage (67%) are associated with over 100 contexts in features such as pits, cess pits and occupational dumps which are typical of the type of Saxo-Norman settlement found in this area of the City as witnessed at nearby sites, for example No 1 Poultry (ONE94) (Burch, Treveil and Keene in prep), Milk Street (MIL 72 and MLK76) (Schofield et al, 1990) and Ironmongers Lane (IRO80), Well Court (WEL79) and Watling Court (WAT78) (Horsman, Milne and Milne 1988). The two early medieval crucibles are typical ceramic industrial vessels of this date which are frequently found in this area of the City. The lack of further examples is, however, surprising as they are usually found in larger numbers than this. By 1050 a larger range of fabric types enter the ceramic sequence. A typical suite of Saxo-Norman/early medieval wares dating from 1050 to 1150 include a wide range of regional coarsewares as well as imported continent glazed wares. The association of Saxo-Norman coarsewares, regional imports and continental wares are all typical of London at this period (900 to 1100). Although the number of continental imports is small the variety represents a good example of all of the types of Saxo-Norman imports found in the city between 900 to 1100 and is very similar to assemblages of the same date at Gresham Street (GHT00) (Jeffries 2003), GHM05 (Whittingham 2006), No 1 Poultry (ONE94) (Burch, Treveil and Keene in prep) and Milk Street (MIL 72 and MLK76) (Schofield et al, 1990).

Table 19 demonstrates the link between the pottery assemblage and stratigraphic landuse. The majority of the medieval assemblage (79%) is found in pits (some of which are deep), external dumps (10%) with only 2% being associated with occupational debris. The alignment of the deep pits may be indicative of the layout of burgage plots and therefore street plans Also of note are a small number of late Saxon and Saxo-Norman assemblages which are associated with structural features such as post-holes and beam slot fills from possible sunken-floored buildings/10th and 11th-century structures on the site.

The medieval assemblages are associated with only a small number of contexts, for example structural posthole [1210], pit [1213] and pit [1283] and are frequently found with later medieval material. This period (1140–1350) is poorly represented on the site and seems to represent a hiatus in occupation on the site.

The late medieval assemblage, containing primarily coarse Surrey/Hampshire borderware with Kingston-type ware, London tulip-necked baluster jugs and Mill Green ware, is specifically associated with certain groups of contexts, for example [1091-1097] and [1102], [1108] and [1109], [1156-59] and [1310-15]. These features

include structural features such as wood-lined drainage pipes as well as cess pit fills and external dumps.

The post-medieval pottery is poorly represented in 14 contexts, of which only context [45] is a closely-dated early 19th-century group. The majority of the post-medieval wares are found as single sherds or in groups of a mixed date (also containing medieval pottery). The post-medieval assemblage appears therefore to be well dispersed throughout the stratigraphy of the site, though there is some reliability to be gleamed from the fact that the early Tudor and Stuart assemblages occur in different contexts to the 19th-century industrial finewares in context [45] and [1470].

Table 19 Summary of si	herd count b	y stratigraphic	land-use
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· ·	Sherd	% of
Basic interpretation	No	total
Ditch	31	2%
Destruction debris		
redeposited	4	0.2%
Destruction debris in		
situ	13	1%
External dump	149	10%
External unspecified	1	0.06%
Floor	2	0.1%
Make-up levelling	36	2%
Occupation debris	30	2%
Pit	1172	78%
Pit cess	6	0.4%
Pit refuse	23	1%
Structural cut	5	0.3%
Structural cut post-		
hole	80	5%
Well	3	0.1%
Wall, sill	3	0.1%
Total .	1548	100.0%

Further work required (all periods)

No further work on the pottery is required at this assessment stage.

5.3.6 The accessioned finds

By Nicola Powell and Lyn Blackmore

Material	Preh	Roman	Medieval	Med/Pmedieval	Post medieval	Unknown	Notes
Copper alloy		24		2	2	20	•
Iron		22		1		10	
Composite						1	Fe and Pb
Lead		4	2			12	
Glass		11				1	12 pieces of accessioned glass catalogued
Ceramic		1			1		
Worked bone	?1	34	3		4	6	
Stone		13				3	
Wood						1	
Total	?1	109	5	3	7	54	Not including all glass frags

m 11	20	a		••••	A 1	7	7	7	• 7
Tahlo	711	Nummary	nt	necessioned	TINAC	hu	material	and	noriad
LUCIC	40	Southering	\mathbf{v}_{j}	000000000000000000000000000000000000000	1111010	υy	macoriai	curica	per 1001

5.3.6.1 Introduction/methodology

Five hundred and eighty-nine registered finds were examined from the excavation carried out at 120 Cheapside (CDP04). Finds of Roman date dominate the assemblage, with only seven being certainly medieval or post medieval and one object possibly Iron Age/Roman in date. A large amount of glass was recovered from the excavation and registered. It has been entered into the Oracle database and a few pieces catalogued (see below).

All finds have been examined briefly by eye and with a X10 hand lens for the assessment and the initial identifications confirmed or revised. The metal finds have been x-rayed. Weights and measurements have been taken where appropriate and the data recorded in the registered finds catalogue. The finds have been recorded and characterised according to Crummy's system of recording by purpose and use (1983). The finds have also been examined in the light of the available stratigraphic and dating evidence. Generally, the finds are in poor condition, being fragmentary and corroded. The soil conditions seem to have been particularly damaging to metal objects. A summary of the material is given below, and its significance and potential discussed in terms of understanding the function and development of the site itself.

5.3.6.2 Categories by dating and materials

5.3.6.2.1 IRON AGE/ROMAN

Bone

A spindlewhorl <90> was recovered from context [327], a midden deposit. It is much worn with a central perforation. Its date is unclear, as these were used from the Iron Age onwards.

5.3.6.2.2 ROMAN

As stated above, the majority of finds date to the Roman period. A large amount of glass was found. All is fragmentary and only a few pieces considered for the registered finds catalogue (see below).

Copper alloy

The assemblage includes a number of objects of personal adornment or dress. Of note is a rosette brooch $\langle 772 \rangle$, from floor [1900]. Although heavily corroded as are most of the metal objects, it has the remains of a catchplate and spring in place. It is also decorated. A second brooch $\langle 733 \rangle$, in fragments, was found in context [1898] (pit fill). The fragments include part of the spring. Two other accessions appear to include brooch fragments $\langle 286 \rangle$ [534] and $\langle 372 \rangle$. Accession $\langle 372 \rangle$ was recovered from pit fill [1144]. It may be part of a Hod Hill type brooch. A mount $\langle 374 \rangle$ (pit fill [1159]) and a stud or rivet $\langle 12 \rangle$ (pit fill [177]) may also have formed part of dress. A second mount or strap end $\langle 345 \rangle$ recovered from context [2217] is decorated on the top surface with a chevron pattern. The underside has the remains of one or more lugs. A knopped protrusion remains on one end.

The assemblage includes four fastenings or fittings. Dump [534] produced several small fragments of copper alloy, including the remains of a split pin <286>. A large decorative stud <288> was found in context [617] (dumping). An x-ray shows a single incised concentric line. A bun-shaped nail or pin <340> was found in context [489] (dumping). It appears to have a globular moulding below the head. A second rivet or stud <376> with a domed head was recovered from context [1233]. Metal working waste <287> was found in context [534] (dump).

Several accessioned finds remain unidentified or with their purpose unknown, but were recovered from contexts dated by other finds as Roman. All are recorded in the registered finds catalogue. A ring <35> would have a variety of different uses, including for hanging textiles, as part of horse harness or as a dress accessory. It was found in context [1683]. Registered find <371> from dump [1124] may be the remains of a mount. It is disc shaped and slightly concave with remains of what may be a lug attached on the underside, close to the edge. A tapering strip <377> recovered from dumping [1299] may be the remains of a bow brooch. It appears to have some decoration and a perforation at the widest end may indicate a period of reuse or recycling.

A piece of strapping <384> with two rivet holes would also have served a variety of uses. It may be from binding or a hinge strap. It was recovered from context [1522]. Dumping [935] produced part of a corroded disc <726> with a row of perforations

along what remains of the edge. A small corroded disc <732> from context [1803] may also be the remains of a stud or mount.

The sole object associated with animal husbandry recovered from the site is a bell <282> consisting of a hemisphere with loop. It was found in dump [518].

Iron

When subject to x-radiography, a heavily corroded lump $\langle 327 \rangle$ was shown to be a bow brooch complete with pin. Similarly, thirteen heavily corroded fragments $\langle 794 \rangle$ recovered from context [1802] were shown to include hob nails.

Tools recovered from the site include two knives $\langle 319 \rangle$ and $\langle 697 \rangle$. The first, recovered from [1452] is triangular in shape with a straight edge and a whittle tang. It conforms to Manning Type 11. The second, from pit fill [1075] is similarly a whittle tang knife. A ?tanged object $\langle 710 \rangle$ from a sandy deposit [1534] may be the remains of a tool such as an awl or punch.

The site produced many nails and fragments of nail. Many are likely to be Roman in date, including <707> [1332], <746> [2002] and <747> [2200] (burnt timber screen). Other structural ironwork found on the site includes staples <698> [1075] and <702> [1226] and double-looped spikes <740> [1511], <743> and <793> [1514]. Dumping [1511] also produced what may be a structural object or tool <738> and an incomplete hook <739>.

Context [1710] produced a key for a tumbler lock <770>, with a nail with a domed head. The key appears complete, with ?eight teeth in rows of four offset. It is topped with a suspension loop and the grip tapers to the shaft. Registered find <802> may be an incomplete latch-lifter. Recovered from context [1319], all that remains of the original object is a curved rod.

An x-ray revealed a heavily corroded piece of iron to be the remains of a wool comb <317>, from [1411]. The remains of teeth can be seen.

Lead

Lumps and strips of lead waste $\langle 271 \rangle$ and $\langle 272 \rangle$ were recovered from [270] and [1011] respectively. The site produced a significant amount of lead waste and dross, but most remains undated.

Bone

The site produced a number of very interesting bone objects, including a number of incomplete hairpins. Used to dress the hair into the elaborate styles that were fashionable in the Roman period, the heads conform to types characterised by Crummy (1983). Most are incomplete and it seems likely that some of the unidentified and undated fragments recorded are pieces of hairpin (or needle). Crummy Type 1 has a conical head and <88> [6], <89> from [205], <102> [1279], <672> [1454], <676> [153] and <678> [1481] conform to this type. Crummy Type II similarly has a pointed head, and is enhanced by one or more transverse grooves below. There are five registered finds amongst the assemblage that conform to this, including <93> [792],

<97> [1064], <104> [1332], <674> [1489] and <680> [534]. <674> is complete, with a pointed head surmounting a sub rounded bead motif.

Several bone needles of Roman date were also found. Again, Crummy has characterised these objects and the site produced a complete Crummy Type I bone needle <98> [1133] and an incomplete example <670> [1436]. Crummy Type I has a pointed head and Crummy Type II a spatulate head. An interesting example of the Crummy Type II needle was found in context [417]. It has one complete eye below a damaged and incomplete eye. This may be a deliberate design that served a particular purpose, as double-eyed needles are found in copper alloy. It may also be an example of reuse and repair. A complete example of the Type II needle <5> was found in [221]. It has a circular eye and spatulate head.

A small amount of bone waste associated with bone working was found ($\langle 92 \rangle$ [790] and $\langle 679 \rangle$ [534]). Both are roughly shaped. A piece of perforated antler $\langle 95 \rangle$ [839] may also be an unfinished object. It consists of the coronet from the shed antler of a mature red deer and has been cut and pierced with a circular perforation. Several pieces of worked bone are likely to have been part of hair pins, pins and needles, including an incomplete large needle $\langle 339 \rangle$ with a spatulate head and circular eye, found in [1250].

Glass

The site produced a large number of glass fragments. All have been recorded on the Oracle glass database and those of interest have been included in the registered finds catalogue.

Two beads were found, including a melon bead <2> from [403] and a natural blue annular bead <800> from [935].

The assemblage includes a few fine pieces of Roman glassware, including a good quality cup <122> from [286]. It is thin-walled and colourless with a tubular base ring. It can be dated from the 1st to 2nd century AD. Of a similar date is the handle from a conical bodied jug <129> [362] (?wall), conforming to Isings 55a (1957). Probably slightly later in date (late 1st to early 2nd century AD) is an incomplete phial <597> [1898]. It is a conical unguent bottle, of Isings 82b type. Two pieces from the same bowl (or possibly a cup) <603> and <605> were found in [1907]. It is a monochrome dark green colour and was made by casting and then grinding. It dates to AD 40–70. The same context produced part of a jug <606> with a globular or conical body, dating to AD 60–170. Part of jug <801> consisting of a long neck with remains of a ribbon handle was found in [1398]. It has a strong dark yellow colour and is decorated with diagonal ribs (AD 60–170).

What may be the base from a vessel <619> came from burnt occupation debris [1925]. It is colourless with weathering and dates to the late 1st to mid 2nd century AD. Part of a vessel that may be a jug or jar <624> was found in [1973]. The base is pushed in with an open base ring. It can be dated to AD 60–170. Of not very good quality, part of a flask <620> came from [1949]. Made of natural green blue glass, it has a short neck, with no sign of a handle.

The cast pillar-moulded bowl is a classic 1st century artefact. A body sherd from one of these bowls <763> was recovered from [2116]. The sherd has the remains of a rib on it and dates to AD 40–100.

Pit fill [514] produced a beautiful deep blue gaming counter <149>.

A single piece of Roman window glass <626> was found on the site. Recovered from a floor [1973], it has a grozed edge and has been tooled or trimmed to fit, suggesting it may be reused. The impression of toolmarks can be seen.

Ceramic

Pieces of ceramic accessioned finds recovered from the site include lamps, a fragment of lamp holder and crucible. The lamp pieces are from open lamps (<76> [205], <80> [1436] and <unaccessioned> [1459]) and show heavy burning on internal surfaces. [1436] also produced a piece of a lamp holder, again heavily sooted on the inside. A single sherd of crucible <81> from [800] is also heavily burnt.

Stone

[1952] produced six pieces of a possible shale bracelet <347>. It is plain, with an oval or D-shaped section. Of great interest is a carnelian intaglio <760> from a Trench 14 dump [1588]. Incomplete, it would have been part of a finger ring and depicts the god Mars.

Everyday household items are represented by part of a rectangular tray <23> from [471]. It is decorated with concentric grooves, dots and a herring-bone pattern and would have been used in the preparation or serving of food. It is late 1st to early 2nd century in date. Also used in the preparation or service of food, a piece of the rim of a bowl, probably made of limestone, was found in [790] and a fragment of coarse sandstone quern <751> recovered from [265]. The site produced several more pieces of quern, including lava quern <756> [1102], <759> and <809> [2065], <798> [1436] and a small piece of quern with a worn grinding surface <762> from [801].

Of interest is a quartz crystal <755> from pit fill [1063]. It may have been kept as a curio or amulet. Pliny, in his Natural History recommends cauterizing wounds using the sunlight concentrated through a lens of rock crystal, so this find may be Roman in date.

Several hones were found during the excavation, including some from features dated to the Roman period of use of the site. Most are of fine-grained stone and show a significant amount of wear (<261> [233], <262> [363], <265> [1285], <750> [202] and <752> [282].

5.3.6.2.3 MEDIEVAL

Copper alloy

The site produced several lace chapes. They may be medieval or post medieval in date and all have been catalogued (see below). Their condition varies, but most appear undecorated, edge to edge style with unfinished ends. One <283> was recovered from [527] (dark earth) and three from the same pit fill [1398].

Bone

Three bone skates were recovered from the site; $\langle 91 \rangle$ [532], $\langle 775 \rangle$ [156] and $\langle 776 \rangle$ [1213].

Lead

A short twisted length of lead window came <273> was found in the dark earth [1106]. It appears to have a square section and is probably medieval in date.

A large and impressive object recorded as a mount was recovered from [1884] (<354>). Of strap-like form, this has large zoomorphic heads at each end, rather larger and more angular at one end that at the other, which appears to have a protruding tongue; both heads are convex, with hollow undersides. The complex Ringerike-style (Graham-Campbell and Kidd 1980, 168) interlace decoration on the strap between the two heads is of intertwining, or gripping, beasts (although the bodies are not obviously attached to the two heads) within a rectangular border. The object has an overall length of c 175mm and width of 20mm and is the largest of its type known from London, Although having Scandinavian characteristics, it is doubtful whether the find can be attributed to Viking activity as this style of decoration persisted into the 12th century (similar heads appear in stone in church architecture). It is most likely that the object is of English, or Anglo-Scandinavian manufacture and of 11th-century date. A zoomorphic strap end similar to the larger head on <354> was found at Bull Wharf (<198>); unfortunately the latter was unstratified and so cannot help with dating. Similar interlace decoration has been found on bone trial pieces from a number of sites in London (Pritchard 1991, 177–93).

This find is too large to be a strap end, but although recorded as a mount, it is unusual to find such an object made of lead. It is not impossible that it is in fact the matrix for a mould in which mounts could be cast in copper alloy, as demonstrated by a lead matrix for a brooch found in York (Mainman and Rogers 2000, 2476). This is perhaps supported by the presence of hammerscale in the same deposit. Arguing against this, perhaps, is the fact that the larger of the two heads has vertical sides that would have held it in place on the object it was associated with. Other than this, however, there are no means of attachment. Given the elongated form of $\langle 354 \rangle$, its most likely function, if it is indeed a finished object, was as a sliding lid, or part of one. The closest parallel found so far is a pen case with sliding lid made of walrus ivory and dated to the mid-11th century which was also found in the City of London, now in the British Museum (Roesdahl and Wilson 1992, 336, no.418). A lid made of wood, with more developed animal head, has been found in Lund, Sweden (ibid, no.419). These objects may have been used in scriptoria; both are rather larger than the Cheapside find (lengths 232mm and 334mm respectively), which may be from a smaller case used for storing writing equipment other than pens, or from a larger lid made of wood. This provisional identification needs to be confirmed by discussion with other specialists.

Iron

A key <699> from [1097] could be medieval or post medieval in date. The bow is broken and the stem protrudes over the bit.

5.3.6.2.4 POST-MEDIEVAL

Copper alloy

A clothing fastener $\langle 285 \rangle$ in very poor condition was recovered from [532]. It is of cast metal, with the remains of a hook. Beaded decoration is visible on the x-ray and it retains two eyelets or stitch holes. What may be a second clothes fastener $\langle 727 \rangle$ was found in [996]. It consists of twisted wire fragments with possibly the remains of a hook and eye type fastening. How it was used is not clear.

Ceramic

The well backfill [151] produced a single wig curler <724>, complete and plain with a circular section. It is similar to the dumb-bell type, but the ends are sharply cut.

Bone

Context [45] from the evaluation contained three toothbrushes <9>, <10> and <819>. Green staining and incised lines show where the wires were that fixed the bristles in place. They are 19th century in date. Also manufactured in bone, an apple corer <8> was found in [12]. It is incomplete with the head and point damaged. It has however been finely made, with moulded bands on the handle or distal end with openwork decoration between.

5.3.6.2.5 UNKNOWN DATE

A large number of finds remain unidentified or undated or both. All have been recorded in the registered finds catalogue.

Composite

A piece of lead waste or dross <346> with a complete corroded iron nail attached was found in [1634]. It does not appear to be an object or part of an object, but probably an accidental by-product of metalworking.

Bone

Several fragments of pin found across the site are likely to be from hairpins. What the purpose is and what period it belongs to remain unanswered regarding a perforated tusk $\langle 818 \rangle$ from [1333]. It is drilled at both ends and was probably decorative or amuletic.

Wood

Two short lengths of wooden shaft $\langle 820 \rangle$ may be the remains of a pin. One piece retains what may be a tip. The fragments were found in a pit fill [159].

Assessment work outstanding

5.3.6.2.6 LIST OF OBJECTS FOR INVESTIGATIVE CONSERVATION

<372> Copper alloy brooch <733> Copper alloy brooch <772> Copper alloy rosette brooch <319> Iron knife <697> Iron knife <327> Iron brooch

[CDP04] Post-Excavation Assessment

<317> Iron wool comb <285> Copper alloy clothing fastener

5.3.6.2.7 LIST OF OBJECTS FOR ILLUSTRATION

<372> Copper alloy brooch

<733> Copper alloy brooch

<772> Copper alloy rosette brooch

<319> Iron knife

<697> Iron knife

<327> Iron brooch

<317> Iron wool comb

<800> Glass bead

<763> Pillar-moulded bowl sherd

<626> Window glass

<810> Glass jug

<760> Carnelian intaglio

<23> Shale tray

<285> Copper alloy clothing fastener

<8> Bone apple corer

<5> Bone needle

<98> Bone needle

<799> Bone needle

Mount <354> should be photographed and illustrated for the publication.

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5.3.7 The coins

By Mike Hammerson and Nicola Powell

5.3.7.1 Introduction/methodology

Thirty-four coins and possible coins were submitted for identification. Several objects were dismissed as not or possibly coins and twenty-nine recorded in the registered finds catalogue. One was considered likely to be post medieval in date.

5.3.7.2 Summary, Roman

All the coins are in poor condition, being worn, heavily corroded and damaged with the emperor or ruler often unidentified. Denominations recovered include asses or dupondii, sesterces, radiates and possibly nummii. They range in date from 1st to 4th century AD, with only a couple possibly falling into the later date. The assemblage includes coins of Claudius I (<16> [716] and 28> [1152]), Nerva (<19> [364] and <20> [825]), the Flavians <21> [837], <39> [2012] and <351> [406]) and Domitian (<33> [1533]) from the 1st century and a 2nd century sestertius of Lucius Verus <24> from an unstratified context. Third century radiates include those of Gallienus <30> [1436] and Postumus <31> [1439].

5.3.8 The metalworking slag

By Lynne Keys

5.3.8.1 Introduction and methodology

Almost 31.9kgs of slag and related debris (thirteen standard boxes) were presented for examination. Most had been recovered by hand during excavation although some was from soil samples. Provisional dating, contextual information and sub-group data were available at assessment.

For this report the assemblage was examined by eye and categorised on the basis of morphology alone. Each slag type in each context was weighed; the smithing hearth bottoms were individually weighed and measured to obtain statistical information (see Table 22). Quantification data are given in Table 21 in which weight (wt) is shown in grams; length (len), breadth (br) and depth (dep) in millimetres.

		120 Cheapside					CPD 04
cxt	\$	slag identification	wt.	len	br	dep	comments
105	101	ferruginous concretion	5				
105	101	hammerscale	0				flake
105	101	iron rivet shanks	0				four
108	102	hammerscale	2				flake & magnetised material
127	108	cinder	7				
127	108	hammerscale	4				flake & occ. spheres
127	108	vitrified hearth lining	9				
137	109	hammerscale	1				flake
137	109	iron flakes	1				
175		fused ceramic cinder	816				produced under great heat
202		smithing hearth bottom	114	1.40	135	60	
221	114	cinder	6				with copper oxide on surface
221	114	hammerscale	6				flake
221	116	hammerscale	4				flake & ferruginous concretion
221		ferruginous concretion	424				including charcoal fragments
265	113	cinder	3				
265	113	hammerscale	8				flake & fired clay
304	115	hammerscale	4				flake & occ. spheres
304	115	vitrified hearth lining	13				
304	118	hammerscale	. 7				flake & spheres
312	120	hammerscale	4				
312	120	iron	0				tiny rod of pure iron (unrusted)
312	120	vitrified hearth lining	6				
398		ferruginous concretion	77				

Table 21 Quantification table

402	122	cinder	7				······································
402	122	hammerscale					flake
402	122	smithing hearth bottom	303	- 0	- 0	55	incomplete
402	122	smithing hearth bottom	608	140	115	55	
402	122	cinder	4	140	115	55	
402	123	vitrified hearth lining	90				
406	121	cinder	47				· · · · · · · · · · · · · · · · · · ·
406	121	hammerscale	12				flake & small magnetised material
		114114.44.54414					nane ce sinan magnesisea materiai
406	121	undiagnostic	1168				includes flake hammerscale; broken smithing hearth bottom?
406	121	vitrified hearth lining	43				
406		fused ceramic cinder	93				produced under great heat
430	125	cinder	38				& ferruginous concretion & hammerscale
430	125	hammerscale	9				flake & occ. spheres
430		cinder	50	,			& ferruginous concretion
439		cinder	15				
444	124	hammerscale	6				flake & some ferruginous concretion
448		undiagnostic	79				· · ·
470	128	magnetised material	4				& occ. flake hammerscale
474	131	charcoal	0				as fuel
474	131	cinder	2				· · · · · · · · · · · · · · · · · · ·
474	131	concretion	1710				partially fired clay, ferruginous concretion & clay
474	131	hammerscale	15				flake & occasional spheres
474	131	undiagnostic	563				ferruginous concretion, hammerscale, burnt charcoal & cinder
474	131	vitrified hearth lining	352				
489		cinder	18				
520		smithing hearth bottom	· 308	90	70	45	
526		fused ceramic cinder	207				produced under great heat
542	139	ferruginous concretion	· 4				
542	139	hammerscale	1				flake
563		undiagnostic	219				half smithing hearth bottom?
585		fired brick	20				
585		undiagnostic	100				
601	134	hammerscale	5				& ferruginous concretion
617	135	cinder	48				
617	135	ferruginous concretion	30				& lightly fired clay
617	135	hammerscale	15				flake & occ. spheres
617	135	undiagnostic	213				
617		cinder	61			•	
617		hammerscale	3				flake & very occ. spheres
617		smithing hearth bottom	154	90	70	35	
617		undiagnostic	138				
617		undiagnostic	641				3 pces
617		vitrified hearth lining	259				

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624		charcoal	0				as fuel
624		smithing hearth bottom	318				incomplete & including cinder &
		Ũ					pieces of flint
_ 653		fired clay	498				with inclusions of gravel; more
							high temperature fusion
720		smithing hearth bottom	312	130	70	35	
774		vitrified hearth lining	83)
779		cinder	· 157				
790		cinder	82				
790		ferruginous concretion	53				with iron nail
790		hammerscale	0				broken flake
790		undiagnostic	151				
796		undiagnostic	57				nail inclusions
800		cinder	116				
835		cinder	56				
835		fuel ash slag/cinder	296		•		
835		vitrified hearth lining	68				
839		charcoal	0				as fuel
839		hammerscale	0				flake adhering
839		undiagnostic	226				probably smithing slag
849		fuel ash slag	4				·
857		smithing hearth bottom	1182	150	130	65	
871	148	cinder	.3				·
871	148	hammerscale	4				flake & occ. spheres
871		cinder	142				
871		hammerscale	0				some flake
871		iron	18				
871		undiagnostic	536				two pieces
918		fuel ash slag	39				
989		vitrified hearth lining	17				
992		undiagnostic	76				
993		fuel ash slag	16				
1011		vitrified hearth lining	83				
1023	150	hammerscale	1				flake
1050	151	hammerscale	2				flake & magnetised clay
1061		cinder	20				
1064		undiagnostic	76				
1064		vitrified hearth lining	32				
1071		fired clay	73				
1075	153	hammerscale	3				flake & fired clay
1075		fuel ash slag	17				
1075		smithing hearth bottom	279	100	75	35	5
1075		vitrified hearth lining	77			<u> </u>	
1079		smithing hearth bottom	140	95	60	50)
1079		smithing hearth bottom	211	100	70	35	5
1079		undiagnostic	57		ļ	ļ	
1146		fuel ash slag	25		<u> </u>		
1147		cinder	1		<u> </u>	<u> </u>	
1152		vitrified hearth lining	217		L	ļ	
1181	156	coal	18		ļ	<u> </u>	laminated
1218		cinder	102				

ċ

1222		hommerscale	0	r			flake on surface of slag
1222		maininerscale	44				Hake on surface of stag
1222		final agh alog	21				
1231		utrified hearth lining	- 30		<u> </u>		
1231	150	hommerscale	50				very occ flake & fired clay
1255	130	nammerscale					from iron working
1249		vitrified hearth lining	20				
1279		cinder	5				
1279	1.50	vitrified hearth lining	27				
1310	159	cinder	1				<u>a 1</u>
1310	159	hammerscale	1				паке
1332	161	cinder	8				<u>a 1 a 1</u>
1332	161	hammerscale	3				flake & occ. spheres
1332		cinder	33				
1332		undiagnostic	342				two pieces
1332		vitrified hearth lining	22				<u></u>
1333		fuel ash slag	116				
1333		undiagnostic	35				
1333		vitrified hearth lining	100				
1357		cinder	18				
1357		hammerscale	5				flake & occ. spheres & magnetised material
1369	162	cinder	6				
1369	162	hammerscale	4				and magnetised clay
1398		fuel ash slag	126				
1398		smithing hearth bottom	243	80	65	40	
1398	-	vitrified hearth lining	53				
1403	164	cinder	3				
1403	164	hammerscale	3				flake & occ. spheres
1406	163	hammerscale	1				flake
1409		vitrified hearth lining	26				
1438		smithing hearth bottom	884	130	110	50	
1444	165	cinder	3				
1444	165	ferruginous concretion	6				
1468		cinder	43				
1514		fuel ash slag	7				
1530		cinder	8				
1530		fuel ash slag	19				
1530		vitrified hearth lining	14				
1532		smithing hearth bottom	351	110	90	45	
1533	170	hammerscale	2				& burnt charcoal frags
1577		smithing hearth bottom	356	85	80	45	
1586		cinder	161				
1586		ferruginous concretion	190	-			
1586		hammerscale	0				some flake
1586		smithing hearth bottom	134	90	70	35	
1586		smithing hearth bottom	258	95	75	40	
1586		undiagnostic	158				with fuel ash slag & charcoal ash
		-				,	
1586		undiagnostic	269				includes lots cinder & flint
1586		undiagnostic	480				with hammerscale
1586		undiagnostic	511				one piece
		<u> </u>				· · · ·	<u> </u>

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1500		within a through the inc	110	T	r		
1586		vitrified hearth lining	110				
1587		undiagnostic	379				part of smithing hearth bottom?
1.505		•. • • • • • • • • •	1.0				
1587	1014	vitrified hearth lining	16				
1662	174	burnt coal	1				1 0 1 1
1662	174	naminerscale	1				spheres & magnetised clay
1662	174	vitrified hearth lining	2				
1670		cinder	8				
1670		fuel ash slag	48				
1670		undiagnostic	207				
1672		cinder	35				
1672		undiagnostic	76				
1691		terruginous concretion	51				
1691		undiagnostic	61				· · · · · · · · · · · · · · · · · · ·
1701		undiagnostic	279				two pieces
1705		fuel ash slag & cinder	44				
1709		ferruginous concretion	24				1
1709		smithing hearth bottom	266	95	80	45	very ferruginous
1709		smithing hearth bottom	458	120	90	50	including tegula fragment
1710		fuel ash slag	90				
1735		ferruginous concretion	235				
1735		fired clay	260				one piece
1735		undiagnostic	47				loosely concreted
1735		vitrified hearth lining	207				
1738		charcoal	0				
1738		hammerscale	0				flake on surface of loosely concreted smithing hearth bottom
1738		smithing hearth bottom	213	100	90	50	loosely concreted, ferruginous and with charcoal ash
1738		smithing hearth bottom	439	115	80	45	loosely concreted, ferruginous an with charcoal ash
1738		smithing hearth bottom	828	150	115	70	loosely concreted, ferruginous an with charcoal ash
1738		vitrified hearth lining	238				one piece
1746		undiagnostic	127				
1761		charcoal	0				
1761		hammerscale	0				Flake
1761		undiagnostic	101				loosely concreted
1761		vitrified hearth lining	512				three pieces
1764		iron & cinder	22				nail-making?
1764		vitrified hearth lining	45				
1773		smithing hearth bottom	717	115	110	70	Broken
1794		ferruginous concretion	81				
1795		ferruginous concretion	41				
1795	[vitrified hearth lining	76				
1837		cinder	47			·	
1837		hammerscale	0				Flake
1837		smithing hearth bottom	106	80	0	40	
1837		smithing hearth bottom	119	85	65	30	
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1837		smithing hearth bottom	302				broken; lots concreted hammerscale flake
1837		undiagnostic	26				
1837		vitrified hearth lining	36				
1840		cinder	62				
1840		hammerscale	0				not much: a little very broken flake
1840		undiagnostic	297				very ferruginous and with charcoal ash
1840		vitrified hearth lining	202	.			
1841		ferruginous concretion	12				
1841		undiagnostic	471				including flint pieces & cinder
1842		undiagnostic	541				ferruginous concretion & lightly concreted slag
1847		vitrified hearth lining	85				
1862	•	undiagnostic	· 164				
1869		vitrified hearth lining	80				
1884	175	hammerscale	4				& magnetised clay
1898		vitrified hearth lining	36				
1902		hammerscale	0				Flake
1902		undiagnostic	100				
1902		vitrified hearth lining	1361				with ferruginous concretion
1904		hammerscale	51				concreted with ash and charcoal
1908		vitrified hearth lining	31				
1925		undiagnostic	60				
1940		undiagnostic	364				very ferruginous
1963		undiagnostic	26				
1983		fuel ash slag	22				
1984		cinder	55				
2005		smithing hearth bottom	217	85	80	35	
2012		ferruginous concretion	100				
2024		ferruginous concretion	129				
2024		undiagnostic	32				
2133		iron	43				sent for x-ray
2231		undiagnostic	54				
		total wt. = 31,881g					

Table 22 Smithing hearth bottoms (statistical data)

	range (g./mm)	mea	std.
		n	deviation
weight	106 -1182	364	264
length	85 - 150	95	40
breadth	60 - 135	74	37
depth	30 - 70	43	16

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Activities involving iron can take two forms:

1) Smelting is the manufacture of iron from ore and fuel in a smelting furnace. The resulting products are a spongy mass called an unconsolidated bloom (iron with a

considerable amount of slag still trapped inside) and slag (waste). The latter may take various forms depending on the technology used: tap slag, run slag, dense slag, or furnace slag. No slags diagnostic of smelting were present in the Cheapside assemblage.

2a) *Primary smithing* (hot working by a smith using a hammer) of the bloom on a string-hearth (usually near the smelting furnace) to remove excess slag. The bloom becomes a rough lump of iron ready for use; the slags from this process include smithing hearth bottoms and micro-slags, in particular tiny smithing spheres.

2b) Secondary smithing (hot working by a smith using a hammer) of one or more pieces of iron to create an object or repair it. As well as bulk slags, including the smithing hearth bottom, this generates micro-slags: hammerscale flakes from ordinary hot working of a piece of iron or tiny spheres from high temperature welding to join two pieces of iron. This is the activity indicated by the diagnostic slags from the Cheapside site.

Both smelting and smithing produce slag, some diagnostic of the process, others not. Some slag may be described as undiagnostic because it has been broken up during deposition, re-deposition or excavation. Other types of debris in the slag assemblage may be the result of a variety of high temperature activities - including domestic fires and cannot be taken on their own to indicate iron-working was taking place. These include fired clay, vitrified hearth lining, cinder, and fuel ash slags. However if found in association with iron slag they may be products of the process.

A smith is likely to have worked in a forge or smithy rather than in the open air. The greatest quantity of hammerscale (which is invisible to the naked eye when in the soil) will remain in the immediate area of smithing (around the hearth and anvil) - usually within a building - when the larger slags are removed and thrown into the nearest pit, ditch or rubbish heap. The presence of quantities of smithing hearth bottoms in features usually indicates smithing was taking place somewhere nearby. If several pits or layers around a building contain slag the deposits within the building should be investigated for any other evidence of smithing activity: hammerscale and smaller amounts of broken slag, tools, hones or whetstones, and hearths. The hearth(s) may be at ground level or raised (the latter constructed of stone, brick or tile) so the smith could work standing up.

5.3.8.2 Key groups

The Roman and late Saxon external layers and pit fills are the most interesting for slag. The quantities in each layer or fill are not large but the consistent appearance of hammerscale in many deposits hints that smithing was taking place somewhere. It is possible the late Saxon material may be residual Roman but with ironmongers and iron working already established in the Cheapside area by the medieval period it is impossible to dismiss the Saxon evidence out of hand.

5.3.8.2.1 ROMAN

Some hearths were tempered with flint, a feature often encountered in industrial hearths of the Roman and mid-Saxon periods. The fuel used was charcoal.

Context (1904) the fill of well [1905], sub-group 917 contained 51g of hammerscale, ash and charcoal loosely stuck together. This is likely to have come from an area of smithing nearby. Context dated AD50-160.

Make up layer (474), sub-group 278, produced 15g hammerscale flake & spheres. The undiagnostic slag may derive from smithing. Context dated AD50-120

Pit [2062], fill (1738), sub-group 939, produced three smithing hearth bottoms. Context dated AD70-100.

Demolition layer (1586), sub-group 636, produced two smithing hearth bottoms, a very small amount of flake hammerscale and 1.5kg of undiagnostic slag. Context dated AD70-140.

Occupation layer (1837), sub-group 371 produced three smithing hearth bottoms and a tiny amount of flake hammerscale. Dated AD70-160.

External dump (1333), sub-group 135 produced 3g of hammerscale flake and spheres but no'smithing hearth bottoms. Dated AD120-160.

A sample from external dump (871), sub-group 236, produced 4g of hammerscale flakes and spheres. Dated AD120-160.

Make up layer (406), sub-group 275, contained 12g of flake hammerscale and fire magnetised material. This context has been dated AD120-160.

5.3.8.2.2 LATE ROMAN

For this period the following groups are of interest. Their material may represent a continuation of smithing in this area or may be re-deposited material. They may, of course, be later in date (late Saxon?) but their contexts contained no contemporary pot or building material.

Pit [401], fill (402), sub-group 14 contained two smithing hearth bottoms and 5g of flake hammerscale. This context has been dated to AD270-400.

Pit [326], fill (221), sub-group 146 produced 10g of flake hammerscale. It has been dated to AD300-400. Also late (AD 270-400) is pit [401], fill (402), sub-group 14 which contained two smithing hearth bottoms and 5g of flake hammerscale. Another late feature (AD 250-400) was external dump [430], sub-group 190, with 9g of hammerscale flake and spheres.

5.3.8.2.3 FIRE DESTRUCTION

A small quantity of debris found in three contexts is of some interest. It consists of clay or daub which, under intense heat, had attained an almost brick-like structure; and cinder (the highly fired, honeycomb-like surface encountered in – for instance – a clay hearth lining closest to fierce heat). The material had not only been created by heat but had been fused together by its intensity. Contextual details are:

(175), sub-group 266, dated AD350-400;

(406) sub-group 275 dated AD120-160;

(526) sub-group 430 dated AD 100-120.

From the striking similarity of all three it seems very likely that the debris was produced by the same fire.

5.3.8.2.4 LATE SAXON

External dump (617), subgroup 34, produced 18g of hammerscale, both flake and spheres, and one smithing hearth bottom. Since the hammerscale was recovered by sampling, the true quantity in the deposit was almost certainly much higher - indicating smithing was taking place nearby.

Pit [303], fill (304), sub-group 152, produced 11g of hammerscale flakes and spheres (again from a soil sample).

Pit [1080], fill (1075), sub-group 693, produced 3g of hammerscale from sampling and one smithing hearth bottom.

5.3.8.3 Discussion of the assemblage

The slag indicates iron smithing was taking place either on the site or nearby. On present dating evidence the activity appears to begin, and was possibly most intense, somewhere between AD70 and AD120/140. Slag in deposits of later date may be redeposited material but at the moment this is not certain. The late Saxon looks promising but the dating will need to be re-examined and possibly refined to allow slag to be securely assigned to this period. No smithing hearth bottoms were recovered from medieval features and the medieval assemblage is of no great interest for iron working.

5.3.8.4 Recommendations for further work

Samples not processed at the time of assessment work should be examined and quantified, as should any slag not previously examined.

Distribution of features with diagnostic slag in different periods will need to be examined. The slag specialist and the MoLAS post-excavation archaeologist will study the data together and look at all aspects of the iron working activity (which, as well as slag, may include buildings and their layout, hearths, and the distribution of all finds likely to be related to metalworking activity).

5.3.9 The botanical samples

By Anne Davis

5.3.9.1 Introduction/methodology

Fifty nine environmental samples were taken from the excavations, their volumes ranging from five to forty five litres. Seventeen of the samples were spot-dated to the Roman period, nineteen to the Saxo-Norman period and one each to the medieval and post-medieval periods, while a further twenty one were undated at the time of assessment. The samples came from a variety of features including occupation and makeup layers, external dumps, and pitfills.

All samples were processed by flotation, using a Siraf flotation tank, and meshes of 0.25mm and 1.00mm to catch the flot and residue respectively. Flots and residues were dried, apart from two organic flots which were stored in industrial methylated spirits. Residues were sorted by eye for finds and environmental material. The flots were briefly scanned using a low-powered binocular microscope, and the abundance, diversity and general nature of plant macrofossils and any faunal remains were recorded on the MoLAS ORACLE database. Table 23 shows the processing details, and contents of the samples.

5.3.9.2 Charred remains

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Fragments and flecks of charcoal were seen in almost all the flots, and in several cases made up the entire flot. Occasional charred cereal grains were present in many of the flots and more abundant in some, as were seeds of arable weeds and sometimes cereal chaff.

Two samples from fills of Roman pits [326] and [269] (both Trench 7) contained moderate sized assemblages of charred wheat (*Triticum* sp.), oats (*Avena* sp.) and barley (*Hordeum vulgare*) grains, and the latter also included a large number of glume bases (chaff fragments) of hulled wheat.

Moderate to abundant charred cereal remains were seen in five samples dated to the Saxo-Norman period, from fills of pits [135], [1080] and [1117], occupation deposit [127] and makeup layer [1050]. In most of these samples the dominant grain was oats (*Avena* sp.), and in some cases complete oat florets were present. The sample from layer [1050] contained abundant charred material resembling leaves and stems, probably of cereals or wild grasses, as well as oat grains, florets and many seeds of wild plants.

Several hundred cereal grains, mostly oats, and very many charred weed seeds, were seen in an undated sample from pit [1452] (Trench 14) and smaller charred assemblages were found in two other undated samples from occupation deposit [1884] and pitfill [1661].

5.3.9.3 Mineralised remains

Mineralisation of plant and invertebrate remains was seen in a number of samples dated to the Saxo-Norman period and several undated samples, including fills of pits [533], [1472] and [539]. The majority of plant macrofossils preserved in this way were fruit pips and stones, although many mineralised stem fragments were seen in the fill of pit [533].

5.3.9.4 Waterlogged remains

Preservation of organic remains was not particularly good in many of the samples, and in some cases differential preservation, resulting from drying of the deposits, had taken places so that only the more robust, woody seeds survived. However larger and more diverse assemblages were seen in some samples. Four samples dated to the Roman period, from pits [602] (Trench 5) and [326] (Trench 7), contained quite large assemblages of seeds from wild plants, as well as plant stems and moss. The samples from pit [602] contained seeds of several grassland plants while those from pit [326] seemed to be mainly from disturbed arable and wasteland habitats.

Waterlogged assemblages were seen in four samples dated to the Saxo-Norman period, from pits [157] (Trench 1), [303] (Trench 7) and [533] (Trench 13) (two samples). Food remains including sloe (*Prunus spinosa*) stones, apple (*Malus domestica/sylvestris*), wild strawberry (*Fragaria vesca*) and hazelnut (*Corylus avellana*) were common in three of these, as well as weeds of cultivated and other disturbed ground.

A further three samples, currently undated, also contained waterlogged plant macrofossils. One from pit [1472] (Trench 10) contained many food remains, including seeds of fig (*Ficus carica*), grape (*Vitis vinifera*), redcurrant(?) (*Ribes* cf. *rubrum*) and cucumber/melon (*Cucumis sativa/melo*). The last two of these are usually found only in late medieval or post-medieval samples. A fill from pit [544] (Trench 13) also included several food plants and disturbed ground weeds, and one from pit [1452] (Trench 14) contained mainly seeds from wild plants.

5.3.9.5 Faunal remains

The majority of faunal remains in the samples came from large mammal, fish and bird bones, and marine molluscs, all of which were present in many of the samples and mainly represent the disposal of food waste. Eggshell was found in seven samples. Invertebrate remains were uncommon in the samples, but beetle fragments were found in ten and were moderately common in fill [542] of cut [544] (Trench 13), while fly puparia were seen in thirteen.

5.3.9.6 Artefactual remains

A wide variety of artefacts was recovered from the sample residues, the most frequently recorded categories being pottery, slag, iron objects and ceramic building material. Mortar, daub, glass and lead were all found in several samples. Fill [1053] produced the only organic artefacts, with remains of leather and textile fragments, and post-medieval hearth [1181] was the only sample from which coal and clay pipe fragments were found, as well as abundant glass fragments.

Table 23 Summary of botanical data

A: abundance, D: diversity (1 = occasional, 2 = moderate, 3 = abundant)

				•											
						ćhd	chd	chd	chd	chd	wlg	wlg	min	min	
									mis	_		mis		mis	
compl			proc	flot		grain	chaff	seeds	C	wood	seed	C	seed	C	
e	ві	dating)		proc	AD	AD	AD	AD	AD	AD	AD	AD	AD	Comments
142	ED	50-160	15	2	F	11				21					DRY
134	Р		10	250	F					21	32	32			DRY. PEATY MATERIAL WITH EMBEDDED SEEDS
133	Р	70-100	10	100	F			11		11	33	32			DRY. PEATY LUMPS W SEEDS EMBEDDED
133					W						•	31			CESSY
131	MU	50-120	10	160	F					31					DRY. 100% CHARCOAL
131					w					31					CHARC RICH, HEARTH BOTTOM SLAG5%KEPT
132	Р	90-160	10	2	F					11					DRY
135	ED	120-160	20	10	F					21					DRY.
135					w					31					SLAG-50%LRGE KPT, FREQ CHARC FRGS NOT KP
124	Р	120-160	30	30	F					21	11				DRY. FEW WLG SEEDS
120	ED	120-140	30	25	F	11				31					DRY
170	ED	120-140	20	40	F	11		11		31					DRY
113	Р	200-250	40	70	F	21	31	21		31		21			DRY. 10-20 GRAINS, MORE GBS
122	Р	270-400	10	10	F					21					DRY
125	ED	250-400	45	70	F					31					DRY
114	P	300-400	20	50	F	21		11		31	33				DRY.C.40 CHD GRAIN, WLG ARABLE&WASTE GRN
· 114					w					31					DRK GRAVEL-FREQ BONE, SHELL
116	Р	300-400	10	50	F		11			11	32	31			DRY. WLG SEEDS FROM DISTURBED HABS
121	MU	Rom?	30	20	F	11				11					DRY
128	MU	50-400	20	20	F	11				31	11				DRY.
162	MU	Rom?	20	15	F		-			31	11				DRY
104				<u> </u>	· · · · · ·	· · · · · · · · · · · · · · · · · · ·									
													· · · · · · · · · · · · · · · · · · ·		

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149	Р	1050-1150	20	800	F					21	33	33			WET+DRY.FOODS+WILD EMB'IN DRY ORG MAT'L
149	~				W						31				PIPS CESSY
112	Р	1050-1100	10	150	F	21	11	21		31	22				DRY. 10-15 CHD GRAINS
112			· ·		W					31					FRQ SHELL FRAGS, FISH
101	ос	1080-1200	20	300	F					31					DRY.
102	oc	1080-1150	20	50	F	11		11		21					DRY. FEW CHD OAT, WHEAT
103	MU	1080-1150	10	5	F	11		11		21					DRY. C.6 CHD GRAINS
108	oc	1080-1150	20	25	F	21		11		31					DRY.10-15 GRAINS:WHEAT, BARLEY, OATS
109	MU	970-1100	10	20	F	11				21					DRY.
115	Р	900-1050	30	5	F			11		31	11				DRY.
118	Р	900-1050	10	15	F					31	22				DRY. WLG SEEDS MAINLY DISTURBED HABS
138	Р	970-1050	10	120	F	11					22	11		21	WET+DRY. FEW DIST'BD GROUND WEEDS
143	Р	970-1050	20	300	F					21	33				FEW FOODS+WILD PLANTS, POOR PRES
144	Р	970-1050	20	250	F	21					32		21	31	DRY. WLG&MIN, MAINLY FOODS
137	Р		10	20	F					21	22			31	DRY. FEW WAST-GROUND SEEDS
153	Р	970-1050	10	120	F.	21	11	22	11	31	22				DRY.C.20 CHD GRAINS, MOST WLG SEEDS DIST
154	Р	1050-1150	10	500	F	21	11	22		31	31		11		DRY.C.25 GRAINS, MOST OATS. CHD FOODS
158	Р	900-1050	10	15	F	11	11	11	11	21	11				DRY. FEW CHARRED REMAINS
152	Р	1050-1100	10	130	F					11	11		11	21	DRY.MIN CONCRETIONS W. MIN TEXTILE FRAGS
152					w								11		CESS
151	MU	1050-1150	20	1000	F	31	21	33	31	31	11				DRY.MUCH CHD STRAW,OAT GRAINS,MANY WEED
151		1000 1100			w		<u> </u>	31							BURNT. POT, BONE.
159	P	1340-1400	10	40	F	11				31	11		•		DRY
156		1660-1680	20	100	F					21	31				DRY. MANY RUB+FIG SEEDS, FEW OTHERS
168	PC	0-0	20	160	F	11					33	21	11	.11	DRY. SOIL/CLNK W FOODS, INC CUC, RIB, CANS
168					w								31		DARK- SEEDS, CBM FRAGS
	<u> </u>														
175	oc	0-0	20	100	F	31		11		11	22				DRY.>50 CHD GRAINS, MOD WLG SEEDS
126	D		10	10	F					11	11				DRY
161	FD	0-0	10	30	F					31					DRY.

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Р	0-0	10	10	F					21				DRY
SP		5	10	F			11		21	11		11	DRY. MOSTLY MIN CONCRETIONS, FEW SEEDS
				w								11	CESSY OYSTER FRAGS NOT KEPT
ED		20	15	F	11		11		21				DRY
P		10	20	F					31				DRY. 100% CHARCOAL
SN		10	50	F	11				21	33	32		DRY.PEATY LUMPS W. MIXED SEEDS
				w									DARK,WOOD,BONE,SHELL
Р		10	60	F						21		21	DRY. MOSTLY MIN CONCS, FEW ID'ABLE SEEDS
Р		20	1200	F	31	11	33		31				DRY.C.400 GRAIN, MANY CHD WEED SEEDS
Р		20	30	F	11		11		31	32			DRY.DISTBD+WETLAND SEEDS
oc		20	60	F	11		11		31				DRY, C.8 GRAINS
SN	0-0	· 10	20	F	11		22		31				DRY. <5 GRAINS + CHD WEED SEEDS
SP	0-0	999	5	F			11		11				DRY
Р		10	60	F	21		11		31	21			DRY. C.10 GRAINS, WLG/MIN RUB, SAM
Р		20	100	F					31				DRY. 100% CHARCOAL
oc		20	10	F					31	11			DRY
DS		20	20	F	11		11		31				, DRY.
	P SP ED P SN P P P OC SN SP P OC DS	P 0-0 SP	P 0-0 10 SP 5 ED 20 P 10 SN 10 SN 10 P 20 P 20 P 20 OC 20 SN 0-0 SN 0-0 OC 20 SN 0-0 SP 0-0 P 10 P 20 OC 20 SN 0-0 SP 0-0 P 20 DC 20 SP 0-0 SP 0-0 SP 20 DC 20 DC 20 DC 20	P 0-0 10 10 SP 5 10 ED 20 15 P 10 20 SN 10 50 P 10 50 P 10 60 P 20 1200 P 20 30 OC 20 60 SN 0-0 10 20 SP 0-0 999 5 P 10 60 P QU 100 00 10 SP 0-0 999 5 P 10 60 P QU 100 00 00 P 20 100 00 P 20 10 0	P 0-0 10 10 F SP 5 10 F W ED 20 15 F P 10 20 F SN 10 50 F N 10 50 F P 10 60 F P 20 1200 F P 20 30 F OC 20 60 F SN 0-0 10 20 F SN 0-0 10 20 F SP 0-0 999 5 F P 10 60 F P QU 100 F F P 20 100 F P 20 100 F F P 20 100 F DS 20 20 10 F F D S S	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	P 0-0 10 10 F	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

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5.3.10 The animal bone

By Alan Pipe

5.3.10.1 Introduction/methodology

Hand-collected and wet-sieved animal bone, from 262 contexts and 48 samples was recorded directly onto the MoLAS Oracle 8 animal bone assessment database. Each context and sample group was described in terms of weight (kg), estimated fragment count, species, carcase-part, fragmentation, preservation, modification, and the recovery of epiphyses, mandibular tooth rows, measurable bones, complete long bones, and sub-adult age groups. The assemblage was not recorded as individual fragments or identified to skeletal element. All identifications referred to the MoLAS reference collection. Fragments not identifiable to species or genus level were generally allocated to an approximate category, particularly unidentified fish, herring family, cod family, frog/toad, unidentified bird, small mammal, 'ox-sized' and 'sheep-sized', as appropriate. Each context and sample assemblage was then grouped with the available dating and feature description. All hand-collected and wet-sieved sample assemblages were recorded, there was no attempt at selection of particular feature or sample groups.

Tables showing basic and detailed summaries of the hand-collected context groups, and wet-sieved sample groups, in terms of weight (kg), estimated fragment count, fragmentation, preservation, faunal composition, and the recovery of evidence for ageing (mandibular tooth rows, and epiphyses) and stature (complete longbones) are available within the archive for the site, held at MoLAS, to be transferred to the LAARC after publication.

5.3.10.2 Summary, general

This assemblage derived mainly from pits with smaller groups from dumps, makeup, occupation and floor deposits; it provided a total of 241.687 kg, approximately 13607 fragments, of well-preserved hand-collected and wet-sieved animal bone with a minimum fragment size generally greater than 75mm. The hand-collected bone produced 229.083 kg, estimated 9687 fragments, derived from 262 contexts; the recorded wet-sieved assemblage produced 12.604 kg, estimated 3920 fragments, derived from 48 sample groups.

The bulk of the identified hand-collected assemblage derived from adult ox *Bos taurus*, sheep/goat including sheep *Ovis aries* and goat *Capra hircus*, with smaller quantities of cod family Gadidae, chicken *Gallus gallus*, pig *Sus scrofa*, horse *Equus caballus*, dog *Canis familiaris* and cat *Felis catus*; and very occasional recovery of goose *Anser anser* and mallard or domestic duck *Anas platyrhynchos*. Wild 'game' species were represented only by a single bones of partridge, probably grey partridge *Perdix perdix*, from [136] and a wader from [532]; with occasional recovery of red deer *Cervus elaphus* from [616], [728], [1152]; and roe deer *Capreolus capreolus*

from [489], [1116], [1152], [1173], [1279], [1436], [1443], [1451] and [1643]. There were single fragments of human skull from [156] and [490]; and upper limb from [989] and [1907].

Wet-sieving produced a small and not very diverse fish fauna derived very largely from marine and migratory species, particularly cod *Gadus morhua*, cod family Gadidae and herring family Clupeidae, but also including ray, probably thornback ray *Raja clavata*, eel *Anguilla anguilla*, plaice/flounder Pleuronectidae, including plaice *Pleuronectes platessa*, and mackerel *Scomber scombrus*. Freshwater fish were represented only by finds of carp family Cyprinidae from [532], the only recovery of this taxon from all the selected samples. In addition, the samples produced occasional finds of frog/toad and small mammal.

The major domesticates were represented by elements of all carcase areas with a bias towards the vertebra, rib, upper limb and lower limb, areas of moderate and good meat-bearing quality, with lesser recovery of the head, feet and toes. Virtually all major domesticate bones derived from sub-adult, young adult or mature animals, with only a few examples of juvenile bones, no infants, and only one foetal or neonate example.

Clear evidence of butchery was seen on ox, sheep/goat, pig and horse. There was considerable recovery of ox, sheep and goat horncores, usually with definite chop marks at the base indicative of removal prior to further processing of the horn sheath. A fragment of red deer antler from [728] had been sawn.

Pathological changes were seen on chicken from [1075]; ox from [136] and [1285]; sheep/goat from [136] and [1324]; and horse from [156]. There was no evidence of gnawing, and only one fragment of burnt bone, a sheep/goat phalange (toe joint), from [1082] (154). The group produced extensive evidence for age at death of the major domesticates with 247 mandibular tooth rows and 1410 epiphyses; metrical evidence comprised 419 measurable bones including 137 complete longbones.

5.3.11 Conservation

By Liz Goodman

	Material	No. accessioned	No. conserved	No. to be treated (see below)
Organics	Bone	47		2
	Ivory	1		
	Leather	bulk only		
	Wood	1		1
Composite	Lead/iron	1		
Metals	Copper alloy	98 (31 coins)	31 (31 coins)	4
	Iron	80		4
	Lead	21		
Inorganics	Ceramics	156		Bulk
	Glass	424		2
	Sample	1		
	Stone	32	1 + lifted mosaic	1 + mosaic

Table 24Summary of conservation work

5.3.11.1 Introduction/methodology

The following assessment of conservation needs for the accessioned and bulk finds from the excavations at 120 Cheapside encompasses the requirements for finds analysis, illustration, analytical conservation and long term curation. Work outlined in this document is needed to produce a stable archive in accordance with MAP2 (English Heritage 1991) and the Museum of London's standards for archive preparation.

Conservation support at the time of the excavation was provided by conservators working for the Museum of London Archaeological Services. Conservation of artefacts was carried out in the laboratory and conservators were also involved on site lifting a small section of mosaic.

Treatment of objects at the fieldwork stage includes the stabilisation of vulnerable materials and composites, cleaning of coins for dating purposes and investigative cleaning and conservation according to archaeological priorities. Treatments are carried out under the guiding principles of minimum intervention and reversibility. Whenever possible preventative rather than interventive conservation strategies are implemented. Procedures aim to obtain and retain the maximum archaeological potential of each object: conservators will therefore work closely with finds specialists and archaeologists.

Most conservation work on metal artefacts begins with visual examination under a binocular microscope followed by mechanical cleaning using scalpel and other hand tools. Mechanical cleaning will reveal detail and a conservation surface beneath often voluminous corrosion products enabling the true shape and purpose of the artefact to be understood. Preservation of the metal work appears to be poor, with both the copper alloy and iron objects covered in a thick layer of corrosion.

The large quantity of glass recovered on site was found in dry contexts and was treated during finds processing.

The mosaic was lifted in a number of pieces. Netting was adhered to the tessera and then the whole object was undercut to allow the mosaic to be lifted off site. The mosaic was then boxed while waiting for further conservation.

All conserved objects are packed in archive quality materials and stored in suitable environmental conditions. Records of all conservation work are prepared on paper and on the Museum of London collections management system (Multi MIMSY) and stored at the Museum of London.

5.3.11.2 Finds analysis/investigation

The accessioned finds were assessed by visual examination of both the objects and the X-radiographs, closer examination where necessary was carried out using a binocular microscope at high magnification. The accessioned finds were reviewed with reference to the finds assessments by Nicola Powell.

Four copper alloy and four iron objects, including a Roman woolcomb, were identified as requiring conservation input to clarify detail to aid analysis and identification.

5.3.11.3 Work required for illustration/photography

A number of accessioned items were identified as requiring conservation input to prepare them for photography in addition to two Roman and one post Roman pots.

5.3.11.4 Preparation for deposition in the archive

The small finds from this site are appropriately packed for the archive. However a couple of objects can not be considered to be stable and require conservation before deposition.

A decision has to be made if mosaic is to be kept or if preservation by record will suffice. If kept then it must be backed. The work estimated within the UPD (MoLAS in prep) is only to get it to a condition that is acceptable for archive deposition, if it was wanted for display further work would be required.

5.3.11.5 Remedial work outstanding

One wooden item is still wet and requires treatment before the site can be deposited in the archive.

5.3.12 The leather

By Beth Richardson

5.3.12.1 Methodology

The bulk leather from CDP04 was examined and recorded while wet.

5.3.12.2 Quantification

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There are two pieces of very fragmentary bulk leather from the site.

5.3.12.3 Provenance and dating

[1133] Fragment of two-part insole. Un-datable, although possibly 16th century, widening to a broad toe.

[1137] Fragment from piece of leather; two right-angled sides (approx 10 x 9mm, but incomplete) with edge/flesh stitch holes.

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6 Potential of the data

6.1 Realisation of the original research aims

This section examines the extent to which preliminary assessment of the results of the excavation indicates that the original research aims (Section 3) have been or can be answered by the excavated material from 120 Cheapside. The original research aims are listed as ORA1 etc and are those detailed within the *Method Statement* (MoLAS 2005).

Pre-Roman and prehistoric

ORA1 Is there any evidence for pre-Roman settlement activity? In particular is there any evidence for any of the immediately pre-Roman activity as found at the 10 Gresham St site to the north?

There was no structural evidence for pre-Roman activity on the site. The flint assemblage which dates to the prehistoric period was all residual within later contexts and thus has no potential to shed light upon pre-Roman occupation in the area. No round houses were present, as on 10 Gresham Street to the northwest. The large water-filled hollow in trench 20 and the tree-throw hole in trench 1 may date to the pre-Roman period as natural features but their backfills were purely Roman in date. The 30 Gresham Street site to the northeast contained similar residual flint items and natural features filled with Roman material.

Roman

ORA2 What evidence is there for Roman settlement in the area? How does this differ from/compare with the activity from nearby sites, especially the 30 Gresham Street site to the north east? What kind of settlement was there (domestic, industrial etc)?

Extensive evidence for Roman settlement in the area was excavated on the site. It predominantly dated to the 2nd century AD and the inhabited areas of the site centred around occupation along Cheapside to the south. There were also clay and timber building remains found along the western and eastern edges of the site and extensive pitting alongside contemporary external dumped deposits in the central and northern area. No evidence was found for the use of the site for inhumation burials, as was seen at 30 Gresham Street and the site does seem to have been largely open ground during the early Roman period, utilised for pitting and dumping.
Initially the area was cleared and cut features seem to indicate the land was subject to drainage and land preparation prior to the first phase of construction; sometime during the late 1st century when a clay and timber building was built in trench 3. The location of this near the Roman road of modern Cheapside fits well with excavated evidence from other nearby sites such as Bow Bells House to the south, where buildings faced onto the street frontage. Another building was excavated in trench 12 and although the observed remains were limited due to the size of the trench a fragment of mosaic floor was lifted and an indication of the plan of the building was possible due to timber wall lines observed in plan. This may date to the 2nd century, as it is in the vicinity of similar buildings seen against the Milk Street frontage of 30 Gresham Street.

The pottery from the site shows considerable evidence for Roman settlement in the area especially in the 2nd century AD. Concentrations of material from this period have also been noted at BAZ05 (to the northeast) and GSM97 (to the west). Specific groups from the 2nd century contexts have been chosen for further analysis. Results from this further work will allow the nature of the Roman settlement to be characterised in more detail. Initial analysis has already shown that there are groups of 2nd-century pottery likely to be related to occupation features on the western edge of the site. There is also some potential for examining occupation related to the early Roman period in Trench 3. A small group of contexts have been chosen for possible quantification.

2nd century activity was largely domestic occupation, with clay and timber buildings seen in trenches 3, 4, 8, 10, 11, 12 and 14. These were generally constructed over dumps containing wall plaster and other building remnants. This included a significant assemblage of procutorial tiles, possibly from a public building in the area. Alternatively these tiles could be dumped material from a tile kiln working in production nearby.

The Roman activity appears to have been largely domestic in nature, although the substantial amount of iron working debris may indicate some small-scale smithing being carried out on the site, and the quantity of bone working waste and bone needles may show that this was also occurring in the vicinity. The period of disuse and abandonment for the buildings seems to have been during the mid-late 2nd century.

The late Roman period is exclusively characterised by dumping and pitting, with the latest pottery dating to 350-400 AD. This activity is similar to that seen on 30 Gresham Street with the enigmatic 'dark earth' seen across both sites.

ORA3 Is there any evidence for a Roman bathhouse or bathhouse related structures? Is there any evidence for any other water-management features (as at 30 Gresham Street)?

No evidence was found of water management features such as the deep wells seen at 30 Gresham Street. However, there was possibly some limited evidence for a bathhouse-related building excavated within trench 12 at the southeast corner of the site. Here an area of a building had a timber floor nailed down onto an earlier brickearth slab. Associated with this timber floor was a flagstone/tile floor and an upstanding area of wall plaster providing a clear divide between distinct areas, possibly rooms, within a building. This may alternatively have been an area of sunken floor, or hypocaust. The discovery of a fragment of volcanic pumice stone, used for cleaning the skin may have originated in the Cheapside baths or another bath house on or near the site. Other building material was recovered that was principally used in bath houses, and the significant number of procuratorial tiles may suggest the presence of a public building such as a bath house in the area.

Saxon₂ and early medieval

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ORA4 What evidence is there for the establishment of the Late Saxon/medieval street plan (Milk St, Wood St) and the buildings fronting on to it?

The large Late Saxon and Saxo-Norman assemblages, found in deep pits on this site, provide good evidence of l0th to mid 11th-century occupation within this part of the city. It may be possible to reconstruct the layout of buildings within the area of this site by applying comparative data from Milk Street (Schofield *et al* 1990) and No 1 Poultry (Burch, Treveil and Keene in prep) where a large majority of the pottery was also found in pits. The pits at these particular sites could be used as an indicator of back yards within properties which fronted the street. The earliest buildings at Milk Street were aligned north-south suggesting that the major frontage lay to the south. It was also noted that the alignment of pit groups lay east-west possibly indicating the orientation of burgage plots (Horsman, Milne and Milne 1988, 23).

The stratigraphic evidence of late Saxon and early medieval period activity was fairly ephemeral but the stakeholes and other structural cuts seen in trenches 6, 7 and 29 will potentially indicate the location of buildings on the site. Their spatial distribution (in the northern and eastern area) suggests that they fit in with the suggested areas of earliest development of Milk Street and Wood Street, possibly with another street running east-west across the site at the northern edge of the site boundary. The chalk foundations seen across the site will help to define the locations of later medieval buildings and structures on the site.

ORA5 Is there any evidence for the date of the establishment of the late Saxon Ceap and the market stalls which flanked it?

This site must lie at the western end of the Saxon *Ceap* and may mark the interface between occupational settlement and the commercial area of the Saxon settlement. The pottery evidence certainly suggests that there was intensive settlement on the site

in the 10th century but further analysis will be required to establish if the pits containing pottery can be divided into property boundaries which may indicate the position of structures in relation to the street plans.

Medieval

ORA6 Is there any evidence for the location of the Cheapside Cross at the corner of Wood Street and Cheapside?

No evidence for the Cheapside Cross was found on the site.

Post-medieval

ORA7 Is there any evidence for the survival of remains of the Mitre Tavern?

Several large deep chalk foundations were excavated in the general vicinity of the Mitre Tavern. The standing building recording exercise carried out in the barrel-vaulted cellars below Mitre Court revealed that a spinal wall within the cellars dated to the period after the Great Fire (post-1666) which could be part of the remains of a later phase of the tavern, although the extant brick cellars dated to the 18th century.

ORA8 What evidence is there for the development of the area in the post-medieval period?

The evidence for the post-medieval period on the site was minimal. However the tunnelled brick culvert points to the installation of drains and sewers during the 19th century and other brick structures such as wells could be used to show the location of open areas behind buildings of the period.

Modern

ORA9 What evidence is there for the impact of modern building techniques (piling etc) on the survival of archaeological remains?

The truncation of archaeological remains by the standing buildings on the site was extensive, particularly in the central area of double basements and the cellars below Mitre Court. Concrete piles were found across the site and had removed all deposits in their path. The examples of piles which had had the concrete poured behind timber shuttering had resulted in less damage to the archaeological strata than those that had had the concrete poured into holes without shuttering. In these examples the concrete had encroached into the surrounding ground significantly. In addition during the 2005 fieldwork there was a lot of piling activity, some of which involved small diameter piles and therefore no archaeological intervention other than a watching brief. This did not fully ensure the recording of the archaeology to an accurate or satisfactory level, of particular concern in the area along the Cheapside frontage where the majority of Roman clay and timber building evidence was found.

6.2 General discussion of potential

The stratigraphic archive from CDP04 has considerable potential and initial assessments have revealed distinct land uses and phases of activity across the site. A series of subgroup matrices has been produced showing the inter-relationship of more than 2,300 contexts. From these a series of distinct phases is becoming clear. The stratigraphic framework will be used to place additional specialist study in its spatial, functional and chronological context. The latter will be achieved by the linking of relative and typological dating chronologies. Spatial interpretations will be greatly assisted by the use of digital media such as Arcview. The research objectives set out in section 6.1 were framed prior to fieldwork and addressed a number of general and more specific themes to capitalise upon the information the site could provide. It is intended now that the sequence be refined further in order that these research objectives can be achieved and extended. Section 6.1 demonstrates that the stratigraphic archive has the potential to directly address research objectives dependent on land-use, suburban planning, economic activity and building techniques, with particular regard to the origins and development of this part of the Roman and Saxon city.

The potential of the archive is substantially increased due to the fact that several of the adjacent sites have been excavated during the last few years and the results from all of these sites can be examined and compared to present a more complete interpretation of activity in this part of Cheapside and the surrounding streets. These sites are 14-18 Gresham Street (GHM05), Bow Bells House (BBB05), 10-12 Gresham Street (GSM97) and 30 Gresham Street (GHT00) and taken together they encompass a significant study area. It is proposed that the results from GHM05 be published together with those from CDP04, thus enabling wider spatial analysis and valuable comparative works on the finds and environmental assemblages. The idea of producing syntheses of data rather than merely publishing individual site archives has been recognised as an archaeological priority since the late 1990s (English Heritage 1997b, 43). This methodology is recommended in particular when considering sites encompassing a transition period or a period of change within a certain period, such as the 2nd century Roman material at CDP04. It is intended that the material will be examined with some reference to the major CBA work produced by Perring et al (1991).

The Roman remains have potential to add to knowledge of land uses within the city, in particular the issue of 'zoning' and why certain areas remained open and used for dumping and refuse disposal when they were so close to the main east-west road. This is central to the stratigraphic record of the site, and bears close resemblance to the early sequence seen at GHT00 to the east. The topic of urban planning and the varying degrees of civic organisation in the town's spatial development can be looked at with reference to these sites. The degree to which the topography and natural drainage of the immediate area defined the human activity will be examined with levels of natural

gravels, brickearth and samples taken from the possible early pond and tree throw hole on the site.

The close proximity of the bath house, water management activity on GHT00 and the possible bath house building material on CDP04 provide potential for further analysis of the Cheapside bath house and associated activity. The site produced an unusually large number of small *opus signinum* paving bricks. These may well have come from Cheapside Baths which had flooring of this type. Other finds potentially associated with the bath house are the pumice stone and the large assemblage of procuratorial tiles.

In terms of the Roman pottery assemblage, there are several areas of potential interest. Most prominent is gaining a better understanding of activity taking place in the 2nd century AD. It has already been highlighted that fabrics and forms from this period (particularly the first half of the 2nd century AD) are dominant. There is the potential for further analysis of specific groups which will assist in answering the original research aims. Proportions of fabrics from the black-burnished ware industries and Verulamium region will be central to the refinement of dating of these groups.

There is reasonable potential for the refinement of dating of most of the assemblages subsequent to phasing. This is mainly because of the wealth of 2nd-century contexts across the site. However, there is a limited possibility that early groups can be further refined (especially in Trench 3). These groups have also been selected for further analysis through quantification. Late material appears to be too scarce for any further analysis or refinement of dating to be worthwhile.

The unusual nature of the samian fabrics and decoration on the site forms a key area of potential interest. It is hoped that expert analysis of the decorated samian will provide more accurate dating of late 2nd-century groups. In turn this will allow comparative analysis of assemblages from this period.

The overfired PPBRILON stamped tiles provide important potential evidence of procuratorial tile production somewhere either in or close to London, or the rejection of tiles used in an important building nearby, potentially the Cheapside baths. The use of reused marble as tesserae in the stone mosaic pavement is unusual, normally marble was too high value a product to be cut into cubes and set into a floor. The potential offered by the mosaic to aid the refinement of the dating of the site, or alternatively to adjust the accepted dates for the patterns seen on the mosaic is significant.

The accessioned finds and some of the coins have a great deal of potential for dating the site and suggesting possible functions for features. Many of the finds are interesting in their own right, notably the bone needles, brooches, and the intaglio from a finger ring. The bone needles and the amount of bone working waste recovered from the site may have potential for establishing the presence of bone working on the site.

The lead mount is an extremely important find, unique for London and possibly for England as a whole; no parallel in lead has been found in a rapid trawl through publications of finds from York and Winchester, or of the collections of the Ashmolean Museum and British Museum. The object is of considerable art historical interest and merits a full report in the publication.

The slag assemblage offers great potential to identify areas within the site of Roman metal working. With detailed analysis of the stratigraphic archive alongside the locations of slag and other debris it may be possible to specify certain buildings or even areas within buildings where metal working and smithing was taking place. This potential is also within the Saxon material and may help to refine knowledge of the activity along Roman and Saxon Cheapside and the associated streets.

Full identification of the charred plant assemblages from samples with moderate to large assemblages (samples {108}[127], {112}[136], {113}[265], {114}[221], {151}[1050], {153}[1075], {154}[1082], {165}[1444], {173}[1661] and {175}[1884]) has the potential to provide information about cereal use on the site, which can be compared with other sites in the area, and perhaps enable suggestions to be made about activities taking place. Waterlogged plant remains from the Roman samples and several of the later ones came mainly from wild plants, and may have arrived by natural means from the local environment, or in dumped material of various sorts. Analysis of these may indicate activities taking place, as well as helping in the reconstruction of the natural environment on and around the site.

The hand-collected and wet-sieved assemblages of animal bone have considerable potential for further study of the local meat diet and patterns of waste disposal, particularly with reference to carcase-part selection, age at death, and stature, of poultry and the major domesticates; cattle, sheep/goats and pigs. The recorded wet-sieved assemblages provide relatively sparse evidence for the consumption of marine and migratory fish; further identification to species or genus level will allow fuller interpretation of the significance of fish as a component of the meat diet. In view of the rather poor assemblage of amphibians and small mammals from the selected samples, there is only negligible potential for interpretation of local habitats. There is definite but limited potential for further study of tool marks on horncores, bone and antler with a view to interpretation of industrial techniques.

The Late Saxon and medieval stratigraphic evidence from the site has great potential to add to current knowledge about the development of the area. This was a period of great change and a recent publication about the Saxon and medieval Guildhall to the northeast (Bowsher et al 2007) will be referred to for comparative analysis.

The Late Saxon and medieval pottery assemblage is of great potential for further research and would warrant full publication as a monograph contributing further to our knowledge of the late Saxon and early medieval development in this part of the city. The late Saxon and early medieval assemblage is the most significant part of the whole post-Roman pottery assemblage from this site and should be compared with similar groups from No 1 Poultry (ONE94) (Burch, Treveil and Keene in prep), Milk Street (MIL 72 and MLK76) (Schofield *et al*, 1990), Ironmongers Lane (IRO80), Well Court (WEL79), Watling Court (WAT78) (Horsman, Milne and Milne 1988), Gresham Street (GHT00) (Jeffries 2003), Plantation Place (FER97) (Whittingham and Jeffries 2003) and Guildhall Yard (GYE92). The size of the late Saxon shelly ware (LSS) assemblage (447 sherds) is close to that (440 sherds) from GYE92, adjacent to

Guildhall Yard, though much smaller than the 1238 sherds from Plantation Place (FER97). These comparative statistics may be an indicator of the intensity of occupation within different parts of the Saxon burgh and could be examined to assess if this is a valid indication of density of population and occupation in an area. The highly decorated spouted pitchers within this Late Saxon/Saxo-Norman assemblage warrant illustration as these vessels are rarely so well preserved.

Out of the total 128 contexts which contain early medieval pottery only thirteen are large groups of more than 30 sherds. These larger groups of early medieval material dating from 1050–1150 are associated with pits. This indicates that the majority of the pottery is found in small assemblages of relatively abraded pottery. However, since most of the contexts contain closely-dated assemblages the mass of small sherds is not a reflection of the site being subsequently disturbed.

The later medieval pottery has potential to be linked with the layout of certain properties on the site as it is clearly associated with well-defined structural features, for example, wood-lined drainage pipes as well as cess pit fills and external dumps. There is a great deal of documentary evidence available regarding the inhabitants of the immediate area (Schofield et al 1990) and this will be accessed in relation to the CDP04 data to allow potential conclusions to be made about the function and use of these buildings.

The post-medieval assemblage is not considered worthy of further research and publication. The assemblage is relatively small and not considered to be of much potential. However it may be possible to locate the post-medieval structural remains in relation to contemporary structures on the site, through map regression and GIS spatial analysis. The installation of the tunnelled culvert will probably have been recorded at the time and this could be related directly to the excavated part.

7 Significance of the data

The data recovered from the excavations at 120 Cheapside is primarily of local and regional significance. The significance is enhanced greatly by the proposed combining of results from the site and the 14-18 Gresham Street site to the north. Geoarchaeological work on the depths of natural brickearth and the varying types of brickearth observed will help to define further the natural topography of the area on the northern edge of London's western hill, and taken with other adjacent sites will help to refine knowledge of the motivation behind certain activities such as water management and the extensive external dumping on the site. The study of ancient landscapes is central to the research agenda used for the publication of archaeological excavations within Greater London (MoL 2002) and the recent work at Cheapside will enable a wide study area to be examined. This synthetic approach of studying wide areas is desirable especially when looking at aspects of a settlement such as London at various points during its development, for example the late Saxon re-occupation of the deserted, walled Roman city. English Heritage (1997a) considers this a useful method of tackling urban archaeological remains. The use of ARCGIS software combined with the Oracle database will enable collaborative work between stratigraphic, finds and environmental specialists to draw out specific aspects of the site for detailed study.

The Roman evidence adds significantly to knowledge of the area to the west of the main focus of Roman London, and when incorporated with other recently excavated sites this significance is increased. It demonstrates that there were large areas within the town that remained open, even though the site is close to the centre of the settlement during the period. It also shows that there may have been a significant degree of urban planning involved with the area, with specific zones set aside for specific purposes. The degree to which this relates to major topographical and architectural features of the period (the bath house, amphitheatre and fort) will be assessed when digital versions of the archive are available. The discovery of the building with the mosaic floor is significant due to the fact that it could be related to the bath house to the east. The possible evidence for metal- and boneworking is significant as it shows there was small-scale industrial activity occurring within this part of the town. English Heritage have outlined research strategies for London's archaeology (1998) and the CDP04 data can provide a significant contribution to several of these, including the growth and development of the Roman town and the layout and structure of Roman buildings.

The Roman pottery at the site has local significance. The comparative analysis of the 2nd-century assemblages chosen will further our understanding of the nature of activity in this period at both Cheapside and the surrounding area. Quantification of the 1st-century groups selected will also help clarify the nature of activity in this period at Cheapside, and if successful the analysis of the decorated samian will provide refined dating for this site. In addition it may provide a greater understanding of the composition of late 2nd-century assemblages. There are a number of more

unusual ceramic tile and brick types present. Some of these may have come from Cheapside Baths which was abandoned in the late 2nd or 3rd century (Marsden 1976, 38). The late Roman period remains little understood and is a key focus of research for English Heritage (1997b, PC5; PC6). The late Roman activity at 120 Cheapside and analysis of the potential Saxon structural remains may indicate changes or similarities within the settlement during this turbulent time.

The finds assemblage has local significance as it adds to the corpus of material from London and when compared with the finds from other nearby sites it will enable wider conclusions to be drawn regarding activity and occupation patterns in the area. Likewise the environmental assemblages are of local significance as the botanical material has interpretive value for this site and the surrounding area and the animal bone is of significance in terms of the local meat diet, with particular emphasis on fish and the carcase-part, age composition and stature of domestic poultry and cattle, sheep/goats and pigs. The diet of Londoners as opposed to that of rural communities is a research question outlined within English Heritage's Capital Archaeology document (1998) and the animal bone and botanical assemblages could aid further interpretation.

The late Saxon and early medieval remains excavated are of regional significance and the large late Saxon and Saxo-Norman pottery assemblage provides further evidence of the 10th and 11th-century occupation within the city. The development of London during the early medieval period is a key research priority defined by English Heritage (1998) and the Museum of London (MoL 2002, 48) and the area to the north of Cheapside is a particular focus for the research.

The development of the Saxo-Norman street plan from c AD 970 has been documented by excavations at No 1 Poultry (Burch, Treveil and Keene in prep) and by Schofield's research into the street pattern in the area of Cheapside (1990). This pottery assemblage is typical of the finds associated with post-Roman occupation as shown within the Poultry/Cheapside area of the city and at Gresham Street and should also be compared with other published pottery sequences from No 1 Poultry (ONE94) (Burch, Treveil and Keene in prep), Milk Street (MIL 72 and MLK76) (Schofield *et al*, 1990), Ironmongers Lane (IRO80), Well Court (WEL79), Watling Court (WAT78) (Horsman, Milne and Milne 1988), Gresham Street (GHT00) (Jeffries forthcoming), Plantation Place (FER97) (Whittingham and Jeffries 2003) and Guildhall Yard (GYE92). The prime significance of this will be to document the type of Saxo-Norman settlement and possible street plan at the western end of Cheapside. Although most of the pottery is associated with pits, there is also early material in structural features such as a beam slot fill [1729] and structural post-holes and therefore the possibility of identifying these as sunken-floored buildings.

The lack of Saxo-Norman crucibles is surprising but may be significant in marking the south-western extent of metalworking within this part of the Saxo-Norman settlement. This should be looked at further in comparison to other sites in the area as evidence of metalworking is usually common at this date within the vicinity of Gresham Street (Bayley et al 1991). The lack of such evidence at CDP04 may define the western limit of the metalworking district and market.

The lead mount is a very rare object and is of national and international significance and merits a note in Medieval Archaeology as well as a full discussion in the final publication of the site.

The lack of medieval pottery dating between 1140–1350 is especially significant and should be investigated with the stratigraphic evidence to assess why there is a hiatus of medieval activity on a site which should have been occupied within the medieval city of London. Occupation is clearly represented again within the pottery sequence from 1350–1500, proving that other factors should be examined to determine whether the lack of occupation is real or if there is a particular archaeological explanation for the removal of 12th to early 14th-century deposits within this part of the city.

The post-medieval pottery is of little significance as it is poorly represented by small groups scattered around the site. Very little medieval and post-medieval building material was recorded, so it is only of very minor significance. The unusually thick glazed tiles of probably 11th – early 12th century date are, however, of interest as their function is uncertain. The clay pipe assemblage is significant in the local context and in relation to the site and may help in dating and phasing. The pipes were probably manufactured locally.

8 Acknowledgements

MoLAS would like to thank our client Land Securities for commissioning the archaeological excavations at 120 Cheapside and Bovis Lend Lease for their help throughout the excavations, in particular Tony Maryan and Jonathan Alabaster. We would also like to thank the project engineers Watermans for help during the site works and the Corporation of London's Archaeology and Planning Officer Kathryn Stubbs for assistance and guidance throughout the project.

The author would like to thank the McGees site manager Frank O'Donaghue and his team for their help with the site works, in particular the safe working practices they insisted upon. The site staff from MoLAS who worked on the site deserve thanks for their hard work. They were Paul Thrale, Chiz Harward, Satsuki Harris, Simon Stevens, Eamonn Baldwin, Ceri Shipton, Riley Thorne, Chris Menary, Bernadette Allen, Peter Lovett, Val Griggs, Iris Rodenbeusch, Howard Burkhill, Hana Lewis, Helen Dawson, Aleksandra Cetera, Victoria Markham, David Harrison, Sarah Mounce, Caterina Ruscio, Mark Ingram, Libby Philpott, Sasathorn Pickering, Virginia Vargo, Antonietta Lerz, Adele Pimley, Sophie Hunter, Michael Shapland, Jon Shimmin, and Agnieszka Bystron. Helen Robertson, Chris Clarke and Tom Collie from AOC and Will Johnson and Rik Sawyer from PCA also worked on the project. Steve Turner did the initial watching brief, the evaluation was carried out by Lindy Casson. The standing building recording exercise on the cellars was carried out by Alison Telfer, Andrew Westman and Maria Utrero. The Geomatics team were Mark Burch, Catherine Drew, Eamonn Baldwin, Cordelia Hall and Joe Severn. Photographs were by Maggie Cox and Andy Chopping. The specialists who reported on the finds included Ian Betts, Terence Smith, Tony Grey, Amy Thorp, Lucy Whittingham, Nicola Powell, Lyn Blackmore, Mike Hammerson, Lynne Keys, Anne Davis, Alan Pipe, with the conservator Liz Goodman. Jane Corcoran visited and provided advice on geoarchaeological aspects of the site. Jim Allen from HASCOM visited the site and gave advice on health and safety matters. I would like to extend particular thanks to my colleagues Antony Francis who co-supervised the excavations and Bruce Watson for advice on the cellar steps. The Post Excavation Manager is Nicola Powell.

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9 NMR OASIS archaeological report form

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9.1 OASIS ID: molas1-41118

Project details	
Project name	120 Cheapside
Short description of the project	Excavation of pile caps and other groundworks in advance of redevelopment of large site ~ in City of London.
Project dates	Start: 27-06-2005 End: 09-12-2005
Previous/future work	Yes / No
Type of project	Recording project
Site status	Local Authority Designated Archaeological Area
Current Land use	Industry and Commerce 2 - Offices
Monument type	BUILDING Roman
Monument type	PIT Roman
Monument type	DITCH Roman
Monument type	DUMP Roman
Monument type	POSTHOLES Roman
Monument type	DRAIN Roman
Monument type	WELL Roman
Monument type	STAKEHOLES Early Medieval

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Monument type	PIT Early Medieval
Monument type	PIT Medieval
Monument type	BUILDING Medieval
Monument type	WALL Medieval
Monument type	WELL Post Medieval
Monument type	HEARTH Post Medieval
Monument type	WALL Post Medieval
Monument type	CULVERT Post Medieval
Significant Finds	POTTERY Roman
Significant Finds	ANIMAL BONE Roman
Significant Finds	SLAG Roman
Significant Finds	GLASS Roman
Significant Finds	INTAGLIO Roman
Significant Finds	BUILDING MATERIAL Roman
Significant Finds	MOSAIC Roman
Significant Finds	POTTERY Early Medieval
Significant Finds	POTTERY Medieval
Significant Finds	BUILDING MATERIAL Medieval
Significant Finds	GLASS Medieval
Significant Finds	ANIMAL BONE Medieval

[CDP04] Post-excavation assessment ©MOLAS

Significant Finds	POTTERY Post Medieval
Significant Finds	GLASS Post Medieval
Significant Finds	BUILDING MATERIAL Post Medieval
Significant Finds	ANIMAL BONE Post Medieval
Significant Finds	CLAY PIPE Post Medieval
Investigation type	'Part Excavation','Watching Brief'
Prompt	Direction from Local Planning Authority - PPG16
Project location	
Country	England
Site location	GREATER LONDON CITY OF LONDON CITY OF LONDON 120 CHEAPSIDE
Postcode	EC2
Study area	2.50 Hectares
Site coordinates	TQ 532329 181240 50.9415929611 0.181332738832 50 56 29 N 000 10 52 E Point
Height OD	Min: 10.20m Max: 10.55m
Project creators	
Name of Organisation	MoLAS
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	MoLAS

Project Nick Bateman. director/manager

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Project supervisor Sadie Watson

Type of Bovis Lend Lease sponsor/funding body

Name of Bovis Lean Lease sponsor/funding body

Project archives

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Physical Archive LAARC recipient

Physical Contents 'Animal Bones', 'Ceramics', 'Environmental', 'Glass', 'Industrial', 'Leather', 'Metal'

Digital Archive LAARC recipient

Digital Contents 'Stratigraphic','Survey'

Digital Media 'Database','GIS','Images raster / digital photography','Survey','Text' available

Paper Archive LAARC recipient

Paper Contents 'Animal Bones', 'Ceramics', 'Environmental', 'Glass', 'Industrial', 'Leather', 'Metal', 'Stratigraphic', 'Survey'

Paper Media 'Context available sheet','Correspondence','Diary','Matrices','Photograph','Plan','Report','Section','Survey ','Unpublished Text'

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Project

bibliography 1

A forthcoming report Publication type

Title 120 Cheapside, London EC2: An archaeological excavation report

Author(s)/Editor(s) Watson, S

Date 2008

[CDP04] Post-excavation assessment ©MOLAS

Issuer or MoLAS publisher

Place of issue or London publication

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Description Grey literature report of excavation post-ex assessment, to be followed by a UPD and publication proposal, to be followed by a publication (not yet determined)

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Entered by	sadie watson (sadiew@molas.org.uk)
Entered on	23 April 2008

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