

BIRCHIN LANE, CITY OF LONDON EC3V

APPROX. SITE CENTRE NGR: TQ 32883 81045

An Archaeological Watching Brief



November 2015

Birchin Lane, City of London EC3V

An Archaeological Watching Brief

Site Code: BIR15

NGR (approximate site centre): TQ 32883 81045

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November 2015

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Abstract

An archaeological watching brief was undertaken between the 23rd and the 29th of June 2015 during excavation of a drop shaft in Birch Lane (City of London), as part of a general refurbishment and paving/resurfacing of the Lane. This work was commissioned by the City of London Corporation (Environmental Enhancements, Department of the Built Environment).

The watching brief uncovered the remains of a stone wall with a mortared rubble base (1), at a depth of 1.9m below road level (14.10OD). Below this was three layers of dark earth deposits (2), (3) and (4), and the remains of the Roman mortared tessellated floor (7) at a depth of 3.33m below road level (12.77OD). A later pit (6) cut into a sequence of stratigraphy below (7), including the dark grey deposit (9) which cut into redeposited brick earth context (10), a layer of burnt debris in context (11) and the last layer reached before the limit of excavation in the NE section, which was the sandy silt deposit (14) some 4.57m below road level (11.43OD). The contexts (10) and (11) may indicate a phase of rebuilding, with clearance (or possibly destruction) and the brickearth (11) forming a levelling and sealing deposit across the site.

An extension to the original shaft was also dug at the base into the NW corner. Context (15) constitutes the finds recovered from this extension and was broadly comparable to context (14), whilst (16) was excavated by hand from the east and west sections and is also comparable to context (14).

The vast majority of the artefacts recovered dated between the 1st and 4th centuries BC. There was only one prehistoric find, a piece of residual shell-tempered ware from context (14). Only two medieval objects were recovered; two pottery sherds from context (2) were dated between 1050 and 1200AD. Thus the stone wall with a mortared rubble base (1) can be broadly dated to the medieval period, and presumably reflects the original building line on the eastern side of Birch Lane.

The rest of the finds were Roman in date, with a large amount of the pottery, ceramic building material (CBM) and painted wall plaster dating to the later 1st-2nd centuries AD. The samian ware recovered from contexts (8), (14), (16) and (15) exclusively was dated specifically between 65 and 110AD, plus the glass from context (14) was dated to the 2nd century. A coin of Domitian, struck in 87AD and recovered from context (12), provides a reliable terminus post quem for much of the stratigraphic sequence.

Given that samian ware was found exclusively below context (8), and the redeposited brickearth of context (10) likely indicates the sealing of an earlier building phase, the levels below this can be generally dated to the period of the late 1st-2nd century. Evidence from the wall plaster in context (4) – and the overall stratigraphic sequence – suggests that the associated tessellated floor (7) likely dated to the mid/late 2nd century. The dark earth deposits (2), (3) and (4) are likely a result of later Roman and post-Roman formation processes.

The shaft itself was not bottomed, but below context (14) localised areas of a clean yellow gravel were exposed in the NE section which may represent a redeposited natural c. 4.56m down from the road surface (c. 11.44OD). The shaft extension, dug into the NW corner of the drop shaft, was excavated down to a depth of 4.61m deep in the NW corner (11.39OD).

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1 Introduction

1.1 This document forms a summary of the results of an archaeological watching brief undertaken between the 23rd of June 2015 and 29th of June 2015 in Birchin Lane, ECV3. The works involved excavating one drop shaft, midway along and towards the eastern side of Birchin Lane.

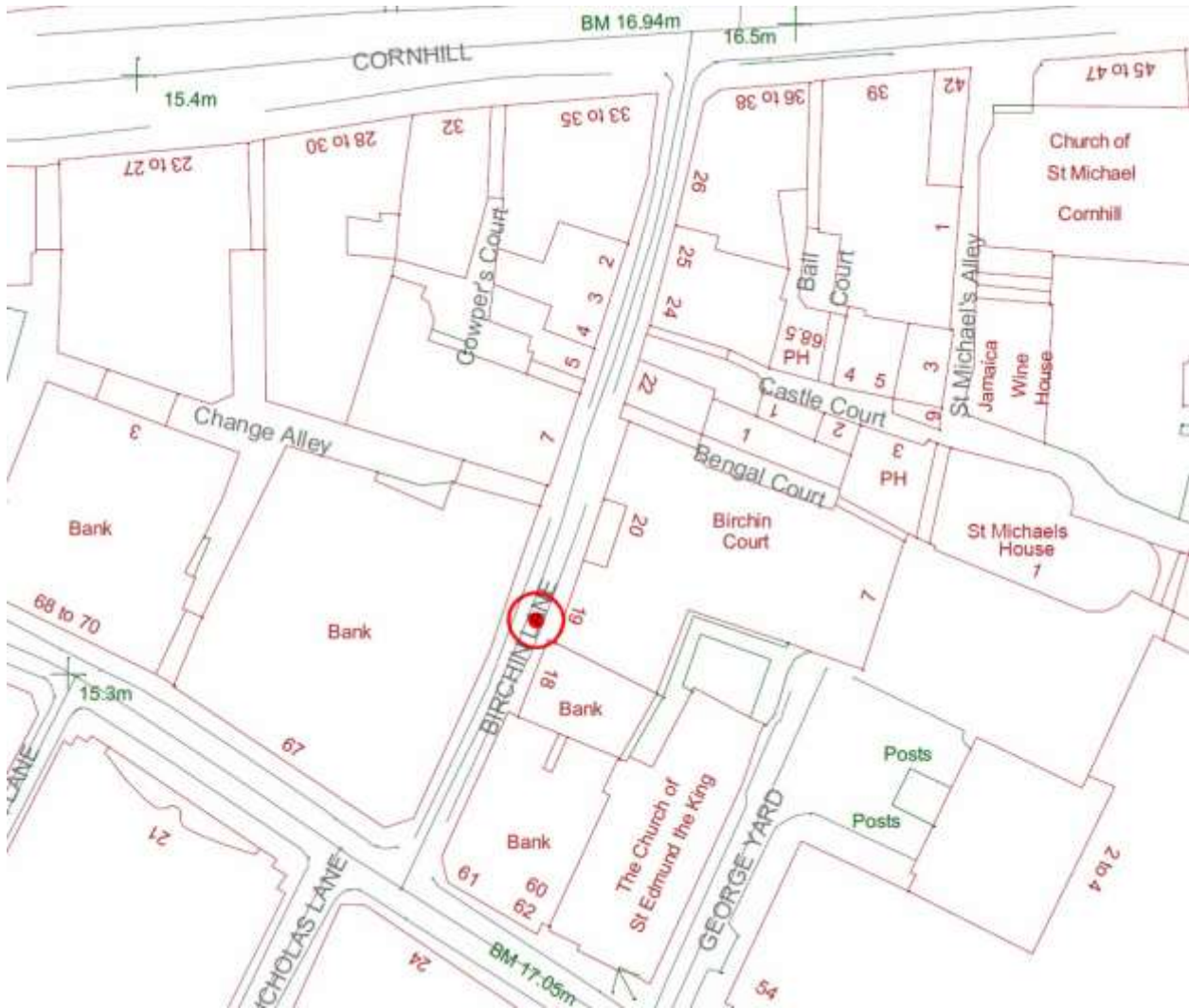


Fig.1: Site location

1.2 The archaeological watching brief has been commissioned by the City of London Corporation (Environmental Enhancements, Department of the Built Environment).

2. Location, geology, and topography

- 2.1** The site is approximately centred at NGR TQ 32883 81045, positioned roughly midway along and towards the eastern side of Birchin Lane (Fig.1). The NE corner of the shaft was 1.68m away from the property of 19 Birchin Lane, whilst the SE corner was 1.76m from the same building. The SE corner is also 1.49m away from the N corner of 18 Birchin Lane.
- 2.2** According to the British Geological Survey (North London, England & Wales. Sheet 256) the site overlies brickearth (Langley Silt), and thence River Terrace (Taplow) gravel.
- 2.3** It is located in heart of the City, some 400m to the north of the Thames, and on slightly rising ground at approximately 16m OD.

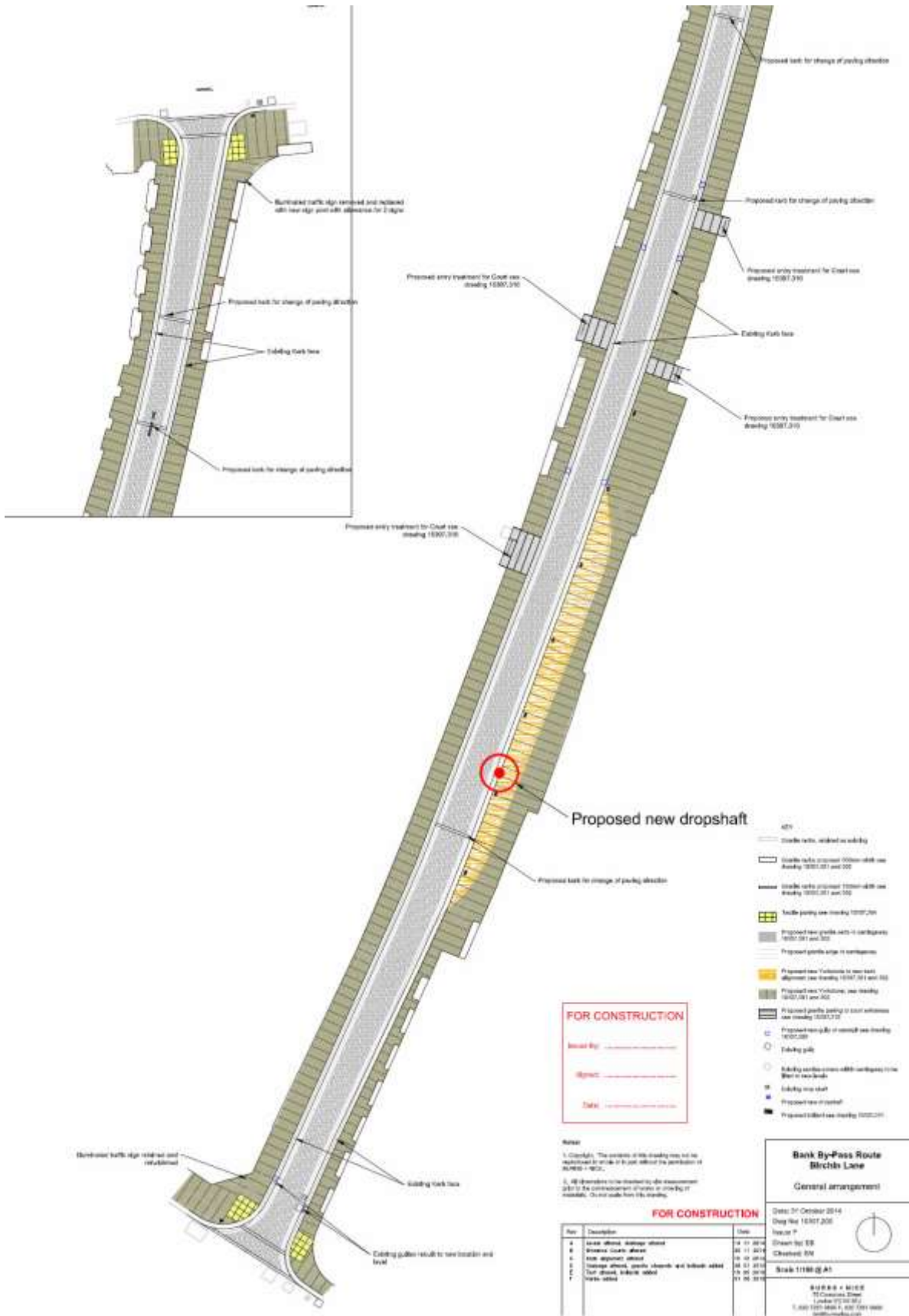


Fig.2: Final location of drop shaft highlighted on the General arrangement plan (Burns and Nice Drawing No: 10307.200)

3. Archaeological and historical background

3.1 Prehistoric - Roman

Birchin Lane is located on the western side of the extended (earlier 2nd century) forum and basilica, and very close to and more or less on same line as an adjacent north-south street. A previous watching-brief and small-scale excavation at 18 Birchin Lane revealed five buildings of clay and timber construction which seemed to have been mostly destroyed as a result of the Boudican revolt, and one building in particular on the basis of the associated pottery assemblage was dated to the mid-1st century AD.¹ Furthermore, excavations at 19-25 Birchin Lane, specifically at Nos.22-23, revealed Roman remains at a depth of over 3m. This included a sequence of clay and timber buildings dating to the late 1st/2nd century, two ovens and carbonised grain within a building thought to be a bakery, as well as evidence of destruction by a major fire in the early/mid-2nd century.² During the Roman period, this area was consistently occupied and redeveloped.

3.2 Medieval

Birchin Lane itself is of considerable antiquity, and was evidently well-established by the medieval period. A number of forms of the name are recorded at this time and in the early post-medieval period: *Bercherverelane*, *Bercheners Lane*, *Berchernerelane*, *Berchenes-lane*, *Berchen lane* and *Birchouer*. The Lane was noted for fripperers (second-hand clothes merchants), and latterly hosiers and men's ready-made clothes (by the 16th and 17th centuries).

The watching brief and small-scale excavation at 18 Birchin Lane revealed the Roman remains were truncated in part by medieval pits.³

3.3 Post-Medieval

The earliest pictorial evidence for Birchin Lane appears to be the Copperplate map of c 1553-59, which shows the narrow lane with closely packed buildings on either side (Fig.3). A similar view is given by the 'Agas' *Civitas Londinum* map of 1561-2 and by Braun and Hogenberg's map of c 1572 (not illustrated).

¹ Davies, B.J., Richardson, B., and Tomber. R.S. 1994. *The Archaeology of Roman London* Vol. 5 CBA Research Report 98 p.225

² Heathcote, J. 1987. *Excavation Round-up 1987, Part I: City of London* pp382-383

³ Davies, B.J., Richardson, B., and Tomber. R.S. 1994. *The Archaeology of Roman London* Vol. 5 CBA Research Report 98 p.225



Fig.3: *Extract from the Copperplate map of the mid 1550s*

This picture does not noticeably change by the time of Faithorne & Newcourt's map of 1658 (Fig.4). However, the whole area was devastated in the Great Fire of 1666 (*cf.* Leake's Survey of 1667; not illustrated). The later line of Birchin Lane remained apparently unaltered, with the land both sides heavily rebuilt (Figs.5 & 6). Both these later maps also depict the boundary between Cornhill and Langborne (or Langbourne) Wards, respectively to the north and south and with the present site just inside the latter.

Horwood's map of the 1790s (revised 1813; Fig.7) appears to be the first to show a slight step-back in the eastern street frontage in the area of the drop shaft – a feature that survives to the present day. The subsequent Cornhill Ward map of 1833 names two of the adjacent properties – Williams & Co. Banking House to the northeast, and the London Assurance Office immediately to the east. The Ordnance Survey maps of 1873 and 1894 show a more detailed but similar picture, the bank (or its successor) having slightly extended its premises to the south.



Fig.4: Extract from Faithorne & Newcourt 1658



Fig.5: Extract from Ogilby and Morgan's survey of the City of London, c 1676



Fig.6: Extract from Rocque's survey of 1746



Fig.7: Extract from Faden's revision of Horwood's plan of the City of London, 1813

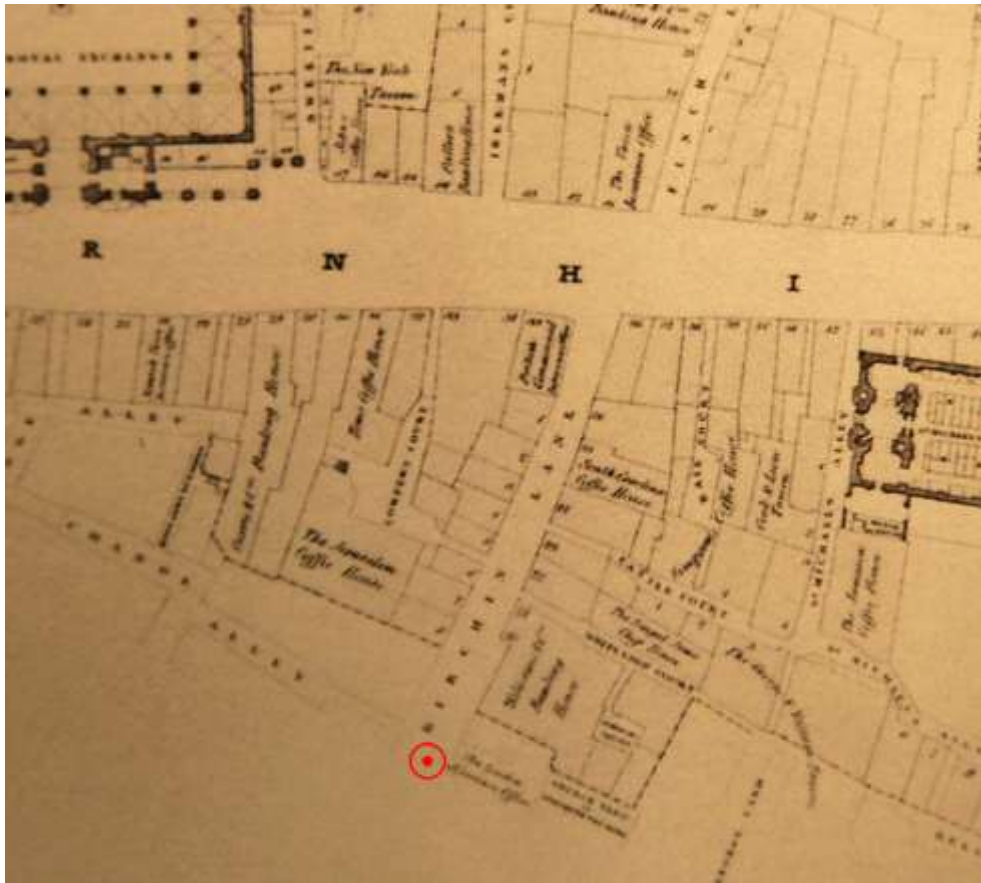


Fig.8: Extract from the Cornhill Ward map by Samuel Angell, 1833



Fig.9: The Ordnance Survey 1st Edition 1:2500 map, 1873 (London Sheet XXXVI)



Fig.10: Extract from the Ordnance Survey 5 foot: mile map, 1894-96 (Sheet VII.66)

4. ARCHAEOLOGICAL RESEARCH QUESTIONS

The fieldwork presented an opportunity to address several research questions:

- What is the level of the natural ground surface, and what form does this take?
- Is there any evidence for Roman or medieval activity/occupation, and what form does this take?
- Is there any specific evidence for earlier construction/surfaces forming part of Birch Lane, and how well can these be dated?
- Is there any evidence for the Great Fire destruction/ levelling of 1666 – as for example previously noted in Bartholomew Lane, just to the northwest?
- What evidence is there for later post-medieval activity, apart from the anticipated services? For example, is there evidence for coal cellars extending out to the kerb line as frequently noted elsewhere?

5. Methodology

5.1 Fieldwork

The fieldwork was carried out in accordance with current Historic England guidelines (in particular, *Greater London Archaeology Advisory Service: Guidelines for Archaeological Projects in Greater London*) and to the standards of the Chartered Institute for Archaeologists (*Standard and guidance for an archaeological watching brief*). Overall management of the project was undertaken by a full member of the Institute.

Ground reduction works were undertaken by the contractor, mainly by hand excavation.

Adequate time was given for investigation and recording of the observed deposits, although every effort was made not to disrupt the contractors' programme. The archaeological monitoring included an on-site photographic, drawn, and written record. *Pro forma* context sheets were completed for the shaft, recording the nature of exposed deposits and details of any archaeological finds and features. Where suitable, finds/samples were collected from deposits for dating purposes. Photographs, recording representative trench sections, features and the general site location, were also taken.

Close liaison was maintained with the groundworks team to ensure a presence on site as and when necessary. The client was kept advised of the progress of the fieldwork.

5.2 Post-excavation work

The fieldwork was followed by off-site assessment and compilation of a report, and by ordering and deposition of the site archive.

Finds were treated in accordance with the appropriate guidelines. Finds and artefacts were retained and bagged with unique numbers related to the trench records. Assessment was undertaken by appropriately qualified staff.

Copies of this report will be supplied to the Client, the City of London Historic Environment, and the Guildhall Library. A short summary of the fieldwork has been appended to this report using the OASIS Data Collection Form (Appendix I).

6 Results

The archaeological remains discovered in the drop shaft are described below, including a discussion of their stratigraphy, features, any finds, plus a selection of photographs.

6.1 The shaft

The site is located on Birchin Lane (see fig.11,) approximately midway along and towards the eastern side, on slightly rising ground at approximately 16m OD. The main shaft itself was approximately 1.25m NW-SE and 1.6m NE-SW. The pavement was approximately 50mm higher on the SE side of the shaft than the road level on the NW side.



Fig. 11: View of site location on Birchin Lane, facing N

6.2 The medieval wall

By the 24th of June, a stone wall base (see figs. 12 and 13) was revealed along the eastern side of the shaft at the level of *c* 14.10 OD. The full width of the wall could not be seen within the shaft, however from what was visible the NE end was thinner at approximately 0.15m across whilst the SW end was 0.25m across. The exposed western face of the wall was also on the same line as the building frontages further to the north and south, which presumably represent the original alignment – the section in the area of the shaft being stepped back to the east. Map evidence indicates that this shift took place in the second half of the 18th century, and certainly by the Horwood's survey in the 1790s (figs.6-7).

The wall was composed of Reigate stone, including two apparently re-used pieces, and some chalk. In the northeast corner of the shaft it was cut away by a modern concrete base.



Fig. 12: View of stone wall (1) which cut into layer (2) underneath, facing SE (0.5m scale)

Another visit to site was made on the 25th of June, and by this point the base of the wall could be seen (see figs.14-16). The top 0.2m of the wall is mainly composed of stone blocks (some worked and others not) sitting on top of a substantial mortared rubble base, and it is possible that the junction between these two may have been quite close to the contemporary land surface. From its top to the centre of the revealed base the wall is 0.95m deep (13.15 OD). The foundations of the wall extended to a depth of 3.21m below the pavement surface (12.79 OD) on the NE end and 3.04m (12.96 OD). The wall extended 1.52m NE-SW. As can be seen from fig. 14 below, the foundations

of the wall come down (roughly 0.32m deeper at the NE end and 0.22m deeper at the SW end), which gives the impression of a structure which could potentially have been some kind of crude relieving arch.



Fig. 13: Oblique view of stone wall, facing NE (0.2m scale)

6.3 Post-Roman ‘dark earth’

The wall cut directly into two layers, one context (2) which extended from 0.2m below the top of the wall to 0.6m below it (13.50OD) and context (3) from 0.6m below the top of the wall to 1.1m below (13OD). Both as these, as well as context (4) below, were dark earth contexts. Context (2) was the only deposit to contain medieval pottery (see Appendix II); this comprised of two sherds dating to 1050-1200AD. (2), (3) and (4) all contained oyster shells.

The term ‘dark earth’ is acknowledged as problematic in terms of its ambiguity, especially when describing stratigraphy. However, this description correlates with soil micromorphological analyses which indicate ‘dark earth’ is:

“formed pedologically from derelict Roman buildings, their debris, and the deposits derived from their most recent landuse.”⁴

Given that the layers of dark earth (2), (3) and (4) overlie a Roman tessellated floor discussed below, it is possible that that they are associated with the activity in the area following the sustained original usage of the mortared floor. This point is compounded when the burnt daub artefacts from these two layers are considered (see Appendix V). The daub from contexts (3) and (4) was of the same fine and slightly sandy fabric, suggesting they were from the same source, likely a building. In which case, these layers may have only been arbitrarily delineated, and the deposition of the daub fragments may indicate a transitional stage for the associated building.

⁴ Macphail, R.I., Galinié, H., and Verhaeghe, F. 2003. A future for dark earth? *Antiquity*. Vol. 77 No. 296 p.353



Fig.14: View of mortared rubble wall base and context (4) below, facing E (1m scale)



Fig. 15: Oblique view of mortared rubble wall base and context (4) below, facing NE



Fig.16: Oblique view of mortared rubble wall base and context (4) below, facing SE

6.4 The Roman building sequence – upper level & tessellated floor

On the 26th of June, parts of a tessellated floor and base (7) were revealed in the shaft *in situ*, as well as the top of a later pit containing the fills (5) and (6), which appears in the SE corner of the shaft and cuts through all the layers below and including (7). The lower dark earth deposit of (4) overlying the tessellated floor (7) was 0.14m thick and came down to the level of *c*12.86OD, whilst (7) ranged from 0.09m-0.06m in thickness in the SW section, thus coming down to a level of 12.77OD at its greatest depth. (4) contained the largest amount of painted wall-plaster and tesserae fragments (see Appendix VI), indicating its strong association with (7).

In figs.18 & 19 these features can be seen, as well as the mixed brownish silty sand layer (8) which appears to a depth of 0.2m below the tessellated floor base (12.57OD).

It should also be mentioned that the NE section of the shaft consisted of modern concrete with remnants of decayed timber shuttering. There were recesses in concrete that were 0.23m wide NW-SE and 0.14m deep NE-SW. These recesses were 0.62m apart in the section and 0.18m from their nearest corners of excavation respectively.



Fig. 17: Overhead view of shaft to level of floor (7) and top fill of pit (5) to the top right of image and mixed brownish silty sand (8) in the centre of the image, ESE to top of frame (0.5m scale)

As can be seen from fig.17 above, the tessellated floor is best preserved on the SE side of the shaft (seen to the top left/centre of fig.17). This area measured $>0.11\text{m}$ wide and 0.93m long, whilst the pit with upper fill (5) to the SW of it measured 0.44m wide along the remaining extent of the SE section, continuing beyond the southern limit of excavation.



Fig. 18: View of SE section and overlying deposit of dark earth (4), facing SEE

In fig.18 above of the SE section, the relationship between the lower dark deposit (4) and the tessellated floor (7) can be seen, as well as part of the wall foundation above.



Fig. 19: Detail of tessellated floor (7) in SE section, facing ESE (0.2m scale)



Fig.20: Detail of tessellated floor (7) adjacent to SW section, facing NW

This section of tessellated floor seen in fig.20 was 0.31m across NW-SE and 0.06m away from the edge of the pit to the SE.



Fig. 21: Detail of tessellated floor (7) adjacent to NW section, facing NW

The section of tessellated floor seen in fig.21 was 0.32m across NE-SW and 0.23m wide NW-SE, as well as being 0.66m away from the edge of excavation in the SW corner of the shaft.



Fig.22: *Detail of tessellated floor (7) on west side of shaft, facing NW*

In the NW corner of the shaft a very small section of tessellated floor was found measuring $>0.05\text{m}$ NE-SW and 0.13m NW-SE (seen in the upper right corner of fig.22).

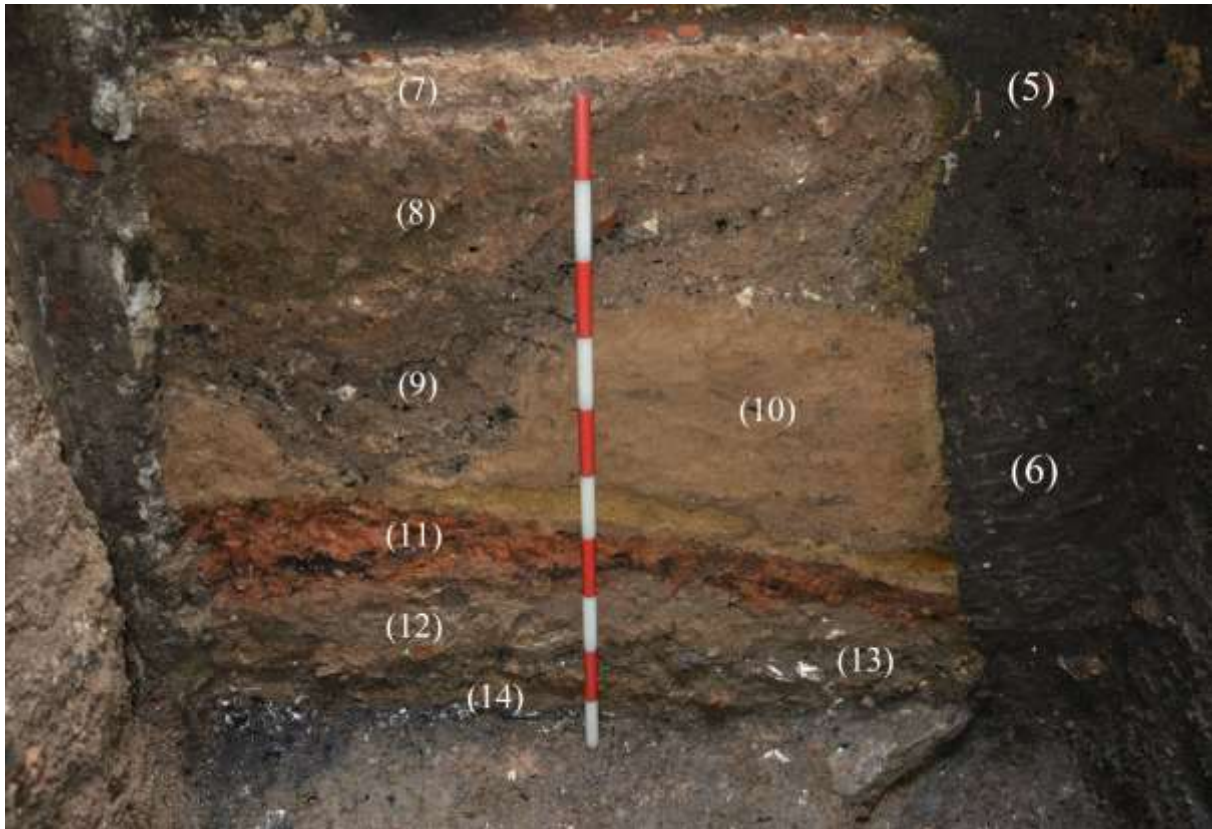


Fig.23: View of SE section with context numbers added, facing SE (1m scale)

6.5 The Roman building sequence – lower level

By the 27th of June a considerable sequence of stratigraphy below the tessellated floor (7) had been revealed. Fig. 23 above of the SE section demonstrates this.

Below the silty sand layer (8), the deposit (9) was composed of a dark grey deposit with charcoal inclusions and oyster shell, and partly contained within an apparent pit (as seen in section). This reached the level 12.3OD at its greatest depth, cutting into and almost through layer (10).

Context (10) itself was composed of re-deposited brickearth approximately 0.39m deep and coming down to level 12.11OD. Below this was context (11), which had a distinctive red colour no doubt as a result of being composed of burnt debris, most likely some kind of ceramic building material (CBM). This layer ranged in depth from 0.05m-0.17m, thus at its deeper extent it came down to the level 11.94OD.

Below (11), layer (12) was characterised by a lighter brown sandy silt that was up to 0.21m thick at its greatest depth in the section, coming down to the level 11.75OD. A Roman coin, struck in 87AD, was found in context (12) (see Appendix VIII).

Context (13) was a thin silty layer with charcoal and oyster shell inclusions, ranging from 0.03-0.04m thick, down to the level 11.71OD.

Context (14) is a mid-greenish-brown sandy silt with some pebbles, yellow lenses and orange patches. This was measured to a thickness of 0.16-0.17 in section, thus it reached

level 11.54OD at its fullest extent. Two pieces of Roman glass dating approximately from the third quarter of the first century to the mid-second century were found in this context (see Appendix IX). (12), (14) and (15) all contained oyster shell.

The layers below (14) were not excavated except in some localised areas, where a clean yellow gravel could be seen at less than or equal to 0.1m thick where exposed. This could have potentially been a redeposited natural. A further 'dirty' layer below this and then an orange gravel layer was recorded at c.1.34m below the tessellated floor (11.43OD), approximately 0.1m thick. Furthermore, a greyish silty deposit could be seen below this. The shaft itself was not dug sufficiently deep to expose the natural ground surface.



Fig.24: View of base of shaft including pit with fill and cut (6) seen in the centre of the image, facing SSE

The view in fig.24 clearly shows the extent to which pit (6) truncated the earlier stratigraphy in the shaft. Furthermore, some of the potential redeposited natural can be seen to the bottom middle of the photograph (a yellow gravel). It can also be seen that pit (6) was still extended further down and was not bottomed.



Fig. 25: View of base of SW section of shaft, with pit (6) to the left of the image, facing SW



Fig. 26: Oblique view of the SE section of shaft, with pit (6) to the right of the image, facing E

The 29th of June marked the final visit to the site. By this point, an extension to the original shaft had been made at the base of the western side and NW corner. This measured 0.55m across at its total extent NW-SE in its NE section, and 0.53m in its

SW section, beyond this exposing a solid wall of modern concrete. An extra recess beyond this in the NW corner measured 0.26m wide NW-SE and 0.09m long NE-SW. The whole extension was 0.91m wide, running from the corner of the shaft along the section NE-SW. The extension had been dug down to a depth of 4.61m deep in the NW corner (11.39OD) and 4.69m in the SW corner (11.31OD).



Fig.27: View of extension at base of the NW section of the shaft with context numbers added, facing SW. The main shaft is on the left, and modern concrete immediately to the right of the 1m scale

Context (15) was separately defined in order to distinguish those finds which were recovered from the shaft extension dug into the NW corner, and has been noted on-site as being broadly comparable in nature to context (14). Context (16) was excavated by hand from the east and west sections, and is also comparable to context (14). Good quality painted wall plaster was found in both contexts (14) and (15) (see Appendix VI).

From fig.27 below it can be seen that the stratigraphic layers seen in the original NW section of the shaft are also visible beyond the previous limit of excavation in the SE section of the extension are also visible 0.53m. The deposits here are also quite closely comparable to those recorded on the SE side of the shaft (fig.23), although any evidence of the tessellated floor extending further NW either does not survive or it never existed in this area.

7. Conclusions

7.1 The watching brief uncovered the remains of a stone wall with a mortared rubble base (1), at a depth of *c* 1.9m below road level (14.10OD). Below the wall were three layers of dark earth deposits (2), (3) and (4), and the remains of the Roman mortared tessellated floor (7) at a depth of *c* 3.33m below road level (12.77OD). A later pit (6) cut into the sequence of stratigraphy below (7), including the dark grey deposit (9) which cut into redeposited brickearth context (10), a layer of burnt debris in context (11) and the last layer reached before the limit of excavation in the NE section, which was the sandy silt deposit (14) some 4.57m below road level (11.43OD). The contexts (10) and (11) may indicate a phase of rebuilding, with clearance (or possibly destruction) and then the brickearth (11) forming a levelling and sealing deposit across the site.

An extension to the original shaft was also dug from the base into the NW corner. Context (15) constitutes the finds recovered from this extension and was broadly comparable to context (14), whilst (16) was excavated by hand from the east and west sections and is also comparable to context (14).

7.2 The vast majority of the artefacts recovered dated between the 1st and 4th centuries AD. There was only one prehistoric (?late Bronze Age) find, a piece of shell-tempered ware from context (14) which is evidently residual. Only two medieval objects were recovered; pottery sherds from context (2) that were dated between 1050 and 1200AD. The stone wall with a mortared rubble base which was cut into (2) is also likely to date to the medieval period, and although not closely dated almost certainly reflects the original building line on the eastern side of Birchin Lane.

The rest of the finds were Roman in date, with a large amount of the pottery, CBM and painted wall plaster dating to the later 1st-2nd centuries AD. The samian ware recovered from contexts (8), (14), (16) and (15) exclusively was dated specifically between 65 and 110AD, plus the glass from context (14) was dated to the 2nd century. A coin of Domitian, struck in 87AD and recovered from context (12), provides a reliable *terminus post quem* for most of the lower stratigraphic sequence.

Given that samian ware was found exclusively below context (8), and the redeposited brickearth of context (10) likely indicates the sealing of an earlier building phase, the levels below this can be generally dated to the period of the late 1st-2nd century. Evidence from the wall plaster in context (4) – plus the general stratigraphic sequence – suggests that the associated tessellated floor (7) likely dated to the mid/late 2nd century. The dark earth deposits (2), (3) and (4) are likely a result of later Roman and post-Roman formation processes.

- 7.3 The shaft itself was not bottomed, but below context (14) localised areas of a clean yellow gravel were exposed in the NE section which may represent a redeposited natural c. 4.56m down from the road surface (c. 11.44OD). The shaft extension, dug into the NW corner of the drop shaft, was excavated down to a depth of 4.61m deep in the NW corner (11.39OD).

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Appendix I: Oasis Data Collection Form

OASIS ID: compassa1-230911

Project details

Project name	Birchin Lane, City of London
Short description of the project	An archaeological watching brief was undertaken between the 23rd and the 29th of June 2015 on a drop shaft in Birchin Lane (City of London), as part of a general refurbishment and paving/resurfacing of the Lane. The watching brief uncovered the remains of a probable medieval stone wall (1) overlying several 'dark earth' layers (2), (3) and (4), as well as a tessellated floor (7) which overlay a rich sequence of Roman stratigraphy. This was cut into by the post-Roman pit (6). Context (2) contained two sherds of medieval pottery, and with the exception of one piece of prehistoric pottery from context (14), all the finds were Roman. Contexts (8), (14), (15) and (16) produced samian ware. Generally the finds dated from the 1st-4th century AD, but a large majority were stylistically dated to the 1st-2nd century. Layers below the redeposited brickearth (10) likely dated to the 1st-2nd century, whilst the tessellated floor (7) can be dated to the 2nd century on the basis of associated wall plaster from (7), with the dark earth layers likely formed over later Roman and post-Roman periods. The shaft itself was not bottomed, but below context (14) localised areas of a clean yellow gravel were exposed in the NE section which may represent a redeposited natural c. 4.56m down from the road surface (c. 11.44OD). A shaft extension, dug into the NW corner of the drop shaft, was excavated down to a depth of 4.61m deep in the NW corner (11.39OD).
Project dates	Start: 23-06-2015 End: 29-06-2015
Previous/future work	No / No
Any associated project reference codes	BIR15 - Sitecode
Type of project	Recording project
Site status	Area of Archaeological Importance (AAI)
Current Land use	Transport and Utilities 1 - Highways and road transport
Monument type	WALL Medieval
Monument type	TESSELLATED FLOOR Roman
Significant Finds	COIN Roman
Significant Finds	DAUB Roman
Significant Finds	GLASS Roman
Significant Finds	POT Medieval
Significant Finds	POT Roman
Significant Finds	WALL PLASTER Roman
Investigation type	""Watching Brief""
Prompt	Direction from Local Planning Authority - PPS

Project location

Site location	GREATER LONDON CITY OF LONDON CITY OF LONDON Birchin Lane
Postcode	EC3V
Study area	2.5 Square metres
Site coordinates	NGR - TQ 32883 81045 LL - 51.512274688514 -0.084802389233 (decimal) LL - 51 30 44 N 000 05 05 W (degrees) Point

Project creators

Name of Organisation	Compass Archaeology
Project brief originator	City Archaeologist
Project design originator	Compass Archaeology
Project director/manager	Geoff Potter
Project supervisor	Geoff Potter
Type of sponsor/funding body	City of London Corporation

Project archives

Physical Archive recipient	Museum of London Archive
Physical Archive ID	BIR15
Physical Contents	"Animal Bones","Ceramics","Glass","Metal"
Digital Archive recipient	Museum of London archive
Digital Contents	"Animal Bones","Ceramics","Glass","Metal"
Digital Media available	"Images raster / digital photography","Text"
Paper Archive recipient	Museum of London Archive
Paper Contents	"Animal Bones","Ceramics","Glass","Metal"
Paper Media available	"Correspondence","Photograph","Report","Section"

**Project
bibliography 1**

Title	Birchin Lane, City of London EC3V: An Archaeological Watching Brief
Author(s)/Editor(s)	Smith Nicholls, F
Date	2015
Issuer or publisher	Compass Archaeology
Place of issue or publication	5-7 Southwark Street, London, SE1 1RQ
Description	Report detailing the results of the watching brief. This includes discussion of the background, the shaft, photographs, a plan of the location of the shaft, finds analysis, and interpretations / conclusions.

Entered by Florence Smith Nicholls (mail@compassarchaeology.co.uk)
Entered on 19 November 2015

Appendix II: Medieval pottery report

Paul Blinkhorn

The pottery assemblage comprised 3 sherds with a total weight of 95g. It comprised a mixture of Romano-British and medieval material, and was recorded using the conventions of the Museum of London Type-Series (eg. Vince 1985), as follows:

ANDE: **Andenne-type Ware**, 1050 – 1200. 1 sherd, 4g.
LCOAR: **Coarse London-type Ware**, 1080 -1200. 1 sherd, 3g.
NVCC: **Nene Valley Colour-Coated Ware**, 150 – 400. 1 sherd, 88g.

The fabric types are typical finds in London. The two medieval sherds occurred in context (2), and the Roman sherd in context 3. The former are from glazed jugs, as is typical of the traditions, with the Andenne sherd also having a band of diamond-notched rouletting. The sherds are in good condition, and appear reliably stratified, indicating a date of late 11th – 12th century for the context. The Roman sherd is from the base of a fairly large vessel, and is very heavily abraded, with most of the colour coat worn away. It is highly likely to be residual.

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Appendix III: Roman pottery report

Heidi Archer

The Pottery

An assemblage of pottery, totalling 262 sherds, weighing 9806g was recovered from a pit located in Birch Lane. All fragments were catalogued in a Microsoft Access database and sorted by context. Details of the form, fabric, date, use and wear were noted, along with any notable features.

Note The samian ware recovered from the excavation has been analysed separately and does not feature in the statistics given below.

The assemblage comprised primarily small to medium sherds of grey ware and larger fragments of amphora, with smaller quantities of other wares recovered from all contexts. There was little wear to the sherds suggesting the contexts from which they were recovered was the primary deposition site. Broadly, the assemblage covers the entire Roman period, from the later 1st to the 4th Century, however, there appears to be a peak in the 1st to 2nd century. There is evidence of one earlier fragment, and several medieval fragments too.

Summary of material

Fabric	Sherd total
Grey ware	138
Shell tempered ware	5
Nene Valley colour-coated ware	2
Black Burnished ware	2
London ware	1
Mica-slipped ware	1
Oxfordshire White ware	4
Verulamium White ware	7
White ware	14
Colour-coated ware	11
Black-slipped ware	1
Buff sandy ware	3
Coarse sandy ware	5
Amphorae	48
Unknown	20
	262

Almost 94% of the assemblage was represented by coarse wares, with grey ware being the dominating component. Kilns in the Alice Holt/Farnham area were a major supplier of grey sandy coarse wares to the London region during the 1st and 2nd centuries, peaking again in the late 3rd century, and it is likely that the vessels are well represented in this assemblage. However, many grey wares were also produced locally and varied a considerable amount, and

cannot be specifically sourced. For this report the grey wares have been categorised together, with references made to any notable sherds.

Fine wares were represented by only 16 identifiable sherds, including mostly Romano-British wares and a very small number of potentially imported wares. 2 sherds of Nene Valley colour-coated ware were recovered from contexts (3) and (4), however as fragments of medieval pottery were also found in these layers they cannot be used as accurate dating evidence. On the sherd from context (3) almost all of the slip had worn off revealing the fabric underneath, and it was slightly abraded, suggesting that it had been around for a long period of time and was a residual find. Similarly, the sherd found in context (4) displayed some wear and may have been in use for a longer period, or redeposited at a later date.

A single sherd of shell-tempered ware, probably from a cooking pot and recovered from context (14) is taken to be prehistoric in date (?Late Bronze Age). It is a chunky vessel in a black fabric, with light brown finish, and has incised decoration above a guideline on the external surface.

The range of vessel types identified was fairly broad, comprising mostly domestic forms. The majority of sherds belonged to jars and general kitchenware pots. Additionally, 46 amphorae sherds (see fig.28 for an example), belonging to 21 vessels were recovered from two contexts (although they are likely to be the same assemblage).

Vessel type	Sherd total
Amphora	49
Beaker	28
Bowl	2
Bowl or cup	4
Bowl/cup/dish	4
Dish	8
Enclosed vessel	1
Feeding cup	1
Flagon	4
Jar	97
Jug	4
Lid	8
Mortarium	7
Storage vessel	2
Unknown	43
	262

37% of the assemblage consisted of jars, mostly in a Grey ware fabric (see fig.29 for examples). The forms ranged from small thin walled vessels to larger, coarser vessels, almost exclusively with everted rims, indicating the different functions jars were used for. Some of the larger less diagnostic sherds may have been used as cooking pots. The significant number of amphorae found (19% of the assemblage) were a mixture of cylindrical and globular vessels, with one diagnostic long hollow base. Of the 28 beaker sherds recovered, 13 were identifiable as poppy head beakers (see fig. 12 for examples), appearing in production between c70 and 160AD.

7 sherds of mortarium were identified from contexts (3), (12), (14) and (16). Both Verulamium region and Oxfordshire white ware fabrics were noted, dating to the 1st and 2nd, and 3rd and 4th centuries respectively.

Of particular note is a small sherd of buff sandy ware from context (15). Taken to be Roman in date, the fragment has been handmade, with a messy interior comprising individual strips of flattened clay and a small spout protruding from the side. The spout has been formed by pushing through an implement to form a small hole during the manufacturing process. It has been catalogued as a feeding cup, a form seen in the 1st century (a samian version has also been identified), however the spout is extremely narrow and would have allowed only a limited flow of liquid.

Discussion

The assemblage of pottery recovered from the test pit at Birchin Lane provides an interesting insight into the nature of the site. The large quantities of vessels made for storage and food preparation suggests they came from a domestic context. However, the variety of fabrics suggests that the pottery was obtained from all over the south of England, as well as locally produced wares. Further, the large fragments of amphora indicate that foodstuffs were being stored in the vicinity, either for use, or distribution elsewhere, which in turn is implicit of trading and communication networks.



Fig.28: Larger fragment of amphora with handle, from context (14) (100mm scale)



Fig.29: Grey ware jar rims, from context (12)



Fig.30: Buff sandy ware feeding cup, from context (15)



Fig.31: Poppy head beaker sherds, from context (12)

Appendix IV: Samian ware report

Heidi Archer

The samian pottery

The following is a list of all samian ware pottery recovered from the Birchin Lane site, with significant emphasis on a few notable fragments. All decorated pieces significant for dating purposes have been included in the catalogue, along with those of particular intrinsic interest, such as stamped or graffitied vessels. References to potters' stamps have come from the comprehensive *Names on Terra Sigilata (NoTS)*, an index of known samian potters, based on the work of Brian Hartley and Brenda Dickinson.

'Samian ware' refers to a variety of red-gloss pottery made mainly in Gauls and Germany, exported to Britain from the mid-1st to the mid-3rd Century AD. Also known as 'terra sigilata' the pottery is characteristically an orangey hard fabric, with an orangey red slip. There were several main centres of production including Lezoux and Les Martres in Central Gaul, La Graufesenque in South Gaul, and Rheinzabern and Trier in East Gaul. The types of vessels produced fall into two broad categories – plain and decorated. Plain forms seem to have been made on a wheel, dried, dipped in slip and fired in a kiln. Decorated forms were often made using a mould before undergoing the same finishing process as plain ware. Samian ware vessel forms commonly include bowls dishes, cups, beakers and flagons, as well as a few more unusual vessels such as inkwells, feeding bottles and mortaria. Occasionally 'black samian' is uncovered, notable for its dark colour, but no such vessels appear in this catalogue.

Methodology

Each sherd was catalogued in a Microsoft Access database. Full details, including weights, rim and footring measurements were taken where applicable. As the products of the samian industry were highly standardised, the terminology employed when describing the vessels has become standardised too. Unless otherwise stated, the form number for each vessel type uses Dragendorff's numbers. The abbreviations CG, SG, and EG denote the three major areas of samian production: Central Gaul; South Gaul and East Gaul. The letter 'R' after a form indicates the vessel is rouletted (usually in the form of a circle on the internal base, created using a pin wheel).

Catalogue of samian ware

Entries are listed in order of context, then by fabric, form and date.

(8)

1. SG 33a, cup. Stamped vessel. Fragment of foot, base and wall of vessel. Internal moulding at the junction of the wall and base is indicative of this form. Reddish fabric with a red glossy slip. Stamped internally on the base, and reads probably 'LE...' or 'LI...', although 'LE' is more likely. CAD 70-110. Weight 56g. See fig.36.

(14)

2. SG 37, moulded bowl. Seven sherds from the same vessel, mostly adjoining. Ovolo and panelled decoration. Double bordered ovolo with a trifid-tipped tongue turned left above a wavy line border terminating in 9 petalled rosettes. Panels contain: a saltire

motif; lion running right over grass tufts; triple bordered festoons containing a leaf and a basal bifid wreath. Decoration is blurred and smudged throughout. The style is seen often throughout the Flavian-Trajanic period and can be attributed to potters such as Germanus, and Mercator I (cf. Bregenz cellar hoard, Jacobs 1913 Taf. II, 12). Smoked spots in places. cAD 80-110. Same vessel as that found in **(15)**. Weight 82g. See fig.32.

3. SG bowl of indeterminate form. Fragment of foot and base. The slightly stepped exterior may suggest form 29. A fingernail mark is visible in the clay. The footring (measuring 30% at a diameter of 8cm) is slightly worn. Smoked spots. cAD 65-100. Weight 26g.
4. SG 27, cup. Small fragment of wall. CAD 70-110. Weight 2g.
5. SG 27g, cup. Complete footring and majority of base. The 'g' in this variation refers to an external groove which runs around the base of the footring. There is a basal stamp reading 'OFCALV[I]', with the 'C' and 'A' being ligatured. The 'I' has been obliterated, or was not initially impressed. This presumably refers to the potter Calvus I, who was active in the period AD70-95. On the underside of the base is a small graffito comprising either an A with no central bar, or a V, with a single vertical line, I, in the centre. Possibly read 'AI', 'IA', 'VI' or 'IV' if a literate graffito. Messy, partially worn foot. Fingernail mark below base. Smoked spots. cAD 70-110. Weight 34g. See figs.34 and 35.
6. SG 33, cup. Foot and base of cup. Stamped vessel reading '?VOC' with the rest remaining illegible. A linear scratch is visible towards where the wall/base junction would be and is deep enough to be considered as a graffito, although the rest of the marking is no longer present. The cup is in an orangey fabric with an almost waxy orange-brown slip. The footring is worn. cAD 70-110. Weight 12g. See fig.37.

(15)

7. SG 37, moulded bowl. 4 fragments of decoration from the same vessel as catalogue entry 2. This additionally contains a boar running left over grass tufts. There are several parallel scratches on the interior which are taken to be accidental. See above **(14)**. Weight 232g. The total weight of this vessel is 314g. See fig.32 and 33.
8. SG 35, cup. Three fragments of rim and wall. The rim is decorated with trailing leaves and individual dots, applied *en barbotine*. Hard fabric with a very good, glossy slip. A smudged thumbprint can be seen near the footring, which itself is not worn. cAD 70-90. Weight 74g.
9. SG 27, cup. Fragment of rim and wall. The slip is dark red-brown in colour and has crazed, flaking off in parts. cAD 80-110. Weight 8g.
10. SG 18, dish. Small fragment of wall/base junction. Glossy slip. cAD 70-110. Weight 12g.
11. SG 33, cup. Fragment of foot and base. Dark reddish fabric with a good, glossy slip. Smoked spots. cAD 80-110. Weight 10g.

(16)

12. SG 27, cup. Fragment of rim from a small cup. Lightly grooved around the top of the rim, from the wheel throwing process. Glossy slip, smoked spots. cAD 70-100. Weight 2g.
13. SG 18R, dish. Two sherds from the same vessel. Fragments of base with rouletting. A small shallow scratch is visible on the base of one sherd, inside the rouletting, but is most likely an accidental mark. CAD 80 – 100. Weight 26g.

Discussion

The assemblage contained a total of 25 sherds from 13 different vessels. This comprised 11 decorated sherds, 3 stamped vessels and 11 plain ware sherds. All vessels were produced in South Gaul and can be dated to between AD65 and AD110, with the majority dating from AD70 onwards. Because of this it is likely the finds are not residual and can be used, in association with other artefacts, to date the contexts in which they were excavated.

The condition of the assemblage was generally good, with minimal wear. None of the sherds displayed evidence of a secondary use, such as being cut down or rounded to be used as counters for instance. Several of the footrings displayed wear consistent with everyday use. 6 of the vessels had smoked spots visible on the surface as a result of the firing process.

A single definite graffito was noted, with the exception of a possible deliberate linear scratch on catalogue entry number six, but is not identifiable. Often, a graffito is possessive, indicating ownership of the particular vessel. It is likely that this is the case with this sherd although the possibility of it being a batch number should not be excluded (vessel '4' or '6' for example).

All three stamps in the catalogue have been partially obliterated, rendering two illegible. The first entry in the catalogue reads most probably 'LE[' and could refer to a potter such as Legitumus who was active in South Gaul. The second, catalogue entry number five is clearly legible and attributable to Calvus I (see *NoTS* for a further discussion on this potter). Similarly to the first stamp, catalogue entry number six can be read in a number of ways and at present is not attributable to one potter.

References

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Fig.32: Moulded samian ware bowl (SG 37), cat.no. 2, from context (14). Panels contain: a saltire motif; lion running right over grass tufts; triple bordered festoons containing a leaf and a basal bifid wreath. The fragment showing a boar running left over grass tufts comes from context (15) (cat.no.7).Dated to c.80-110.



Fig.33: Moulded samian ware bowl (SG 37), cat.no. 7, from context (15). Panels contain: a saltire motif; lion running right over grass tufts. The fragments above form part of the same vessel as that seen in fig.32. Dated to c.80-110 (100mm scale).



Fig.34: Samian ware cup (SG 27g), cat.no.5, from context (14). Complete footring and majority of base. There is a basal stamp reading 'OFCALV[I]', with the 'C' and 'A' being ligatured. Dated to c.AD70-110.

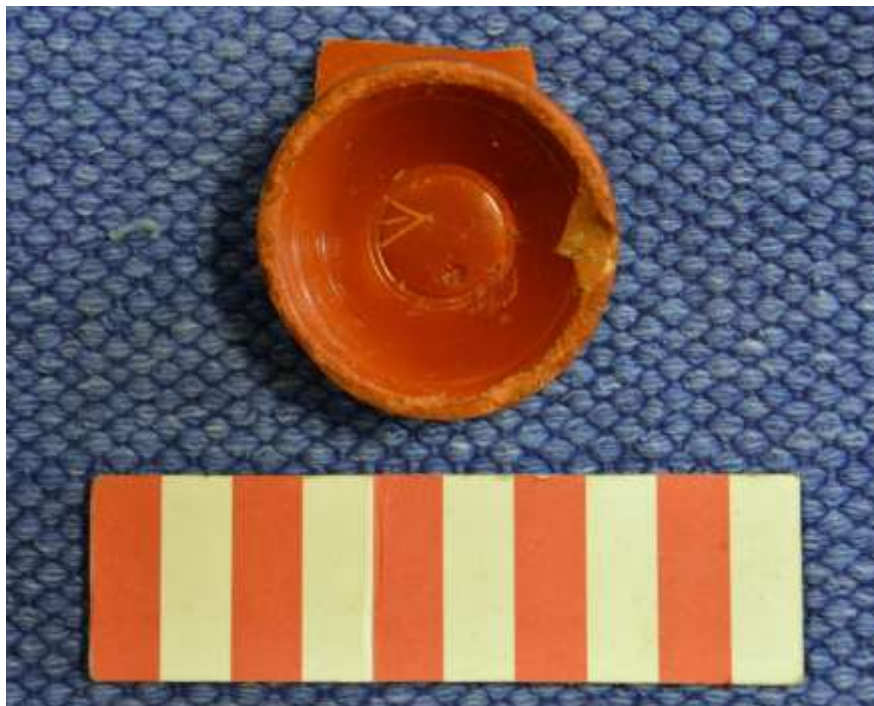


Fig.35: Samian ware cup (SG 27g), cat.no.5, from context (14). On the underside of the base is a small graffito comprising either an A with no central bar, or a V, with a single vertical line, I, in the centre. Dated to c.AD70-110.

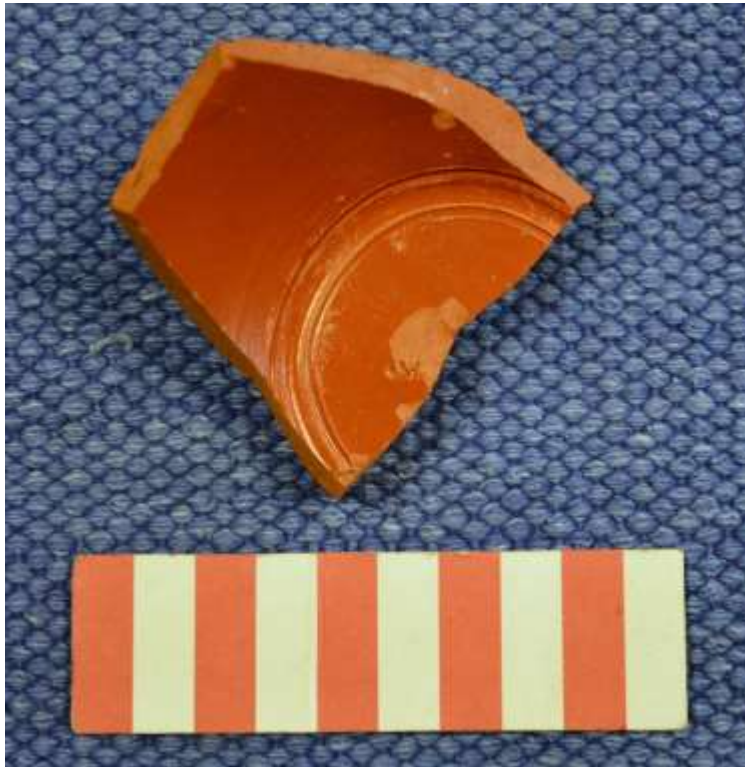


Fig.36: Samian ware cup (SG 33a), cat.no.1, from context (8). Stamped internally on the base, and reads probably 'LE...' or 'LI...', although 'LE' is more likely. Dated to c.70-110.

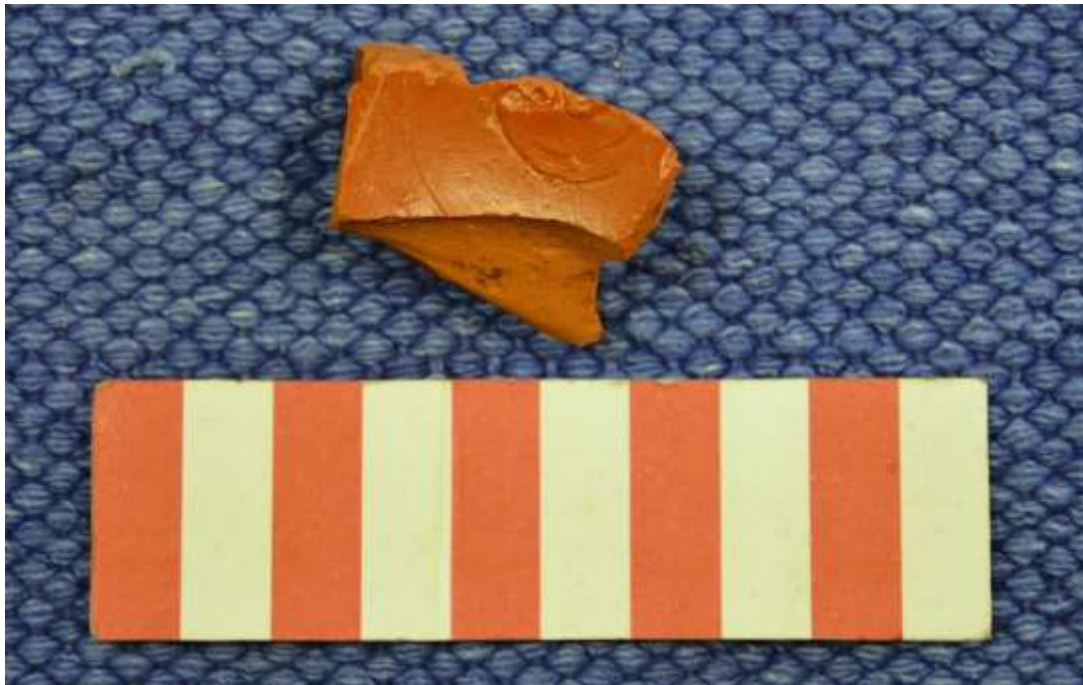


Fig.37: Samian ware cup (SG 33), cat.no.6, from context (14). A linear scratch towards the wall/base junction could be a graffito. Dated to c. AD70-110.

Appendix V: Burnt Daub report

Paul Blinkhorn

Two contexts, (3) and (4), produced assemblages of burnt daub. All the fragments were in the same fine, slightly sandy fabric, with few visible inclusions except for very rare flecks of calcareous material and very fine flecks of mica. They all seem very likely to be from a single source, most likely a building.

Context (3) produced 13 fragments weighing 835g. Almost all had a smoothed outer surface and withy impressions on the inner. In all cases, the impressions were well-preserved enough to show that the withies, which were in the main around 20mm in diameter, had their bark present when they were covered with the daub. Most of the fragments showed that the withies were originally covered by c 10mm of daub, with more of it squeezed in between them to a depth of up to 40mm or more. All the outer surfaces were smoothed and largely flat, indicating that they were probably originally from a wattle-panelled wall rather than an oven or kiln. The fragments were all evenly fired, with no evidence of the vitrification which usually results from exposure to excessively high temperatures. Finger-wiping marks were clearly visible in many cases.

The group from context (4), which comprised 17 fragments and weighed 1356g, was virtually identical, and seems very likely to be from the same source as that in context (3).

Appendix VI: Ceramic building material and wall plaster report⁵

Sue Pringle

Summary

In the table below there are 110 entries of CBM and painted wall plaster which, in total, constitutes 283 individual elements recovered from the drop shaft in Birchin Lane. All of these are Roman in date.

Contexts (2) and (3)

Only CBM was found in contexts (2) and (3), and from these artefacts the contexts are approximately dated from 120/160-late 2nd/3rd century AD. From context (2), 4 bricks, 5 roof tiles and one flue tile were recovered. From context (3), 10 bricks and 13 roof tiles were extracted.

Context (4)

Context (4) contained both CBM and painted wall plaster. Of the former, this included 7 bricks, 45 tesserae, 20 pieces of roof tile, two flue tiles, one piece of daub and a slab. The large assemblage of tesserae from this context no doubt reflects its occurrence just above the tessellated floor surface (7).

This layer was also particularly significant in containing two of the best preserved and most highly decorated groups of painted wall plaster fragments. This included three conjoining fragments depicting a candelabrum design culminating in a tulip motif (see fig.38) and three conjoining fragments depicting a yellow candelabrum on a black background (see fig.39). Six further fragments of wall plaster from context (4) are also illustrated in fig.40, including two with yellow lines painted across them and one with a yellow tendril. Given that context (4) was a dark earth deposit which overlies the tessellated floor (7), it seems likely that these fragments of wall plaster were associated with it and that possibly all these elements constituted part of the same interior space of a building.

Only one object in the assemblage had an earliest date according to style that was later than the 2nd century, which was the slab, dating from 250-400AD. The majority of CBM from the context dates either from the 1st-2nd century AD or the 2nd to the 3rd century AD.

Stylistically the wall plaster itself is dated very broadly from 50-400AD. Portions of a red ground wall with painted panels containing two candelabra were found in the remains of a 2nd century town house at Verulamium.⁶ Moreover, a second century house in Roman Leicester with tessellated floors also had a fresco decorated with swags and garlands of flowers.⁷

⁵ The table below, split into four parts, was produced by Sue Pringle, whilst the summary of it was written by Florence Smith Nicholls.

⁶ McKay, A.G. 1998. *Houses, Villas, and Palaces in the Roman World*. p197

⁷ Wachter, J.S. 1975. *The Towns of Roman Britain*. p.348

Context (5)

Only a single piece of tegula, dated roughly to 50-160AD, was found in the upper fill of the pit which cuts through lower Roman layers.

Context (8)

Context (8) contained three bricks, three pieces of roof tile and 8 tesserae dating from the mid-1st-mid 2nd century, but also two groups of wall plaster with five individual fragments in total dated to the same period. All the fragments were painted red and thus are likely to be from the same panel.

Context (9)

39 tesserae were found in context (9), as well as 3 bricks, and 4 pieces of roof tile. Four pieces of painted wall plaster were also found, all with red backgrounds, although thicker fragments have a light brown mortar and thinner fragments have a pink sandy mortar. One fragment potentially had a bud or olive painted on it.

Context (12)

In terms of CBM, there were 8 roof tiles and 6 tesserae. There were five groups of painted wall plaster fragments, including 6 individual fragments. The majority of these, as in other cases, were painted with a red background, apart from one which was white with a red linear design on it.

Context (14)

2 bricks, 16 roof tiles and 7 tesserae were found in context (14). There were two groups of painted wall plaster comprising four individual fragments (see fig. 41). Two of these had good quality polished red paint. One was overpainted with what appeared to be an Egyptian blue fruit with white leaf, whilst another had a pinkish-brown motif which could represent the lower leg and foot of a human figure. Samples of Egyptian blue pellets have been sampled from Romano-British sites at Fishbourne Roman Palace, Piddington, Turners Hall Farm and St Albans.⁸

Context (15)

This context contained 7 roof tiles, 15 tesserae and 3 fragments of painted wall plaster. All of these were painted with good quality red paint, whilst one had a white line separating red and green areas (see fig.41).

⁸ Clegg, S. 2014. *Blue Shade Hues: A Study of Blue Pigments Used by Romano-British Wall-Painters*. DPhil Thesis: University of Sussex p.6

Overview

Very generally, the CBM and painted wall plaster from Birchin Lane can be dated from the 1st-4th century AD, however, as is the case with the Roman pottery (see Appendix II) there is a large concentration of finds dated stylistically from the 1st to the 2nd century AD. This potentially indicates there was occupation on the site in this period, and then building materials from this time were later re-used.

In particular, there is a high frequency of both CBM and painted wall plaster finds from context (4) which sealed the tessellated floor (7). It is also from this context that the most complete adjoining fragments of painted wall plaster are preserved, and these were no doubt associated with the tessellated floor.

Stylistically, the candelabrum motifs from the pieces in context (4) resemble other wall-painted decoration found in 2nd century Romano-British houses in both Verulamium and Leicester. The latter site has been described as the residence of a wealthy and politically prominent family.⁹ With the drop shaft only providing a limited impression of the structure associated with the wall-paintings found at Birchin Lane, it is unclear how extravagant it actually was. Furthermore, the use of painted wall plaster was widespread in Roman Britain,¹⁰ and cannot necessarily be used as an indicator of a specific socio-political class.

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⁹ Wacher, J.S. 1975. *The Towns of Roman Britain*. p.348

¹⁰ Henig, M.2003. *The Art of Roman Britain*.. p118

Site code	Site	Date exca	Context n	Context cbm date	Period	Fabric	Form	Count	Weight	L	B	T	Condition	Comments
BIR15	Birchin Lane		2	120/60-L2nd/3rd	R	2815	brick	4	1354	0	0		36 M, Rd	op sig on base
BIR15	Birchin Lane		2	120/60-L2nd/3rd	R	2815	brick	0	0	0	0		35	
BIR15	Birchin Lane		2	120/60-L2nd/3rd	R	2815	brick	0	0	0	0		36 M, Rd	
BIR15	Birchin Lane		2	120/60-L2nd/3rd	R	2815	brick	0	0	0	0		36	2459A, tally mark X on side
BIR15	Birchin Lane		2	120/60-L2nd/3rd	R	2815	tegula	4	1646	0	0		0 M, A	1 deflanged; 1 very worn, near pebble. Part 2arc sig mark (fabric 3006)
BIR15	Birchin Lane		2	120/60-L2nd/3rd	R	2459B	tegula	1	265	0	0		0	
BIR15	Birchin Lane		2	120/60-L2nd/3rd	R	2815	flue	1	379	0	0		19 M, S	2459A; combed keying. 12 teeth, with op sig mortar
BIR15	Birchin Lane		3	120/60-L2nd/3rd	R	2815	brick	1	1732	0	0		37 M	
BIR15	Birchin Lane		3	120/60-L2nd/3rd	R	2815	brick	6	3937	0	0		39 M, Rd	Animal prints - cat?
BIR15	Birchin Lane		3	120/60-L2nd/3rd	R	2815	brick	0	0	0	0		40	Reduced top surface
BIR15	Birchin Lane		3	120/60-L2nd/3rd	R	2815	brick	0	0	0	0		32	
BIR15	Birchin Lane		3	120/60-L2nd/3rd	R	2815	brick	0	0	0	0		42 M, Rd, A, Ru?	Reduced top surface. Very worn on based - re-used as ?cobble
BIR15	Birchin Lane		3	120/60-L2nd/3rd	R	2815	brick	0	0	0	0		39 Rd	300, sig mark type?
BIR15	Birchin Lane		3	120/60-L2nd/3rd	R	2815	brick	1	540	0	0		44 A	
BIR15	Birchin Lane		3	120/60-L2nd/3rd	R	2815	brick	1	781	0	0		36 Rd, V	Very reduced
BIR15	Birchin Lane		3	120/60-L2nd/3rd	R	3500	tegula	2	250	0	0		0 Rd	Completely reduced
BIR15	Birchin Lane		3	120/60-L2nd/3rd	R	2459B	tegula	2	580	0	0		0 Rd x 1	1 deflanged.
BIR15	Birchin Lane		3	120/60-L2nd/3rd	R	2815	tegula	6	1985	0	0		0	1 deflanged. Loose flanges x 2
BIR15	Birchin Lane		3	120/60-L2nd/3rd	R	2815	tegula	1	408	0	0		0 A	Very abraded.
BIR15	Birchin Lane		3	120/60-L2nd/3rd	R	3059	brick	1	435	0	0		42 A	
BIR15	Birchin Lane		3	120/60-L2nd/3rd	R	2815	imbrex	2	309	0	0		0	
BIR15	Birchin Lane		3	120/60-L2nd/3rd	R	2815	tile	1	12	0	0		0 A	Scrap
BIR15	Birchin Lane		4	250-400	R	2454	tegula	1	107	0	0		0 A	
BIR15	Birchin Lane		4	250-400	R	2454	brick?	1	402	0	0		35 M	Brick or thick tegula. Sandy mortar on base
BIR15	Birchin Lane		4	250-400	R	2815	brick	3	1079	0	0		34	
BIR15	Birchin Lane		4	250-400	R	2815	brick	0	0	0	0		42	
BIR15	Birchin Lane		4	250-400	R	2815	brick	0	0	0	0		38	
BIR15	Birchin Lane		4	250-400	R	2459B	brick	1	456	0	0		34 A, Ru	Op sig mortar on edge and broken face
BIR15	Birchin Lane		4	250-400	R	2815	brick	1	1021	0	0		42	
BIR15	Birchin Lane		4	250-400	R	2815	imbrex	5	1235	0	0		0 M	Sandy mortar on one
BIR15	Birchin Lane		4	250-400	R	3102	daub	1	108	0	0		0	Timber imprint on 1 side, ?wattle on other
BIR15	Birchin Lane		4	250-400	R	2459B	flue	2	315	0	0		15	Band of vertical combed keying
BIR15	Birchin Lane		4	250-400	R	2459B	flue	0	0	0	0		16 M	Vertical combed keying on 1 face; part vertical vent cut, c. 35 mm long in plain face, set c. 43 mm from (damaged) edge. Op sig.
BIR15	Birchin Lane		4	250-400	R	2453	tegula	1	237	0	0		23 A	Deflanged
BIR15	Birchin Lane		4	250-400	R	3121	slab	1	78	0	0		16 A	1?wear-abraded surface - paving? Or re-used roofing? Post c. 350?
BIR15	Birchin Lane		4	250-400	R	2815	tegula	2	1356	0	0		0 A, Rd, Ru x 1	1 very battered and burnt; the other has wear abrasion on base.
BIR15	Birchin Lane		4	250-400	R	2815	tegula	8	2788	0	0		0 Rd x 1, M	3006, part sig mark type?
BIR15	Birchin Lane		4	250-400	R	2459B	tegula	2	503	0	0		0 Rd x 1	
BIR15	Birchin Lane		4	250-400	R	3023?	tegula	1	186	0	0		0	Check fabric.
BIR15	Birchin Lane		4	250-400	R	2815	tessera	45	1338	0	0		0 M	Coarse red; early fabrics but large, thin examples present, so probably from late floor.
BIR15	Birchin Lane		4	250-400	R	3101	pwp	1	99	0	0		0 A	Traces of light red and ochre paint on ?white background.
BIR15	Birchin Lane		4	250-400	R	3101	pwp	2	345	0	0		c.50	Conjoin. Linear decoration; yellow line c. 9mm wide flanked by darker ochre/light brown bands c. 9mm and 14mm wide on red background. Red areas are abraded, but 1?line is c. 4mm wide with very small area grey or green to other
BIR15	Birchin Lane		4	250-400	R	3101	pwp	3	742	0	0		c.50 A, Rd?	2 conjoin. Very abraded ?black paint with end of yellow tendril joins similar with area of abraded red paint. 3rd frag has abraded ?black paint with narrow red lines and ochre/brown area. May be same scheme as other frags.
BIR15	Birchin Lane		4	250-400	R	3101	pwp	1	48	0	0		c. 13 A	Very worn dark painted surface. Suggestion of an overpainted band but too abraded to be certain.
BIR15	Birchin Lane		4	250-400	R	3101	pwp	4	1261	0	0		< c.55	present on candelabrum are parts of 2 green leaves and the edges of 2 white spots. 4th frag has black and green areas separated by 5mm wide straight white line. The yellowish-green paint is glauconite based, possibly mixed with yellow ochre.
BIR15	Birchin Lane		4	250-400	R	3101	pwp	5	1161	0	0		< c.55	3 conjoin. Yellow candelabrum on black background; 2 spiral tendrils with terminal knobs. Candelabrum ?ends with pale green circle c. 33mm diam. Bordered by white line c. 3mm wide and 6 white dots, c. 10mm diam. A small green area close to this circle may be a leaf. The reverse face has ridges c. 53mm apart - may be imprints of keyed daub walling.
BIR15	Birchin Lane		4	250-400	R	3101	pwp	2	130	0	0		< c.40	Green ?leaf on black background. Larger frag has yellow foliate tendril and terminal knob associated with leaf.
BIR15	Birchin Lane		4	250-400	R	3101	pwp	1	404	0	0		< c. 48 A, Rd	Burnt and abraded, paint discoloured. Red on white - design unclear but may be two areas of red meeting at angle of 60 degrees - geometric pattern?
BIR15	Birchin Lane		4	250-400	R	3101	pwp	2	194	0	0		40	Plain red paint, unpolished and slightly micaceous. Not top quality.

Table 1a: Quantification and description of CBM and painted wall plaster from Birchin Lane

Fabric notes	Illustrate	Keep	date for type	date for type
	x	x	50	160
	x	x	50	160
	x	x	50	160
	x	y	50	160
	x	x	50	160
	x	x	120/60	L2nd/3rd
	x	y	100	160
	x	x	50	160
	x	y	50	160
	x	x	50	160
	x	x	50	160
	x	x	50	160
	x	y	50	160
	x	x	50	160
	x	x	50	160
	x	x	50	400
	x	x	120/60	L2nd/3rd
	x	x	50	160
Calcareous version of fabric with moderate white calcareous inclusions	x	x	50	160
	x	y	50	400
	x	x	50	160
	x	x	50	160
	x	x	50	75/80
	x	x	50	75/80
	x	x	50	160
	x	x	50	160
	x	x	50	160
	x	x	120/60	L2nd/3rd
	x	x	50	160
	x	x	50	160
	x	x	50	400
	x	y	120/60	L2nd/3rd
	x	y	120/60	L2nd/3rd
	x	y	140/80	200+
	x	y	250	400
	x	x	50	160
	x	y	50	160
	x	x	120/60	L2nd/3rd
Fabric near 3023 without black specks. Moulding sand fairly fine.	x	x	50	400
	x	x	50	160
Off-white sandy mortar	?	y	50	400
Light brown sandy mortar.	x	y	50	400
Light brown sandy mortar.	?	y	50	400
Light brown sandy mortar.	x	y	50	400
Mortar as candelabrum scheme below.	y	y	50	400
2 mortar types visible: 1) lower layer of pinkish sandy mortar c. 15mm thick; 2) light brown sandy mortar c. 40mm thick, below painted surface.	y	y	50	400
Mortars as on larger frag.	?	y	50	400
	?	y	50	400
Light brownish-orange mortar - 1 coat?	x	y	50	400

Table 1b: Quantification and description of CBM and painted wall plaster from Birchin Lane

Site code	Site	Date exca	Context n	Context cbm date	Period	Fabric	Form	Count	Weight	L	B	T	Condition	Comments
BIR15	Birchin Lane	4	250-400		R	3101	pwp	1	41	0	0		35+ A	Abraded red paint, with darker red area - border? Unpolished.
BIR15	Birchin Lane	5	50-160		R	2815	tegula	1	672	0	0		0 M	Trace mortar on exterior of flange
BIR15	Birchin Lane	8	50-160		R	2815	brick	3	1366	0	0		42 M, Rd	
BIR15	Birchin Lane	8	50-160		R	2815	brick	0	0	0	0		45	
BIR15	Birchin Lane	8	50-160		R	2815	brick	0	0	0	0		35 M, S	
BIR15	Birchin Lane	8	50-160		R	2815	tegula	1	259	0	0		0	3006, part 2arc sig mark
BIR15	Birchin Lane	8	50-160		R	2815	tessera	8	257	0	0		0 M, A	coarse red, 3 reduced. Includes 3 'flat' types, so probably late Roman
BIR15	Birchin Lane	8	50-160		R	3500	tegula	1	46	0	0		0 Rd, V	completely black
BIR15	Birchin Lane	8	50-160		R	2454?	imbrex	1	60	0	0		0 Rd	Completely reduced
BIR15	Birchin Lane	8	50-160		R	3105	rub	1	121	0	0		0	Flake Kentish Ragstone
BIR15	Birchin Lane	8	50-160		R	3101	pwp	2	181	0	0		44 A	Conjoin. Plain red, unpolished, abraded. On sandy white skim.
BIR15	Birchin Lane	8	50-160		R	3101	pwp	3	88	0	0		0 A	3 plain red, abraded but good quality and polished with slight ?micaceous sparkle.
BIR15	Birchin Lane	9	120/60-L2nd/3rd		R	2815	tessera	8	339	0	0		0 M	7 coarse red, 1 smaller type coarse red
BIR15	Birchin Lane	9	120/60-L2nd/3rd		R	2815	tessera	25	773	0	0		0 M	coarse red, some in smaller range
BIR15	Birchin Lane	9	120/60-L2nd/3rd		R	3500	tessera	1	32	0	0		0 M	completely reduced, black
BIR15	Birchin Lane	9	120/60-L2nd/3rd		R	2459B	tessera	3	81	0	0		0 M	coarse red, 2 smaller type. White plaster on lower areas, orange grouting above
BIR15	Birchin Lane	9	120/60-L2nd/3rd		R	2454	tessera	2	41	0	0		0 M	pale yellow - smaller end of coarse range. White plaster; trace orange grouting
BIR15	Birchin Lane	9	120/60-L2nd/3rd		R	2454	tegula	1	63	0	0		0	
BIR15	Birchin Lane	9	120/60-L2nd/3rd		R	2815	brick	2	552	0	0		0	
BIR15	Birchin Lane	9	120/60-L2nd/3rd		R	2815	brick	0	0	0	0		0	
BIR15	Birchin Lane	9	120/60-L2nd/3rd		R	2459B	brick	1	518	0	0		0 Rd, M	All external surfaces reduced; lime mortar on broken faces
BIR15	Birchin Lane	9	120/60-L2nd/3rd		R	2815	imbrex	2	233	0	0		0 Rd x 1	
BIR15	Birchin Lane	9	120/60-L2nd/3rd		R	?	tegula	1	185	0	0		0	Flange has external groove at top. Check fabric.
BIR15	Birchin Lane	9	120/60-L2nd/3rd		R	3101	pwp	1	17	0	0		0	Red with flesh pink and ?light brown decoration. Very small frag; pinkish motif is like bud or olive.
BIR15	Birchin Lane	9	120/60-L2nd/3rd		R	3101	pwp	1	15	0	0		0	Dark red with part pink ?stripe. Rough surface
BIR15	Birchin Lane	9	120/60-L2nd/3rd		R	3101	pwp	2	611	0	0		c. 45 A	Plain good quality red paint on white skim, both abraded. Thicker frag has light brown mortar; thinner has pink sandy mortar. Flat base, has possibly lost a layer.
BIR15	Birchin Lane	9	120/60-L2nd/3rd		R	3101	pwp	0	0	0	0		c. 32 A	Plain good quality red paint on white skim, both abraded. Thicker frag has light brown mortar; thinner has pink sandy mortar. Flat base, has possibly lost a layer.
BIR15	Birchin Lane	12	250-400		R	2815	tegula	5	902	0	0		0 Rd x 2, M x 1	Deflanged x 4; loose flange x 1, mortared on broken surfaces
BIR15	Birchin Lane	12	250-400		R	2815	imbrex	2	208	0	0		0	
BIR15	Birchin Lane	12	250-400		R	2459B	imbrex	1	226	0	0		0 Rd	
BIR15	Birchin Lane	12	250-400		R	2454	spic	1	101.56+		57		25 Rd	No obvious wear or mortar
BIR15	Birchin Lane	12	250-400		R	2815	tessera	6	181	0	0		0 M	Worn. White paster and orange grout. 1 is very thin - laminated and re-used?
BIR15	Birchin Lane	12	250-400		R	3121	slab	1	67	0	0		19	Roofing or paving?
BIR15	Birchin Lane	12	250-400		R	3105	rub	2	284	0	0		0	Flakes
BIR15	Birchin Lane	12	250-400		R	3101	pwp	1	49	0	0		14 A	Good quality red paint, with traces of pinkish-orange overpainting in ?foliate design.
BIR15	Birchin Lane	12	250-400		R	3101	pwp	1	33	0	0		15 A	Good quality red paint; part 1 white ?border and a yellow ochre tendril end.
BIR15	Birchin Lane	12	250-400		R	3101	pwp	2	36	0	0		< c.20	Pink paint; both overpainted with dark red - panel and border design?
BIR15	Birchin Lane	12	250-400		R	3101	pwp	1	161	0	0		38 A, Rd	White paint overpainted with dark red linear design - motif unclear
BIR15	Birchin Lane	12	250-400		R	3101	pwp	1	384	0	0		45 A, Rd	Plain red paint, discoloured.
BIR15	Birchin Lane	14	50-160		R	2815	brick	2	590	0	0		38 Rd	
BIR15	Birchin Lane	14	50-160		R	2815	brick	0	0	0	0		40 Rd	
BIR15	Birchin Lane	14	50-160		R	3500	tegula	2	208	0	0		0 Rd	Completely reduced
BIR15	Birchin Lane	14	50-160		R	2815	tegula	8	2879	0	0		0 Rd x 2	2 loose flanges. 1 lower cutaway type ?, with part 1arcL sig mark (fabric 3006)
BIR15	Birchin Lane	14	50-160		R	2815	imbrex	6	937	0	0		0 Rd x 1	
BIR15	Birchin Lane	14	50-160		R	2815	tessera	7	256	0	0		0 M, A	Coarse red; white plaster. Traces of orange grout on 5. Some larger, flat tiles.
BIR15	Birchin Lane	14	50-160		R	3101	pwp	3	703	0	0		45 A	2 with good quality polished red paint on white skim. Both overpainted, 1 with Egyptian blue ?fruit and white leaves, the other with pinkish brown motif modelled with brown shadows and white highlights - lower leg and foot of fig
BIR15	Birchin Lane	14	50-160		R	3101	pwp	2	465	0	0		49 A	Plain red, abraded. May belong to same scheme as decorated frags.
BIR15	Birchin Lane	14	50-160		R	3101	pwp	0	0	0	0		40 A, Rd	Plain red, abraded. May belong to same scheme as decorated frags.
BIR15	Birchin Lane	15	50-160		R	2454	imbrex	2	398	0	0		0 Rd, S x 1	1 with iron object fused to internal surface
BIR15	Birchin Lane	15	50-160		R	2454	tessera?	1	28	0	0		0	No wear or plaster
BIR15	Birchin Lane	15	50-160		R	2815	imbrex	2	420	0	0		0 Rd	2 conjoin
BIR15	Birchin Lane	15	50-160		R	2815	tegula	1	96	0	0		0	
BIR15	Birchin Lane	15	50-160		R	2815	tessera	12	407	0	0		0 M	coarse red; white plaster, orange grout
BIR15	Birchin Lane	15	50-160		R	2815	tessera	1	39	0	0		0	
BIR15	Birchin Lane	15	50-160		R	2815	tessera?	1	26	0	0		0 M	No wear. Oddly shaped tessera or coarse chip from op sig?
BIR15	Birchin Lane	15	50-160		R	3101	pwp	3	875	0	0		< c.52 A	Good quality red paint. One has straight white line c. 7mm wide separating red and green areas, panel border? All from same scheme?
BIR15	Birchin Lane	16	50-160		R	2815	imbrex	1	132	0	0		0	
BIR15	Birchin Lane	16	50-160		R	2815	tegula	1	282	0	0		0 Rd, S	Fairly fine sanding
BIR15	Birchin Lane	16	50-160		R	2454	spic	2	396	100	60		24	No obvious wear. Pale substance on 1 face could be mortar or calcareous inclusions.
BIR15	Birchin Lane	16	50-160		R	2454	spic	0	0	95	58		23	No obvious wear or mortar

Table 1c: Quantification and description of CBM and painted wall plaster from Birchin Lane

Fabric notes	Illustrate	Keep	e date for type	l date for type
Pale yellowish mortar with white skim.	x	y	50	400
	x	x	50	160
	x	x	50	160
	x	x	50	160
	x	x	50	160
	x	x	50	160
	x	x	50	160
	x	x	50	400
	x	x	50	75/80
	x	x	50	400
Sandy mortar - lowest is pink, upper is light brown.	x	y	50	400
Pinkish mortar backing x 1; light brown sandy mortar with white sandy skim x 2.	x	y	50	400
	x	x	50	160
	x	x	50	160
	x	x	50	160
	x	x	120/60	L2nd/3rd
	x	x	50	75/80
	x	x	50	75/80
	x	x	50	160
	x	x	50	160
	x	x	120/60	L2nd/3rd
	x	x	50	160
Orange fabric, fine sandy matrix with moderate medium qtz. Cream silty lenses and inclusions; sparse coarse red Fe inclusions.	x	y	?	?
On thick white sandy skim, light brown mortar	?	y	50	400
On white sandy skim and light brown mortar backing	x	y	50	400
	x	y	50	400
	x	x	50	160
	x	x	50	160
	x	x	120/60	L2nd/3rd
	x	x	50	75/80
	x	x	50	160
	x	x	250	400
	x	x	50	400
On white skim over light brown sandy mortar.	?	y	50	400
White skim over light brown sandy mortar.	?	y	50	400
White sandy skim and pinkish mortar.	?	y	50	400
White skim with pinkish brown sandy mortar	?	y	50	400
White skim and pinkish brown mortar; lower layer of slightly paler mortar has imprints, keyed daub walling?	x	y	50	400
	x	x	50	160
	x	x	50	160
	x	x	50	400
	x	x	50	160
	x	x	50	160
	x	x	50	160
On white skim over 2 layers of light brown mortar and third, lowest, layer of pinkish mortar.	y	y	50	400
White skim and light brown mortar, but reduced so skim now grey and mortar reddish.	x	y	50	400
White skim and light brown mortar.		y	50	400
	x	x	50	75/80
	x	x	50	75/80
	x	x	50	160
	x	x	50	160
	x	x	50	160
	x	x	50	160
	x	x	50	160
On white skim over light brown sandy mortar. Shallow ridge impressions in mortar - keyed daub walling?	?	y	50	400
	x	x	50	160
	x	x	50	160
	x	y	50	75/80
	x	y	50	75/80

Table 1d: Quantification and description of CBM and painted wall plaster from Birchin Lane



Fig.38: Three conjoining fragments of painted wall plaster depicting a candelabrum design culminating in a tulip motif, from context (4). Dating to c.50-400 AD.(100mm scale)



Fig.39: Three conjoining pieces of painted wall plaster depicting a yellow candelabrum design on a black background, from context (4). Dating to 50-400AD.



Fig.40: Six fragments of painted wall plaster, two with yellow lines flanked by darker ochre/light brown bands (top of image), and four fragments with a darker painted surface, one with a yellow tendril (bottom right), from context (4). Dated to 50-400AD.

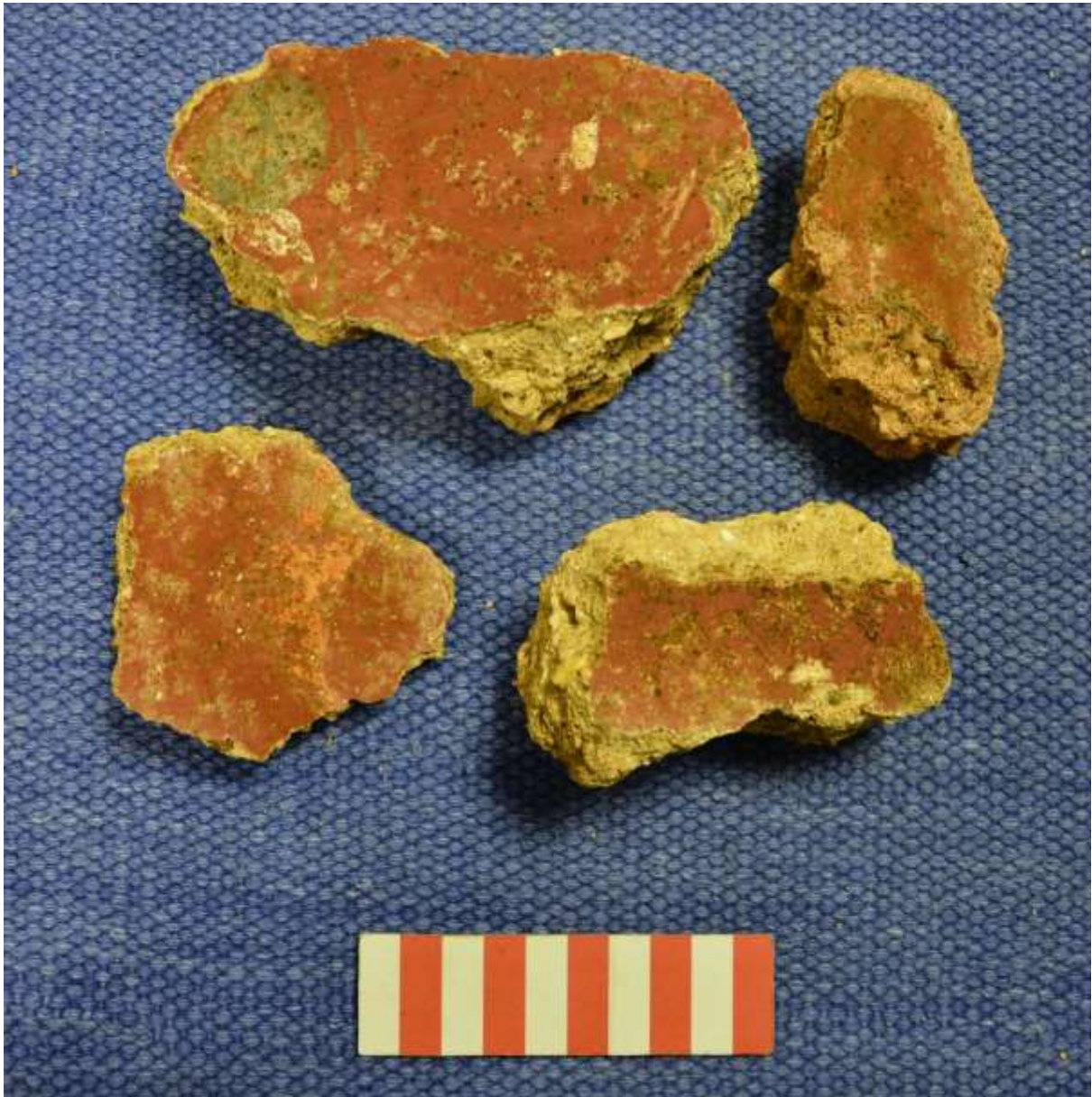


Fig.41: Four fragments of painted wall plaster, one with a piece of fruit depicted in Egyptian blue with white foliage (upper left corner of image), and another with a pinkish-brown motif or possible lower leg and foot (lower left-hand side of image), from context (14). Dating to 50-400AD.



Fig.42: Three fragments of painted wall plaster, one with a straight white line separating red and green areas (upper right corner of image), from context (15). Dating to 50-160AD.

Appendix VII: Animal bone report (BIR15)

Valentina Bernardi

Introduction

The assemblage comes from a single shaft of 1.5m square and 5m deep, dug mid-way along Birch Lane on the western side of the forum basilica of the Roman city.

The pit revealed a post-Roman street frontage stone wall (1). A layer of dark earth deposits (contexts 2, 3, 4), coming down onto a tessellated floor (7). Context (2) contained two pieces of medieval pottery, while (3) and (4) contained also Roman pottery, however their presence was interpreted as the result of ground reworking sometime during the post-Roman period.

A large pit cut into the SE corner of the dark earth horizons (upper & lower fills 5 & 6), but only visible just above the tessellated floor level. Below the tessellated floor (7) there was a pit cut and fill (9), sealed by (8), below this a clean redeposited natural brickearth (10). Below the brickearth a red burnt layer (11), under which there were 3 or 4 mixed/dumped layers, in stratigraphic sequence (12), (13) & (14)/(15), last two identified by the excavators as probably parts of the same deposit.

This sequence was interpreted by the archaeologists as a series of Roman building, dumping and rebuilding, sealed by 500mm+ of post-Roman dark-earth. A pit in the SE cut from an indeterminate level, but appears to be post-Roman in date.

Methodology

The animal bones were assessed by direct observation. For each animal bone fragment the following characteristics were recorded where applicable: context, element, taxon, fusion, side, fragmentation, modification and weathering. The identification of taxa and elements was carried out following Hillson (1992) and Schmidt (1972), when the distinction between goat and sheep was not possible the element was categorized as ovicaprines. Estimation of age by observation of the fusion stage of the epiphyses was recorded following Silver (1969). Teeth identification and ageing was carried on following Hillson (2005). The positions of butchery marks and fragmentation were recorded according to Binford (1981). Evidence of gnawing and condition were also recorded. Because of the small number of specimens and unclear dating of the different layers only the NISP (Number of Identified Specimens) was carried out.

Taphonomy

Taphonomic changes are slight, mostly consisting of cracks parallel to the fibre structure, in the more advanced cases some cortex flaking and chipping along the splits; context (6) been the most affected. Gnawing was observed only on 2 specimens, one pig humerus from (2) and a sheep tibia from (4), in both cases the gnawing marks appeared to be the result of dogs' action.

Discussion

The assemblage is constituted from 62 elements all recovered from one trench 1.5msq and deep 5m. Overall cattle bones were the most common, representing 48% of the whole assemblage, followed by ovicaprine remains (35%) and pigs (14%); domestic fowl represented only 2% of the assemblage. Only 2% of the assemblage could not be identified to taxon level so was categorised as medium size mammal (Table 1a-b). From the specimens' analysis the presence

of juvenile individuals in the cattle, ovicaprine and pigs taxa was confirmed. The fragmentation is not high and a lot of it seems to have been post mortem, when bones were already dry. Most of the long bones retain part of the shaft and one of the epiphyses, the parts that seems to have undergone more fragmentation are the flat bones, such as pelvis, scapulae, ribs and skull, this is probably due to the fact that they are less robust than long bones (Lyman,1994).

NISP (number of Identified Specimens)		
Bos Taurus	29	48%
Ovis	22	35%
Sus Scrofa	9	14%
Medium size Mam	1	2%
Fowl	1	2%
TOT	62	

Table 1: NISP (Number of Identified Specimens) by taxa.

Post-Roman period context (2), (3), (4), (5) and (6)

The post-Roman deposits were located just below the modern deposits, below a post-Roman street frontage stone wall (1). Contexts (2, 3, and 4) were formed by dark-earth deposits that came down onto a tasselled floor (7). A pit (5 & 6) cut on the SE corner into (3) and (4) and ended as well on to the tasselled floor (7). Most of the bones presented cut marks that probably resulted from dismembering of the carcasses (Binford, 1981, 136-143). Two of the elements, one from (2) a pig humerus and a sheep tibia from (4) presented gnawing marks, probably from dogs or a similar animal. A fragment of pelvis (ilium) of one of the cattle presented a patch of reactive new bone formation, probably the result of a periosteal inflammation. Bones from (5) and (6) are the one that differs mostly in preservation and weathering, their colour is a clean creamy yellow while the rest of the assemblage present a darker brownish colour, with some element showing evidence to have been in wet conditions for a while. Although their cleaner conditions, bones from contexts (6) are the most affected by weathering, presenting vertical cracks along the shaft and several patches of flaking cortex.

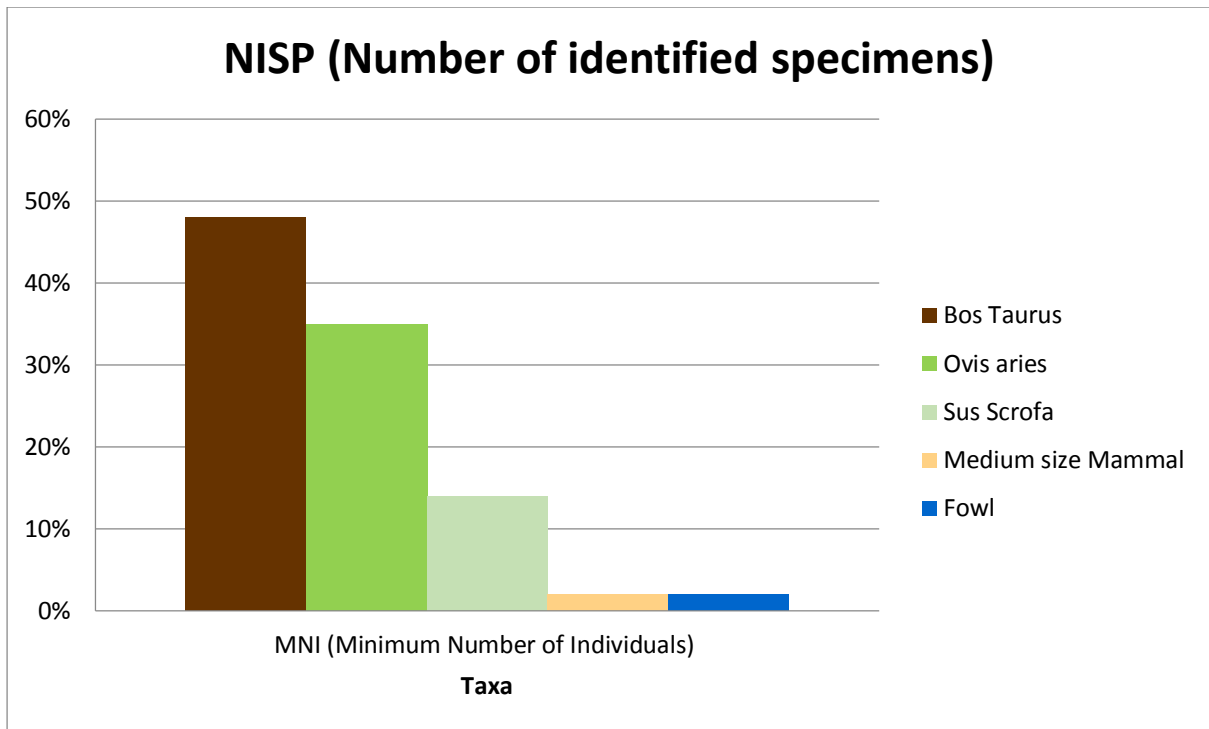


Fig1: Calculation of NISP for the Birchin lane assemblage by taxa.

Medieval Nisp (Number of Identified Specimens)		
Bos	23	61%
Ovis	11	29%
Sus	4	11%
Tot	38	

Table 2: NISP (Number of identified Specimens) for the Medieval period.

Roman Period contexts (3), (4), (8), (9), (12), (14), (15).

Below the tessellated floor (7) a series of contexts datable to Roman period were encountered, from these 24 animal bones specimens were recovered, 25% of which belong to cattle, 46% to ovicaprines, 21% to pigs, and 4% to fowl and to a no identified medium sized mammal (see Table 3).

Roman NISP (Number of identified Specimens)		
Bos	6	25%
Ovis	11	46%
Sus	5	21%
Med size mammal	1	4%
Fowl	1	4%
Tot	24	

Table 3: NISP (Number of identified specimens) of the Roman Period per taxa.

From the epiphyseal fusion it was possible to identify the presence of several juvenile individuals between the cattle, ovicaprine and pigs. Unfortunately the assemblage is too small to create a culling profile, however it appears that the juvenile individuals were slaughtered either around 12 month of age, or before reaching 42 months, while the majority of animals

were allowed to reach adulthood. A case of osteoarthritis was noted on the glenoid fossa of a sheep scapula, suggesting the animal may have been an old individual. Dismembering cut marks were observed around the joint surfaces and in some cases on the joint surface (Binford 1981, 136-143), while no chopping marks were noted. However some long bone fragment present spiral fractures.

Conclusion

The assemblage is constituted mostly by remains of cattle, sheep, and pigs, only one specimen of fowl was recovered, and one element that belong to a medium size mammal which taxon could not be positively confirmed, though is likely to be a sheep or goat. Overall from the NISP analysis it appear that cattle fragments are the most common, with ovicaprine the second most common followed by pig remains, this situation is maintained in the Roman period, while it capsizes in the post-Roman, where ovicaprines remains represent more than half the assemblage, while cattle is the second most common again followed by pigs. It has to be bared in mind though that the whole extent of the contexts is not been excavated and therefore no real conclusions can be made. The analysis revealed also that in both periods juvenile individuals were present, and that they were preferably slaughtered at two different ages, the first around 12 months, and the other sometime before they reached 42 months. Butchery marks left on the bones suggest they were processed for food consumption, most of the marks seems to be the result of dismembering, no chop marks were noted. Few elements presented spiral fractures suggesting that the bones were fractured while fresh, however no concave scars, flacking or clear evidence were found to confirm human action as the cause of the fractures. Gnawing by dogs was present only in two elements, this suggests that the bones were disposed briefly after usage and were not available to animals. The pathological analysis revealed a case of periosteal inflammation on a hip fragment of a cow from the post-Roman assemblage, and a case of osteoarthritis of the shoulder in a sheep from the Roman assemblage.

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context	taxon	side	bone part	fusion	weathering	fragmentation	butchery	modification	pathology	other
2	bos	left	D radius and ulna	fused		1 end only	dismembering			
2	bos	left	tooth M1			1 crown				
2	bos	left	P ulna	unfused		1 ends plus shaft				
2	bos	left	radius D	fused		1 end plus shaft	dismembering			
2	bos	right	metacarpus	unfused		2 complete				
2	ovis		skull fragment	non-observable		1 fragment				
2	sus	left	tibia P	fused		1 end plus shaft	dismembering			
2	sus	right	tibia	unfused		1 complete				
2	ovis	left	D radius	fused		1 end plus shaft				
2	sus	left	D humerus	fused		1 end plus shaft		gnawed		
2	sus	unsided	D radius	unfused		1 end plus shaft				
2	ovis	unsided	D metacarpal	unfused		1 end plus shaft				
3	ovis	right	scapula	fused		1 end plus spine				
3	ovis	unsided	rib	non-observable		1 shaft splinter				
3	ovis	unsided	rib	non-observable		1 shaft splinter				
3	ovis	right	rib	non-observable		1 shaft splinter				
3	ovis	irrelevant	skull fragment	fused		2 temporalis				
3	ovis	irrelevant	sacrum	unfused		1 irrelevant	dismembering			
3	bos	unsided	rib	non-observable		1 shaft splinter				
3	bos	unsided	rib	non-observable		1 shaft splinter				
3	bos	unsided	rib	non-observable		1 shaft splinter				
3	bos	right	1st phalanx	fused		2 complete				
3	bos	left	L1 incisor			1 complete				
4	bos	right	metatarsus	fused		1 complete	dismembering			
4	bos	left	P femur	unfused		2 end plus shaft	dismembering			
4	bos	unsided	long bone	non-observable		1 shaft splinter				
4	bos	left	tooth			1 fragment				
4	bos	irrelevant	skull fragment	non-observable		2 lacrimale	dismembering			
4	ovis	left	tibia	non-observable		1 cylinder shaft		gnawed		
4	ovis	right	1st phalanx	fused		1 complete				

Table 1a: Quantification of animal bones from Birchin Lane

5	bos	unsided	pelvis	non-observable	2 fragment			patches of new bone growth	
5	bos	unsided	rib	non-observable	1 shaft				
5	bos	unsided	rib	non-observable	1 shaft				
5	bos	right	D tibia	fused	1 one end plus shaft	dismembering			
6	bos	left	horn core	juvenile 1	1 complete	dismembering			
6	bos	left	D ulna and radius	fused	2 one end plus shaft				
6	bos	right	P humerus	fused	2 one end plus shaft				
6	bos	right	prog scapula	fused	2 glenoid and part of the spine	dismembering			
8	ovis	right	tooth M3		1 complete				
8	ovis	unsided	rib	non-observable	1 fragment				
8	ovis	unsided	rib	fused	1 head and part of shaft				
8	bos	left	pelvis	fused	1 part of acetabulum	dismembering			
9	ovis	right	mandible	fused	complete				
9	ovis	right ?	pelvis	fused	1 ilium and part of acetabulum				
9	ovis	unsided	skull fragment	fused	1 unidentified				
12	ovis	right	scapula	fused	2 glenoid plus spine	dismembering		osteoarthritis	
12	ovis	left	rib	non-observable	1 fragment				
12	ovis	unsided	rib	non-observable	1 fragment				
12	sus	unsided	2d metatarsus	fused	1 complete				
12	fowl	right	tarsus-metatarsus	Non observable	1 one end plus shaft				
12	bos	right	1st phalanx	BB	1 complete				
12	bos	right	rib	fused	1 neck and shaft				
12	sus	right	3rd metatarsus	unfused distal	1 complete				
12	medium s	unsided	long bone	non-observable	1 cylinder shaft				
14	bos	unsided	rib	fused	1 shaft				
14	bos	left	rib	fused	1 head and shaft				
14	sus	right	2nd metatarsus	fused	1 complete				
14	bos	left	calcaneus	unfused	1 complete	dismembering			
14	sus	right	tibia	fused	1 cylinder shaft				
14	ovis	unsided	metatarsus	fused	1 cylinder shaft				
15	ovis	unsided	D metacarpus	unfused	1 one end plus shaft				
15	sus	right	Pfemur	unfused	1 one end plus shaft	spiral fracture of shaft.			

Table 1b: Quantification of animal bones from Birchin Lane

Appendix VIII: Metal finds report

1.1 Roman Coin

Geoff Potter

A Roman coin of Domitian Æ As, struck 87 AD was found in context (12).

Obverse: IMP CAES DOMIT AVG GERM COS XIII CENS PER P P. Laureate bust of Emperor facing right.

Reverse: VIRTVTI AVGVSTI. SC. Virtus standing right, left foot on a helmet, with spear & parazonium (long dagger)



Fig.43: Obverse (left of image) and reverse (right of image) of Roman coin of Domitian

1.2 Roman nails

Four corroded iron nails were recovered from Birchin Lane in total. These were of varying sizes, the respective measurements (length by cross-section immediately below the head) were as follows:

Context (9)

- 20mmx33mm

Context (12)

- 13mmx22mm
- 10mmx43mm

Context (14)

- 13mmx44mm

Appendix IX: Glass report

Rose Broadly

Two glass sherds were found in context (14), each less than 0.03m in diameter. These two sherds are typical blue-green Roman glass. One features a vertical optic-blown rib, which suggests it is from either a globular jar with collared rim, or a convex jug with a long neck. The body and base fragments of these forms are identical. Both were common forms, dating approximately from the third quarter of the first century to the mid-second century. The second sherd could be from an undecorated area of the same vessel, or from a different globular vessel.