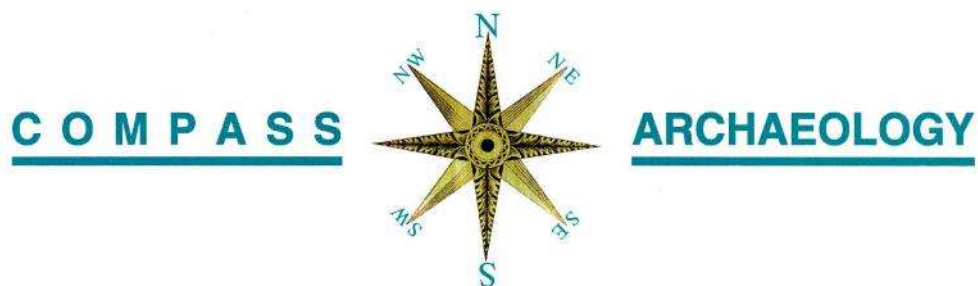


SECTION 278 DRAINAGE WORKS, 52-64 LIME STREET, CITY OF LONDON EC3A

AN ARCHAEOLOGICAL WATCHING BRIEF REPORT



November 2018

SECTION 278 DRAINAGE WORKS, 52-54 LIME STREET, CITY OF LONDON EC3A

AN ARCHAEOLOGICAL WATCHING BRIEF REPORT

TQ ref: 33243 81145 (centre)
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November 2018

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Abstract

Between the 29th October and 2nd November 2018 Compass Archaeology undertook an archaeological watching brief on the site of 52-54 Lime Street (The Scalpel), City of London EC3A. The work was commissioned by Ilario Romano, Department of the Built Environment and entailed the monitoring and recording of a single drop shaft located within Leadenhall Street carriageway. The works were commissioned due to the works being located in an archaeological sensitive area – specifically the Forum complex of Roman Londinium.

The drop shaft measured 2m x 2m x 4 – 4.5m (12.3-11.8mOD). The upper 1.8m comprised the existing road service over modern service ducts and a deposit of mass concrete. This concrete infilled the remains of a yellow stock brick coal cellar, observed in the northern and eastern sections. The coal cellar survived to a height of 1 metre, with a York stone floor encountered at a depth of 2.8m (13.5mOD).

Beneath the floor was a brick inspection chamber, aligned approximately NNE-SSW, covering the western part of the drop shaft. The construction of this and the basement above had wholly truncated any surviving earlier features, leaving only a thin strip of disturbed backfill to the east.

The backfill produced a small quantity of residual Roman finds including ceramic building material and pottery, and some Post-medieval material, including pottery, glass and clay tobacco pipe.

No earlier stratigraphy was encountered, nor any features associated with the Roman Forum. Natural geology was not reached.

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Fig.2 Adapted from drawing 500-16800324-DR supplied by The Client.

1 INTRODUCTION

1.1 This document forms a summary of results for an archaeological watching brief undertaken on drainage works located outside 32-53 Lime Street (The Scalpel), City of London EC3A 1AA. The work took place between the 29th October and 2nd November 2018 (fig.1).



Figure 1: Site location, marked in red.

- 1.2 The watching brief has been commissioned by Ilario Romano, Department of the Built Environment due to the site's location within a historically significant landscape and high potential for exposing features of archaeological interest associated with the Roman and medieval occupation of the city.
- 1.3 The programme of archaeological works comprised a watching brief to monitor the completion of a single drop shaft located on the south side of Leadenhall Street, east of the junctions with Lime Street and St Mary Axe. The groundworks were undertaken as part of drainage scheme Section 278 (fig.2).



Figure 2: Location of drop shaft (red).

2 ACKNOWLEDGEMENTS

2.1 Compass Archaeology would like to thank Ilario Romano, City of London, Department of the Built Environment, for commissioning Compass to undertake the archaeological watching brief and also to Riney's for ensuring accessibility and support on site during their groundworks.

3 SITE LOCATION, GEOLOGY AND TOPOGRAPHY

3.1 The groundworks were situated outside 52 Leadenhall Street (The Scalpel), opposite Lloyds Bank. The site is bounded by Lime Street, St Mary Axe and The Leadenhall Building to the west and Billiter Street to the east.

3.2 According to the British Geological Survey, (Sheet 256, *North London*) the site overlies an outcrop of Langley Silt, within a large deposit of Taplow Gravel, bounded to the west and south by a band of alluvium, following the course of the River Thames (fig.3).

3.3 The site is relatively level, situated at approximately 16.35mOD, towards the highest point of a slight rise from 16.3 – 16.5mOD. The land rises considerably to 17.5mOD further west, towards the junction of Cornhill and Gracechurch Street.

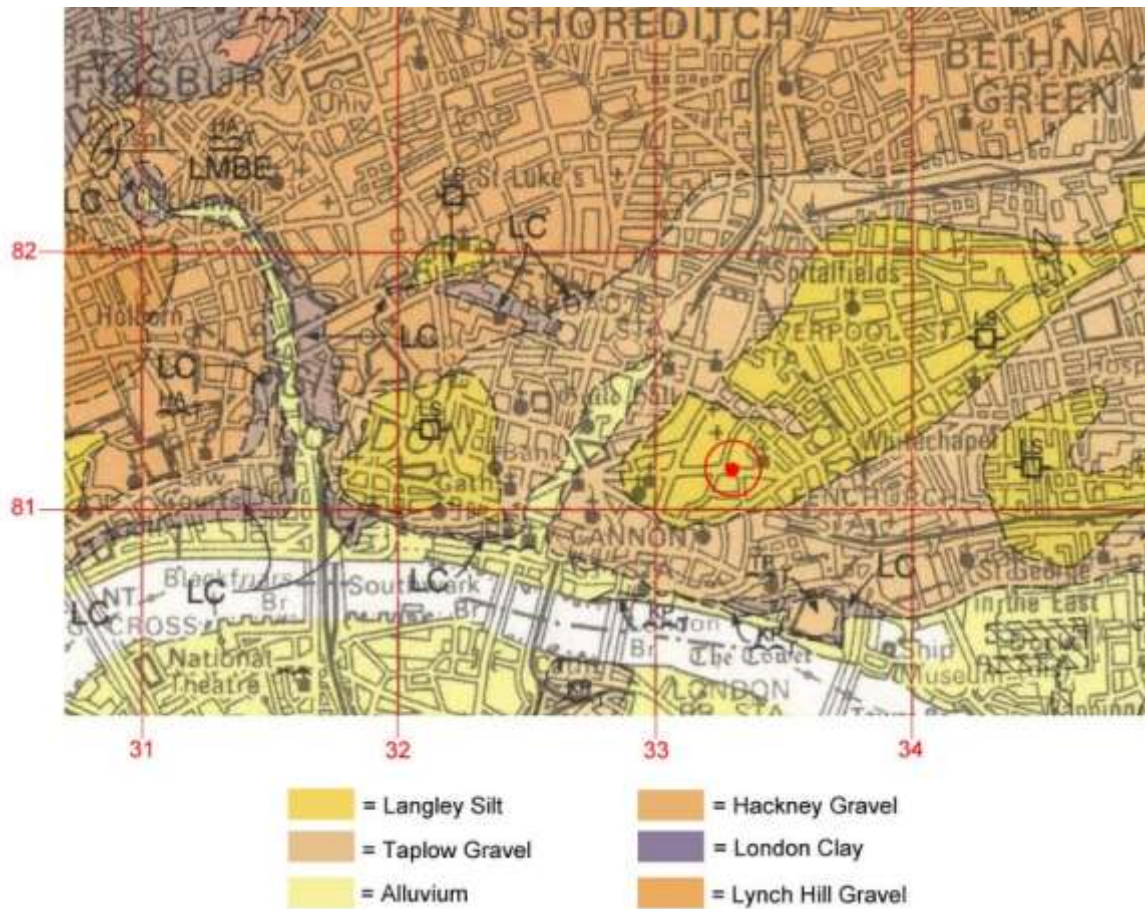


Figure 3: Extract from the BGS Sheet 256: North London, with site location marked in red.

4 ARCHAEOLOGICAL AND HISTORIC BACKGROUND

Due to the site's location within an area of archaeological sensitivity, most notably within the Roman settlement of *Londinium*, the historical and archaeological background of Leadenhall Street has been comprehensively discussed (see Compass Archaeology WSI 2018) so shall not be reproduced at length. Instead, a summary of the major historical periods and archaeological discoveries in the vicinity of the site shall be given.

4.1 Prehistoric

Lime Street is situated on a well-drained raised gravel terrace lying close to the predictable and consistent resources of the River Thames, making it an attractive location for a settlement. Before the Neolithic period occupation was predominantly conducted on a seasonal basis, favouring the hunter-gatherer lifestyle, however the combination of subsistence farming and marine regression made the raised gravel islands an ideal permanent base.

Archaeological excavations at 25-26 Lime Street and Bishopsgate recovered Lower Palaeolithic and Mesolithic lithic implements, indicating that there was a prehistoric

presence in the area – more representative of industry and activity rather than settlement, but a presence nonetheless. Further investigations revealed evidence of later, and more substantial prehistoric activity. Excavations at 41-63 Bishopsgate by the Department of Urban Archaeology (BIP88) recorded stained surfaces, probably dating from the Late Bronze Age or early Iron Age, in addition to a number of pits containing pottery, struck flints, ash, charcoal and burnt timber, taken to be associated with a small scale industrial centre. Similarly, an archaeological watching brief conducted at the Baltic Exchange in 1992 recorded fragmentary evidence of pit fills containing Iron Age pottery (BAE92) and an Iron Age coin was found in Leadenhall Street.

4.2 Roman

Following the successful Claudian invasion of AD 43 the settlement of *Londinium* was established. The city comprised a playing card shaped fortress, centred on the present day London Wall / Wood Street, with a walled civilian settlement extending from Ludgate in the west to Tower Hill / Aldgate in the east. Lime Street itself is situated close to the centre, near the Forum and Basilica.

Excavations at 41-51 Lime Street by the Guildhall Museum in 1952-3 revealed evidence of early to mid-1st century pitting, some wooden lined. A ragstone and tile wall associated with pilae in which a hidden hoard of a coins was discovered was interpreted as a 3rd century addition / renovation and finally a deposit of fire debris containing mid-4th century coins sealing an earlier Roman building was recorded. Most notably, several wall foundations and tessellated floors were exposed c4.2m below street level, which would suggest they belonged to a building of some importance. Further work at 20-21 Lime Street (LIE90) revealed evidence of early occupation including a layer of burnt deposits which were later rebuilt, a road and part of the Basilica / Forum complex. Finally, watching briefs carried out at 25-6 and 27-30 Lime Street recorded parts of a timber building dating to AD50-60, which preceded a masonry structure, constructed following a fire during the Boudiccan revolt. The evidence spanning 4 centuries indicates this area was heavily utilised for a significant period of time and represents a number of phases, reflecting the steady expansion of the city.

Radiating away from the proposed site location, further building foundations and tessellated floors have been recorded, indicating that the area held some significance. Building works at the Lloyds Building on Leadenhall Street in 1863 revealed ragstone and chalk rubble walls which were plastered and finished with frescoes. Elsewhere on Leadenhall Street excavations by the DUA and MoLA have recorded numerous pits, building debris, buildings, floors and other evidence of structures such as beam slots and post holes (104-104 Leadenhall Street DEN91; 130-138 Leadenhall Street).

The general sequence of Roman occupation in the area appears to be an initial gravel and brickearth quarrying phase, shortly after the invasion, followed by a period of building in timber, which was superseded by a redevelopment in masonry and tile (the architectural form recorded at 34-35 Leadenhall Street is that commonly used in private bath houses). The recovery of a number of plaster fragments and tessellated floors suggests that the complex which occupied the site was of high status.

4.3 *Saxon*

In the post-Roman period the commercial centre moved further west, with the Saxon settlement of *Lundenwic* being established in the area of Covent Garden – more specifically, the Royal Opera House and Bow Street Magistrates Court (MoLA 2012a; Compass Archaeology 2016). Following on from the Danish invasions in the 9th century a *burh* (fortified place) was established in the area utilising the Roman walls as a boundary defence however it appears to have left few traces in the archaeological record.

The evidence recorded in the vicinity of the site can be taken to be representative of small scale activity, rather than significant or prolonged domestic occupation. Excavations at Africa House in 1983 revealed a series of intercutting pits and finds suggesting some Saxon activity in the area, whilst on Leadenhall Street, two separate investigations found a coin of Eadmund (AD 939-46) and a bone pin decorated in the Ringerike style, dated to the first half of the 11th century. Further, at 3-5 Bishopsgate evidence of a Saxon cellared building was revealed, alongside associated hearths and ovens.

4.4 *Medieval*

References to Lime Street first appear during the early medieval period, known as *Limstrate* or *Lymstate*, deriving its name from the making and selling of lime which was believed to be taking place in the area. The street lay within the wards of Aldgate, Limestreete and Langbourne and was occupied by a number of notable establishments. Much of the present day layout of the area was established during this early medieval period. In the early 14th century the manor of Leadenhall was owned by Sir Hugh Neville, but passed through various hands until it came to Richard Whittington (later to be the Mayor) in 1408. Leadenhall Market also dates from this period.

The church of St Andrew Undershaft to the north was recorded in 1147 whilst St Helen's dates from c1210 when a Benedictine priory was founded there. St Andrew Undershaft was rebuilt in the 14th century and again in 1532 and is a rare example of a church which survived both the Great Fire and The Blitz (now Grade I Listed). St Helen's too survived both events but was damaged by IRA bombs in 1992 and 1993.

Excavations by the DUA at the former Albion House (1989 LDL88) and by MoLA in 2013 (52 Lime Street) revealed working surfaces and casting moulds associated with a bell foundry which occupied the site in the 14th and 15th centuries. Similarly to earlier periods, medieval archaeology is well represented, with investigations at 34-35 Leadenhall Street, 104-106 Leadenhall Street and Lime Street recording numerous pits (both rubbish pits and casting pits associated with bell making), hearths and building remains, in addition to quantities of pottery and stratified finds.

The medieval period is well represented and appears to be indicative of a more industrial centre, as opposed to the administrative nature of the area during the Roman period, with much of the evidence recovered being associated with the bell foundry.

4.5 *Post-medieval*

The Agas Map of 1561 shows the layout of the area as much the same as the present day incarnation. Lyme Street is shown curving between Fenchurch and Leaden Hall, with houses, yards and churches to the east and west. The site is shown as being bounded by buildings to the south and the road to the north, leading to St Marie Axe and St Andrew Under Shaft. The area was well populated and well established, although development was halted as a result of the Great Fire in 1666. The East India Company moved into Craven House, to the west of Lime Street, in 1648 and by 1661 the property was known as East India House. A later phase, built in 1729 comprised the headquarters and warehouses which could be accessed from Lime Street. The East India Company occupied the premises until it dissolved in 1858 and the building was demolished in 1861, now the site of the Lloyd's Building. The area developed steadily throughout the 17th to 19th centuries and by the late-19th century Leadenhall Street comprised offices on the southern side and shops, offices and restaurants on the northern side, surrounding the Church of St Andrew Undershaft.

During this period the area was extensively basemented and redeveloped on a number of occasions, truncating earlier features. It is likely that finds and features associated with these various phases of building and demolition will be encountered during the groundworks.

4.6 *Modern*

The area was almost levelled during the Second World War, with all of the buildings between Lime Street, Billiter Street and Fenchurch Avenue being seriously damaged or damaged beyond repair. In the post-war period the area was a mix of ruins and large corporate buildings, including Baltic House, Cunard House and Leadenhall House.

The site was once again damaged in 1992 when an IRA bomb was detonated at the Baltic Exchange and a year later by a second IRA attack on Bishopsgate.

4.7 *MoLA Investigations (2013) – 52 Lime Street*

In 2013 Museum of London Archaeology conducted an evaluation on the site of 52 Lime Street comprising 7 trenches. Trenches 1, 2, 4, 6 and 7 exposed archaeological sequences and features dating from the post-medieval and Roman periods, including deposits / layers, pits and, in the case of Trench 4, building remains. Possible evidence of medieval industrial activity in the form of casting and bell making on the site was also recorded.

Archaeological deposits were recorded between 12.45 and 11.89mOD, comprising predominantly Roman pits cutting into the natural brickearth. One of the most notable features was a possible wall, recorded in Trench 4 at 12.58mOD, which may be associated with an unidentified Roman street. Finds recovered from the evaluation trenches include a quantity of tesserae, 1st century samian ware pottery and a turquoise frit melon bead, also dated to the first century. Several sherds of residual medieval pottery were also recovered from Roman pits. Natural brickearth was encountered between 11.65 and 10.41mOD, overlying natural terrace gravels.

5 PLANNING AND OBJECTIVES

- 5.1** The groundworks entailed the completion of a single drop shaft located in the carriageway adjacent to 52 Lime Street. The trench measured 2m x 2m and dug to a depth of 4-4.5m.
- 5.2** The upper 2m of the drop shaft was undertaken via a mechanical excavator fitting with a toothless grading bucket to clear the bulk of the existing tarmac and concrete road surface, followed by hand excavation between 2 and 4.5m.
- 5.3** The work followed the standards set out in the London Plan (2016 and currently in draft) (*Chapter Seven: London's Living Spaces and Places*) which states that new developments are expected to align with the following procedures:

Historic Environment and Landscapes

Policy 7.8 *Heritage assets and archaeology*

Strategic

- A** *London's heritage assets and historic environment, including listed buildings, registered historic parks and gardens and other natural and historic landscapes, conservation areas, World Heritage Sites, registered battlefields, scheduled monuments, archaeological remains and memorials should be identified, so that the desirability of sustaining and enhancing their significance and of utilising their positive role in place shaping can be taken into account.*
- B** *Development should incorporate measures that identify, record, interpret, protect and, where appropriate, present the site's archaeology.*

Planning decisions

- C** *Development should identify, value, conserve, restore, re-use and incorporate heritage assets, where appropriate.*
- D** *Development affecting heritage assets and their settings should conserve their significance, by being sympathetic to their form, scale, materials and architectural design.*
- E** *New development should make provision for the protection of archaeological resources, landscapes, and significant memorials. The physical assets should, where possible, be made available to the public on-site. Where the archaeological asset or memorial cannot be preserved or managed on-site, provision must be made for the investigation, understanding, recording, dissemination and archiving of that asset.*

LDF Preparation

- F** *Boroughs should, in LDF policies, seek to maintain and enhance the contribution of built, landscaped and buried heritage to London's environmental quality, cultural identity and economy as part of managing London's ability to accommodate change and regeneration.*

- G** *Boroughs, in consultation with English Heritage, Natural England and other relevant statutory organisations, should include appropriate policies in their LDFs for identifying, protecting, enhancing and improving access to the historic environment and heritage assets and their settings where appropriate, and to archaeological assets, memorials and historic and natural landscape character within their area.*

5.4 In addition to the policy outlined above, the City of London has its own, additional policies concerning archaeological remains and other heritage assets, laid out within the *Local Plan* (adopted 2015), including Core Strategic Policy CS12: Historic Environment and Development Management Policies DM12.1 to 12.5. Of particular significance here is policy DM12.4, set out thus:

Policy DM12.4 Ancient monuments and archaeology

1. *To require planning applications which involve excavation or ground works on sites of archaeological potential to be accompanied by an archaeological assessment and evaluation of the site, including the impact of the proposed development.*
2. *To preserve, protect, safeguard and enhance archaeological monuments, remains and their settings in development, and to seek a public display and interpretation, where appropriate.*
3. *To require proper investigation and recording of archaeological remains as an integral part of a development programme, and publication and archiving of results to advance understanding.*

5.5 The fieldwork presented the opportunity to answer the following general and more specific research questions:

- Is there any evidence of prehistoric activity below the known Roman levels?
- What finds and features survive from the Roman period? Are these associated with the Forum complex?
- Are there any surviving medieval remains? What is the nature of these finds and / or features? Is there any further evidence of the bell casting industry?
- Is the post-medieval redevelopment of the area represented? What form does this take?
- At what level and in what condition does archaeology survive across the site as a whole?
- If encountered, what is the natural geology and at what level does it exist across the site?

6 METHODOLOGY

6.1 Standards

6.1.1 The field and post-excavation work was carried out in accordance with Historic England guidelines (*Greater London Archaeology Advisory Service: Standards for Archaeological Work, 2015*). Works also conformed to the standards of the Chartered Institute for Archaeologists (*Standard and guidance for an archaeological watching*

brief 2015). Overall management of the project was undertaken by a full member of the Chartered Institute.

6.1.2 Fieldwork was carried out in accordance with the Construction (Health, Safety & Welfare) Regulations. All members of the fieldwork team held valid CSCS (Construction Skills Certificate Scheme) cards, and wore hi-vis jackets, hard-hats, steel-toe-capped boots, etc., as required. All members of the fieldwork team also followed the contractors' health and safety guidelines.

6.1.3 The Client and Historic England were kept informed of the progress of fieldwork and any finds recovered.

6.2 Fieldwork

6.2.1 The archaeological watching brief took place during the completion of a single drop shaft undertaken as part of drainage works, section 268.

6.2.2 The trench was undertaken in October-November 2018, under archaeological supervision. The trench was recorded between depths of 0.5 and 4m.

6.2.3 Archaeological contexts were recorded as appropriate on *pro-forma* sheets by written and measured description, and drawn in plan or section, generally at scales of 1:10 or 1:20. The investigations were recorded on a general site plan and related to the Ordnance Survey grid. Levels were taken on archaeological features or deposits, transferred from the nearest Ordnance Datum Benchmark, a spot height noted on Ordnance Survey Plans *Leadenhall Street*, at 16.3mOD. The fieldwork record was supplemented by digital photography, in .jpeg and RAW formats.

6.2.4 The recording system followed the procedures set out in the Museum of London recording manual. By agreement the recording and drawing sheets used are directly compatible with those developed by the Museum.

6.3 Post-excavation

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

6.3.1 Finds and samples

6.3.1 Assessment of finds was undertaken by appropriately qualified staff (see Appendix II). Finds and samples were treated in accordance with the appropriate guidelines, including ClfA's '*Standard and Guidance for the collection, documentation, conservation and research of archaeological materials*' (2014).

6.3.2 All identified finds and artefacts have been retained and bagged with unique numbers related to the context record, although certain classes of ceramic building material were discarded after an appropriate record was made. Sensitive artefacts will be properly treated, in line with the appropriate Standards as stated above.

6.4 Report procedure

- 6.4.1** This report contains a description of the fieldwork plus details of any archaeological remains or finds, and an interpretation of the associated deposits. Illustrations have been included as appropriate, including a site plan located to the OS grid. A short summary of the project has been appended using the OASIS Data Collection Form.
- 6.4.2** Copies of this report will be supplied to the Client and Historic England.
- 6.4.3** There is no provision for further analysis or publication of significant findings. Should these be made the requirements would need to be discussed and agreed with the Client.

6.5 The site archive

Assuming that no further work is required, an ordered indexed and internally consistent archive of the evaluation will be compiled in line with MoL Guidelines for the Preparation of Archaeological Archives, and will be deposited in the Museum of London Archaeological Archive under site code LMT18. The integrity of the site archive should be maintained, and the landowner will be urged to donate any archaeological finds to the Museum.

7 RESULTS

- 7.1 The following forms a written description of observations made during the watching brief. The works are discussed in chronological order, covering the main trench and subsequent re-cut. Deposits are shown as (x), cuts and structures as [x]. The text is supplemented with illustrative photographs. For a full context list refer to Appendix I.
- 7.2 The trench was located on the southern side of the carriageway, immediately outside 52 Lime Street. The drop shaft was square in plan, measuring 2m x 2m, and dug to a depth of between 4 and 4.5m (12.3 – 11.8mOD) (fig.4).



Figure 4: Working shot of completed drop shaft, showing the remains of a brick coal cellar in the northern section and drain in the trench base. Facing N, no scale.

- 7.3 The stratigraphy in the upper two metres of the drop shaft comprised modern made ground. 100mm of compact black asphalt (1) forming the existing carriageway surface overlay up to 300mm of light grey coarse concrete (2), taken to be a bedding layer for (1). The modern carriageway surfacing overlay a series of east-west aligned service ducts [3], backfilled with orange sand (4).
- 7.4 The modern services directly overlay approximately 1.8m of solid, fairly dry mix, light grey concrete, observed across the trench entirety (5). Some brick rubble was observed throughout the deposit, particularly in the east and west sections.
- 7.5 At a depth of 1.8m (14.5mOD) the remains of a yellow stock brick coal cellar was observed in the northern section, wall [6] (fig.5).



Figure 5: Post-medieval coal cellar observed in the northern section. Facing N, scale 1m.

- 7.6** The observable section was truncated at the top by modern services, but survived to a height of 1.0m, with thirteen courses visible. The structure was built predominantly in alternating rows of headers and stretchers, with some variation throughout, bonded with a thick light grey mortar and finished with a cream / pale yellow paint. In keeping with the form of post-medieval coal cellars built during the 19th century, the wall has a slightly concave profile.
- 7.7** A return of the concave east-west wall was seen on the eastern side of the drop shaft, running north-south. The wall measured 0.3m in width, totalling three courses. It ran southwards for two metres, continuing beyond the extent of excavation in the southern section (figs.6-7).



Figure 6: North-south return of the coal cellar wall, observed in the eastern section. Facing NE, scale 1m.



Figure 7: Continuation of wall [6] seen to the right of the scale, and an east-west adjoining spur to the left. Facing SE, scale 1m.

- 7.8** Due to truncation of the feature it is unclear if the east-west and north-south walls seen in figure 7 joined to form a corner. The presence of a white limewash seen on the northern face of the east-west section (to the left of the scale in figure 7) and western face of the north-south section (to the right) would suggest they were two internal faces and did indeed join.
- 7.9** The floor of the coal cellar was constructed from York stone slabs (7), encountered at a depth of 2.8m (13.5mOD). Much of the western part of the floor was cut away to accommodate a metal cover for a brick-built inspection chamber [8], (fig.8). The remainder of the floor was removed to expose the chamber fully.



Figure 8: Working shot of the open inspection chamber to the south of the coal cellar [6], as seen from the top of the drop shaft. Facing NW, no scale.

- 7.10** The rectangular chamber was constructed from red and yellow bricks, aligned NNE-SSE. The structure measured 1.3m in length x 1.1m in width x 1m in height, with an internal space of 0.8 x 0.6m. The interior space sloped inwards to a narrow drain leading to the sewer. The drain was clear, with probing reaching approximately 5.5m before encountering resistance.
- 7.11** As the chamber covered much of the base of the drop shaft, only a small area of archaeological stratigraphy was visible. This comprised a narrow strip of made ground (9) to the east of the chamber [8].
- 7.12** This made ground consisted of a moderately compacted mid-brown soil containing frequent small stones. The layer was very mixed, with frequent patches of a darker brown loamier soil, a more green-grey silty soil abundant with oyster shells (not retained) and larger lumps of greyish-orange redeposited brickearth.

- 7.13** It is likely this material represents backfill, disturbed on multiple occasions by the construction of the sewer and inspection chamber, and coal cellar above. A small number of finds were recovered from this backfill, (9), including both Roman and post-medieval pottery, Roman ceramic building material (CBM), post-medieval glass and clay tobacco pipe. This indicates that the material is mixed and does not represent a clear stratigraphic sequence.
- 7.14** The finds, particularly the Roman pottery (see Appendix II) are taken to be residual material within a post-medieval context, based on the groundworks only reaching post-medieval levels, rather than a truncation of a Roman feature which was not observed.
- 7.15** The earliest feature observed in the drop shaft was the post-medieval drain [8], connecting to the main sewer which runs east-west through the centre of Leadenhall Street. This was built into a 19th century coal cellar [6], the remains of which comprised a York stone floor and three sections of stock brick wall, recorded in the northern, eastern and southern sections of the trench. The wall was painted / limewashed on three surfaces. The coal cellar is likely to belong to the shop, shown on the Goad plan of 1887-9 (fig.9).



Figure 9: Extract from Goad's Insurance Plan vol.3 sheets 61, 67 and 68, with drop shaft location marked in red. The two easternmost blocks remained standing in the post-war period, with the central offices being cleared for the construction of Baltic House.

- 7.16** Following extensive damage to the area during the Second World War many of the buildings were demolished. The shops and offices which stood on the site were pulled down into the basements, accounting for the large amounts of rubble seen in the coal cellar. When the existing carriageway was laid out the hollow cellar was infilled with concrete (5) for stability.

8 CONCLUSION

The following section provides a summary of the work undertaken with reference to the original research questions set out above.

8.1 *Is there any evidence of prehistoric activity below the known Roman levels?*

No prehistoric finds or features of archaeological interest were encountered during the watching brief.

8.2 *What finds and features survive from the Roman period? Are these associated with the Forum complex?*

No significant Roman features were encountered during the watching brief. This is taken to be the result of truncation caused by the post-medieval inspection chamber and drain, which extends into the known Roman levels (based on previous archaeological investigations in the area). However, five fragments of Roman pottery were recovered, along with a single fragment of tegula roof tile. The pottery is all domestic in nature, but the roof tile may have come from a building in the Forum complex.

8.3 *Are there any surviving medieval remains? What is the nature of these finds and / or features? Is there any further evidence of the bell casting industry?*

No medieval features of archaeological interest were observed during the watching brief. No residual finds were recovered – the small assemblage of finds dates exclusively from the Roman and post-medieval periods.

8.4 *Is the post-medieval redevelopment of the area represented? What form does this take?*

The remains of a post-medieval coal cellar [6] was observed during the watching brief. The surviving section comprised a York stone floor [7], east-west aligned wall in the northern section, a truncated north-south wall running along the eastern section and a short length of east-west wall jutting out from the eastern section. The standing, curved wall of the cellar stood to 1m in height, recorded between 1.8 and 2.8m below ground level (14.5-13.5mOD). It is taken to be associated with the shops and offices shown on the Goad plan of 1887.

The creation of this building and the associated drain wholly removed any earlier features, with only a small section of made ground containing Roman and post-medieval finds being recorded.

8.5 *At what level and in what condition does archaeology survive across the site as a whole?*

Post-medieval archaeology was encountered at a depth of 1.8m (14.5mOD), represented by the top of a truncated coal cellar [6]. The cellar floor [7] was reached at 2.8m (13.5mOD) below which was a brick inspection chamber [8] which continued below the floor for a further metre (12.5mOD). This was surrounded by a mixed backfill of redeposited brickearth, silt abundant with oyster shell and a darker brown loamier soil (9), which is taken to continue below the level of excavation at approximately 12.5mOD.

No earlier features were observed, having been truncated by the post-medieval activity.

8.6 *If encountered, what is the natural geology and at what level does it exist across the site?*

Natural geology was not encountered. A small amount of grey-orange redeposited brickearth was observed in the backfill (9) surrounding the inspection chamber [8].

10 SOURCES

10.1 Digital Sources

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Greater London Historic Environment Record. glher@HistoricEngland.org.uk

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APPENDIX I: LIST OF CONTEXTS

Number	Description
(1)	Existing tarmac carriageway
(2)	Bedding concrete below (1)
[3]	Cuts for modern fibre-optic service ducts
(4)	Sand fill surround service ducts
(5)	Concrete
[6]	Post-medieval brick coal cellar
(7)	York stone floor of coal cellar [6]
[8]	Brick inspection chamber and drain
(9)	Backfill to east of [8]

APPENDIX II: THE FINDS

All of the finds were recovered from context (9), which consisted of a mixed backfill surrounding a brick inspection chamber [8]. The finds are listed below by category:

Ceramic Building Material

1 x fragment of Roman tegula roof tile. Base and partial edge. Coarse orange fabric, large flint inclusion. Visible moulding marks. Weight 392g. 1st – 4th century AD (fig.10).



Figure 10: Fragment of tegula recovered from context (9). Scale 10cm.

Clay Tobacco Pipe

1 x fragment of stem. 35mm in length x 6mm in width. Borehole diameter of 2mm. Stained.

Glass

1 x fragment of vessel glass. Heavy clear glass base from a thick bottle. Possibly from a water or soda bottle. Turn moulded. Weight 194g. 1880-1915.

Roman Pottery

2 x fragments of samian ware. South Gaulish form 37, decorated bowl. 2 rim and wall sherds from the same vessel (not adjoining). Double bordered ovolo with a rosette-tipped tongue (badly blurred) above a wreath of overlapping leaves (Rogers group J¹), separated by a wavy line border A23. An early variant, cAD70-90 (fig.11).



Figure 11: 2 fragments from a samian bowl, recovered from context (9). Scale 10cm.

1 x possible fragment of black-burnished ware 1. Wall fragment from a storage jar or similar. Weight 8g. 1st – 2nd century AD.

1 x fragment of Verulamium region coarse white slipped ware. Fragment of wall from an enclosed vessel, most likely a flagon. Weight 14g. 1st – 2nd century AD.

1 x small fragment of Verulamium region white ware. Thin body sherd. Pale pink buff fabric. Weight 2g. 1st – 2nd century AD.

1 x small fragment of grey ware. Two burnished stripes visible. Possibly Alice Holt / Farnham. Fragment of thin walled vessel, possibly a jar or beaker. Weight 2g. 1st – 2nd century AD.

Post-medieval Pottery

2 x adjoining fragments of Refined Whiteware (REFW). Rim and wall, from a large flat dish. Floral decoration. Weight 40. 1800-1900.

¹ Rogers, G. (1975). *Poteries sigillées de la Gaule Centrale*.

APPENDIX III: OASIS DATA COLLECTION FORM

OASIS ID: compassa1-332876

Project details

Project name	Watching Brief at 52-54 Lime Street, City of London EC3A
Short description of the project	Between 29th October and 2nd November 2018 Compass Archaeology undertook a watching brief on groundworks outside of 52 Lime Street 'The Scalpel', London EC3A 1AA. The work monitored a single drainage drop shaft measuring 2m x 2m x 4 - 4.5m (2.3-1.8mOD). The work had high potential to expose Roman features due to its location over the Forum, however no features of these date were exposed. A post-medieval coal cellar was recorded, with the floor at 2.8m (3.5mOD), below which was a brick inspection chamber and drain leading to the existing sewer, continuing below the floor level for a further metre. This truncated all early activity. A small quantity of Roman and post-medieval finds were recovered. Natural geology was not reached.
Project dates	Start: 29-10-2018 End: 02-11-2018
Previous/future work	Yes / Not known
Any associated project reference codes	LMT18 - Sitecode
Type of project	Recording project
Site status	Local Authority Designated Archaeological Area
Current Land use	Transport and Utilities 1 - Highways and road transport
Monument type	CELLAR Post Medieval
Significant Finds	POT Roman
Significant Finds	ROOF TILE Roman
Significant Finds	POT Post Medieval
Investigation type	"Watching Brief"
Prompt	National Planning Policy Framework - NPPF

Project location

Country	England
Site location	GREATER LONDON CITY OF LONDON CITY OF LONDON 52-54 Lime Street
Postcode	EC3A 1AA
Study area	16 Square metres
Site coordinates	TQ 533243 181145 50.941483220942 0.182628847772 50 56 29 N 000 10 57 E Point

Project creators

Name of Organisation	Compass Archaeology
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Project brief originator	City of London Department of the Built Environment
Project design originator	Compass Archaeology
Project director/manager	Geoff Potter
Project supervisor	Heidi Archer
Type of sponsor/funding body	City of London Corporation

Project archives

Physical Archive recipient	Museum of London archaeological archive
Physical Contents	"Ceramics","Glass"
Digital Archive recipient	Museum of London Archaeological Archive
Digital Contents	"Ceramics"
Digital Media available	"Images raster / digital photography","Text"
Paper Archive recipient	Museum of London Archaeological Archive
Paper Contents	"Ceramics","Glass","Stratigraphic","other"
Paper Media available	"Context sheet","Photograph","Plan","Report","Unpublished Text"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Section 278 Drainage Works, 52-54 Lime Street, City of London EC3A. An Archaeological Watching Brief Report.
Author(s)/Editor(s)	Archer, H.
Date	2018
Issuer or publisher	Compass Archaeology
Place of issue or publication	250 York Road, Battersea SW11 3SJ
Description	Short report summarising the watching brief, including: background information to the site and groundworks; historic and archaeological background; objectives, methodology and planning guidance; results (supplemented by digital photographs) and; concluding remarks. A context list and specialist analysis of finds are included as appendices.